# Appendix 1.A
# LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure 1.A-1.**

Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: "[g]iven the LACFCD's limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program." (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the EWMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

In some instances, in recognition of the increased efficiency of implementing certain programs regionally, the LACFCD has committed to responsibilities above and beyond its obligations under the 2012 Permit. For example, although under the 2012 Permit the Public Information and Participation Program is a responsibility of each Permittee, the LACFCD is committed to implementing certain regional elements of the PIPP on behalf of all Permittees at no cost to the Permittees. These regional elements include:

- Maintaining a countywide hotline (888-CLEAN-LA) and website (www.888cleanla.com) for public reporting and general stormwater management information at an estimated annual cost of $250,000. Each Permittee can utilize this hotline and website for public reporting within its jurisdiction.

- Broadcasting public service announcements and conducting regional advertising campaigns at an estimated annual cost of $750000.
- Facilitating the dissemination of public education and activity specific stormwater pollution prevention materials at an estimated annual cost of $100,000.
- Maintaining a stormwater website at an estimated annual cost of $10,000.

The LACFCD will implement these elements on behalf of all Permittees starting July 2015 and through the Permit term. With the LACFCD handling these elements regionally, Permittees can better focus on implementing local or watershed-specific programs, including student education and community events, to fully satisfy the PIPP requirements of the 2012 Permit.

Similarly, although water quality monitoring is a responsibility of each Permittee under the 2012 Permit, the LACFCD is committed to implement certain regional elements of the monitoring program. Specifically, the LACFCD will continue to conduct monitoring at the seven existing mass emissions stations required under the previous Permit. The LACFCD will also participate in the Southern California Stormwater Monitoring Coalition's Regional Bioassessment Program on behalf of all Permittees. By taking on these additional responsibilities, the LACFCD wishes to increase the efficiency and effectiveness of these programs.


**Figure 1.A-1 Los Angeles County Flood Control District Service Area**

# Appendix 1.B
# San Gabriel River Portion of South El Monte for ULAR EMWP

# Appendix 2.A
# Legal Authority

# CITY OF LOS ANGELES
CALIFORNIA

**BOARD OF PUBLIC WORKS MEMBERS**

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MONICA RODRIGUEZ
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January 22, 2015

Mr. Sam Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Mr. Ivar Ridgeway

Dear Mr. Unger:

**CERTIFICATION BY LEGAL COUNSEL FOR THE CITY OF LOS ANGELES CONFIRMING LEGAL AUTHORITY TO IMPLEMENT THE PROVISIONS OF THE MUNICIPAL STORMWATER PERMIT**

I write pursuant to Part VI(A)(2)(b) of Order No. R4-2012-0175,otherwise known as the Municipal Separate Stormwater Sewer System (MS4) Permit (the "Order"). Part VI(A)(2)(b) of the Permit provides:

> *"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d) (2) (i) (AF) and this Order."*

The Office of the City Attorney of the City of Los Angeles (City), serving as its legal counsel, certifies that the City has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and of the Order. This correspondence addresses all legal authority requirements as listed in the Order. Subsequently, annual certification by our office will be included in the Stormwater Annual Report as required by the Order.

*Order Part VI(A)(2)(b)(i) - "Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d) (2) (i) (A-F) and this Order"*

Below is a list of applicable Los Angeles Municipal Code (LAMC) provisions that provide the requisite legal authorities:

LAMC 64.70 General Provisions.
LAMC 64.70.01 Definitions and Abbreviations.
LAMC 64.70.02 Pollutant Discharge Control.
LAMC 64.70.03 Elimination of Illicit Discharges and Illicit Connections.
LAMC 64.70.05 Authority to Inspect.
LAMC 64.70.06 Authority to Arrest and Issue Citations.
LAMC 64.70.07 Enforcement.
LAMC 64.70.08 Remedies Not Exclusive.
LAMC 64.70.09 Liability for Costs of Correction Arising from Unlawful Discharge.
LAMC 64.70.10 Disposition of Money Collected.
LAMC 64.70.11 Stormwater and Urban Runoff Pollution Education.
LAMC 64.70.12 Construction and Application.
LAMC 64.70.13 Severability.
LAMC 64.72 Stormwater Pollution Control Measures for Development Planning and Construction Activities.
LAMC 64.72.01 Authority of the Board of Public Works.
LAMC 64.72.02 Funds Collected from Waiver.
LAMC 64.72.03 Supplemental Provisions.
LAMC 64.72.04 Authority to Inspect and Enforce Stormwater Pollution Control Measures.
LAMC 64.72.05 LID Plan Check Fees.

In addition, statewide regulations provide further legal authorities with respect to intergovernmental authorities, specifically:

California Government Code §6502
California Government Code §23004

*Relationship of Applicable Ordinances and Other Legal Authorities to the Requirements of 40CFR §122.26(d)(2)(i)(a-F) and the Order*

The table below indicates the basic relationship between the "Legal Authority" requirements listed in Section VI(A)(2)(b) of the Order and the existing legal statutes that provide this legal authority.

| Legal Authority Required by Permit | City/State Legal Provisions |
|---|---|
| VI.A.2.i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit. | LAMC 64.70.02.B<br>LAMC 64.70.02.C.1.a<br>LAMC 64.70.02.D<br>LAMC 64.70.03.A |
| ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A | LAMC 64.70.03.A |
| iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4 | LAMC 64.70.03.A<br>LAMC 64.70.03.B |
| iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4 | LAMC 64.70.03.A |
| v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows) | LAMC 64.70.03.A<br>LAMC 64.70.07 |
| vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders | LAMC 64.70.05.B.4<br>LAMC 64.70.05.B.6 |
| vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees | California Government Code §6502<br>California Government Code §23004 |
| viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation | California Government Code §6502<br>California Government Code §23004 |

| | |
|---|---|
| ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4 | LAMC 64.70.05.A<br>LAMC 64.70.05.B<br>LAMC 64.72.04.B |
| x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations | LAMC 64.70.02.D |
| xi. Require that structural BMPs are properly operated and maintained | LAMC 64.70.02.D |
| xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4 | LAMC 64.70.05.B.3 |
| VI.A.b.ii. Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system. | The local administrative and legal procedures available to mandate compliance with the above LAMC provisions are specified in the provisions themselves with key enforcement provisions being<br>LAMC 64.70.06 and<br>LAMC 64.70.07 |

The City is in the process of updating the LAMC with respect to its stormwater regulations. These changes will be reported with the 2014-2015 annual report.

Very truly yours,

JOHN CARVALHO, Deputy City Attorney
City's Attorney Office

WPDCR9163

# COUNTY OF LOS ANGELES
## OFFICE OF THE COUNTY COUNSEL

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JOHN F. KRATTLI
County Counsel


December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For County of Los Angeles' Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the County of Los Angeles ("County"):

Certification Pursuant To Order Part VI(A)(2)(b)

"*Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order.*"

The County has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"*Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order*"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles and the Los Angeles County Code are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

§12.80.520 Best management practices for industrial and commercial facilities.

§12.80.530 Installation of structural BMPs.

§12.80.540 BMPs to be consistent with environmental goals.

§12.80.550 Enforcement—Director's powers and duties.

§12.80.560 Identification for inspectors and maintenance personnel.

§12.80.570 Obstructing access to facilities prohibited.

§12.80.580 Inspection to ascertain compliance—Access required.

§12.80.590 Interference with inspector prohibited.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.80.650 Conflicts with other code sections.

§12.80.660 Severability.

§12.80.700 Purpose.

§12.80.710 Applicability.

§12.80.720 Registration required.

§12.80.730 Exempt facilities.

§12.80.740 Certificate of inspection—Issuance by the director.

§12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

California Government Code §6502

California Government Code §23004

Relationship Of Applicable Ordinances Or Other Legal Authorities To The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County's ordinances and State law relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

| **Order Part VI(A)(2)(a) Items** | **Primary Applicable Ordinance/Statute** |
|---|---|
| i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit. | §12.80.410 [illicit discharge prohibited];<br>§12.80.450 [construction]<br>§12.80.460 [industrial and commercial]<br>§12.80.470 and .480 [industrial and commercial NPDES requirements]<br>§12.84.440 [LID standards]<br>§12.84.445 [hydromodification control]<br>§12.84.450 [LID Plan Review]<br>§22.60.330 [general prohibitions] |

| Order Part VI(A)(2)(a) Items | Primary Applicable Ordinance/Statute |
|---|---|
| | §22.60.340 [violations]<br>§22.60.350 [public nuisance]<br>§22.60.360 [infractions]<br>§22.60.370 [injunction]<br>§22.60.380 [enforcement.]<br>§22.60.390 [zoning enforcement order]<br>§26.103 [violations and penalties]<br>§26.104 [enforcement]<br>§26.106 [permits]<br>§26.108 [inspections] |
| ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A. | §12.80.410 [illicit discharge prohibited] |
| iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4. | §12.80.410 [illicit discharge prohibited];<br>§12.80.420 [illicit connections prohibited] |
| iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4. | §12.80.410 [illicit discharge prohibited];<br>§12.80.440 [littering and other polluting prohibited] |

| Order Part VI(A)(2)(a) Items | Primary Applicable Ordinance/Statute |
|---|---|
| v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows). | §12.80.490 [notification of uncontrolled discharge]<br>§12.80.570 [obstructing access to facilities]<br>§12.80.580 [compliance inspection]<br>§12.80.610 [violation a nuisance]<br>§12.620 [nuisance abatement]<br>§12.80.635 [violation penalty]<br>§12.80.640 [penalties not exclusive]<br>§12.84.440 [LID standards]<br>§12.84.445 [hydromodification control]<br>§12.84.450 [LID Plan Review]<br>§22.60.330 [general prohibitions]<br>§22.60.340 [violations]<br>§22.60.350 [public nuisance]<br>§22.60.360 [infractions]<br>§22.60.370 [injunction]<br>§22.60.380 [enforcement.]<br>§22.60.390 [zoning enforcement order]<br>§26.103 [violations and penalties]<br>§26.104 [enforcement]<br>§26.106 [permits]<br>§26.108 [inspections] |
| vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders. | Same as item v., above |

| Order Part VI(A)(2)(a) Items | Primary Applicable Ordinance/Statute |
|---|---|
| vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees. | California Government Code §6502 and §23004 |
| viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation. | California Government Code §6502 and §23004 |
| ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4. | §12.80.490 [notification of uncontrolled discharge]<br>§12.80.570 [obstructing access to facilities]<br>§12.80.580 [compliance inspection]<br>§12.80.610 [violation a nuisance]<br>§12.80.620 [nuisance abatement]<br>§12.80.635 [violation penalty]<br>§12.80.640 [penalties not exclusive]<br>§22.60.380 [enforcement.]<br>§26.106 [permits]<br>§26.108 [inspections] |

| Order Part VI(A)(2)(a) Items | Primary Applicable Ordinance/Statute |
|---|---|
| x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations. | §12.80.450 [construction mitigation]<br>§12.80.500 [good housekeeping practices]<br>§12.80.510 [construction BMPs]<br>§12.80.520 [industrial/commercial BMPs]<br>§12.84.440 [LID standards]<br>§12.84.450 [LID Plan Review]<br>§22.60.330 [general prohibitions]<br>§22.60.380 [enforcement.]<br>§22.60.390 [zoning enforcement order]<br>§26.106 [permits]<br>§26.108 [inspections] |
| xi. Require that structural BMPs are properly operated and maintained. | §12.80.530 [installation of structural BMPs]<br>§22.60.380 [enforcement.]<br>§22.60.390 [zoning enforcement order]<br>§26.106 [permits]<br>§26.108 [inspections] |
| xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4. | §12.80.530 [installation of structural BMPs]<br>§22.60.380 [enforcement.]<br>§22.60.390 [zoning enforcement order]<br>§26.106 [permits]<br>§26.108 [inspections] |

Order Part VI(A)(2)(b)(ii)

"*Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.*"

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

The County attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide the County with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By
JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jyj

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December 11, 2013

Mr. Sam Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013-1105

Re: Legal Authority Certification for the City of Alhambra

Dear Mr. Unger:

The City of Alhambra ("City) hereby submits the following certification, required by PartVI.A.2.b of Order No.R4-2012-0175, issued by the Regional Water Quality Control Board – Los Angeles Region ("RWQCB"), adopted on December 28, 2012 and entitled "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach (MS4)" [NPDES No. CAS004001] (the"2012 NPDES Permit"). Part VI.A.2.b of the 2012 NPDES Permit requires the City, as a Permittee under the 2012 NPDES Permit, to submit an annual statement certified by its City Attorney that the City has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and the 2012 NPDES Permit.

On November 25, 2013, the City Council held a public hearing and conducted the first reading of Ordinance O2M13-4646 amending the provisions of the City's municipal code pertaining to storm water pollution elimination. Ordinance O2M13-4646 amends the code to ensure that the City has adequate legal authority to implement the 2012 NPDES Permit and 40 CFR § 122.26(d)(2)(i)(A-F). The second reading of this ordinance was held on December 9, 2013, and the City Council adopted the Ordinance. The Ordinance will take effect thirty (30) days after its adoption on January 8, 2014. In addition, in order to have all City authority and regulations be in effect by the Annual Report deadline, the City also adopted these changes as an Urgency Ordinance, O2M13-4648, on December 9, 2013, making the changes effective immediately.

The table on the following page lists the requirements of the 2012 NPDES Permit and 40 CFR § 122.26(d)(2)(i)(A-F), and provides citations to the municipal code sections and state laws through which the City complies with each of these requirements. As the table demonstrates, the City has the legal authority within its jurisdiction to implement and enforce the 2012 NPDES Permit and the requirements of 40 CFR § 122.26(d)(2)(i)(A-F).

| Requirements | Legal Authorities |
|---|---|
| i. Control the contribution of pollutants to the City's MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. (2012 NPDES Permit, Part VI.A.2.a.i; 40 CFR § 122.26(d)(2)(i)(A)) | Municipal Code §§16.34.070 *CONSTRUCTION ACTIVITY STORM WATER MEASURES* and 16.34.040 *CONTROL OF POLLUTANTS FROM SITES OF INDUSTRIAL ACTIVITY* |
| ii. Prohibit all non-storm water discharges through the City's MS4 to receiving waters not otherwise authorized or conditionally exempt. (2012 NPDES Permit, Part VI.A.2.a.ii) | Municipal Code §16.34.020 *ILLICIT DISCHARGES- NON STORM WATER PROHIBITED* |
| iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4. (2012 NPDES Permit, Part VI.A.2.a.iii; 40 CFR § 122.26(d)(2)(i)(B)) | Municipal Code §§16.34.020 *ILLICIT DISCHARGES- NON STORM WATER PROHIBITED* and 16.34.030 *ILLICIT CONNECTIONS PROHIBITED* |
| iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to the City's MS4. (2012 NPDES Permit, Part VI.A.2.a.iv; 40 CFR § 122.26(d)(2)(i)(C)) | Municipal Code §16.34.050 *SPILLS, DUMPING AND DISPOSAL PROHIBITED* |
| v. Require compliance with the conditions in the City's ordinances, permits, contracts or orders. (2012 NPDES Permit, Part VI.A.2.a.v; 40 CFR § 122.26(d)(2)(i)(E)) | Municipal Code §§ 1.12 *VIOLATIONS PROCEDURE* and 1.13 *ADMINISTRATIVE CITATIONS* ; Duty to Comply with MS4 permit is a condition of approval where applicable, also insert requirement in contract documents |
| vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders. (2012 NPDES Permit, Part VI.A.2.a.vi; 40 CFR § 122.26(d)(2)(i)(F)) | Municipal Code §§ 1.12 *VIOLATIONS PROCEDURE* and 1.13 *ADMINISTRATIVE CITATIONS* |
| vii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-Permittees. (2012 NPDES Permit, Part VI.A.2.a.vii; 40 CFR § 122.26(d)(2)(i)(D)) | See Alhambra Charter Section 59 (11.) (regarding authority of City to enter into agreements); See also contract number C2M13-54 entering into MOU for Enhanced Watershed Management Program approved |

| | |
|---|---|
| | on November 25, 2012 via minute order M2M13-121 |
| viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4. (2012 NPDES Permit, Part VI.A.2.a.viii) | See Alhambra Charter Section 59 (11.) (regarding authority of City to enter into agreements); See also contract number C2M13-54 entering into MOU for Enhanced Watershed Management Program approved on November 25, 2012 via minute order M2M13-121 |
| ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable ordinances, permits, contracts and orders, and with the provisions of the 2012 NPDES Permit. (2012 NPDES Permit, Part VI.A.2.a.ix) | Municipal Code § 16.34.120 |
| x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations. (2012 NPDES Permit, Part VI.A.2.a.x) | Municipal Code § 16.34.015 |
| xi Require that structural BMPs are properly operated and maintained. (2012 NPDES Permit, Part VI.A.2.a.xi) | Municipal Code §16.34.065 |
| xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4. (2012 NPDES Permit, Part VI.A.2.a.xii) | Municipal Code §16.34.065 |

Part VI.A.2.b of the 2012 NPDES Permit further requires this statement to identify the local administrative and legal procedures available to mandate compliance with the City municipal code sections cited in the table above, and a statement as to whether enforcement actions can be completed administratively or judicially.

The City's municipal code contains both administrative and judicial enforcement options. The City may issue an administrative citation to enforce any provision of its municipal code. Title 1, Chapter 1.13 of the City's municipal code contains the procedures applicable to the issuance of administrative citations, and the schedule of administrative fines. An administrative citation may be appealed to a hearing officer, and the decision of the hearing officer on the appeal may be appealed to the superior court. The City's municipal code also authorizes violations of the code to be enforced judicially through criminal and civil proceedings. A violation of the City's storm water ordinances is a misdemeanor (City's municipal code §16.34.080) and a public nuisance

(City municipal code §16.34.100). The procedures for issuing a criminal citation are contained in Title 1, Chapter 1.12 of the City's municipal code. In addition, the City may bring a civil action to abate the public nuisance, and the procedures for abatement actions are contained in Title 1, Chapter 1.12.080, of the City's municipal code.

If you have any questions regarding this statement, please feel free to contact me at your convenience.

Sincerely,

Burke, Williams & Sorensen, LLP

Joseph M. Montes

Joseph M. Montes, City Attorney
City of Alhambra

Cc: Mary Chavez, Director of Public Works
David Dolphin, Environmental Compliance Specialist
Rachel Richman, Assistant City Attorney

CITY OF BURBANK
OFFICE OF THE CITY ATTORNEY
275 East Olive Avenue • P.O. Box 6459 • Burbank, California 91510-6459
818.238.5700 • 818.238.5724 FAX

November 25, 2014

Writers Direct Dial
(818) 238-5702

Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Re: Annual Legal Counsel Certification Concerning Order No. R4-2012-0175
NPDES Permit No. CAS004001

To Whom It May Concern:

This letter is the statement of legal authority required pursuant to Final Order No. R4-2012-0175, Permit No. CAS004001 for the City of Burbank (the "Order").

Prior to the effective date of the Order, and on a continuing basis, the City of Burbank ("Burbank") has maintained adequate legal authority to implement and enforce the Order and to perform all of the functions set forth in Title 40 of the Code of Federal Regulations, Section 122.26(d)(2)(i)(A)-(F), through numerous provisions of the Burbank Municipal Code[1] (BMC), including Titles 8 and 9, each of which were adopted by ordinance of the City Council. Specific BMC provisions are as follows:

8-1-1001 et. seq. sets forth a comprehensive regulatory regime for Storm Water and Runoff Pollution Control, including but not limited to prohibition of illicit discharges into the storm drain system, runoff management requirements, inspection and enforcement procedures including administrative enforcement procedures, and civil and criminal penalties.

9-3-401 et. seq. provides comprehensive Standard Urban Storm Water and Urban Runoff Management Programs incorporating permitting, best management practices, and a regime for inspections and enforcement.

The City has also developed a Comprehensive Illicit Connection/Illicit Discharge Manual, including an Enforcement Response Plan and a Non-Storm Water Prohibition Plan as appendices to the IC/ID Manual. This includes the need for detailed documentation of conditionally allowed non-storm water discharges, and progressive enforcement action for violators of the BMC (MS4 permit).

[1] The Burbank Municipal Code can be accessed at http://www.codepublishing.com/ca/burbank/

As noted above, under BMC Section 8-1-1005, enforcement can be completed administratively through a notice of correction abatement process, by a nuisance abatement civil action and through misdemeanor criminal proceedings as a municipal code violation.

Sincerely,

Joseph H. McDougall
Senior Assistant City Attorney

Cc: Bonnie Teaford, Public Works Director
Daniel Rynn, Asst. Public Works Director

**STATEMENT OF LEGAL AUTHORITY TO ENFORCE PROVISIONS OF**

**40 CFR Sec. 1.22.26(d)**

**Pursuant to Part VI.A.2b. of Order No. R4-2012-0175, the City of Calabasas has all the necessary legal authority to implement and enforce the requirements contained in 40 CFR Sec. 1.22.26(d)(2)(i)(A-F) and this Order during the reporting period of July 1, 2012 and June 30, 2013 pursuant to citation to the relevant Municipal Code provisions as set forth below:**

1. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity, and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.

**Chapter 8.28, Article II "Discharge Prohibitions and Requirements", sections 8.28.050-8.28.125.**

2. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.

**Chapter 8.28, Articles I through III.**

8. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.

**Chapter 8.28, Articles I through III.**

9. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.

**Chapter 8.28, Article III, Section 8.28.130 A-D.**

10. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standard/receiving water limitations.

**Chapter 8.28, sections 8.28.070 and 8.28.125.**

11. Require that structural BMP's are properly operated and maintained.

**Chapter 8.28, section 8.28.125K**

12. Require documentation on the operation and maintenance of structural BMP's and their effectiveness in reducing the discharge of pollutants to the MS4.

**Chapter 8.28, section 8.28.125K and 8.28.130A.**

The City of Calabasas legal processes and procedures available to mandate compliance with applicable municipal ordinances identified above, and therefore with the conditions of the Order, can be found in **Chapter 8.28, Article III, "Inspection and Enforcement".**

**Violations are deemed a public nuisance subject to abatement through various alternatives including, but not limited to, administrative orders to cease and desist; administrative citation; permit revocation; civil action; and criminal prosecution (misdemeanor).**

Dated 12-2-13

Scott H. Howard
City Attorney

CITY OF GLENDALE, CALIFORNIA
Office of the City Attorney

613 East Broadway, Suite 220
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December 9, 2014

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Mr. Sam Unger, Executive Officer

**RE: Legal Authority Certification for the City of Glendale**

Dear Mr. Unger:

Pursuant to the Regional Water Quality Control Board ("RWQCB") - Los Angeles Region's Order No. R4-2012-0175, Part VI, Section A(2)(b) ("RWQCB Order"), this letter serves as certification that the City of Glendale has the legal authority to implement and enforce the requirements of the RWQCB Order and Code of Federal Regulations ("CFR"), Title 40, Section 122.26(d)(2)(i)(A - F) pertaining to storm water discharge applicable to State NPDES programs).

The provisions of Chapter 13.42 of the Glendale Municipal Code ("GMC"), titled *Stormwater And Urban Runoff Pollution Prevention Control And Standard Urban Stormwater Mitigation Plan*, enable the City of Glendale to operate pursuant to the legal authority required in 40 CFR 122.26(d)(2), inclusive of subdivision (d)(2)(i)(A – F).

The enforcement of the City of Glendale's storm water ordinances may be commenced and completed administratively and/or, if necessary, through the judicial system.

Very truly yours,

Michael J. Garcia, City Attorney

MJG:mg

cc: John L. Hunter & Associates

ALESHIRE & WYNDER LLP
ATTORNEYS AT LAW

Respond to Los Angeles
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**Central Valley**
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December 3, 2013

Mr. Sam Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013-1105

Re: Statement of Legal Authority

Dear Mr. Unger:

This letter is provided to serve as the Statement of Legal Authority for the City of La Canada Flintridge (the "City") that must be submitted with its Annual Report pursuant to Part VI.A.2.b. of Order No. R4-2012-0175 for NPDES Permit No. CAS004001. As legal counsel for the City, I have determined that it has all the necessary legal authority to implement and enforce the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order during the reporting period of July 1, 2012 through June 30, 2013, to the extent permitted by State and Federal law, subject to the limitations on municipal action under the California and United States Constitutions.

Per the requirement in Part VI.A.2.b.i., here are citations to the City's Municipal Code for each of the following requirements found in Part VI.A.2.a:

i. *Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.*

   Municipal Code Sections: 9.20.040 Elimination of pollutants in stormwater, 9.20.050 Prohibited activities, and 9.20.140 Requirements for construction projects

ii. *Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.*

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Municipal Code Section: 9.20.050 Prohibited activities

iii. *Prohibit and eliminate illicit discharges and illicit connections to the MS4.*

Municipal Code Section: 9.20.050 Prohibited activities

iv. *Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.*

Municipal Code Section: 9.20.050 Prohibited activities, subsection R

v. *Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);*

Municipal Code Section: 9.20.040 Elimination of pollutants in stormwater, subsection E

vi. *Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.*

Municipal Code Section: 9.20.070 Enforcement

vii. *Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees;*

Municipal Code Section: 9.20.050 Prohibited activities

viii. *Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation;*

Municipal Code Section: 9.20.050 Prohibited activities

ix. *Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4;*

Municipal Code Sections: 1.10.010 Enforcement authority, 9.20.160 Inspection, and 9.20.070 Enforcement

x. *Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations;*

Municipal Code Section: 9.20.040 Elimination of pollutants in stormwater

xi. *Require that structural BMPs are properly operated and maintained;*

Municipal Code Section: 9.20.090 Content of urban stormwater mitigation plan

xii. *Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.*

Municipal Code Section: 9.20.110 Review of the urban stormwater mitigation plan by city

Per the requirement in Part VI.A.2.b.ii., the City's legal procedures available to mandate compliance with applicable municipal ordinances identified in the above section, and therefore with the conditions of the Order, can be found in Municipal Code Section 9.20.070 Enforcement. Here is the relevant text of that provision:

**9.20.070 Enforcement.**

[...]

C. For the first failure to comply with any provision of this chapter, the director of public works, or his or her designee, shall issue to the affected person a written notice which includes the following information:

1. A statement specifying the violation committed;

2. A specified time period within which the affected person shall correct the failure or file a written notice disputing the notice of violation;

3. A statement of the penalty for continued noncompliance.

D. Each subsequent failure to comply with any provision of this chapter following written notice issued pursuant to subsection A of this section, shall constitute an infraction punishable as provided in Chapter 1.04 of this code. Each day during which a person fails to comply with the provisions of this chapter following written notice shall constitute a separate offense.

E. A violation of any provision of this chapter is declared to be a public nuisance, and the city attorney is authorized to abate such violation by means of a civil action.

F. The penalties and remedies established by this section shall be cumulative.

In addition, here is the relevant section from Chapter 1.04 Penalty Provisions:

**1.04.010 Violation—Penalties—Declaration of nuisance.**

A. No person shall violate any provision or fail to comply with any of the requirements of this code or of any statute or ordinance which is adopted by reference by any provision of this code. Any person who violates any such provision or fails to comply with any such requirement, unless otherwise provided, shall be guilty of a misdemeanor and shall be punishable by a fine of not more than one thousand dollars ($1,000.00), or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

B. Every violation determined to be an infraction is punishable by: (1) a fine not exceeding one hundred dollars ($100.00) for a first violation; (2) a fine not exceeding two hundred dollars ($200.00) for a second violation of the same ordinance within twelve (12) consecutive months; (3) a fine not exceeding five hundred dollars ($500.00) for each additional violation of the same ordinance within twelve (12) consecutive months.

C. In addition to the penalties set forth in subsections A and B of this section, any condition caused or permitted to exist in violation of any of the provisions of this code or any statute or ordinance adopted by reference to this code shall be deemed a public nuisance and may be abated by the city in any manner authorized by law.

D. Each separate day, or any portion thereof, during which any violation of the municipal code occurs or continues constitutes a separate offense and, upon conviction thereof, shall be punishable as provided in this section.

Thus, enforcement actions can be completed administratively or judicially if necessary.

Please contact the undersigned if you have any questions.

Sincerely,

ALESHIRE & WYNDER, LLP

Mark W. Steres
City Attorney for the City of La Canada Flintridge

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City of Monterey Park
320 W. Newmark Avenue Monterey Park CA 91754-2896
www.montereypark.ca.gov



November 18, 2014

Mr. Sam Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013-1105

**RE: LEGAL AUTHORITY CERTIFICATION FOR THE CITY OF MONTEREY PARK TO IMPLEMENT AND ENFORCE THE REQUIREMENTS OF LARWQCB ORDER R4-2012-0175**

Dear Mr. Unger:

The City of Monterey Park submits this statement in its capacity as a co-permittee under LARWQCB Order R4-2012-0175 (NPDES No. CAS004001) (the "MS4 Permit"), in accordance with Part VI.A.2 of the MS4 Permit.

I am the City Attorney of the City of Monterey Park, California. In that capacity, I state that it is my opinion that the City has adequate legal authority to implement and enforce the requirements in the MS4 Permit, consistent with the requirements set forth in the regulations implementing the Clean Water Act (40 CFR § 122.26(d)(2)(i)(A-F)), and to the extent permitted by state and federal law and subject to the limitations on municipal action under the California and United States Constitutions.

The primary source of the City's authority is Article 11, § 7 of the California Constitution. The City also has authority under California Water Code § 13002 to adopt and enforce regulations conditioning, restricting and limiting activities which might degrade the quality of waters of the State. In accordance with these laws, the City adopted Monterey Park Municipal Code ("MPMC") Chapter 6.30 which includes the City's regulations enabling it to implement the MS4 Permit. As the City transitions to the new EWMP requirements, these regulations may be amended to implement the new programs. Nevertheless, the City has already the legal authority as required under Part VI.A.2 of the MS4 Permit.

California law also authorizes the City to require the use of control measures to prevent or reduce the discharge of pollutants and ensure that such control measures are properly operated and maintained. The City's regulatory authority is supplemented by the California Environmental Quality Act ("CEQA") process by allowing the City to impose enforceable mitigation measures on development projects. As a general law city and municipal corporation, the City may enter into contracts that enable it to carry out its necessary functions including, without limitation, the ability to enter into interagency agreements to control the contribution of pollutants from one portion of the shared MS4 to another.

Pursuant to MPMC § 6.30.260, the City Attorney may enforce the City's regulations administratively, civilly and criminally. The MPMC also provides various procedures to modify and/or revoke city-issued permits for unlawful and/or environmentally disruptive activity.

Consequently, it is my opinion that the City has adequate legal authority to implement and enforce the requirements in the MS4 Permit. Please do not hesitate to contact me should you have any questions or need any additional information

Very truly yours,
Mark D. Hensley, City Attorney

By: _____
Karl H. Berger,
Assistant City Attorney

OFFICE OF THE CITY ATTORNEY/CITY PROSECUTOR
CIVIL DIVISION

December 15, 2014

Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Annual Reporting Requirement for
Los Angeles County MS4 Permittees
Legal Authority

The City of Pasadena ("Permittee") hereby certifies that, to the extent the provisions of 40 CFR § 122.26(d)(2)(i)(A)-(F) and the provisions of Order No. R4-2012-0175 have become effective and required of the City of Pasadena, all such effective and required provisions are within the authority of the City of Pasadena to enforce pursuant to Pasadena Municipal Code Title 8, Chapter 8.70 which provides enforcement authority that may be implemented either administratively or through the judicial system.

Sincerely,

Michele Beal Bagneris
City Attorney

100 North Garfield Avenue, Suite N210 · P.O. Box 7115 · Pasadena, CA 91109-7215
(626) 744-4141 · Fax (626) 744-4190

STATEMENT OF LEGAL AUTHORITY

Pursuant to Part VI.A.2.b. of Order No. R4-2012-0175, the City of Rosemead has all the necessary legal authority to implement and enforce the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order during the reporting period of July 1, 2012 through June 30, 2013. This is made evident by municipal code citation to each of the following requirements found in Part VI.A.2.a:

1. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.
   *Municipal Code Section: 13.16.030 Control of urban runoff, Section B*
2. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.
   *Municipal Code Section: 13.16.020 Prohibition on illicit connections and prohibited discharges*
3. Prohibit and eliminate illicit discharges and illicit connections to the MS4.
   *Municipal Code Section: 13.16.020 Prohibition on illicit connections and prohibited discharges*
4. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.
   *Municipal Code Section: 13.16.030 Control of urban runoff*
5. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
   *Municipal Code Section: 13.16.050 Permits*
6. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.
   *Municipal Code Section: 13.16.050 Permits and 13.16.060 Enforcement—Administrative remedies*
7. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees;
   *Municipal Code Section: 13.16.150 Interagency cooperation*
8. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation;
   *Municipal Code Section: 13.16.150 Interagency cooperation*

9. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4;
   *Municipal Code Section: 13.16.040 Inspections—Scope*
10. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations;
    *Municipal Code Section: 13.16.040 Inspections—Scope*
11. Require that structural BMPs are properly operated and maintained; and
    *Municipal Code Section: 13.16.030 Control of urban runoff*
12. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.
    *Municipal Code Section: 13.16.030 Control of urban runoff*

The City's municipal code contains both administrative and judicial enforcement options. The City of Rosemead has administrative legal procedures available to mandate compliance with applicable municipal ordinances identified in the above section, and therefore with the conditions of the Order, can be found in Section 13.16.060 Enforcement—Administrative remedies. In addition, any condition in violation of the prohibitions of this chapter, including but not limited to the maintenance or use of any illicit connection or the occurrence of any prohibited discharge, shall constitute a threat to the public health, safety and welfare, and is declared and deemed a nuisance pursuant to Government Code Section 38771 and Rosemead Municipal Code Section 1.16.010. Lastly, the City can pursue violations of the Municipal Code to be enforced judicially by criminal proceedings as found in Section 1.16.010.

Signature: Rachel Richman

Rachel Richman, City Attorney

Date: 12/9/13

City of San Gabriel

◆ City With A Mission ◆ Founded 1771 ◆

December 11, 2013

Sam Unger
Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

**RE: City of San Gabriel Statement of Legal Authority in Compliance with Los Angeles Regional Water Quality Control Board Order No. R4-2012-0175**

Dear Mr. Unger:

The City of San Gabriel ("City") hereby submits this Statement of Legal Authority in its capacity as co-permittee in accordance with Section VI.A.2, and in particular subparagraph 2.b, of the Los Angeles Regional Water Quality Control Board Order No. R4-2012-0175, National Pollution Discharge Elimination System ("NPDES)" Permit and Waste Discharge Requirements for the Municipal Separate Storm Sewer System ("MS4") Discharges Within the Coastal Watersheds of Los Angeles County Except Those Discharges Originating from the City of Long Beach ("Permit" or "Order").

As you are aware, a number of other co-permittees are currently seeking review of certain portions of the Order through an administrative petition to the State Water Resources Control Board, the outcome of which may alter its terms. Consequently, this Statement of Legal Authority is not intended to be, and should not be construed as, a waiver of any rights the City has or may have to (A) bring or maintain any legal challenge to any part of the Order, or (B) to seek to recover any costs or other expenditures incurred or to be incurred to comply with programs that are or may be considered unfunded State mandates. The City hereby reserves any and all rights in this regard.

The undersigned City Attorney for the City hereby states that the City has or will have obtained all necessary legal authority to comply with the legal requirements imposed upon the City by the Order, consistent with the requirements set forth in the regulations to the Clean Water Act, 40 CFR [Code of Federal Regulations] §122.26(d)(2)(i)(A-F), to the extent permitted by State and federal law, but subject to the limitations on municipal actions under the California Constitution and United States Constitution. Subject to such limitations, the City's authority includes the following authority, within the City's jurisdictional boundaries, to:

- Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. *Municipal Code Sections: 53.08 Control of pollutants from industrial activities, 53.09 Control of pollutants from other industrial facilities, 53.10 Control of pollutants from state permitted construction activities, 53.11 Control of pollutants from other construction activities, 53.12 Control of pollutants from new developments/redevelopment projects.*

- Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A. *Municipal Code Sections: 50.003 Dumping Rubbish...Prohibited, 53.04 Illicit discharges and nonstormwater discharges.*

- Prohibit and eliminate illicit discharges and illicit connections to the MS4. *Municipal Code Sections: 53.04 Illicit discharges and nonstormwater discharges, 53.05 Illicit connections.*

- Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4. *Municipal Code Sections: 50.003 Dumping Rubbish...Prohibited, 53.04 Illicit discharges and nonstormwater discharges.*

- Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows). *Municipal Code Sections: Chapter 53: Stormwater and Urban Runoff Pollution Prevention.*

- Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders. *Municipal Code Sections: 53.13 Enforcement, 53.14 Violations constituting misdemeanors, 53.15 Acts potentially resulting in violations of Federal Clean Water Act and/or Porter Cologne Act, 53.16 Violations deemed a public nuisance.*

- Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees. *Municipal Code Sections: 53.02 Purpose and intent, 50.003 Dumping Rubbish...Prohibited*

- Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation. *Municipal Code Sections: 53.02 Purpose and intent, 50.003 Dumping Rubbish...Prohibited.*

- Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of the Permit, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This authority includes the authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into the MS4. *Municipal Code Sections: 53.13 Enforcement.*

- Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations. *Municipal Code Sections: 53.16 Violations Deemed a Public Nuisance.*

- Require that structural BMPs are properly operated and maintained. *Municipal Code Sections: 53.04 Illicit discharges and nonstormwater discharges.*

- Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4. *Municipal Code Sections: 53.04 Illicit discharges and nonstormwater discharges.*

The City of San Gabriel legal procedures available to mandate compliance with applicable municipal ordinances identified in the above section, and therefore with the conditions of the Order, can be found in *Section 53.13 Enforcement.* Violations of this section are deemed a "Public Nuisance" where enforcement actions can be completed administratively, or judicially if necessary.

Signature: _____
Robert L. Kress, City Attorney

Date: Dec. 13, 2013

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Our File No. 49063.0001

December 15, 2014

Mr. Sam Unger, Executive Officer
California Regional Water Quality
Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles CA, 90013-1105

Re: **Legal Authority Certification for the City of South Pasadena**

Dear Mr. Unger

The City of South Pasadena has the necessary legal authority to implement and enforce the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and the Regional Water Quality Control Board, Los Angeles Region's Order No. R4-2012-0175, the Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Los Angeles County Flood Control District, including the County of Los Angeles, and the Incorporated Cities therein, except the City of Long Beach [NPDES No. CAS004001] ("the 2012 MS4 Permit"). The South Pasadena Municipal Code sections providing this authority are detailed in the following table of requirements imposed by Part VI.A.2.a of the 2012 MS4 Permit:

1. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.
   - *South Pasadena Municipal Code Sections 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, 23.10, 23.11, 23.12, 23.13, and 23.14.*

2. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.

- *South Pasadena Municipal Code Sections 23.1, 23.2, 23.3, 23.4, 23.5, and 23.6.*

3. Prohibit and eliminate illicit discharges and illicit connections to the MS4.
   - *South Pasadena Municipal Code Sections 23.6 and 23.7.*

4. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.
   - *South Pasadena Municipal Code Sections 23.1, 23.2, 23.3, 23.4, 23.5, and 23.6.*

5. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
   - *South Pasadena Municipal Code Sections 23.1, 23.2, 23.3, 23.4, 23.5, 23.18, 23.20, 23.21, and 23.22.*

6. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.
   - *South Pasadena Municipal Code Sections 23.15, 23.16, 23.17, 23.18, 23.19, 23.20, 23.21, and 23.22.*

7. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees;
   - *South Pasadena Municipal Code Section 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, and 23.9.*

8. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation;
   - *South Pasadena Municipal Code Section 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, and 23.9.*

9. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take

measurements, review and copy records, and require regular reports from entities discharging into its MS4;

- *South Pasadena Municipal Code Sections 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, 23.15, 23.16, 23.17, 23.18, and 23.19.*

10. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations;
    - *South Pasadena Municipal Code Sections 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, 23.7, 23.8, 23.9, 23.10, 23.11, 23.12, 23.13, and 23.14.*

11. Require that structural BMPs are properly operated and maintained; and
    - *South Pasadena Municipal Code Sections 23.9, 23.11, and 23.14.*

12. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.
    - *South Pasadena Municipal Code Sections 23.9, 23.11, 23.14, 23.15, 23.16, 23.17, 23.18, and 23.19.*

The City of South Pasadena's legal procedures available to mandate compliance with applicable ordinances identified above, and therefore with the conditions of the 2012 MS4 Permit, can be found in South Pasadena Municipal Code sections 23.15, 23.16, 23.17, 23.18, 23.19, 23.20, 23.21, and 23.22. Violations of this section are deemed a "Public Nuisance" where enforcement actions can be completed administratively, or judicially if necessary, as authorized by section 23.20.

Sincerely,

Teresa L. Highsmith
City Attorney, City of South Pasadena

TLH:mts

cc: Sergio Gonzalez, City Manager
Paul Toor, Public Works Director

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December 11, 2013

**VIA U.S. MAIL AND E-MAIL**

Mr. Samuel Unger
Executive Officer
Los Angeles Regional Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
sunger@waterboards.ca.gov

Re: Legal Authority of the City of San Marino to Implement and Enforce the Requirements of 40 CFR 122.26(d)(2)(i)(A-F) and RWQCB Order R4-2012-0175, NPDES Permit CAS004001

Dear Mr. Unger:

The City of San Marino (the "City"), by and through its City Attorney, hereby submits the following certification ("Statement"), pursuant to Section VI.A.2.b of Order R4-2012-0175 (NPDES Permit CAS004001), issued by the California Regional Water Quality Control Board, Los Angeles Region ("RWQCB") on November 8, 2012 and entitled "Waste Discharge Requirements for Municipal Separate Storm Sewer System ("MS4") Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4" (the "Permit").

The City is one of the co-permittees under the Permit. Section VI.A.2.b of the Permit requires the City to provide the RWQCB with a statement by its chief legal counsel, certifying that the City has the legal authority to implement and enforce each of the current requirements set forth in 40 C.F.R. § 122.26(d)(2)(i)(A-F) and the Permit. The purpose of this Statement is to describe the City's compliance with Section VI.A.2.b of the Permit. As discussed in further detail herein, it is our opinion that the City has the necessary legal authority to implement the Permit and to control and prohibit discharges of pollutants into the Municipal Separate Storm Sewer System ("MS4"). However, this Statement is not, nor should it be construed as, a waiver of any rights that the City may have relating to the Permit.

## 1. Legal Authority Statement

In our opinion, the City has the necessary legal authority to comply with the legal requirements imposed upon it under the Permit, consistent with the requirements set forth in the U.S. Environmental Protection Agency's regulations promulgated under the Clean Water Act, and, specifically, 40 C.F.R. § 122.26(d)(2)(i)(A-F), and to the

extent permitted by state and federal law and subject to the limitations on municipal action under the California and United States Constitutions, except as noted herein.

The City, as a general law city, has broad general police powers under the California Constitution to enact legislation for health and public welfare of the community to the extent not preempted by federal or state law. In addition, the City adopted ordinances for the purpose of ensuring that it has adequate legal authority to implement and enforce its storm water control program. The City has the authority under the California Constitution and state law to enact and enforce these ordinances, and these ordinances were duly enacted.

**2. Ordinances**

The City has adopted ordinances related to the regulation of urban runoff to control and prohibit discharges of pollutants into the MS4 and to comply with the requirements of the Permit applicable to it, as well as, to the extent applicable, 40 C.F.R. § 122.26 (d)(2)(i)(A)-(F). The City's Storm Water Ordinance (Chapter 14.12 of the San Marino Municipal Code ("SMMC")) is the principal City ordinance addressing the control of urban runoff. Under this ordinance, the City has the necessary legal authority to do the following:

i. 40 C.F.R. § 122.26(d)(2)(i)(A); Permit Section VI.A.2.a.i: Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit (SMMC § 14.12.09—Requirements for industrial/commercial and construction activities);

ii. 40 C.F.R. § 122.26(d)(2)(i)(C); Permit Section VI.A.2.a.ii: Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A (SMMC § 14.12.06—Prohibited activities; SMMC § 14.12.08—Good housekeeping provisions);

iii. 40 C.F.R. § 122.26(d)(2)(i)(B); Permit Section VI.A.2.a.iii: Prohibit and eliminate illicit discharges and illicit connections to the MS4 (SMMC §14.12.06—Prohibited activities);

iv. 40 C.F.R. § 122.26(d)(2)(i)(C); Permit Section VI.A.2.a.iv: Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4 (SMMC § 14.12.06—Prohibited activities; SMMC §14.12.08—Good housekeeping provisions; SMMC § 14.12.10—Enforcement);

v. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.v: Require compliance with conditions in Permittee ordinances, permits, contracts or orders (*i.e.*, hold dischargers to its MS4 accountable for their contributions of pollutants and flows) (SMMC § 14.12.10—Enforcement);

vi. 40 C.F.R. § 122.26(d)(2)(i)(E)-(F); Permit Section VI.A.2.a.vi: Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders (SMMC § 14.12.10—Enforcement);

vii. 40 C.F.R. § 122.26(d)(2)(i)(D); Permit Section VI.A.2.a.vii: Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees (SMMC § 14.12.06—Prohibited activities; SMMC § 14.12.10—Enforcement);

viii. 40 C.F.R. § 122.26 (d)(2)(i)(D); Permit Section VI.A.2.a.viii: Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation (SMMC § 14.12.06—Prohibited activities; SMMC § 14.12.10—Enforcement);

ix. 40 C.F.R. § 122.26(d)(2)(i)(F); Permit Section VI.A.2.a.ix: Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4 (SMMC § 14.12.095—Standard Urban Stormwater Mitigation Plan ("SUSMP") requirements for new development and redevelopment projects; SMMC § 14.12.10—Enforcement);

x. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.x: Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations (SMMC § 14.12.06—Prohibited activities; SMMC § 14.12.095—Standard Urban Stormwater Mitigation Plan ("SUSMP") requirements for new development and redevelopment projects);

xi. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.xi: Require that structural BMPs are properly operated and maintained (SMMC § 14.12.095—Standard Urban Stormwater Mitigation Plan ("SUSMP") requirements for new development and redevelopment projects); and

xii. 40 C.F.R. § 122.26(d)(2)(i)(E); Permit Section VI.A.2.a.xii: Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4 (SMMC § 14.12.095—Standard Urban Stormwater Mitigation Plan ("SUSMP") requirements for new development and redevelopment projects; SMMC § 14.12.08—Good housekeeping provisions).

## 3. Implementation

Some of the City's ordinances are implemented through permit programs and others are implemented as regulatory programs. Under each ordinance, one or more City bodies, departments, or department directors are authorized and directed in each ordinance to take the actions contemplated by the ordinance (*e.g.*, to consider evidence and make findings, to issue or deny permits, to impose conditions on projects, to inspect, to take enforcement action, etc.).

The City's Storm Water Ordinance (SMMC Chapter 14.12) is the principal City ordinance addressing the control of urban runoff. This ordinance is regulatory, and applies to specified new and existing residential and business communities and associated facilities and activities, as well as new development and redevelopment, and all other specified new and existing facilities and activities that threaten to discharge pollutants within the boundaries of the City and within its regulatory jurisdiction, whether or not a City permit or approval is required. The City's Storm Water Ordinance also contains discharge prohibitions and requirements for the implementation of BMPs and other requirements necessary to implement the Permit.

Other City departments require compliance with the City's Storm Water Ordinance as a condition for issuance of relevant City permits. City departments may also impose specific conditions of approval consistent with the City's Storm Water Ordinance. All City environmental ordinances are also implemented, in part, through the application of the CEQA process to proposed projects.

## 4. Administrative and Judicial/Legal Procedures

In addition to the above authority, the City has in place various legal and administrative procedures to assist in enforcing the various urban runoff related Ordinances, including the following:

### A. Administrative Remedies

- General Penalties (SMMC Chapter 1.04--Violations).
- Administrative Penalties and Citations (SMMC Chapter 1.04—Violations; SMMC Chapter 1.06—Administrative Procedure).

**B. Nuisance Remedies**

- Public nuisance under State law.
- City nuisance abatement procedures (SMMC Chapter 1.04—Violations; SMMC Chapter 1.06—Administrative Procedure).

**C. Criminal Remedies**

- Misdemeanor citations/prosecution (SMMC Chapter 1.04—Violations).

**D. Equitable Remedies**

- Injunctive relief under State law and the Municipal Code (SMMC Chapter 1.04—Violations; SMMC Chapter 1.06—Administrative Procedure).
- Declaratory relief under State law.

**E. Other Civil Remedies**

- Federal law claims (*e.g.*, Clean Water Act and Resource Conservation and Recovery Act Citizen Suits).
- Remedies under the California Government Code.

Violations of the City's Storm Water Ordinance are deemed a "public nuisance," in which case enforcement actions can be completed administratively, or judicially when necessary.

Please contact me if you have any questions or if you need any additional information regarding the City's legal authority to enforce the Permit.

Very truly yours,

Steven L. Dorsey
City Attorney

cc: Mayor and Members of the City Council
John Schaefer, City Manager
Lucy Garcia, Assistant City Manager
Candice K. Lee, Esq.
Andrew Brady, Esq.

burke
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December 1, 2014

Mr. Sam Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013-1105

***RE: Annual Legal Authority Certification for the City of Temple City Calendar Year 2014***

Dear Mr. Unger:

The City of Temple City ("City) hereby submits the following certification, required by Part VI.A.2.b of Order No. R4-2012-0175, issued by the Regional Water Quality Control Board – Los Angeles Region ("RWQCB"), adopted on December 28, 2012 and entitled "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach (MS4)" [NPDES No. CAS004001] (the "2012 NPDES Permit"). Part VI.A.2.b of the 2012 NPDES Permit requires the City, as a Permittee under the 2012 NPDES Permit, to submit an annual statement certified by its City Attorney that the City has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and the 2012 NPDES Permit.

On November 19, 2013, the City Council held a public hearing and conducted the first reading of Ordinance 13-984 amending the provisions of the City's municipal code pertaining to storm water pollution elimination. Ordinance 13-984 amends the code to ensure that the City has adequate legal authority to implement the 2012 NPDES Permit and 40 CFR § 122.26(d)(2)(i)(A-F). The Ordinance became effective on January 2, 2014.

The table on the following page lists the requirements of the 2012 NPDES Permit and 40 CFR § 122.26(d)(2)(i)(A-F), and provides citations to the municipal code sections and state laws through which the City complies with each of these requirements. All of these provisions are currently in effect in the City. As the table demonstrates, the City has the legal authority within its jurisdiction to implement and enforce the 2012 NPDES

Permit and the requirements of 40 CFR § 122.26(d)(2)(i)(A-F).

| Requirements | Legal Authorities |
|---|---|
| Control the contribution of pollutants to the City's MSR from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. (2012 NPDES Permit, Part VI.A.2.a.i; 40 CFR § 122.26(d)(2)(i)(A)) | Municipal Code Sec. 8301 |
| Prohibit all non-storm water discharges through the City's MS4 to receiving waters not otherwise authorized or conditionally exempt. (2012 NPDES Permit, Part VI.A.2.a.ii) | Municipal Code Sec. 8201 |
| Prohibit and eliminate illicit discharges and illicit connections to the MS4. (2012 NPDES Permit, Part VI.A.2.a.iii; 40 CFR § 122.26(d)(2)(i)(B)) | Municipal Code Sec. 8200, 8201 |
| Control the discharge of spills, dumping, or disposal of materials other than storm water to the City's MS4. (2012 NPDES Permit, Part VI.A.2.a.iv; 40 CFR § 122.26(d)(2)(i)(C)) | Municipal Code Sec. 8201, 8202, 8203 |
| Require compliance with the conditions in the City's ordinances, permits, contracts or orders. (2012 NPDES Permit, Part VI.A.2.a.v; 40 CFR § 122.26(d)(2)(i)(E)) | Municipal Code Sec. 8400 |
| Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders. (2012 NPDES Permit, Part VI.A.2.a.vi; 40 CFR § 122.26(d)(2)(i)(F)) | Municipal Code Sec. 8401, 8402 |
| Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-Permittees. (2012 NPDES Permit, Part VI.A.2.a.vii; 40 CFR § 122.26(d)(2)(i)(D)) | See Temple City Charter Section 607 (regarding authority of City to enter into agreements); See also Resolution 13-4954 adopted 11/19/13 (approving MOU for Enhanced Watershed Management Program) |
| Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4. (2012 NPDES Permit, Part VI.A.2.a.viii) | See Temple City Charter Section 607 (regarding authority of City to enter into agreements); See also Resolution 13-4954 adopted 11/19/13 (approving MOU for Enhanced Watershed Management Program) |
| Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable ordinances, permits, contracts and orders, and with the provisions of the 2012 NPDES Permit. (2012 NPDES Permit, Part VI.A.2.a.ix) | Municipal Code Sec. 8400, 8401 |
| Require the use of control measures to prevent or reduce the | Municipal Code Sec. 8300, 8301, |

| | |
|---|---|
| discharge of pollutants to achieve water quality standards/receiving water limitations. (2012 NPDES Permit, Part VI.A.2.a.x) | 8302 |
| Require that structural BMPs are properly operated and maintained. (2012 NPDES Permit, Part VI.A.2.a.xi) | Municipal Code Sec. 8301(K) |
| Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4. (2012 NPDES Permit, Part VI.A.2.a.xii) | Municipal Code Sec. 8301(K) |

Part VI.A.2.b of the 2012 NPDES Permit further requires this statement to identify the local administrative and legal procedures available to mandate compliance with the City municipal code sections cited in the table above, and a statement as to whether enforcement actions can be completed administratively or judicially.

The City's municipal code contains both administrative and judicial enforcement options. The City may issue an administrative citation to enforce any provision of its municipal code. Title 1, Chapter 4 of the City's municipal code contains the procedures applicable to the issuance of administrative citations, and the schedule of administrative fines. An administrative citation may be appealed to a hearing officer, and the decision of the hearing officer on the appeal may be appealed to the superior court. The City's municipal code also authorizes violations of the code to be enforced judicially through criminal and civil proceedings. A violation of the City's storm water ordinances is a misdemeanor and a public nuisance (City municipal code section 8402). The procedures for issuing a criminal citation are contained in Title 1, Chapter 2 of the City's municipal code. In addition, the City may bring a civil action to abate the public nuisance, and the procedures for abatement actions are contained in Title 4, Chapter 2, Article C of the City's municipal code.

If you have any questions regarding this statement, please feel free to contact me at your convenience.

Sincerely,

Eric S. Vail
City Attorney
City of Temple City

ESV
cc: John L. Hunter & Associates
Michael D. Forbes, AICP, Community Development Director

# Appendix 3.A
# Detailed Description of Water Quality Priorities

The identification of Water Quality Priorities is an important first step in the EWMP process. The Water Quality Priorities provide the basis for prioritizing implementation and monitoring activities within the EWMP and CIMP and selection and scheduling of BMPs during the RAA. The identification of Water Quality Priorities is required in Section VI.C.5.a of the Permit as part of the development of a EWMP. The Permit defines three categories of WBPCs to support the development of priorities, as shown in **Table 1**. The Permit establishes a four-step process that leads to prioritization and sequencing of the water quality issues within each watershed, ultimately leading to an organized list of Water Quality Priorities, as follows:

- **Step 1:** Water quality characterization (VI.C.5.a.i, pg. 58) based on available monitoring data, TMDLs, 303(d) lists, stormwater annual reports, etc.;
- **Step 2:** Water body-pollutant classification (VI.C.5.a.ii, pg. 59), to identify water body-pollutant combinations that fall into three Permit defined categories;
- **Step 3:** Source assessment (VI.C.5.a.iii, pg. 59) for the water body-pollutant combinations in the three categories; and
- **Step 4:** Prioritization of the water body-pollutant combinations (VI.C.5.a.iv, pg. 60).

**Table 1. Water Body-Pollutant Classification Categories (Permit Section IV.C.5.a.ii)**

| Category | Water Body-Pollutant Combinations (WBPCs) Included |
|---|---|
| 1<br>Highest Priority | WBPCs for which TMDL Water Quality Based Effluent Limits (WQBELs) and/or Receiving Water Limitations (RWLs) are established in Part VI.E and Attachments L and O of the MS4 Permit. |
| 2<br>High Priority | WBPCs for which data indicate water quality impairment in the receiving water according to the State's Listing Policy, regardless of whether the pollutant is currently on the 303(d) List and for which the MS4 discharges may be causing or contributing. |
| 3<br>Medium Priority | WBPCs for which there are insufficient data to indicate impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in the MS4 Permit and for which MS4 discharges may be causing or contributing to the exceedance. |

# Water Quality Characterization (Step 1)

The following presents a brief summary of the water quality characterization for the ULAR WMA. **Appendix 3.B** provides a more detailed description of the results of the characterization. To conduct water quality characterization, data were obtained from numerous sources. A data request was submitted to the ULAR WMA to gather information necessary to meet the water quality characterization and source assessment requirements outlined in the Permit (see pages 58 and 59). The data requested to support the water quality characterization included:

- Monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring;
- Findings from the Permittees' Illicit Connections and Illicit Discharge Eliminations, Industrial/Commercial Facilities, Development Construction, and Public Agency Activities Programs;
- TMDL source investigations; and

- Any other pertinent data, information, or studies related to constituent sources and conditions that could contribute to identification of the highest Water Quality Priorities.

Monitoring data collected within the ULAR WMA were received from the following sources:

- Los Angeles County Department of Public Works (LACDPW)
- DC Tillman, Los Angeles/Glendale, and Burbank Water Reclamation Plants (WRPs)
- City of Los Angeles Status and Trends program
- LA River Metals TMDL Coordinated Monitoring Program
- City of Los Angeles Echo Park Monitoring Program
- Los Angeles River Watershed Monitoring Program (LARWMP)

Over 170,000 data records were compiled and reviewed as part of the data analysis, which likely represents the largest data compilation effort of all the EWMPs in the region. **Figure 1** presents the site locations for the monitoring data received and used for the water quality characterization process.

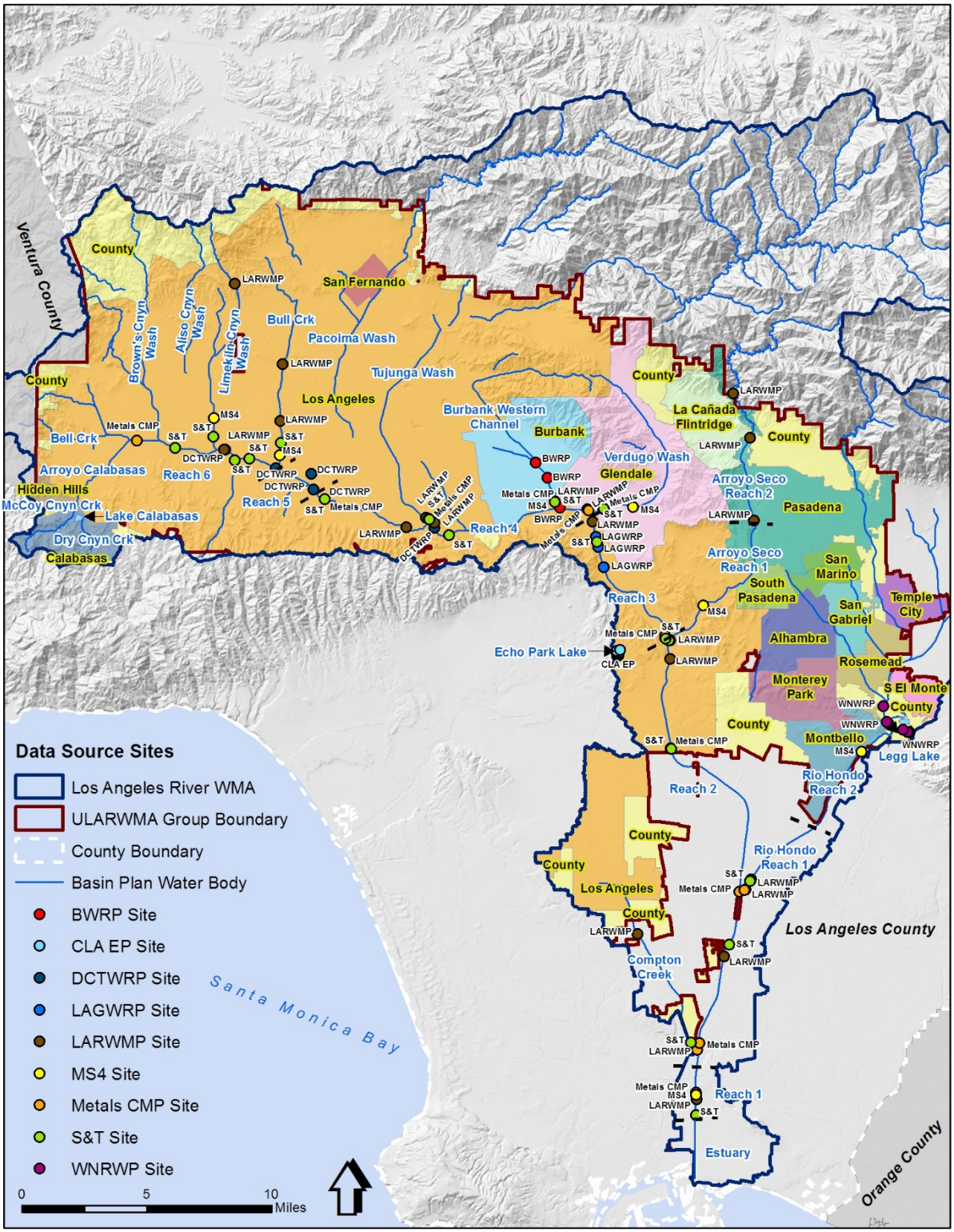


**Figure 1. Monitoring Site Locations for Data Utilized in the Water Quality Priorities Process**

BWRP = Burbank Water Reclamation Plant, CLA EP = City of LA Echo Park Lake, DCTWRP = City of LA Donald C. Tillman Water Reclamation Plan, LAWRP = LA Glendale Water Reclmation Plant, MS4 = LA County M4 Permit, Metals CMP = Metals TMDL Coordinated Monitoring Program, S&T = City of LA Status and Trends, WNRWP = LA County Sanitation District's Wittier Narrows Water Reclamation Plant.

## Characterization of Receiving Water Quality

Per Part VI.C.5.a.i (page 58) of the Permit, each EWMP shall include an evaluation of existing water quality conditions, including characterization of receiving water quality. **Appendix 3.B** presents additional details on the data analysis approach and results.

Data were compiled to identify constituents exceeding applicable water quality objectives. Applicable water quality objectives were compiled from the California Toxics Rule (CTR), the Basin Plan, and relevant TMDLs. Applicable water quality objectives from the CTR and Basin Plan were selected based on the beneficial uses identified in the Basin Plan.

Generally, the water quality objectives utilized included those established for the protection of aquatic life, contact recreation and human health related to the consumption of organisms. Given the significant number of water quality constituents and corresponding water quality objectives the following steps were taken to identify WBPCs:

- The first step in the analysis was to develop a list of constituents that were sampled for but were never detected in any water body within the EWMP area and therefore would not fall into one of the three Permit categories (see **Table 1**). A list of these constituents is presented in **Appendix 3.B**.
- Next, constituents that were detected, but the sample results never exceeded a corresponding water quality objective and therefore would not fall into one of the three Permit categories were identified. A list of these constituents is presented in **Appendix 3.B**.
- All other constituents (*i.e.*, all constituents detected and with sample results that had at least one result greater than an applicable water quality objective) were subject to further analysis. Summary tables are presented in **Appendix 3.B**.

## Characterization of Discharge Quality

Per Part VI.C.5.a.i (page 58) of the Permit, each EWMP shall include a characterization of stormwater and non-stormwater discharges from the MS4. A characterization was conducted on stormwater and non-stormwater discharges from the MS4 associated with constituents identified in a TMDL, a 303(d) listing, or through the receiving water data analysis described above. The following sources of discharge characterization data were reviewed and are summarized in **Appendix 3.C**:

- TMDL Staff Reports for TMDLs identified in **Appendix 3.B**.
- Los Angeles River Bacteria Source Identification Study (BSI Study) completed by the Cleaner Rivers through Effective Stakeholder-led TMDLs (CREST) group in 2008.
- Data collected as part of the 2007 Southern California Coastal Water Research Project (SCCWRP) Technical Report 510 titled "Sources, patterns and mechanisms of storm water pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA."
- Land Use data collected as part of previous MS4 Permit monitoring and presented in the 2000 report titled "Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report."

# Water Body Pollutant Classification (Step 2)

Based on available information and data analysis, WBPCs were classified in one of the three Permit categories, as described in **Table 1**. To further support development of the EWMP, the three Permit categories were further subdivided into *subcategories* (described in **Table 2**) and each WBPC was assigned to an appropriate subcategory. **Table 3, Table 4**, and **Table 5** present the ULAR WMG WBPCs in Categories 1, 2 and 3 for the associated Los Angeles River mainstem, Los Angeles River Reaches 1-4 tributaries, and Los Angeles River Reaches 5 and 6 tributaries, respectively. **Table 6** presents a summary of the ULAR WMG WBPCs categories for Lake Calabasas, Legg Lake, and Echo Park Lake. Summary tables presenting the data analysis to support the placement of WBPCs into the various subcategories are presented in **Appendix 3.B**.

**Table 2. Details for Water Body-Pollutant Classification Subcategories**

| Category | Water Body-Pollutant Combinations (WBPCs) | Description |
|---|---|---|
| 1 | Category 1A: WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. | WBPCs with TMDLs with past due or current Permit term interim and/or final limits. These pollutants are the highest priority for the current Permit term. |
| | Category 1B: WBPCs with TMDL deadlines beyond the Permit term with exceedances in the past 5 years. | The Permit does not require the prioritization of TMDL interim and/or final deadlines outside of the Permit term or USEPA TMDLs, which do not have implementation schedules. To ensure EWMPs consider long term planning requirements and utilize the available compliance mechanisms, these WBPCs should be considered during BMP planning and scheduling, and during CIMP development. |
| | Category 1C: WBPCs addressed in USEPA TMDL without a Regional Board adopted Implementation Plan. | |
| | Category 1D: WBPCs with past due or current Permit term TMDL deadlines but have had no exceedances in the past 5 years. | WBPCs where specific actions may end up not being identified because recent exceedances have not been observed and specific actions may not be necessary. The CIMP should address these WBPCs to support future re-prioritization. |
| 2 | Category 2A: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years. | WBPCs with confirmed impairment or exceedances of RWLs. WBPCs in a similar class[1] as those with TMDLs are identified. WBPCs currently on the 303(d) List are differentiated from those that are not to support utilization of EWMP compliance mechanisms. |
| | Category 2B: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a "pollutant"[2] (e.g., toxicity). | WBPCs where specific actions may not be identifiable because the cause of the impairment or exceedances is not resolved. Either routine monitoring or special studies identified in the CIMP should support identification of a "pollutant" linked to the impairment and re-prioritization in the future. |
| | Category 2C: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements but there have been no exceedances in the past 5 years. | WBPCs where specific actions for implementation may end up not being identified because recent exceedances have not been observed (and thus specific BMPs may not be necessary.) Pollutants that are in a similar class[1] as those with TMDLs are identified. Either routine monitoring or special studies identified in the CIMP should ensure these WBPCs are addressed to support re-prioritization in the future. |
| 3 | Category 3A: All other WBPCs that have exceeded in the past 5 years. | Pollutants that are in a similar class[1] as those with TMDLs are identified. |
| | Category 3B: All other WBPCs that are not a "pollutant"[2] (e.g., toxicity). | WBPCs where specific actions may not be identifiable because the cause of the impairment or exceedances is not resolved. Either routine monitoring or special studies identified in the CIMP should support identification of a "pollutant" linked to the impairment and re-prioritization in the future. |
| | Category 3C: All other WBPCs that have exceeded in the past 10 years, but not in past 5 years. | Pollutants that are in a similar class[1] as those with TMDLs are identified. |

1 – Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the EWMP for the TMDL. (Permit pg. 49, footnote 21).
2 – While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor.

**Table 3. Summary of Upper Los Angeles River WMA Water Body-Pollutant Categories for Mainstem Reaches**

| Constituents | LA River | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 (below LAG) | 3 (above LAG) | 4 | 5 | 6 |
| **Category 1A:** WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. (I = Interim and F = Final Limits) | | | | | | | |
| Cadmium Total | I (Wet) | | | | | | |
| Copper Dissolved | I (Wet) | I (Wet) | | | I (Wet) | I (Dry) | I (Wet) |
| Copper Total | I (Wet) | I (Wet) | I (Wet) | | I (Wet) | I (Dry) | |
| Lead Dissolved | I (Wet/Dry) | I (Wet/Dry) | I (Wet/Dry) | | I (Wet/Dry) | | |
| Lead Total | I (Wet) | I (Wet) | | I (Dry) | | | |
| Zinc Dissolved | I (Wet) | I (Wet) | | | I (Wet) | | I (Wet) |
| Zinc Total | I (Wet) | I (Wet) | I (Wet) | | I (Wet) | | I (Wet) |
| Trash | I/F | I/F | I/F | I/F | I/F | I/F | I/F |
| Sediment: DDTs, PCBs, PAHs[1] | I | | | | | | |
| Sediment: Copper, Lead, Zinc[1] | I | | | | | | |
| **Category 1B:** WBPCs with TMDL deadlines beyond the Permit term with exceedances in the past 5 years. (I = Interim and F = Final Limits) | | | | | | | |
| *E. Coli* | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) |
| Cadmium Total | F (Wet) | | | | | | |
| Copper Dissolved | F (Wet) | F (Wet) | | | F (Wet) | F (Dry) | F (Wet) |
| Copper Total | F (Wet) | F (Wet) | F (Wet) | | F (Wet) | F (Dry) | |
| Lead Dissolved | F (Wet/Dry) | F (Wet/Dry) | F (Wet/Dry) | | F (Wet/Dry) | | |
| Lead Total | F (Wet) | F (Wet) | | F (Dry) | | | |
| Zinc Dissolved | F (Wet) | F (Wet) | | | F (Wet) | | F (Wet) |
| Zinc Total | F (Wet) | F (Wet) | F (Wet) | | F (Wet) | | F (Wet) |
| Sediment: DDTs, PCBs, PAHs[1] | F | | | | | | |
| Sediment: Copper, Lead, Zinc[1] | F | | | | | | |
| **Category 1C:** WBPCs addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan. (WLA = Waste Load Allocation in USEPA TMDL) | | | | | | | |
| None | | | | | | | |
| **Category 1D:** WBPCs with past due or current Permit term TMDL deadlines but have not exceeded in past 5 years. | | | | | | | |
| Cadmium Total | | I (Wet NS) | I (Wet) | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) |
| Copper Dissolved | I (Dry) | I (Dry) | I (Wet/Dry) | I (Dry/Wet NS) | I (Dry) | I (Wet NS) | I (Dry) |
| Copper Total | I (Dry) | I (Dry) | I (Dry) | I (Wet/Dry) | I (Dry) | I (Wet NS) | I (Wet/Dry) |
| Lead Dissolved | | | | I (Dry/Wet NS) | | I (Dry/Wet NS) | I (Wet/Dry) |

| Constituents | LA River | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 (below LAG) | 3 (above LAG) | 4 | 5 | 6 |
| Lead Total | I (Dry) | I (Dry) | I (Wet/Dry) | I (Wet) | I (Wet/Dry) | I (Dry/Wet NS) | I (Wet/Dry) |
| Zinc Dissolved | | | I (Wet) | I (Wet NS) | | I (Wet NS) | |
| Zinc Total | | | | I (Wet) | | I (Wet NS) | |
| Ammonia as N | F (Dry/Wet) | F (Dry/Wet NS) | F (Dry/Wet) | F (Dry/Wet) | F (Dry/Wet) | F (Dry/Wet) | F (Dry/Wet) |
| Nitrate as N | F | F | F | F | F | F | F |
| Nitrite as N | F | F | F | F | F | F | F |
| Nitrogen (NO3-N+NO2-N) | F | F | F | F | F | F | F |
| **Category 2A:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years. | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | | | Dry | | | | |
| Bis(2-ethylhexyl)Phthalate | Dry | | | | | | |
| Diazinon | | | | | | Dry | |
| Selenium | | | | | | Dry | Dry |
| Chloride | | | | | | Dry | Dry |
| Sulfate | | | | | | Dry | Dry |
| TDS | | | | | | Dry | |
| Cyanide | 303 Dry/Wet | | | | | | |
| **Category 2B:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a "pollutant"[2] (i.e., toxicity) with exceedances in the past 5 years. | | | | | | | |
| pH | Dry | Dry | | | | | |
| **Category 2C:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements but have not exceeded in past 5 years. | | | | | | | |
| Mercury Total | Dry | Dry/Wet (NS) | Dry | Dry | Dry/Wet (NS) | | Dry |
| Thallium Total | | | | | | | Dry (NS) |
| TDS | | | | | | | Dry (NS) |
| Oil | | Delist | | | | Delist | |
| Diazinon | Wet (Delist) | | | | | | |
| **Category 3A:** All other WBPCs with exceedances in the past 5 years. | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | | | Wet | Wet | | | |
| Bis(2-ethylhexyl)Phthalate | Wet | | | | | | |
| Diazinon | | | | | Dry | | |
| Dibenzo(a,h)Anthracene | | | | | | Dry | |
| Indeno(1,2,3-cd)Pyrene | | | | | | Dry | |

| Constituents | LA River | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 (below LAG) | 3 (above LAG) | 4 | 5 | 6 |
| 4,4-DDD | | | | | | Dry | |
| 4,4-DDE | | | | | | Dry | |
| Nickel Total | | | | | | Dry | |
| Selenium Total | Dry | | | | | | |
| Zinc Dissolved | Dry | | | | | | |
| Zinc Total | Dry | | Dry | | | | |
| Sulfate | | | | | Dry | | |
| Cyanide | | | | | Dry | Dry | |
| **Category 3B:** All other WBPCs that are not a "pollutant"[2] (i.e., toxicity) with exceedances in the past 5 years. | | | | | | | |
| pH | Wet | Wet (NS) | Dry | Dry | | Dry | |
| Dissolved Oxygen | Wet | | Dry | | Dry | Dry | Dry |
| **Category 3C:** All other WBPCs that have exceeded in the past 10 years, but not in past 5 years. | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | | | | Dry | | | Dry (NS) |
| Benzo(a)Anthracene | | | Dry | | | | |
| Bis(2-ethylhexyl)Phthalate | | | Dry | Dry | | Dry | |
| Chrysene | | | Dry | | Dry | | Dry (NS) |
| Dibenzo(a,h)Anthracene | | | Dry | Dry | | | |
| Dichlorobromomethane | | | Wet | | | | |
| Indeno(1,2,3-cd)Pyrene | | | Dry | Dry | | | |
| Heptachlor | | | | | | Dry | |
| Mercury Total | Wet | | Wet | Wet | | Dry | Wet (NS) |
| Nickel Total | | | | Dry | | | |
| Selenium Total | | | | Dry | Dry | | |
| Thallium Total | Dry | Dry (NS) | Dry | Dry | Dry | | |
| Zinc Total | | | | | Dry | | |
| Sulfate | | | | Dry | | | |
| TDS | | | | | Dry | | |
| Chlorine (Total) | | | Dry | Dry | Dry | Dry | Dry |
| Cyanide | | | Dry | Dry | | | Dry |

1 – Pollutants associated with the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL were identified as applicable to Reach 1 of the LA River as the nearest downstream receiving water segment from the EWMP area.
2 – While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor.
Note that unless explicitly stated as sediment, constituents are associated with the water column.
I/F = Denotes where the Permit includes interim (I) and/or final (F) effluent and/or receiving water limitations.
NS = Not sampled
Dry/Wet = Weather condition was based on the designation provided by the sampling program. If no information was provided by the sampling program, flow records were reviewed and where flow was greater than 500 cubic feet per second (cfs) identified in the LA River Metals TMDL as a wet weather event, the sample was identified as a wet weather sample.
303 = WBPC on the 2010 303(d) List where the listing was confirmed during data analysis.
Delist = WBPC on the 2010 303(d) List that meets the delisting requirements.

**Table 4. Summary of Upper Los Angeles River WMA Water Body-Pollutant Categories for LA River Reaches 1-4 Tributaries**

| Constituents | Compton Creek | Rio Hondo | | | Arroyo Seco | Verdugo Wash | Burbank Western Channel | Tujunga Wash |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | | | |
| **Category 1A:** WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. | | | | | | | | |
| Copper Dissolved | | I (Dry) | | | | | I (Dry) | I (Dry) |
| Copper Total | I (Dry) | I (Dry) | | | | I (Wet) NS) | I (Dry) | I (Dry) |
| Lead Dissolved | | I (Dry) | | | I (Wet/Dry) | | | |
| Lead Total | I (Dry) | I (Dry) | | | | | | I (Dry) |
| Zinc Total | | I (Dry) | | | | | | |
| Ammonia as N | | | | | | | | F (Dry) |
| Nitrate as N | | | | | | | F (Dry) | |
| Nitrite as N | | | | | F (Dry) | | F (Dry) | |
| Trash | I/F | I/F | I/F | | I/F | I/F | I/F | I/F |
| **Category 1B:** WBPCs with TMDL deadlines beyond the Permit term with exceedances in the past 5 years. | | | | | | | | |
| *E. Coli* | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) |
| Copper Dissolved | | F (Dry) | | | | | F (Dry) | F (Dry) |
| Copper Total | F (Dry) | F (Dry) | | | | F (Wet) NS) | F (Dry) | F (Dry) |
| Lead Dissolved | | F (Dry) | | | F (Wet/Dry) | | | |
| Lead Total | F (Dry) | F (Dry) | | | | | | F (Dry) |
| Zinc Dissolved | | | | | | | | |
| Zinc Total | | F (Dry) | | | | | | |
| **Category 1C:** WBPCs addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan. (WLA = Waste Load Allocation in USEPA TMDL) | | | | | | | | |
| None | | | | | | | | |
| **Category 1D:** WBPCs with past due or current Permit term TMDL deadlines but have not exceeded in past 5 years. | | | | | | | | |
| Cadmium Total | I (Wet NS) | I (Wet NS) | I (Wet NS) | | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) |
| Copper Dissolved | I (Dry/Wet NS) | I (Wet NS) | I (NS) | | I (Wet/Dry) | I (Wet)/(Dry NS) | I (Wet NS) | I (Wet NS) |
| Copper Total | I (Wet NS) | I (Wet NS) | I (NS) | | I (Wet/Dry) | I (Dry NS) | I (Wet NS) | I (Wet NS) |
| Lead Dissolved | I (Dry/Wet NS) | I (Wet NS) | I (NS) | | | I (Wet/Dry NS) | I (Dry/Wet NS) | I (Dry)/Wet NS) |

| Constituents | Compton Creek | Rio Hondo | | | Arroyo Seco | Verdugo Wash | Burbank Western Channel | Tujunga Wash |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | | | |
| Lead Total | I (Wet NS) | I (Wet NS) | I (NS) | | I (Wet/Dry) | I (Wet/Dry NS) | I (Dry/Wet NS) | I (Wet NS) |
| Zinc Dissolved | I (Wet NS) | I (Dry/Wet NS) | I (Wet NS) | | I (Wet) | I (Wet) | I (Wet NS) | I (Wet NS) |
| Zinc Total | I (Wet NS) | I (Wet NS) | I (Wet NS) | | I (Wet) | I (Wet) | I (Wet NS) | I (Wet NS) |
| Ammonia as N | F (Dry/Wet NS) | F (Dry/Wet NS) | F (NS) | | F (Dry/Wet NS) | F (NS) | F (NS) | F (Wet NS) |
| Nitrate as N | F | F | F (NS) | | F | F (NS) | F (Wet) | F |
| Nitrite as N | F | F | F (NS) | | F (Wet NS) | F (NS) | F (Wet) | F |
| Nitrogen (NO3-N+NO2-N) | F | F | F (NS) | | F | F (NS) | F | F |
| **Category 2A:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years. | | | | | | | | |
| 2,3,7,8-TCDD (Dioxin) | | | | | | | Dry | |
| Bis(2-ethylhexyl)Phthalate | | | | | | | Dry | |
| Chlorodibromomethane | | | | | | | Dry | |
| Chloride | | | | | | | | Dry |
| Copper Total | | | | Dry | | | | |
| Cyanide | | | 303 Dry (NS) | | | | | |
| **Category 2B:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a "pollutant"[1] (i.e., toxicity) with exceedances in the past 5 years. | | | | | | | | |
| Benthic-Macroinvertebrates | 303 | | | | 303 | | | |
| Dissolved Oxygen | | | | Dry | | | | |
| pH | | | | Dry | | | | |
| **Category 2C:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements but have not exceeded in past 5 years. | | | | | | | | |
| Bis(2-ethylhexyl)Phthalate | | | Dry /Wet (NS) | | Wet (NS) | Dry/Wet (NS) | Wet (NS) | |
| Selenium Total | | | | | | | Delist | |
| Chlorine (Total) | | | | | | | Wet | |
| Cyanide | | | | | | | Delist | |
| **Category 3A:** All other WBPCs with exceedances in the past 5 years. | | | | | | | | |
| Benzo(a)Pyrene | | | | Dry | | | Dry | |
| Benzo(b)Fluoranthene | | | | | | | Dry | |
| Benzo(k)Fluoranthene | | | | Dry | | | | |

| Constituents | Compton Creek | Rio Hondo | | | Arroyo Seco | Verdugo Wash | Burbank Western Channel | Tujunga Wash |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | | | |
| Chrysene | | | | Dry | | | | |
| Diazinon | | | | Dry | | | | |
| Dibenzo(a,h)Anthracene | | | | Dry | | | | |
| Indeno(1,2,3-cd)Pyrene | | | | Dry | | | | |
| Chlorpyrifos | Dry | | | | | | | |
| Mercury Total | | | | | | | Dry | |
| Zinc Total | | | | | | | | Dry |
| Chloride | Dry | | | | | | Dry | |
| TDS | | | | | | | Dry | Dry |
| Chlorine (Total) | | | | | | | Dry | |
| **Category 3B:** All other WBPCs that are not a "pollutant"[1] (i.e., toxicity) with exceedances in the past 5 years. | | | | | | | | |
| pH | | | Dry (NS)/Wet (NS) | | | | Dry/Wet (NS) | |
| **Category 3C:** All other WBPCs that have exceeded in the past 10 years, but not in past 5 years. | | | | | | | | |
| beta-BHC | | | | | | | Dry | |
| Bis(2-ethylhexyl)Phthalate | | | | | Dry (NS) | | | |
| Diazinon | | | Wet (NS) | | | | | |
| Heptachlor | | | | | | | Dry | |
| Cadmium Total | | | | | | | Dry | Dry |
| Copper Dissolved | | | Dry (NS) | | | | | |
| Copper Total | | | Dry (NS) | | | | | |
| Lead Total | | | Dry (NS) | | | | | |
| Mercury Total | Dry/Wet (NS) | | | Dry | Wet (NS) | Wet (NS) | Wet (NS) | Dry |
| Thallium Total | | | | | | | Dry | |
| Zinc Total | | | | | | Dry (NS) | Dry | |
| Chloride | | | | Dry | | | | |

1 – While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor.
I/F = Denotes where the Permit includes interim (I) and/or final (F) effluent and/or receiving water limitations.
NS = Not sampled
Dry/Wet = Weather condition was based on the designation provided by the sampling program. If no information was provided by the sampling program, flow records were reviewed and where flow was greater than 500 cubic feet per second (cfs) identified in the LA River Metals TMDL as a wet weather event, the sample was identified as a wet weather sample.
303 = WBPC on the 2010 303(d) List where the listing was confirmed during data analysis.
Delist = WBPC on the 2010 303(d) List that meets the delisting requirements.

**Table 5. Summary of Upper Los Angeles River WMA Water Body-Pollutant Categories for LA River Reaches 5 and 6 Tributaries**

| Constituents | Bell Creek | Bull Creek | Caballero Creek | Aliso Canyon Wash | McCoy Canyon | Dry Canyon |
|---|---|---|---|---|---|---|
| **Category 1A:** WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. | | | | | | |
| Trash | I/F | I/F | I/F | I/F | I/F | I/F |
| **Category 1B:** WBPCs with TMDL deadlines beyond the Permit term with exceedances in the past 5 years. | | | | | | |
| *E. Coli* | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) | I/F (Wet/Dry) |
| **Category 1C:** WBPCs addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan. (WLA = Waste Load Allocation in USEPA TMDL) | | | | | | |
| None | | | | | | |
| **Category 1D:** WBPCs with past due or current Permit term TMDL deadlines but have not exceeded in past 5 years. | | | | | | |
| Cadmium Total | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) |
| Copper Dissolved | I (NS) | I (Dry/Wet NS) | I (NS) | I (Dry)/(Wet NS) | I (NS) | I (NS) |
| Copper Total | I (NS) | I (Dry/Wet NS) | I (NS) | I (Dry)/(Wet NS) | I (NS) | I (NS) |
| Lead Dissolved | I (NS) | I (Dry/Wet NS) | I (NS) | I (Dry/Wet NS) | I (NS) | I (NS) |
| Lead Total | I (NS) | I (Dry/Wet NS) | I (NS) | I (Dry/Wet NS) | I (NS) | I (NS) |
| Zinc Dissolved | I (Wet NS) | I (Dry/Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) |
| Zinc Total | I (Wet NS) | I (Dry)/(Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) | I (Wet NS) |
| Ammonia as N | F (NS) | F (Dry/Wet NS) | F (NS) | F (Dry/Wet NS) | F (NS) | F (NS) |
| Nitrate as N | F (NS) | F | F (NS) | F | F (NS) | F (NS) |
| Nitrite as N | F (NS) | F | F (NS) | F | F (NS) | F (NS) |
| Nitrogen (NO3-N+NO2-N) | F (NS) | F | F (NS) | F | F (NS) | F (NS) |
| **Category 2A:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years. | | | | | | |
| None | | | | | | |
| **Category 2B:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a "pollutant"[1] (i.e., toxicity) with exceedances in the past 5 years. | | | | | | |
| None | | | | | | |
| **Category 2C:** 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements but have not exceeded in past 5 years. | | | | | | |
| Bis(2-ethylhexyl)Phthalate | | Dry (NS)/Wet | | Dry (NS)/Wet | | |
| Selenium Total | | | Dry (NS) | Dry | | |
| **Category 3A:** All other WBPCs with exceedances in the past 5 years. | | | | | | |
| Sulfate | | | | Dry | | |
| TDS | | | | Dry | | |

| Constituents | Bell Creek | Bull Creek | Caballero Creek | Aliso Canyon Wash | McCoy Canyon | Dry Canyon |
|---|---|---|---|---|---|---|
| **Category 3B:** All other WBPCs that are not a "pollutant"[1] (i.e., toxicity) with exceedances in the past 5 years. | | | | | | |
| None | | | | | | |
| **Category 3C:** All other WBPCs that have exceeded in the past 10 years, but not in past 5 years. | | | | | | |
| Diazinon | | | | Wet (NS) | | |
| Cadmium Total | | | Dry (NS) | | | |
| Copper Total | | | Dry (NS) | | | |
| Lead Total | | | Dry (NS) | | | |
| Mercury Total | | | Dry (NS) | | | |
| Nickel Total | | | Dry (NS) | | | |
| Zinc Total | | | Dry (NS) | | | |
| Cyanide | | Wet (NS) | | Wet (NS) | | |

1 – While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor.
I/F = Denotes where the Permit includes interim (I) and/or final (F) effluent and/or receiving water limitations.
NS = Not sampled
Dry/Wet = Weather condition was based on the designation provided by the sampling program. If no information was provided by the sampling program, flow records were reviewed and where flow was greater than 500 cubic feet per second (cfs) identified in the LA River Metals TMDL as a wet weather event, the sample was identified as a wet weather sample.
303 = WBPC on the 2010 303(d) List where the listing was confirmed during data analysis.
Delist = WBPC on the 2010 303(d) List that meets the delisting requirements.

**Table 6. Summary of Upper Los Angeles River WMA Water Body-Pollutant Categories Associated with Lakes**

| Constituent | Lake | | |
|---|---|---|---|
| | Legg | Calabasas | Echo Park |
| **Category 1A:** WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. | | | |
| Trash | I/F | -- | -- |
| **Category 1C:** WBPCs addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan. | | | |
| Total-P | X | X | X |
| Total-N | X | X | X |
| Trash | -- | -- | X |
| PCBs (water and sediment) | -- | -- | X |
| Chlordane (water and sediment) | -- | -- | X |
| Dieldrin (water and sediment) | -- | -- | X |

I/F – Denotes where the Permit includes interim (I) and/or final (F) limitations.
Note that unless explicitly stated as sediment, constituents are associated with the water column.

# Source Assessment (Step 3)

Following classification of WPBCs into Category 1, 2 and 3, the next step in the prioritization process is to conduct a source assessment. The Permit requires that a source assessment be conducted to identify potential sources within the watershed for the WBPCs in Categories 1-3, utilizing existing information. The source assessment also evaluates whether pollutants likely originate from the MS4 versus other sources. Pollutant exceedances may come from point or non-point sources, described below. Often, however, non-point source discharges may flow through the MS4 and thus become associated with the MS4 and subject to the MS4 Permit requirements.

## Permit Requirements

The specific requirements in the Permit for the source assessment are as follows (per section VI.C.5.a.iii, page 59):

> "(1) Permittees shall identify known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the Water Quality Priorities. The identification of known and suspected sources of the highest Water Quality Priorities shall consider the following:
>
> (a) Review of available data, including but not limited to:
>
> (i) Findings from the Permittees' Illicit Connections and Illicit Discharge Elimination Programs;
>
> (ii) Findings from the Permittees' Industrial/Commercial Facilities Programs;
>
> (iii) Findings from the Permittees' Development Construction Programs;
>
> (iv) Findings from the Permittees' Public Agency Activities Programs;
>
> (v) TMDL source investigations;
>
> (vi) Watershed model results;
>
> (vii) Findings from the Permittees' monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and
>
> (viii) Any other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest Water Quality Priorities.
>
> (b) Locations of the Permittees' MS4s, including, at a minimum, all MS4 major outfalls and major structural controls for storm water and non-storm water that discharge to receiving waters.
>
> (c) Other known and suspected sources of pollutants in non-storm water or storm water discharges from the MS4 to receiving waters within the watershed."

The findings from items *VI.C.5.a.iii (1)(a)(i)-(vii)* and item *VI.C.5.a.iii (1)(c)* of the Permit that are pertinent to the Category 1, 2 and 3 pollutants identified in **Table 3, Table 4**, **Table 5**, and **Table 6** are summarized below.

Item *VI.C.5.a.iii (1)(b)* will be addressed by the CIMP, as it is included in the discussion of the MS4 database requirements of Part VII.A of Attachment D of the Permit (Monitoring and Reporting Program).

## Point sources

Point sources are discrete conveyances that can carry pollutants to surface waters. Discharges from point sources are regulated by both federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) permits and California's Porter-Cologne Water Quality Control Act Waste Discharge Requirements (WDRs). Combined NPDES/WDR permits are issued for discharges to surface waters. Urban runoff in the ULAR WMA is regulated as a point source under two municipal stormwater NPDES permits that cover MS4 discharges – one for LA County and one for Caltrans.

There are many non-MS4 point sources in the watershed including municipal wastewater from publicly owned treatment works, stormwater from industrial facilities, non-process industrial wastewater, and other non-stormwater and non-wastewater discharges in the watershed including dewatering from construction projects, potable supply wells discharges, groundwater cleanup sites and landfills. The non-MS4 NPDES permits in the ULAR watershed include the general construction stormwater permits, general industrial stormwater permits, and general NPDES permits identified in **Table 7**. **Table 7** also includes the type and number of NPDES permits in the entire LAR watershed.

The three "other major industrial" NPDES discharges identified in **Table 7** include:

- Pacific Terminals, LLC, Dominguez Hills Tank Farm: Hydrostatic test water
- The Boeing Company, Santa Susana Field Lab: Stormwater mixed with industrial wastewater
- Metropolitan Transit Authority, Eastside Light Rail Transit Project: Treated wastewater from underground construction activities

In addition to these three major industrial discharges, NPDES permits identified in **Table 7** include stormwater and treated wastewater for petrochemical facilities, paper production, glass manufacturing, metal fabrication, and water treatment facilities.

The significance of these permitted discharges with respect to their potential contributions of pollutants to the watershed is a function of the volume of flow associated with their discharges and their water quality characteristics. The contributions of these discharges to dry weather runoff or wet weather runoff also varies. For example, discharges governed by General Construction and General Industrial stormwater permits can send contaminated wet weather runoff directly into the LA River and its tributaries, as well as into the MS4. However, during dry weather, their potential for pollutant contribution is expected to be fairly low. A broad assessment of the relative potential for pollutant contribution and runoff condition (wet weather or dry weather) of the discharges typically associated with each of the permit types is also provided in **Table 7**.

**Table 7. NPDES Permits in the Los Angeles River Watershed[1]**

| Type of NPDES Permit | Number of Permits | Potential for Pollutant Contribution |
|---|---|---|
| Publicly Owned Treatment Works | 6 | High (dry weather) |
| Municipal Stormwater | 3 | High (wet/dry weather) |
| Industrial Stormwater | 1,307 | High (wet weather) |
| Construction Stormwater | 204 | High (wet weather) |
| Other Major Industrial NPDES Discharges | 3 | High (wet weather) |
| Minor NPDES Discharges | 15 | Medium (wet/dry weather) |
| General NPDES Permits: | | |
| Construction and Project Dewatering | 35 | Medium (wet weather) |
| Petroleum Fuel Cleanup Sites | 7 | Medium (dry weather) |
| VOCs Cleanup Sites | 6 | Medium (dry weather) |
| Hydrostatic Test Water | 8 | Low (wet/dry weather) |
| Non-Process Wastewater | 9 | Medium (dry weather) |
| Potable Water | 25 | Low (wet/dry weather) |
| **Total** | **1,628** | |

1 – The number of permits listed are from the entire LA River watershed. A subset of these apply to the ULAR watershed.
Source: LAR Metals TMDL, 2005

## Non-point sources

Pollutants from non-point sources are conveyed to surface waters in a diffuse manner, i.e., not directly from point source conveyances. However, when contaminants from such non-point sources reach the MS4 system, they often become regulated through the MS4 point source NPDES permits. Non-point sources in the ULAR watershed include:

- Onsite Wastewater Treatment Systems (OWTS, a.k.a. septic systems)
- Runoff from the National and State forests outside of the MS4s into the headwaters of many tributaries
- Sources that occur within the channels of the LA River and tributaries ("in-channel sources") such as:
  - Groundwater discharges
  - Anthropogenic sources
  - Pet Waste
  - Sanitary sewer leaks/spills
  - Illicit/illegal discharges
  - Wildlife and birds
  - Suspension and/or regrowth of sediment-associated pollutants

## Pollutants, Source Assessment and MS4 Linkage

Based on the source assessment and pollutant linkages to the MS4, the Water Quality Priorities were generated as summarized in **Table 8**. A source assessment discussion of the potential sources of these Category 1, 2 and 3 pollutants identified for the ULAR watershed is provided in **Appendix 3.D,** and the potential linkage of the MS4 system as a significant contributor of these pollutants to the water quality exceedances is indicated in **Table 8**. Unless a pollutant is attributed to a non-MS4 source, such as a water reclamation plant, the EWMP will likely need to identify control measures to address the Water Quality Priorities.

If the findings of the source assessment indicate that there is likely a source other than the MS4 to which the water quality exceedances can be attributed, then the MS4 linkage is noted as "low". Where TMDLs that have identified waste load allocations for the MS4 exist (Category 1 pollutants), the linkage is "high". Where there is not a clear determination of positive or negative attribution to the MS4, the linkage is rated as "medium" and a conservative assumption of attribution has been assumed for the purposes of the EWMP.

**Table 8. Water Quality Priorities for ULAR WMA**

| Category | Pollutant | Water Body | MS4 Linkage |
|---|---|---|---|
| Category 1 | *E. Coli* | LAR Reaches 1 through 6 | High |
| | Sediment DDTs, PCBs, PAHs | LAR Reach 1 | High |
| | Cadmium, Copper, Lead, Zinc | LAR Reaches 1 through 6 and tributaries | High |
| | Sediment Copper, Lead, Zinc | LAR Reach 1 | High |
| | Ammonia-N, Nitrate- N, Nitrite-N, Nitrate-N + Nitrite-N | LAR Reaches 1 through 6 and tributaries | Low |
| | Trash | LAR Reaches 1 through 6 and tributaries | High |
| **Category 2** | 2,3,7,8-TCDD (Dioxin) | LAR Reach 3 (Below LAG) and Burbank Western Channel | Medium |
| | Bis(2-ethylhexyl)Phthalate | LAR Reach 1, Rio Hondo Reach 2, Arroyo Seco, Verdugo Wash, Burbank Western Channel, Bull Creek and Aliso Canyon Wash | Low |
| | Diazinon | LAR Reach 1 [1] | Medium |
| | Chlorodibromomethane | Burbank Western Channel | Low |
| | Mercury Total | LAR Reaches 1 through 4 and 6 | Medium |
| | Selenium Total | LAR Reaches 5 and 6, Caballero Creek, Aliso Canyon Wash and Burbank Western Channel[1] | Low |
| | Thallium Total | LAR Reach 6 | Low |
| | Benthic-Macroinvertebrates | Compton Creek and Arroyo Seco Reach 1 | Medium |
| | Chlorine (Total) | Burbank Western Channel | Low |
| | Cyanide | LAR Reach 1, Rio Hondo River Reach 2 and Burbank Western Channel [1] | Medium |
| | pH | LAR Reaches 1 and 2 | Medium |

| Category | Pollutant | Water Body | MS4 Linkage |
|---|---|---|---|
| | Sulfate, TDS | LAR Reaches 5 and 6 | Low |
| | Chloride | LAR Reaches 5 and 6, Tujunga Wash | Low |
| | Oil[1] | LAR Reaches 2 and 5 | Low |
| **Category 3** | 2,3,7,8-TCDD (Dioxin) | LAR Reaches 3 and 6 | High |
| | 4,4'-DDD | LAR Reach 5 | High |
| | Chlorpyrifos | Compton Creek | High |
| | Heptachlor | LAR Reaches 3 and 5 | High |
| | Benzo(b)Fluoranthene | Burbank Western Channel | High |
| | beta-BHC | Burbank Western Channel | High |
| | Dibenzo(a,h)Anthracene | Burbank Western Channel | High |
| | Diazinon | LAR Reaches 4 and 5 | Medium |
| | Dichlorobromomethane | LA River Reach 3 (below LA Glendale WRP) | Low |
| | Copper | Rio Hondo Reach 2 (Dissolved and Total) and Caballero Creek (Total) | High |
| | Lead Total | Rio Hondo Reach 2 and Caballero Creek | High |
| | Nickel Total | LAR Reaches 3 and 5, and Caballero Creek | High |
| | Selenium Total | LAR Reaches 3 and 4 | Low |
| | Thallium Total | LAR Reaches 1 through 4, and Burbank Western Channel | Low |
| | Zinc Total | LAR Reach 1 | High |
| | Chlorine (Total) | LAR Reaches 3 through 6, and Burbank Western Channel | Low |
| | Chloride | Compton Creek and Burbank Western Channel | Low |
| | Sulfate | LAR Reaches 3 and 4, and Aliso Canyon Wash | Low |
| | TDS | LAR Reach 4, Burbank Western Channel, Tujunga Wash and Aliso Canyon Wash | Low |

1 – Could be delisted

# Prioritization (Step 4)

The Permit outlines a prioritization process that defines how pollutants in the various categories will be considered in scheduling. The factors to consider in the scheduling include the following based on the compliance approaches outlined in the Permit:

- Regional Board-adopted TMDLs with past due interim and/or final limits and those with interim and/or final limits within the Permit term (schedule according to TMDL schedule)

- Regional Board-adopted TMDLs with interim and/or final limits outside the Permit term (schedule according to TMDL schedule)
- Other receiving water exceedances.

USEPA TMDLs, 303(d) listings without a TMDL adopted, and other exceedances of RWLs do not contain milestones or an implementation schedule. As such, these Water Quality Priorities do not have a defined schedule for implementation. To address this issue for USEPA TMDLs, Part VI.E.3.c of the Permit (page 145) allows MS4 Permittees to propose a schedule in the EWMP. To address this issue for exceedances of RWLs associated with WBPCs not addressed through a TMDL (i.e., 303(d) listings and other exceedances of RWLs), Part VI.C.2.a of the Permit (page 49) specifies how interim numeric milestones and compliance schedules must be set for each WBPC based on its placement in one of the following groups that were developed as part of the EWMP:

- **Group 1**: Pollutants that are in the same class[1] as those addressed in a TMDL in the watershed and for which the water body is identified as impaired on the 303(d) List as of December 28, 2012;
- **Group 2**: Pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the 303(d) List as of December 28, 2012;
- **Group 3**: Pollutants for which there are exceedances of RWLs, but for which the water body is not identified as impaired on the 303(d) List as of December 28, 2012; or
- **USEPA TMDL**: Pollutants addressed by USEPA TMDL without an implementation plan/schedule.

As such, the process for setting numeric milestones and compliance schedules for the remaining water quality priorities is dependent upon whether or not the water body is identified as impaired on the 303(d) list as of December 28, 2012 and if the pollutants are considered to be in the same class as those pollutants addressed in a TMDL for the watershed. Based on the MS4 Permit Group 1 definition of class, two findings must be made to determine whether or not a pollutant is in the same class as a TMDL pollutant:

- The pollutant must have similar fate and transport mechanisms (e.g., sediment particle associated), and thus, can be addressed via the same types of control measures. These pollutants are in the same "BMP class" as other TMDL pollutants.
- The pollutant is in the same "scheduling class", that is, it can be addressed within the same timeline already established in an existing TMDL. To be considered in the same scheduling class, the water quality priority must be present in a water body already being addressed by the TMDL

[1] As defined in Part VI.C.2.a.i of the Permit (page 49), "Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the Watershed Management Program for the TMDL." Due to the need to define the control measures and timelines for addressing the various pollutants per the permit requirements, "classes" are preliminary in nature and may be refined as part of EWMP development.

or upstream of a water body already being addressed by the TMDL and can be addressed on the same time frame as the TMDL pollutant.

To define whether or not a pollutant can be addressed within the same time frame as a TMDL pollutant, it is necessary to consider whether the reductions that will be achieved by the control measures implemented for the TMDL pollutant are expected to be sufficient to achieve the needed reductions for the other pollutants. The "limiting pollutant" analysis of the RAA (**Section 5**) was used to evaluate whether control measures implemented for the Regional Board adopted TMDLs will be sufficient to meet the RWLs for WBPCs that have both the same BMP and scheduling class as the pollutants addressed by each respective Regional Board adopted TMDL. If the limiting pollutant is a TMDL pollutant, then other pollutants in the same class would be expected to be achieved by the final compliance date of the TMDL for the limiting pollutant. If the limiting pollutant is *not* a TMDL pollutant, then the limiting pollutant, and all other pollutants that are more limiting than the TMDL pollutant, do not have the ability to be considered on the same timeframe as those addressed in a TMDL.

In order to be in the same class as a TMDL pollutant, the WBPC must be in both the same "BMP class" and the same "scheduling class" as the TMDL pollutant. An evaluation of whether or not the WBPCs are in the same class as pollutants addressed in an existing TMDL is presented in **Table 9**. All WBPCs classified as Category 1C, 2, and 3 are captured in **Table 9**; except for WBPCs for which the MS4 has been determined to not be a source that may be causing or contributing to observed exceedances or WBPCs are reflective of a condition of pollution (not necessarily a result of MS4 discharge). Additionally, given that Part VI.E.3.c of the Permit (page 145) specifies how interim numeric milestones and compliance schedules must be set for USEPA TMDL WBPCs, USEPA TMDL WBPCs are separately classified.

**Table 9. Initial Classification for 303(d) Listings and Other Exceedances of RWLs Applicable to the Group (RB = Regional Board)**

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Cyanide | LAR Reach 1 | 2A | LAR Metals TMDL | Yes | Yes | Group 1 |
| | Rio Hondo Reach 2 | 2A | LAR Metals TMDL | Yes | Yes | Group 1 |
| | Burbank Western Channel | 2C | LAR Metals TMDL | Yes | Yes | Group 1 |
| Zinc [2] | LAR Reach 1 | 3A | LAR Metals TMDL | Yes | Yes | Group 1 |
| Diazinon | LAR Reach 1 | 2C | Harbors Toxics TMDL | Yes | Yes | Group 1 |
| Oil | LAR Reach 2 | 2C | None | **No** | **No** | Group 2 |
| | LAR Reach 5 | 2C | None | **No** | **No** | Group 2 |
| 2,3,7,8-TCDD (Dioxin) | LAR Reach 3 | 2A (Dry)/ 3A (Wet) | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 6 | 3C | | | | |
| | Burbank Western Channel | 2A | | | | |
| Bis(2-ethylhexyl)Phthalate | LAR Reach 1 | 2A (Dry)/ 3A (Wet) | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 3 | 3C | | | | |
| | LAR Reach 5 | 3C | | | | |
| | Rio Hondo Reach 2 | 2C | | | | |
| | Arroyo Seco | 3C (Dry)/ 2C (Wet) | | | | |
| | Verdugo Wash | 2C | | | | |
| | Burbank Western Channel | 2A (Dry)/ 2C (Wet) | | | | |
| | Bull Creek | 2C | | | | |
| | Aliso Canyon Wash | 2C | | | | |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Diazinon | LAR Reach 4 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 5 | 2A | | | | |
| | Rio Hondo Reach 2 | 3C | | | | |
| | Rio Hondo Reach 3 | 3A | | | | |
| | Aliso Canyon Wash | 3C | | | | |
| Chloride | LAR Reach 5 | 2A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 6 | 2A | | | | |
| | Compton Creek | 3A | | | | |
| | Rio Hondo Reach 3 | 3C | | | | |
| | Burbank Western Channel | 3A | | | | |
| | Tujunga Wash | 2A | | | | |
| Sulfate | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 4 | 3A | | | | |
| | LAR Reach 5 | 2A | | | | |
| | LAR Reach 6 | 2A | | | | |
| | Aliso Canyon Wash | 3A | | | | |
| TDS | LAR Reach 4 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 5 | 2A | | | | |
| | LAR Reach 6 | 2C | | | | |
| | Burbank Western Channel | 3A | | | | |
| | Tujunga Wash | 3A | | | | |
| | Aliso Canyon Wash | 3A | | | | |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Mercury Total | LAR Reach 1 | 2C (Dry)/ 3C (Wet) | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 2 | 2C | | | | |
| | LAR Reach 3 | 2C (Dry)/ 3C (Wet) | | | | |
| | LAR Reach 4 | 2C | | | | |
| | LAR Reach 5 | 3C | | | | |
| | LAR Reach 6 | 2C (Dry)/ 3C (Wet) | | | | |
| | Compton Creek | 3C | | | | |
| | Rio Hondo Reach 3 | 3C | | | | |
| | Arroyo Seco | 3C | | | | |
| | Verdugo Wash | 3C | | | | |
| | Burbank Western Channel | 3A (Dry)/ 3C (Wet) | | | | |
| | Tujunga Wash | 3C | | | | |
| | Caballero Creek | 3C | | | | |
| Thallium Total | LAR Reach 1 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 2 | 3C | | | | |
| | LAR Reach 3 | 3C | | | | |
| | LAR Reach 4 | 3C | | | | |
| | LAR Reach 6 | 2C | | | | |
| | Burbank Western Channel | 3C | | | | |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Dibenzo(a,h)Anthracene | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 5 | 3A | | | | |
| | Rio Hondo Reach 3 | 3A | | | | |
| Indeno(1,2,3-cd)Pyrene | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 5 | 3A | | | | |
| | Rio Hondo Reach 3 | 3A | | | | |
| 4,4-DDD | LAR Reach 5 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| 4,4-DDE | LAR Reach 5 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| Nickel Total | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 5 | 3A | | | | |
| | Caballero Creek | 3C | | | | |
| Zinc[2] | LAR Reach 3 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 4 | 3C | | | | |
| | Verdugo Wash | 3C | | | | |
| | Burbank Western Channel | 3C | | | | |
| | Tujunga Wash | 3A | | | | |
| | Caballero Creek | 3C | | | | |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Cyanide | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 4 | 3A | | | | |
| | LAR Reach 5 | 3A | | | | |
| | LAR Reach 6 | 3C | | | | |
| | Bull Creek | 3C | | | | |
| | Aliso Canyon Wash | 3C | | | | |
| Benzo(a)Anthracene | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| Chrysene | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 4 | 3C | | | | |
| | LAR Reach 6 | 3C | | | | |
| | Rio Hondo Reach 3 | 3A | | | | |
| Heptachlor | LAR Reach 5 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | Burbank Western Channel | 3C | | | | |
| Chlorine (Total) | LAR Reach 3 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | LAR Reach 4 | 3C | | | | |
| | LAR Reach 5 | 3C | | | | |
| | LAR Reach 6 | 3C | | | | |
| | Burbank Western Channel | 3A (Dry)/ 2C (Wet) | | | | |
| Copper[3] | Rio Hondo Reach 2 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | Rio Hondo Reach 3 | 2A | | | | |
| | Caballero Creek | 3C | | | | |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Benzo(a)Pyrene | Rio Hondo Reach 3 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | Burbank Western Channel | 3A | | | | |
| Benzo(b)Fluoranthene | Burbank Western Channel | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| Benzo(k)Fluoranthene | Rio Hondo Reach 3 | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| Chlorpyrifos | Compton Creek | 3A | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| beta-BHC | Burbank Western Channel | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| Cadmium | Burbank Western Channel | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | Tujunga Wash | 3C | | | | |
| | Caballero Creek | 3C | | | | |
| Lead[4] | Rio Hondo Reach 2 | 3C | Exceedances of RWLs have been observed, but the water body is not identified as impaired on the 303(d) List as of December 28, 2012 | | | Group 3 |
| | Caballero Creek | 3C | | | | |
| Total Phosphorus | Legg Lake | 1C | Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan | | | USEPA TMDL |
| | Lake Calabasas | 1C | | | | |
| | Echo Park Lake | 1C | | | | |
| Total Nitrogen | Legg Lake | 1C | Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan | | | USEPA TMDL |
| | Lake Calabasas | 1C | | | | |
| | Echo Park Lake | 1C | | | | |
| Trash | Echo Park Lake | 1C | Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan | | | USEPA TMDL |
| PCBs (water and sediment) | Echo Park Lake | 1C | Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan | | | USEPA TMDL |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Chlordane (water and sediment) | Echo Park Lake | 1C | Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan | | | USEPA TMDL |
| Dieldrin (water and sediment) | Echo Park Lake | 1C | Addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan | | | USEPA TMDL |
| Dichlorobromomethane | LAR Reach 3 | 3C | MS4 determined to not be a source that may be causing or contributing to observed exceedances (water reclamation plant effluent is identified source) | | | |
| Chlorodibromomethane | Burbank Western Channel | 2A | | | | |
| Selenium | LAR Reach 1 | 3A | MS4 determined to not be a source that may be causing or contributing to observed exceedances. As noted in the LAR Metals TMDL, originates from natural sources | | | |
| | LAR Reach 3 | 3C | | | | |
| | LAR Reach 4 | 3C | | | | |
| | LAR Reach 5 | 2A | | | | |
| | LAR Reach 6 | 2A | | | | |
| | Burbank Western Channel | 2C | | | | |
| | Caballero Creek | 2C | | | | |
| | Aliso Canyon Wash | 2C | | | | |
| pH | LAR Reach 1 | 2B (Dry/ 3B (Wet) | Reflective of a condition of pollution, not necessarily a result of MS4 discharge | | | |
| | LAR Reach 2 | 2B (Dry/ 3B (Wet) | | | | |
| | LAR Reach 3 | 3B | | | | |
| | LAR Reach 5 | 3B | | | | |
| | Rio Hondo Reach 2 | 3B | | | | |
| | Rio Hondo Reach 3 | 2B | | | | |
| | Burbank Western Channel | 3B | | | | |

| Constituent | Water Body | Category | Relevant RB TMDL | RB TMDL in Watershed with Same BMP Class[1]? | RB TMDL in Watershed with Same Scheduling Class? | Classification |
|---|---|---|---|---|---|---|
| Dissolved Oxygen | LAR Reach 1 | 3B | Reflective of a condition of pollution, not necessarily a result of MS4 discharge | | | |
| | LAR Reach 3 | 3B | | | | |
| | LAR Reach 5 | 3B | | | | |
| | LAR Reach 6 | 3B | | | | |
| | Rio Hondo Reach 3 | 2B | | | | |
| Benthic-Macroinvertebrates | Compton Creek | 2B | Reflective of a condition of pollution, not necessarily a result of MS4 discharge | | | |
| | Arroyo Seco | 2B | | | | |

1 – Based on fate and transport mechanisms during wet weather.
2 – The LAR Metals TMDL states that "Dry-weather impairments related to zinc only occur in Rio Hondo Reach 1". As a result, dry weather impairments related to zinc in other water bodies are not addressed by the Regional Board adopted TMDL.
3 – The LAR Metals TMDL does not address dry weather impairments related to copper or lead in Rio Hondo Reach 2, Rio Hondo Reach 3, or Caballero Creek.

# Approach to Identifying Milestones and Schedules

Based on the information presented in the previous section, the following approach to identifying milestones and schedules for USEPA TMDLs, 303(d) listings without a TMDL, and RWL exceedances was utilized.

1. For USEPA TMDLs, the milestones and schedules are consistent with Regional Board adopted TMDLs for similar pollutants within and outside of the ULAR watershed.

2. For Group 1 pollutants, the milestones and schedules are consistent with the TMDL milestones and schedules for the Regional Board adopted TMDL which shares the same class as the Group 1 pollutant.

3. For Group 2 pollutants, the schedule contains annual specific actions or milestones. Milestones are consistent with the TMDL milestones and schedules for the relevant TMDL.Specific actions are based on information generated from the RAA analysis, as presented in Section 7.

4. For Group 3 pollutants, the schedule contains specific actions and/or milestones. Milestones are consistent with the TMDL milestones and schedules for the relevant TMDL.Specific actions are based on the information generated from the RAA analysis and assessment of monitoring data, as presented in Section 7.

In many instances, the water quality priority analysis may indicate that either (1) a WBPC on the 2010 303(d) List meets the delisting requirements, (2) MS4 discharges are not considered to be a source, or (3) the WBPC is a condition rather than a "pollutant" with the potential to be discharged from the MS4. As a result, the aforementioned approach may not be applied to all WBPCs. Additionally, development of milestones is more complex and requires consideration of the Permit compliance mechanisms. This section describes a general approach to setting milestones for all groups and provides details specific to the milestones and scheduling for each group.

## General Approach to Setting Milestones

The Permit provides four options for complying with TMDL requirements and RWLs:

1. Monitoring data demonstrating water quality objectives are being met in the receiving waters at the compliance monitoring locations outlined in the CIMP.

2. Monitoring data demonstrates water quality objectives are being met at the outfall monitoring locations specified in the CIMP.

3. Monitoring and screening data demonstrates that no discharges are occurring from MS4 outfalls.

4. For interim TMDL requirements and RWL exceedances, implementing an approved EWMP.

Based on these compliance mechanisms, four different types of milestones were considered as appropriate for the WBPCs. To avoid a situation where other sources could impact the ability of the MS4 to demonstrate compliance (such as in the receiving water) or where water quality outcomes progress either faster or slower than projected by the modeling, demonstration of any of the four different types of milestones will result in compliance. Examples of types of milestones that were considered are shown in **Table 10**.

**Table 10. Examples of Milestone Types Considered**

| Compliance Path | Interim Milestone Options | Final Milestone Options |
|---|---|---|
| RWL | % reduction in concentrations | Meeting water quality objectives |
| | % reduction in loads | Demonstration that MS4s not causing or contributing to exceedance |
| WQBEL | % reduction in concentrations or loads | Meeting required percent reductions from outfalls |
| | Increased number of outfalls meeting WQBELs | Meeting WQBELs at all monitored outfalls |
| No discharge | Specified reduction in number of outfalls with discharge | No discharge from screened outfalls |
| | Reduced amount of flow from outfalls with discharge | |
| EWMP (BMP-based) | % MS4 area treated | Implementation of EWMP program |
| | Implementation of specified # of BMPs by certain date | |

## Detailed Approach to Setting Milestones

Details on the approach and justification for developing milestones and schedules for USEPA TMDL pollutants and Group 1, 2 and 3 pollutants is provided in the following subsections.

### USEPA TMDLs

The USEPA Lakes TMDLs established WLAs for total phosphorus and total nitrogen within Legg Lake, Lake Calabasas, and Echo Park Lake. However, the existing loading rates used to establish the WLAs for total phosphorus and total nitrogen were not established using data collected near inflows to the lake, but instead estimated. As such, if the assumptions used to establish existing loading rates underestimated the existing loading rates, a reduction in loading would be required. To determine the accuracy of the existing loading rates, the results of monitoring conducted will be evaluated three and a half years after TMDL adoption (September 2015). After the evaluation of the monitoring results, revised existing loading rates will be established.

The Regional Board adopted TMDL most similar to the USEPA Lakes TMDLs established to address nutrient-related impairments in Legg Lake, Lake Calabasas, and Echo Park Lake is the Machado Lake Nutrient TMDL. As a result, the compliance schedule used in the Machado Lake Nutrient TMDL is used as the foundation to establish the compliance schedule for the USEPA Lakes TMDLs established to address nutrient-related impairments in Legg Lake, Lake Calabasas, and Echo Park Lake. Similarly, the Regional Board adopted TMDL most similar to the USEPA Lakes TMDLs established to address organochlorine pesticides and PCB-related impairments in Echo Park Lake is the Machado Lake Toxics TMDL. As a result, the compliance schedule used in the Machado Lake Toxics TMDL will be used as the foundation to establish the compliance schedule for the USEPA Lakes TMDLs established to address organochlorine pesticides and PCB-related impairments in Echo Park Lake. The Machado Lake Nutrient TMDL and Machado Lake Toxics TMDL do not include interim or final WQBELs and/or RWLs with compliance deadlines during the Permit term. As such, interim milestones and dates for their achievement have been established during the Permit including a 31% milestone that was established for the Metals TMDL.

The implementation actions which will be taken to address the WBPCs included in the LAR Trash TMDL will also address the WBPCs that are addressed by USEPA Lakes TMDL established to address trash-related impairment in Echo Park Lake. As a result, the schedule for trash in Echo Park Lake is consistent with the LAR Trash TMDL, which already includes interim requirements and numeric milestones and the date(s) for their achievement.

### Group 1: 303(d) Listed WBPCs in the Same Class as a Regional Board TMDL

For the ULAR WMA, the Group 1 WBPCs that are in the same class as Regional Board adopted TMDLs are summarized in **Table 11**; therefore, the Permit requires that these Group 1 WBPCs be assigned interim and final numeric milestones on a schedule which coincides with the current interim and final milestone dates for the applicable Regional Board adopted TMDL. However, the water quality priority analysis indicated that all Group 1 WBPCs not already being addressed by a TMDL are either (1) a WBPC on the 2010 303(d) List that meets the delisting requirements and/or (2) a WBPC for which MS4 discharges are not considered to be a source; therefore, a schedule was not created.

**Table 11. 303(d) Listed WBPCs in the Same Class as Those Addressed in a TMDL**

| Constituent | Water Body | RB TMDL in Same Class | Notes |
|---|---|---|---|
| Cyanide | LAR Reach 1 | LAR Metals TMDL | MS4 determined to not be a source that may be causing or contributing to observed exceedances (known to have potential laboratory analysis quality assurance/quality control issues). |
| | Rio Hondo Reach 2 | LAR Metals TMDL | MS4 determined to not be a source that may be causing or contributing to observed exceedances (known to have potential laboratory analysis quality assurance/quality control issues). |
| | Burbank Western Channel | LAR Metals TMDL | MS4 determined to not be a source that may be causing or contributing to observed exceedances (known to have potential laboratory analysis quality assurance/quality control issues). Meets criteria to delist. |
| Zinc | LAR Reach 1 | LAR Metals TMDL | Meets criteria to delist for dry weather impairment and wet weather impairment is being addressed by the LAR Metals TMDL |
| Diazinon | LAR Reach 1 | Harbors Toxics TMDL | Meets criteria to delist |

### Group 2: 303(d) Listed WBPCs Not in the Same Class as a Regional Board TMDL

The only WBPCs identified in the initial classification in Group 2 are the oil listings in Los Angeles River Reach 2 and Los Angeles River Reach 5. For these WBPCs, the water quality priority analysis indicated that these WBPCs could be delisted and rarely exceed in the receiving water. However, because MS4 discharges may have caused or contributed to the exceedances, a schedule has been established to support continual attainment of the RWLs. The interim and final schedule milestones are based on the dry and wet weather schedule for the LA River Metals TMDL.

### Group 3: Other Receiving Water Limitation Exceedances

The majority of the WBPCs in the ULAR WMA fall into Group 3. For the WBPCs that are in the same class as a Regional Board adopted TMDL, the limiting pollutant analysis indicates that all WBPCs will be addressed through control measures to implement the Regional Board adopted TMDLs. As a result, the

schedule developed for these constituents is consistent with the Regional Board adopted TMDLs and the scheduling for the RAA (Section 6) and EWMP Implementation Strategy (Section 7)are consistent.

Category 2 WBPCs that meet the requirements to be removed from the 303(d) List and Category 3 WBPCs are the lowest priority given their relatively low exceedance frequency. However, for these WBPCs, where MS4 discharges may have caused or contributed to the exceedances, a schedule has been established to support continual attainment of the RWLs. The interim and final schedule milestones are based on the dry and wet weather schedule for the LA River Metals TMDL. The final dry and wet weather milestones are January 11, 2024 and January 11, 2028, respectively.

For Category 2 and 3 WBPCs where either MS4 discharges are not considered to be a source or the WBPC is a condition rather than a "pollutant" with the potential to be discharged from the MS4, a schedule was not created.

## Numeric Milestones and Compliance Schedule

Part VI.C.5.c of the Permit discusses the compliance schedule requirements associated with the EWMP. The compliance schedule for the ULAR EWMP was developed based on TMDL milestones (i.e., interim and final numeric limits) and other representative Regional Board adopted TMDLs where appropriate. Interim and final compliance dates in the LARWQCB adopted TMDLs are the primary drivers for the ULAR RAA and EWMP implementation schedule. **Table 12** presents the compliance schedule for USEPA TMDLs, 303(d) listings, and other RWL exceedances which fall under Category 1 and Category 2. For simplicity, only the year of each milestone is shown; however, the exact date remains consistent with the milestone dates included in the relevant LARWQCB adopted TMDL. **Table 13** presents the dry weather compliance milestones applicable to WBPCs in the EWMP which use the LAR Bacteria TMDL as the foundation for establishing the compliance schedule.

**Table 14** presents the compliance schedule for the Category 2 WBPCs that meet the requirements to be removed from the 303(d) List and Category 3 WBPCs. **Table 15** presents the list of the remaining Category 2 and 3 WBPCs where either MS4 discharges are not considered to be a source or the WBPC is a condition rather than a "pollutant" with the potential to be discharged from the MS4. Available data will be assessed and, if the MS4 discharges are identified as causing or contributing to exceedances for WBPCs identified in **Table 15**, the EWMP will be revised consistent with Part VI.c.2.a.iii (page 51) of the Permit.

**Table 12. Compliance Schedule for Category 1 and 2 Water Quality Priorities that are not Included in a Regional Board Adopted TMDL**

| Constituent | WQP Category and Water Body | Compliance Schedule Source | Weather Condition | Compliance Dates and Compliance Milestones (Bolded numbers indicated milestone deadlines within the current Permit term)[1] [2] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2013 | 2014 | 2015 | 2016 | 2019 | 2020 | 2024 | 2028 | 2032 | 2037 |
| 2,3,7,8-TCDD (Dioxin) | C2: Reach 3<br>C2: Burbank Western Channel | LAR Bacteria TMDL | Dry | See Table 13 for Interim and Final Compliance Milestones | | | | | | | | | |
| | | | Wet | | | | | | | | | | Final |
| Mercury Total | C2: LAR Reach 1<br>C2: LAR Reach 2<br>C2: LAR Reach 3<br>C2: LAR Reach 4<br>C2: LAR Reach 6 | LAR Metals TMDL | Dry | | | | | | 75% | 100% | | | |
| | | | Wet | | | | | | | 50% | 100% | | |
| Copper | C2: RH Reach 3 | LAR Metals TMDL | Dry | | | | | | 75% | 100% | | | |
| | | | Wet | | | | | | | 50% | 100% | | |
| Thallium Total | C2: LAR Reach 6 | LAR Metals TMDL | Dry | | | | | | 75% | 100% | | | |
| Diazinon | C2: Reach 5 | Harbors Toxics | All | | | | | | | | | Final | |
| Total Phosphorus | C1 (USEPA): Legg Lake<br>C1 (USEPA): Lake Calabasas<br>C1 (USEPA): Echo Park Lake | Machado Lake Nutrient TMDL | All | | | **Base-line** | **Interim** | | 50% | 100% | | | |
| Total Nitrogen | C1 (USEPA): Legg Lake<br>C1 (USEPA): Lake Calabasas<br>C1 (USEPA): Echo Park Lake | Machado Lake Nutrient TMDL | All | | | **Base-line** | **Interim** | | 50% | 100% | | | |
| Trash | C1 (USEPA): Echo Park Lake | LAR Trash TMDL | All | **80%** | **90%** | **96.7%** | **100%** | | | | | | |
| PCBs (water and sediment) | C1 (USEPA): Echo Park Lake | Machado Lake Toxics TMDL | All | | | | **Interim** | Final | | | | | |
| Chlordane (water and sediment) | C1 (USEPA): Echo Park Lake | Machado Lake Toxics TMDL | All | | | | **Interim** | Final | | | | | |
| Dieldrin (water and sediment) | C1 (USEPA): Echo Park Lake | Machado Lake Toxics TMDL | All | | | | **Interim** | Final | | | | | |

[1]The Permit term is assumed to be five years from the Permit effective date or December 27, 2017.

[2] Attainment of the percentages may be demonstrated either as a reduction in exceedance frequency at time of EWMP approval or percent area meeting the RWL or in the case of the USEPA adopted TMDLs reduction from the baseline at the time of TMDL promulgation or percent area meeting the WQBEL or RWL.

**Table 13. Dry Weather Compliance Milestones for 2,3,7,8-TCDD (Dioxin) with and without the use of a LA River Bacteria Load Reduction Strategy (LRS) based Approach to Dry Weather**

| Waterbodies | | Compliance Dates and Compliance Milestones | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022 | 2023 | 2024 | 2025 | 2028 | 2029 | 2030 | 2031 | 2032 | 2035 | 2036 | 2037 |
| LAR Reach 3 and Burbank Western Channel | w/o LRS | | | | | | | 3/23 | | | | | |
| | | | | | | | | Final | | | | | |
| | w LRS | | | | | | | 3/23 | | | | | 3/23 |
| | | | | | | | | Interim | | | | | Final |

**Table 14. Compliance Schedule based on the LA River Metals TMDL for Category 2 and 3 Water Quality Priorities that Do Not Meet the 303(d) Listing Requirements[1]**

| Constituent | WQP Category and Water Body | Weather Condition | Dry Weather Schedule[2] | | Wet Weather Schedule[2] | | Notes |
|---|---|---|---|---|---|---|---|
| | | | Interim | Final | Interim | Final | |
| | | | 2020 | 2024 | 2024 | 2028 | |
| 2,3,7,8-TCDD (Dioxin) | C3: LAR Reach 6 | Dry | 75% | 100% | | | Only 1 of 4 exceedances in last 10 years in LAR Reach 6 |
| Mercury Total | C3 (Dry): LAR Reach 5<br>C3 (Dry/Wet): CC<br>C3 (Dry): RH Reach 3<br>C3 (Wet): AS<br>C3 (Wet): VW<br>C3 (Dry/Wet): BWC<br>C3 (Dry): TW<br>C3 (Dry): Caballero Creek | Dry/Wet | 75% | 100% | 50% | 100% | Only 6 of 156 exceedances in last 10 years in LAR Reach 5, 1 of 16 exceedances in last 10 years in CC during dry weather, 1 of 2 exceedances in last 10 years in CC during wet weather, 2 of 74 exceedances in last 10 years in RH Reach 3, 1 of 6 exceedances in last 10 years in AS, 1 of 6 exceedances in last 10 years in VW, 17 of 244 exceedances in last 10 years in BWC during dry weather, 1 of 7 exceedances in last 10 years in BWC during wet weather, 1 of 15 exceedances in last 10 years in TW, and 1 of 12 exceedances in last 10 years in Caballero Creek |
| Thallium Total | C3: LAR Reach 1<br>C3: LAR Reach 2<br>C3: LAR Reach 3<br>C3: LAR Reach 4<br>C3: BWC | Dry | 75% | 100% | | | Only 3 of 91 exceedances in last 10 years in LAR Reach 1, 2 of 112 exceedances in last 10 years in LAR Reach 2, 4 of 177 exceedances in last 10 years in LAR Reach 3, 2 of 128 exceedances in last 10 years in LAR Reach 4, and 1 of 61 exceedances in last 10 years in BWC |
| Dibenzo(a,h)Anthracene | C3: LAR Reach 3<br>C3: LAR Reach 5<br>C3: RH Reach 3 | Dry | 75% | 100% | | | Only 8 of 122 exceedances in last 10 years in LAR Reach 3, 1 of 75 exceedances in last 10 years in LAR Reach 5, and 2 of 43 exceedances in last 10 years in RH Reach 3 |

| Constituent | WQP Category and Water Body | Weather Condition | Dry Weather Schedule[2] | | Wet Weather Schedule[2] | | Notes |
|---|---|---|---|---|---|---|---|
| | | | Interim | Final | Interim | Final | |
| | | | 2020 | 2024 | 2024 | 2028 | |
| Indeno(1,2,3-cd)Pyrene | C3: LAR Reach 3<br>C3: LAR Reach 5<br>C3: RH Reach 3 | Dry | 75% | 100% | | | Only 3 of 56 exceedances in last 10 years in LAR Reach 3, 1 of 75 exceedances in last 10 years in LAR Reach 5, and 1 of 36 exceedances in last 10 years in RH Reach 3 |
| 4,4-DDD | C3: LAR Reach 5 | Dry | 75% | 100% | | | Only 2 of 72 exceedances in last 10 years in LAR Reach 5 |
| 4,4-DDE | C3: LAR Reach 5 | Dry | 75% | 100% | | | Only 4 of 72 exceedances in last 10 years in LAR Reach 5 |
| Nickel Total | C3: LAR Reach 3<br>C3: LAR Reach 5<br>C3: Caballero Creek | Dry | 75% | 100% | | | Only 2 of 140 exceedances in last 10 years in LAR Reach 3, 1 of 72 exceedances in last 10 years in LAR Reach 5, and 1 of 41 exceedances in last 10 years in Caballero Creek |
| Benzo(a)Anthracene | C3: LAR Reach 3 | Dry | 75% | 100% | | | Only 1 of 75 exceedances in last 10 years in LAR Reach 3 |
| Chrysene | C3: LAR Reach 3<br>C3: LAR Reach 4<br>C3: LAR Reach 6<br>C3: RH Reach 3 | Dry | 75% | 100% | | | Only 1 of 75 exceedances in last 10 years in LAR Reach 3, 1 of 38 exceedances in last 10 years in LAR Reach 4, 1 of 15 exceedances in last 10 years in LAR Reach 6, and 1 of 43 exceedances in last 10 years in RH Reach 3 |
| Heptachlor | C3: LAR Reach 5<br>C3: BWC | Dry | 75% | 100% | | | Only 2 of 72 exceedances in last 10 years in LAR Reach 5 and 1 of 131 exceedances in last 10 years in BWC |
| Copper[3] | C3: RH Reach 2<br>C3: Caballero Creek | Dry | 75% | 100% | | | Only 1 of 2 exceedances in last 10 years in RH Reach 2 and 4 of 41 exceedances in last 10 years in Caballero Creek |
| Benzo(a)Pyrene | C3: RH Reach 3<br>C3: BWC | Dry | 75% | 100% | | | Only 1 of 43 exceedances in last 10 years in RH Reach 3 and 2 of 137 exceedances in last 10 years in BWC |
| Benzo(b)Fluoranthene | C3: BWC | Dry | 75% | 100% | | | Only 5 of 135 exceedances in last 10 years in BWC |
| Benzo(k)Fluoranthene | C3: RH Reach 3 | Dry | 75% | 100% | | | Only 1 of 43 exceedances in last 10 years in RH Reach 3 |
| Chlorpyrifos | C3: CC | Dry | 75% | 100% | | | Only 1 of 4 exceedances in last 10 years in CC |
| beta-BHC | C3: BWC | Dry | 75% | 100% | | | Only 1 of 131 exceedances in last 10 years in BWC |
| Cadmium | C3: BWC<br>C3: TW<br>C3: Caballero Creek | Dry | 75% | 100% | | | Only 1 of 298 exceedances in last 10 years in BWC, 1 of 38 exceedances in last 10 years in TW, and 2 of 41 exceedances in last 10 years in Caballero Creek |
| Lead[3] | C3: RH Reach 2<br>C3: Caballero Creek | Dry | 75% | 100% | | | Only 1 of 2 exceedances in last 10 years in RH Reach 2 and 2 of 41 exceedances in last 10 years in Caballero Creek |

| Constituent | WQP Category and Water Body | Weather Condition | Dry Weather Schedule[2] | | Wet Weather Schedule[2] | | Notes |
|---|---|---|---|---|---|---|---|
| | | | Interim | Final | Interim | Final | |
| | | | 2020 | 2024 | 2024 | 2028 | |
| Zinc[4] | C3: LAR Reach 1 | Dry | 75% | 100% | | | Meets criteria to delist for dry weather impairment[2] and wet weather impairment is being addressed by the LAR Metals TMDL |
| | C3: LAR Reach 3<br>C3: LAR Reach 4<br>C3: VW<br>C3: BWC<br>C3:TW<br>C3: Caballero Creek | Dry | 75% | 100% | | | Only 7 of 415 exceedances in last 10 years in LAR Reach 3, 1 of 284 exceedances in last 10 years in LAR Reach 4, 1 of 41 exceedances in last 10 years in VW, 2 of 321 exceedances in last 10 years in BWC, 4 of 70 exceedances in last 10 years in TW, and 2 of 41 exceedances in last 10 years in Caballero Creek |
| Diazinon | C2: LAR Reach 1 | Wet | | | 50% | 100% | Meets criteria to delist |
| | C3 (Dry): LAR Reach 4<br>C3 (Wet): RH Reach 2<br>C3 (Dry): RH Reach 3<br>C3 (Wet): ACW | Dry/Wet | 75% | 100% | 50% | 100% | Only 1 of 7 exceedances in last 10 years in LAR Reach 4, 1 of 4 exceedances in last 10 years in RH Reach 2, 3 of 60 exceedances in last 10 years in RH Reach 3, and 1 of 4 exceedances in last 10 years in ACW |

1 – CC (Compton Creek), RH (Rio Hondo), AS (Arroyo Seco), VW (Verdugo Wash), BWC (Burbank Western Channel), TW(Tujunga Wash), ACW (Aliso Canyon Wash), MC (McCoy Canyon Creek), DC (Dry Canyon Creek), BeC (Bell Creek), and BuC (Bull Creek)

2 – Attainment of the percentages may be demonstrated either as a reduction in exceedance frequency at time of EWMP approval or percent area meeting the RWL.

3 – The LAR Metals TMDL does not address dry weather impairments related to copper or lead in Rio Hondo Reach 2, Rio Hondo Reach 3, or Caballero Creek.

4 – The LAR Metals TMDL states that "Dry-weather impairments related to zinc only occur in Rio Hondo Reach 1". As a result, dry weather impairments related to zinc in other water bodies are not addressed by the Regional Board adopted TMDL and are, therefore, addressed by this EWMP.

**Table 15. Water Quality Priorities where either MS4 discharges are not Considered to be a Source or the Water Body Pollutant Combination is a Condition Rather than a "pollutant" with the Potential to be Discharged from the MS4[1]**

| Constituent | WQP Category and Water Body | Weather Condition | Notes |
|---|---|---|---|
| Chloride | C2: LAR Reach 5<br>C2: LAR Reach 6<br>C3: CC<br>C3: RH Reach 3<br>C3: BWC<br>C2: TW | Dry | MS4 determined to not be a source that may be causing or contributing to observed exceedances (determined to be a natural source, per Source Assessment).[2] |
| Cyanide | C2: LAR Reach 1<br>C2: RH Reach 2 | All | MS4 determined to not be a source that may be causing or contributing to observed exceedances (known to have potential laboratory analysis quality assurance/quality control issues).[2] |
| | C2: BWC | Dry | |
| | C3 (Dry): LAR Reach 3<br>C3 (Dry): LAR Reach 4<br>C3 (Dry): LAR Reach 5<br>C3 (Dry): LAR Reach 6<br>C3 (Wet): BuC<br>C3 (Wet): ACW | Dry/Wet | |
| Sulfate | C3: LAR Reach 3<br>C3: LAR Reach 4<br>C2: LAR Reach 5<br>C2: LAR Reach 6<br>C3: ACW | Dry | MS4 determined to not be a source that may be causing or contributing to observed exceedances (determined to be a natural source, per Source Assessment) .[2] |
| TDS | C3: LAR Reach 4<br>C2: LAR Reach 5<br>C2: LAR Reach 6<br>C3: BWC<br>C3: TW<br>C3: ACW | Dry | MS4 determined to not be a source that may be causing or contributing to observed exceedances (determined to be a natural source, per Source Assessment).[2] |

| Constituent | WQP Category and Water Body | Weather Condition | Notes |
|---|---|---|---|
| Bis(2-ethylhexyl)Phthalate | C2: LAR Reach 1<br>C2: RH Reach 2<br>C2: AS<br>C2: VW<br>C2: BWC<br>C2: BuC<br>C2: ACW<br>C3: LAR Reach 3<br>C3: LAR Reach 5 | Dry/Wet | MS4 determined to not be a source that may be causing or contributing to observed exceedances (known to have potential laboratory analysis quality assurance/quality control issues). [2] |
| Oil | C2: LAR Reach 2<br>C2: LAR Reach 5 | Dry/Wet | MS4 determined to not be a source that may be causing or contributing to observed exceedances (determined to be a natural source, as described in Appendix 3.B) [2] |
| Chlorine (Total) | C3: LAR Reach 3<br>C3: LAR Reach 4<br>C3: LAR Reach 5<br>C3: LAR Reach 6<br>C2: BWC | Dry/Wet | MS4 determined to not be a source that may be causing or contributing to observed exceedances (water reclamation plant effluent is identified source).[2] |
| Dichlorobromomethane | C3: LAR Reach 3 | Dry/Wet | MS4 determined to not be a source that may be causing or contributing to observed exceedances (water reclamation plant effluent is identified source). [2] |
| Chlorodibromomethane | C3: BWC | Dry/Wet | MS4 determined to not be a source that may be causing or contributing to observed exceedances (water reclamation plant effluent is identified source). [2] |
| Selenium | C3: LAR Reach 1<br>C3: LAR Reach 3<br>C3: LAR Reach 4<br>C2: LAR Reach 5<br>C2: LAR Reach 6<br>C2: BWC<br>C2: Caballero Creek<br>C2: ACW | Dry/Wet | MS4 determined to not be a source that may be causing or contributing to observed exceedances. As noted in the LAR Metals TMDL, originates from natural sources.[2] |

| Constituent | WQP Category and Water Body | Weather Condition | Notes |
|---|---|---|---|
| pH | C2: LAR Reach 1<br>C2: LAR Reach 2<br>C3: LAR Reach 3<br>C3: LAR Reach 5<br>C2: LAR Reach 6<br>C3: RH Reach 2<br>C2: RH Reach 3<br>C3: BWC | Dry/Wet | Reflective of a condition of pollution, not necessarily a result of MS4 discharge. |
| Dissolved Oxygen | C3: LAR Reach 1<br>C3: LAR Reach 3<br>C3: LAR Reach 5<br>C3: LAR Reach 6<br>C2: RH Reach 3 | Dry/Wet | Reflective of a condition of pollution, not necessarily a result of MS4 discharge. |
| Benthic-Macroinvertebrates | C2: CC<br>C2: AS | Dry | Reflective of a condition of pollution, not necessarily a result of MS4 discharge. |

1 – CC (Compton Creek), RH (Rio Hondo), AS (Arroyo Seco), VW (Verdugo Wash), BWC (Burbank Western Channel), TW(Tujunga Wash), ACW (Aliso Canyon Wash), MC (McCoy Canyon Creek), DC (Dry Canyon Creek), BeC (Bell Creek), and BuC (Bull Creek)
2 – Available data will be assessed to determine if MS4 discharges are causing or contributing to exceedances.

# Appendix 3.B
# Supporting Information for the Receiving Water Data Analysis

Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include an evaluation of existing water quality conditions, including characterization of receiving water quality. The following provides a summary of the information considered and analysis conducted to support the classification of Waterbody Pollutant Combinations (WBPCs) into the three categories identified in the Permit (**Appendix 3.A**). The characterization process consisted of the following steps, which are discussed in subsections below:

1. Identifying the water bodies within the EWMP area and downstream of the area.
2. Compiling WBPCs with applicable TMDLs listed in the Permit.
3. Compiling 303(d) Listings from the 2010 303(d) List, the most recent approved list.
4. Gathering additional relevant data and information (e.g., water quality data).
5. Conducting data analysis to evaluate attainment of water quality objectives (relevant to TMDL requirements, 303(d) impairment listings, and existing water quality data).

## 3.B.1 EWMP Area

**Figure 2** displays the ULARWMA and the participating jurisdictions, which include the County of Los Angeles and the cities of Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Cañada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Fernando, San Gabriel, San Marino, South Pasadena, and Temple City; and the Los Angeles County Flood Control District. The EWMP area covers the portion of the Los Angeles River located within these jurisdictions. The water bodies named in the Basin Plan are summarized in **Table 15** and presented in **Figure 2**. Beneficial uses for the water bodies listed in **Table 15** can be found in Chapter 3 of the California Water Quality Control Plan, Los Angeles Region (Basin Plan).

**Table 15. Significant Waterbodies Associated with the ULARWMA EWMP and Identified in TMDLs**

| Mainstem | Associated Tributaries | Waters Immediately Downstream of EWMP Area |
|---|---|---|
| LA River Reach 6 | Dry Canyon Creek<br>McCoy Creek<br>Bell Creek<br>Aliso Canyon Wash | |
| LA River Reach 5 | Bull Creek | |
| LA River Reach 4 | Pacoima Wash<br>Tujunga Wash | |
| LA River Reach 3 | Burbank Western Channel<br>Verdugo Wash<br>Arroyo Seco | |
| LA River Reach 2 | Rio Hondo Reach 2 and 3 | Rio Hondo Reach 1 |
| | Compton Creek | LA River Reach 1 |
| **Lakes** | | |
| Echo Park Lake | Legg Lake | Lake Calabasas |


**Figure 2. Upper Los Angeles River Watershed Management Area Group**

## 3.B.2 Summary of Existing TMDLs and Deadlines

A summary of the existing TMDLs in the watershed is presented in the following tables:

- **Table 16** presents TMDLs developed for water bodies within the ULARWMA and also TMDLs for downstream waterbodies. **Table 16** includes amendments to nutrients and metals TMDLs in the watershed.
- **Table 17** presents interim and final compliance deadlines for the relevant TMDLs except for the dry weather LA River Bacteria TMDL, which are presented in **Table 18**.
- **Table 19** (mainstem and tributaries) and **Table 20** (lakes) show where the Permit assigns water quality-based effluent limits (WQBELs), receiving water limitations (RWLs), or wasteload allocations (WLAs) to Permittees within the ULARWMA. The numeric WQBELs and RWLs as well as the WLAs for the USEPA TMDLs listed in **Table 19** and **Table 20** can be found in Attachments N and O of the Permit.

**Table 16. TMDLs Applicable to the Upper Los Angeles River Watershed Management Area Group**

| TMDL | LARWQCB Resolution Number | Effective Date and/or EPA Approval Date |
|---|---|---|
| LA River Nitrogen Compounds and Related Effects | 2003-009 | 03/23/2004 |
| | 2012-010 | Not Yet Effective |
| Legg Lake Trash TMDL | 2007-010 | 03/06/2008 |
| LA River Trash | 2007-012 | 09/23/2008 |
| LA River Metals TMDL | 2007-014 | 10/29/2008 |
| | 2010-003 | 11/03/2011 |
| LA River Bacteria TMDL | 2010-007 | 03/23/2012 |
| Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL | 2011-008 | 03/23/2012 |
| Los Angeles Area Lakes TMDLs for Lake Calabasas, Echo Park Lake, and Legg Lake | NA (USEPA TMDL) | 03/26/2012 |

**Table 17. Interim and Final TMDL Compliance Milestones Applicable to the ULARWMA Group (Except for LAR Bacteria Dry Weather)**

| TMDL | Waterbodies[1] | Constituents | Compliance Goal | Weather Condition | Compliance Dates and Compliance Milestones (Bolded **numbers** indicated milestone deadlines within the current Permit term)[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **2012** | **2013** | **2014** | **2015** | **2016** | 2020 | 2024 | 2028 | 2032 | 2037 |
| LAR Nutrients | All Waterbodies | Ammonia-N, Nitrate-N, Nitrite-N, Nitrate-N+Nitrite-N | Meet WQBELs | All | **Pre 2012** | | | | | | | | | |
| | | | | | **Final** | | | | | | | | | |
| LAR Trash | All Waterbodies | Trash | % Reduction | All | **9/30** | **9/30** | **9/30** | **9/30** | **9/30** | | | | | |
| | | | | | **70%** | **80%** | **90%** | **96.7%** | **100%** | | | | | |
| Legg Lake Trash | Legg Lake | Trash | % Reduction | All | **3/6** | **3/6** | **3/6** | **3/6** | **3/6** | | | | | |
| | | | | | **20%** | **40%** | **60%** | **80%** | **100%** | | | | | |
| LAR Metals[2] | Reach 1 through 6, CC, RH, AS, VW, BWC, TW, ACW, MC, DC, BeC and BuC | Copper, Lead, Zinc (only RH) | % of MS4 area Meets WQBELs | Dry | **1/11** | | | | | 1/11 | 1/11 | | | |
| | | | | | **50%** | | | | | 75% | 100% | | | |
| | All Waterbodies | Copper, Lead, Zinc, Cadmium | % of MS4 area Meets WQBELs | Wet | **1/11** | | | | | | 1/11 | 1/11 | | |
| | | | | | **25%** | | | | | | 50% | 100% | | |
| LA River Bacteria (Wet Weather) | All Waterbodies | *E. coli* | Meet WQBELs | Wet | | | | | | | | | | 3/23 |
| | | | | | | | | | | | | | | Final |
| Dominguez Channel and LA/LB Harbors Toxics | Estuary | Sediment: DDTs, PCBs, Copper, Lead, Zinc, PAHs | Meet WQBELs | All | **3/23** | | | | | | | | 3/23 | |
| | | | | | **Interim** | | | | | | | | Final | |
| USEPA Lakes TMDLs | Lake Calabasas | Total-P, Total-N | Meet WLAs | All | USEPA TMDLs, which do not contain interim milestones or implementation schedule. The Permit (Part VI.E.3.c, pg. 145) allows MS4 Permittees to propose a schedule in an EWMP. | | | | | | | | | |
| | Legg Lake | Total-P, Total-N | Meet WLAs | All | | | | | | | | | | |
| | Echo Park Lake | Total-P, Total-N, Trash Water and Sediment: PCBs, Chlordane, Dieldrin | Meet WLAs | All | | | | | | | | | | |

[1] CC (Compton Creek), RH (Rio Hondo), AS (Arroyo Seco), VW (Verdugo Wash), BWC (Burbank Western Channel), TW(Tujunga Wash), ACW (Aliso Canyon Wash), MC (McCoy Canyon Creek), DC (Dry Canyon Creek), BeC (Bell Creek), and BuC (Bull Creek)

[2] The Permit term is assumed to be five years from the Permit effective date or December 27, 2017.

**Table 18. Dry Weather Compliance Milestones for the Los Angeles River Bacteria TMDL Applicable to ULARWMA Group with and without the use of a Load Reduction Strategy (LRS)**

| Waterbodies | | Compliance Dates and Compliance Milestones | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022 | 2023 | 2024 | 2025 | 2028 | 2029 | 2030 | 2031 | 2032 | 2035 | 2036 | 2037 |
| Compton Creek | w/o LRS | | | | 3/23 | | | | | | | | |
| | | | | | Final | | | | | | | | |
| | w LRS | | | | 3/23 | | | | | 3/23 | | | |
| | | | | | Interim | | | | | Final | | | |
| Segment B | w/o LRS | 3/23 | | | | | | | | | | | |
| | | Final | | | | | | | | | | | |
| | w LRS | 3/23 | | | | 3/23 | | | | | | | |
| | | Interim | | | | Final | | | | | | | |
| Rio Hondo and Arroyo Seco | w/o LRS | | 3/23 | | | | | | | | | | |
| | | | Final | | | | | | | | | | |
| | w LRS | | 3/23 | | | | | 3/23 | | | | | |
| | | | Interim | | | | | Final | | | | | |
| Segment C | w/o LRS | | | | | | | 3/23 | | | | | |
| | | | | | | | | Final | | | | | |
| | w LRS | | | | | | | 3/23 | | | | | 3/23 |
| | | | | | | | | Interim | | | | | Final |
| Tujunga Wash, Burbank Western Channel, and Verdugo Wash | w/o LRS | | | | | | | 3/23 | | | | | |
| | | | | | | | | Final | | | | | |
| | w LRS | | | | | | | 3/23 | | | | | 3/23 |
| | | | | | | | | Interim | | | | | Final |
| Segment D | w/o LRS | | | | | | | 3/23 | | | | | |
| | | | | | | | | Final | | | | | |
| | w LRS | | | | | | | 3/23 | | | | | 3/23 |

| Waterbodies | | Compliance Dates and Compliance Milestones | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022 | 2023 | 2024 | 2025 | 2028 | 2029 | 2030 | 2031 | 2032 | 2035 | 2036 | 2037 |
| | | | | | | | | Interim | | | | | Final |
| Bull Creek | w/o LRS | | | | | | | 3/23 | | | | | |
| | | | | | | | | Final | | | | | |
| | w LRS | | | | | | | 3/23 | | | | | 3/23 |
| | | | | | | | | Interim | | | | | Final |
| Segment E | w/o LRS | | | | 3/23 | | | | | | | | |
| | | | | | Final | | | | | | | | |
| | w LRS | | | | 3/23 | | | | 3/23 | | | | |
| | | | | | Interim | | | | Final | | | | |
| Dry Canyon Creek, McCoy Creek, Bell Creek, and Aliso Canyon Wash | w/o LRS | | | | | | 3/23 | | | | | | |
| | | | | | | | Final | | | | | | |
| | w LRS | | | | | | 3/23 | | | | 3/23 | | |
| | | | | | | | Interim | | | | Final | | |

**Table 19. Applicability of WQBELs and RWLs Associated with TMDLs as Identified in the Permit**

| TMDL | Constituent | LA River Reaches 1 – 6 | Compton Creek | Rio Hondo R1 – R3 | Arroyo Seco | Verdugo Wash | Burbank Western Channel | Tujunga Wash | Bell Creek | Bull Creek<br>Aliso Canyon Wash<br>McCoy Canyon<br>Dry Canyon |
|---|---|---|---|---|---|---|---|---|---|---|
| LAR Trash | Trash | E | E | E | E | E | E | E | E | E |
| LAR Nutrients | Ammonia -N | E | E | E | E | E | E | E | E | E |
| | Nitrate – N | E | E | E | E | E | E | E | E | E |
| | Nitrite – N | E | E | E | E | E | E | E | E | E |
| | Nitrate as N + Nitrite as N | E | E | E | E | E | E | E | E | E |
| LAR Metals | Copper and Lead (dry and wet weather) | E | E | E[1] | E | E | E | E | E | -- |
| | Zinc (dry weather) | -- | -- | E[1] | -- | -- | -- | -- | -- | -- |
| | Zinc (wet weather) | E | E | E | E | E | E | E | E | -- |
| | Cadmium (wet weather) | E | E | E | E | E | E | E | E | -- |
| DC and LA/LB Harbors Toxics | Sediment: DDTs, PCBs, Copper, Lead, Zinc, PAHs | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| LAR Bacteria | *E. coli* | E/R | E/R | E/R | E/R | E/R | E/R | E/R | E/R | E/R |

Note that unless explicitly stated as sediment, constituents are associated with the water column

E – Effluent limit established based on a TMDL.

R – Receiving water limit established based on a TMDL.

1 – The dry weather metals limits only apply to Rio Hondo Reach 1.

**Table 20. Applicability of Water Quality Based Effluent Limitations and/or Wasteload Allocations Associated with TMDLs for Lakes as Identified in the Permit**

| TMDL | Constituents | Lake | | |
|---|---|---|---|---|
| | | Legg | Calabasas | Echo Park |
| Legg Lake Trash TMDL | Trash | E | | |
| USEPA Lakes TMDLs | Total-P | WLA | WLA | WLA |
| | Total-N | WLA | WLA | WLA |
| | Trash | | | WLA |
| | PCBs (water and sediment) | | | WLA |
| | Chlordane (water and sediment) | | | WLA |
| | Dieldrin (water and sediment) | | | WLA |

Note that unless explicitly stated as sediment, constituents are associated with the water column.

E – Effluent limit established based on a TMDL.

WLA – Wasteload Allocation assigned in a USEPA TMDL, but not included as effluent or receiving water limitations.

## 3.B.3 Summary of Existing 303(d) Listings

**Table 21** presents a summary of the WBPCs on the 2010 303(d) List that have not been addressed by a TMDL for waterbodies in and immediately downstream of the ULARWMA. The waterbodies immediately downstream are LA River Reach 1 and Rio Hondo Reach 1.

**Table 21. 2010 303(d) Listed Water Body-Pollutant Combinations in the Los Angeles River Watershed not Addressed by a TMDL**

| Constituent | Los Angeles River | | | Compton Creek | Rio Hondo | | Arroyo Seco Reach 1 | Burbank Western Channel |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 5 | | 1 | 2 | | |
| Diazinon | W | | | | | | | |
| Cyanide | W/D | | | | | D | | D |
| Toxicity | | | | | D | | | |
| Selenium | | | | | | | | W/D |
| Benthic-Macroinvertebrates | | | | D | | | D | |
| Oil | | D | D | | | | | |

W and D denote whether the listing appears to be associated with wet weather and/or dry weather conditions.

## 3.B.4 Data Gathering

Data were obtained from numerous sources. A data request was submitted to the ULARWMA to gather information necessary to meet the water quality characterization and source assessment requirements outlined in the Permit (pages 58 and 59). The data requested included:

- Monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring;
- Findings from the Permittees' Illicit Connections and Illicit Discharge Eliminations, Industrial/Commercial Facilities, Development Construction, and Public Agency Activities Programs;
- TMDL source investigations; and
- Any other pertinent data, information, or studies related to constituent sources and conditions that could contribute to identification of the highest water quality priorities.

Monitoring data collected within the Los Angeles River Watershed was received from the following sources:

- Los Angeles Department of Public Works (LACDPW)
- DC Tillman, Los Angeles/Glendale, and Burbank Water Reclamation Plants (WRPs)
- City of Los Angeles Status and Trends program
- LA River Metals TMDL Coordinated Monitoring Program
- City of Los Angeles Echo Park Monitoring Program
- Los Angeles River Watershed Monitoring Program (LARWMP)

Over 170,000 data records were compiled and reviewed as part of the data analysis. **Appendix 3.A** presents the site locations for the monitoring data received and used for the water quality characterization process.

## 3.B.5 Receiving Water Data Analysis

Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include an evaluation of existing water quality conditions, including characterization of receiving water quality. Data were compiled to identify constituents exceeding applicable water quality objectives in the ULARWMA and immediate downstream waterbodies. Applicable water quality objectives were obtained from the California Toxics Rule (CTR), Basin Plan, and relevant TMDLs. Applicable water quality objectives from the CTR and Basin Plan were selected based on the beneficial uses identified in the Basin Plan. Generally, the water quality objectives utilized included those established for the protection of aquatic life, contact recreation and human health related to the consumption of organisms.

In order to characterize receiving water conditions for each WBPC, the following steps were taken:

- The first step in the analysis was to develop a list of constituents that were sampled for but were never detected in any water body within the EWMP area and therefore would not fall into one of

the three Permit categories (see **Table 1**). A list of these constituents is presented in **Attachment 1**.

- Next, constituents that were detected but the sample results never exceeded a corresponding water quality objective and therefore would not fall into one of the three Permit categories were identified. A list of these constituents is presented in **Error! Reference source not found.**
- All other constituents (i.e., all constituents detected and with sample results that had at least one result greater than an applicable water quality objective) were subject to further analysis.
  - Those constituents that exceeded but at a frequency that did not meet the 303(d) listing requirements are presented in summary tables in **Attachment 3**. These tables generally include the following attributes:
    - Applicable water body segments (i.e., tributaries, reaches, etc.)
    - TMDL target or applicable water quality objective (e.g., CTR and/or Basin Plan)
    - Applicable wet or dry weather conditions
    - Date range of data
    - Total number of samples, number of samples exceeding the water quality objectives, percent exceedance frequency, and number of exceedances in the past five years of available data
    - Whether or not the number of exceedances suggested an impairment per the State's 303(d) Listing Policy[1]
    - Maximum and minimum of sample results
    - Additionally, for those constituents that exceeded at a frequency that met the 303(d) Listing requirements the average and median of the sample results is also provided.

For the analysis presented in **Attachment 3**, the determination of weather condition was based on the designation provided by the sampling program. If no information was provided by the sampling program, flow records were reviewed. If flow on the sample date exceeded the definition of wet weather of 500 cubic feet per second (cfs) identified in the LA River Metals TMDL, it was identified as a wet weather sample.

A large proportion of the data included non-detect values. Using these data to calculate summary statistics requires methods for dealing with the inherent uncertainty in characterizing the true range of water quality conditions. The method used to consider non-detect data results is typically known as regression on order statistics (ROS). Use of the ROS method, when statistical criteria are met, more appropriately estimates actual values than the commonly employed practice of assuming one half the detection limit for non-detect values. Criteria for sufficient data to use the ROS method are: 1) at least 20% and preferably 50% detected data and 2) at least three unique detected values. Instances of insufficient detected data results are noted in the summary tables as <20% detect in **Attachment 3**.

[1] 2004 Water Quality Control Policy for Developing California's Clean Water Act Section 303 (d) List.

## 3.B.6 Summary of Key Findings of Receiving Water Data Analysis

The following provides a summary of key findings from the receiving water data analysis. It is not intended to be a detailed discussion of all the results of the data analysis. Instead, the summary highlights outcomes of the data analysis that may have affected the constituents addressed by the EWMP and/or the way the EWMP approached addressing the constituent. For example, some constituents addressed by the Metals TMDL appear to exceed less frequently than in the past and as such, are discussed in this subsection. Conversely, indicator bacteria continue to exceed on a frequent basis and nothing "new" was learned from the data analysis. As such, indictor bacteria are not discussed in this subsection. The key findings are organized as follows:

- Summary of findings related to the LA River Metals TMDL.
- Summary of findings related to the Nutrients TMDL.
- Identification of constituents that are not currently on the 303(d) List, but appear to meet the listing requirements.
- Identification of constituents that exhibited exceedances of relevant water quality objectives, but do not meet the 303(d) listing requirements.
- Identification of current 303(d) listed constituents not addressed by a TMDL that appear to meet the delisting requirements.

**Key findings related to the LA River Metals TMDL**

Wet weather is the primary condition where exceedances of TMDL targets persist. Over the past five years, copper, lead and zinc exceedances of TMDL targets during dry weather are infrequent in the majority of the watershed. Cadmium did not exceed in any of the data reviewed. As noted in the Metals TMDL, frequent selenium exceedances are confined to the upper reaches of the watershed and appear to originate from natural sources. The following provides a generalized summary of the key findings from comparing the data collected over the past five years to the Metals TMDL targets (note that percentages are rounded and presented as a range to represent the range across multiple waterbodies) (see **Attachment 3** for detailed summary):

- Dissolved Cadmium: Zero exceedances in 64 and 83 wet and dry weather samples, respectively.
- Total Cadmium: Zero exceedances in 38 and 220 wet and dry weather samples, respectively.
- Dissolved Copper: Frequently exceeds in wet weather (13-46%), but rarely in dry weather (0%-3%), except for Tujunga Wash (71%).
- Total Copper: Consistently exceeds in wet weather (63-100%), but rarely during dry weather in the majority of the watershed (0-5%), except for Burbank Western Channel (18%), Rio Hondo (64%), and Tujunga Wash (78%).
- Dissolved Lead: Rarely exceeds during wet weather (0-6%) and only one exceedance during dry weather (Rio Hondo Reach 1) of 322 samples.

- Total Lead: Frequently exceeds in wet weather in LA River Reaches 1 and 2 (19 and 17%, respectively) but there were zero exceedances in the 76 samples collected in Reaches 3, 4, and 6. Rarely exceeds during dry weather in the majority of the watershed (0-6%), except for Rio Hondo (43%).
- Dissolved Zinc: Frequently exceeds in wet weather (0%-29%), but rarely in dry weather with only one exceedance (LA River Reach 1) out of 440 samples.
- Total Zinc: Consistently exceeds in wet weather (35%-100%), but rare in dry weather 12 of 662 samples (0%-11%).
- Total Selenium: Consistently exceeds in the upper reaches of the watershed where 66 of 136 dry weather samples collected in Reaches 5 and 6 exceeded. In the remainder of the watershed, only one sample (Reach 1) out of 242 exceeded.

**Key findings related to the LA River Nutrients TMDL**

Over the past five years ammonia, nitrate and nitrite have rarely exceeded (<0.3%) LA River Nutrient TMDL targets. This is likely due to the fact that the primary sources of these constituents (DC Tillman, LA/Glendale, and Burbank WRPs) all upgraded their facilities to include nitrification/de-nitrification processes more than five years ago. The data analysis suggests that ammonia, nitrate and nitrite are not a water quality issue in the Watershed. The following provides a generalized summary of the key findings from comparing the data collected over the past five years to the Nutrients TMDL targets (see **Attachment 3** for detailed summary):

- Ammonia as N: Of the 2,015 samples collected only one exceeded (Tujunga Wash).
- Nitrate as N: Of the 2,015 samples collected zero samples exceeded.
- Nitrite as N: Of the 2,015 samples collected only one exceeded (Arroyo Seco).
- Nitrogen (NO3-N+NO2-N): Of the 2,015 samples collected zero samples exceeded.

**Constituents not on the 303(d) List, but appear to meet listing requirements**

The data analysis identified a number of constituents exceeding relevant water quality objectives, at a frequency that appears to meet the 303(d) listing criteria. **Table 22** identifies the constituents by waterbody and presents the frequency of exceedances during wet and/or dry weather conditions over the past five and ten year periods. A more detailed summary of the analysis can be found in the tables presented in **Attachment 3**.

**Table 22. Summary of Key Findings – Constituents not currently on the 303(d) List, but appear to meet listing criteria**

| Waterbody | Constituent | W/D | Date Range of Data | | N | % Exceed | Past 5 Years | | Source of Water Quality Objective |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | N | % Exceed | |
| Aliso Canyon Wash | Bis(2-ethylhexyl)Phthalate | Dry | 10/03 | 1/04 | 2 | 100% | NS | NS | CTR HH Organism |
| | | Wet | 10/03 | 2/04 | 4 | 75% | NS | NS | CTR HH Organism |
| Arroyo Seco | Bis(2-ethylhexyl)Phthalate | Wet | 10/03 | 2/04 | 4 | 75% | NS | NS | CTR HH Organism |
| Bull Creek | Bis(2-ethylhexyl)Phthalate | Dry | 10/03 | 1/04 | 2 | 100% | NS | NS | CTR HH Organism |
| | | Wet | 10/03 | 2/04 | 4 | 50% | NS | NS | CTR HH Organism |
| Burbank Western Channel | 2,3,7,8-TCDD (Dioxin) | Dry | 2/07 | 8/13 | 64 | 44% | 40 | 43% | CTR HH Organism |
| | Bis(2-ethylhexyl)Phthalate | Dry | 10/03 | 8/13 | 137 | 26% | 45 | 18% | CTR HH Organism |
| | | Wet | 10/03 | 2/04 | 4 | 75% | NS | NS | CTR HH Organism |
| | Chlorine (Total) | Wet | 2/04 | 2/12 | 42 | 12% | 7 | 0% | BP Aquatic Life Objective |
| | Chlorodibromomethane | Dry | 2/04 | 10/13 | 231 | 12% | 123 | 1% | CTR HH Organism |
| Echo Park Lake | Mercury Total | Wet | 2/04 | 2/05 | 6 | 50% | NS | NS | CTR HH Organism |
| Rio Hondo Reach 2 | Bis(2-ethylhexyl)Phthalate | Dry | 10/03 | 1/04 | 2 | 100% | NS | NS | CTR HH Organism |
| | | Wet | 10/03 | 2/04 | 4 | 75% | NS | NS | CTR HH Organism |
| Rio Hondo Reach 2 | Copper Total | Dry | 1/04 | 12/12 | 105 | 24% | 46 | 7% | CTR Chronic |
| | Dissolved Oxygen | Dry | 1/04 | 12/12 | 210 | 36% | 46 | 41% | Basin Plan Minimum |
| | pH | Dry | 1/04 | 12/12 | 210 | 21% | 46 | 11% | Basin Plan Maximum |
| Tujunga Wash | Chloride | Dry | 6/09 | 6/11 | 3 | 100% | 3 | 100% | BP SSO |
| Verdugo Wash Reach 1 | Bis(2-ethylhexyl)Phthalate | Dry | 10/03 | 1/04 | 2 | 100% | NS | NS | CTR HH Organism |
| | | Wet | 10/03 | 2/04 | 4 | 75% | NS | NS | CTR HH Organism |
| LAR Reach 1 | Bis(2-ethylhexyl)Phthalate | Dry | 10/02 | 7/13 | 29 | 10% | 17 | 6% | CTR HH Organism |
| | Mercury Total | Dry | 6/01 | 7/13 | 81 | 14% | 17 | 0% | CTR HH Organism |
| | pH | Dry | 10/02 | 7/13 | 48 | 67% | 16 | 75% | BP Maximum |
| LAR Reach 2 | Mercury Total | Dry | 4/01 | 6/10 | 108 | 19% | 2 | 0% | CTR HH Organism |
| | | Wet | 1/01 | 3/05 | 9 | 22% | NS | NS | CTR HH Organism |

| Waterbody | Constituent | W/D | Date Range of Data | | N | % Exceed | Past 5 Years | | Source of Water Quality Objective |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | N | % Exceed | |
| | pH | Dry | 3/06 | 2/08 | 40 | 75% | NS | NS | BP Maximum |
| LAR Reach 3, below LAG | 2,3,7,8-TCDD (Dioxin) | Dry | 8/07 | 9/13 | 14 | 14% | 11 | 18% | CTR HH Organism |
| | Mercury Total | Dry | 4/01 | 11/13 | 156 | 11% | 23 | 0% | CTR HH Organism |
| LAR Reach 3, above LAG | Mercury Total | Dry | 5/01 | 11/13 | 11 | 9% | 23 | 0% | CTR HH Organism |
| LAR Reach 4 | Mercury Total | Dry | 4/01 | 11/13 | 231 | 14% | 37 | 0% | CTR HH Organism |
| | | Wet | 1/01 | 3/05 | 10 | 20% | NS | NS | CTR HH Organism |
| LAR Reach 5 | Chloride | Dry | 5/07 | 11/13 | 81 | 28% | 60 | 28% | BP Maximum |
| | Diazinon | Dry | 5/12 | 9/13 | 18 | 11% | 18 | 11% | USEPA Chronic |
| | Sulfate | Dry | 5/07 | 11/13 | 81 | 36% | 60 | 37% | BP SSO |
| | TDS | Dry | 5/07 | 8/13 | 78 | 32% | 57 | 32% | BP SSO |
| LAR Reach 6 | Chloride | Dry | 2/02 | 6/10 | 49 | 43% | 1 | 100% | BP SSO |
| | Mercury Total | Dry | 4/01 | 6/10 | 111 | 12% | 2 | 0% | CTR HH Organism |
| | Sulfate | Dry | 2/02 | 6/10 | 49 | 98% | 1 | 100% | BP SSO |
| | TDS | Dry | 2/02 | 11/08 | 28 | 100% | NS | NS | BP SSO |
| | Thallium Total | Dry | 3/01 | 8/08 | 71 | 8% | NS | NS | CTR HH Organism |

BP = Basin Plan

SSO = Site Specific Objective

CTR = California Toxics Rule

NS = Not Sampled

HH Organism = Human Health Organisms only criteria

## Constituents exceeding objectives, but do not meet the listing requirements

The data analysis identified a number of constituents as exceeding relevant water quality objectives, but not at a frequency that meets the 303(d) listing criteria. **Table 23** identifies the constituents by waterbody and presents the frequency of exceedances during relevant conditions (e.g., wet and/or dry weather) over the past five and ten year periods. A more detailed summary of the analysis can be found in the tables presented in **Attachment 3**.

**Table 23. Summary of Key Findings – Constituents exceeding objectives, but do not appear to meet listing criteria**

| Waterbody | Constituent | W/D | Date Range of Data | | N | % Exceed | Past 5 Years | | Source of Water Quality Objective |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | N | % Exceed | |
| Aliso Canyon Wash | Cyanide | Wet | 10/03 | 2/04 | 4 | 25% | NS | NS | CTR Acute |
| | Diazinon | Wet | 10/03 | 2/04 | 4 | 25% | NS | NS | USEPA Acute |
| | Sulfate | Dry | 10/03 | 5/09 | 3 | 33% | 1 | 100% | BP SSO |
| | TDS | Dry | 10/03 | 5/09 | 3 | 33% | 1 | 100% | BP SSO |
| Arroyo Seco | Bis(2-ethylhexyl)Phthalate | Dry | 10/03 | 1/04 | 2 | 50% | NS | NS | CTR HH Organism |
| | Mercury Total | Wet | 10/03 | 3/05 | 6 | 17% | NS | NS | CTR HH Organism |
| Bull Creek | Cyanide | Wet | 10/03 | 2/04 | 4 | 25% | NS | NS | CTR Acute |
| Burbank Western Channel | Benzo(a)Pyrene | Dry | 10/03 | 8/13 | 137 | 1% | 45 | 2% | CTR HH Organism |
| | Benzo(b)Fluoranthene | Dry | 2/04 | 8/13 | 135 | 4% | 45 | 4% | CTR HH Organism |
| | beta-BHC | Dry | 10/03 | 8/13 | 131 | 1% | 39 | 0% | CTR HH Organism |
| | Chloride | Dry | 10/03 | 8/13 | 239 | 3% | 125 | 3% | BP SSO |
| | Chlorine (Total) | Dry | 10/03 | 10/13 | 1299 | 5% | 526 | 3% | BP Aquatic Life Objective |
| | Cyanide | Dry | 10/03 | 10/13 | 206 | 7% | 93 | 1% | CTR Chronic |
| | Heptachlor | Dry | 10/03 | 8/13 | 131 | 1% | 39 | 0% | CTR HH Organism |
| | Mercury Total | Dry | 10/03 | 8/13 | 244 | 7% | 99 | 1% | CTR HH Organism |
| | Mercury Total | Wet | 10/03 | 3/05 | 7 | 14% | NS | NS | CTR HH Organism |
| | pH | Dry | 10/03 | 10/13 | 805 | 1% | 249 | 0% | BP Minimum |
| | pH | Wet | 10/03 | 1/08 | 41 | 10% | NS | NS | BP Minimum |
| | TDS | Dry | 10/03 | 8/13 | 170 | 1% | 55 | 2% | BP SSO |
| | Thallium Total | Dry | 10/03 | 8/13 | 61 | 2% | 21 | 0% | CTR HH Organism |
| Caballero Creek | Mercury Total | Dry | 2/05 | 2/06 | 12 | 8% | NS | NS | CTR HH Organism |
| | Nickel Total | Dry | 2/05 | 8/08 | 41 | 2% | NS | NS | CTR Chronic |
| Compton Creek | Chloride | Dry | 6/09 | 6/11 | 4 | 50% | 4 | 50% | BP SSO |
| | Chlorpyrifos | Dry | 6/09 | 6/11 | 4 | 25% | 4 | 25% | USEPA Chronic |
| | Mercury Total | Dry | 2/05 | 6/11 | 16 | 6% | 4 | 0% | CTR HH Organism |
| | Mercury Total | Wet | 1/05 | 3/05 | 2 | 50% | NS | NS | CTR HH Organism |
| Echo Park Lake | Mercury Total | Dry | 5/03 | 11/10 | 87 | 3% | 24 | 0% | CTR HH Organism |
| Rio Hondo Reach 2 | Cyanide | Dry | 10/03 | 1/04 | 2 | 50% | NS | NS | CTR Chronic |
| | Diazinon | Wet | 10/03 | 2/04 | 4 | 25% | NS | NS | USEPA Acute |
| | pH | Dry | 10/03 | 1/04 | 2 | 50% | NS | NS | BP Minimum |
| | pH | Wet | 10/03 | 2/04 | 4 | 25% | NS | NS | BP Minimum |

| Waterbody | Constituent | W/D | Date Range of Data | | N | % Exceed | Past 5 Years | | Source of Water Quality Objective |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | N | % Exceed | |
| Rio Hondo Reach 3 | Benzo(a)Pyrene | Dry | 2/04 | 8/12 | 43 | 2% | 9 | 22% | CTR HH Organism |
| | Benzo(k)Fluoranthene | Dry | 2/04 | 8/12 | 43 | 2% | 9 | 22% | CTR HH Organism |
| | Chloride | Dry | 1/04 | 12/12 | 111 | 1% | 52 | 0% | Basin Plan SSO |
| | Chrysene | Dry | 2/04 | 8/12 | 43 | 2% | 9 | 22% | CTR HH Organism |
| | Diazinon | Dry | 2/04 | 11/12 | 60 | 5% | 17 | 12% | CTR Chronic |
| | Dibenzo(a,h)Anthracene | Dry | 2/04 | 8/12 | 43 | 5% | 9 | 78% | CTR HH Organism |
| | Indeno(1,2,3-cd)Pyrene | Dry | 2/04 | 8/12 | 36 | 3% | 8 | 75% | CTR HH Organism |
| | Mercury Total | Dry | 2/04 | 12/12 | 74 | 3% | 41 | 2% | CTR HH Organism |
| Tujunga Wash | Mercury Total | Dry | 2/05 | 6/11 | 15 | 7% | 3 | 0% | CTR HH Organism |
| | TDS | Dry | 6/09 | 6/09 | 1 | 100% | 1 | 100% | BP SSO |
| Verdugo Wash Reach 1 | Mercury Total | Wet | 10/03 | 3/05 | 6 | 17% | NS | NS | CTR HH Organism |
| LAR Reach 1 | Bis(2-ethylhexyl)Phthalate | Wet | 11/02 | 5/13 | 49 | 8% | 23 | 4% | CTR HH Organism |
| | Diazinon | Wet | 11/02 | 5/13 | 41 | 2% | 16 | 0% | USEPA Acute |
| | Dissolved Oxygen | Wet | 11/02 | 5/13 | 41 | 2% | 17 | 0% | BP Minimum |
| | Mercury Total | Wet | 11/02 | 5/13 | 52 | 4% | 23 | 0% | CTR HH Organism |
| | pH | Wet | 11/02 | 1/13 | 50 | 4% | 23 | 0% | BP Maximum |
| | Thallium Total | Dry | 3/01 | 7/13 | 91 | 3% | 23 | 0% | CTR HH Organism |
| LAR Reach 2 | pH | Wet | 12/07 | 1/08 | 4 | 50% | NS | NS | BP Maximum |
| | Thallium Total | Dry | 3/01 | 2/06 | 112 | 2% | NS | NS | CTR HH Organism |
| LAR Reach 3, above LAG | 2,3,7,8-TCDD (Dioxin) | Dry | 8/07 | 9/13 | 13 | 8% | 9 | 0% | CTR HH Organism |
| | 2,3,7,8-TCDD (Dioxin) | Wet | 2/10 | 2/10 | 2 | 50% | 2 | 50% | CTR HH Organism |
| | Bis(2-ethylhexyl)Phthalate | Dry | 2/02 | 9/13 | 44 | 2% | 14 | 0% | CTR HH Organism |
| | Cyanide | Dry | 2/02 | 11/13 | 64 | 8% | 22 | 0% | CTR Chronic |
| | Dibenzo(a,h)Anthracene | Dry | 2/02 | 9/13 | 47 | 4% | 15 | 0% | CTR HH Organism |
| | Indeno(1,2,3-cd)Pyrene | Dry | 2/02 | 9/13 | 22 | 5% | 9 | 0% | CTR HH Organism |
| | Mercury Total | Dry | 5/01 | 11/13 | 129 | 9% | 23 | 0% | CTR HH Organism |
| | Mercury Total | Wet | 1/01 | 2/10 | 7 | 14% | 1 | 0% | CTR HH Organism |
| | Nickel Total | Dry | 3/01 | 8/13 | 140 | 1% | 19 | 0% | CTR Chronic |
| | pH | Dry | 1/02 | 11/13 | 583 | 2% | 232 | 5% | BP Minimum |
| | Sulfate | Dry | 2/02 | 11/13 | 68 | 1% | 21 | 0% | BP SSO |
| | Thallium Total | Dry | 3/01 | 8/13 | 91 | 2% | 18 | 0% | CTR HH Organism |

| Waterbody | Constituent | W/D | Date Range of Data | | N | % Exceed | Past 5 Years | | Source of Water Quality Objective |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | N | % Exceed | |
| LAR Reach 3, below LAG | 2,3,7,8-TCDD (Dioxin) | Wet | 2/10 | 2/10 | 2 | 50% | 2 | 50% | CTR HH Organism |
| | Benzo(a)Anthracene | Dry | 2/02 | 9/13 | 75 | 1% | 16 | 0% | CTR HH Organism |
| | Bis(2-ethylhexyl)Phthalate | Dry | 2/02 | 9/13 | 70 | 1% | 15 | 0% | CTR HH Organism |
| | Chrysene | Dry | 2/02 | 9/13 | 75 | 1% | 16 | 0% | CTR HH Organism |
| | Cyanide | Dry | 2/02 | 11/13 | 102 | 6% | 23 | 0% | CTR Chronic |
| | Dibenzo(a,h)Anthracene | Dry | 2/02 | 9/13 | 75 | 8% | 16 | 0% | CTR HH Organism |
| | Dichlorobromomethane | Wet | 2/10 | 2/10 | 1 | 100% | 1 | 0% | CTR HH Organism |
| | Dissolved Oxygen | Dry | 1/02 | 11/13 | 879 | 2% | 235 | 0% | BP Minimum |
| | | | | | | | | | |
| | Indeno(1,2,3-cd)Pyrene | Dry | 2/02 | 9/13 | 34 | 6% | 9 | 0% | CTR HH Organism |
| | Mercury Total | Wet | 1/01 | 2/10 | 8 | 13% | 1 | 0% | CTR HH Organism |
| | Thallium Total | Dry | 3/01 | 8/13 | 86 | 2% | 18 | 0% | CTR HH Organism |
| LAR Reach 4 | Chrysene | Dry | 2/02 | 8/13 | 38 | 3% | 10 | 0% | CTR HH Organism |
| | Cyanide | Dry | 2/02 | 11/13 | 123 | 6% | 37 | 3% | CTR Chronic |
| | Diazinon | Dry | 6/11 | 9/13 | 7 | 14% | 7 | 14% | CTR Chronic |
| | Dissolved Oxygen | Dry | 1/02 | 11/13 | 901 | 1% | 227 | 0% | BP Minimum |
| | Sulfate | Dry | 2/02 | 11/13 | 111 | 9% | 21 | 5% | BP SSO |
| | TDS | Dry | 2/02 | 8/13 | 75 | 8% | 19 | 0% | BP SSO |
| | Thallium Total | Dry | 3/01 | 8/13 | 128 | 2% | 10 | 0% | CTR HH Organism |
| LAR Reach 5 | 4,4-DDD | Dry | 2/02 | 8/13 | 72 | 3% | 30 | 3% | CTR HH Organism |
| | 4,4-DDE | Dry | 2/02 | 8/13 | 72 | 6% | 30 | 7% | CTR HH Organism |
| | Bis(2-ethylhexyl)Phthalate | Dry | 2/02 | 8/13 | 84 | 1% | 30 | 0% | CTR HH Organism |
| | Cyanide | Dry | 2/02 | 11/13 | 156 | 3% | 102 | 1% | CTR Chronic |
| | Dibenzo(a,h)Anthracene | Dry | 2/02 | 8/13 | 75 | 1% | 30 | 3% | CTR HH Organism |
| | Dissolved Oxygen | Dry | 1/02 | 11/13 | 1684 | 8% | 674 | 4% | BP Minimum |
| | Heptachlor | Dry | 2/02 | 8/13 | 72 | 3% | 30 | 0% | CTR HH Organism |
| | Indeno(1,2,3-cd)Pyrene | Dry | 2/02 | 8/13 | 75 | 1% | 30 | 3% | CTR HH Organism |
| | Mercury Total | Dry | 2/02 | 11/13 | 156 | 4% | 102 | 0% | CTR HH Organism |
| | Nickel Total | Dry | 2/02 | 8/13 | 72 | 1% | 30 | 3% | CTR Chronic |
| LAR Reach 6 | 2,3,7,8-TCDD (Dioxin) | Dry | 8/07 | 8/08 | 4 | 25% | NS | NS | CTR HH Organism |
| | Chlorine (Total) | Dry | 1/02 | 1/09 | 321 | 1% | 3 | 0% | BP Aquatic Life Objective |
| | Chrysene | Dry | 2/02 | 8/08 | 15 | 7% | NS | NS | CTR HH Organism |

| Waterbody | Constituent | W/D | Date Range of Data | | N | % Exceed | Past 5 Years | | Source of Water Quality Objective |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | N | % Exceed | |
| | Cyanide | Dry | 2/02 | 1/09 | 44 | 2% | 1 | 0% | CTR Chronic |
| | Mercury Total | Wet | 1/01 | 3/05 | 7 | 14% | NS | NS | CTR HH Organism |

BP = Basin Plan

SSO = Site Specific Objective

CTR = California Toxics Rule

NS = Not Sampled

HH Organism = Human Health Organisms only criteria

## Identification of current 303(d) listed constituents not addressed by a TMDL that meet the delisting requirements

A number of 303(d) listings not addressed by an existing TMDL were identified as potentially meeting delisting requirements as shown in **Table 24**.

**Table 24. 2010 303(d) Listed Water Body-Pollutant Combinations in the Los Angeles River Watershed not Addressed by a TMDL that Appears to Meet Delisting Requirements**

| Constituent | Los Angeles River | | | Burbank Western Channel |
|---|---|---|---|---|
| | 1 | 2 | 5 | |
| Diazinon | W | | | |
| Cyanide | | | | W/D |
| Selenium | | | | W/D |
| Oil | | D | D | |

W and D denote whether the listing is associated with wet weather and/or dry weather conditions.

**Diazinon – LA River Reach 1:** Diazinon in LA River Reach 1 was listed based on two of 22 samples exceeding criteria developed by the California Department of Fish and Game (DFG) at the LA County mass emission station between October 2000 and April 2003. A review of the past 10 years of data, which includes the data identified in the 303(d) listing fact sheet, indicates that only one of 41 samples during wet weather and zero of 36 dry weather samples exceed USEPA's recommended criteria for diazinon. Although neither criteria have been formally adopted by California, USEPA's criteria is utilized rather than the DFG criteria as it was completed in 2005 (five years after DFG's) and it addresses a transcription error in data utilized in the DFG criteria. The data analysis suggests that diazinon is not a water quality issues in LA River Reach 1. A more detailed summary of the analysis can be found in the tables presented in **Attachment 3**.

**Cyanide – Burbank Western Channel:** Cyanide in Burbank Western Channel was listed based on two of six samples exceeding CTR chronic criterion at a LA County tributary station monitored between October 2003 and February 2004. A review of the past 10 years of data, which includes the data identified in the 2010 303(d) listing fact sheet, indicates that:

- One of the two exceedances noted in the 2010 303(d) listing fact sheet occurred during wet weather and should have been compared to the CTR acute criterion.
- Of the four wet weather samples collected all were below the CTR acute criterion.
- Of the 206 dry weather samples collected over the past 10 years, 15 exceeded the CTR chronic criteria.
- Of the 93 dry weather samples collected in the past five years, only one of 93 (1%), exceeded.

The 303(d) listing guidance indicates that with a sample size as large as 206 a delisting can occur if there are 17 or fewer exceedances. The data analysis suggests that cyanide in the Burbank Western Channel is not a water quality issue based on the past 10 years of available data and, particularly given the past five years of data. A more detailed summary of the analysis can be found in the tables presented in **Attachment 3**.

**Selenium – Burbank Western Channel:** Selenium in Burbank Western Channel was listed based on 12 of 48 samples exceeding CTR chronic criterion at stations sampled by the Burbank WRP during dry weather. A review of the past 10 years of data, which includes the data identified in the 2010 303(d) listing fact sheet, indicates that:

- Of the 235 dry weather samples collected over the past 10 years, 15 exceeded the CTR chronic criteria.
- Of the 99 dry weather samples collected in the past five years, zero exceeded.

The 303(d) listing guidance indicates that with a sample size as large as 235 a delisting can occur if there are 19 or fewer exceedances. The data analysis suggests that selenium in the Burbank Western Channel is not a water quality issue based on the past 10 years of available data and, particularly given the past five years of data. A more detailed summary of the analysis can be found in the tables presented in **Attachment 3**.

**Oil – LA River Reaches 2 and 5:** The 2010 303(d) listing fact sheet does not provide a synopsis of the data used to list oil in LA River Reach 2 or 5. As stated in the fact sheet, "303(d) listing decisions made prior to 2006 were not held in an assessment database. The Regional Boards will update this decision when new data and information become available and are assessed." Repeated efforts have been made to obtain the historical information utilized to develop the original listing; however, the Regional Board has not provided the information for inclusion in the analysis. Therefore, the following is based information gathered by the City of Los Angeles, Bureau of Sanitation, Watershed Protection Division (WPD). Three relevant studies/correspondences were reviewed:

- Pollution Report (2002), EPA Region IX
- Correspondence (2002) from Michael P. Brown, Manager, Geotechnical Engineering Division, Bureau of Engineering, City of Los Angeles
- Correspondence (2002) from Steven Poole, Claims Manager, United States Coast Guard, National Pollution Funds Center

The source of oil seeping into the River was found to be naturally-occurring crude oil. This conclusion is supported by the results of investigations completed by various agencies, which are summarized as follows. An investigation was conducted following seeps of petroleum hydrocarbons into the LA River in June 2001. Based on lab results and borings, it was concluded that the source of the LA River channel oil seeps is naturally-occurring crude oil from Puente formation sands. Oil was visible in Puente formation seams, partings and fractures, as well as sand lenses, and appeared to have migrated upward into sandy alluvial soils. Gasses encountered included hydrogen sulfide, commonly sources from crude oil reservoirs. The hydrocarbon seeps appeared to be concentrated where the Puente formation contacts with younger, less permeable units or layers.

The EPA On-Scene Coordinator (OSC) conducted subsurface investigations of the oil seeps in the LA River during August and September 2001. Based on the investigation, the OSC found that the oil did not discharge as a result of a spill, leak, or discharge from any facility and that the oil has been discharging to the river since at least 1943 and there is no practical means of preventing this oil seep from discharging to the River.

On April 19, 2002, an email was sent to Steven Pederson of WPD by Steven Poole of the US Coast Guard/National Pollution Funds Center (USGC/NPFC). Mr. Poole stated that City of Los Angeles cannot submit to USGC/NPFC a claim for reimbursement for cost incurred by the City associated with May 2001 oil clean-up efforts in the LA River because Title 1 of the Oil Pollution Act does not allow for reimbursement for **naturally-occurring oil** (natural seepage).

In summary, the reports and correspondence discussed herein, indicate that multiple agencies believe that the oil found in the listed reaches of the LA River is associated with naturally occurring seepage suggesting that a 303(d) listing is not warranted, or at a minimum, not addressable through the MS4 Permit.

# Attachment 1: Constituents that have not been detected in water

Constituents in this attachment were not detected in any available data reviewed.

**Aliso Canyon Wash – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2,4-Trichlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| 1,2-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,2-Diphenylhydrazine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 1,3-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,4-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,4,5-TP | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4,6-Trichlorophenol | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4-D | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| 2,4-Dichlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dimethylphenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2,4-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,6-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2-Chloronaphthalene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 2-Chlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3,3-Dichlorobenzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3-Methyl-4-Chlorophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 4,4-DDD | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDE | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDT | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Bromophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Acenaphthene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Acenaphthylene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aldrin | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| alpha-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aluminum Dissolved | 10/03 | 2/04 | 6 | 100 | 100 | µg/L |
| Anthracene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |

**Aliso Canyon Wash – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Aroclor 1016 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1221 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1232 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1242 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1248 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1254 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1260 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Atrazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Benzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Benzo(a)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(a)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(k)Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Beryllium - Dissolved | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| Beryllium - Total | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| beta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Bifenthrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Bis(2-chloroethoxy)Methane | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroethyl)Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroisopropyl)Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Bolstar | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Butylbenzyl Phthalate | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Chlordane-alpha | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlordane-gamma | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlorpyrifos | 10/03 | 5/09 | 7 | 0.001 | 0.05 | µg/L |
| Chromium (VI) Dissolved | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chromium (VI) Total | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chrysene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Cyanazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Cyfluthrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Cypermethrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| delta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Deltamethrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Demeton-S | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Dibenzo(a,h)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dichlorvos | 5/09 | 5/09 | 1 | 0.003 | 0.003 | µg/L |

**Aliso Canyon Wash – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Dieldrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dimethoate | 5/09 | 5/09 | 1 | 0.003 | 0.003 | µg/L |
| Dimethyl Phthalate | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Di-n-Octyl Phthalate | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Disulfoton | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Endosulfan I | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan II | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan Sulfate | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin Aldehyde | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Esfenvalerate | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Fenthion | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluorene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| gamma-BHC (Lindane) | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Glyphosate | 10/03 | 2/04 | 6 | 25 | 25 | µg/L |
| Heptachlor | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Heptachlor Epoxide | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Hexachlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Hexachlorobutadiene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Hexachlorocyclopentadiene | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Hexachloroethane | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| L-Cyhalothrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Malathion | 10/03 | 5/09 | 7 | 0.003 | 2 | µg/L |
| Mercury Dissolved | 10/03 | 5/09 | 21 | 0.004 | 1 | µg/L |
| Merphos | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Mevinphos | 5/09 | 5/09 | 1 | 0.008 | 0.008 | µg/L |
| Naphthalene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Nitrobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| N-Nitrosodimethylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |

**Aliso Canyon Wash – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| N-Nitrosodi-n-Propylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodiphenylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Pentachlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Permethrin | 5/09 | 5/09 | 1 | 0.005 | 0.005 | µg/L |
| Phenanthrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Phenols (Total) | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Phorate | 5/09 | 5/09 | 1 | 0.006 | 0.006 | µg/L |
| Prometryn | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Pyrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Ronnel | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Simazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Tetrachlorvinphos | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Tokuthion | 5/09 | 5/09 | 1 | 0.003 | 0.003 | µg/L |
| Toxaphene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Trichloronate | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |

**Arroyo Seco – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2,4-Trichlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| 1,2-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,2-Diphenylhydrazine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 1,3-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,4-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,4,5-TP | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4,6-Trichlorophenol | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4-D | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| 2,4-Dichlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dimethylphenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2,4-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,6-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2-Chloronaphthalene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |

**Arroyo Seco – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 2-Chlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3,3-Dichlorobenzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3-Methyl-4-Chlorophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 4,4-DDD | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDE | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDT | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Bromophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Acenaphthene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Acenaphthylene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aldrin | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| alpha-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aluminum - Dissolved | 10/03 | 2/04 | 6 | 100 | 100 | µg/L |
| Anthracene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aroclor 1016 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1221 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1232 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1242 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1248 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1254 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1260 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Atrazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Benzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Benzo(a)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(a)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(k)Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Beryllium - Dissolved | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| Beryllium - Total | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| beta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Bifenthrin | 5/09 | 6/11 | 6 | 0.0005 | 0.001 | µg/L |
| Bis(2-chloroethoxy)Methane | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroethyl)Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |

**Arroyo Seco – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Bis(2-chloroisopropyl)Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Bolstar | 5/09 | 6/11 | 6 | 0.002 | 0.002 | µg/L |
| Butylbenzyl Phthalate | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Chlordane-alpha | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlordane-gamma | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlorpyrifos | 10/03 | 6/11 | 12 | 0.001 | 0.05 | µg/L |
| Chromium (VI) - Dissolved | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chromium (VI) - Total | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chrysene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| cis-Permethrin | 6/11 | 6/11 | 2 | 0.005 | 0.005 | µg/L |
| Cyanazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Cyfluthrin | 5/09 | 6/11 | 6 | 0.0005 | 0.001 | µg/L |
| Cypermethrin | 5/09 | 6/11 | 6 | 0.0005 | 0.001 | µg/L |
| delta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Deltamethrin | 5/09 | 6/11 | 6 | 0.0005 | 0.005 | µg/L |
| Demeton-S | 5/09 | 6/11 | 5 | 0.001 | 0.001 | µg/L |
| Dibenzo(a,h)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dichlorvos | 5/09 | 6/11 | 6 | 0.003 | 0.003 | µg/L |
| Dieldrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dimethoate | 5/09 | 7/10 | 4 | 0.002 | 0.003 | µg/L |
| Dimethyl Phthalate | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Di-n-Octyl Phthalate | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Disulfoton | 5/09 | 6/11 | 6 | 0.001 | 0.001 | µg/L |
| Endosulfan I | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan II | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan Sulfate | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin Aldehyde | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Esfenvalerate | 5/09 | 7/10 | 4 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 5/09 | 6/11 | 6 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 5/09 | 6/11 | 6 | 0.001 | 0.001 | µg/L |
| Fenthion | 5/09 | 6/11 | 6 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 5/09 | 6/11 | 8 | 0.0005 | 0.001 | µg/L |
| Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluorene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |

**Arroyo Seco – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| gamma-BHC (Lindane) | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Glyphosate | 10/03 | 2/04 | 6 | 25 | 25 | µg/L |
| Heptachlor | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Heptachlor Epoxide | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Hexachlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Hexachlorobutadiene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Hexachlorocyclopentadiene | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Hexachloroethane | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| L-Cyhalothrin | 5/09 | 6/11 | 6 | 0.0005 | 0.001 | µg/L |
| Malathion | 10/03 | 6/11 | 12 | 0.003 | 2 | µg/L |
| Merphos | 5/09 | 7/10 | 4 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 5/09 | 6/11 | 6 | 0.001 | 0.001 | µg/L |
| Mevinphos | 5/09 | 6/11 | 6 | 0.008 | 0.008 | µg/L |
| Naphthalene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Nitrobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| N-Nitrosodimethylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodi-n-Propylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodiphenylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Pentachlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Permethrin | 5/09 | 7/10 | 4 | 0.005 | 0.005 | µg/L |
| Phenanthrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Phenols (Total) | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Phorate | 5/09 | 6/11 | 6 | 0.006 | 0.006 | µg/L |
| Prometryn | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Pyrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Ronnel | 5/09 | 6/11 | 6 | 0.002 | 0.002 | µg/L |
| Simazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Tetrachlorvinphos | 5/09 | 6/11 | 6 | 0.002 | 0.002 | µg/L |
| Tokuthion | 5/09 | 6/11 | 6 | 0.003 | 0.003 | µg/L |
| Toxaphene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| TPH | 10/03 | 2/04 | 6 | 1 | 1 | mg/L |
| trans-Permethrin | 6/11 | 6/11 | 2 | 0.005 | 0.005 | µg/L |
| Trichloronate | 5/09 | 6/11 | 6 | 0.001 | 0.001 | µg/L |

**Bull Creek – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2,4-Trichlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| 1,2-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,2-Diphenylhydrazine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 1,3-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,4-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,4,5-TP | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4,6-Trichlorophenol | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4-D | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| 2,4-Dichlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dimethylphenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2,4-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,6-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2-Chloronaphthalene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 2-Chlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3,3-Dichlorobenzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3-Methyl-4-Chlorophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 4,4-DDD | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDE | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDT | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Bromophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Acenaphthene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Acenaphthylene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aldrin | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| alpha-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aluminum Dissolved | 10/03 | 2/04 | 6 | 100 | 100 | µg/L |

**Bull Creek – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Anthracene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aroclor 1016 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1221 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1232 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1242 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1248 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1254 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1260 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Atrazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Benzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Benzo(a)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(a)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(k)Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Beryllium - Dissolved | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| Beryllium Total | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| beta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Bis(2-chloroethoxy)Methane | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroethyl)Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroisopropyl)Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Bolstar | 6/10 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Butylbenzyl Phthalate | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Chlordane-alpha | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlordane-gamma | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlorpyrifos | 10/03 | 6/10 | 8 | 0.001 | 0.05 | µg/L |
| Chromium (VI) Dissolved | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chromium (VI) Total | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chrysene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Cyanazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Cyfluthrin | 6/10 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Cypermethrin | 6/10 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |

**Bull Creek – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| delta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Deltamethrin | 6/10 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Dibenzo(a,h)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dichlorvos | 6/10 | 6/10 | 2 | 0.003 | 0.003 | µg/L |
| Dieldrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dimethoate | 6/10 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Dimethyl Phthalate | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Di-n-Octyl Phthalate | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Disulfoton | 6/10 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Endosulfan I | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan II | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan Sulfate | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin Aldehyde | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Esfenvalerate | 6/10 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/10 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 6/10 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/10 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/10 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluorene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| gamma-BHC (Lindane) | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Glyphosate | 10/03 | 2/04 | 6 | 25 | 25 | µg/L |
| Heptachlor | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Heptachlor Epoxide | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Hexachlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Hexachlorobutadiene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Hexachlorocyclopentadiene | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Hexachloroethane | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |

**Bull Creek – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Isophorone | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| L-Cyhalothrin | 6/10 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Malathion | 10/03 | 6/10 | 8 | 0.003 | 2 | µg/L |
| Merphos | 6/10 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 6/10 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Mevinphos | 6/10 | 6/10 | 2 | 0.008 | 0.008 | µg/L |
| Naphthalene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Nitrobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| N-Nitrosodimethylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodi-n-Propylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodiphenylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Pentachlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Permethrin | 6/10 | 6/10 | 2 | 0.005 | 0.005 | µg/L |
| Phenanthrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Phenols (Total) | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Phorate | 6/10 | 6/10 | 2 | 0.006 | 0.006 | µg/L |
| Prometryn | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Pyrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Ronnel | 6/10 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Simazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Tetrachlorvinphos | 6/10 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Thallium - Total | 10/03 | 2/06 | 20 | 1 | 5 | µg/L |
| Tokuthion | 6/10 | 6/10 | 2 | 0.003 | 0.003 | µg/L |
| Toxaphene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| TPH | 10/03 | 2/04 | 6 | 1 | 1 | mg/L |
| Trichloronate | 6/10 | 6/10 | 2 | 0.001 | 0.001 | µg/L |

**Burbank Western Channel – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 2/04 | 10/13 | 231 | 0.11 | 0.5 | µg/L |
| 1,1,2,2-Tetrachloroethane | 2/04 | 10/13 | 231 | 0.051 | 0.5 | µg/L |
| 1,1,2-Trichloroethane | 2/04 | 10/13 | 231 | 0.087 | 0.5 | µg/L |
| 1,1-Dichloroethane | 2/04 | 10/13 | 231 | 0.063 | 0.5 | µg/L |
| 1,1-Dichloroethylene | 2/04 | 10/13 | 231 | 0.14 | 0.5 | µg/L |
| 1,2,3,4,7,8,9-HpCDF | 2/07 | 8/13 | 33 | 0.125 | 2.57 | pg/L |
| 1,2,3,7,8,9-HxCDF | 2/07 | 8/13 | 33 | 0.122 | 1.92 | pg/L |
| 1,2,3-Trichloropropane | 2/07 | 8/13 | 33 | 0.031 | 0.36 | µg/L |
| 1,2,4-Trichlorobenzene | 10/03 | 8/13 | 141 | 0.26 | 5 | µg/L |
| 1,2-Dichlorobenzene | 10/03 | 10/13 | 237 | 0.05 | 0.5 | µg/L |
| 1,2-Dichloroethane | 2/04 | 10/13 | 231 | 0.063 | 0.5 | µg/L |
| 1,2-Dichloropropane | 2/04 | 10/13 | 231 | 0.12 | 0.5 | µg/L |
| 1,2-Diphenylhydrazine | 10/03 | 8/13 | 141 | 0.25 | 3.5 | µg/L |
| 1,2-Trans-Dichloroethylene | 2/04 | 10/13 | 231 | 0.092 | 0.5 | µg/L |
| 1,3-Dichlorobenzene | 10/03 | 10/13 | 237 | 0.05 | 0.5 | µg/L |
| 1,3-Dichloropropylene | 11/06 | 10/13 | 198 | 0.24 | 1 | µg/L |
| 1,3-trans-Dichloropropene | 2/04 | 8/06 | 33 | 0.03 | 0.5 | µg/L |
| 2,4,5-TP | 10/03 | 8/12 | 31 | 0.036 | 1 | µg/L |
| 2,4,5-Trichlorophenol | 2/04 | 2/04 | 3 | 5 | 5 | µg/L |
| 2,4-Dichlorophenol | 10/03 | 8/13 | 141 | 0.26 | 7.7 | µg/L |
| 2,4-Dimethylphenol | 10/03 | 8/13 | 141 | 0.3 | 8 | µg/L |
| 2,4-Dinitrophenol | 10/03 | 8/13 | 141 | 0.6 | 50 | µg/L |
| 2,4-Dinitrotoluene | 10/03 | 8/13 | 141 | 0.05 | 5 | µg/L |
| 2-Chloroethylvinyl Ether | 2/04 | 10/13 | 231 | 0.24 | 10 | µg/L |
| 2-Chloronaphthalene | 10/03 | 8/13 | 141 | 0.1 | 5 | µg/L |
| 2-Chlorophenol | 10/03 | 8/13 | 141 | 0.28 | 7.1 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 10/03 | 8/13 | 141 | 0.33 | 10 | µg/L |
| 2-Methylnaphthalene | 2/04 | 8/06 | 12 | 2 | 5 | µg/L |
| 2-Methylphenol | 8/05 | 8/06 | 9 | 5 | 5 | µg/L |
| 2-Nitrophenol | 10/03 | 8/13 | 141 | 0.26 | 8.4 | µg/L |

**Burbank Western Channel – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 3,3-Dichlorobenzidine | 10/03 | 8/13 | 141 | 0.3 | 10 | µg/L |
| 3-Methylphenol | 2/06 | 8/06 | 6 | 5 | 5 | µg/L |
| 4,4-DDD | 10/03 | 8/13 | 135 | 0.0011 | 0.1 | µg/L |
| 4,4-DDE | 10/03 | 8/13 | 135 | 0.0017 | 0.1 | µg/L |
| 4,4-DDT | 10/03 | 8/13 | 135 | 0.0009 | 0.1 | µg/L |
| 4-Bromophenyl Phenyl Ether | 10/03 | 8/13 | 141 | 0.23 | 5 | µg/L |
| 4-Methylphenol | 2/04 | 8/05 | 12 | 2 | 5 | µg/L |
| Acenaphthene | 10/03 | 8/13 | 141 | 0.05 | 5 | µg/L |
| Acenaphthylene | 10/03 | 8/13 | 141 | 0.05 | 5 | µg/L |
| Acrolein | 2/04 | 10/13 | 231 | 0.27 | 50 | µg/L |
| Acrylonitrile | 2/04 | 10/13 | 231 | 0.11 | 20 | µg/L |
| Aldrin | 10/03 | 8/13 | 135 | 0.0015 | 0.05 | µg/L |
| alpha-BHC | 10/03 | 8/13 | 135 | 0.0008 | 0.05 | µg/L |
| Aluminum Dissolved | 10/03 | 2/04 | 6 | 100 | 100 | µg/L |
| Anthracene | 10/03 | 8/13 | 141 | 0.05 | 5 | µg/L |
| Aroclor 1016 | 10/03 | 8/13 | 135 | 0.024 | 0.5 | µg/L |
| Aroclor 1221 | 10/03 | 8/13 | 135 | 0.06 | 0.5 | µg/L |
| Aroclor 1232 | 10/03 | 8/13 | 135 | 0.06 | 0.75 | µg/L |
| Aroclor 1242 | 10/03 | 8/13 | 135 | 0.07 | 0.5 | µg/L |
| Aroclor 1248 | 10/03 | 8/13 | 135 | 0.025 | 0.5 | µg/L |
| Aroclor 1254 | 10/03 | 8/13 | 135 | 0.04 | 0.5 | µg/L |
| Aroclor 1260 | 10/03 | 8/13 | 135 | 0.04 | 0.5 | µg/L |
| Atrazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Azinphos-methyl | 2/07 | 8/13 | 37 | 0.007 | 1.2 | µg/L |
| Benzene | 2/04 | 10/13 | 231 | 0.11 | 0.5 | µg/L |
| Benzidine | 10/03 | 8/13 | 141 | 0.7 | 20 | µg/L |
| Benzo(a)Anthracene | 10/03 | 8/13 | 141 | 0.1 | 5 | µg/L |
| Benzo(ghi)Perylene | 2/04 | 8/13 | 135 | 0.1 | 5 | µg/L |
| Benzo(k)Fluoranthene | 10/03 | 8/13 | 141 | 0.1 | 5 | µg/L |
| Beryllium - Dissolved | 10/03 | 2/06 | 32 | 0.4 | 1 | µg/L |

**Burbank Western Channel – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Bis(2-chloroethyl)Ether | 10/03 | 8/13 | 141 | 0.1 | 4.6 | µg/L |
| Bis(2-chloroisopropyl)Ether | 10/03 | 8/13 | 141 | 0.38 | 4.8 | µg/L |
| Carbon Tetrachloride | 2/04 | 10/13 | 231 | 0.089 | 0.5 | µg/L |
| Chlordane (Total) | 2/04 | 8/13 | 129 | 0.003 | 1 | µg/L |
| Chlordane-alpha | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlordane-gamma | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chloroethane | 2/04 | 10/13 | 231 | 0.13 | 0.5 | µg/L |
| Chlorpyrifos | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chromium (VI) Dissolved | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chrysene | 10/03 | 8/13 | 141 | 0.1 | 5 | µg/L |
| cis-1,2-Dichloroethene | 2/04 | 8/06 | 33 | 0.052 | 0.5 | µg/L |
| cis-1,3-Dichloropropene | 2/04 | 8/06 | 33 | 0.083 | 0.5 | µg/L |
| Cyanazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| delta-BHC | 10/03 | 8/13 | 135 | 0.0008 | 0.05 | µg/L |
| Demeton | 2/07 | 8/13 | 37 | 0.014 | 0.63 | µg/L |
| Demeton-O | 8/13 | 8/13 | 2 | 0.007 | 0.014 | µg/L |
| Demeton-S | 8/13 | 8/13 | 2 | 0.007 | 0.014 | µg/L |
| Dibenzo(a,h)Anthracene | 10/03 | 8/13 | 141 | 0.08 | 5 | µg/L |
| Dieldrin | 10/03 | 8/13 | 135 | 0.0014 | 0.1 | µg/L |
| Endosulfan I | 10/03 | 8/13 | 135 | 0.0011 | 0.1 | µg/L |
| Endosulfan II | 10/03 | 8/13 | 135 | 0.0012 | 0.1 | µg/L |
| Endrin | 10/03 | 8/13 | 135 | 0.0015 | 0.1 | µg/L |
| Endrin Aldehyde | 10/03 | 8/13 | 135 | 0.0028 | 0.1 | µg/L |
| Ethyl Parathion | 2/07 | 8/13 | 39 | 0.054 | 1.2 | µg/L |
| Ethylbenzene | 2/04 | 10/13 | 231 | 0.094 | 0.5 | µg/L |
| Heptachlor Epoxide | 10/03 | 8/13 | 135 | 0.0009 | 0.05 | µg/L |
| Hexachlorobenzene | 10/03 | 8/13 | 141 | 0.15 | 2 | µg/L |
| Hexachlorobutadiene | 10/03 | 8/13 | 141 | 0.41 | 4.1 | µg/L |
| Hexachlorocyclopentadiene | 10/03 | 8/13 | 141 | 0.36 | 50 | µg/L |
| Hexachloroethane | 10/03 | 8/13 | 141 | 0.36 | 5 | µg/L |

**Burbank Western Channel – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Indeno(1,2,3-cd)Pyrene | 10/03 | 8/13 | 141 | 0.1 | 5 | µg/L |
| Isophorone | 10/03 | 8/13 | 141 | 0.05 | 3.3 | µg/L |
| Malathion | 10/03 | 8/13 | 43 | 0.063 | 2 | µg/L |
| Mercury - Dissolved | 10/03 | 2/06 | 32 | 0.022 | 1 | µg/L |
| Methoxychlor | 2/04 | 8/13 | 129 | 0.0009 | 0.054 | µg/L |
| Methyl Chloride | 2/04 | 10/13 | 231 | 0.098 | 0.5 | µg/L |
| Methyl Parathion | 8/13 | 8/13 | 2 | 0.006 | 0.091 | µg/L |
| Methylene bromide | 2/04 | 8/06 | 33 | 0.071 | 0.5 | µg/L |
| Mirex | 2/04 | 8/13 | 129 | 0.005 | 0.067 | µg/L |
| MTBE | 11/03 | 8/13 | 72 | 0.03 | 0.5 | µg/L |
| Naphthalene | 10/03 | 8/13 | 162 | 0.05 | 5 | µg/L |
| Nitrobenzene | 10/03 | 8/13 | 141 | 0.05 | 3.7 | µg/L |
| N-Nitrosodi-n-Propylamine | 10/03 | 8/13 | 141 | 0.3 | 5 | µg/L |
| N-Nitrosodiphenylamine | 10/03 | 8/13 | 141 | 0.19 | 2.3 | µg/L |
| Phenanthrene | 10/03 | 8/13 | 141 | 0.05 | 5 | µg/L |
| Phenols (Total) | 10/03 | 8/13 | 141 | 0.16 | 3 | µg/L |
| Prometryn | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Pyrene | 10/03 | 8/13 | 141 | 0.05 | 5 | µg/L |
| Simazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Styrene | 2/04 | 8/06 | 33 | 0.091 | 0.5 | µg/L |
| Toxaphene | 10/03 | 8/13 | 135 | 0.04 | 4 | µg/L |
| TPH | 10/03 | 2/04 | 6 | 1 | 1 | mg/L |
| Trichloroethylene | 2/04 | 10/13 | 231 | 0.079 | 0.5 | µg/L |
| Vinyl Chloride | 2/04 | 10/13 | 231 | 0.064 | 0.5 | µg/L |
| Xylenes (Total) | 2/04 | 8/06 | 33 | 0.29 | 1 | µg/L |

**Caballero Creek – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Beryllium Dissolved | 1/05 | 2/06 | 14 | 0.4 | 0.4 | µg/L |
| Beryllium Total | 1/05 | 2/06 | 14 | 0.4 | 0.4 | µg/L |

**Compton Creek – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Bolstar | 6/09 | 6/11 | 4 | 0.002 | 0.002 | µg/L |
| cis-Permethrin | 6/11 | 6/11 | 2 | 0.005 | 0.005 | µg/L |
| Cyfluthrin | 6/09 | 6/11 | 4 | 0.0005 | 0.001 | µg/L |
| Cypermethrin | 6/09 | 6/11 | 4 | 0.0005 | 0.001 | µg/L |
| Deltamethrin | 6/09 | 6/11 | 4 | 0.0005 | 0.005 | µg/L |
| Demeton-S | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |
| Diazinon | 6/09 | 6/11 | 4 | 0.002 | 0.002 | µg/L |
| Dichlorvos | 6/09 | 6/11 | 4 | 0.003 | 0.003 | µg/L |
| Dimethoate | 6/09 | 7/10 | 2 | 0.002 | 0.003 | µg/L |
| Disulfoton | 6/09 | 6/11 | 4 | 0.001 | 0.001 | µg/L |
| Esfenvalerate | 6/09 | 7/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/09 | 6/11 | 4 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 6/09 | 6/11 | 4 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/09 | 6/11 | 4 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/09 | 6/11 | 6 | 0.0005 | 0.001 | µg/L |
| L-Cyhalothrin | 6/09 | 6/11 | 4 | 0.0005 | 0.001 | µg/L |
| Malathion | 6/09 | 6/11 | 4 | 0.003 | 0.003 | µg/L |
| Merphos | 6/09 | 7/10 | 2 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 6/09 | 6/11 | 4 | 0.001 | 0.001 | µg/L |
| Mevinphos | 6/09 | 6/11 | 4 | 0.008 | 0.008 | µg/L |
| Nitrate as N | 6/09 | 6/11 | 4 | 0.02 | 0.02 | mg/L |
| Nitrite as N | 6/09 | 6/11 | 4 | 0.02 | 0.02 | mg/L |
| Permethrin | 6/09 | 7/10 | 2 | 0.005 | 0.005 | µg/L |
| Phorate | 6/09 | 6/11 | 4 | 0.006 | 0.006 | µg/L |
| Ronnel | 6/09 | 6/11 | 4 | 0.002 | 0.002 | µg/L |
| Tetrachlorvinphos | 6/09 | 6/11 | 4 | 0.002 | 0.002 | µg/L |
| Tokuthion | 6/09 | 6/11 | 4 | 0.003 | 0.003 | µg/L |
| trans-Permethrin | 6/11 | 6/11 | 2 | 0.005 | 0.005 | µg/L |
| Trichloronate | 6/09 | 6/11 | 4 | 0.001 | 0.001 | µg/L |

**Echo Park Lake – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Ammonia as N | 2/04 | 2/05 | 6 | 0.05 | 0.1 | mg/L |

**LA River – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2,4,5-Tetrachlorobenzene | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| 1,2,4-Trichlorobenzene | 10/02 | 7/13 | 76 | 0.33 | 1 | µg/L |
| 1,2-Dichlorobenzene | 10/02 | 7/13 | 76 | 0.05 | 1 | µg/L |
| 1,2-Diphenylhydrazine | 10/02 | 7/13 | 76 | 0.33 | 3.00 | µg/L |
| 1,3-Dichlorobenzene | 10/02 | 7/13 | 76 | 0.05 | 1 | µg/L |
| 1,4-Dichlorobenzene | 10/02 | 7/13 | 76 | 0.05 | 1 | µg/L |
| 1-Chloronaphthalene | 10/04 | 3/05 | 6 | 0.1 | 0.1 | µg/L |
| 1-Naphthylamine | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 2,3,4,6-Tetrachlorophenol | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| 2,4,5-TP | 10/02 | 7/13 | 76 | 0.067 | 10 | µg/L |
| 2,4,5-Trichlorophenol | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| 2,4,6-Trichlorophenol | 10/02 | 7/13 | 80 | 0.4 | 3.33 | µg/L |
| 2,4-D | 10/02 | 7/13 | 76 | 0.015 | 10 | µg/L |
| 2,4-DDD | 10/06 | 7/09 | 17 | 0.05 | 0.05 | µg/L |
| 2,4-DDE | 10/06 | 7/09 | 17 | 0.05 | 0.05 | µg/L |
| 2,4-DDT | 10/06 | 7/09 | 17 | 0.005 | 0.01 | µg/L |
| 2,4-Dichlorophenol | 10/02 | 7/13 | 79 | 0.33 | 2 | µg/L |
| 2,4-Dimethylphenol | 10/02 | 7/13 | 79 | 0.67 | 2 | µg/L |
| 2,4-Dinitrophenol | 10/02 | 7/13 | 79 | 1 | 3 | µg/L |
| 2,4-Dinitrotoluene | 10/02 | 7/13 | 76 | 0.05 | 5 | µg/L |
| 2,6-Dichlorophenol | 10/04 | 3/05 | 6 | 2 | 2 | µg/L |
| 2,6-Dinitrotoluene | 10/02 | 7/13 | 76 | 0.05 | 5 | µg/L |
| 2-Chloroethylvinyl Ether | 10/05 | 7/13 | 67 | 0.33 | 2.5 | µg/L |
| 2-Chloronaphthalene | 10/02 | 7/13 | 76 | 0.1 | 10 | µg/L |

**LA River – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 2-Chlorophenol | 10/02 | 7/13 | 76 | 0.67 | 2 | µg/L |
| 2-Methylphenol | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 2-Naphthylamine | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 2-Nitroaniline | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 2-Nitrophenol | 10/02 | 7/13 | 79 | 1 | 3 | µg/L |
| 2-Picoline | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 3,3-Dichlorobenzidine | 10/02 | 7/13 | 76 | 1.67 | 5.00 | µg/L |
| 3-Methyl-4-Chlorophenol | 10/02 | 7/13 | 79 | 1 | 3 | µg/L |
| 3-Methylcholanthrene | 10/04 | 3/05 | 6 | 0.3 | 0.3 | µg/L |
| 3-Nitroaniline | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 4,4-DDD | 10/02 | 7/13 | 58 | 0.01 | 0.10 | µg/L |
| 4,4-DDE | 10/02 | 7/13 | 58 | 0.00 | 0.10 | µg/L |
| 4,4-DDT | 10/02 | 7/13 | 58 | 0.01 | 0.10 | µg/L |
| 4-Aminobiphenyl | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 4-Bromophenyl Phenyl Ether | 10/02 | 7/13 | 76 | 0.4 | 1.67 | µg/L |
| 4-Chloroaniline | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 10/02 | 7/13 | 76 | 0.04 | 1.67 | µg/L |
| 4-Nitroaniline | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| 4-Nitrophenol | 10/02 | 7/13 | 79 | 1 | 3 | µg/L |
| 7,12-Dimethylbenz(a)anthracene | 10/04 | 3/05 | 6 | 0.1 | 0.1 | µg/L |
| Acenaphthene | 10/02 | 7/13 | 76 | 0.05 | 1 | µg/L |
| Acenaphthylene | 10/02 | 7/13 | 76 | 0.05 | 2 | µg/L |
| Acetophenone | 10/04 | 3/05 | 6 | 0.3 | 0.3 | µg/L |
| Aldrin | 10/02 | 7/13 | 76 | 0.00 | 0.05 | µg/L |
| alpha,alpha-Dimethylphenethylamine | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| alpha-BHC | 10/02 | 7/13 | 76 | 0.003 | 0.05 | µg/L |
| Aniline | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| Anthracene | 10/02 | 7/13 | 76 | 0.05 | 2 | µg/L |
| Aroclor 1016 | 10/02 | 7/13 | 76 | 0.01 | 0.5 | µg/L |
| Aroclor 1221 | 10/02 | 7/13 | 81 | 0.01 | 0.5 | µg/L |

**LA River – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Aroclor 1232 | 10/02 | 7/13 | 76 | 0.01 | 0.5 | µg/L |
| Aroclor 1242 | 10/02 | 7/13 | 76 | 0.01 | 0.5 | µg/L |
| Aroclor 1248 | 10/02 | 7/13 | 76 | 0.01 | 0.5 | µg/L |
| Aroclor 1254 | 10/02 | 7/13 | 76 | 0.01 | 0.5 | µg/L |
| Aroclor 1260 | 10/02 | 7/13 | 76 | 0.01 | 0.5 | µg/L |
| Atrazine | 10/02 | 7/13 | 76 | 0.667 | 2 | µg/L |
| Bentazon | 10/04 | 3/05 | 6 | 2 | 2 | µg/L |
| Benzidine | 10/02 | 7/13 | 76 | 1.67 | 5.00 | µg/L |
| Benzo(a)Anthracene | 10/02 | 7/13 | 76 | 0.03 | 1.67 | µg/L |
| Benzo(a)Pyrene | 10/02 | 7/13 | 76 | 0.1 | 2 | µg/L |
| Benzo(b)Fluoranthene | 10/04 | 7/13 | 61 | 0.10 | 3.33 | µg/L |
| Benzo(ghi)Perylene | 10/05 | 7/13 | 55 | 0.2 | 1.67 | µg/L |
| Benzo(k)Fluoranthene | 10/02 | 7/13 | 76 | 0.10 | 2.00 | µg/L |
| beta-BHC | 10/02 | 7/13 | 76 | 0.005 | 0.05 | µg/L |
| Bifenthrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Bis(2-chloroethoxy)Methane | 10/02 | 7/13 | 82 | 0.1 | 5 | µg/L |
| Bis(2-chloroethyl)Ether | 10/02 | 7/13 | 70 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroisopropyl)Ether | 10/02 | 7/13 | 76 | 0.67 | 2 | µg/L |
| Bolstar | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Butylbenzyl Phthalate | 10/02 | 7/13 | 76 | 0.1 | 3.33 | µg/L |
| Carbofuran | 10/04 | 4/08 | 13 | 5 | 5 | µg/L |
| Chlordane-alpha | 10/02 | 7/13 | 70 | 0.033 | 0.1 | µg/L |
| Chlordane-gamma | 10/02 | 7/13 | 70 | 0.033 | 0.1 | µg/L |
| Chlordanes | 10/04 | 7/13 | 61 | 0.01 | 0.05 | µg/L |
| Chlorpyrifos | 10/02 | 7/13 | 77 | 0.001 | 0.05 | µg/L |
| Chrysene | 10/02 | 7/13 | 76 | 0.10 | 5.00 | µg/L |
| Cyanazine | 10/02 | 7/13 | 76 | 0.667 | 2 | µg/L |
| Cyfluthrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Cypermethrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| delta-BHC | 10/02 | 7/13 | 76 | 0.005 | 0.05 | µg/L |

**LA River – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Deltamethrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Dibenz(a,j)acridine | 10/04 | 3/05 | 6 | 0.3 | 0.3 | µg/L |
| Dibenzo(a,h)Anthracene | 10/02 | 7/13 | 76 | 0.03 | 0.10 | µg/L |
| Dichlorvos | 6/10 | 6/10 | 1 | 0.003 | 0.003 | µg/L |
| Dieldrin | 10/02 | 7/13 | 76 | 0.00 | 0.10 | µg/L |
| Dimethoate | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Di-n-Octyl Phthalate | 10/02 | 7/13 | 69 | 1 | 10 | µg/L |
| Diphenylamine | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| Disulfoton | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Diuron | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| Endosulfan I | 10/02 | 7/13 | 76 | 0.01 | 0.1 | µg/L |
| Endosulfan II | 10/02 | 7/13 | 76 | 0.004 | 0.1 | µg/L |
| Endosulfan Sulfate | 10/02 | 7/13 | 76 | 0.05 | 0.1 | µg/L |
| Endrin | 10/02 | 7/13 | 76 | 0.006 | 0.1 | µg/L |
| Endrin Aldehyde | 10/02 | 7/13 | 76 | 0.01 | 0.1 | µg/L |
| Endrin ketone | 10/04 | 7/09 | 23 | 0.1 | 1 | µg/L |
| Esfenvalerate | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Ethyl methanesulfonate | 10/04 | 3/05 | 6 | 0.3 | 0.3 | µg/L |
| Fensulfothion | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Fluorene | 10/02 | 7/13 | 76 | 0.033 | 0.1 | µg/L |
| gamma-BHC (Lindane) | 10/02 | 7/13 | 76 | 0.004 | 0.05 | µg/L |
| Glyphosate | 10/02 | 7/13 | 76 | 5 | 25 | µg/L |
| Heptachlor | 10/02 | 7/13 | 76 | 0.003 | 0.05 | µg/L |
| Heptachlor Epoxide | 10/02 | 7/13 | 76 | 0.01 | 0.05 | µg/L |
| Hexachlorobenzene | 10/02 | 7/13 | 76 | 0.33 | 1 | µg/L |
| Hexachlorobutadiene | 10/02 | 7/13 | 76 | 0.33 | 1 | µg/L |
| Hexachlorocyclopentadiene | 10/02 | 7/13 | 76 | 1.67 | 5 | µg/L |

**LA River – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Hexachloroethane | 10/02 | 7/13 | 76 | 0.33 | 1 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 10/02 | 7/13 | 76 | 0.02 | 0.10 | µg/L |
| Isophorone | 10/02 | 7/13 | 76 | 0.05 | 1 | µg/L |
| L-Cyhalothrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Malathion | 10/02 | 7/13 | 76 | 0.003 | 2.0 | µg/L |
| Manganese - Dissolved | 10/04 | 3/05 | 6 | 30 | 30 | µg/L |
| Merphos | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Methoxychlor | 10/04 | 7/13 | 55 | 0.5 | 0.5 | µg/L |
| Methyl methanesulfonate | 10/04 | 3/05 | 6 | 0.3 | 0.3 | µg/L |
| Methyl Parathion | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Mevinphos | 6/10 | 6/10 | 1 | 0.008 | 0.008 | µg/L |
| Molinate | 10/04 | 3/05 | 6 | 2 | 2 | µg/L |
| Naphthalene | 10/02 | 7/13 | 76 | 0.05 | 0.2 | µg/L |
| Nitrobenzene | 10/02 | 7/13 | 76 | 0.05 | 1 | µg/L |
| N-Nitrosodibutylamine | 10/04 | 3/05 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodimethylamine | 10/02 | 7/13 | 79 | 0.3 | 0.3 | µg/L |
| N-Nitrosodi-n-Propylamine | 10/02 | 7/13 | 76 | 0.3 | 0.3 | µg/L |
| N-Nitrosodiphenylamine | 10/02 | 7/13 | 79 | 0.3 | 1 | µg/L |
| N-Nitrosopiperidine | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |
| Pentachlorophenol | 10/02 | 7/13 | 76 | 0.67 | 2.00 | µg/L |
| Permethrin | 6/10 | 6/10 | 1 | 0.005 | 0.005 | µg/L |
| Phenacetin | 10/04 | 3/05 | 6 | 3 | 3 | µg/L |
| Phenanthrene | 10/02 | 7/13 | 72 | 0.017 | 0.05 | µg/L |
| Phorate | 6/10 | 6/10 | 1 | 0.006 | 0.006 | µg/L |
| Prometryn | 10/02 | 7/13 | 75 | 0.67 | 2 | µg/L |
| Pronamide | 10/04 | 3/05 | 6 | 5 | 5 | µg/L |
| Ronnel | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Simazine | 10/02 | 7/13 | 76 | 0.67 | 2 | µg/L |
| Tetrachlorvinphos | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Thiobencarb | 10/04 | 3/05 | 6 | 1 | 1 | µg/L |

**LA River – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Tokuthion | 6/10 | 6/10 | 1 | 0.003 | 0.003 | µg/L |
| Toxaphene | 10/02 | 7/13 | 76 | 0.24 | 1 | µg/L |
| Trichloronate | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Vanadium Dissolved | 2/01 | 2/01 | 1 | 5 | 5 | µg/L |

**LA River – Reach 2 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Ammonia as N | 6/09 | 6/10 | 2 | 0.05 | 0.05 | mg/L |
| Bolstar | 6/09 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Chlorpyrifos | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Cyfluthrin | 6/09 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Deltamethrin | 6/09 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Demeton-S | 6/09 | 6/09 | 1 | 0.001 | 0.001 | µg/L |
| Diazinon | 6/09 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Dichlorvos | 6/09 | 6/10 | 2 | 0.003 | 0.003 | µg/L |
| Dimethoate | 6/09 | 6/10 | 2 | 0.002 | 0.003 | µg/L |
| Disulfoton | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Esfenvalerate | 6/09 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/09 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/09 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| L-Cyhalothrin | 6/09 | 6/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Malathion | 6/09 | 6/10 | 2 | 0.003 | 0.003 | µg/L |
| Merphos | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Mevinphos | 6/09 | 6/10 | 2 | 0.008 | 0.008 | µg/L |
| Permethrin | 6/09 | 6/10 | 2 | 0.005 | 0.005 | µg/L |
| Phorate | 6/09 | 6/10 | 2 | 0.006 | 0.006 | µg/L |

**LA River – Reach 2 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Ronnel | 6/09 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Tetrachlorvinphos | 6/09 | 6/10 | 2 | 0.002 | 0.002 | µg/L |
| Tokuthion | 6/09 | 6/10 | 2 | 0.003 | 0.003 | µg/L |
| Trichloronate | 6/09 | 6/10 | 2 | 0.001 | 0.001 | µg/L |
| Vanadium Dissolved | 2/01 | 2/01 | 2 | 5 | 5 | µg/L |

**LA River – Reach 3, Above LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 8/07 | 8/13 | 14 | 0.05 | 0.23 | µg/L |
| 1,1,2,2-Tetrachloroethane | 8/07 | 8/13 | 14 | 0.02 | 0.19 | µg/L |
| 1,1,2-Trichloroethane | 8/07 | 8/13 | 14 | 0.05 | 0.21 | µg/L |
| 1,1-Dichloroethane | 8/07 | 8/13 | 14 | 0.11 | 0.16 | µg/L |
| 1,1-Dichloroethylene | 8/07 | 8/13 | 14 | 0.12 | 0.2 | µg/L |
| 1,2,3,4,6,7,8-HpCDF | 8/07 | 9/13 | 13 | 1.5 | 56 | pg/L |
| 1,2,3,4,7,8,9-HpCDF | 8/07 | 9/13 | 13 | 0.59 | 56 | pg/L |
| 1,2,3,4,7,8-HxCDD | 8/07 | 9/13 | 13 | 0.75 | 56 | pg/L |
| 1,2,3,4,7,8-HxCDF | 8/07 | 9/13 | 13 | 0.68 | 56 | pg/L |
| 1,2,3,6,7,8-HxCDD | 8/07 | 9/13 | 13 | 0.68 | 56 | pg/L |
| 1,2,3,6,7,8-HxCDF | 8/07 | 9/13 | 13 | 0.59 | 56 | pg/L |
| 1,2,3,7,8,9-HxCDD | 8/07 | 9/13 | 13 | 0.68 | 56 | pg/L |
| 1,2,3,7,8,9-HxCDF | 8/07 | 9/13 | 13 | 0.58 | 56 | pg/L |
| 1,2,3,7,8-PeCDD | 8/07 | 9/13 | 13 | 0.95 | 56 | pg/L |
| 1,2,3,7,8-PeCDF | 8/07 | 9/13 | 13 | 0.67 | 56 | pg/L |
| 1,2,3-Trichloropropane | 8/07 | 8/13 | 14 | 0.13 | 0.27 | µg/L |
| 1,2,4-Trichlorobenzene | 2/02 | 9/13 | 24 | 0.08 | 2 | µg/L |
| 1,2-Dichloroethane | 8/07 | 8/13 | 14 | 0.03 | 0.13 | µg/L |
| 1,2-Dichloropropane | 8/07 | 8/13 | 14 | 0.09 | 0.13 | µg/L |
| 1,2-Trans-Dichloroethylene | 8/07 | 8/13 | 14 | 0.07 | 0.2 | µg/L |

**LA River – Reach 3, Above LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,3-Dichlorobenzene | 2/02 | 9/13 | 24 | 0.05 | 1.5 | µg/L |
| 1,3-trans-Dichloropropene | 8/07 | 8/13 | 14 | 0.06 | 0.15 | µg/L |
| 1,4-Dichlorobenzene | 2/02 | 9/13 | 24 | 0.07 | 1.8 | µg/L |
| 2,3,4,6,7,8-HxCDF | 8/07 | 9/13 | 13 | 0.51 | 56 | pg/L |
| 2,3,4,7,8-PeCDF | 8/07 | 9/13 | 13 | 0.76 | 56 | pg/L |
| 2,3,7,8-TCDF | 8/07 | 9/13 | 13 | 1.8 | 12 | pg/L |
| 2,4,5-TP | 8/07 | 9/13 | 13 | 0.11 | 0.34 | µg/L |
| 2,4-D | 8/07 | 9/13 | 13 | 0.2 | 0.8 | µg/L |
| 2,4-DDE | 3/02 | 2/07 | 11 | 0.001 | 0.004 | µg/L |
| 2,4-DDT | 3/02 | 2/07 | 11 | 0.002 | 0.005 | µg/L |
| 2,4-Dichlorophenol | 2/02 | 9/13 | 24 | 0.09 | 6.8 | µg/L |
| 2,4-Dimethylphenol | 2/02 | 9/13 | 24 | 0.17 | 6.2 | µg/L |
| 2,4-Dinitrophenol | 2/02 | 9/13 | 24 | 0.21 | 31 | µg/L |
| 2,4-Dinitrotoluene | 2/02 | 9/13 | 24 | 0.08 | 2.3 | µg/L |
| 2,6-Dinitrotoluene | 2/02 | 9/13 | 24 | 0.022 | 1.6 | µg/L |
| 2-Chloroethylvinyl Ether | 8/07 | 8/13 | 14 | 0.13 | 0.63 | µg/L |
| 2-Chloronaphthalene | 2/02 | 9/13 | 24 | 0.07 | 1.5 | µg/L |
| 2-Chlorophenol | 2/02 | 9/13 | 24 | 0.09 | 8.1 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 2/02 | 9/13 | 24 | 0.4 | 8.9 | µg/L |
| 2-Nitrophenol | 2/02 | 9/13 | 24 | 0.09 | 7.9 | µg/L |
| 3,3-Dichlorobenzidine | 2/02 | 9/13 | 24 | 0.11 | 2.78 | µg/L |
| 3-Methyl-4-Chlorophenol | 2/02 | 9/13 | 24 | 0.18 | 6 | µg/L |
| 4,4-DDD | 3/02 | 8/13 | 24 | 0.001 | 0.006 | µg/L |
| 4,4-DDE | 3/02 | 8/13 | 24 | 0.001 | 0.004 | µg/L |
| 4,4-DDT | 3/02 | 8/13 | 24 | 0.001 | 0.007 | µg/L |
| 4-Bromophenyl Phenyl Ether | 2/02 | 9/13 | 24 | 0.07 | 1.5 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 2/02 | 9/13 | 24 | 0.04 | 2 | µg/L |
| 4-Nitrophenol | 2/02 | 9/13 | 24 | 0.06 | 5 | µg/L |
| Acenaphthene | 2/02 | 9/13 | 24 | 0.04 | 1.7 | µg/L |
| Acenaphthylene | 2/02 | 9/13 | 24 | 0.06 | 1.7 | µg/L |

**LA River – Reach 3, Above LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Acrolein | 8/07 | 8/13 | 14 | 0.61 | 1.96 | µg/L |
| Acrylonitrile | 8/07 | 8/13 | 14 | 0.08 | 0.57 | µg/L |
| Aldrin | 3/02 | 8/13 | 24 | 0.001 | 0.008 | µg/L |
| alpha-BHC | 3/02 | 8/13 | 24 | 0.001 | 0.004 | µg/L |
| Anthracene | 2/02 | 9/13 | 24 | 0.06 | 1.6 | µg/L |
| Aroclor 1016 | 3/02 | 8/13 | 24 | 0.022 | 0.081 | µg/L |
| Aroclor 1221 | 3/02 | 8/13 | 24 | 0.02 | 0.49 | µg/L |
| Aroclor 1232 | 3/02 | 8/13 | 24 | 0.028 | 0.1 | µg/L |
| Aroclor 1242 | 3/02 | 8/13 | 24 | 0.024 | 0.23 | µg/L |
| Aroclor 1248 | 3/02 | 8/13 | 24 | 0.019 | 0.121 | µg/L |
| Aroclor 1254 | 3/02 | 8/13 | 24 | 0.017 | 0.05 | µg/L |
| Aroclor 1260 | 3/02 | 8/13 | 24 | 0.029 | 0.1 | µg/L |
| Azinphos-methyl | 8/07 | 9/13 | 13 | 0.007 | 1.7 | µg/L |
| Azobenzene | 2/02 | 9/13 | 24 | 0.06 | 7 | µg/L |
| Benzene | 8/07 | 8/13 | 14 | 0.07 | 0.22 | µg/L |
| Benzidine | 2/02 | 9/13 | 24 | 0.3 | 47 | µg/L |
| Benzo(a)Anthracene | 2/02 | 9/13 | 49 | 0.0048 | 1.2 | µg/L |
| Benzo(a)Pyrene | 2/02 | 9/13 | 24 | 0.06 | 1.6 | µg/L |
| Benzo(b)Fluoranthene | 2/02 | 9/13 | 24 | 0.07 | 1.5 | µg/L |
| Benzo(k)Fluoranthene | 2/02 | 9/13 | 24 | 0.11 | 2.3 | µg/L |
| beta-BHC | 3/02 | 8/13 | 24 | 0.0019 | 0.005 | µg/L |
| Bifenthrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Bis(2-chloroethoxy)Methane | 2/02 | 9/13 | 24 | 0.05 | 1.6 | µg/L |
| Bis(2-chloroethyl)Ether | 2/02 | 9/13 | 24 | 0.09 | 1.9 | µg/L |
| Bolstar | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Bromoform | 8/07 | 8/13 | 14 | 0.04 | 0.19 | µg/L |
| Carbon Tetrachloride | 8/07 | 8/13 | 14 | 0.09 | 0.27 | µg/L |
| Chlordanes | 3/02 | 8/13 | 24 | 0.012 | 0.06 | µg/L |
| Chlorobenzene | 8/07 | 8/13 | 14 | 0.06 | 0.15 | µg/L |
| Chloroethane | 8/07 | 8/13 | 14 | 0.04 | 0.79 | µg/L |

**LA River – Reach 3, Above LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Chlorpyrifos | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Chrysene | 2/02 | 9/13 | 49 | 0.004 | 1.5 | µg/L |
| cis-1,3-Dichloropropene | 8/07 | 8/13 | 14 | 0.04 | 0.15 | µg/L |
| Cyfluthrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Cypermethrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| delta-BHC | 3/02 | 8/13 | 24 | 0.0007 | 0.007 | µg/L |
| Deltamethrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Demeton-O | 8/07 | 9/13 | 13 | 0.007 | 0.9 | µg/L |
| Demeton-S | 8/07 | 9/13 | 14 | 0.001 | 1.1 | µg/L |
| Diazinon | 5/09 | 9/13 | 8 | 0.002 | 0.006 | µg/L |
| Dichlorvos | 5/09 | 5/09 | 1 | 0.003 | 0.003 | µg/L |
| Dieldrin | 3/02 | 8/13 | 24 | 0.0009 | 0.006 | µg/L |
| Dimethoate | 5/09 | 5/09 | 1 | 0.003 | 0.003 | µg/L |
| Dimethyl Phthalate | 2/02 | 9/13 | 24 | 0.08 | 3 | µg/L |
| Di-n-Octyl Phthalate | 2/02 | 9/13 | 24 | 0.15 | 2.5 | µg/L |
| Disulfoton | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Endosulfan II | 3/02 | 8/13 | 24 | 0.001 | 0.007 | µg/L |
| Endosulfan Sulfate | 3/02 | 8/13 | 24 | 0.002 | 0.008 | µg/L |
| Endrin | 3/02 | 8/13 | 24 | 0.001 | 0.007 | µg/L |
| Endrin Aldehyde | 3/02 | 8/13 | 24 | 0.001 | 0.006 | µg/L |
| Esfenvalerate | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Ethyl Parathion | 8/07 | 9/13 | 13 | 0.085 | 1.2 | µg/L |
| Ethylbenzene | 8/07 | 8/13 | 14 | 0.08 | 0.17 | µg/L |
| Fensulfothion | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Fenthion | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Fluoranthene | 2/02 | 9/13 | 24 | 0.02 | 1.3 | µg/L |
| Fluorene | 2/02 | 9/13 | 24 | 0.02 | 1.6 | µg/L |
| Heptachlor | 3/02 | 8/13 | 24 | 0.001 | 0.008 | µg/L |

**LA River – Reach 3, Above LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Heptachlor Epoxide | 3/02 | 8/13 | 24 | 0.001 | 0.004 | µg/L |
| Hexachlorobenzene | 2/02 | 9/13 | 24 | 0.07 | 1.1 | µg/L |
| Hexachlorobutadiene | 2/02 | 9/13 | 24 | 0.07 | 2 | µg/L |
| Hexachlorocyclopentadiene | 2/02 | 9/13 | 24 | 1.3 | 3.83 | µg/L |
| Hexachloroethane | 2/02 | 9/13 | 24 | 0.07 | 2 | µg/L |
| L-Cyhalothrin | 5/09 | 5/09 | 1 | 0.0005 | 0.0005 | µg/L |
| Malathion | 8/07 | 9/13 | 14 | 0.003 | 1.1 | µg/L |
| Merphos | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Methoxychlor | 3/02 | 8/13 | 24 | 0.003 | 0.38 | µg/L |
| Methyl Bromide | 8/07 | 8/13 | 14 | 0.11 | 1.02 | µg/L |
| Methyl Chloride | 8/07 | 8/13 | 14 | 0.13 | 0.37 | µg/L |
| Methyl Parathion | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Methylene Chloride | 8/07 | 8/13 | 14 | 0.08 | 0.14 | µg/L |
| Mevinphos | 5/09 | 5/09 | 1 | 0.008 | 0.008 | µg/L |
| Mirex | 3/02 | 8/13 | 24 | 0.002 | 0.12 | µg/L |
| Naphthalene | 2/02 | 9/13 | 24 | 0.028 | 2 | µg/L |
| Nitrobenzene | 2/02 | 9/13 | 24 | 0.05 | 1.5 | µg/L |
| N-Nitrosodimethylamine | 2/02 | 9/13 | 24 | 0.17 | 100 | µg/L |
| N-Nitrosodi-n-Propylamine | 2/02 | 9/13 | 47 | 0.13 | 4.5 | µg/L |
| N-Nitrosodiphenylamine | 2/02 | 9/13 | 24 | 0.09 | 1.7 | µg/L |
| OCDF | 8/07 | 9/13 | 13 | 2 | 120 | pg/L |
| Pentachlorophenol | 2/02 | 9/13 | 24 | 0.4 | 8 | µg/L |
| Permethrin | 5/09 | 5/09 | 1 | 0.005 | 0.005 | µg/L |
| Phenanthrene | 2/02 | 9/13 | 24 | 0.01 | 1.5 | µg/L |
| Phenols (Total) | 2/02 | 9/13 | 24 | 0.2 | 8.3 | µg/L |
| Phorate | 5/09 | 5/09 | 1 | 0.006 | 0.006 | µg/L |
| Pyrene | 2/02 | 9/13 | 24 | 0.02 | 1.1 | µg/L |
| Ronnel | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Tetrachlorvinphos | 5/09 | 5/09 | 1 | 0.002 | 0.002 | µg/L |
| Tokuthion | 5/09 | 5/09 | 1 | 0.003 | 0.003 | µg/L |

**LA River – Reach 3, Above LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Toxaphene | 3/02 | 8/13 | 24 | 0.02 | 0.354 | µg/L |
| Trichloroethylene | 8/07 | 8/13 | 14 | 0.08 | 0.17 | µg/L |
| Trichloronate | 5/09 | 5/09 | 1 | 0.001 | 0.001 | µg/L |
| Vanadium - Dissolved | 2/01 | 2/01 | 1 | 5 | 5 | µg/L |
| Vinyl Chloride | 8/07 | 8/13 | 14 | 0.07 | 0.26 | µg/L |

**LA River – Reach 3, Below LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 8/07 | 8/13 | 16 | 0.05 | 0.23 | µg/L |
| 1,1,2,2-Tetrachloroethane | 8/07 | 8/13 | 16 | 0.02 | 0.19 | µg/L |
| 1,1,2-Trichloroethane | 8/07 | 8/13 | 16 | 0.05 | 0.21 | µg/L |
| 1,1-Dichloroethane | 8/07 | 8/13 | 16 | 0.11 | 0.16 | µg/L |
| 1,2,3,4,6,7,8-HpCDF | 8/07 | 9/13 | 13 | 2.3 | 50 | pg/L |
| 1,2,3,4,7,8,9-HpCDF | 8/07 | 9/13 | 13 | 0.21 | 50 | pg/L |
| 1,2,3,4,7,8-HxCDD | 8/07 | 9/13 | 13 | 0.55 | 50 | pg/L |
| 1,2,3,4,7,8-HxCDF | 8/07 | 9/13 | 13 | 0.49 | 50 | pg/L |
| 1,2,3,6,7,8-HxCDD | 8/07 | 9/13 | 13 | 0.62 | 50 | pg/L |
| 1,2,3,6,7,8-HxCDF | 8/07 | 9/13 | 13 | 0.44 | 50 | pg/L |
| 1,2,3,7,8,9-HxCDD | 8/07 | 9/13 | 13 | 0.45 | 50 | pg/L |
| 1,2,3,7,8,9-HxCDF | 8/07 | 9/13 | 13 | 0.51 | 50 | pg/L |
| 1,2,3,7,8-PeCDD | 8/07 | 9/13 | 13 | 0.66 | 50 | pg/L |
| 1,2,3,7,8-PeCDF | 8/07 | 9/13 | 13 | 0.52 | 50 | pg/L |
| 1,2,3-Trichloropropane | 8/07 | 8/13 | 16 | 0.13 | 0.27 | µg/L |
| 1,2,4-Trichlorobenzene | 2/02 | 9/13 | 37 | 0.08 | 2 | µg/L |
| 1,2-Dichloroethane | 8/07 | 8/13 | 16 | 0.03 | 0.13 | µg/L |
| 1,2-Dichloropropane | 8/07 | 8/13 | 16 | 0.09 | 0.13 | µg/L |
| 1,3-Dichlorobenzene | 2/02 | 9/13 | 37 | 0.05 | 1.5 | µg/L |
| 1,3-trans-Dichloropropene | 8/07 | 8/13 | 16 | 0.06 | 0.15 | µg/L |

**LA River – Reach 3, Below LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,4-Dichlorobenzene | 2/02 | 9/13 | 37 | 0.07 | 1.8 | µg/L |
| 2,3,4,6,7,8-HxCDF | 8/07 | 9/13 | 13 | 0.47 | 50 | pg/L |
| 2,3,4,7,8-PeCDF | 8/07 | 9/13 | 13 | 0.4 | 50 | pg/L |
| 2,3,7,8-TCDF | 8/07 | 9/13 | 13 | 0.27 | 10 | pg/L |
| 2,4,5-TP | 8/07 | 9/13 | 15 | 0.11 | 0.34 | µg/L |
| 2,4-D | 8/07 | 9/13 | 15 | 0.2 | 0.8 | µg/L |
| 2,4-DDE | 3/02 | 2/07 | 22 | 0.001 | 0.004 | µg/L |
| 2,4-DDT | 3/02 | 2/07 | 22 | 0.002 | 0.005 | µg/L |
| 2,4-Dichlorophenol | 2/02 | 9/13 | 37 | 0.09 | 6.8 | µg/L |
| 2,4-Dimethylphenol | 2/02 | 9/13 | 37 | 0.17 | 6.2 | µg/L |
| 2,4-Dinitrophenol | 2/02 | 9/13 | 37 | 0.21 | 31 | µg/L |
| 2,4-Dinitrotoluene | 2/02 | 9/13 | 37 | 0.08 | 2.3 | µg/L |
| 2,6-Dinitrotoluene | 2/02 | 9/13 | 37 | 0.022 | 1.6 | µg/L |
| 2-Chloroethylvinyl Ether | 8/07 | 8/13 | 16 | 0.13 | 0.63 | µg/L |
| 2-Chloronaphthalene | 2/02 | 9/13 | 37 | 0.07 | 1.5 | µg/L |
| 2-Chlorophenol | 2/02 | 9/13 | 37 | 0.09 | 8.1 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 2/02 | 9/13 | 37 | 0.4 | 8.9 | µg/L |
| 2-Nitrophenol | 2/02 | 9/13 | 37 | 0.09 | 7.9 | µg/L |
| 3,3-Dichlorobenzidine | 2/02 | 9/13 | 37 | 0.11 | 2.78 | µg/L |
| 3-Methyl-4-Chlorophenol | 2/02 | 9/13 | 37 | 0.18 | 6 | µg/L |
| 4,4-DDD | 3/02 | 9/13 | 37 | 0.001 | 0.006 | µg/L |
| 4,4-DDE | 3/02 | 9/13 | 37 | 0.001 | 0.004 | µg/L |
| 4,4-DDT | 3/02 | 9/13 | 37 | 0.001 | 0.007 | µg/L |
| 4-Bromophenyl Phenyl Ether | 2/02 | 9/13 | 37 | 0.07 | 1.5 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 2/02 | 9/13 | 37 | 0.04 | 2 | µg/L |
| 4-Nitrophenol | 2/02 | 9/13 | 37 | 0.06 | 5 | µg/L |
| Acenaphthene | 2/02 | 9/13 | 37 | 0.04 | 1.7 | µg/L |
| Acenaphthylene | 2/02 | 9/13 | 37 | 0.06 | 1.7 | µg/L |
| Acrolein | 8/07 | 8/13 | 16 | 0.61 | 1.96 | µg/L |
| Acrylonitrile | 8/07 | 8/13 | 16 | 0.08 | 0.57 | µg/L |

**LA River – Reach 3, Below LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Aldrin | 3/02 | 9/13 | 37 | 0.001 | 0.008 | µg/L |
| Aroclor 1016 | 3/02 | 9/13 | 37 | 0.022 | 0.081 | µg/L |
| Aroclor 1221 | 3/02 | 9/13 | 37 | 0.02 | 0.49 | µg/L |
| Aroclor 1232 | 3/02 | 9/13 | 37 | 0.028 | 0.1 | µg/L |
| Aroclor 1242 | 3/02 | 9/13 | 37 | 0.024 | 0.23 | µg/L |
| Aroclor 1248 | 3/02 | 9/13 | 37 | 0.019 | 0.121 | µg/L |
| Aroclor 1254 | 3/02 | 9/13 | 37 | 0.017 | 0.05 | µg/L |
| Aroclor 1260 | 3/02 | 9/13 | 37 | 0.029 | 0.1 | µg/L |
| Azinphos-methyl | 8/07 | 9/13 | 15 | 0.007 | 1.7 | µg/L |
| Azobenzene | 2/02 | 9/13 | 37 | 0.06 | 7 | µg/L |
| Benzene | 8/07 | 8/13 | 16 | 0.07 | 0.22 | µg/L |
| Benzidine | 2/02 | 9/13 | 37 | 0.3 | 47 | µg/L |
| Benzo(a)Pyrene | 2/02 | 9/13 | 37 | 0.06 | 1.6 | µg/L |
| Benzo(b)Fluoranthene | 2/02 | 9/13 | 37 | 0.07 | 1.5 | µg/L |
| Benzo(k)Fluoranthene | 2/02 | 9/13 | 37 | 0.11 | 2.3 | µg/L |
| beta-BHC | 3/02 | 9/13 | 37 | 0.0019 | 0.005 | µg/L |
| Bis(2-chloroethoxy)Methane | 2/02 | 9/13 | 37 | 0.05 | 1.6 | µg/L |
| Bis(2-chloroethyl)Ether | 2/02 | 9/13 | 37 | 0.09 | 1.9 | µg/L |
| Bromoform | 8/07 | 8/13 | 16 | 0.04 | 0.19 | µg/L |
| Butylbenzyl Phthalate | 2/02 | 9/13 | 37 | 0.04 | 3 | µg/L |
| Chlordanes | 3/02 | 9/13 | 37 | 0.012 | 0.06 | µg/L |
| Chlorobenzene | 8/07 | 8/13 | 16 | 0.06 | 0.15 | µg/L |
| Chloroethane | 8/07 | 8/13 | 16 | 0.04 | 0.79 | µg/L |
| cis-1,3-Dichloropropene | 8/07 | 8/13 | 16 | 0.04 | 0.15 | µg/L |
| delta-BHC | 3/02 | 9/13 | 37 | 0.0007 | 0.007 | µg/L |
| Demeton-O | 8/07 | 9/13 | 15 | 0.007 | 0.9 | µg/L |
| Demeton-S | 8/07 | 9/13 | 15 | 0.007 | 1.1 | µg/L |
| Diazinon | 4/12 | 9/13 | 7 | 0.006 | 0.006 | µg/L |
| Dieldrin | 3/02 | 9/13 | 37 | 0.0009 | 0.006 | µg/L |
| Dimethyl Phthalate | 2/02 | 9/13 | 37 | 0.08 | 3 | µg/L |

**LA River – Reach 3, Below LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Endosulfan I | 3/02 | 9/13 | 37 | 0.001 | 0.008 | µg/L |
| Endosulfan II | 3/02 | 9/13 | 37 | 0.001 | 0.007 | µg/L |
| Endosulfan Sulfate | 3/02 | 9/13 | 37 | 0.002 | 0.008 | µg/L |
| Endrin | 3/02 | 9/13 | 37 | 0.001 | 0.007 | µg/L |
| Endrin Aldehyde | 3/02 | 9/13 | 37 | 0.001 | 0.006 | µg/L |
| Ethyl Parathion | 8/07 | 9/13 | 15 | 0.085 | 1.2 | µg/L |
| Ethylbenzene | 8/07 | 8/13 | 16 | 0.08 | 0.17 | µg/L |
| Fluorene | 2/02 | 9/13 | 37 | 0.02 | 1.6 | µg/L |
| Heptachlor Epoxide | 3/02 | 9/13 | 37 | 0.001 | 0.004 | µg/L |
| Hexachlorobenzene | 2/02 | 9/13 | 37 | 0.07 | 1.1 | µg/L |
| Hexachlorobutadiene | 2/02 | 9/13 | 37 | 0.07 | 2 | µg/L |
| Hexachlorocyclopentadiene | 2/02 | 9/13 | 37 | 1.3 | 3.83 | µg/L |
| Hexachloroethane | 2/02 | 9/13 | 37 | 0.07 | 2 | µg/L |
| Malathion | 8/07 | 9/13 | 15 | 0.11 | 1.1 | µg/L |
| Methoxychlor | 3/02 | 9/13 | 37 | 0.003 | 0.38 | µg/L |
| Methyl Bromide | 8/07 | 8/13 | 16 | 0.11 | 1.02 | µg/L |
| Methyl Chloride | 8/07 | 8/13 | 16 | 0.13 | 0.37 | µg/L |
| Methylene Chloride | 8/07 | 8/13 | 16 | 0.08 | 0.14 | µg/L |
| Mirex | 3/02 | 9/13 | 37 | 0.002 | 0.12 | µg/L |
| Naphthalene | 2/02 | 9/13 | 37 | 0.028 | 2 | µg/L |
| Nitrobenzene | 2/02 | 9/13 | 37 | 0.05 | 1.5 | µg/L |
| N-Nitrosodimethylamine | 2/02 | 9/13 | 37 | 0.17 | 100 | µg/L |
| N-Nitrosodi-n-Propylamine | 2/02 | 9/13 | 75 | 0.13 | 4.5 | µg/L |
| N-Nitrosodiphenylamine | 2/02 | 9/13 | 37 | 0.09 | 1.7 | µg/L |
| OCDF | 8/07 | 9/13 | 13 | 2.5 | 100 | pg/L |
| Pentachlorophenol | 2/02 | 9/13 | 37 | 0.4 | 8 | µg/L |
| Phenols (Total) | 2/02 | 9/13 | 37 | 0.2 | 8.3 | µg/L |
| Pyrene | 2/02 | 9/13 | 37 | 0.02 | 1.1 | µg/L |
| Sulfide | 3/06 | 2/08 | 21 | 30 | 30 | µg/L |
| Toxaphene | 3/02 | 9/13 | 37 | 0.02 | 0.354 | µg/L |

**LA River – Reach 3, Below LAG – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Vanadium - Dissolved | 2/01 | 2/01 | 1 | 5 | 5 | µg/L |
| Vinyl Chloride | 8/07 | 8/13 | 16 | 0.07 | 0.26 | µg/L |

**LA River – Reach 4 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 8/07 | 8/13 | 16 | 0.05 | 0.23 | µg/L |
| 1,1,2,2-Tetrachloroethane | 8/07 | 8/13 | 16 | 0.02 | 0.14 | µg/L |
| 1,1,2-Trichloroethane | 8/07 | 8/13 | 16 | 0.05 | 0.1 | µg/L |
| 1,1-Dichloroethane | 8/07 | 8/13 | 16 | 0.11 | 0.16 | µg/L |
| 1,1-Dichloroethylene | 8/07 | 8/13 | 16 | 0.12 | 0.2 | µg/L |
| 1,2,3-Trichloropropane | 8/07 | 8/13 | 16 | 0.13 | 0.23 | µg/L |
| 1,2,4-Trichlorobenzene | 2/02 | 8/13 | 38 | 0.08 | 2 | µg/L |
| 1,2-Dichlorobenzene | 2/02 | 8/13 | 38 | 0.06 | 1.5 | µg/L |
| 1,2-Dichloroethane | 8/07 | 8/13 | 16 | 0.03 | 0.1 | µg/L |
| 1,2-Dichloropropane | 8/07 | 8/13 | 16 | 0.09 | 0.12 | µg/L |
| 1,2-Trans-Dichloroethylene | 8/07 | 8/13 | 16 | 0.07 | 0.2 | µg/L |
| 1,3-Dichlorobenzene | 2/02 | 8/13 | 38 | 0.05 | 1.5 | µg/L |
| 1,3-trans-Dichloropropene | 8/07 | 8/13 | 16 | 0.06 | 0.15 | µg/L |
| 1,4-Dichlorobenzene | 2/02 | 8/13 | 38 | 0.07 | 1.8 | µg/L |
| 2,3,7,8-TCDD (Dioxin) | 8/07 | 8/08 | 3 | 48 | 160 | pg/L |
| 2,4,5-TP | 8/07 | 9/13 | 16 | 0.11 | 0.11 | µg/L |
| 2,4-D | 8/07 | 9/13 | 16 | 0.2 | 0.21 | µg/L |
| 2,4-DDD | 2/02 | 2/07 | 22 | 0.001 | 0.01 | µg/L |
| 2,4-DDE | 2/02 | 2/07 | 22 | 0.001 | 0.004 | µg/L |
| 2,4-DDT | 2/02 | 2/07 | 22 | 0.002 | 0.005 | µg/L |
| 2,4-Dichlorophenol | 2/02 | 8/13 | 38 | 0.09 | 6.8 | µg/L |
| 2,4-Dimethylphenol | 2/02 | 8/13 | 38 | 0.17 | 6.2 | µg/L |
| 2,4-Dinitrophenol | 2/02 | 8/13 | 38 | 0.21 | 31 | µg/L |

**LA River – Reach 4 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 2,4-Dinitrotoluene | 2/02 | 8/13 | 38 | 0.08 | 2.3 | µg/L |
| 2,6-Dinitrotoluene | 2/02 | 8/13 | 38 | 0.022 | 1.6 | µg/L |
| 2-Chloroethylvinyl Ether | 8/07 | 8/13 | 16 | 0.27 | 0.63 | µg/L |
| 2-Chloronaphthalene | 2/02 | 8/13 | 38 | 0.07 | 1.5 | µg/L |
| 2-Chlorophenol | 2/02 | 8/13 | 38 | 0.09 | 8.1 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 2/02 | 8/13 | 38 | 0.4 | 8.9 | µg/L |
| 2-Nitrophenol | 2/02 | 8/13 | 38 | 0.09 | 7.9 | µg/L |
| 3,3-Dichlorobenzidine | 2/02 | 8/13 | 38 | 0.11 | 2.78 | µg/L |
| 3-Methyl-4-Chlorophenol | 2/02 | 8/13 | 38 | 0.18 | 6 | µg/L |
| 4,4-DDD | 2/02 | 8/13 | 38 | 0.001 | 0.006 | µg/L |
| 4,4-DDE | 2/02 | 8/13 | 38 | 0.001 | 0.004 | µg/L |
| 4,4-DDT | 2/02 | 8/13 | 38 | 0.001 | 0.007 | µg/L |
| 4-Bromophenyl Phenyl Ether | 2/02 | 8/13 | 38 | 0.07 | 1.5 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 2/02 | 8/13 | 38 | 0.04 | 2 | µg/L |
| 4-Nitrophenol | 2/02 | 8/13 | 38 | 0.06 | 5 | µg/L |
| Acenaphthene | 2/02 | 8/13 | 38 | 0.04 | 1.7 | µg/L |
| Acenaphthylene | 2/02 | 8/13 | 38 | 0.06 | 1.7 | µg/L |
| Acrolein | 8/07 | 8/13 | 16 | 0.61 | 1.96 | µg/L |
| Acrylonitrile | 8/07 | 8/13 | 16 | 0.08 | 0.27 | µg/L |
| Aldrin | 2/02 | 8/13 | 38 | 0.001 | 0.008 | µg/L |
| alpha-BHC | 2/02 | 8/13 | 38 | 0.001 | 0.004 | µg/L |
| Anthracene | 2/02 | 8/13 | 38 | 0.06 | 1.6 | µg/L |
| Aroclor 1016 | 2/02 | 8/13 | 38 | 0.022 | 0.081 | µg/L |
| Aroclor 1221 | 2/02 | 8/13 | 38 | 0.02 | 0.49 | µg/L |
| Aroclor 1232 | 2/02 | 8/13 | 38 | 0.028 | 0.1 | µg/L |
| Aroclor 1242 | 2/02 | 8/13 | 38 | 0.024 | 0.23 | µg/L |
| Aroclor 1248 | 2/02 | 8/13 | 38 | 0.019 | 0.121 | µg/L |
| Aroclor 1254 | 2/02 | 8/13 | 38 | 0.017 | 0.05 | µg/L |
| Aroclor 1260 | 2/02 | 8/13 | 38 | 0.029 | 0.1 | µg/L |
| Azinphos-methyl | 8/07 | 9/13 | 16 | 0.007 | 1.7 | µg/L |

**LA River – Reach 4 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Azobenzene | 2/02 | 8/13 | 38 | 0.06 | 7 | µg/L |
| Benzidine | 2/02 | 8/13 | 38 | 0.3 | 47 | µg/L |
| Benzo(a)Anthracene | 2/02 | 8/13 | 38 | 0.09 | 1.2 | µg/L |
| Benzo(a)Pyrene | 2/02 | 8/13 | 38 | 0.06 | 1.6 | µg/L |
| Benzo(b)Fluoranthene | 2/02 | 8/13 | 38 | 0.07 | 1.5 | µg/L |
| Benzo(ghi)Perylene | 2/02 | 8/13 | 38 | 0.03 | 1.7 | µg/L |
| Benzo(k)Fluoranthene | 2/02 | 8/13 | 38 | 0.11 | 2.3 | µg/L |
| beta-BHC | 2/02 | 8/13 | 38 | 0.0019 | 0.005 | µg/L |
| Bifenthrin | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Bis(2-chloroethoxy)Methane | 2/02 | 8/13 | 38 | 0.05 | 1.6 | µg/L |
| Bis(2-chloroethyl)Ether | 2/02 | 8/13 | 38 | 0.09 | 1.9 | µg/L |
| Bis(2-chloroisopropyl)Ether | 2/02 | 8/13 | 38 | 0.05 | 3 | µg/L |
| Bolstar | 6/11 | 6/11 | 1 | 0.002 | 0.002 | µg/L |
| Butylbenzyl Phthalate | 2/02 | 8/13 | 38 | 0.04 | 3 | µg/L |
| Carbon Tetrachloride | 8/07 | 8/13 | 16 | 0.09 | 0.27 | µg/L |
| Chlordanes | 2/02 | 8/13 | 38 | 0.012 | 0.06 | µg/L |
| Chlorobenzene | 8/07 | 8/13 | 16 | 0.06 | 0.15 | µg/L |
| Chloroethane | 8/07 | 8/13 | 16 | 0.04 | 0.79 | µg/L |
| Chlorpyrifos | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| cis-1,3-Dichloropropene | 8/07 | 8/13 | 16 | 0.04 | 0.15 | µg/L |
| cis-Permethrin | 6/11 | 6/11 | 1 | 0.005 | 0.005 | µg/L |
| Cyfluthrin | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Cypermethrin | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| delta-BHC | 2/02 | 8/13 | 38 | 0.0007 | 0.007 | µg/L |
| Deltamethrin | 6/11 | 6/11 | 1 | 0.005 | 0.005 | µg/L |
| Demeton-O | 8/07 | 9/13 | 16 | 0.007 | 0.9 | µg/L |
| Demeton-S | 8/07 | 9/13 | 17 | 0.001 | 1.1 | µg/L |
| Dichlorvos | 6/11 | 6/11 | 1 | 0.003 | 0.003 | µg/L |
| Dieldrin | 2/02 | 8/13 | 38 | 0.0009 | 0.006 | µg/L |
| Diethyl Phthalate | 2/02 | 8/13 | 38 | 0.06 | 3 | µg/L |

**LA River – Reach 4 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Dimethyl Phthalate | 2/02 | 8/13 | 38 | 0.08 | 3 | µg/L |
| Disulfoton | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Endosulfan II | 2/02 | 8/13 | 38 | 0.001 | 0.007 | µg/L |
| Endosulfan Sulfate | 2/02 | 8/13 | 38 | 0.002 | 0.008 | µg/L |
| Endrin Aldehyde | 2/02 | 8/13 | 38 | 0.001 | 0.006 | µg/L |
| Ethoprop | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Ethyl Parathion | 8/07 | 9/13 | 16 | 0.085 | 1.2 | µg/L |
| Ethylbenzene | 8/07 | 8/13 | 16 | 0.08 | 0.17 | µg/L |
| Fensulfothion | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/11 | 6/11 | 1 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/11 | 6/11 | 2 | 0.001 | 0.001 | µg/L |
| Fluoranthene | 2/02 | 8/13 | 38 | 0.02 | 1.3 | µg/L |
| Fluorene | 2/02 | 8/13 | 38 | 0.02 | 1.6 | µg/L |
| Heptachlor | 2/02 | 8/13 | 38 | 0.001 | 0.008 | µg/L |
| Heptachlor Epoxide | 2/02 | 8/13 | 46 | 0.001 | 0.004 | µg/L |
| Hexachlorobenzene | 2/02 | 8/13 | 38 | 0.07 | 1.1 | µg/L |
| Hexachlorobutadiene | 2/02 | 8/13 | 38 | 0.07 | 2 | µg/L |
| Hexachlorocyclopentadiene | 2/02 | 8/13 | 38 | 1.3 | 3.83 | µg/L |
| Hexachloroethane | 2/02 | 8/13 | 38 | 0.07 | 2 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 2/02 | 8/13 | 38 | 0.02 | 1.7 | µg/L |
| L-Cyhalothrin | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Malathion | 8/07 | 9/13 | 17 | 0.003 | 1.1 | µg/L |
| Methoxychlor | 2/02 | 8/13 | 38 | 0.003 | 0.38 | µg/L |
| Methyl Bromide | 8/07 | 8/13 | 16 | 0.11 | 1.02 | µg/L |
| Methyl Chloride | 8/07 | 8/13 | 16 | 0.13 | 0.37 | µg/L |
| Methyl Parathion | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Mevinphos | 6/11 | 6/11 | 1 | 0.008 | 0.008 | µg/L |
| Mirex | 2/02 | 8/13 | 38 | 0.002 | 0.12 | µg/L |
| Naphthalene | 2/02 | 8/13 | 38 | 0.028 | 2 | µg/L |
| Nitrobenzene | 2/02 | 8/13 | 38 | 0.05 | 1.5 | µg/L |

**LA River – Reach 4 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| N-Nitrosodimethylamine | 2/02 | 8/13 | 38 | 0.17 | 100 | µg/L |
| N-Nitrosodi-n-Propylamine | 2/02 | 8/13 | 38 | 0.13 | 4.5 | µg/L |
| N-Nitrosodiphenylamine | 2/02 | 8/13 | 38 | 0.09 | 1.7 | µg/L |
| Pentachlorophenol | 2/02 | 8/13 | 38 | 0.4 | 8 | µg/L |
| Phenols (Total) | 2/02 | 8/13 | 38 | 0.2 | 8.3 | µg/L |
| Phorate | 6/11 | 6/11 | 1 | 0.006 | 0.006 | µg/L |
| Pyrene | 2/02 | 8/13 | 38 | 0.02 | 1.1 | µg/L |
| Ronnel | 6/11 | 6/11 | 1 | 0.002 | 0.002 | µg/L |
| Tetrachloroethylene | 5/07 | 8/13 | 24 | 0.09 | 0.22 | µg/L |
| Tetrachlorvinphos | 6/11 | 6/11 | 1 | 0.002 | 0.002 | µg/L |
| Tokuthion | 6/11 | 6/11 | 1 | 0.003 | 0.003 | µg/L |
| Toxaphene | 2/02 | 8/13 | 38 | 0.02 | 0.354 | µg/L |
| trans-Permethrin | 6/11 | 6/11 | 1 | 0.005 | 0.005 | µg/L |
| Trichloroethylene | 8/07 | 8/13 | 16 | 0.08 | 0.17 | µg/L |
| Trichloronate | 6/11 | 6/11 | 1 | 0.001 | 0.001 | µg/L |
| Vanadium - Dissolved | 2/01 | 2/01 | 2 | 5 | 5 | µg/L |
| Vinyl Chloride | 8/07 | 8/13 | 16 | 0.07 | 0.26 | µg/L |

**LA River – Reach 5 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 8/07 | 8/13 | 39 | 0.05 | 0.23 | µg/L |
| 1,1,2,2-Tetrachloroethane | 8/07 | 8/13 | 39 | 0.02 | 0.14 | µg/L |
| 1,1,2-Trichloroethane | 8/07 | 8/13 | 39 | 0.05 | 0.1 | µg/L |
| 1,1-Dichloroethane | 8/07 | 8/13 | 39 | 0.11 | 0.16 | µg/L |
| 1,1-Dichloroethylene | 8/07 | 8/13 | 39 | 0.12 | 0.2 | µg/L |
| 1,2,3-Trichloropropane | 8/07 | 8/13 | 39 | 0.13 | 0.23 | µg/L |
| 1,2,4-Trichlorobenzene | 2/02 | 8/13 | 75 | 0.08 | 2 | µg/L |
| 1,2-Dichloroethane | 8/07 | 8/13 | 39 | 0.03 | 0.1 | µg/L |

**LA River – Reach 5 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2-Dichloropropane | 8/07 | 8/13 | 39 | 0.09 | 0.12 | µg/L |
| 1,2-Trans-Dichloroethylene | 8/07 | 8/13 | 39 | 0.07 | 0.2 | µg/L |
| 1,3-Dichlorobenzene | 2/02 | 8/13 | 75 | 0.05 | 1.5 | µg/L |
| 1,3-trans-Dichloropropene | 8/07 | 8/13 | 39 | 0.06 | 0.15 | µg/L |
| 1,4-Dichlorobenzene | 2/02 | 8/13 | 75 | 0.07 | 1.8 | µg/L |
| 2,3,7,8-TCDD (Dioxin) | 8/07 | 9/13 | 39 | 0.76 | 5600 | pg/L |
| 2,4,5-TP | 8/07 | 9/13 | 39 | 0.11 | 0.34 | µg/L |
| 2,4-D | 8/07 | 9/13 | 39 | 0.2 | 0.8 | µg/L |
| 2,4-DDE | 2/02 | 2/07 | 33 | 0.001 | 0.004 | µg/L |
| 2,4-Dinitrophenol | 2/02 | 8/13 | 72 | 0.21 | 31 | µg/L |
| 2,4-Dinitrotoluene | 2/02 | 8/13 | 75 | 0.08 | 2.3 | µg/L |
| 2,6-Dinitrotoluene | 2/02 | 8/13 | 75 | 0.022 | 1.6 | µg/L |
| 2-Chloroethylvinyl Ether | 8/07 | 8/13 | 39 | 0.27 | 0.63 | µg/L |
| 2-Chloronaphthalene | 2/02 | 8/13 | 75 | 0.07 | 1.5 | µg/L |
| 2-Chlorophenol | 2/02 | 8/13 | 72 | 0.09 | 8.1 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 2/02 | 8/13 | 72 | 0.4 | 8.9 | µg/L |
| 2-Nitrophenol | 2/02 | 8/13 | 72 | 0.09 | 7.9 | µg/L |
| 3,3-Dichlorobenzidine | 2/02 | 8/13 | 75 | 0.11 | 2.78 | µg/L |
| 4,4-DDT | 2/02 | 8/13 | 72 | 0.001 | 0.007 | µg/L |
| 4-Bromophenyl Phenyl Ether | 2/02 | 8/13 | 75 | 0.07 | 1.5 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 2/02 | 8/13 | 75 | 0.04 | 2 | µg/L |
| Acenaphthene | 2/02 | 8/13 | 75 | 0.04 | 1.7 | µg/L |
| Acenaphthylene | 2/02 | 8/13 | 75 | 0.06 | 1.7 | µg/L |
| Acrolein | 8/07 | 8/13 | 39 | 0.61 | 1.96 | µg/L |
| Acrylonitrile | 8/07 | 8/13 | 39 | 0.08 | 0.27 | µg/L |
| Aldrin | 2/02 | 8/13 | 72 | 0.001 | 0.008 | µg/L |
| Anthracene | 2/02 | 8/13 | 75 | 0.06 | 1.6 | µg/L |
| Aroclor 1016 | 2/02 | 8/13 | 72 | 0.022 | 0.081 | µg/L |
| Aroclor 1221 | 2/02 | 8/13 | 72 | 0.02 | 0.49 | µg/L |
| Aroclor 1232 | 2/02 | 8/13 | 72 | 0.028 | 0.1 | µg/L |

**LA River – Reach 5 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Aroclor 1242 | 2/02 | 8/13 | 72 | 0.024 | 0.23 | µg/L |
| Aroclor 1248 | 2/02 | 8/13 | 72 | 0.019 | 0.121 | µg/L |
| Aroclor 1254 | 2/02 | 8/13 | 72 | 0.017 | 0.05 | µg/L |
| Aroclor 1260 | 2/02 | 8/13 | 72 | 0.029 | 0.1 | µg/L |
| Azinphos-methyl | 8/07 | 9/13 | 39 | 0.007 | 1.7 | µg/L |
| Azobenzene | 2/02 | 8/13 | 75 | 0.06 | 7 | µg/L |
| Benzidine | 2/02 | 8/13 | 75 | 0.3 | 47 | µg/L |
| Benzo(a)Anthracene | 2/02 | 8/13 | 75 | 0.09 | 1.2 | µg/L |
| Benzo(a)Pyrene | 2/02 | 8/13 | 75 | 0.06 | 1.6 | µg/L |
| Benzo(b)Fluoranthene | 2/02 | 8/13 | 75 | 0.07 | 1.5 | µg/L |
| Benzo(k)Fluoranthene | 2/02 | 8/13 | 75 | 0.11 | 2.3 | µg/L |
| beta-BHC | 2/02 | 8/13 | 72 | 0.0019 | 0.005 | µg/L |
| Bis(2-chloroethoxy)Methane | 2/02 | 8/13 | 75 | 0.05 | 1.6 | µg/L |
| Bis(2-chloroethyl)Ether | 2/02 | 8/13 | 75 | 0.09 | 1.9 | µg/L |
| Carbon Tetrachloride | 8/07 | 8/13 | 39 | 0.09 | 0.27 | µg/L |
| Chlordanes | 2/02 | 8/13 | 69 | 0.012 | 0.06 | µg/L |
| Chlorobenzene | 8/07 | 8/13 | 39 | 0.06 | 0.15 | µg/L |
| Chloroethane | 8/07 | 8/13 | 39 | 0.04 | 0.79 | µg/L |
| Chrysene | 2/02 | 8/13 | 75 | 0.05 | 1.5 | µg/L |
| cis-1,3-Dichloropropene | 8/07 | 8/13 | 39 | 0.04 | 0.15 | µg/L |
| delta-BHC | 2/02 | 8/13 | 72 | 0.0007 | 0.007 | µg/L |
| Demeton-O | 8/07 | 9/13 | 39 | 0.007 | 0.9 | µg/L |
| Demeton-S | 8/07 | 9/13 | 39 | 0.007 | 1.1 | µg/L |
| Dieldrin | 2/02 | 8/13 | 72 | 0.0009 | 0.006 | µg/L |
| Dimethyl Phthalate | 2/02 | 8/13 | 75 | 0.08 | 3 | µg/L |
| Endosulfan II | 2/02 | 8/13 | 72 | 0.001 | 0.007 | µg/L |
| Endosulfan Sulfate | 2/02 | 8/13 | 72 | 0.002 | 0.008 | µg/L |
| Endrin | 2/02 | 8/13 | 72 | 0.001 | 0.007 | µg/L |
| Endrin Aldehyde | 2/02 | 8/13 | 72 | 0.001 | 0.006 | µg/L |
| Ethyl Parathion | 8/07 | 9/13 | 39 | 0.085 | 1.2 | µg/L |

**LA River – Reach 5 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Ethylbenzene | 8/07 | 8/13 | 39 | 0.08 | 0.17 | µg/L |
| Fluoranthene | 2/02 | 8/13 | 75 | 0.02 | 1.3 | µg/L |
| Fluorene | 2/02 | 8/13 | 75 | 0.02 | 1.6 | µg/L |
| Heptachlor Epoxide | 2/02 | 8/13 | 84 | 0.001 | 0.004 | µg/L |
| Hexachlorobenzene | 2/02 | 8/13 | 75 | 0.07 | 1.1 | µg/L |
| Hexachlorobutadiene | 2/02 | 8/13 | 75 | 0.07 | 2 | µg/L |
| Hexachlorocyclopentadiene | 2/02 | 8/13 | 75 | 1.3 | 3.83 | µg/L |
| Hexachloroethane | 2/02 | 8/13 | 75 | 0.07 | 2 | µg/L |
| Malathion | 8/07 | 9/13 | 39 | 0.11 | 1.2 | µg/L |
| Methoxychlor | 2/02 | 8/13 | 69 | 0.003 | 0.38 | µg/L |
| Methyl Bromide | 8/07 | 8/13 | 39 | 0.11 | 1.02 | µg/L |
| Methyl Chloride | 8/07 | 8/13 | 39 | 0.13 | 0.37 | µg/L |
| Mirex | 2/02 | 8/13 | 69 | 0.002 | 0.12 | µg/L |
| Nitrobenzene | 2/02 | 8/13 | 75 | 0.05 | 1.5 | µg/L |
| N-Nitrosodimethylamine | 2/02 | 8/13 | 75 | 0.17 | 100 | µg/L |
| N-Nitrosodi-n-Propylamine | 2/02 | 8/13 | 75 | 0.13 | 4.5 | µg/L |
| N-Nitrosodiphenylamine | 2/02 | 8/13 | 75 | 0.09 | 1.7 | µg/L |
| Phenanthrene | 2/02 | 8/13 | 75 | 0.01 | 1.5 | µg/L |
| Phenols (Total) | 2/02 | 8/13 | 72 | 0.2 | 8.3 | µg/L |
| Pyrene | 2/02 | 8/13 | 75 | 0.02 | 1.1 | µg/L |
| Tetrachloroethylene | 5/07 | 8/13 | 51 | 0.09 | 0.22 | µg/L |
| Toxaphene | 2/02 | 8/13 | 72 | 0.02 | 0.354 | µg/L |
| Vinyl Chloride | 8/07 | 8/13 | 39 | 0.07 | 0.26 | µg/L |

**LA River – Reach 6 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 8/07 | 8/08 | 3 | 0.05 | 0.23 | µg/L |
| 1,1,2,2-Tetrachloroethane | 8/07 | 8/08 | 3 | 0.11 | 0.12 | µg/L |
| 1,1,2-Trichloroethane | 8/07 | 8/08 | 3 | 0.05 | 0.1 | µg/L |
| 1,1-Dichloroethane | 8/07 | 8/08 | 3 | 0.11 | 0.12 | µg/L |
| 1,1-Dichloroethylene | 3/06 | 8/08 | 43 | 0.12 | 0.23 | µg/L |
| 1,2,3,4,6,7,8-HpCDD | 8/07 | 8/08 | 3 | 6.7 | 56 | pg/L |
| 1,2,3,4,6,7,8-HpCDF | 8/07 | 8/08 | 3 | 8.8 | 14 | pg/L |
| 1,2,3,4,7,8,9-HpCDF | 8/07 | 8/08 | 3 | 0.91 | 26 | pg/L |
| 1,2,3,4,7,8-HxCDD | 8/07 | 8/08 | 3 | 0.96 | 17 | pg/L |
| 1,2,3,4,7,8-HxCDF | 8/07 | 8/08 | 3 | 0.76 | 12 | pg/L |
| 1,2,3,6,7,8-HxCDD | 8/07 | 8/08 | 3 | 0.64 | 15 | pg/L |
| 1,2,3,6,7,8-HxCDF | 8/07 | 8/08 | 3 | 0.56 | 11 | pg/L |
| 1,2,3,7,8,9-HxCDD | 8/07 | 8/08 | 3 | 1.3 | 13 | pg/L |
| 1,2,3,7,8,9-HxCDF | 8/07 | 8/08 | 3 | 0.6 | 14 | pg/L |
| 1,2,3,7,8-PeCDD | 8/07 | 8/08 | 3 | 0.96 | 25 | pg/L |
| 1,2,3,7,8-PeCDF | 8/07 | 8/08 | 3 | 0.56 | 16 | pg/L |
| 1,2,3-Trichloropropane | 8/07 | 8/08 | 3 | 0.23 | 0.23 | µg/L |
| 1,2,4-Trichlorobenzene | 2/02 | 8/08 | 15 | 0.08 | 2 | µg/L |
| 1,2-Dichlorobenzene | 2/02 | 8/08 | 15 | 0.06 | 1.5 | µg/L |
| 1,2-Dichloroethane | 8/07 | 8/08 | 3 | 0.08 | 0.1 | µg/L |
| 1,2-Dichloropropane | 8/07 | 8/08 | 3 | 0.1 | 0.12 | µg/L |
| 1,2-Trans-Dichloroethylene | 8/07 | 8/08 | 3 | 0.07 | 0.15 | µg/L |
| 1,3-Dichlorobenzene | 2/02 | 8/08 | 15 | 0.05 | 1.5 | µg/L |
| 1,3-trans-Dichloropropene | 8/07 | 8/08 | 3 | 0.06 | 0.09 | µg/L |
| 1,4-Dichlorobenzene | 2/02 | 8/08 | 15 | 0.07 | 1.8 | µg/L |
| 1,4-Dioxane | 8/07 | 8/08 | 3 | 0.15 | 0.19 | µg/L |
| 2,3,4,6,7,8-HxCDF | 8/07 | 8/08 | 3 | 0.84 | 11 | pg/L |
| 2,3,4,7,8-PeCDF | 8/07 | 8/08 | 3 | 0.59 | 19 | pg/L |
| 2,3,7,8-TCDF | 8/07 | 8/08 | 3 | 0.4 | 8.7 | pg/L |
| 2,4,5-TP | 8/07 | 8/08 | 3 | 0.11 | 0.11 | µg/L |
| 2,4,6-Trichlorophenol | 2/02 | 8/08 | 14 | 0.09 | 6.9 | µg/L |
| 2,4-DDD | 2/02 | 2/07 | 11 | 0.001 | 0.01 | µg/L |
| 2,4-DDE | 2/02 | 2/07 | 11 | 0.001 | 0.004 | µg/L |
| 2,4-DDT | 2/02 | 2/07 | 11 | 0.002 | 0.005 | µg/L |

**LA River – Reach 6 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 2,4-Dichlorophenol | 2/02 | 8/08 | 14 | 0.09 | 6.8 | µg/L |
| 2,4-Dimethylphenol | 2/02 | 8/08 | 14 | 0.17 | 6.2 | µg/L |
| 2,4-Dinitrophenol | 2/02 | 8/08 | 14 | 0.21 | 31 | µg/L |
| 2,4-Dinitrotoluene | 2/02 | 8/08 | 15 | 0.08 | 2.3 | µg/L |
| 2,6-Dinitrotoluene | 2/02 | 8/08 | 15 | 0.022 | 1.6 | µg/L |
| 2-Chloroethylvinyl Ether | 8/07 | 8/08 | 3 | 0.27 | 0.48 | µg/L |
| 2-Chloronaphthalene | 2/02 | 8/08 | 15 | 0.07 | 1.5 | µg/L |
| 2-Chlorophenol | 2/02 | 8/08 | 14 | 0.09 | 8.1 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 2/02 | 8/08 | 14 | 0.4 | 8.9 | µg/L |
| 2-Nitrophenol | 2/02 | 8/08 | 14 | 0.09 | 7.9 | µg/L |
| 3,3-Dichlorobenzidine | 2/02 | 8/08 | 15 | 0.11 | 2.5 | µg/L |
| 3-Methyl-4-Chlorophenol | 2/02 | 8/08 | 14 | 0.18 | 6 | µg/L |
| 4,4-DDD | 2/02 | 8/08 | 14 | 0.001 | 0.006 | µg/L |
| 4,4-DDE | 2/02 | 8/08 | 14 | 0.0018 | 0.004 | µg/L |
| 4,4-DDT | 2/02 | 8/08 | 14 | 0.002 | 0.006 | µg/L |
| 4-Bromophenyl Phenyl Ether | 2/02 | 8/08 | 15 | 0.07 | 1.5 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 2/02 | 8/08 | 15 | 0.04 | 2 | µg/L |
| 4-Nitrophenol | 2/02 | 8/08 | 14 | 0.06 | 5 | µg/L |
| Acenaphthene | 2/02 | 8/08 | 15 | 0.04 | 1.7 | µg/L |
| Acenaphthylene | 2/02 | 8/08 | 15 | 0.06 | 1.7 | µg/L |
| Acrolein | 8/07 | 8/08 | 3 | 0.61 | 1.96 | µg/L |
| Acrylonitrile | 8/07 | 8/08 | 3 | 0.08 | 0.17 | µg/L |
| Aldrin | 2/02 | 8/08 | 14 | 0.001 | 0.008 | µg/L |
| alpha-BHC | 2/02 | 8/08 | 14 | 0.001 | 0.003 | µg/L |
| Anthracene | 2/02 | 8/08 | 15 | 0.06 | 1.6 | µg/L |
| Aroclor 1016 | 2/02 | 8/08 | 14 | 0.03 | 0.08 | µg/L |
| Aroclor 1221 | 2/02 | 8/08 | 14 | 0.02 | 0.49 | µg/L |
| Aroclor 1232 | 2/02 | 8/08 | 14 | 0.033 | 0.1 | µg/L |
| Aroclor 1242 | 2/02 | 8/08 | 14 | 0.031 | 0.2 | µg/L |
| Aroclor 1248 | 2/02 | 8/08 | 14 | 0.057 | 0.121 | µg/L |
| Aroclor 1254 | 2/02 | 8/08 | 14 | 0.017 | 0.05 | µg/L |
| Aroclor 1260 | 2/02 | 8/08 | 14 | 0.03 | 0.1 | µg/L |
| Azinphos-methyl | 8/07 | 8/08 | 3 | 0.17 | 1.2 | µg/L |
| Azobenzene | 2/02 | 8/08 | 15 | 0.06 | 7 | µg/L |
| Benzene | 8/07 | 8/08 | 3 | 0.07 | 0.09 | µg/L |

**LA River – Reach 6 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Benzidine | 2/02 | 8/08 | 15 | 0.3 | 47 | µg/L |
| Benzo(a)Anthracene | 2/02 | 8/08 | 15 | 0.09 | 1.2 | µg/L |
| Benzo(a)Pyrene | 2/02 | 8/08 | 15 | 0.06 | 1.6 | µg/L |
| Benzo(b)Fluoranthene | 2/02 | 8/08 | 15 | 0.07 | 1.5 | µg/L |
| Benzo(ghi)Perylene | 2/02 | 8/08 | 15 | 0.03 | 1.7 | µg/L |
| Benzo(k)Fluoranthene | 2/02 | 8/08 | 15 | 0.11 | 2.3 | µg/L |
| beta-BHC | 2/02 | 8/08 | 14 | 0.0019 | 0.005 | µg/L |
| Bis(2-chloroethoxy)Methane | 2/02 | 8/08 | 15 | 0.05 | 1.6 | µg/L |
| Bis(2-chloroethyl)Ether | 2/02 | 8/08 | 15 | 0.09 | 1.9 | µg/L |
| Bis(2-chloroisopropyl)Ether | 2/02 | 8/08 | 15 | 0.05 | 3 | µg/L |
| Bolstar | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Bromoform | 8/07 | 8/08 | 3 | 0.07 | 0.16 | µg/L |
| Butylbenzyl Phthalate | 2/02 | 8/08 | 15 | 0.04 | 3 | µg/L |
| Carbon Tetrachloride | 8/07 | 8/08 | 3 | 0.09 | 0.1 | µg/L |
| Chlordanes | 2/02 | 8/08 | 14 | 0.012 | 0.06 | µg/L |
| Chlorobenzene | 8/07 | 8/08 | 3 | 0.06 | 0.12 | µg/L |
| Chlorodibromomethane | 8/07 | 8/08 | 3 | 0.05 | 0.1 | µg/L |
| Chloroethane | 8/07 | 8/08 | 3 | 0.04 | 0.17 | µg/L |
| Chlorpyrifos | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| cis-1,3-Dichloropropene | 8/07 | 8/08 | 3 | 0.09 | 0.15 | µg/L |
| Cyfluthrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Cypermethrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Deltamethrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Demeton-O | 8/07 | 8/08 | 3 | 0.09 | 0.49 | µg/L |
| Demeton-S | 8/07 | 8/08 | 3 | 0.11 | 0.63 | µg/L |
| Dibenzo(a,h)Anthracene | 2/02 | 8/08 | 15 | 0.02 | 1.9 | µg/L |
| Dichlorobromomethane | 8/07 | 8/08 | 3 | 0.06 | 0.08 | µg/L |
| Dichlorvos | 6/10 | 6/10 | 1 | 0.003 | 0.003 | µg/L |
| Dieldrin | 2/02 | 8/08 | 14 | 0.0009 | 0.006 | µg/L |
| Dimethoate | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Dimethyl Phthalate | 2/02 | 8/08 | 15 | 0.27 | 3 | µg/L |
| Disulfoton | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Endosulfan II | 2/02 | 8/08 | 14 | 0.001 | 0.007 | µg/L |
| Endosulfan Sulfate | 2/02 | 8/08 | 14 | 0.002 | 0.005 | µg/L |
| Endrin | 2/02 | 8/08 | 14 | 0.004 | 0.007 | µg/L |

**LA River – Reach 6 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Endrin Aldehyde | 2/02 | 8/08 | 14 | 0.002 | 0.006 | µg/L |
| Esfenvalerate | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Ethyl Parathion | 8/07 | 8/08 | 3 | 0.12 | 1.2 | µg/L |
| Ethylbenzene | 8/07 | 8/08 | 3 | 0.08 | 0.17 | µg/L |
| Fensulfothion | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Fluoranthene | 2/02 | 8/08 | 15 | 0.02 | 1.3 | µg/L |
| Fluorene | 2/02 | 8/08 | 15 | 0.02 | 1.6 | µg/L |
| Heptachlor | 2/02 | 8/08 | 14 | 0.001 | 0.005 | µg/L |
| Heptachlor Epoxide | 2/02 | 11/08 | 18 | 0.001 | 0.004 | µg/L |
| Hexachlorobenzene | 2/02 | 8/08 | 15 | 0.07 | 1.1 | µg/L |
| Hexachlorobutadiene | 2/02 | 8/08 | 15 | 0.07 | 2 | µg/L |
| Hexachlorocyclopentadiene | 2/02 | 8/08 | 15 | 1.3 | 3 | µg/L |
| Hexachloroethane | 2/02 | 8/08 | 15 | 0.07 | 2 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 2/02 | 8/08 | 15 | 0.02 | 1.7 | µg/L |
| L-Cyhalothrin | 6/10 | 6/10 | 1 | 0.0005 | 0.0005 | µg/L |
| Malathion | 8/07 | 6/10 | 4 | 0.003 | 1.1 | µg/L |
| Merphos | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Methoxychlor | 2/02 | 8/08 | 14 | 0.003 | 0.38 | µg/L |
| Methyl Bromide | 8/07 | 8/08 | 3 | 0.21 | 0.26 | µg/L |
| Methyl Chloride | 8/07 | 8/08 | 3 | 0.16 | 0.16 | µg/L |
| Methyl Parathion | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Methylene Chloride | 8/07 | 8/08 | 3 | 0.09 | 0.12 | µg/L |
| Mevinphos | 6/10 | 6/10 | 1 | 0.008 | 0.008 | µg/L |
| Mirex | 2/02 | 8/08 | 14 | 0.003 | 0.12 | µg/L |
| Naphthalene | 2/02 | 8/08 | 15 | 0.028 | 2 | µg/L |
| Nitrobenzene | 2/02 | 8/08 | 15 | 0.05 | 1.5 | µg/L |
| N-Nitrosodimethylamine | 2/02 | 8/08 | 15 | 0.17 | 100 | µg/L |
| N-Nitrosodi-n-Propylamine | 2/02 | 8/08 | 15 | 0.13 | 4.5 | µg/L |
| N-Nitrosodiphenylamine | 2/02 | 8/08 | 15 | 0.09 | 1.7 | µg/L |
| OCDF | 8/07 | 8/08 | 3 | 8.4 | 39 | pg/L |
| Oil + Grease | 2/02 | 1/09 | 44 | 3 | 3 | mg/L |
| Pentachlorophenol | 2/02 | 8/08 | 14 | 0.4 | 8 | µg/L |

**LA River – Reach 6 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Permethrin | 6/10 | 6/10 | 1 | 0.005 | 0.005 | µg/L |
| Phenanthrene | 2/02 | 8/08 | 15 | 0.01 | 1.5 | µg/L |
| Phenols (Total) | 2/02 | 8/08 | 14 | 0.4 | 8.3 | µg/L |
| Phorate | 6/10 | 6/10 | 1 | 0.006 | 0.006 | µg/L |
| Pyrene | 2/02 | 8/08 | 15 | 0.02 | 1.1 | µg/L |
| Ronnel | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Tetrachlorvinphos | 6/10 | 6/10 | 1 | 0.002 | 0.002 | µg/L |
| Tokuthion | 6/10 | 6/10 | 1 | 0.003 | 0.003 | µg/L |
| Toluene | 8/07 | 8/08 | 3 | 0.06 | 0.14 | µg/L |
| Toxaphene | 2/02 | 8/08 | 14 | 0.02 | 0.354 | µg/L |
| Trichloronate | 6/10 | 6/10 | 1 | 0.001 | 0.001 | µg/L |
| Vanadium - Dissolved | 2/01 | 2/01 | 1 | 5 | 5 | µg/L |
| Vanadium - Total | 2/01 | 2/01 | 1 | 5 | 5 | µg/L |
| Vinyl Chloride | 8/07 | 8/08 | 3 | 0.07 | 0.22 | µg/L |

**Rio Hondo – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Beryllium Dissolved | 1/05 | 2/06 | 13 | 0.4 | 0.4 | µg/L |
| Beryllium Total | 1/05 | 2/06 | 13 | 0.4 | 0.4 | µg/L |
| Bolstar | 6/09 | 6/12 | 4 | 0.002 | 0.002 | µg/L |
| Chlorpyrifos | 6/09 | 6/12 | 4 | 0.001 | 0.001 | µg/L |
| cis-Permethrin | 6/11 | 6/12 | 2 | 0.005 | 0.005 | µg/L |
| Deltamethrin | 6/09 | 6/12 | 4 | 0.0005 | 0.005 | µg/L |
| Demeton-S | 6/09 | 6/12 | 3 | 0.001 | 0.001 | µg/L |
| Diazinon | 6/09 | 6/12 | 4 | 0.002 | 0.002 | µg/L |
| Dichlorvos | 6/09 | 6/12 | 4 | 0.003 | 0.003 | µg/L |
| Dimethoate | 6/09 | 7/10 | 2 | 0.002 | 0.003 | µg/L |
| Disulfoton | 6/09 | 6/12 | 4 | 0.001 | 0.001 | µg/L |
| Esfenvalerate | 6/09 | 7/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/09 | 6/12 | 4 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 6/09 | 6/12 | 4 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/09 | 6/12 | 4 | 0.002 | 0.002 | µg/L |
| L-Cyhalothrin | 6/09 | 6/12 | 4 | 0.0005 | 0.001 | µg/L |
| Malathion | 6/09 | 6/12 | 4 | 0.003 | 0.003 | µg/L |
| Merphos | 6/09 | 7/10 | 2 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 6/09 | 6/12 | 4 | 0.001 | 0.001 | µg/L |
| Mevinphos | 6/09 | 6/12 | 4 | 0.008 | 0.008 | µg/L |
| Nitrite as N | 6/09 | 6/12 | 4 | 0.02 | 0.02 | mg/L |
| Permethrin | 6/09 | 7/10 | 2 | 0.005 | 0.005 | µg/L |
| Phorate | 6/09 | 6/12 | 4 | 0.006 | 0.006 | µg/L |
| Ronnel | 6/09 | 6/12 | 4 | 0.002 | 0.002 | µg/L |
| Tetrachlorvinphos | 6/09 | 6/12 | 4 | 0.002 | 0.002 | µg/L |
| Tokuthion | 6/09 | 6/12 | 4 | 0.003 | 0.003 | µg/L |
| trans-Permethrin | 6/11 | 6/12 | 2 | 0.005 | 0.005 | µg/L |
| Trichloronate | 6/09 | 6/12 | 4 | 0.001 | 0.001 | µg/L |

**Rio Hondo – Reach 2 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2,4-Trichlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| 1,2-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,2-Diphenylhydrazine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 1,3-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,4-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,4,5-TP | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4,6-Trichlorophenol | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4-D | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| 2,4-Dichlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dimethylphenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2,4-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,6-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2-Chloronaphthalene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 2-Chlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3,3-Dichlorobenzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3-Methyl-4-Chlorophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 4,4-DDD | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDE | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDT | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Bromophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Acenaphthene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Acenaphthylene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aldrin | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| alpha-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aluminum Dissolved | 10/03 | 2/04 | 6 | 100 | 100 | µg/L |
| Anthracene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |

**Rio Hondo – Reach 2 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Aroclor 1016 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1221 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1232 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1242 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1248 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1254 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1260 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Atrazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Benzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Benzo(a)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(a)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(k)Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Beryllium Dissolved | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Beryllium Total | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| beta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Bis(2-chloroethoxy)Methane | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroethyl)Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroisopropyl)Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Butylbenzyl Phthalate | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Cadmium Dissolved | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Chlordane-alpha | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlordane-gamma | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlorpyrifos | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chromium (VI) - Dissolved | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chromium (VI) - Total | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chrysene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Cyanazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| delta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Dibenzo(a,h)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dieldrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |

**Rio Hondo – Reach 2 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Dimethyl Phthalate | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Di-n-Butyl Phthalate | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Di-n-Octyl Phthalate | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Endosulfan I | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan II | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan Sulfate | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin Aldehyde | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluorene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| gamma-BHC (Lindane) | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Glyphosate | 10/03 | 2/04 | 6 | 25 | 25 | µg/L |
| Heptachlor | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Heptachlor Epoxide | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Hexachlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Hexachlorobutadiene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Hexachlorocyclopentadiene | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Hexachloroethane | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Malathion | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Mercury Dissolved | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Mercury Total | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Naphthalene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Nitrobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| N-Nitrosodimethylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodi-n-Propylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodiphenylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Pentachlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Phenanthrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Phenols (Total) | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |

**Rio Hondo – Reach 2 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Prometryn | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Pyrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Silver - Dissolved | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Simazine | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Thallium - Dissolved | 10/03 | 2/04 | 6 | 5 | 5 | µg/L |
| Thallium - Total | 10/03 | 2/04 | 6 | 5 | 5 | µg/L |
| Toxaphene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |

**Rio Hondo – Reach 3 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,1,1-Trichloroethane | 2/04 | 8/12 | 33 | 0.5 | 1 | µg/L |
| 1,1,2,2-Tetrachloroethane | 2/04 | 8/12 | 34 | 0.5 | 1 | µg/L |
| 1,1,2-Trichloroethane | 2/04 | 8/12 | 34 | 0.5 | 1 | µg/L |
| 1,1-Dichloroethane | 2/04 | 8/12 | 34 | 0.5 | 1 | µg/L |
| 1,1-Dichloroethylene | 2/04 | 8/12 | 35 | 0.5 | 1 | µg/L |
| 1,2,3,4,7,8-HxCDD | 2/04 | 8/12 | 60 | 1 | 55 | pg/L |
| 1,2,3,7,8,9-HxCDD | 2/04 | 8/12 | 30 | 1.1 | 55 | pg/L |
| 1,2,3,7,8,9-HxCDF | 2/04 | 8/12 | 30 | 0.75 | 55 | pg/L |
| 1,2,3,7,8-PeCDD | 2/04 | 8/12 | 30 | 1.9 | 55 | pg/L |
| 1,2,3,7,8-PeCDF | 2/04 | 8/12 | 30 | 0.98 | 55 | pg/L |
| 1,2,3-Trichloropropane | 5/05 | 8/12 | 24 | 0.005 | 0.005 | µg/L |
| 1,2,4-Trichlorobenzene | 2/04 | 8/12 | 33 | 5 | 5 | µg/L |
| 1,2-Dichlorobenzene | 2/04 | 8/12 | 40 | 0.5 | 2 | µg/L |
| 1,2-Dichloroethane | 2/04 | 8/12 | 34 | 0.5 | 0.5 | µg/L |
| 1,2-Dichloropropane | 2/04 | 8/12 | 34 | 0.5 | 1 | µg/L |
| 1,2-Dimethylbenzene | 5/05 | 12/06 | 20 | 0.5 | 1 | µg/L |
| 1,2-Diphenylhydrazine | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| 1,2-Trans-Dichloroethylene | 2/04 | 8/12 | 34 | 0.5 | 1 | µg/L |
| 1,3-Dichlorobenzene | 2/04 | 8/12 | 40 | 0.5 | 1 | µg/L |
| 1,3-trans-Dichloropropene | 2/04 | 8/09 | 28 | 0.5 | 0.5 | µg/L |
| 1,4-Dichlorobenzene | 2/04 | 8/12 | 53 | 0.5 | 1 | µg/L |
| 2,3,4,6,7,8-HxCDF | 2/04 | 8/12 | 30 | 0.72 | 55 | pg/L |
| 2,3,4,7,8-PeCDF | 2/04 | 8/12 | 30 | 1 | 55 | pg/L |
| 2,3,4-Trichlorophenol | 6/05 | 12/06 | 18 | 5 | 5 | µg/L |
| 2,3,6-Trichlorophenol | 6/05 | 12/06 | 18 | 5 | 5 | µg/L |
| 2,3,7,8-TCDD (Dioxin) | 2/04 | 8/12 | 30 | 0.78 | 13 | pg/L |
| 2,3,7,8-TCDF | 2/04 | 8/12 | 30 | 1.4 | 11 | pg/L |
| 2,4,5-TP | 2/04 | 11/12 | 43 | 0.25 | 1.2 | µg/L |

**Rio Hondo – Reach 3 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 2,4,5-Trichlorophenol | 6/05 | 12/06 | 18 | 5 | 5 | µg/L |
| 2,4,6-Trichlorophenol | 2/04 | 8/12 | 39 | 10 | 10 | µg/L |
| 2,4-DDD | 2/04 | 2/09 | 11 | 0.01 | 0.01 | µg/L |
| 2,4-DDE | 2/04 | 2/09 | 11 | 0.01 | 0.01 | µg/L |
| 2,4-DDT | 2/04 | 2/09 | 11 | 0.01 | 0.01 | µg/L |
| 2,4-Dichlorophenol | 2/04 | 8/12 | 24 | 5 | 5 | µg/L |
| 2,4-Dimethylphenol | 2/04 | 8/12 | 24 | 2 | 2 | µg/L |
| 2,4-Dinitrophenol | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 2,4-Dinitrotoluene | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 2,6-Dinitrotoluene | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 2-Chloroethylvinyl Ether | 2/04 | 8/12 | 34 | 0.5 | 10 | µg/L |
| 2-Chloronaphthalene | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| 2-Chlorophenol | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 2-Nitrophenol | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| 3,3-Dichlorobenzidine | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 3,4,5-Trichlorophenol | 6/05 | 12/06 | 18 | 5 | 5 | µg/L |
| 3-Methyl-4-Chlorophenol | 2/04 | 8/12 | 24 | 1 | 1 | µg/L |
| 4,4-DDD | 2/04 | 8/12 | 18 | 0.01 | 0.01 | µg/L |
| 4,4-DDE | 2/04 | 8/12 | 35 | 0.01 | 0.01 | µg/L |
| 4,4-DDT | 2/04 | 8/12 | 35 | 0.01 | 0.01 | µg/L |
| 4-Bromophenyl Phenyl Ether | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| 4-Methyl-2-Pentanone | 6/05 | 12/06 | 19 | 1 | 10 | µg/L |
| 4-Nitrophenol | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Acenaphthene | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Acenaphthylene | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Acrolein | 2/04 | 8/12 | 18 | 2 | 10 | µg/L |
| Acrylonitrile | 2/04 | 8/12 | 42 | 2 | 5 | µg/L |
| Aldrin | 2/04 | 8/12 | 33 | 0.005 | 0.01 | µg/L |
| alpha-BHC | 2/04 | 8/12 | 34 | 0.01 | 0.01 | µg/L |
| Anthracene | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Aroclor 1016 | 2/04 | 8/12 | 34 | 0.1 | 0.1 | µg/L |
| Aroclor 1221 | 2/04 | 8/12 | 34 | 0.1 | 0.5 | µg/L |
| Aroclor 1232 | 2/04 | 8/12 | 34 | 0.1 | 0.3 | µg/L |
| Aroclor 1242 | 2/04 | 8/12 | 34 | 0.1 | 0.1 | µg/L |
| Aroclor 1248 | 2/04 | 8/12 | 34 | 0.1 | 0.1 | µg/L |
| Aroclor 1254 | 2/04 | 8/12 | 34 | 0.05 | 0.05 | µg/L |
| Aroclor 1260 | 2/04 | 8/12 | 34 | 0.1 | 0.1 | µg/L |
| Atrazine | 6/05 | 12/06 | 19 | 0.5 | 0.5 | µg/L |
| Bentazon | 2/10 | 2/10 | 1 | 2.5 | 2.5 | µg/L |
| Benzene | 2/04 | 8/12 | 42 | 0.5 | 0.5 | µg/L |
| Benzidine | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| Benzo(a)Anthracene | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| Benzo(ghi)Perylene | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |

**Rio Hondo – Reach 3 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Beryllium Dissolved | 8/10 | 11/12 | 10 | 0.25 | 0.25 | µg/L |
| beta-BHC | 2/04 | 8/12 | 34 | 0.005 | 0.01 | µg/L |
| Bis(2-chloroethoxy)Methane | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| Bis(2-chloroethyl)Ether | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Bis(2-chloroisopropyl)Ether | 2/04 | 8/12 | 18 | 2 | 2 | µg/L |
| Bromoethane | 6/05 | 12/06 | 17 | 1 | 1 | µg/L |
| Butylbenzyl Phthalate | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Carbon Tetrachloride | 2/04 | 8/12 | 35 | 0.5 | 0.5 | µg/L |
| Chlordane (Technical) | 2/04 | 8/12 | 18 | 0.05 | 0.05 | µg/L |
| Chlorobenzene | 2/04 | 8/12 | 35 | 0.5 | 1 | µg/L |
| Chloroethane | 2/04 | 8/12 | 34 | 0.5 | 1 | µg/L |
| Chlorpyrifos | 11/09 | 2/10 | 2 | 0.05 | 0.05 | µg/L |
| cis-1,3-Dichloropropene | 2/04 | 8/09 | 28 | 0.5 | 0.5 | µg/L |
| Dalapon | 2/10 | 2/10 | 1 | 0.5 | 0.5 | µg/L |
| delta-BHC | 2/04 | 8/12 | 34 | 0.005 | 0.01 | µg/L |
| Dicamba | 2/10 | 2/10 | 1 | 0.75 | 0.75 | µg/L |
| Dichlorodifluoromethane | 6/05 | 12/06 | 19 | 0.5 | 1 | µg/L |
| Dichloroprop | 2/10 | 2/10 | 1 | 1 | 1 | µg/L |
| Dieldrin | 2/04 | 8/12 | 35 | 0.01 | 0.01 | µg/L |
| Diethyl Phthalate | 2/04 | 8/12 | 29 | 2 | 2 | µg/L |
| Dimethyl Phthalate | 2/04 | 8/12 | 18 | 2 | 2 | µg/L |
| Di-n-Butyl Phthalate | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Di-n-Octyl Phthalate | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Dinoseb | 2/10 | 2/10 | 1 | 0.5 | 0.5 | µg/L |
| Endosulfan I | 2/04 | 8/12 | 18 | 0.01 | 0.01 | µg/L |
| Endosulfan II | 2/04 | 8/12 | 18 | 0.01 | 0.01 | µg/L |
| Endosulfan Sulfate | 2/04 | 8/12 | 18 | 0.01 | 0.01 | µg/L |
| Endrin | 2/04 | 8/12 | 35 | 0.01 | 0.01 | µg/L |
| Endrin Aldehyde | 2/04 | 8/12 | 18 | 0.01 | 0.01 | µg/L |
| Ethylbenzene | 2/04 | 8/12 | 35 | 0.5 | 1 | µg/L |
| Fluoranthene | 2/04 | 8/12 | 33 | 1 | 1 | µg/L |
| Fluorene | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| Heptachlor | 2/04 | 8/12 | 34 | 0.01 | 0.01 | µg/L |
| Heptachlor Epoxide | 2/04 | 8/12 | 34 | 0.01 | 0.01 | µg/L |
| Hexachlorobenzene | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Hexachlorobutadiene | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Hexachlorocyclopentadiene | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| Hexachloroethane | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Isophorone | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| M+P-XYLENE | 5/05 | 12/06 | 20 | 1 | 1 | µg/L |
| MCPA | 2/10 | 2/10 | 1 | 100 | 100 | µg/L |
| MCPP | 2/10 | 2/10 | 1 | 100 | 100 | µg/L |
| Methoxychlor | 2/04 | 11/12 | 42 | 0.01 | 0.01 | µg/L |
| Methyl Bromide | 2/04 | 8/12 | 18 | 0.5 | 0.5 | µg/L |
| MTBE | 2/04 | 8/12 | 32 | 0.5 | 1 | µg/L |

**Rio Hondo – Reach 3 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Naphthalene | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Nitrobenzene | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| N-Nitrosodi-n-Propylamine | 2/04 | 8/12 | 18 | 5 | 5 | µg/L |
| N-Nitrosodiphenylamine | 2/04 | 8/12 | 18 | 1 | 1 | µg/L |
| Pentachlorophenol | 2/04 | 8/12 | 39 | 1 | 5 | µg/L |
| Phenanthrene | 2/04 | 8/12 | 33 | 5 | 5 | µg/L |
| Phenylacetic Acid | 6/05 | 12/06 | 18 | 20 | 20 | µg/L |
| Picloram | 6/05 | 2/10 | 20 | 0.75 | 2 | µg/L |
| Pyrene | 2/04 | 8/12 | 18 | 10 | 10 | µg/L |
| RESMETHRIN | 8/04 | 8/04 | 1 | 10 | 10 | µg/L |
| Silver Dissolved | 8/10 | 11/12 | 10 | 0.2 | 0.2 | µg/L |
| Simazine | 6/05 | 12/06 | 19 | 0.5 | 1 | µg/L |
| Tetrachloroethylene | 2/04 | 8/12 | 35 | 0.5 | 1 | µg/L |
| Toxaphene | 2/04 | 8/12 | 35 | 0.5 | 0.5 | µg/L |
| Trichloroethylene | 2/04 | 8/12 | 35 | 0.5 | 1 | µg/L |
| Trichlorofluoromethane | 6/05 | 12/06 | 19 | 0.5 | 10 | µg/L |
| Vinyl Chloride | 2/04 | 8/12 | 34 | 0.5 | 0.5 | µg/L |

Tujunga Wash – Constituents that have not been detected in water

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Beryllium Dissolved | 1/05 | 2/06 | 14 | 0.4 | 0.4 | µg/L |
| Bolstar | 6/09 | 6/11 | 3 | 0.002 | 0.002 | µg/L |
| Chlorpyrifos | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |
| cis-Permethrin | 6/11 | 6/11 | 1 | 0.005 | 0.005 | µg/L |
| Cypermethrin | 6/09 | 6/11 | 3 | 0.0005 | 0.001 | µg/L |
| Deltamethrin | 6/09 | 6/11 | 3 | 0.0005 | 0.005 | µg/L |
| Demeton-S | 6/09 | 6/11 | 2 | 0.001 | 0.001 | µg/L |
| Diazinon | 6/09 | 6/11 | 3 | 0.002 | 0.002 | µg/L |
| Dichlorvos | 6/09 | 6/11 | 3 | 0.003 | 0.003 | µg/L |
| Dimethoate | 6/09 | 7/10 | 2 | 0.002 | 0.003 | µg/L |
| Disulfoton | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |
| Esfenvalerate | 6/09 | 7/10 | 2 | 0.0005 | 0.0005 | µg/L |
| Ethoprop | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |
| Fensulfothion | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |
| Fenthion | 6/09 | 6/11 | 3 | 0.002 | 0.002 | µg/L |
| Fenvalerate | 6/09 | 6/11 | 4 | 0.0005 | 0.001 | µg/L |
| L-Cyhalothrin | 6/09 | 6/11 | 3 | 0.0005 | 0.001 | µg/L |
| Malathion | 6/09 | 6/11 | 3 | 0.003 | 0.003 | µg/L |
| Merphos | 6/09 | 7/10 | 2 | 0.001 | 0.001 | µg/L |
| Methyl Parathion | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |

Tujunga Wash – Constituents that have not been detected in water

| Constituent | Date Range of Available Data | | N | Detection Limit | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Mevinphos | 6/09 | 6/11 | 3 | 0.008 | 0.008 | µg/L |
| Nitrite as N | 6/09 | 6/11 | 3 | 0.02 | 0.02 | mg/L |
| Permethrin | 6/09 | 7/10 | 2 | 0.005 | 0.005 | µg/L |
| Phorate | 6/09 | 6/11 | 3 | 0.006 | 0.006 | µg/L |
| Ronnel | 6/09 | 6/11 | 3 | 0.002 | 0.002 | µg/L |
| Tetrachlorvinphos | 6/09 | 6/11 | 3 | 0.002 | 0.002 | µg/L |
| Tokuthion | 6/09 | 6/11 | 3 | 0.003 | 0.003 | µg/L |
| trans-Permethrin | 6/11 | 6/11 | 1 | 0.005 | 0.005 | µg/L |
| Trichloronate | 6/09 | 6/11 | 3 | 0.001 | 0.001 | µg/L |

**Verdugo Wash – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 1,2,4-Trichlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| 1,2-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,2-Diphenylhydrazine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 1,3-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 1,4-Dichlorobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,4,5-TP | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4,6-Trichlorophenol | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 2,4-D | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| 2,4-Dichlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dimethylphenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2,4-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2,4-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2,6-Dinitrotoluene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| 2-Chloronaphthalene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 2-Chlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| 2-Methyl-4,6-Dinitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 2-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3,3-Dichlorobenzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 3-Methyl-4-Chlorophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| 4,4-DDD | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDE | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4,4-DDT | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |

**Verdugo Wash – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| 4-Bromophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| 4-Chlorophenyl Phenyl Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| 4-Nitrophenol | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Acenaphthene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Acenaphthylene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aldrin | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| alpha-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aluminum Dissolved | 10/03 | 2/04 | 6 | 100 | 100 | µg/L |
| Anthracene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Aroclor 1016 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1221 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1232 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1242 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1248 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1254 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Aroclor 1260 | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Benzidine | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Benzo(a)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(a)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Benzo(k)Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Beryllium Dissolved | 10/03 | 2/06 | 19 | 0.4 | 1 | µg/L |
| Beryllium Total | 10/03 | 2/06 | 20 | 0.4 | 1 | µg/L |
| beta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Bis(2-chloroethoxy)Methane | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroethyl)Ether | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Bis(2-chloroisopropyl)Ether | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Butylbenzyl Phthalate | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Chlordane-alpha | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chlordane-gamma | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Chromium (VI) - Dissolved | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chromium (VI) - Total | 10/03 | 2/04 | 6 | 10 | 10 | µg/L |
| Chrysene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| delta-BHC | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Dibenzo(a,h)Anthracene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dieldrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Dimethyl Phthalate | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |

**Verdugo Wash – Reach 1 – Constituents that have not been detected in water**

| Constituent | Date Range of Available Data | | N | Detection Limits | | Units |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| Di-n-Octyl Phthalate | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Endosulfan I | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan II | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endosulfan Sulfate | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Endrin Aldehyde | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluoranthene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Fluorene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| gamma-BHC (Lindane) | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Glyphosate | 10/03 | 2/04 | 6 | 25 | 25 | µg/L |
| Heptachlor | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Heptachlor Epoxide | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Hexachlorobenzene | 10/03 | 2/04 | 6 | 0.5 | 0.5 | µg/L |
| Hexachlorobutadiene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Hexachlorocyclopentadiene | 10/03 | 2/04 | 6 | 3 | 3 | µg/L |
| Hexachloroethane | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Indeno(1,2,3-cd)Pyrene | 10/03 | 2/04 | 6 | 0.1 | 0.1 | µg/L |
| Naphthalene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Nitrobenzene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| N-Nitrosodimethylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodi-n-Propylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| N-Nitrosodiphenylamine | 10/03 | 2/04 | 6 | 0.3 | 0.3 | µg/L |
| Oil + Grease | 10/03 | 2/04 | 6 | 1 | 1 | mg/L |
| Pentachlorophenol | 10/03 | 2/04 | 6 | 2 | 2 | µg/L |
| Phenanthrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Phenols (Total) | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| Pyrene | 10/03 | 2/04 | 6 | 0.05 | 0.05 | µg/L |
| Toxaphene | 10/03 | 2/04 | 6 | 1 | 1 | µg/L |
| TPH | 10/03 | 2/04 | 6 | 1 | 1 | mg/L |

# Attachment 2: Constituents that have been detected but do not exceed relevant water quality objective

Constituents in this attachment either did not exceed a water quality objective or there is no applicable water quality objective for the constituent.

**Aliso Canyon Wash - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 10/03 | 5/09 | 7 | 7 | mg/L | AD | AD | 27.5 | 356 | NA | NA |
| Aluminum Total | 10/03 | 2/04 | 6 | 2 | µg/L | 100 | 100 | 108 | 659 | NA | NA |
| Ammonia as N | 10/03 | 5/09 | 7 | 3 | mg/L | 0.05 | 0.1 | 0.132 | 0.225 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |
| Antimony Dissolved | 10/03 | 2/06 | 20 | 10 | µg/L | 2 | 2 | 0.9 | 5.17 | NA | NA |
| Antimony Total | 10/03 | 2/06 | 20 | 12 | µg/L | 2 | 2 | 0.91 | 6.38 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 10/03 | 5/09 | 49 | 49 | µg/L | AD | AD | 0.4 | 6 | 150 | CTR Chronic |
| Arsenic Total | 10/03 | 5/09 | 49 | 49 | µg/L | AD | AD | 0.3 | 7.2 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 42 | 42 | µg/L | AD | AD | 15.2 | 74.1 | NA | NA |
| Barium Total | 1/05 | 8/08 | 42 | 42 | µg/L | AD | AD | 51.7 | 145 | NA | NA |
| BOD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 7.67 | 56.2 | NA | NA |
| Cadmium Dissolved | 10/03 | 5/09 | 49 | 25 | µg/L | 0.02 | 1 | 0.01 | 1.8 | HBC | CTR Chronic |
| Cadmium Total | 10/03 | 5/09 | 49 | 33 | µg/L | 0.3 | 1 | 0.01 | 2.19 | HBC | CTR Chronic |
| Chloride | 10/03 | 5/09 | 7 | 7 | mg/L | AD | AD | 7.26 | 119 | 150 | BP SSO |
| Chromium Dissolved | 10/03 | 5/09 | 49 | 45 | µg/L | 0.1 | 0.21 | 0.1 | 5.04 | NA | NA |
| Chromium Total | 10/03 | 5/09 | 49 | 48 | µg/L | 0.21 | 0.21 | 0.3 | 16.4 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 10 | µg/L | 0.2 | 0.2 | 0.2 | 2 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 11 | µg/L | 0.2 | 0.2 | 0.2 | 2.2 | NA | NA |
| COD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 18 | 167.5 | NA | NA |
| Di-n-Butyl Phthalate | 10/03 | 2/04 | 6 | 1 | µg/L | 1 | 1 | 1.4 | 1.4 | 12000 | CTR HH Organism |
| Diethyl Phthalate | 10/03 | 2/04 | 6 | 1 | µg/L | 0.5 | 0.5 | 2.1 | 2.1 | 23000 | CTR HH Organism |

**Aliso Canyon Wash - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Dissolved Organic Carbon | 5/09 | 5/09 | 1 | 1 | mg/L | AD | AD | 6.94 | 6.94 | NA | NA |
| Dissolved Oxygen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 8.4 | 10.98 | 5 | BP Minimum |
| Enterococcus | 1/02 | 5/09 | 86 | 85 | MPN/100mL | 10 | 10 | 10 | 170000 | NA | NA |
| Fecal Coliform | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 200 | 110000 | NA | NA |
| Fecal Streptococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 5000 | 170000 | NA | NA |
| Fluoride | 10/03 | 2/04 | 6 | 5 | mg/L | 0.1 | 0.1 | 0.11 | 0.85 | NA | NA |
| Hardness | 10/03 | 5/09 | 49 | 49 | mg/L | AD | AD | 44.8 | 1150 | NA | NA |
| Iron Dissolved | 10/03 | 5/09 | 7 | 5 | µg/L | 100 | 100 | 56 | 754 | NA | NA |
| Iron Total | 10/03 | 5/09 | 7 | 7 | µg/L | AD | AD | 151 | 8000 | NA | NA |
| Isophorone | 10/03 | 2/04 | 6 | 1 | µg/L | 0.05 | 0.05 | 0.4 | 0.4 | 600 | CTR HH Organism |
| MBAS | 10/03 | 2/04 | 6 | 4 | µg/L | 50 | 50 | 52 | 379 | NA | NA |
| Mercury Total | 10/03 | 5/09 | 21 | 2 | µg/L | 0.022 | 1 | 0.014 | 0.034 | 0.051 | CTR HH Organism |
| Nickel Dissolved | 10/03 | 5/09 | 48 | 48 | µg/L | AD | AD | 0.1 | 18.3 | HBC | CTR Chronic |
| Nickel Total | 10/03 | 5/09 | 49 | 49 | µg/L | AD | AD | 0.1 | 32.2 | HBC | CTR Chronic |
| Nitrate as N | 10/03 | 5/09 | 7 | 5 | mg/L | 0.02 | 0.5 | 0.296 | 2.66 | 8 | LAR Nutrient TMDL |
| Nitrate as NO3 | 10/03 | 2/04 | 6 | 5 | mg/L | 0.1 | 0.1 | 1.31 | 11.8 | NA | NA |
| Nitrite as N | 10/03 | 5/09 | 7 | 5 | mg/L | 0.02 | 0.03 | 0.043 | 0.898 | 1 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 10/03 | 5/09 | 7 | 6 | mg/L | 0.02 | 0.02 | 0.04 | 3.56 | 8 | LAR Nutrient TMDL |
| Oil + Grease | 10/03 | 2/04 | 6 | 1 | mg/L | 1 | 1 | 2.3 | 2.3 | NA | NA |
| Ortho Phosphate (as P) | 5/09 | 5/09 | 1 | 1 | mg/L | AD | AD | 0.05 | 0.05 | NA | NA |
| pH | 10/03 | 2/04 | 6 | 6 | pH Units | AD | AD | 6.67 | 7.98 | 6.5 | BP Minimum |
| Phosphate (Total) as P | 5/09 | 5/09 | 1 | 1 | mg/L | AD | AD | 0.35 | 0.35 | NA | NA |
| Phosphorus | 10/03 | 2/04 | 12 | 12 | mg/L | AD | AD | 0.16 | 0.694 | NA | NA |

**Aliso Canyon Wash - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Selenium Dissolved | 10/03 | 5/09 | 49 | 46 | µg/L | 5 | 5 | 0.36 | 18.2 | NA | NA |
| Silica | 5/09 | 5/09 | 1 | 1 | µg/L | AD | AD | 28000 | 28000 | NA | NA |
| Silver Dissolved | 10/03 | 8/08 | 48 | 21 | µg/L | 0.06 | 1 | 0.03 | 0.79 | HBC | CTR Chronic |
| Silver Total | 10/03 | 8/08 | 48 | 23 | µg/L | 0.06 | 1 | 0.03 | 1.42 | HBC | CTR Chronic |
| Thallium Dissolved | 10/03 | 2/06 | 20 | 5 | µg/L | 1 | 5 | 1 | 2 | NA | NA |
| Thallium Total | 10/03 | 2/06 | 20 | 2 | µg/L | 1 | 5 | 1 | 5 | 6.3 | CTR HH Organism |
| Total Coliform | 1/02 | 5/09 | 87 | 87 | MPN/100mL | AD | AD | 740 | 500000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/03 | 5/09 | 7 | 7 | mg/L | AD | AD | 0.778 | 8.16 | NA | NA |
| Total Organic Carbon | 10/03 | 5/09 | 7 | 7 | mg/L | AD | AD | 4.75 | 56.6 | NA | NA |
| TPH | 10/03 | 2/04 | 6 | 1 | mg/L | 1 | 1 | 1 | 1 | NA | NA |
| TSS | 10/03 | 5/09 | 7 | 7 | mg/L | AD | AD | 5 | 950 | NA | NA |
| Turbidity | 10/03 | 2/04 | 6 | 6 | NTU | AD | AD | 0.73 | 124 | NA | NA |
| Volatile Suspended Solids | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 26 | 137 | NA | NA |
| Zinc Dissolved | 10/03 | 5/09 | 49 | 49 | µg/L | AD | AD | 4.63 | 106 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Arroyo Seco - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 10/03 | 6/11 | 12 | 12 | mg/L | AD | AD | 25.3 | 210 | NA | NA |
| Aluminum Total | 10/03 | 2/04 | 6 | 5 | µg/L | 100 | 100 | 103 | 2860 | NA | NA |
| Ammonia as N | 10/03 | 6/11 | 12 | 4 | mg/L | 0.05 | 0.1 | 0.08 | 2.09 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |
| Antimony Dissolved | 10/03 | 2/06 | 20 | 11 | µg/L | 2 | 5 | 0.68 | 3 | NA | NA |
| Antimony Total | 10/03 | 2/06 | 20 | 10 | µg/L | 2 | 5 | 0.69 | 5.41 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 10/03 | 6/11 | 55 | 54 | µg/L | 0.4 | 0.4 | 0.2 | 4.44 | 150 | CTR Chronic |
| Arsenic Total | 10/03 | 6/11 | 55 | 54 | µg/L | 0.4 | 0.4 | 0.2 | 5.53 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 34 | 105 | NA | NA |
| Barium Total | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 38 | 227 | NA | NA |
| BOD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 4.09 | 18.6 | NA | NA |
| Cadmium Dissolved | 10/03 | 6/11 | 55 | 19 | µg/L | 0.01 | 1 | 0.01 | 0.94 | HBC | CTR Chronic |
| Cadmium Total | 10/03 | 6/11 | 55 | 26 | µg/L | 0.01 | 1 | 0.01 | 2.29 | HBC | CTR Chronic |
| Chloride | 10/03 | 6/11 | 12 | 12 | mg/L | AD | AD | 4.5 | 139 | 150 | BP SSO |
| Chromium Dissolved | 10/03 | 6/11 | 55 | 52 | µg/L | 0.1 | 0.1 | 0.1 | 4.82 | NA | NA |
| Chromium Total | 10/03 | 6/11 | 55 | 53 | µg/L | 0.1 | 0.1 | 0.1 | 17 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 6 | µg/L | 0.2 | 0.2 | 0.3 | 0.7 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 11 | µg/L | 0.2 | 0.2 | 0.2 | 1.9 | NA | NA |
| COD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 10.5 | 73.9 | NA | NA |
| Cyanide | 10/03 | 2/04 | 6 | 3 | µg/L | 10 | 7 | 5 | 18 | 5.2 and 22 | CTR Chronic and Acute |
| Di-n-Butyl Phthalate | 10/03 | 2/04 | 6 | 1 | µg/L | 1 | 1 | 1.7 | 1.7 | 12000 | CTR HH Organism |
| Diazinon | 10/03 | 6/11 | 12 | 3 | µg/L | 0.002 | 0.01 | 0.036 | 0.07 | 0.17 | USEPA Acute and Chronic |
| Diethyl Phthalate | 10/03 | 2/04 | 6 | 1 | µg/L | 0.5 | 0.5 | 1.5 | 1.5 | 120000 | CTR HH Organism |

**Arroyo Seco - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Dissolved Organic Carbon | 5/09 | 6/11 | 6 | 6 | mg/L | AD | AD | 2.09 | 5.8 | NA | NA |
| Dissolved Oxygen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 6.2 | 10.12 | 5 | BP Minimum |
| Enterococcus | 1/02 | 5/09 | 90 | 87 | MPN/100mL | 10 | 10 | 30 | 300000 | NA | NA |
| Fecal Coliform | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 500 | 110000 | NA | NA |
| Fecal Streptococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 1700 | 500000 | NA | NA |
| Fluoride | 10/03 | 2/04 | 6 | 5 | mg/L | 0.1 | 0.1 | 0.15 | 0.29 | NA | NA |
| Hardness | 10/03 | 6/11 | 55 | 55 | mg/L | AD | AD | 40 | 475 | NA | NA |
| Iron Dissolved | 10/03 | 6/11 | 12 | 8 | µg/L | 100 | 100 | 11 | 928 | NA | NA |
| Iron Total | 10/03 | 6/11 | 12 | 12 | µg/L | AD | AD | 51 | 24400 | NA | NA |
| Isophorone | 10/03 | 2/04 | 6 | 1 | µg/L | 0.05 | 0.05 | 0.3 | 0.3 | 600 | CTR HH Organism |
| MBAS | 10/03 | 2/04 | 6 | 4 | µg/L | 50 | 50 | 65 | 190 | NA | NA |
| Mercury Dissolved | 10/03 | 6/11 | 26 | 1 | µg/L | 0.0036 | 1 | 0.0052 | 0.0052 | NA | NA |
| Nickel Dissolved | 10/03 | 6/11 | 55 | 54 | µg/L | 1 | 1 | 1 | 8.06 | HBC | CTR Chronic |
| Nickel Total | 10/03 | 6/11 | 55 | 55 | µg/L | AD | AD | 1 | 18.6 | HBC | CTR Chronic |
| Nitrate as N | 10/03 | 6/11 | 12 | 11 | mg/L | 0.5 | 0.5 | 0.25 | 4.8 | 8 | LAR Nutrient TMDL |
| Nitrate as NO3 | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.1 | 16.3 | NA | NA |
| Nitrogen (NO3-N+NO2-N) (Calc) | 10/03 | 6/11 | 12 | 12 | mg/L | AD | AD | 0.12 | 6.16 | 8 | LAR Nutrient TMDL |
| Oil + Grease | 10/03 | 2/04 | 6 | 1 | mg/L | 1 | 1 | 2.5 | 2.5 | NA | NA |
| Ortho Phosphate (as P) | 5/09 | 6/11 | 6 | 5 | mg/L | 0.05 | 0.05 | 0.05 | 0.19 | NA | NA |
| pH | 10/03 | 2/04 | 6 | 6 | pH Units | AD | AD | 6.78 | 8.07 | 6.5 | BP Minimum |
| Phosphate (Total) as P | 5/09 | 6/11 | 6 | 6 | mg/L | AD | AD | 0.07 | 0.24 | NA | NA |
| Phosphorus | 10/03 | 2/04 | 12 | 8 | mg/L | 0.05 | 0.05 | 0.292 | 0.893 | NA | NA |
| Selenium Dissolved | 10/03 | 6/11 | 55 | 49 | µg/L | 0.2 | 5 | 0.24 | 2.4 | NA | NA |

**Arroyo Seco - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Silica | 5/09 | 6/11 | 6 | 6 | µg/L | AD | AD | 23500 | 73800 | NA | NA |
| Silver Dissolved | 10/03 | 8/08 | 49 | 22 | µg/L | 0.06 | 1 | 0.03 | 2 | HBC | CTR Chronic |
| Silver Total | 10/03 | 8/08 | 49 | 21 | µg/L | 0.06 | 1 | 0.03 | 0.71 | HBC | CTR Chronic |
| Sulfate | 10/03 | 6/11 | 12 | 12 | mg/L | AD | AD | 6.22 | 191 | 350 | BP SSO |
| TDS | 10/03 | 6/09 | 9 | 9 | mg/L | AD | AD | 70 | 734 | 1500 | BP SSO |
| Thallium Dissolved | 10/03 | 2/06 | 20 | 3 | µg/L | 1 | 5 | 1 | 2 | NA | NA |
| Thallium Total | 10/03 | 2/06 | 20 | 1 | µg/L | 1 | 5 | 1 | 1 | 6.3 | CTR HH Organism |
| Total Coliform | 1/02 | 5/09 | 91 | 89 | MPN/100mL | 100 | 100 | 1700 | 240000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/03 | 6/11 | 12 | 12 | mg/L | AD | AD | 0.2 | 34 | NA | NA |
| Total Organic Carbon | 10/03 | 6/11 | 12 | 12 | mg/L | AD | AD | 2.12 | 24.6 | NA | NA |
| TSS | 10/03 | 6/11 | 11 | 11 | mg/L | AD | AD | 1.2 | 2169 | NA | NA |
| Turbidity | 10/03 | 2/04 | 6 | 6 | NTU | AD | AD | 0.39 | 359 | NA | NA |
| Volatile Suspended Solids | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 10 | 469 | NA | NA |
| Zinc Dissolved | 10/03 | 4/12 | 56 | 53 | µg/L | 4 | 4 | 1.25 | 73 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Bull Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 10/03 | 6/10 | 8 | 8 | mg/L | AD | AD | 30 | 154 | NA | NA |
| Aluminum Total | 10/03 | 2/04 | 6 | 3 | µg/L | 100 | 100 | 338 | 3850 | NA | NA |
| Ammonia as N | 10/03 | 6/10 | 8 | 1 | mg/L | 0.05 | 0.1 | 1.19 | 1.19 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |
| Antimony Dissolved | 10/03 | 2/06 | 20 | 11 | µg/L | 2 | 2 | 0.61 | 4 | NA | NA |
| Antimony Total | 10/03 | 2/06 | 20 | 9 | µg/L | 2 | 2 | 0.66 | 3.9 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 10/03 | 6/10 | 51 | 49 | µg/L | 5 | 5 | 0.8 | 8.2 | 150 | CTR Chronic |
| Arsenic Total | 10/03 | 6/10 | 51 | 49 | µg/L | 5 | 5 | 1.56 | 12.7 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 14.4 | 52.6 | NA | NA |
| Barium Total | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 22.4 | 341 | NA | NA |
| Bifenthrin | 6/10 | 6/10 | 2 | 1 | µg/L | 0.0005 | 0.0005 | 0.0025 | 0.0025 | NA | NA |
| BOD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 6.48 | 57.6 | NA | NA |
| Cadmium Dissolved | 10/03 | 6/10 | 51 | 21 | µg/L | 0.02 | 1 | 0.01 | 1.53 | HBC | CTR Chronic |
| Chloride | 10/03 | 6/10 | 8 | 8 | mg/L | AD | AD | 4.99 | 141 | 150 | BP SSO |
| Chromium Dissolved | 10/03 | 6/10 | 51 | 47 | µg/L | 0.1 | 0.21 | 0.045 | 5.05 | NA | NA |
| Chromium Total | 10/03 | 6/10 | 51 | 49 | µg/L | 0.1 | 0.21 | 0.23 | 67.7 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 12 | µg/L | 0.2 | 0.2 | 0.2 | 1.7 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 11 | µg/L | 0.2 | 0.2 | 0.3 | 2.2 | NA | NA |
| COD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 12.8 | 92.6 | NA | NA |
| Di-n-Butyl Phthalate | 10/03 | 2/04 | 6 | 2 | µg/L | 1 | 1 | 1.1 | 1.1 | 12000 | CTR HH Organism |
| Diazinon | 10/03 | 6/10 | 8 | 2 | µg/L | 0.002 | 0.01 | 0.045 | 0.047 | 0.17 | USEPA Acute and Chronic |
| Diethyl Phthalate | 10/03 | 2/04 | 6 | 2 | µg/L | 0.5 | 0.5 | 1.4 | 1.4 | 120000 | CTR HH Organism |
| Dissolved Organic Carbon | 6/10 | 6/10 | 2 | 2 | mg/L | AD | AD | 8.4 | 9.5 | NA | NA |

**Bull Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Dissolved Oxygen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 6.6 | 10.08 | 5 | BP Minimum |
| Enterococcus | 1/02 | 5/09 | 90 | 90 | MPN/100mL | AD | AD | 10 | 240000 | NA | NA |
| Fecal Coliform | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 1300 | 50000 | NA | NA |
| Fecal Streptococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 8000 | 240000 | NA | NA |
| Fluoride | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.12 | 1.03 | NA | NA |
| Hardness | 10/03 | 6/10 | 51 | 51 | mg/L | AD | AD | 96 | 1060 | NA | NA |
| Iron Dissolved | 10/03 | 6/10 | 8 | 4 | µg/L | 5 | 100 | 8 | 965 | NA | NA |
| Iron Total | 10/03 | 6/10 | 8 | 7 | µg/L | 5 | 5 | 130 | 58000 | NA | NA |
| Lead Dissolved | 10/03 | 6/10 | 49 | 24 | µg/L | 0.11 | 5 | 0.055 | 8.1 | HBC | CTR Chronic |
| MBAS | 10/03 | 2/04 | 6 | 4 | µg/L | 50 | 50 | 50 | 304 | NA | NA |
| Mercury Dissolved | 10/03 | 6/10 | 22 | 3 | µg/L | 0.022 | 1 | 0.025 | 0.0468 | NA | NA |
| Mercury Total | 10/03 | 6/10 | 22 | 3 | µg/L | 0.022 | 1 | 0.031 | 0.0492 | 0.051 | CTR HH Organism |
| Nickel Dissolved | 10/03 | 6/10 | 51 | 51 | µg/L | AD | AD | 0.1 | 18 | HBC | CTR Chronic |
| Nickel Total | 10/03 | 6/10 | 51 | 50 | µg/L | 0.34 | 0.34 | 0.1 | 72 | HBC | CTR Chronic |
| Nitrate as N | 10/03 | 6/10 | 8 | 5 | mg/L | 0.5 | 0.5 | 0.07 | 1.27 | 8 | LAR Nutrient TMDL |
| Nitrate as NO3 | 10/03 | 2/04 | 6 | 3 | mg/L | 0.1 | 0.1 | 3.1 | 5.62 | NA | NA |
| Nitrite as N | 10/03 | 6/10 | 8 | 4 | mg/L | 0.02 | 0.03 | 0.049 | 0.581 | 1 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 5/09 | 6/11 | 12 | 7 | mg/L | 0.02 | 0.02 | 0.04 | 0.14 | 8 | LAR Nutrient TMDL |
| Oil + Grease | 10/03 | 2/04 | 6 | 1 | mg/L | 1 | 1 | 1.2 | 1.2 | NA | NA |
| Ortho Phosphate (as P) | 6/10 | 6/10 | 2 | 2 | mg/L | AD | AD | 0.08 | 0.08 | NA | NA |
| pH | 10/03 | 2/04 | 6 | 6 | pH Units | AD | AD | 6.54 | 7.48 | 6.5 | BP Minimum |
| Phosphate (Total) as P | 6/10 | 6/10 | 2 | 2 | mg/L | AD | AD | 0.25 | 0.41 | NA | NA |
| Phosphorus | 10/03 | 2/04 | 12 | 10 | mg/L | 0.05 | 0.05 | 0.063 | 0.608 | NA | NA |

**Bull Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Selenium Dissolved | 10/03 | 6/10 | 51 | 48 | µg/L | 5 | 5 | 0.2 | 7.1 | NA | NA |
| Selenium Total | 10/03 | 6/10 | 43 | 43 | µg/L | 0.10 | 0.20 | 0.3 | 7.9 | 5 | CTR Chronic (NA during wet weather) |
| Silica | 6/10 | 6/10 | 2 | 2 | µg/L | AD | AD | 6800 | 6900 | NA | NA |
| Silver Dissolved | 10/03 | 8/08 | 48 | 22 | µg/L | 0.06 | 1 | 0.03 | 0.71 | HBC | CTR Chronic |
| Silver Total | 10/03 | 8/08 | 49 | 22 | µg/L | 0.06 | 1 | 0.03 | 0.65 | HBC | CTR Chronic |
| Sulfate | 10/03 | 6/10 | 8 | 8 | mg/L | AD | AD | 11.4 | 200 | 300 | BP SSO LAR and tributaries, upstream SFCB |
| TDS | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 172 | 632 | 950 | BP SSO LAR and tributaries, upstream SFCB |
| Thallium Dissolved | 10/03 | 2/06 | 20 | 1 | µg/L | 1 | 5 | 1 | 1 | NA | NA |
| Total Coliform | 1/02 | 5/09 | 91 | 91 | MPN/100mL | AD | AD | 970 | 280000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/03 | 6/10 | 8 | 8 | mg/L | AD | AD | 0.17 | 11.6 | NA | NA |
| Total Organic Carbon | 10/03 | 6/10 | 8 | 8 | mg/L | AD | AD | 4.79 | 30.4 | NA | NA |
| TSS | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 360 | 14004 | NA | NA |
| Turbidity | 10/03 | 2/04 | 6 | 6 | NTU | AD | AD | 1.55 | 4920 | NA | NA |
| Volatile Suspended Solids | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 82 | 528 | NA | NA |
| Zinc Dissolved | 10/03 | 6/10 | 50 | 46 | µg/L | 4 | 4 | 0.76 | 70 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Burbank Western Channel - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,2,3,4,6,7,8-HpCDD | 2/07 | 8/13 | 33 | 29 | pg/L | 1.32 | 3.51 | 1.08 | 32.3 | NA | NA |
| 1,2,3,4,6,7,8-HpCDF | 2/07 | 8/13 | 33 | 4 | pg/L | 0.562 | 6.1 | 2.65 | 19.3 | NA | NA |
| 1,2,3,4,7,8-HxCDD | 2/07 | 8/13 | 33 | 2 | pg/L | 0.263 | 3.43 | 0.873 | 1.11 | NA | NA |
| 1,2,3,4,7,8-HxCDF | 2/07 | 8/13 | 33 | 5 | pg/L | 0.143 | 1.78 | 0.611 | 0.898 | NA | NA |
| 1,2,3,6,7,8-HxCDD | 2/07 | 8/13 | 33 | 3 | pg/L | 0.352 | 3.66 | 0.701 | 3.25 | NA | NA |
| 1,2,3,6,7,8-HxCDF | 2/07 | 8/13 | 33 | 4 | pg/L | 0.0819 | 7.87 | 0.559 | 0.983 | NA | NA |
| 1,2,3,7,8-PeCDD | 2/07 | 8/13 | 33 | 4 | pg/L | 0.171 | 3.17 | 0.625 | 1.34 | NA | NA |
| 1,2,3,7,8-PeCDF | 2/07 | 8/13 | 33 | 4 | pg/L | 0.207 | 2.95 | 0.65 | 0.803 | NA | NA |
| 1,2,3,7,8,9-HxCDD | 2/07 | 8/13 | 33 | 6 | pg/L | 0.304 | 4.12 | 0.568 | 3.19 | NA | NA |
| 1,4-Dichlorobenzene | 10/03 | 10/13 | 237 | 1 | µg/L | 0.05 | 0.5 | 0.1 | 0.1 | 2600 | CTR HH Organism |
| 1,4-Dioxane | 2/07 | 8/13 | 33 | 26 | µg/L | 0.04 | 0.19 | 0.14 | 2.6 | NA | NA |
| 2,3,4,6,7,8-HxCDF | 2/07 | 8/13 | 33 | 5 | pg/L | 0.0909 | 1.87 | 0.576 | 1.18 | NA | NA |
| 2,3,4,7,8-PeCDF | 2/07 | 8/13 | 33 | 11 | pg/L | 0.22 | 5.41 | 0.718 | 2.06 | NA | NA |
| 2,3,7,8-TCDF | 2/07 | 8/13 | 33 | 10 | pg/L | 0.119 | 1.49 | 0.64 | 1.66 | NA | NA |
| 2,4-D | 10/03 | 8/12 | 31 | 1 | µg/L | 0.12 | 10 | 3.8 | 3.8 | NA | NA |
| 2,4,6-Trichlorophenol | 10/03 | 8/13 | 141 | 2 | µg/L | 0.22 | 8.8 | 0.41 | 0.5 | 6.5 | CTR HH Organism |
| 2,6-Dinitrotoluene | 10/03 | 8/13 | 141 | 10 | µg/L | 0.05 | 5 | 0.25 | 0.88 | NA | NA |
| 3-Methyl-4-Chlorophenol | 10/03 | 8/13 | 141 | 2 | µg/L | 0.23 | 5 | 0.52 | 0.76 | NA | NA |
| 4-Chlorophenyl Phenyl Ether | 10/03 | 8/13 | 141 | 1 | µg/L | 0.1 | 5 | 0.33 | 0.33 | NA | NA |
| 4-Nitrophenol | 10/03 | 8/13 | 141 | 1 | µg/L | 0.45 | 67 | 2.5 | 2.5 | NA | NA |
| Alkalinity | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 30 | 152 | NA | NA |
| Aluminum Total | 10/03 | 9/11 | 22 | 17 | µg/L | 100 | 100 | 30 | 880 | NA | NA |

**Burbank Western Channel - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Ammonia as N | 10/03 | 10/13 | 879 | 849 | mg/L | 0.0032 | 0.1 | 0.1 | 2.43 | pH and Temp Dependent | BP 30-Day Average (Dry) |
| Ammonia as N | 10/03 | 2/12 | 14 | 11 | mg/L | 0.1 | 0.1 | 0.11 | 1.26 | | BP 4-Day Average (Wet) |
| Antimony Dissolved | 10/03 | 2/06 | 32 | 15 | µg/L | 2 | 2 | 0.6 | 5 | NA | NA |
| Antimony Total | 10/03 | 8/13 | 99 | 87 | µg/L | 2 | 2 | 0.32 | 21 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 10/03 | 8/08 | 60 | 58 | µg/L | 0.4 | 5 | 0.2 | 25.7 | 150 | CTR Chronic |
| Arsenic Total | 10/03 | 8/13 | 184 | 175 | µg/L | 0.07 | 5 | 0.23 | 50.5 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 55 | 55 | µg/L | AD | AD | 23 | 81 | NA | NA |
| Barium Total | 1/05 | 8/13 | 125 | 125 | µg/L | AD | AD | 26 | 301 | NA | NA |
| Beryllium Total | 10/03 | 8/13 | 71 | 1 | µg/L | 0.022 | 1 | 0.11 | 0.11 | NA | NA |
| Bis(2-chloroethoxy)Methane | 10/03 | 8/13 | 141 | 1 | µg/L | 0.1 | 5 | 2 | 2 | NA | NA |
| BOD | 10/03 | 8/13 | 160 | 98 | mg/L | 2 | 3 | 3 | 23 | NA | NA |
| Boron | 1/07 | 8/13 | 115 | 115 | mg/L | AD | AD | 0.1 | 0.7 | NA | NA |
| Bromide | 1/08 | 5/11 | 33 | 13 | µg/L | 5 | 40 | 210 | 19400 | NA | NA |
| Bromoform | 2/04 | 10/13 | 231 | 104 | µg/L | 0.08 | 0.31 | 0.31 | 59 | 360 | CTR HH Organism |
| Butylbenzyl Phthalate | 10/03 | 8/13 | 141 | 22 | µg/L | 0.29 | 5 | 0.29 | 5.2 | 5200 | CTR HH Organism |
| Cadmium Dissolved | 10/03 | 10/13 | 129 | 98 | µg/L | 0.02 | 1 | 0.01 | 2 | HBC | CTR Chronic |
| Calcium | 1/04 | 6/13 | 39 | 39 | µg/L | AD | AD | 52000 | 89000 | NA | NA |
| Chlorobenzene | 2/04 | 10/13 | 231 | 1 | µg/L | 0.064 | 0.5 | 1.4 | 1.4 | 21000 | CTR HH Organism |
| Chloroform | 2/04 | 10/13 | 231 | 145 | µg/L | 0.055 | 0.5 | 0.49 | 20 | NA | NA |
| Chromium (III) Total | 1/07 | 8/13 | 168 | 168 | µg/L | AD | AD | 0.15 | 9.96 | HBC | CTR Chronic |

**Burbank Western Channel - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Chromium Dissolved | 10/03 | 8/08 | 61 | 61 | µg/L | AD | AD | 0.2 | 5.76 | NA | NA |
| Chromium Total | 10/03 | 8/13 | 276 | 273 | µg/L | 0.1 | 0.2 | 0.48 | 22.4 | NA | NA |
| Chromium (VI) Total | 10/03 | 8/13 | 177 | 158 | µg/L | 0.0059 | 10 | 0.068 | 8 | 11.43 | CTR Chronic |
| Cobalt Dissolved | 1/05 | 2/06 | 26 | 20 | µg/L | 0.2 | 0.2 | 0.2 | 1.2 | NA | NA |
| Cobalt Total | 1/05 | 8/06 | 29 | 25 | µg/L | 0.2 | 0.2 | 0.2 | 14.3 | NA | NA |
| COD | 10/03 | 8/13 | 123 | 121 | mg/L | 1.4 | 1.4 | 6.4 | 320 | NA | NA |
| CTAS | 1/07 | 8/13 | 141 | 49 | mg/L | 0.023 | 0.1 | 0.037 | 0.95 | NA | NA |
| Di-n-Butyl Phthalate | 10/03 | 8/13 | 141 | 11 | µg/L | 0.24 | 5.3 | 0.27 | 21 | 12000 | CTR HH Organism |
| Di-n-Octyl Phthalate | 10/03 | 8/13 | 141 | 3 | µg/L | 0.19 | 5 | 0.64 | 1 | NA | NA |
| Diazinon | 10/03 | 8/13 | 45 | 1 | µg/L | 0.006 | 0.58 | 0.02 | 0.02 | 0.17 | USEPA Acute and Chronic |
| Dichlorobromomethane | 2/04 | 10/13 | 231 | 142 | µg/L | 0.05 | 0.50 | 0.22 | 35.00 | 46 | CTR HH Organism |
| Diethyl Phthalate | 10/03 | 8/13 | 141 | 18 | µg/L | 0.15 | 2.3 | 0.15 | 2.5 | 120000 | CTR HH Organism |
| Dimethyl Phthalate | 10/03 | 8/13 | 141 | 1 | µg/L | 0.18 | 2.6 | 0.29 | 0.29 | 2900000 | CTR HH Organism |
| Dissolved Organic Carbon | 1/04 | 4/08 | 36 | 36 | mg/L | AD | AD | 5.6 | 49 | NA | NA |
| Dissolved Oxygen | 10/03 | 10/13 | 823 | 823 | mg/L | AD | AD | 5.15 | 15.7 | 5 | BP Minimum |
| Endosulfan Sulfate | 10/03 | 8/13 | 135 | 2 | µg/L | 0.0011 | 0.1 | 0.032 | 0.036 | 240 | CTR HH Organism |
| Enterococcus | 1/02 | 5/09 | 101 | 91 | MPN/100mL | 10 | 10 | 10 | 170000 | NA | NA |
| Fecal Coliform | 10/03 | 7/09 | 99 | 98 | MPN/100mL | 2 | 2 | 23 | 160000 | NA | NA |
| Fecal Streptococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 20 | 170000 | NA | NA |
| Fluoranthene | 10/03 | 8/13 | 141 | 1 | µg/L | 0.1 | 5 | 0.22 | 0.22 | 370 | CTR HH Organism |
| Fluorene | 10/03 | 8/13 | 141 | 1 | µg/L | 0.1 | 5 | 0.63 | 0.63 | 14000 | CTR HH Organism |
| Fluoride | 10/03 | 8/13 | 164 | 162 | mg/L | 0.1 | 0.1 | 0.1 | 1.6 | NA | NA |

**Burbank Western Channel - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| gamma-BHC (Lindane) | 10/03 | 8/13 | 135 | 1 | µg/L | 0.0009 | 0.05 | 0.0055 | 0.0055 | 0.063 | CTR HH Organism |
| Glyphosate | 10/03 | 3/07 | 10 | 1 | µg/L | 1.7 | 25 | 3.9 | 3.9 | NA | NA |
| Hardness | 10/03 | 10/13 | 363 | 362 | mg/L | 0.82 | 0.82 | 23 | 460 | NA | NA |
| Iron Dissolved | 10/03 | 2/04 | 6 | 1 | µg/L | 100 | 100 | 143 | 143 | NA | NA |
| Iron Total | 10/03 | 8/13 | 151 | 151 | µg/L | AD | AD | 28 | 1200 | NA | NA |
| Lead Dissolved | 10/03 | 10/13 | 160 | 133 | µg/L | 0.03 | 1.1 | 0.04 | 5 | HBC | CTR Chronic |
| Magnesium | 1/04 | 6/13 | 39 | 39 | µg/L | AD | AD | 18000 | 42000 | NA | NA |
| Manganese Total | 5/06 | 8/13 | 40 | 40 | µg/L | AD | AD | 1.3 | 49.6 | NA | NA |
| MBAS | 10/03 | 8/13 | 158 | 130 | µg/L | 19 | 100 | 42 | 2,300 | NA | NA |
| Methyl Bromide | 2/04 | 10/13 | 231 | 1 | µg/L | 0.12 | 1 | 1 | 1 | 4000 | CTR HH Organism |
| Methylene Chloride | 2/04 | 10/13 | 231 | 7 | µg/L | 0.17 | 1 | 0.17 | 1 | 1600 | CTR HH Organism |
| Molybdenum Total | 8/06 | 8/06 | 3 | 3 | µg/L | AD | AD | 15.4 | 21.9 | NA | NA |
| N-Nitrosodimethylamine | 10/03 | 8/13 | 141 | 1 | µg/L | 0.14 | 5 | 0.5 | 0.5 | 8.1 | CTR HH Organism |
| Nickel Dissolved | 10/03 | 8/08 | 61 | 61 | µg/L | AD | AD | 1 | 11 | HBC | CTR Chronic |
| Nickel Total | 10/03 | 8/13 | 177 | 177 | µg/L | AD | AD | 1.4 | 32 | HBC | CTR Chronic |
| Nitrate as NO3 | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.83 | 18.2 | NA | NA |
| Nitrogen (NO3-N+NO2-N) (Calc) | 10/03 | 10/13 | 397 | 397 | mg/L | AD | AD | 0.03 | 14.44 | 8 | LAR Nutrient TMDL |
| OCDD | 2/07 | 8/13 | 33 | 32 | pg/L | 6.6 | 6.6 | 3.58 | 148 | NA | NA |
| OCDF | 2/07 | 8/13 | 33 | 24 | pg/L | 1.03 | 2.29 | 0.539 | 12.7 | NA | NA |
| Oil + Grease | 10/03 | 8/13 | 172 | 3 | mg/L | 0.88 | 5 | 1.6 | 3.5 | NA | NA |

**Burbank Western Channel - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Organic Nitrogen | 11/03 | 10/13 | 868 | 866 | mg/L | 0.5 | 0.5 | 0.02 | 13 | NA | NA |
| Ortho Phosphate (as P) | 1/07 | 8/13 | 133 | 133 | mg/L | AD | AD | 0.13 | 11 | NA | NA |
| Pentachlorophenol | 10/03 | 8/13 | 141 | 4 | µg/L | 0.19 | 0.95 | 0.95 | 2.1 | 8.2 | CTR HH Organism |
| Perchlorate | 2/07 | 8/13 | 33 | 3 | µg/L | 0.30 | 8.20 | 1.00 | 8.50 | NA | NA |
| Phosphate (Total) | 11/03 | 8/13 | 178 | 176 | mg/L | 0.1 | 0.1 | 0.09 | 12 | NA | NA |
| Phosphorus | 10/03 | 2/04 | 12 | 12 | mg/L | AD | AD | 0.229 | 1.99 | NA | NA |
| Potassium | 6/10 | 6/10 | 2 | 2 | µg/L | AD | AD | 10000 | 17000 | NA | NA |
| Selenium Dissolved | 10/03 | 8/08 | 61 | 58 | µg/L | 5 | 5 | 0.2 | 9 | NA | NA |
| Silver Dissolved | 10/03 | 8/08 | 60 | 29 | µg/L | 0.06 | 1 | 0.03 | 1.6 | HBC | CTR Chronic |
| Silver Total | 10/03 | 8/13 | 140 | 98 | µg/L | 0.027 | 1 | 0.03 | 2.2 | HBC | CTR Chronic |
| Sodium | 6/10 | 6/10 | 2 | 2 | µg/L | AD | AD | 98000 | 110000 | NA | NA |
| Sulfate | 10/03 | 8/13 | 226 | 226 | mg/L | AD | AD | 5.43 | 211 | 300 | BP SSO |
| Temperature | 10/03 | 10/13 | 842 | 842 | °C | AD | AD | 8.888889 | 31 | NA | NA |
| Tetrachloroethylene | 2/04 | 10/13 | 231 | 1 | µg/L | 0.11 | 0.93 | 0.93 | 0.93 | 8.85 | CTR HH Organism |
| Thallium Dissolved | 10/03 | 2/06 | 31 | 8 | µg/L | 1 | 5 | 1 | 14 | NA | NA |
| THM | 2/04 | 10/13 | 269 | 168 | µg/L | 1 | 1.2 | 0.4 | 150 | NA | NA |
| Toluene | 2/04 | 10/13 | 231 | 6 | µg/L | 0.069 | 0.5 | 0.09 | 0.87 | 200000 | CTR HH Organism |
| Total Coliform | 1/02 | 9/11 | 759 | 733 | MPN/100mL | 2 | 100 | 2 | 1600000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/03 | 10/13 | 879 | 874 | mg/L | 0.019 | 0.5 | 0.29 | 13.3 | NA | NA |
| Total Organic Carbon | 10/03 | 8/13 | 79 | 79 | mg/L | AD | AD | 0.45 | 49 | NA | NA |

**Burbank Western Channel - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Total Settleable Solids | 1/07 | 8/13 | 171 | 16 | mL/L | 0.1 | 0.1 | 0.1 | 10 | NA | NA |
| TSS | 10/03 | 8/13 | 212 | 192 | mg/L | 0.1 | 1 | 1 | 3744 | NA | NA |
| Turbidity | 10/03 | 10/13 | 253 | 253 | NTU | AD | AD | 0.32 | 138 | NA | NA |
| Volatile Suspended Solids | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 5 | 89 | NA | NA |

NA - No Available adopted water quality objective
BP – Basin Plan
HBC - Hardness Based Criteria, as defined by CTR
SSO – Site Specific Objective
AD - All values reported detected, no detection limit provided

**Caballero Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Antimony Dissolved | 1/05 | 2/06 | 14 | 7 | µg/L | 2 | 2 | 2 | 4 | NA | NA |
| Antimony Total | 1/05 | 2/06 | 14 | 5 | µg/L | 2 | 2 | 2 | 5 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 1/05 | 8/08 | 45 | 45 | µg/L | AD | AD | 0.4 | 7.2 | 150 | CTR Chronic |
| Arsenic Total | 1/05 | 8/08 | 45 | 45 | µg/L | AD | AD | 0.7 | 59.8 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 45 | 45 | µg/L | AD | AD | 14.8 | 50.2 | NA | NA |
| Barium Total | 1/05 | 8/08 | 45 | 45 | µg/L | AD | AD | 16 | 707 | NA | NA |
| Cadmium Dissolved | 1/05 | 8/08 | 45 | 29 | µg/L | 0.02 | 0.33 | 0.01 | 1.36 | HBC | CTR Chronic |
| Chromium Dissolved | 1/05 | 8/08 | 45 | 36 | µg/L | 0.1 | 0.21 | 0.045 | 3.25 | NA | NA |
| Chromium Total | 1/05 | 8/08 | 45 | 41 | µg/L | 0.1 | 0.21 | 0.045 | 44 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 11 | µg/L | 0.2 | 0.2 | 0.2 | 0.9 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 12 | µg/L | 0.2 | 0.2 | 0.2 | 0.9 | NA | NA |
| Enterococcus | 7/04 | 5/09 | 54 | 54 | MPN/100mL | AD | AD | 20 | 24000 | NA | NA |
| Hardness | 1/05 | 8/08 | 45 | 45 | mg/L | AD | AD | 154 | 1120 | NA | NA |

**Caballero Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Lead Dissolved | 1/05 | 8/08 | 44 | 24 | µg/L | 1 | 1.1 | 0.055 | 9.8 | HBC | CTR Chronic |
| Mercury Dissolved | 1/05 | 2/06 | 13 | 1 | µg/L | 0.022 | 0.022 | 0.023 | 0.023 | NA | NA |
| Nickel Dissolved | 1/05 | 8/08 | 45 | 45 | µg/L | AD | AD | 5.81 | 28.7 | HBC | CTR Chronic |
| Selenium Dissolved | 1/05 | 8/08 | 45 | 45 | µg/L | AD | AD | 1 | 14.2 | NA | NA |
| Silver Dissolved | 1/05 | 8/08 | 45 | 25 | µg/L | 0.06 | 0.2 | 0.03 | 1.04 | HBC | CTR Chronic |
| Silver Total | 1/05 | 8/08 | 45 | 25 | µg/L | 0.06 | 0.2 | 0.03 | 2.68 | HBC | CTR Chronic |
| Thallium Dissolved | 1/05 | 2/06 | 14 | 2 | µg/L | 1 | 1 | 1 | 2 | NA | NA |
| Thallium Total | 1/05 | 2/06 | 14 | 2 | µg/L | 1 | 1 | 1 | 2 | 6.3 | CTR HH Organism |
| Total Coliform | 7/04 | 5/09 | 54 | 54 | MPN/100mL | AD | AD | 860 | 240000 | NA | NA |
| Zinc Dissolved | 1/05 | 8/08 | 44 | 39 | µg/L | 4 | 4 | 3.6 | 28.7 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Compton Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 136 | 200 | NA | NA |
| Ammonia as N | 6/09 | 6/11 | 4 | 1 | mg/L | 0.05 | 0.05 | 0.05 | 0.05 | pH and Temp Dependent | BP Not COLD or MIGR |
| Antimony Dissolved | 2/05 | 2/06 | 13 | 9 | µg/L | 2 | 2 | 2 | 7 | NA | NA |
| Antimony Total | 1/05 | 2/06 | 14 | 10 | µg/L | 2 | 2 | 2 | 6 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 1/05 | 6/11 | 47 | 47 | µg/L | AD | AD | 0.6 | 5.16 | 150 | CTR Chronic |
| Arsenic Total | 1/05 | 6/11 | 47 | 47 | µg/L | AD | AD | 0.6 | 4.22 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 15.7 | 98.5 | NA | NA |
| Barium Total | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 21.2 | 134 | NA | NA |
| Beryllium Dissolved | 1/05 | 2/06 | 14 | 1 | µg/L | 0.4 | 0.4 | 0.9 | 0.9 | NA | NA |
| Beryllium Total | 1/05 | 2/06 | 14 | 1 | µg/L | 0.4 | 0.4 | 1 | 1 | NA | NA |
| Bifenthrin | 6/09 | 6/11 | 4 | 1 | µg/L | 0.0005 | 0.001 | 0.005 | 0.005 | NA | NA |
| Cadmium Dissolved | 1/05 | 6/11 | 47 | 20 | µg/L | 0.01 | 0.33 | 0.01 | 0.94 | HBC | CTR Chronic |
| Cadmium Total | 1/05 | 6/11 | 47 | 25 | µg/L | 0.01 | 0.33 | 0.01 | 0.95 | HBC | CTR Chronic |
| Chromium Dissolved | 2/05 | 6/11 | 46 | 43 | µg/L | 0.1 | 0.1 | 0.2 | 4.67 | NA | NA |
| Chromium Total | 1/05 | 6/11 | 47 | 46 | µg/L | 0.1 | 0.1 | 0.2 | 5.97 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 7 | µg/L | 0.2 | 0.2 | 0.2 | 0.9 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 11 | µg/L | 0.2 | 0.2 | 0.2 | 1.2 | NA | NA |
| Dissolved Organic Carbon | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 8.35 | 26.9 | NA | NA |
| Enterococcus | 1/02 | 5/09 | 84 | 79 | MPN/100mL | 10 | 10 | 10 | 24000 | NA | NA |
| Hardness | 1/05 | 6/13 | 78 | 78 | mg/L | AD | AD | 32.4 | 300 | NA | NA |
| Iron Dissolved | 6/09 | 6/11 | 4 | 4 | µg/L | AD | AD | 57.3 | 311 | NA | NA |
| Iron Total | 6/09 | 6/11 | 4 | 4 | µg/L | AD | AD | 428 | 1050 | NA | NA |

**Compton Creek - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Mercury Dissolved | 1/05 | 6/11 | 18 | 1 | µg/L | 0.0036 | 0.022 | 0.034 | 0.034 | NA | NA |
| Nickel Dissolved | 1/05 | 6/11 | 47 | 47 | µg/L | AD | AD | 1.76 | 15.3 | HBC | CTR Chronic |
| Nickel Total | 1/05 | 6/11 | 47 | 47 | µg/L | AD | AD | 2 | 18.6 | HBC | CTR Chronic |
| Nitrogen (NO3-N+NO2-N) (Calc) | 10/03 | 10/13 | 881 | 880 | mg/L | 0.02 | 0.02 | 0.03 | 15.00 | 8 | LAR Nutrient TMDL |
| Ortho Phosphate (as P) | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 0.17 | 0.59 | NA | NA |
| Phosphate (Total) as P | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 0.36 | 0.6 | NA | NA |
| Selenium Dissolved | 1/05 | 6/11 | 47 | 44 | µg/L | 0.2 | 0.2 | 0.1 | 1.1 | NA | NA |
| Silica | 6/09 | 6/11 | 4 | 4 | µg/L | AD | AD | 18400 | 53900 | NA | NA |
| Silver Dissolved | 2/05 | 8/08 | 42 | 23 | µg/L | 0.06 | 0.2 | 0.03 | 3 | HBC | CTR Chronic |
| Silver Total | 1/05 | 8/08 | 43 | 22 | µg/L | 0.06 | 0.2 | 0.03 | 9.7 | HBC | CTR Chronic |
| Sulfate | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 96.8 | 160 | 350 | BP SSO |
| TDS | 6/09 | 6/09 | 1 | 1 | mg/L | AD | AD | 772 | 772 | 1500 | BP SSO |
| Thallium Dissolved | 1/05 | 2/06 | 14 | 2 | µg/L | 1 | 1 | 1 | 5 | NA | NA |
| Thallium Total | 1/05 | 2/06 | 14 | 2 | µg/L | 1 | 1 | 1 | 4 | 6.3 | CTR HH Organism |
| Total Coliform | 1/02 | 5/09 | 85 | 85 | MPN/100mL | AD | AD | 1300 | 240000 | NA | NA |
| Total Kjeldahl Nitrogen | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 0.51 | 2.68 | NA | NA |
| Total Organic Carbon | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 8.7 | 27.8 | NA | NA |
| TSS | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 4.9 | 84 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Echo Park Lake - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Ammonia as N | 5/03 | 11/10 | 90 | 53 | mg/L | 0.05 | 0.1 | 0.05 | 0.93 | pH and Temp Dependent | BP 30-Day Average |
| Antimony Dissolved | 5/03 | 11/10 | 92 | 46 | µg/L | 1.1 | 2 | 0.86 | 7 | NA | NA |
| Antimony Total | 5/03 | 11/10 | 93 | 52 | µg/L | 1.1 | 2 | 0.85 | 7 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 5/03 | 11/10 | 93 | 93 | µg/L | AD | AD | 1.1 | 7.43 | 150 | CTR Chronic |
| Arsenic Total | 5/03 | 11/10 | 93 | 93 | µg/L | AD | AD | 1.2 | 8.23 | 150 | CTR Chronic |
| Barium Dissolved | 5/03 | 11/10 | 92 | 92 | µg/L | AD | AD | 19.8 | 156 | NA | NA |
| Barium Total | 5/03 | 11/10 | 93 | 93 | µg/L | AD | AD | 20.1 | 385 | NA | NA |
| Beryllium Dissolved | 5/03 | 11/10 | 93 | 15 | µg/L | 0.006 | 0.5 | 0.008 | 0.4 | NA | NA |
| Beryllium Total | 5/03 | 11/10 | 93 | 17 | µg/L | 0.006 | 0.5 | 0.007 | 0.2 | NA | NA |
| BOD | 5/03 | 11/10 | 93 | 44 | mg/L | 3 | 4 | 3 | 18 | NA | NA |
| Cadmium Dissolved | 5/03 | 11/10 | 92 | 31 | µg/L | 0.01 | 0.5 | 0.08 | 0.7 | HBC | CTR Chronic |
| Chromium Dissolved | 5/03 | 11/10 | 90 | 78 | µg/L | 0.1 | 1 | 0.1 | 4.26 | NA | NA |
| Chromium Total | 5/03 | 11/10 | 90 | 82 | µg/L | 0.1 | 1 | 0.36 | 3.89 | NA | NA |

**Echo Park Lake - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Cobalt Dissolved | 5/03 | 11/10 | 89 | 29 | µg/L | 0.2 | 0.5 | 0.1 | 0.97 | NA | NA |
| Cobalt Total | 5/03 | 11/10 | 93 | 47 | µg/L | 0.2 | 0.5 | 0.05 | 4 | NA | NA |
| Dissolved Oxygen | 11/02 | 5/11 | 342 | 342 | mg/L | AD | AD | 5.62 | 15.9 | 5 | BP Minimum |
| Enterococcus | 10/02 | 11/10 | 616 | 549 | MPN/100mL | 10 | 100 | 10 | 24000 | NA | NA |
| Hardness | 11/04 | 11/10 | 75 | 75 | mg/L | AD | AD | 104 | 364 | NA | NA |
| Mercury Dissolved | 5/03 | 11/10 | 93 | 13 | µg/L | 0.004 | 0.022 | 0.004 | 0.148 | NA | NA |
| Nickel Dissolved | 5/03 | 11/10 | 90 | 86 | µg/L | 0.24 | 1 | 1 | 8.8 | HBC | CTR Chronic |
| Nickel Total | 5/03 | 11/10 | 90 | 87 | µg/L | 1 | 1 | 1.32 | 8.8 | HBC | CTR Chronic |
| Nitrate as N | 5/03 | 11/10 | 96 | 48 | mg/L | 0.02 | 0.02 | 0.02 | 1.21 | 10 | BP MUN |
| Nitrite as N | 5/03 | 11/10 | 96 | 9 | mg/L | 0.02 | 0.1 | 0.02 | 0.2 | 1 | BP MUN |
| Organic Nitrogen | 5/03 | 11/10 | 96 | 93 | mg/L | 0.1 | 0.1 | 0.18 | 3.14 | NA | NA |
| Phosphate (Total) | 5/03 | 11/10 | 96 | 92 | mg/L | 0.05 | 0.05 | 0.06 | 0.51 | NA | NA |
| Selenium Dissolved | 5/03 | 11/10 | 93 | 87 | µg/L | 0.2 | 0.2 | 0.1 | 4.5 | NA | NA |
| Selenium Total | 5/03 | 11/10 | 93 | 88 | µg/L | 0.2 | 0.2 | 0.2 | 4.8 | 5 | CTR Chronic |

**Echo Park Lake - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Silver Dissolved | 5/03 | 11/10 | 90 | 13 | µg/L | 0.02 | 0.5 | 0.02 | 0.63 | HBC | CTR Chronic |
| Silver Total | 5/03 | 11/10 | 90 | 15 | µg/L | 0.02 | 0.5 | 0.02 | 0.63 | HBC | CTR Chronic |
| Temperature | 11/02 | 5/11 | 341 | 341 | °C | AD | AD | 12.1 | 27.6 | NA | NA |
| Thallium Dissolved | 5/03 | 11/10 | 86 | 31 | µg/L | 0.5 | 9 | 0.03 | 4 | NA | NA |
| Thallium Total | 5/03 | 11/10 | 89 | 34 | µg/L | 0.5 | 9 | 0.02 | 4.4 | 6.3 | CTR HH Organism |
| Total Coliform | 10/02 | 11/10 | 624 | 623 | MPN/100mL | 100 | 100 | 100 | 240000 | NA | NA |
| TSS | 5/03 | 11/10 | 93 | 93 | mg/L | AD | AD | 3 | 31 | NA | NA |
| Turbidity | 8/04 | 5/11 | 324 | 324 | NTU | AD | AD | 1.7 | 1346.6 | NA | NA |
| Zinc Dissolved | 5/03 | 11/10 | 89 | 70 | µg/L | 4 | 4 | 1.88 | 36.6 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 2-Methyl-4,6-Dinitrophenol | 10/02 | 7/13 | 76 | 7 | µg/L | 1 | 5 | 3 | 5.2 | 765 | CTR HH Organism |
| 4-Methylphenol | 10/04 | 3/05 | 6 | 1 | µg/L | 3 | 3 | 3 | 3 | NA | NA |
| Alkalinity | 10/02 | 7/13 | 109 | 107 | mg/L | 2 | 2 | 6 | 213 | NA | NA |
| Aluminum Dissolved | 10/02 | 7/13 | 76 | 28 | µg/L | 50 | 100 | 52.6 | 4750 | NA | NA |
| Aluminum Total | 10/02 | 7/13 | 76 | 61 | µg/L | 50 | 100 | 50.3 | 23900 | NA | NA |
| Ammonia | 10/04 | 7/13 | 58 | 50 | mg/L | 0.1 | 0.121 | 0.114 | 4.89 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |
| Ammonia as N | 10/02 | 7/13 | 77 | 61 | mg/L | 0.05 | 0.1 | 0.1 | 4.879 | | BP MIGR |
| Antimony Dissolved | 2/01 | 7/13 | 137 | 84 | µg/L | 0.2 | 18 | 0.56 | 5 | NA | NA |
| Antimony Total | 2/01 | 7/13 | 137 | 90 | µg/L | 0.2 | 18 | 0.59 | 9.26 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 2/01 | 7/13 | 167 | 148 | µg/L | 0.2 | 10 | 0.3 | 5 | 150 | CTR Chronic |
| Arsenic Total | 2/01 | 7/13 | 167 | 152 | µg/L | 0.2 | 10 | 0.8 | 7.99 | 150 | CTR Chronic |
| Barium Dissolved | 2/01 | 7/13 | 153 | 147 | µg/L | 1 | 1 | 1.05 | 189 | NA | NA |
| Barium Total | 2/01 | 7/13 | 154 | 151 | µg/L | 1 | 1 | 2.08 | 544 | NA | NA |
| Beryllium Dissolved | 2/01 | 7/13 | 137 | 16 | µg/L | 0.006 | 1 | 0.01 | 1 | NA | NA |
| Beryllium Total | 2/01 | 7/13 | 137 | 20 | µg/L | 0.006 | 1 | 0.019 | 2.4 | NA | NA |
| Bicarbonate | 10/04 | 12/04 | 4 | 4 | µg/L | AD | AD | 37600 | 163700 | NA | NA |
| BOD | 10/02 | 7/13 | 76 | 74 | mg/L | 1 | 1 | 2.09 | 198 | NA | NA |
| Boron | 10/04 | 3/05 | 12 | 9 | mg/L | 0.1 | 0.1 | 0.1 | 1.59 | NA | NA |
| Cadmium Dissolved | 2/01 | 7/13 | 189 | 72 | µg/L | 0.01 | 1 | 0.01 | 2.03 | HBC | CTR Chronic |
| Calcium | 10/04 | 2/08 | 28 | 28 | µg/L | AD | AD | 12000 | 94300 | NA | NA |
| Carbonate | 10/04 | 3/05 | 6 | 1 | µg/L | 2000 | 2000 | 66000 | 66000 | NA | NA |
| Chloride | 10/02 | 7/13 | 99 | 97 | mg/L | 1 | 1 | 6.28 | 161 | 190 | BP SSO |

**LA River – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Chromium Dissolved | 2/01 | 7/13 | 167 | 132 | µg/L | 0.5 | 10 | 0.1 | 13.1 | NA | NA |
| Chromium Total | 2/01 | 7/13 | 167 | 147 | µg/L | 0.21 | 10 | 0.7 | 47.4 | NA | NA |
| Chromium (VI) Dissolved | 10/02 | 7/13 | 76 | 18 | µg/L | 0.25 | 10 | 0.26 | 10 | 11 | CTR Chronic |
| Chromium (VI) Total | 10/02 | 7/13 | 76 | 15 | µg/L | 0.25 | 10 | 0.25 | 8.54 | 11.43 | CTR Chronic |
| Cobalt Dissolved | 2/01 | 2/06 | 58 | 28 | µg/L | 0.2 | 20 | 0.2 | 1.3 | NA | NA |
| Cobalt Total | 2/01 | 2/06 | 58 | 34 | µg/L | 0.24 | 20 | 0.2 | 24.9 | NA | NA |
| COD | 10/02 | 7/13 | 76 | 73 | mg/L | 10 | 10 | 19.4 | 578 | NA | NA |
| Cyanide | 10/02 | 7/13 | 73 | 58 | µg/L | 5.00 | 10.00 | 5.00 | 1,200.00 | 5.2 and 22 | CTR Chronic and Acute |
| Di-n-Butyl Phthalate | 10/02 | 7/13 | 69 | 1 | µg/L | 1 | 10 | 1 | 4.7 | 12000 | CTR HH Organism |
| Diethyl Phthalate | 10/02 | 7/13 | 76 | 1 | µg/L | 0.5 | 2 | 0.5 | 0.9 | 120000 | CTR HH Organism |
| Dimethyl Phthalate | 10/02 | 7/13 | 76 | 1 | µg/L | 0.5 | 2 | 0.5 | 1.6 | 2900000 | CTR HH Organism |
| Dissolved Organic Carbon | 3/06 | 6/10 | 23 | 23 | mg/L | AD | AD | 6.2 | 12.57 | NA | NA |
| Enterococcus | 2/01 | 7/13 | 354 | 348 | MPN/100mL | 10 | 100 | 10 | 9000000 | NA | NA |
| Fecal Coliform | 10/02 | 7/13 | 73 | 71 | MPN/100mL | 20 | 20 | 20 | 24000000 | NA | NA |
| Fecal Streptococcus | 10/02 | 7/13 | 73 | 71 | MPN/100mL | 20 | 20 | 20 | 9000000 | NA | NA |
| Fluoranthene | 10/02 | 7/13 | 76 | 1 | µg/L | 0.017 | 0.1 | 0.1 | 0.503 | 370 | CTR HH Organism |
| Fluoride | 10/02 | 7/13 | 76 | 70 | mg/L | 0.1 | 0.1 | 0.1 | 0.892 | NA | NA |
| Hardness | 10/02 | 7/13 | 188 | 187 | mg/L | 2 | 2 | 5 | 434 | NA | NA |
| Iron Dissolved | 10/02 | 7/13 | 77 | 49 | µg/L | 50 | 100 | 18 | 3830 | NA | NA |
| Iron Total | 10/02 | 7/13 | 77 | 76 | µg/L | 100 | 100 | 51.9 | 33200 | NA | NA |
| Magnesium | 10/04 | 2/08 | 28 | 28 | µg/L | AD | AD | 2430 | 38400 | NA | NA |
| Manganese Total | 10/04 | 3/05 | 6 | 4 | µg/L | 30 | 30 | 30.4 | 228 | NA | NA |
| MBAS | 10/02 | 7/13 | 76 | 72 | µg/L | 10.00 | 50.00 | 16.00 | 2180 | NA | NA |
| Mercury Dissolved | 6/01 | 7/13 | 133 | 22 | µg/L | 0.0036 | 1 | 0.006 | 1 | NA | NA |

**LA River – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| MTBE | 10/05 | 7/13 | 56 | 4 | µg/L | 0.33 | 1 | 1 | 1 | NA | NA |
| Nickel Dissolved | 2/01 | 7/13 | 167 | 139 | µg/L | 0.5 | 20 | 1 | 31 | HBC | CTR Chronic |
| Nickel Total | 2/01 | 6/10 | 114 | 96 | µg/L | 5 | 20 | 3.1 | 49 | HBC | CTR Chronic |
| Nitrate as N | 10/02 | 7/13 | 77 | 64 | mg/L | 0.03 | 0.5 | 0.23 | 6.75 | 8 | LAR Nutrient TMDL |
| Nitrate as N | 10/02 | 7/13 | 77 | 64 | mg/L | 0.03 | 0.5 | 0.23 | 6.75 | 8 | LAR Nutrient TMDL |
| Nitrate as NO3 | 10/02 | 7/13 | 76 | 63 | mg/L | 0.1 | 0.1 | 0.24 | 29.9 | NA | NA |
| Nitrogen (NO3-N+NO2-N) (Calc) | 5/03 | 11/10 | 96 | 48 | mg/L | 0.02 | 0.02 | 0.02 | 1.21 | 5/03 | LAR Nutrient TMDL |
| Oil + Grease | 10/02 | 7/13 | 73 | 39 | mg/L | 0.4 | 1.44 | 0.8 | 11.9 | NA | NA |
| Ortho Phosphate (as P) | 6/10 | 6/10 | 1 | 1 | mg/L | AD | AD | 0.15 | 0.15 | NA | NA |
| Phenols (Total) | 10/02 | 7/13 | 126 | 13 | µg/L | 0.33 | 100 | 1 | 120 | 4600000 | CTR HH Organism |
| Phosphate (Total) as P | 6/10 | 6/10 | 1 | 1 | mg/L | AD | AD | 0.34 | 0.34 | NA | NA |
| Phosphorus | 10/02 | 7/13 | 151 | 143 | mg/L | 0.05 | 0.05 | 0.057 | 8.24 | NA | NA |
| Potassium | 10/04 | 2/08 | 28 | 28 | µg/L | AD | AD | 1960 | 28300 | NA | NA |
| Pyrene | 10/02 | 7/13 | 76 | 1 | µg/L | 0.017 | 0.05 | 0.05 | 0.413 | 11000 | CTR HH Organism |
| Selenium Dissolved | 2/01 | 7/13 | 167 | 126 | µg/L | 0.2 | 30 | 0.2 | 6.85 | NA | NA |
| Silica | 6/10 | 6/10 | 1 | 1 | µg/L | AD | AD | 19700 | 19700 | NA | NA |
| Silver Dissolved | 11/02 | 7/13 | 164 | 22 | µg/L | 0.06 | 5 | 0.03 | 10.8 | HBC | CTR Chronic |
| Silver Total | 3/01 | 7/13 | 164 | 57 | µg/L | 0.06 | 5 | 0.03 | 10.9 | HBC | CTR Chronic |
| Sodium | 10/04 | 2/08 | 28 | 28 | µg/L | AD | AD | 12300 | 130000 | NA | NA |
| Sulfate | 10/02 | 7/13 | 99 | 98 | mg/L | 0.1 | 0.1 | 0.42 | 265 | 350 | BP SSO |
| Sulfide | 3/06 | 2/08 | 22 | 2 | µg/L | 30 | 30 | 40 | 40 | NA | NA |
| TDS | 10/02 | 7/13 | 76 | 74 | mg/L | 1 | 1 | 70 | 780 | 1500 | BP SSO |
| Temperature | 3/06 | 2/08 | 22 | 22 | °C | AD | AD | 12 | 31 | NA | NA |

**LA River – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Thallium Dissolved | 2/01 | 7/13 | 137 | 15 | µg/L | 0.1 | 25 | 0.9 | 17 | NA | NA |
| Total Coliform | 2/01 | 7/13 | 418 | 418 | MPN/100mL | AD | AD | 20 | 90000000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/02 | 7/13 | 77 | 77 | mg/L | AD | AD | 0.12 | 30.68 | NA | NA |
| Total Organic Carbon | 10/02 | 7/13 | 77 | 75 | mg/L | 0.4 | 0.5 | 1.56 | 57.1 | NA | NA |
| TPH | 10/02 | 7/13 | 73 | 26 | mg/L | 0.4 | 5 | 0.62 | 4.75 | NA | NA |
| TSS | 10/02 | 7/13 | 143 | 141 | mg/L | 1 | 1 | 1 | 2280 | NA | NA |
| Turbidity | 10/02 | 7/13 | 76 | 76 | NTU | AD | AD | 0.15 | 211 | NA | NA |
| Vanadium Total | 2/01 | 2/01 | 1 | 1 | µg/L | AD | AD | 6.2 | 6.2 | NA | NA |
| Volatile Suspended Solids | 10/02 | 7/13 | 76 | 74 | mg/L | 1 | 1 | 3 | 608 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 3/06 | 6/10 | 46 | 46 | mg/L | AD | AD | 50 | 212 | NA | NA |
| Antimony Dissolved | 1/01 | 2/06 | 123 | 31 | µg/L | 1.1 | 18 | 1.1 | 13.8 | NA | NA |
| Antimony Total | 1/01 | 2/06 | 123 | 37 | µg/L | 1.1 | 18 | 1.2 | 7.1 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 2/01 | 6/10 | 181 | 163 | µg/L | 0.4 | 10 | 0.6 | 8.4 | 150 | CTR Chronic |
| Arsenic Total | 2/01 | 6/10 | 182 | 165 | µg/L | 0.4 | 10 | 0.6 | 9.5 | 150 | CTR Chronic |
| Barium Dissolved | 2/01 | 8/08 | 178 | 178 | µg/L | AD | AD | 12.4 | 123 | NA | NA |
| Barium Total | 2/01 | 8/08 | 178 | 178 | µg/L | AD | AD | 13.9 | 375 | NA | NA |
| Beryllium Dissolved | 1/01 | 2/06 | 123 | 14 | µg/L | 0.006 | 1 | 0.02 | 0.85 | NA | NA |
| Beryllium Total | 1/01 | 2/06 | 123 | 16 | µg/L | 0.006 | 1 | 0.02 | 1.2 | NA | NA |
| Bifenthrin | 6/09 | 6/10 | 2 | 2 | µg/L | AD | AD | 0.0035 | 0.0051 | NA | NA |
| Cadmium Dissolved | 1/01 | 6/10 | 183 | 61 | µg/L | 0.02 | 1 | 0.01 | 1.6 | HBC | CTR Chronic |
| Calcium | 3/06 | 2/08 | 44 | 44 | µg/L | AD | AD | 32000 | 95500 | NA | NA |
| Chloride | 3/06 | 6/10 | 46 | 46 | mg/L | AD | AD | 23.6 | 145 | 190 | BP SSO |
| Chromium Dissolved | 1/01 | 6/10 | 183 | 140 | µg/L | 0.7 | 10 | 0.1 | 11.5 | NA | NA |
| Chromium Total | 1/01 | 6/10 | 183 | 154 | µg/L | 0.7 | 10 | 0.4 | 53.9 | NA | NA |
| Cobalt Dissolved | 1/01 | 2/06 | 117 | 53 | µg/L | 0.2 | 20 | 0.2 | 2.2 | NA | NA |
| Cobalt Total | 1/01 | 2/06 | 117 | 58 | µg/L | 0.2 | 20 | 0.2 | 24.7 | NA | NA |
| Cypermethrin | 6/09 | 6/10 | 2 | 1 | µg/L | 0.0005 | 0.0005 | 0.0071 | 0.0071 | NA | NA |
| Dissolved Organic Carbon | 3/06 | 6/10 | 46 | 46 | mg/L | AD | AD | 5.55 | 15 | NA | NA |
| Enterococcus | 1/01 | 5/09 | 563 | 540 | MPN/100mL | 10 | 100 | 10 | 24000 | NA | NA |
| Hardness | 1/04 | 6/13 | 230 | 230 | mg/L | AD | AD | 38.3 | 456 | NA | NA |
| Iron Dissolved | 6/09 | 6/10 | 2 | 2 | µg/L | AD | AD | 18 | 61 | NA | NA |
| Iron Total | 6/09 | 6/10 | 2 | 2 | µg/L | AD | AD | 439 | 772 | NA | NA |
| Magnesium | 3/06 | 2/08 | 44 | 44 | µg/L | AD | AD | 11700 | 39700 | NA | NA |

**LA River – Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Mercury Dissolved | 1/01 | 6/10 | 117 | 30 | µg/L | 0.0036 | 0.3 | 0.006 | 0.19 | NA | NA |
| Nickel Dissolved | 1/01 | 6/10 | 182 | 144 | µg/L | 5 | 20 | 1 | 30.1 | HBC | CTR Chronic |
| Nickel Total | 1/01 | 6/10 | 183 | 153 | µg/L | 5 | 20 | 2 | 58.5 | HBC | CTR Chronic |
| Nitrate as N | 6/09 | 6/10 | 2 | 2 | mg/L | AD | AD | 2.37 | 3.93 | 8 | LAR Nutrient TMDL |
| Nitrite as N | 6/09 | 6/10 | 2 | 1 | mg/L | 0.02 | 0.02 | 0.11 | 0.11 | 1 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 10/02 | 7/13 | 77 | 72 | mg/L | 0.03 | 0.50 | 0.03 | 6.75 | 8 | LAR Nutrient TMDL |
| Ortho Phosphate (as P) | 6/09 | 6/10 | 2 | 2 | mg/L | AD | AD | 0.19 | 0.48 | NA | NA |
| Phosphate (Total) as P | 6/09 | 6/10 | 2 | 2 | mg/L | AD | AD | 0.34 | 0.61 | NA | NA |
| Potassium | 3/06 | 2/08 | 44 | 44 | µg/L | AD | AD | 6180 | 24600 | NA | NA |
| Selenium Dissolved | 1/01 | 6/10 | 183 | 172 | µg/L | 1 | 30 | 0.2 | 4.19 | NA | NA |
| Selenium Total | 1/01 | 6/10 | 183 | 172 | µg/L | 1 | 30 | 0.2 | 4.45 | 5 | CTR Chronic |
| Silica | 6/09 | 6/10 | 2 | 2 | µg/L | AD | AD | 16300 | 16300 | NA | NA |
| Silver Dissolved | 1/01 | 8/08 | 175 | 48 | µg/L | 0.06 | 5 | 0.03 | 2.5 | HBC | CTR Chronic |
| Silver Total | 1/01 | 8/08 | 177 | 51 | µg/L | 0.06 | 5 | 0.03 | 5 | HBC | CTR Chronic |
| Sodium | 3/06 | 2/08 | 44 | 44 | µg/L | AD | AD | 25000 | 124000 | NA | NA |
| Sulfate | 3/06 | 6/10 | 46 | 46 | mg/L | AD | AD | 65.3 | 264 | 350 | BP SSO |
| Sulfide | 3/06 | 2/08 | 43 | 2 | µg/L | 30 | 30 | 30 | 40 | NA | NA |
| TDS | 6/09 | 6/09 | 1 | 1 | mg/L | AD | AD | 626 | 626 | 1500 | BP SSO |
| Temperature | 3/06 | 2/08 | 44 | 44 | °C | AD | AD | 11.1 | 28.7 | NA | NA |
| Thallium Dissolved | 1/01 | 2/06 | 123 | 10 | µg/L | 0.5 | 25 | 0.8 | 7.8 | NA | NA |
| Total Coliform | 1/01 | 9/11 | 629 | 629 | MPN/100mL | AD | AD | 520 | 240000 | NA | NA |
| Total Kjeldahl Nitrogen | 6/09 | 6/10 | 2 | 2 | mg/L | AD | AD | 2.21 | 2.4 | NA | NA |
| Total Organic Carbon | 6/09 | 6/10 | 2 | 2 | mg/L | AD | AD | 6.48 | 7.85 | NA | NA |

**LA River – Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| TSS | 3/06 | 6/09 | 45 | 45 | mg/L | AD | AD | 6 | 162 | NA | NA |
| Vanadium Total | 2/01 | 2/01 | 2 | 1 | µg/L | 5 | 5 | 8.6 | 8.6 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 3, Above LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,2-Dichlorobenzene | 2/02 | 9/13 | 24 | 3 | µg/L | 0.06 | 1.5 | 0.16 | 0.2 | 17000 | CTR HH Organism |
| 1,2,3,4,6,7,8-HpCDD | 8/07 | 9/13 | 13 | 1 | pg/L | 4.5 | 57 | 230 | 230 | NA | NA |
| 1,4-Dioxane | 8/07 | 9/13 | 13 | 13 | µg/L | AD | AD | 0.28 | 1 | NA | NA |
| 2,4-DDD | 3/02 | 2/07 | 11 | 1 | µg/L | 0.001 | 0.01 | 0.003 | 0.003 | NA | NA |
| 2,4,6-Trichlorophenol | 2/02 | 9/13 | 24 | 1 | µg/L | 0.09 | 6.9 | 0.16 | 0.16 | 6.5 | CTR HH Organism |
| Alkalinity | 3/06 | 5/09 | 23 | 23 | mg/L | AD | AD | 62 | 418 | NA | NA |
| Antimony Dissolved | 1/01 | 2/06 | 73 | 23 | µg/L | 1.1 | 18 | 1.2 | 6 | NA | NA |
| Antimony Total | 1/01 | 8/13 | 99 | 51 | µg/L | 1.1 | 18 | 0.42 | 7 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 2/01 | 5/09 | 102 | 94 | µg/L | 0.4 | 10 | 0.8 | 40.1 | 150 | CTR Chronic |
| Arsenic Total | 2/01 | 8/13 | 149 | 140 | µg/L | 0.06 | 10 | 0.9 | 5.6 | 150 | CTR Chronic |
| Barium Dissolved | 2/01 | 8/08 | 100 | 100 | µg/L | AD | AD | 0.69 | 103.03 | NA | NA |

**LA River – Reach 3, Above LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Barium Total | 2/01 | 8/08 | 100 | 100 | µg/L | AD | AD | 7.83 | 168 | NA | NA |
| Benzo(ghi)Perylene | 2/02 | 9/13 | 24 | 1 | µg/L | 0.03 | 1.7 | 0.09 | 0.09 | NA | NA |
| Beryllium Dissolved | 1/01 | 2/06 | 73 | 9 | µg/L | 0.006 | 1 | 0.008 | 0.831 | NA | NA |
| Beryllium Total | 1/01 | 8/13 | 99 | 15 | µg/L | 0.006 | 1 | 0.01 | 9 | NA | NA |
| Bis(2-chloroisopropyl)Ether | 2/02 | 9/13 | 24 | 1 | µg/L | 0.05 | 3 | 0.21 | 0.21 | 170000 | CTR HH Organism |
| BOD | 2/02 | 11/13 | 48 | 45 | mg/L | 3 | 3 | 3 | 51 | NA | NA |
| Boron | 5/07 | 8/13 | 27 | 27 | mg/L | AD | AD | 0.249 | 0.8 | NA | NA |
| Butylbenzyl Phthalate | 2/02 | 9/13 | 24 | 1 | µg/L | 0.04 | 3 | 0.1 | 0.1 | 5200 | CTR HH Organism |
| Cadmium Dissolved | 1/01 | 5/09 | 103 | 34 | µg/L | 0.02 | 1 | 0.01 | 1.08 | HBC | CTR Chronic |
| Cadmium Total | 1/01 | 8/13 | 167 | 75 | µg/L | 0.02 | 1 | 0.002 | 4.56 | HBC | CTR Chronic |
| Calcium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 43700 | 107000 | NA | NA |
| Chloride | 2/02 | 11/13 | 72 | 72 | mg/L | AD | AD | 35.9 | 169.52 | 190 | BP SSO |
| Chlorodibromomethane | 8/07 | 8/13 | 14 | 1 | µg/L | 0.05 | 0.18 | 0.12 | 0.12 | 34 | CTR HH Organism |
| Chloroform | 8/07 | 8/13 | 14 | 10 | µg/L | 0.06 | 0.13 | 0.13 | 0.95 | NA | NA |
| Chromium (III) Total | 5/11 | 8/13 | 10 | 10 | µg/L | AD | AD | 0.2 | 2.61 | HBC | CTR Chronic |
| Chromium Dissolved | 1/01 | 5/09 | 103 | 67 | µg/L | 0.1 | 10 | 0.1 | 6.2 | NA | NA |
| Chromium Total | 1/01 | 8/13 | 151 | 130 | µg/L | 0.1 | 10 | 0.2 | 142 | NA | NA |
| Chromium (VI) Total | 5/07 | 11/13 | 27 | 3 | µg/L | 0.5 | 2 | 0.5 | 0.8 | 11.43 | CTR Chronic |
| Cobalt Dissolved | 1/01 | 2/06 | 70 | 33 | µg/L | 0.2 | 20 | 0.2 | 3.22 | NA | NA |
| Cobalt Total | 1/01 | 2/06 | 70 | 39 | µg/L | 0.2 | 20 | 0.2 | 6.8 | NA | NA |
| COD | 5/07 | 11/13 | 27 | 26 | mg/L | 10 | 10 | 12 | 49 | NA | NA |

**LA River – Reach 3, Above LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| CTAS | 5/07 | 9/13 | 26 | 13 | mg/L | 0.02 | 0.1 | 0.047 | 0.45 | NA | NA |
| Di-n-Butyl Phthalate | 2/02 | 9/13 | 24 | 9 | µg/L | 0.07 | 3 | 0.12 | 0.56 | 12000 | CTR HH Organism |
| Dichlorobromomethane | 8/07 | 8/13 | 14 | 5 | µg/L | 0.06 | 0.12 | 0.08 | 0.21 | 46 | CTR HH Organism |
| Diethyl Phthalate | 2/02 | 9/13 | 24 | 2 | µg/L | 0.06 | 3 | 0.12 | 0.18 | 120000 | CTR HH Organism |
| Dissolved Organic Carbon | 3/06 | 5/09 | 23 | 23 | mg/L | AD | AD | 6.58 | 11.8 | NA | NA |
| Dissolved Oxygen | 1/02 | 11/13 | 575 | 575 | mg/L | AD | AD | 5.04 | 16.6 | 5 | BP Minimum |
| Endosulfan I | 3/02 | 8/13 | 24 | 1 | µg/L | 0.001 | 0.008 | 0.002 | 0.002 | 0.056 | CTR Chronic |
| Enterococcus | 1/01 | 5/09 | 287 | 285 | MPN/100mL | 10 | 100 | 10 | 24000 | NA | NA |
| Fecal Coliform | 1/02 | 7/12 | 503 | 501 | MPN/100mL | 9 | 9 | 9 | 53000 | NA | NA |
| Fluoride | 5/07 | 11/13 | 28 | 27 | mg/L | 0.02 | 0.02 | 0.32 | 0.88 | NA | NA |
| gamma-BHC (Lindane) | 3/02 | 8/13 | 24 | 2 | µg/L | 0.001 | 0.017 | 0.003 | 0.007 | 0.063 | CTR HH Organism |
| Hardness | 2/02 | 8/13 | 146 | 146 | mg/L | AD | AD | 141 | 448 | NA | NA |
| Iron Dissolved | 5/09 | 5/09 | 1 | 1 | µg/L | AD | AD | 56 | 56 | NA | NA |
| Iron Total | 5/09 | 5/09 | 1 | 1 | µg/L | AD | AD | 1510 | 1510 | NA | NA |
| Isophorone | 2/02 | 9/13 | 24 | 4 | µg/L | 0.07 | 4 | 0.1 | 0.21 | 600 | CTR HH Organism |
| Magnesium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 21900 | 46200 | NA | NA |
| MBAS | 2/02 | 11/13 | 48 | 48 | µg/L | AD | AD | 40 | 350 | NA | NA |
| Mercury Dissolved | 1/01 | 5/09 | 69 | 14 | µg/L | 0.004 | 0.3 | 0.006 | 0.176 | NA | NA |
| MTBE | 2/02 | 8/13 | 34 | 4 | µg/L | 0.08 | 0.2 | 0.44 | 1.28 | NA | NA |
| Nickel Dissolved | 1/01 | 5/09 | 103 | 85 | µg/L | 5 | 20 | 1.02 | 107 | HBC | CTR Chronic |
| Nitrate as N | 2/02 | 11/13 | 345 | 345 | mg/L | AD | AD | 0.97 | 5.86 | 8 | LAR Nutrient TMDL |

**LA River – Reach 3, Above LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Nitrogen (NO3-N+NO2-N) (Calc) | 6/09 | 6/10 | 2 | 2 | mg/L | AD | AD | 2.37 | 4.04 | 8 | LAR Nutrient TMDL |
| OCDD | 8/07 | 9/13 | 13 | 2 | pg/L | 26 | 120 | 150 | 1400 | NA | NA |
| Oil + Grease | 2/02 | 11/13 | 48 | 6 | mg/L | 3 | 3 | 3 | 6 | NA | NA |
| Organic Nitrogen | 2/02 | 11/13 | 342 | 341 | mg/L | 0.1 | 0.1 | 0.12 | 5.09 | NA | NA |
| Ortho Phosphate (as P) | 5/07 | 11/13 | 28 | 28 | mg/L | AD | AD | 0.07 | 0.75 | NA | NA |
| Perchlorate | 8/07 | 9/13 | 13 | 1 | µg/L | 0.2 | 1.6 | 0.62 | 0.62 | NA | NA |
| Phosphate (Total) as P | 5/09 | 5/09 | 1 | 1 | mg/L | AD | AD | 0.35 | 0.35 | NA | NA |
| Phosphorus | 2/02 | 11/13 | 48 | 48 | mg/L | AD | AD | 0.15 | 2.19 | NA | NA |
| Potassium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 11800 | 16800 | NA | NA |
| Selenium Dissolved | 1/01 | 5/09 | 103 | 97 | µg/L | 1 | 30 | 0.3 | 5 | NA | NA |
| Silica | 5/09 | 5/09 | 1 | 1 | µg/L | AD | AD | 13800 | 13800 | NA | NA |
| Silver Dissolved | 1/01 | 8/08 | 100 | 23 | µg/L | 0.06 | 5 | 0.03 | 0.8 | HBC | CTR Chronic |
| Silver Total | 1/01 | 8/13 | 126 | 52 | µg/L | 0.06 | 5 | 0.02 | 4 | HBC | CTR Chronic |
| Sodium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 34800 | 128000 | NA | NA |
| Sulfide | 3/06 | 2/08 | 22 | 2 | µg/L | 30 | 30 | 30 | 40 | NA | NA |
| TDS | 2/02 | 8/13 | 49 | 49 | mg/L | AD | AD | 434 | 910 | 950 | BP SSO |
| Temperature | 1/02 | 11/13 | 597 | 597 | °C | AD | AD | 4.444444 | 26.11111 | NA | NA |
| Tetrachloroethylene | 3/07 | 11/13 | 39 | 1 | µg/L | 0.09 | 1.3 | 1.3 | 1.3 | 8.85 | CTR HH Organism |
| Thallium Dissolved | 1/01 | 2/06 | 71 | 8 | µg/L | 0.5 | 25 | 0.9 | 6 | NA | NA |

**LA River – Reach 3, Above LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Toluene | 8/07 | 8/13 | 14 | 6 | µg/L | 0.06 | 0.15 | 0.31 | 0.5 | 200000 | CTR HH Organism |
| Total Coliform | 1/01 | 9/12 | 864 | 863 | MPN/100mL | 100 | 100 | 180 | 240000 | NA | NA |
| Total Kjeldahl Nitrogen | 5/09 | 5/09 | 1 | 1 | mg/L | AD | AD | 2.8 | 2.8 | NA | NA |
| Total Organic Carbon | 2/02 | 11/13 | 49 | 49 | mg/L | AD | AD | 5.56 | 18 | NA | NA |
| Total Settleable Solids | 5/07 | 11/13 | 26 | 6 | mL/L | 0.1 | 0.1 | 0.1 | 0.9 | NA | NA |
| TSS | 3/06 | 11/13 | 50 | 50 | mg/L | AD | AD | 1.6 | 378 | NA | NA |
| Turbidity | 2/02 | 9/13 | 47 | 47 | NTU | AD | AD | 0.4 | 16.9 | NA | NA |
| Vanadium Total | 2/01 | 2/01 | 1 | 1 | µg/L | AD | AD | 9.1 | 9.1 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 3, Below LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,1-Dichloroethylene | 8/07 | 8/13 | 16 | 9 | µg/L | AD | AD | 0.3 | 0.79 | 3.2 | CTR HH Organism |
| 1,2-Dichlorobenzene | 2/02 | 9/13 | 37 | 3 | µg/L | 0.06 | 1.5 | 0.18 | 0.29 | 17000 | CTR HH Organism |
| 1,2-Trans-Dichloroethylene | 8/07 | 8/13 | 16 | 2 | µg/L | 0.07 | 0.2 | 0.2 | 0.26 | 140000 | CTR HH Organism |
| 1,2,3,4,6,7,8-HpCDD | 8/07 | 9/13 | 13 | 1 | pg/L | 3.9 | 50 | 85 | 85 | NA | NA |

**LA River – Reach 3, Below LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,4-Dioxane | 8/07 | 9/13 | 15 | 15 | µg/L | AD | AD | 0.2 | 1.216 | NA | NA |
| 2,4-DDD | 3/02 | 2/07 | 22 | 1 | µg/L | 0.001 | 0.01 | 0.003 | 0.003 | NA | NA |
| 2,4,6-Trichlorophenol | 2/02 | 9/13 | 37 | 3 | µg/L | 0.09 | 6.9 | 0.12 | 0.18 | 6.5 | CTR HH Organism |
| Alkalinity | 3/06 | 2/08 | 22 | 22 | mg/L | AD | AD | 58 | 220 | NA | NA |
| alpha-BHC | 3/02 | 9/13 | 37 | 1 | µg/L | 0.001 | 0.004 | 0.003 | 0.003 | 0.013 | CTR HH Organism |
| Anthracene | 2/02 | 9/13 | 37 | 1 | µg/L | 0.06 | 1.6 | 0.13 | 0.13 | 110000 | CTR HH Organism |
| Antimony Dissolved | 1/01 | 2/06 | 62 | 16 | µg/L | 1.1 | 18 | 2 | 5 | NA | NA |
| Antimony Total | 1/01 | 8/13 | 93 | 48 | µg/L | 1.1 | 18 | 0.37 | 5.3 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 2/01 | 8/08 | 90 | 81 | µg/L | 0.4 | 10 | 0.7 | 5.4 | 150 | CTR Chronic |
| Arsenic Total | 2/01 | 8/13 | 163 | 151 | µg/L | 0.06 | 10 | 0.41 | 5.4 | 150 | CTR Chronic |
| Barium Dissolved | 2/01 | 8/08 | 88 | 88 | µg/L | AD | AD | 9.92 | 50 | NA | NA |
| Barium Total | 2/01 | 8/08 | 89 | 89 | µg/L | AD | AD | 12.3 | 362 | NA | NA |
| Benzo(ghi)Perylene | 2/02 | 9/13 | 37 | 2 | µg/L | 0.03 | 1.7 | 0.06 | 0.07 | NA | NA |
| Beryllium Dissolved | 1/01 | 2/06 | 62 | 8 | µg/L | 0.006 | 1 | 0.006 | 0.817 | NA | NA |
| Beryllium Total | 1/01 | 8/13 | 93 | 12 | µg/L | 0.006 | 1 | 0.011 | 1.4 | NA | NA |
| Bis(2-chloroisopropyl)Ether | 2/02 | 9/13 | 37 | 1 | µg/L | 0.05 | 3 | 0.2 | 0.2 | 170000 | CTR HH Organism |
| BOD | 2/02 | 11/13 | 74 | 69 | mg/L | 3 | 3 | 3 | 41 | NA | NA |
| Boron | 5/07 | 8/13 | 32 | 32 | mg/L | AD | AD | 0.252 | 0.706 | NA | NA |
| Cadmium Dissolved | 1/01 | 8/08 | 91 | 31 | µg/L | 0.02 | 1 | 0.01 | 1.2 | HBC | CTR Chronic |
| Calcium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 37600 | 95800 | NA | NA |
| Carbon Tetrachloride | 8/07 | 8/13 | 16 | 1 | µg/L | 0.09 | 0.27 | 0.23 | 0.23 | 4.4 | CTR HH Organism |
| Chloride | 2/02 | 11/13 | 97 | 97 | mg/L | AD | AD | 29.5 | 164 | 190 | BP SSO |

**LA River – Reach 3, Below LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Chlorodibromomethane | 8/07 | 8/13 | 16 | 9 | µg/L | AD | AD | 0.13 | 0.74 | 34 | CTR HH Organism |
| Chloroform | 8/07 | 8/13 | 16 | 15 | µg/L | 0.06 | 0.06 | 0.3 | 3.53 | NA | NA |
| Chromium (III) Total | 2/10 | 8/13 | 14 | 14 | µg/L | AD | AD | 0.1 | 2.5 | HBC | CTR Chronic |
| Chromium Dissolved | 1/01 | 8/08 | 91 | 61 | µg/L | 0.1 | 10 | 0.2 | 5.6 | NA | NA |
| Chromium Total | 1/01 | 8/13 | 165 | 142 | µg/L | 0.7 | 10 | 0.4 | 29.2 | NA | NA |
| Chromium (VI) Total | 5/07 | 11/13 | 32 | 22 | µg/L | 0.5 | 2 | 0.5 | 1.9 | 11.43 | CTR Chronic |
| Cobalt Dissolved | 1/01 | 2/06 | 59 | 25 | µg/L | 0.2 | 20 | 0.2 | 1.4 | NA | NA |
| Cobalt Total | 1/01 | 2/06 | 59 | 31 | µg/L | 0.2 | 20 | 0.2 | 24.2 | NA | NA |
| COD | 5/07 | 11/13 | 32 | 31 | mg/L | 10 | 10 | 12 | 34 | NA | NA |
| CTAS | 5/07 | 9/13 | 31 | 12 | mg/L | 0.02 | 0.1 | 0.072 | 0.34 | NA | NA |
| Di-n-Butyl Phthalate | 2/02 | 9/13 | 37 | 16 | µg/L | 0.07 | 3 | 0.15 | 0.69 | 12000 | CTR HH Organism |
| Di-n-Octyl Phthalate | 2/02 | 9/13 | 37 | 1 | µg/L | 0.15 | 2.5 | 0.15 | 0.15 | NA | NA |
| Diethyl Phthalate | 2/02 | 9/13 | 37 | 2 | µg/L | 0.06 | 3 | 0.24 | 0.94 | 120000 | CTR HH Organism |
| Dissolved Organic Carbon | 3/06 | 2/08 | 22 | 22 | mg/L | AD | AD | 6.89 | 15.8 | NA | NA |
| Enterococcus | 1/01 | 5/09 | 282 | 275 | MPN/100mL | 10 | 100 | 10 | 24000 | NA | NA |
| Fecal Coliform | 1/02 | 7/12 | 824 | 821 | MPN/100mL | 9 | 9 | 9 | 80000 | NA | NA |
| Fluoranthene | 2/02 | 9/13 | 37 | 1 | µg/L | 0.02 | 1.3 | 0.17 | 0.17 | 370 | CTR HH Organism |
| Fluoride | 5/07 | 11/13 | 33 | 32 | mg/L | 0.02 | 0.02 | 0.23 | 0.84 | NA | NA |
| gamma-BHC (Lindane) | 3/02 | 9/13 | 37 | 3 | µg/L | 0.001 | 0.017 | 0.004 | 0.005 | 0.063 | CTR HH Organism |
| Hardness | 2/02 | 8/13 | 184 | 184 | mg/L | AD | AD | 43.2 | 443 | NA | NA |
| Heptachlor | 3/02 | 9/13 | 37 | 1 | µg/L | 0.001 | 0.008 | 0.008 | 0.008 | 0.52 | CTR Chronic |
| Isophorone | 2/02 | 9/13 | 37 | 5 | µg/L | 0.07 | 4 | 0.13 | 0.35 | 600 | CTR HH Organism |

**LA River – Reach 3, Below LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Magnesium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 14300 | 39800 | NA | NA |
| MBAS | 2/02 | 11/13 | 73 | 73 | µg/L | AD | AD | 20 | 360 | NA | NA |
| Mercury Dissolved | 1/01 | 2/06 | 58 | 13 | µg/L | 0.02 | 0.3 | 0.02 | 0.22 | NA | NA |
| MTBE | 2/02 | 8/13 | 58 | 8 | µg/L | 0.08 | 0.2 | 0.33 | 4.167 | NA | NA |
| Nickel Dissolved | 1/01 | 8/08 | 91 | 71 | µg/L | 5 | 20 | 3 | 44.7 | HBC | CTR Chronic |
| Nickel Total | 1/01 | 8/13 | 164 | 141 | µg/L | 5 | 20 | 2 | 56.4 | HBC | CTR Chronic |
| Nitrate as N | 2/02 | 11/13 | 438 | 438 | mg/L | AD | AD | 0.99 | 6.22 | 8 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 2/02 | 11/13 | 345 | 345 | mg/L | AD | AD | 1.23 | 5.98 | 8 | LAR Nutrient TMDL |
| OCDD | 8/07 | 9/13 | 13 | 3 | pg/L | 21 | 120 | 140 | 1100 | NA | NA |
| Oil + Grease | 5/02 | 11/13 | 67 | 3 | mg/L | 3 | 3 | 3 | 8 | NA | NA |
| Organic Nitrogen | 2/02 | 11/13 | 436 | 435 | mg/L | 0.1 | 0.1 | 0.28 | 4.3 | NA | NA |
| Ortho Phosphate (as P) | 5/07 | 11/13 | 32 | 32 | mg/L | AD | AD | 0.07 | 1.12 | NA | NA |
| Perchlorate | 8/07 | 9/13 | 15 | 1 | µg/L | 0.2 | 1.6 | 2.7 | 2.7 | NA | NA |
| Phenanthrene | 2/02 | 9/13 | 37 | 1 | µg/L | 0.01 | 1.5 | 0.18 | 0.18 | NA | NA |
| Phosphorus | 2/02 | 11/13 | 74 | 74 | mg/L | AD | AD | 0.15 | 2.48 | NA | NA |
| Potassium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 7720 | 24100 | NA | NA |
| Selenium Dissolved | 1/01 | 8/08 | 90 | 84 | µg/L | 1 | 30 | 0.4 | 4.74 | NA | NA |
| Selenium Total | 1/01 | 8/13 | 121 | 115 | µg/L | 1 | 30 | 0.4 | 4.66 | 5 | CTR Chronic |
| Silver Dissolved | 1/01 | 8/08 | 88 | 21 | µg/L | 0.06 | 5 | 0.03 | 0.57 | HBC | CTR Chronic |

**LA River – Reach 3, Below LAG - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Silver Total | 1/01 | 8/13 | 120 | 48 | µg/L | 0.06 | 5 | 0.02 | 3 | HBC | CTR Chronic |
| Sodium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 30600 | 129000 | NA | NA |
| Sulfate | 2/02 | 11/13 | 97 | 97 | mg/L | AD | AD | 69.8 | 274 | 300 | BP SSO |
| TDS | 2/02 | 8/13 | 75 | 75 | mg/L | AD | AD | 496 | 944 | 950 | BP SSO |
| Temperature | 1/02 | 11/13 | 920 | 920 | °C | AD | AD | 7.222222 | 27.77778 | NA | NA |
| Tetrachloroethylene | 3/07 | 11/13 | 57 | 34 | µg/L | 0.09 | 0.36 | 0.36 | 1.92 | 8.85 | CTR HH Organism |
| Thallium Dissolved | 1/01 | 2/06 | 62 | 3 | µg/L | 0.5 | 25 | 1 | 1 | NA | NA |
| Toluene | 8/07 | 8/13 | 16 | 5 | µg/L | 0.06 | 0.15 | 0.18 | 0.28 | 200000 | CTR HH Organism |
| Total Coliform | 1/01 | 9/12 | 1181 | 1181 | MPN/100mL | AD | AD | 63 | 240000 | NA | NA |
| Total Organic Carbon | 2/02 | 11/13 | 74 | 74 | mg/L | AD | AD | 4.8 | 15 | NA | NA |
| Total Settleable Solids | 5/07 | 11/13 | 30 | 5 | mL/L | 0.1 | 0.1 | 0.1 | 0.4 | NA | NA |
| Trichloroethylene | 8/07 | 8/13 | 16 | 13 | µg/L | AD | AD | 6.81 | 16.6 | 81 | CTR HH Organism |
| TSS | 3/06 | 11/13 | 54 | 54 | mg/L | AD | AD | 1.8 | 157 | NA | NA |
| Turbidity | 2/02 | 9/13 | 73 | 73 | NTU | AD | AD | 0.6 | 10 | NA | NA |
| Vanadium Total | 2/01 | 2/01 | 1 | 1 | µg/L | AD | AD | 8.9 | 8.9 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 4 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,4-Dioxane | 8/07 | 8/13 | 16 | 13 | µg/L | 0.15 | 0.19 | 0.36 | 1.28 | NA | NA |
| 2,4,6-Trichlorophenol | 2/02 | 8/13 | 38 | 1 | µg/L | 0.09 | 6.9 | 0.16 | 0.16 | 6.5 | CTR HH Organism |
| Alkalinity | 3/06 | 6/11 | 38 | 38 | mg/L | AD | AD | 66 | 248 | NA | NA |
| Antimony Dissolved | 1/01 | 2/06 | 124 | 31 | µg/L | 1.1 | 18 | 1.2 | 12.7 | NA | NA |
| Antimony Total | 1/01 | 8/13 | 140 | 54 | µg/L | 1.1 | 18 | 0.4 | 11.2 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 2/01 | 6/11 | 172 | 157 | µg/L | 0.4 | 10 | 0.1 | 31.6 | 150 | CTR Chronic |
| Arsenic Total | 2/01 | 8/13 | 230 | 213 | µg/L | 0.4 | 10 | 0.1 | 54.1 | 150 | CTR Chronic |
| Barium Dissolved | 2/01 | 8/08 | 169 | 168 | µg/L | 0.4 | 0.4 | 2.04 | 58 | NA | NA |
| Barium Total | 2/01 | 8/08 | 169 | 168 | µg/L | 0.4 | 0.4 | 5 | 500 | NA | NA |
| Benzene | 8/07 | 8/13 | 16 | 1 | µg/L | 0.07 | 0.22 | 0.24 | 0.24 | 71 | CTR HH Organism |
| Beryllium Dissolved | 1/01 | 2/06 | 124 | 15 | µg/L | 0.006 | 1 | 0.045 | 0.9 | NA | NA |
| Beryllium Total | 1/01 | 8/13 | 140 | 19 | µg/L | 0.006 | 1 | 0.02 | 2.1 | NA | NA |
| Bis(2-ethylhexyl)Phthalate | 2/02 | 8/13 | 46 | 17 | µg/L | 0.30 | 1.90 | 0.31 | 4.06 | 5.9 | CTR HH Organism |
| BOD | 2/02 | 11/13 | 76 | 76 | mg/L | AD | AD | 3 | 225 | NA | NA |
| Boron Total | 5/07 | 8/13 | 36 | 36 | mg/L | AD | AD | 0.293 | 0.829 | NA | NA |
| Bromoform | 8/07 | 8/13 | 16 | 1 | µg/L | 0.04 | 0.19 | 0.26 | 0.26 | 360 | CTR HH Organism |
| Cadmium Dissolved | 1/01 | 6/11 | 174 | 61 | µg/L | 0.02 | 1 | 0.01 | 2.12 | HBC | CTR Chronic |
| Calcium | 3/06 | 2/08 | 37 | 37 | µg/L | AD | AD | 39000 | 108000 | NA | NA |
| Chloride | 2/02 | 11/13 | 114 | 114 | mg/L | AD | AD | 30.7 | 166 | 190 | BP SSO |
| Chlorodibromomethane | 8/07 | 8/13 | 16 | 13 | µg/L | 0.11 | 0.22 | 0.22 | 1.15 | 34 | CTR HH Organism |
| Chloroform | 8/07 | 8/13 | 16 | 15 | µg/L | 0.13 | 0.13 | 1.16 | 9.53 | NA | NA |
| Chromium Dissolved | 1/01 | 6/11 | 174 | 115 | µg/L | 0.1 | 10 | 0.105 | 3.35 | NA | NA |

**LA River – Reach 4 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Chromium Total | 1/01 | 8/13 | 232 | 199 | µg/L | 0.21 | 10 | 0.4 | 42 | NA | NA |
| Cobalt Dissolved | 1/01 | 2/06 | 118 | 45 | µg/L | 0.2 | 20 | 0.2 | 1.4 | NA | NA |
| Cobalt Total | 1/01 | 2/06 | 118 | 54 | µg/L | 0.2 | 20 | 0.2 | 23.9 | NA | NA |
| COD | 2/02 | 11/13 | 60 | 60 | mg/L | AD | AD | 10 | 382 | NA | NA |
| CTAS | 6/07 | 9/13 | 33 | 12 | mg/L | 0.02 | 0.1 | 0.034 | 0.32 | NA | NA |
| Di-n-Butyl Phthalate | 2/02 | 8/13 | 38 | 15 | µg/L | 0.07 | 3 | 0.12 | 0.63 | 12000 | CTR HH Organism |
| Di-n-Octyl Phthalate | 2/02 | 8/13 | 38 | 3 | µg/L | 0.15 | 2.5 | 0.16 | 7.44 | NA | NA |
| Dibenzo(a,h)Anthracene | 2/02 | 8/13 | 38 | 1 | µg/L | 0.02 | 1.90 | 0.02 | 0.02 | 0.049 | CTR HH Organism |
| Dichlorobromomethane | 8/07 | 8/13 | 16 | 16 | µg/L | AD | AD | 0.27 | 3.32 | 46 | CTR HH Organism |
| Dissolved Organic Carbon | 3/06 | 6/11 | 38 | 38 | mg/L | AD | AD | 6.48 | 15 | NA | NA |
| Endosulfan I | 2/02 | 8/13 | 38 | 1 | µg/L | 0.001 | 0.008 | 0.002 | 0.002 | 0.056 | CTR Chronic |
| Enterococcus | 1/01 | 5/13 | 633 | 624 | MPN/100mL | 10 | 100 | 10 | 87000 | NA | NA |
| Fecal Coliform | 1/02 | 7/12 | 850 | 844 | MPN/100mL | 7 | 200 | 17 | 40000 | NA | NA |
| Fluoride | 5/07 | 8/13 | 31 | 31 | mg/L | AD | AD | 0.36 | 0.92 | NA | NA |
| gamma-BHC (Lindane) | 2/02 | 8/13 | 46 | 7 | µg/L | 0.001 | 0.017 | 0.002 | 0.014 | 0.063 | CTR HH Organism |
| Hardness | 2/02 | 11/13 | 268 | 268 | mg/L | AD | AD | 54.7 | 708 | NA | NA |
| Iron Dissolved | 6/11 | 6/11 | 1 | 1 | µg/L | AD | AD | 24 | 24 | NA | NA |
| Iron Total | 6/11 | 6/11 | 1 | 1 | µg/L | AD | AD | 3260 | 3260 | NA | NA |
| Isophorone | 2/02 | 8/13 | 38 | 8 | µg/L | 0.07 | 4 | 0.13 | 0.38 | 600 | CTR HH Organism |
| Magnesium | 3/06 | 2/08 | 37 | 37 | µg/L | AD | AD | 12700 | 45200 | NA | NA |
| MBAS | 2/02 | 11/13 | 76 | 76 | µg/L | AD | AD | 20 | 410 | NA | NA |
| Mercury Dissolved | 1/01 | 6/11 | 119 | 32 | µg/L | 0.004 | 0.3 | 0.02 | 0.2 | NA | NA |

**LA River – Reach 4 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Methylene Chloride | 8/07 | 8/13 | 16 | 1 | µg/L | 0.08 | 0.14 | 0.12 | 0.12 | 1600 | CTR HH Organism |
| MTBE | 2/02 | 8/13 | 57 | 17 | µg/L | 0.08 | 0.2 | 0.23 | 3.64 | NA | NA |
| Nickel Dissolved | 1/01 | 6/11 | 172 | 138 | µg/L | 5 | 20 | 0.1 | 103 | HBC | CTR Chronic |
| Nickel Total | 1/01 | 8/13 | 232 | 200 | µg/L | 5 | 20 | 1.35 | 103 | HBC | CTR Chronic |
| Nitrate as N | 2/02 | 11/13 | 453 | 453 | mg/L | AD | AD | 0.08 | 7.28 | 8 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 2/02 | 11/13 | 438 | 438 | mg/L | AD | AD | 1.40 | 7.35 | 8 | LAR Nutrient TMDL |
| Oil + Grease | 2/02 | 11/13 | 144 | 10 | mg/L | 3 | 3 | 3 | 14 | NA | NA |
| Organic Nitrogen | 2/02 | 11/13 | 452 | 451 | mg/L | 0.1 | 0.1 | 0.75 | 11 | NA | NA |
| Ortho Phosphate (as P) | 5/07 | 11/13 | 35 | 30 | mg/L | 0.05 | 0.05 | 0.05 | 0.87 | NA | NA |
| Perchlorate | 8/07 | 9/13 | 16 | 4 | µg/L | 0.2 | 1.6 | 0.74 | 4.1 | NA | NA |
| pH | 1/02 | 11/13 | 958 | 958 | pH Units | AD | AD | 7.02 | 8.9 | 6.5 | BP Minimum |
| Phenanthrene | 2/02 | 8/13 | 38 | 1 | µg/L | 0.01 | 1.5 | 0.01 | 0.01 | NA | NA |
| Phosphate | 2/02 | 11/13 | 76 | 76 | mg/L | AD | AD | 0.09 | 4.94 | NA | NA |
| Phosphate (Total) as P | 6/11 | 6/11 | 1 | 1 | mg/L | AD | AD | 0.36 | 0.36 | NA | NA |
| Potassium | 3/06 | 2/08 | 37 | 37 | µg/L | AD | AD | 6840 | 19500 | NA | NA |
| Selenium Dissolved | 1/01 | 6/11 | 173 | 155 | µg/L | 0.2 | 30 | 0.2 | 8.3 | NA | NA |
| Silica | 6/11 | 6/11 | 1 | 1 | µg/L | AD | AD | 44500 | 44500 | NA | NA |
| Silver Dissolved | 1/01 | 8/08 | 169 | 49 | µg/L | 0.06 | 5 | 0.03 | 12 | HBC | CTR Chronic |
| Silver Total | 1/01 | 8/13 | 187 | 67 | µg/L | 0.02 | 5 | 0.01 | 12 | HBC | CTR Chronic |

**LA River – Reach 4 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Sodium | 3/06 | 2/08 | 37 | 37 | µg/L | AD | AD | 35300 | 135000 | NA | NA |
| Sulfide | 3/06 | 2/08 | 37 | 9 | µg/L | 30 | 30 | 30 | 70.00001 | NA | NA |
| Temperature | 1/02 | 11/13 | 958 | 958 | °C | AD | AD | 11.11111 | 30 | NA | NA |
| Thallium Dissolved | 1/01 | 2/06 | 124 | 10 | µg/L | 0.5 | 25 | 0.5 | 7.1 | NA | NA |
| Toluene | 8/07 | 8/13 | 16 | 2 | µg/L | 0.06 | 0.15 | 0.41 | 0.94 | 200000 | CTR HH Organism |
| Total Coliform | 1/01 | 10/13 | 1489 | 1488 | MPN/100mL | 20 | 20 | 91 | 1600000 | NA | NA |
| Total Kjeldahl Nitrogen | 6/11 | 6/11 | 1 | 1 | mg/L | AD | AD | 2.2 | 2.2 | NA | NA |
| Total Organic Carbon | 2/02 | 11/13 | 77 | 77 | mg/L | AD | AD | 5.1 | 21 | NA | NA |
| Total Settleable Solids | 5/07 | 8/13 | 33 | 16 | mL/L | 0.1 | 0.1 | 0.1 | 3.5 | NA | NA |
| TSS | 3/06 | 11/13 | 106 | 106 | mg/L | AD | AD | 1.8 | 600 | NA | NA |
| Turbidity | 2/02 | 8/13 | 75 | 75 | NTU | AD | AD | 2.12 | 32.4 | NA | NA |
| Vanadium Total | 2/01 | 2/01 | 2 | 2 | µg/L | AD | AD | 5.2 | 7.8 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 5 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,2-Dichlorobenzene | 2/02 | 8/13 | 75 | 6 | µg/L | 0.06 | 1.5 | 0.18 | 0.24 | 17000 | CTR HH Organism |
| 1,4-Dioxane | 8/07 | 8/13 | 39 | 26 | µg/L | 0.15 | 0.19 | 0.4 | 1.89 | NA | NA |
| 2,4-DDD | 2/02 | 2/07 | 33 | 1 | µg/L | 0.001 | 0.01 | 0.006 | 0.006 | NA | NA |
| 2,4-DDT | 2/02 | 2/07 | 33 | 2 | µg/L | 0.002 | 0.005 | 0.005 | 0.007 | NA | NA |
| 2,4-Dichlorophenol | 2/02 | 8/13 | 72 | 1 | µg/L | 0.09 | 6.8 | 0.22 | 0.22 | 790 | CTR HH Organism |
| 2,4-Dimethylphenol | 2/02 | 8/13 | 72 | 1 | µg/L | 0.17 | 6.2 | 0.28 | 0.28 | 2300 | CTR HH Organism |
| 2,4,6-Trichlorophenol | 2/02 | 8/13 | 72 | 4 | µg/L | 0.09 | 6.9 | 0.11 | 0.2 | 6.5 | CTR HH Organism |
| 3-Methyl-4-Chlorophenol | 2/02 | 8/13 | 72 | 2 | µg/L | 0.18 | 6 | 0.32 | 0.98 | NA | NA |
| 4-Nitrophenol | 2/02 | 8/13 | 72 | 2 | µg/L | 0.06 | 5 | 0.67 | 2.36 | NA | NA |
| alpha-BHC | 2/02 | 8/13 | 72 | 1 | µg/L | 0.00 | 0.00 | 0.01 | 0.01 | 0.013 | CTR HH Organism |
| Antimony Total | 8/07 | 8/13 | 39 | 39 | µg/L | AD | AD | 0.36 | 2.24 | 4300 | CTR HH Organism |
| Arsenic Total | 2/02 | 8/13 | 72 | 69 | µg/L | 0.4 | 0.4 | 1.2 | 5.5 | 150 | CTR Chronic |
| Benzene | 8/07 | 8/13 | 39 | 2 | µg/L | 0.07 | 0.22 | 0.24 | 0.27 | 71 | CTR HH Organism |
| Benzo(ghi)Perylene | 2/02 | 8/13 | 75 | 1 | µg/L | 0.03 | 1.7 | 0.66 | 0.66 | NA | NA |
| Beryllium Total | 8/07 | 8/13 | 39 | 4 | µg/L | 0.02 | 0.2 | 0.02 | 0.5 | NA | NA |
| Bis(2-chloroisopropyl)Ether | 2/02 | 8/13 | 75 | 2 | µg/L | 0.05 | 3 | 0.27 | 0.34 | 170000 | CTR HH Organism |
| BOD | 2/02 | 11/13 | 144 | 137 | mg/L | 3 | 3 | 3 | 162 | NA | NA |
| Boron | 5/07 | 8/13 | 81 | 81 | mg/L | AD | AD | 0.274 | 0.9 | NA | NA |
| Bromoform | 8/07 | 8/13 | 39 | 7 | µg/L | 0.04 | 0.19 | 0.16 | 0.45 | 360 | CTR HH Organism |
| Butylbenzyl Phthalate | 2/02 | 8/13 | 75 | 1 | µg/L | 0.04 | 3 | 0.15 | 0.15 | 5200 | CTR HH Organism |
| Chlorodibromomethane | 8/07 | 8/13 | 39 | 23 | µg/L | 0.05 | 0.16 | 0.14 | 3.97 | 34 | CTR HH Organism |
| Chloroform | 8/07 | 8/13 | 39 | 33 | µg/L | 0.06 | 0.13 | 0.12 | 33.2 | NA | NA |
| Chromium Total | 2/02 | 8/13 | 72 | 63 | µg/L | 0.7 | 10 | 0.29 | 4.38 | NA | NA |

**LA River – Reach 5 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| COD | 2/02 | 11/13 | 141 | 137 | mg/L | 2 | 30 | 10 | 101 | NA | NA |
| Copper Total | 2/02 | 8/13 | 111 | 111 | µg/L | AD | AD | 5 | 89.2 | HBC | CTR Chronic |
| CTAS | 8/07 | 9/13 | 39 | 22 | mg/L | 0.02 | 0.1 | 0.025 | 0.66 | NA | NA |
| Di-n-Butyl Phthalate | 2/02 | 8/13 | 75 | 37 | µg/L | 0.07 | 3 | 0.11 | 1.22 | 12000 | CTR HH Organism |
| Di-n-Octyl Phthalate | 2/02 | 8/13 | 75 | 3 | µg/L | 0.15 | 2.5 | 0.5 | 7.17 | NA | NA |
| Dichlorobromomethane | 8/07 | 8/13 | 39 | 26 | µg/L | 0.06 | 0.34 | 0.34 | 11.5 | 46 | CTR HH Organism |
| Diethyl Phthalate | 2/02 | 8/13 | 75 | 8 | µg/L | 0.06 | 3 | 0.1 | 0.19 | 120000 | CTR HH Organism |
| Endosulfan I | 2/02 | 8/13 | 72 | 1 | µg/L | 0.001 | 0.008 | 0.002 | 0.002 | 0.056 | CTR Chronic |
| Fecal Coliform | 3/07 | 7/12 | 750 | 740 | MPN/100mL | 28 | 200 | 10 | 15400 | NA | NA |
| Fluoride | 5/07 | 8/13 | 72 | 71 | mg/L | 0.02 | 0.02 | 0.18 | 0.96 | NA | NA |
| gamma-BHC (Lindane) | 2/02 | 8/13 | 84 | 7 | µg/L | 0.001 | 0.017 | 0.002 | 0.004 | 0.063 | CTR HH Organism |
| Hardness | 5/07 | 11/13 | 81 | 81 | mg/L | AD | AD | 140 | 922 | NA | NA |
| Isophorone | 2/02 | 8/13 | 75 | 25 | µg/L | 0.07 | 4 | 0.11 | 0.63 | 600 | CTR HH Organism |
| Lead Total | 2/02 | 8/13 | 111 | 53 | µg/L | 1 | 5 | 0.08 | 8.9 | HBC | CTR Chronic |
| MBAS | 2/02 | 11/13 | 144 | 141 | µg/L | 5 | 20 | 10 | 500 | NA | NA |
| Methylene Chloride | 8/07 | 8/13 | 39 | 5 | µg/L | 0.08 | 0.14 | 0.1 | 0.57 | 1600 | CTR HH Organism |
| MTBE | 8/07 | 8/13 | 39 | 3 | µg/L | 0.08 | 0.16 | 0.28 | 0.5 | NA | NA |
| Naphthalene | 2/02 | 8/13 | 75 | 1 | µg/L | 0.028 | 2 | 0.14 | 0.14 | NA | NA |
| Nitrogen (NO3-N+NO2-N) (Calc) | 2/02 | 11/13 | 453 | 453 | mg/L | AD | AD | 0.08 | 8.49 | 8 | LAR Nutrient TMDL |
| Oil + Grease | 2/02 | 11/13 | 309 | 17 | mg/L | 3 | 3 | 3 | 17 | NA | NA |
| Organic Nitrogen | 2/02 | 11/13 | 1015 | 1015 | mg/L | AD | AD | 0.29 | 6.8 | NA | NA |
| Ortho Phosphate (as P) | 5/07 | 11/13 | 81 | 65 | mg/L | 0.05 | 0.05 | 0.05 | 1 | NA | NA |

**LA River – Reach 5 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Pentachlorophenol | 2/02 | 8/13 | 72 | 2 | µg/L | 0.4 | 0.72 | 0.72 | 2.82 | 8.2 | CTR HH Organism |
| Perchlorate | 8/07 | 9/13 | 39 | 9 | µg/L | 0.2 | 4.1 | 0.74 | 3.4 | NA | NA |
| Phosphate | 2/02 | 11/13 | 144 | 140 | mg/L | 0.05 | 0.05 | 0.05 | 2.56 | NA | NA |
| Silver Total | 8/07 | 8/13 | 39 | 26 | µg/L | 0.02 | 0.08 | 0.01 | 0.61 | HBC | CTR Chronic |
| Temperature | 1/02 | 11/13 | 1719 | 1719 | °C | AD | AD | 5.555556 | 28.33333 | NA | NA |
| Thallium Total | 8/07 | 8/13 | 39 | 31 | µg/L | 0.01 | 0.01 | 0.01 | 1.37 | 6.3 | CTR HH Organism |
| Toluene | 8/07 | 8/13 | 39 | 2 | µg/L | 0.06 | 0.15 | 0.09 | 0.19 | 200000 | CTR HH Organism |
| Total Coliform | 1/02 | 10/13 | 1522 | 1513 | MPN/100mL | 10 | 1000 | 10 | 270000 | NA | NA |
| Total Settleable Solids | 5/07 | 8/13 | 78 | 23 | mL/L | 0.1 | 0.1 | 0.1 | 0.6 | NA | NA |
| Trichloroethylene | 8/07 | 8/13 | 39 | 1 | µg/L | 0.08 | 0.17 | 0.26 | 0.26 | 81 | CTR HH Organism |
| TSS | 5/07 | 11/13 | 81 | 81 | mg/L | AD | AD | 1.2 | 77.6 | NA | NA |
| Turbidity | 5/07 | 8/13 | 78 | 78 | NTU | AD | AD | 0.9 | 37 | NA | NA |
| Zinc Total | 2/02 | 8/13 | 81 | 80 | µg/L | 17.2 | 17.2 | 4 | 85 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 6 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 2,4-D | 8/07 | 8/08 | 3 | 1 | µg/L | 0.2 | 0.2 | 0.6 | 0.6 | NA | NA |
| Alkalinity | 3/06 | 6/10 | 23 | 23 | mg/L | AD | AD | 66 | 324 | NA | NA |
| Ammonia as N | 2/02 | 6/10 | 137 | 44 | mg/L | 0.05 | 0.2 | 0.05 | 0.45 | pH and Temp Dependent | BP 30-Day Average |
| Antimony Dissolved | 1/01 | 2/06 | 76 | 27 | µg/L | 1.1 | 18 | 1.1 | 17 | NA | NA |
| Antimony Total | 1/01 | 8/08 | 79 | 28 | µg/L | 1.1 | 18 | 0.58 | 9 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 2/01 | 6/10 | 134 | 124 | µg/L | 0.4 | 10 | 0.2 | 4.7 | 150 | CTR Chronic |
| Arsenic Total | 2/01 | 6/10 | 158 | 147 | µg/L | 0.4 | 10 | 0.3 | 7.4 | 150 | CTR Chronic |
| Barium Dissolved | 2/01 | 8/08 | 131 | 131 | µg/L | AD | AD | 2.5 | 68.2 | NA | NA |
| Barium Total | 2/01 | 8/08 | 132 | 132 | µg/L | AD | AD | 2.5 | 214 | NA | NA |
| Beryllium Dissolved | 1/01 | 2/06 | 76 | 7 | µg/L | 0.006 | 1 | 0.077 | 0.839 | NA | NA |
| Beryllium Total | 1/01 | 8/08 | 79 | 8 | µg/L | 0.006 | 1 | 0.037 | 2.8 | NA | NA |
| Bifenthrin | 6/10 | 6/10 | 1 | 1 | µg/L | AD | AD | 0.0027 | 0.0027 | NA | NA |
| Bis(2-ethylhexyl)Phthalate | 2/02 | 11/08 | 19 | 10 | µg/L | AD | AD | 0.3 | 3.9 | 5.9 | CTR HH Organism |
| BOD | 2/02 | 11/08 | 28 | 23 | mg/L | 2 | 3 | 3 | 29 | NA | NA |
| Boron | 5/07 | 11/08 | 8 | 8 | mg/L | AD | AD | 0.516 | 0.9 | NA | NA |
| Cadmium Dissolved | 1/01 | 6/10 | 135 | 68 | µg/L | 0.02 | 1 | 0.01 | 2.12 | HBC | CTR Chronic |
| Calcium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 40200 | 264000 | NA | NA |
| Chloroform | 8/07 | 8/08 | 3 | 1 | µg/L | 0.06 | 0.06 | 0.13 | 0.13 | NA | NA |
| Chromium Dissolved | 1/01 | 6/10 | 134 | 98 | µg/L | 0.1 | 10 | 0.045 | 24 | NA | NA |
| Chromium Total | 1/01 | 6/10 | 159 | 133 | µg/L | 0.21 | 10 | 0.045 | 43 | NA | NA |

**LA River – Reach 6 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Cobalt Dissolved | 1/01 | 2/06 | 73 | 33 | µg/L | 0.2 | 20 | 0.2 | 1.8 | NA | NA |
| Cobalt Total | 1/01 | 2/06 | 73 | 40 | µg/L | 0.2 | 20 | 0.2 | 10.9 | NA | NA |
| COD | 2/02 | 11/08 | 20 | 19 | mg/L | 30 | 30 | 11 | 58 | NA | NA |
| CTAS | 6/07 | 11/08 | 7 | 2 | mg/L | 0.02 | 0.1 | 0.08 | 0.2 | NA | NA |
| delta-BHC | 2/02 | 8/08 | 14 | 1 | µg/L | 0.0007 | 0.007 | 0.001 | 0.001 | NA | NA |
| Di-n-Butyl Phthalate | 2/02 | 8/08 | 15 | 7 | µg/L | 0.07 | 3 | 0.18 | 1.09 | 12000 | CTR HH Organism |
| Di-n-Octyl Phthalate | 2/02 | 8/08 | 15 | 2 | µg/L | 0.15 | 2.5 | 6.59 | 16.5 | NA | NA |
| Diazinon | 6/10 | 6/10 | 1 | 1 | µg/L | AD | AD | 0.0116 | 0.0116 | 0.17 | USEPA Acute and Chronic |
| Diethyl Phthalate | 2/02 | 8/08 | 15 | 1 | µg/L | 0.06 | 3 | 0.16 | 0.16 | 120000 | CTR HH Organism |
| Dissolved Organic Carbon | 3/06 | 6/10 | 23 | 23 | mg/L | AD | AD | 4.98 | 14.4 | NA | NA |
| Endosulfan I | 2/02 | 8/08 | 14 | 1 | µg/L | 0.001 | 0.008 | 0.005 | 0.005 | 0.056 | CTR Chronic |
| Enterococcus | 1/01 | 5/09 | 365 | 362 | MPN/100mL | 10 | 100 | 10 | 69000 | NA | NA |
| Fecal Coliform | 1/02 | 1/09 | 346 | 345 | MPN/100mL | 33.3 | 33.3 | 33 | 160000 | NA | NA |
| Fluoride | 5/07 | 11/08 | 7 | 7 | mg/L | AD | AD | 0.39 | 0.65 | NA | NA |
| gamma-BHC (Lindane) | 2/02 | 11/08 | 18 | 1 | µg/L | 0.001 | 0.017 | 0.004 | 0.004 | 0.063 | CTR HH Organism |
| Hardness | 2/02 | 6/13 | 181 | 181 | mg/L | AD | AD | 45.4 | 1220 | NA | NA |
| Iron Dissolved | 6/10 | 6/10 | 1 | 1 | µg/L | AD | AD | 11 | 11 | NA | NA |
| Iron Total | 6/10 | 6/10 | 1 | 1 | µg/L | AD | AD | 257 | 257 | NA | NA |
| Isophorone | 2/02 | 8/08 | 15 | 3 | µg/L | 0.07 | 4 | 0.12 | 0.33 | 600 | CTR HH Organism |
| Lead Dissolved | 1/01 | 6/13 | 187 | 94 | µg/L | 0.11 | 26 | 0.01 | 7.2 | HBC | CTR Chronic |
| Magnesium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 11600 | 92600 | NA | NA |

**LA River – Reach 6 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| MBAS | 2/02 | 11/08 | 28 | 28 | µg/L | AD | AD | 10 | 300 | NA | NA |
| Mercury Dissolved | 1/01 | 6/10 | 74 | 15 | µg/L | 0.0036 | 0.3 | 0.022 | 0.177 | NA | NA |
| MTBE | 2/02 | 8/08 | 24 | 17 | µg/L | 0.08 | 0.13 | 0.45 | 4.67 | NA | NA |
| Nickel Dissolved | 1/01 | 6/10 | 134 | 119 | µg/L | 5 | 20 | 1 | 73 | HBC | CTR Chronic |
| Nickel Total | 1/01 | 6/10 | 159 | 144 | µg/L | 5 | 20 | 4.2 | 73 | HBC | CTR Chronic |
| Nitrate as N | 2/02 | 6/10 | 115 | 115 | mg/L | AD | AD | 2.39 | 7.15 | 8 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 2/02 | 11/13 | 1016 | 1016 | mg/L | AD | AD | 0.36 | 11.12 | 8 | LAR Nutrient TMDL |
| OCDD | 8/07 | 8/08 | 3 | 2 | pg/L | 30 | 30 | 210 | 250 | NA | NA |
| Organic Nitrogen | 2/02 | 1/09 | 114 | 114 | mg/L | AD | AD | 0.45 | 9.6 | NA | NA |
| Ortho Phosphate (as P) | 5/07 | 6/10 | 8 | 7 | mg/L | 0.05 | 0.05 | 0.06 | 0.64 | NA | NA |
| Perchlorate | 8/07 | 8/08 | 3 | 1 | µg/L | 0.3 | 0.45 | 1.3 | 1.3 | NA | NA |
| pH | 1/02 | 1/09 | 371 | 371 | pH Units | AD | AD | 7.1 | 9 | 6.5 | BP Minimum |
| Phosphate | 2/02 | 11/08 | 28 | 24 | mg/L | 0.05 | 0.05 | 0.05 | 0.79 | NA | NA |
| Phosphate (Total) as P | 6/10 | 6/10 | 1 | 1 | mg/L | AD | AD | 0.17 | 0.17 | NA | NA |
| Potassium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 4190 | 13400 | NA | NA |
| Selenium Dissolved | 1/01 | 4/13 | 150 | 142 | µg/L | 1 | 30 | 0.3 | 22.2 | NA | NA |
| Silica | 6/10 | 6/10 | 1 | 1 | µg/L | AD | AD | 35400 | 35400 | NA | NA |
| Silver Dissolved | 1/01 | 8/08 | 132 | 47 | µg/L | 0.06 | 5 | 0.03 | 7.4 | HBC | CTR Chronic |
| Silver Total | 1/01 | 8/08 | 136 | 46 | µg/L | 0.02 | 5 | 0.03 | 10.4 | HBC | CTR Chronic |
| Sodium | 3/06 | 2/08 | 22 | 22 | µg/L | AD | AD | 27000 | 165000 | NA | NA |
| Sulfide | 3/06 | 2/08 | 22 | 4 | µg/L | 30 | 30 | 30 | 59.9 | NA | NA |
| Temperature | 1/02 | 1/09 | 371 | 371 | °C | AD | AD | 6.11 | 31.7 | NA | NA |

**LA River – Reach 6 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Tetrachloroethylene | 3/06 | 11/08 | 47 | 9 | µg/L | 0.1 | 0.22 | 0.25 | 0.48 | 8.85 | CTR HH Organism |
| Thallium Dissolved | 1/01 | 2/06 | 76 | 27 | µg/L | 0.5 | 25 | 0.9 | 29 | NA | NA |
| Total Coliform | 1/01 | 5/09 | 716 | 716 | MPN/100mL | AD | AD | 830 | 800000 | NA | NA |
| Total Kjeldahl Nitrogen | 6/10 | 6/10 | 1 | 1 | mg/L | AD | AD | 3.65 | 3.65 | NA | NA |
| Total Organic Carbon | 2/02 | 6/10 | 29 | 29 | mg/L | AD | AD | 4.22 | 26.9 | NA | NA |
| Total Settleable Solids | 5/07 | 11/08 | 7 | 5 | mL/L | 0.1 | 0.1 | 0.1 | 1 | NA | NA |
| Trichloroethylene | 3/06 | 8/08 | 43 | 9 | µg/L | 0.08 | 0.17 | 0.19 | 0.42 | 81 | CTR HH Organism |
| TSS | 3/06 | 11/08 | 29 | 29 | mg/L | AD | AD | 3 | 138 | NA | NA |
| Turbidity | 2/02 | 11/08 | 28 | 28 | NTU | AD | AD | 0.82 | 8.13 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Rio Hondo – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 48 | 84 | NA | NA |
| Ammonia as N | 6/09 | 6/12 | 4 | 1 | mg/L | 0.05 | 0.05 | 0.15 | 0.15 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |
| Antimony Dissolved | 1/05 | 2/06 | 13 | 9 | µg/L | 2 | 2 | 2 | 4 | NA | NA |
| Antimony Total | 1/05 | 2/06 | 13 | 8 | µg/L | 2 | 2 | 2 | 3 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 1/05 | 6/12 | 43 | 43 | µg/L | AD | AD | 0.3 | 5.7 | 150 | CTR Chronic |
| Arsenic Total | 1/05 | 6/12 | 43 | 43 | µg/L | AD | AD | 1.3 | 9.6 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 39 | 39 | µg/L | AD | AD | 22.2 | 132 | NA | NA |
| Barium Total | 1/05 | 8/08 | 39 | 39 | µg/L | AD | AD | 28 | 158 | NA | NA |
| Bifenthrin | 6/09 | 6/12 | 4 | 2 | µg/L | 0.0005 | 0.001 | 0.002 | 0.0185 | NA | NA |
| Cadmium Dissolved | 1/05 | 6/12 | 43 | 26 | µg/L | 0.01 | 0.33 | 0.01 | 1 | HBC | CTR Chronic |
| Cadmium Total | 1/05 | 6/12 | 43 | 31 | µg/L | 0.3 | 0.33 | 0.01 | 1.51 | HBC | CTR Chronic |
| Chloride | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 68.6 | 188 | 190 | BP SSO |
| Chromium Dissolved | 1/05 | 6/12 | 43 | 39 | µg/L | 0.09 | 0.1 | 0.3 | 4.75 | NA | NA |
| Chromium Total | 1/05 | 6/12 | 43 | 42 | µg/L | 0.1 | 0.1 | 0.2 | 6.16 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 13 | 7 | µg/L | 0.2 | 0.2 | 0.2 | 5.2 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 13 | 11 | µg/L | 0.2 | 0.2 | 0.3 | 5.5 | NA | NA |
| Cyfluthrin | 6/09 | 6/12 | 4 | 1 | µg/L | 0.0005 | 0.001 | 0.028 | 0.028 | NA | NA |
| Cypermethrin | 6/09 | 6/12 | 4 | 1 | µg/L | 0.0005 | 0.001 | 0.013 | 0.013 | NA | NA |
| Dissolved Organic Carbon | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 3.89 | 32.9 | NA | NA |
| Enterococcus | 1/02 | 3/09 | 75 | 74 | MPN/100mL | 10 | 10 | 10 | 24000 | NA | NA |
| Fenvalerate | 6/09 | 6/12 | 6 | 1 | µg/L | 0.0005 | 0.001 | 0.0007 | 0.0007 | NA | NA |
| Hardness | 1/05 | 4/13 | 54 | 54 | mg/L | AD | AD | 57 | 485 | NA | NA |

**Rio Hondo – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Iron Dissolved | 6/09 | 6/12 | 4 | 4 | µg/L | AD | AD | 11.4 | 47.8 | NA | NA |
| Iron Total | 6/09 | 6/12 | 4 | 4 | µg/L | AD | AD | 267 | 3160 | NA | NA |
| Mercury Dissolved | 1/05 | 6/12 | 17 | 1 | µg/L | 0.0036 | 0.022 | 0.005 | 0.005 | NA | NA |
| Mercury Total | 1/05 | 6/12 | 17 | 4 | µg/L | 0.004 | 0.022 | 0.0138 | 0.043 | 0.051 | CTR HH Organism |
| Nickel Dissolved | 1/05 | 6/12 | 43 | 42 | µg/L | 1 | 1 | 1 | 16.1 | HBC | CTR Chronic |
| Nickel Total | 1/05 | 6/12 | 43 | 42 | µg/L | 1 | 1 | 2 | 21.1 | HBC | CTR Chronic |
| Nitrate as N | 6/09 | 6/12 | 4 | 2 | mg/L | 0.02 | 0.02 | 0.07 | 0.09 | 8 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 6/09 | 6/09 | 1 | 0 | mg/L | 0.02 | 0.02 | ND | ND | 8 | LAR Nutrient TMDL |
| Ortho Phosphate (as P) | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 0.05 | 0.13 | NA | NA |
| Phosphate (Total) as P | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 0.16 | 0.91 | NA | NA |
| Selenium Dissolved | 1/05 | 6/12 | 43 | 42 | µg/L | 0.2 | 0.2 | 0.1 | 1.9 | NA | NA |
| Selenium Total | 1/05 | 6/12 | 43 | 42 | µg/L | 0.2 | 0.2 | 0.1 | 2 | 5 | CTR Chronic |
| Silica | 6/09 | 6/12 | 4 | 4 | µg/L | AD | AD | 13000 | 58000 | NA | NA |
| Silver Dissolved | 1/05 | 8/08 | 39 | 19 | µg/L | 0.06 | 0.2 | 0.03 | 0.52 | HBC | CTR Chronic |
| Silver Total | 1/05 | 8/08 | 39 | 19 | µg/L | 0.06 | 0.2 | 0.03 | 0.7 | HBC | CTR Chronic |
| Sulfate | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 75.7 | 295 | 350 | BP SSO |
| TDS | 6/09 | 6/09 | 1 | 1 | mg/L | AD | AD | 546 | 546 | 1500 | BP SSO |
| Thallium Dissolved | 1/05 | 2/06 | 13 | 1 | µg/L | 1 | 1 | 1 | 1 | NA | NA |
| Thallium Total | 1/05 | 2/06 | 13 | 2 | µg/L | 1 | 1 | 1 | 1 | 6.3 | CTR HH Organism |
| Total Coliform | 1/02 | 3/09 | 76 | 76 | MPN/100mL | AD | AD | 440 | 240000 | NA | NA |
| Total Kjeldahl Nitrogen | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 0.83 | 5 | NA | NA |
| Total Organic Carbon | 6/09 | 6/12 | 4 | 4 | mg/L | AD | AD | 4.94 | 35.5 | NA | NA |
| TSS | 6/09 | 6/12 | 3 | 3 | mg/L | AD | AD | 29 | 282 | NA | NA |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Rio Hondo – Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 2-Methyl-4,6-Dinitrophenol | 10/03 | 2/04 | 6 | 1 | µg/L | 3 | 3 | 4.3 | 4.3 | 765 | CTR HH Organism |
| Alkalinity | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 31.9 | 116 | NA | NA |
| Aluminum Total | 10/03 | 2/04 | 6 | 2 | µg/L | 100 | 100 | 107 | 750 | NA | NA |
| Ammonia as N | 10/03 | 2/04 | 6 | 3 | mg/L | 0.1 | 0.1 | 0.109 | 3.66 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |
| Antimony Dissolved | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 1.05 | 1.78 | NA | NA |
| Antimony Total | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 1.08 | 4.81 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 1.01 | 1.83 | 150 | CTR Chronic |
| Arsenic Total | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 1.36 | 4.29 | 150 | CTR Chronic |
| BOD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 8.6 | 79.9 | NA | NA |
| Cadmium Total | 10/03 | 2/04 | 6 | 1 | µg/L | 1 | 1 | 1.42 | 1.42 | HBC | CTR Chronic |
| Chloride | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 6.68 | 80.1 | 180 | BP SSO |
| Chromium Dissolved | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 1.28 | 3.33 | NA | NA |
| Chromium Total | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 1.9 | 15.5 | NA | NA |
| COD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 23.4 | 88.2 | NA | NA |
| Diethyl Phthalate | 10/03 | 2/04 | 6 | 4 | µg/L | 0.5 | 0.5 | 0.9 | 1.4 | 120000 | CTR HH Organism |
| Dissolved Oxygen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 7.97 | 10.7 | 5 | BP Minimum |

**Rio Hondo – Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Enterococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 230 | 300000 | NA | NA |
| Fecal Coliform | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 1300 | 500000 | NA | NA |
| Fecal Streptococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 230 | 500000 | NA | NA |
| Fluoride | 10/03 | 2/04 | 6 | 5 | mg/L | 0.1 | 0.1 | 0.1 | 0.21 | NA | NA |
| Hardness | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 48 | 175 | NA | NA |
| Iron Dissolved | 10/03 | 2/04 | 6 | 1 | µg/L | 100 | 100 | 394 | 394 | NA | NA |
| Isophorone | 10/03 | 2/04 | 6 | 1 | µg/L | 0.05 | 0.05 | 0.3 | 0.3 | 600 | CTR HH Organism |
| Lead Dissolved | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 0.76 | 1.85 | HBC | CTR Chronic |
| MBAS | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 78 | 195 | NA | NA |
| Nickel Dissolved | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 2.26 | 9.77 | HBC | CTR Chronic |
| Nickel Total | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 2.58 | 21.8 | HBC | CTR Chronic |
| Nitrate as N | 10/03 | 2/04 | 6 | 5 | mg/L | 0.5 | 0.5 | 0.917 | 5.26 | 8 | LAR Nutrient TMDL |
| Nitrate as NO3 | 10/03 | 2/04 | 6 | 5 | mg/L | 0.1 | 0.1 | 4.06 | 23.3 | NA | NA |
| Nitrite as N | 10/03 | 2/04 | 6 | 4 | mg/L | 0.03 | 0.03 | 0.043 | 0.304 | 1 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 6/09 | 6/12 | 4 | 2 | mg/L | 0.02 | 0.02 | 0.07 | 0.09 | 8 | LAR Nutrient TMDL |
| Oil + Grease | 10/03 | 2/04 | 6 | 2 | mg/L | 1 | 1 | 1.9 | 2 | NA | NA |
| Phosphorus | 10/03 | 2/04 | 12 | 12 | mg/L | AD | AD | 0.311 | 1.03 | NA | NA |
| Silver Total | 10/03 | 2/04 | 6 | 1 | µg/L | 1 | 1 | 0.808 | 0.808 | HBC | CTR Chronic |
| Sulfate | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 7.81 | 86.7 | 300 | BP SSO |
| TDS | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 80 | 418 | 750 | BP SSO |
| Total Coliform | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 3000 | 500000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 1.554 | 12.8 | NA | NA |
| Total Organic Carbon | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 7.03 | 14.4 | NA | NA |

**Rio Hondo – Reach 2 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| TPH | 10/03 | 2/04 | 6 | 2 | mg/L | 1 | 1 | 1.1 | 2.5 | NA | NA |
| TSS | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 91 | 1186 | NA | NA |
| Turbidity | 10/03 | 2/04 | 6 | 6 | NTU | AD | AD | 0.75 | 102 | NA | NA |
| Volatile Suspended Solids | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 23 | 342 | NA | NA |
| Zinc Dissolved | 10/03 | 2/04 | 6 | 6 | µg/L | AD | AD | 8.97 | 84 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| 1,2,3,4,6,7,8-HpCDD | 2/04 | 8/12 | 30 | 5 | pg/L | 2.7 | 55 | 1.7 | 38.1 | NA | NA |
| 1,2,3,4,6,7,8-HpCDF | 2/04 | 8/12 | 30 | 3 | pg/L | 1.6 | 55 | 0.46 | 7.2 | NA | NA |
| 1,2,3,4,7,8,9-HpCDF | 2/04 | 8/12 | 30 | 1 | pg/L | 0.88 | 55 | 5.5 | 5.5 | NA | NA |
| 1,2,3,4,7,8-HxCDF | 2/04 | 8/12 | 60 | 1 | pg/L | 0.83 | 55 | 3.6 | 3.6 | NA | NA |
| 1,4-Dioxane | 5/05 | 8/12 | 24 | 2 | µg/L | 0.4 | 0.5 | 1 | 1.2 | NA | NA |
| 2,4-D | 2/04 | 11/12 | 43 | 2 | µg/L | 0.49 | 2.5 | 0.11 | 0.61 | NA | NA |
| 2-Butanone | 6/05 | 12/06 | 19 | 2 | µg/L | 1 | 10 | 0.8 | 0.8 | NA | NA |

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 2/04 | 12/12 | 177 | 177 | mg/L | AD | AD | 67 | 220 | NA | NA |
| Aluminum Total | 5/05 | 12/06 | 20 | 20 | µg/L | AD | AD | 20 | 670 | NA | NA |
| Ammonia as N | 1/04 | 7/09 | 175 | 138 | µg/L | 0.1 | 1 | 0.1 | 1.9 | 10.1 | LAR Nutrient TMDL |
| Antimony Total | 2/04 | 11/12 | 49 | 47 | µg/L | 0.5 | 0.5 | 0.4 | 3.85 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 8/10 | 11/12 | 10 | 10 | µg/L | AD | AD | 1.46 | 4.67 | 150 | CTR Chronic |
| Arsenic Total | 2/04 | 11/12 | 49 | 49 | µg/L | AD | AD | 0.8 | 5.5 | 150 | CTR Chronic |
| Barium Total | 2/04 | 11/12 | 42 | 42 | µg/L | AD | AD | 19 | 104 | NA | NA |
| Barium Dissolved | 8/10 | 11/12 | 10 | 10 | µg/L | AD | AD | 58.2 | 97.1 | NA | NA |
| Benzo(b)Fluoranthene | 2/04 | 812 | 30 | 5 | µg/L | 0.02 | 0.02 | 0.008 | 0.038 | 0.049 | CTR Human Health Organism |
| Beryllium Total | 2/04 | 11/12 | 49 | 5 | µg/L | 0.25 | 2.5 | 0.01 | 0.1 | NA | NA |
| Bicarbonate | 5/05 | 12/06 | 20 | 20 | µg/L | AD | AD | 127000 | 212000 | NA | NA |
| Bis(2-ethylhexyl)Phthalate | 2/04 | 8/12 | 33 | 3 | µg/L | 2 | 2 | 0.4 | 0.41 | 5.9 | CTR HH Organism |
| BOD | 1/04 | 12/12 | 105 | 72 | mg/L | 2 | 3 | 2 | 12 | NA | NA |
| Boron | 1/04 | 12/12 | 105 | 99 | mg/L | 0.2 | 0.2 | 0.04 | 0.46 | NA | NA |
| Bromoform | 2/04 | 8/12 | 42 | 2 | µg/L | 0.5 | 1 | 0.3 | 0.6 | 360 | CTR HH Organism |

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Cadmium Total | 2/04 | 12/12 | 74 | 48 | µg/L | 0.2 | 2.5 | 0.01 | 0.2 | HBC | CTR Chronic |
| Cadmium Dissolved | 7/10 | 12/12 | 30 | 22 | µg/L | 0.2 | 0.2 | 0.02 | 0.087 | HBC | CTR Chronic |
| Calcium | 5/05 | 12/06 | 20 | 20 | µg/L | AD | AD | 39800 | 81400 | NA | NA |
| Carbon Disulfide | 5/05 | 12/06 | 20 | 10 | µg/L | 1 | 10 | 0.07 | 0.3 | NA | NA |
| Chlorate | 5/05 | 12/06 | 20 | 17 | µg/L | 10 | 10 | 47 | 1300 | NA | NA |
| Chlorine (Total Residual) | 1/04 | 12/12 | 210 | 5 | µg/L | 50 | 50 | 50 | 50 | NA | NA |
| Chlorodibromomethane | 2/04 | 8/12 | 42 | 9 | µg/L | 0.5 | 1 | 0.1 | 0.8 | 34 | CTR HH Organism |
| Chloroform | 2/04 | 8/12 | 42 | 25 | µg/L | 0.5 | 1 | 0.05 | 1 | NA | NA |
| Chlorophyll | 1/04 | 9/06 | 135 | 135 | mg/L | AD | AD | 0.0004 | 0.059 | NA | NA |
| Chromium Total | 2/04 | 11/12 | 63 | 55 | µg/L | 0.5 | 50 | 0.27 | 3.7 | NA | NA |
| Chromium Dissolved | 8/10 | 11/12 | 10 | 10 | µg/L | AD | AD | 0.12 | 1.64 | NA | NA |
| Chromium (VI) Total | 2/04 | 11/12 | 49 | 27 | µg/L | 10 | 10 | 0.02 | 4 | 11.4345 | CTR Chronic |
| cis-1,2-Dichloroethylene | 6/05 | 8/12 | 25 | 1 | µg/L | 0.5 | 1 | 0.1 | 0.1 | NA | NA |
| COD | 1/04 | 7/09 | 66 | 59 | mg/L | 5 | 10 | 7.1 | 77.8 | NA | NA |
| Color | 5/05 | 12/06 | 20 | 20 | N/A | AD | AD | 8 | 56 | NA | NA |
| Copper Dissolved | 7/10 | 12/12 | 30 | 30 | µg/L | AD | AD | 1.17 | 14.1 | HBC | CTR Chronic |

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Cyanide | 1/04 | 11/12 | 80 | 25 | µg/L | 5 | 5 | 1 | 2.3 | 5.2 | CTR Chronic |
| Dichlorobromomethane | 2/04 | 8/12 | 42 | 13 | µg/L | 0.5 | 1 | 0.06 | 0.5 | 46 | CTR HH Organism |
| Fecal Coliform | 1/04 | 12/12 | 208 | 208 | MPN/100mL | AD | AD | 17 | 300000 | NA | NA |
| Fluoride | 1/04 | 8/12 | 73 | 73 | mg/L | AD | AD | 0.271 | 0.943 | NA | NA |
| Formaldehyde | 5/05 | 12/06 | 20 | 5 | µg/L | 5 | 5 | 8 | 21 | NA | NA |
| gamma-BHC (Lindane) | 2/04 | 8/12 | 42 | 4 | µg/L | 0.01 | 0.01 | 0.003 | 0.006 | 0.063 | CTR HH Organism |
| Hardness | 1/04 | 12/12 | 402 | 402 | mg/L | AD | AD | 65 | 4600 | NA | NA |
| Iron Total | 2/04 | 8/12 | 42 | 38 | µg/L | 10 | 550 | 73 | 1880 | NA | NA |
| Iron Dissolved | 8/10 | 8/12 | 5 | 5 | µg/L | AD | AD | 23 | 253 | NA | NA |
| Lead Dissolved | 7/10 | 12/12 | 30 | 30 | µg/L | AD | AD | 0.04 | 1.89 | HBC | CTR Chronic |
| Lead Total | 1/04 | 12/12 | 105 | 105 | µg/L | AD | AD | 0.41 | 9 | HBC | CTR Chronic |
| Magnesium | 5/05 | 12/06 | 20 | 20 | µg/L | AD | AD | 9800 | 25600 | NA | NA |
| Manganese | 5/05 | 12/06 | 20 | 20 | µg/L | AD | AD | 12 | 253 | NA | NA |
| MBAS | 1/04 | 12/12 | 106 | 41 | µg/L | 50 | 100 | 50 | 520 | NA | NA |
| Mercury Dissolved | 7/10 | 12/12 | 30 | 23 | µg/L | 0.04 | 0.04 | 0.01 | 0.12 | NA | NA |
| Methyl Chloride | 2/04 | 8/12 | 29 | 6 | µg/L | 0.5 | 0.5 | 0.07 | 0.6 | NA | NA |
| Methylene Chloride | 2/04 | 8/12 | 42 | 11 | µg/L | 0.5 | 10 | 0.05 | 0.1 | 1600 | CTR HH Organism |

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Nickel Dissolved | 8/10 | 11/12 | 10 | 8 | µg/L | 1 | 1 | 0.44 | 1.62 | HBC | CTR Chronic |
| Nickel Total | 2/04 | 11/12 | 49 | 40 | µg/L | 0.25 | 20 | 0.37 | 4 | HBC | CTR Chronic |
| NID | 1/04 | 12/12 | 106 | 3 | mg/L | 0.1 | 0.2 | 0.1 | 0.2 | NA | NA |
| Nitrate as N | 1/04 | 10/11 | 180 | 152 | mg/L | 0.05 | 0.2 | 0.06 | 5.06 | 8 | LAR Nutrient TMDL |
| Nitrate as N + Nitrite as N | 1/04 | 10/11 | 180 | 152 | mg/L | 0.05 | 0.02 | 0.03 | 5.58 | 8 | LAR Nutrient TMDL |
| Nitrite as N | 1/04 | 10/11 | 180 | 150 | mg/L | 0.02 | 0.1 | 0.03 | 0.612 | 1 | LAR Nutrient TMDL |
| Nitrogen | 1/04 | 12/12 | 246 | 246 | mg/L | AD | AD | 0.1 | 8.1 | NA | NA |
| N-Nitrosodimethylamine | 2/04 | 8/12 | 51 | 15 | µg/L | 0.002 | 5 | 0.0006 | 0.0045 | 8.1 | CTR HH Organism |
| OCDD | 2/04 | 8/12 | 30 | 15 | pg/L | 11 | 120 | 13 | 337 | NA | NA |
| OCDF | 2/04 | 8/12 | 30 | 3 | pg/L | 3 | 110 | 1.4 | 10 | NA | NA |
| Oil + Grease | 1/04 | 12/12 | 105 | 1 | mg/L | 4 | 6.3 | 12 | 12 | NA | NA |
| Organic Nitrogen | 1/04 | 7/09 | 168 | 165 | mg/L | 0.1 | 0.1 | 0.1 | 3.36 | NA | NA |
| Ortho Phosphate (as PO4) | 1/04 | 3/10 | 175 | 99 | mg/L | 0.05 | 1 | 0.144 | 1.4 | NA | NA |
| Perchlorate | 5/05 | 8/12 | 24 | 4 | µg/L | 2 | 10 | 0.19 | 2 | NA | NA |
| Phenol | 2/04 | 8/12 | 33 | 4 | µg/L | 1 | 1 | 0.57 | 1.7 | 4600000 | CTR HH Organism |
| Phosphate (Total) | 1/04 | 12/12 | 208 | 156 | mg/L | 0.15 | 0.5 | 0.041 | 3 | NA | NA |
| Potassium | 5/05 | 12/06 | 20 | 19 | µg/L | 5000 | 5000 | 3100 | 8700 | NA | NA |

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Selenium Total | 2/04 | 11/12 | 49 | 48 | µg/L | 1 | 1 | 0.1 | 1.06 | 5 | CTR Chronic |
| Selenium Dissolved | 8/10 | 11/12 | 10 | 10 | µg/L | AD | AD | 0.12 | 0.7 | NA | NA |
| Silver Total | 1/04 | 11/12 | 80 | 18 | µg/L | 0.2 | 2.5 | 0.01 | 0.26 | HBC | CTR Chronic |
| Sodium | 5/05 | 12/06 | 20 | 20 | µg/L | AD | AD | 8800 | 92400 | NA | NA |
| Sulfate | 1/04 | 12/12 | 110 | 110 | mg/L | AD | AD | 8.9 | 300 | 350 | Basin Plan SSO |
| TDS | 1/04 | 12/12 | 105 | 105 | mg/L | AD | AD | 127 | 692 | 1500 | Basin Plan SSO |
| TEQ | 2/10 | 2/10 | 1 | 1 | pg/L | AD | AD | 0.014 | 0.014 | NA | NA |
| Thallium Total | 2/04 | 11/12 | 36 | 1 | µg/L | 0.25 | 1 | 0.14 | 0.14 | 6.3 | CTR HH Organism |
| Thallium Dissolved | 8/10 | 11/12 | 10 | 1 | µg/L | 0.25 | 0.25 | 0.016 | 0.016 | NA | NA |
| Toluene | 2/04 | 8/12 | 42 | 23 | µg/L | 0.5 | 1 | 0.07 | 1 | 200000 | CTR HH Organism |
| Total Coliform | 1/04 | 12/12 | 208 | 208 | MPN/100mL | AD | AD | 280 | 1600000 | NA | NA |
| Total Kjeldahl Nitrogen | 1/04 | 12/12 | 208 | 205 | mg/L | 0.1 | 0.1 | 0.1 | 4.6 | NA | NA |
| Total Organic Carbon | 5/05 | 12/06 | 20 | 20 | mg/L | AD | AD | 1.84 | 10.7 | NA | NA |
| Total Settleable Solids | 1/04 | 12/12 | 105 | 5 | mL/L | 0.1 | 0.1 | 0.1 | 0.2 | NA | NA |
| TSS | 1/04 | 12/12 | 105 | 75 | mg/L | 2.5 | 10 | 1 | 27 | NA | NA |

**Rio Hondo – Reach 3 – Constituents that have been detected but do not exceed relevant water quality objectives**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Turbidity | 1/04 | 12/12 | 105 | 105 | NTU | AD | AD | 0.74 | 12 | NA | NA |
| Vanadium Total | 5/05 | 12/06 | 20 | 19 | µg/L | 10 | 10 | 2 | 13.2 | NA | NA |
| Zinc Dissolved | 7/10 | 12/12 | 30 | 30 | µg/L | AD | AD | 1.58 | 27.8 | HBC | CTR Chronic |
| Zinc Total | 1/04 | 12/12 | 105 | 104 | µg/L | 50 | 50 | 1 | 68 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Tujunga Wash - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 0.1 | 276 | NA | NA |
| Antimony Dissolved | 1/05 | 2/06 | 14 | 7 | µg/L | 2 | 2 | 2 | 3 | NA | NA |
| Antimony Total | 1/05 | 2/06 | 14 | 6 | µg/L | 2 | 2 | 2 | 3 | 4300 | CTR HH Organism |
| Arsenic Dissolved | 1/05 | 6/11 | 40 | 40 | µg/L | AD | AD | 0.5 | 10.1 | 150 | CTR Chronic |
| Arsenic Total | 1/05 | 6/11 | 40 | 40 | µg/L | AD | AD | 0.6 | 20.5 | 150 | CTR Chronic |
| Barium Dissolved | 1/05 | 8/08 | 38 | 38 | µg/L | AD | AD | 22 | 101 | NA | NA |

**Tujunga Wash - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Barium Total | 1/05 | 8/08 | 38 | 38 | µg/L | AD | AD | 32 | 1150 | NA | NA |
| Beryllium Total | 1/05 | 2/06 | 14 | 1 | µg/L | 0.4 | 0.4 | 1.5 | 1.5 | NA | NA |
| Bifenthrin | 6/09 | 6/11 | 3 | 1 | µg/L | 0.0005 | 0.0005 | 0.002 | 0.002 | NA | NA |
| Cadmium Dissolved | 1/05 | 6/11 | 41 | 19 | µg/L | 0.01 | 0.33 | 0.01 | 1.69 | HBC | CTR Chronic |
| Chromium Dissolved | 1/05 | 6/11 | 41 | 38 | µg/L | 0.1 | 0.21 | 0.1 | 4.94 | NA | NA |
| Chromium Total | 1/05 | 6/11 | 41 | 40 | µg/L | 0.21 | 0.21 | 0.2 | 72.4 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 9 | µg/L | 0.2 | 0.2 | 0.2 | 1 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 11 | µg/L | 0.2 | 0.2 | 0.2 | 46.8 | NA | NA |
| Cyfluthrin | 6/09 | 6/11 | 3 | 1 | µg/L | 0.0005 | 0.001 | 0.0152 | 0.0152 | NA | NA |
| Dissolved Organic Carbon | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 28.6 | 82.7 | NA | NA |
| Enterococcus | 1/02 | 5/09 | 78 | 77 | MPN/100mL | 10 | 10 | 10 | 24000 | NA | NA |
| Hardness | 1/05 | 6/13 | 73 | 73 | mg/L | AD | AD | 65.2 | 414 | NA | NA |
| Iron Dissolved | 6/09 | 6/11 | 3 | 3 | µg/L | AD | AD | 61.9 | 108 | NA | NA |
| Iron Total | 6/09 | 6/11 | 3 | 3 | µg/L | AD | AD | 2000 | 6900 | NA | NA |
| Mercury Dissolved | 1/05 | 6/11 | 17 | 4 | µg/L | 0.022 | 0.022 | 0.005 | 0.052 | NA | NA |
| Nickel Dissolved | 1/05 | 6/11 | 41 | 41 | µg/L | AD | AD | 0.1 | 9.19 | HBC | CTR Chronic |
| Nickel Total | 1/05 | 6/11 | 41 | 41 | µg/L | AD | AD | 0.1 | 54 | HBC | CTR Chronic |
| Nitrate as N | 6/09 | 6/11 | 3 | 1 | mg/L | 0.02 | 0.02 | 0.9 | 0.9 | 8 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 6/11 | 6/11 | 4 | 4 | mg/L | AD | AD | 0.48 | 0.54 | 8 | LAR Nutrient TMDL |
| Ortho Phosphate (as P) | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 0.08 | 0.53 | NA | NA |
| Phosphate (Total) as P | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 0.43 | 1.01 | NA | NA |
| Selenium Dissolved | 1/05 | 6/11 | 40 | 39 | µg/L | 0.2 | 0.2 | 0.1 | 0.81 | NA | NA |
| Selenium Total | 1/05 | 6/11 | 40 | 40 | µg/L | AD | AD | 0.1 | 2.4 | 5 | CTR Chronic |

**Tujunga Wash - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Silica | 6/09 | 6/11 | 3 | 3 | µg/L | AD | AD | 31300 | 70300 | NA | NA |
| Silver Dissolved | 1/05 | 8/08 | 38 | 17 | µg/L | 0.06 | 0.2 | 0.03 | 0.66 | HBC | CTR Chronic |
| Silver Total | 1/05 | 8/08 | 38 | 18 | µg/L | 0.06 | 0.2 | 0.03 | 0.62 | HBC | CTR Chronic |
| Sulfate | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 91.1 | 172 | 300 | BP SSO |
| Thallium Dissolved | 1/05 | 2/06 | 14 | 2 | µg/L | 1 | 1 | 1 | 2 | NA | NA |
| Thallium Total | 1/05 | 2/06 | 14 | 2 | µg/L | 1 | 1 | 1 | 2 | 6.3 | CTR HH Organism |
| Total Coliform | 1/02 | 9/11 | 143 | 143 | MPN/100mL | AD | AD | 200 | 240000 | NA | NA |
| Total Kjeldahl Nitrogen | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 5.8 | 10.1 | NA | NA |
| Total Organic Carbon | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 31 | 96.5 | NA | NA |
| TSS | 6/09 | 6/11 | 2 | 2 | mg/L | AD | AD | 48 | 188 | NA | NA |
| Zinc Dissolved | 1/05 | 6/13 | 71 | 68 | µg/L | 0.4 | 4 | 0.45 | 63 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Verdugo Wash – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Alkalinity | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 17.6 | 241 | NA | NA |
| Aluminum Total | 10/03 | 2/04 | 6 | 5 | µg/L | 100 | 100 | 115 | 5420 | NA | NA |
| Ammonia as N | 10/03 | 2/04 | 6 | 3 | mg/L | 0.1 | 0.1 | 0.1 | 0.28556 | pH and Temp Dependent | BP Not SPWN Inland 4-Day Average |

**Verdugo Wash – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Antimony Dissolved | 10/03 | 2/06 | 20 | 12 | µg/L | 2 | 5 | 0.58 | 3 | NA | NA |
| Antimony Total | 10/03 | 2/06 | 20 | 9 | µg/L | 2 | 5 | 0.62 | 4 | 4300 | CTR HH Organism |
| Arsenic - Dissolved | 10/03 | 8/08 | 49 | 44 | µg/L | 0.4 | 5 | 0.2 | 6.8 | 150 | CTR Chronic |
| Arsenic Total | 10/03 | 8/08 | 49 | 44 | µg/L | 0.4 | 5 | 0.4 | 6.8 | 150 | CTR Chronic |
| Atrazine | 10/03 | 2/04 | 6 | 1 | µg/L | 2.00 | 2.00 | 2.00 | 2.00 | NA | NA |
| Barium Dissolved | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 53.7 | 108 | NA | NA |
| Barium Total | 1/05 | 8/08 | 43 | 43 | µg/L | AD | AD | 68.9 | 138 | NA | NA |
| BOD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 4.15 | 17.7 | NA | NA |
| Cadmium Dissolved | 10/03 | 8/08 | 49 | 16 | µg/L | 0.02 | 1 | 0.01 | 0.76 | HBC | CTR Chronic |
| Chloride | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 2 | 139 | 150 | BP SSO |
| Chlorpyrifos | 10/03 | 2/04 | 6 | 1 | µg/L | 0.05 | 0.05 | 0.05 | 0.05 | 0.041 and 0.083 | USEPA Acute and Chronic |
| Chromium Dissolved | 10/03 | 8/08 | 49 | 45 | µg/L | 0.1 | 0.21 | 0.1 | 4.76 | NA | NA |
| Chromium Total | 10/03 | 8/08 | 49 | 45 | µg/L | 0.1 | 0.1 | 0.2 | 10.9 | NA | NA |
| Cobalt Dissolved | 1/05 | 2/06 | 14 | 8 | µg/L | 0.2 | 0.2 | 0.2 | 0.8 | NA | NA |
| Cobalt Total | 1/05 | 2/06 | 14 | 10 | µg/L | 0.2 | 0.2 | 0.3 | 2.5 | NA | NA |
| COD | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 13.6 | 56.9 | NA | NA |
| Cyanazine | 10/03 | 2/04 | 6 | 1 | µg/L | 2 | 2 | 2 | 2 | NA | NA |
| Cyanide | 10/03 | 2/04 | 6 | 2 | µg/L | 10 | 8 | 8 | 10 | 5.2 and 22 | CTR Chronic and Acute |
| Di-n-Butyl Phthalate | 10/03 | 2/04 | 6 | 1 | µg/L | 1 | 1 | 1.1 | 1.1 | 12000 | CTR HH Organism |
| Diazinon | 10/03 | 2/04 | 6 | 4 | µg/L | 0.01 | 0.01 | 0.01 | 0.088 | 0.17 | USEPA Acute and Chronic |
| Diethyl Phthalate | 10/03 | 2/04 | 6 | 2 | µg/L | 0.5 | 0.5 | 0.9 | 2.5 | 120000 | CTR HH Organism |
| Dissolved Oxygen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 7.3 | 11.52 | 5 | BP Minimum |

**Verdugo Wash – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Enterococcus | 1/02 | 5/09 | 90 | 89 | MPN/100mL | 10 | 10 | 72 | 300000 | NA | NA |
| Fecal Coliform | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 80 | 500000 | NA | NA |
| Fecal Streptococcus | 10/03 | 2/04 | 6 | 6 | MPN/100mL | AD | AD | 1700 | 800000 | NA | NA |
| Fluoride | 10/03 | 2/04 | 6 | 5 | mg/L | 0.1 | 0.1 | 0.1 | 0.26 | NA | NA |
| Hardness | 10/03 | 4/12 | 50 | 50 | mg/L | AD | AD | 19.5 | 420 | NA | NA |
| Iron Dissolved | 10/03 | 2/04 | 6 | 2 | µg/L | 100 | 100 | 138 | 203 | NA | NA |
| Iron Total | 10/03 | 2/04 | 6 | 5 | µg/L | 100 | 100 | 195 | 13100 | NA | NA |
| Isophorone | 10/03 | 2/04 | 6 | 1 | µg/L | 0.05 | 0.05 | 0.2 | 0.2 | 600 | CTR HH Organism |
| Lead - Dissolved | 10/03 | 4/12 | 49 | 24 | µg/L | 1 | 5 | 0.18 | 3.7 | HBC | CTR Chronic |
| Malathion | 10/03 | 2/04 | 6 | 1 | µg/L | 2.000 | 2.0 | 2 | 2 | NA | NA |
| MBAS | 10/03 | 2/04 | 6 | 2 | µg/L | 50 | 50 | 68 | 113 | NA | NA |
| Mercury Dissolved | 10/03 | 2/06 | 20 | 2 | µg/L | 0.022 | 1 | 0.032 | 1 | NA | NA |
| Nickel Dissolved | 10/03 | 8/08 | 49 | 48 | µg/L | 1 | 1 | 0.84 | 8.55 | HBC | CTR Chronic |
| Nickel Total | 10/03 | 8/08 | 49 | 49 | µg/L | AD | AD | 1 | 12.2 | HBC | CTR Chronic |
| Nitrate as N | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.5 | 2.27 | 8 | LAR Nutrient TMDL |
| Nitrate as NO3 | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.1 | 10.5 | NA | NA |
| Nitrite as N | 10/03 | 2/04 | 6 | 5 | mg/L | 0.03 | 0.03 | 0.03 | 0.724 | 1 | LAR Nutrient TMDL |
| Nitrogen (NO3-N+NO2-N) (Calc) | 6/09 | 6/11 | 3 | 1 | mg/L | 0.02 | 0.02 | 0.90 | 0.90 | 8 | LAR Nutrient TMDL |
| pH | 10/03 | 2/04 | 6 | 6 | pH Units | AD | AD | 6.65 | 8.24 | 6.5 | BP Minimum |
| Phosphorus | 10/03 | 2/04 | 12 | 12 | mg/L | AD | AD | 0.093 | 0.463 | NA | NA |
| Prometryn | 10/03 | 2/04 | 6 | 1 | µg/L | 2 | 2 | 2 | 2 | NA | NA |
| Selenium Dissolved | 10/03 | 8/08 | 49 | 43 | µg/L | 0.2 | 5 | 0.2 | 1.16 | NA | NA |
| Selenium Total | 10/03 | 8/08 | 49 | 44 | µg/L | 0.2 | 5 | 0.2 | 1.16 | 5 | CTR Chronic |

**Verdugo Wash – Reach 1 - Constituents that have been detected but do not exceed relevant water quality objective**

| Constituent | Range of Available Data | | N | N detects | Units | Detection Limits | | Detected Values | | WQO | Source of Lowest Water Quality Objective (WQO) Value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Min | Max | Min | Max | | |
| Silver Dissolved | 10/03 | 8/08 | 49 | 23 | µg/L | 0.06 | 1 | 0.03 | 4.7 | HBC | CTR Chronic |
| Silver Total | 10/03 | 8/08 | 49 | 24 | µg/L | 0.06 | 1 | 0.089 | 3 | HBC | CTR Chronic |
| Simazine | 10/03 | 2/04 | 6 | 1 | µg/L | 2 | 2 | 2 | 2 | NA | NA |
| Sulfate | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.1 | 134 | 300 | BP SSO |
| TDS | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 60 | 746 | 950 | BP SSO |
| Thallium Dissolved | 10/03 | 2/06 | 20 | 7 | µg/L | 1 | 5 | 1 | 2 | NA | NA |
| Thallium Total | 10/03 | 2/06 | 20 | 4 | µg/L | 1 | 5 | 1 | 2 | 6.3 | CTR HH Organism |
| Total Coliform | 1/02 | 5/09 | 91 | 90 | MPN/100mL | 100 | 100 | 500 | 900000 | NA | NA |
| Total Kjeldahl Nitrogen | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 0.1 | 9.02 | NA | NA |
| Total Organic Carbon | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 4.26 | 16.4 | NA | NA |
| TSS | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 18 | 614 | NA | NA |
| Turbidity | 10/03 | 2/04 | 6 | 6 | NTU | AD | AD | 0.57 | 238 | NA | NA |
| Volatile Suspended Solids | 10/03 | 2/04 | 6 | 6 | mg/L | AD | AD | 9 | 104 | NA | NA |
| Zinc Dissolved | 10/03 | 4/12 | 50 | 50 | µg/L | AD | AD | 2 | 38 | HBC | CTR Chronic |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

# Attachment 3: Constituents that have been detected and have exceeded relevant water quality objectives

Constituents in this attachment exceeded a water quality objective but not at a frequency that meets the 303(d) Listing requirements.

**Aliso Canyon Wash – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 17.2 | 18.5 | Too Few Samples | | 2 | 100% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 3 | µg/L | 1 | 1 | 44.3 | 83.8 | 49.5 | 46.1 | 3 | 75% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Copper Dissolved | Dry | 10/03 | 5/09 | 40 | 38 | µg/L | 4 | 4 | 3.38 | 24 | 13.0 | 12.7 | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 29 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 7.52 | 23.1 | 10.6 | 8.92 | 2 | 25% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 13% | No | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 10/03 | 5/09 | 41 | 41 | µg/L | AD | AD | 4.00 | 99 | 23.5 | 17.4 | 15 | 37% | Yes | 1 | 1 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 11 | 27% | Yes | 1 | 1 | 0 | 0% | 30 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 7.00 | 72.8 | 21.9 | 13.8 | 4 | 50% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 3 | 38% | Yes | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| Cyanide | Dry | 10/03 | 1/04 | 2 | 0 | µg/L | 10 | 10 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 5.2 | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 1 | µg/L | 10 | 10 | 22 | 22 | | | 1 | 25% | No | NS | NS | NS | NS | 22 | CTR Acute |
| Diazinon | Dry | 10/03 | 5/09 | 3 | 1 | µg/L | 0.002 | 0.01 | 0.117 | 0.117 | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.17 | USEPA Chronic |
| | Wet | 10/03 | 2/04 | 4 | 1 | µg/L | 0.01 | 0.01 | 0.503 | 0.503 | | | 1 | 25% | No | NS | NS | NS | NS | 0.17 | USEPA Acute |
| *E. Coli* | Dry | 1/02 | 5/09 | 74 | 68 | MPN/100mL | 100 | 100 | 100 | 33000 | 2912 | 1040 | 67 | 91% | Yes | 4 | 2 | 2 | 50% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/09 | 7 | 7 | MPN/100mL | AD | AD | 100 | 6500 | 2839 | 2300 | 6 | 86% | Yes | 1 | 1 | 0 | 0% | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 10/03 | 5/09 | 41 | 22 | µg/L | 0.11 | 5 | 0.19 | 10.4 | | | 1 | 2% | No | 1 | 0 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 11 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 5 | µg/L | 1 | 1 | 0.6 | 1.38 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 51 | LAR Metals TMDL |
| Lead Total | Dry | 10/03 | 5/09 | 41 | 25 | µg/L | 1 | 1.1 | 0.51 | 19.6 | | | 3 | 7% | No | 1 | 1 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 2% | No | 1 | 1 | 0 | 0% | 19 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 5 | µg/L | 1 | 1 | 1.1 | 19 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Selenium Total | Dry | 10/03 | 5/09 | 41 | 41 | µg/L | AD | AD | 1.11 | 8.00 | 4.35 | 4.30 | 11 | 27% | Yes | 1 | 1 | 0 | 0% | 5 | CTR Chronic |
| | Wet | 10/03 | 12/07 | 8 | 5 | µg/L | 5 | 5 | 0.80 | 21.3 | 6.07 | 3.4 | 0 | 0% | No | NS | NS | NS | NS | NA | NA |
| Sulfate | Dry | 10/03 | 5/09 | 3 | 3 | mg/L | AD | AD | 141 | 375 | | | 1 | 33% | No | 1 | 1 | 1 | 100% | 300 | BP SSO |
| | Wet | 10/03 | 2/04 | 4 | 4 | mg/L | AD | AD | 5.98 | 73.9 | | | 0 | 0% | No | NS | NS | NS | NS | 300 | BP SSO |
| TDS | Dry | 10/03 | 5/09 | 3 | 3 | mg/L | AD | AD | 592 | 2490 | | | 1 | 33% | No | 1 | 1 | 1 | 100% | 950 | BP SSO |
| | Wet | 10/03 | 2/04 | 4 | 4 | mg/L | AD | AD | 114 | 344 | | | 0 | 0% | No | NS | NS | NS | NS | 950 | BP SSO |
| Zinc Dissolved | Dry | 10/03 | 5/09 | 41 | 41 | µg/L | AD | AD | 4.63 | 46 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 5 | 106 | | | 1 | 13% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 13% | No | NS | NS | NS | NS | 97 | LAR Metals TMDL |

**Aliso Canyon Wash – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Zinc Total | Dry | 10/03 | 5/09 | 41 | 41 | µg/L | AD | AD | 6.51 | 159 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 12 | 289 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 13% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Arroyo Seco – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/03 | 1/04 | 2 | 1 | µg/L | 1 | 1 | 17.4 | 17.4 | Too Few Samples | | 1 | 50% | No | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 3 | µg/L | 1 | 1 | 47 | 50 | 47.8 | 48.2 | 3 | 75% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Copper Dissolved | Dry | 10/03 | 6/11 | 47 | 41 | µg/L | 0.08 | 4 | 2 | 17 | | | 0 | 0% | No | 6 | 5 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 0 | 0% | No | 6 | 5 | 0 | 0% | 21 | LAR Metals TMDL |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 3.11 | 12.9 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 11% | No | 1 | 1 | 0 | 0% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 10/03 | 6/11 | 47 | 46 | µg/L | 4 | 4 | 0.2 | 29 | Too Few Samples | | 1 | 2% | No | 6 | 6 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 2% | No | 6 | 6 | 0 | 0% | 22 | LAR Metals TMDL |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 4.33 | 91.6 | Too Few Samples | | 2 | 22% | Yes | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 22% | Yes | 1 | 1 | 0 | 0% | 17 | LAR Metals TMDL |
| *E. Coli* | Dry | 1/02 | 5/09 | 77 | 64 | MPN/100mL | 100 | 100 | 100 | 240000 | 1566 | 465 | 59 | 77% | Yes | 4 | 4 | 4 | 100% | 126 | BP REC1 30-Day |
| *E. Coli* | Wet | 12/02 | 1/09 | 8 | 8 | MPN/100mL | AD | AD | 100 | 25000 | 6528 | 3955 | 6 | 75% | Yes | 1 | 1 | 0 | 0% | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 10/03 | 6/11 | 47 | 28 | µg/L | 0.11 | 5 | 0.055 | 8.2 | | | 0 | 0% | No | 6 | 5 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 2 | 4% | No | 6 | 5 | 0 | 0% | 7.3 | LAR Metals TMDL |
| | Wet | 10/03 | 4/12 | 9 | 7 | µg/L | 1 | 1 | 0.32 | 1.77 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 51 | LAR Metals TMDL |
| Lead Total | Dry | 10/03 | 6/11 | 47 | 36 | µg/L | 0.11 | 1.1 | 0.055 | 32.8 | 4.96 | 1.57 | 4 | 9% | Yes | 6 | 5 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 8 | 17% | Yes | 6 | 5 | 0 | 0% | 11 | LAR Metals TMDL |

**Arroyo Seco – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 1.00 | 292 | 34.6 | 2.00 | 1 | 11% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 11% | No | 1 | 1 | 0 | 0% | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 10/03 | 6/11 | 20 | 3 | µg/L | 0.004 | 1 | 0.0132 | 0.0178 | | | 0 | 0% | No | 6 | 3 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 10/03 | 3/05 | 6 | 1 | µg/L | 0.022 | 1 | 0.153 | 0.153 | | | 1 | 17% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Nitrite as N | Dry | 10/03 | 6/11 | 8 | 3 | mg/L | 0.02 | 0.02 | 0.353 | 1.36 | | | 1 | 13% | No | 6 | 1 | 1 | 17% | 1 | LAR Nutrient TMDL |
| | Wet | 10/03 | 2/04 | 4 | 4 | mg/L | AD | AD | 0.061 | 0.222 | | | 0 | 0% | No | NS | NS | NS | NS | 1 | LAR Nutrient TMDL |
| Zinc Total | Dry | 10/03 | 6/11 | 47 | 47 | µg/L | AD | AD | 2.74 | 351 | | | 0 | 0% | No | 6 | 6 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 7 | 926 | | | 1 | 11% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 11% | No | 1 | 1 | 0 | 0% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Bull Creek – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 13.0 | 13.0 | Too Few Samples | | 2 | 100% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 2 | µg/L | 1 | 1 | 17.3 | 78.3 | Too Few Samples | | 2 | 50% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Cadmium Total | Dry | 10/03 | 6/10 | 43 | 27 | µg/L | 0.02 | 0.33 | 0.01 | 1.42 | | | 0 | 0% | No | 2 | 0 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 12/07 | 8 | 5 | µg/L | 1 | 1 | 0.3 | 3.24 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 13% | No | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Copper Dissolved | Dry | 10/03 | 6/10 | 41 | 39 | µg/L | 4 | 4 | 5.00 | 21 | 11.5 | 11.0 | 1 | 2% | No | 2 | 2 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 0 | 0% | No | 2 | 2 | 0 | 0% | 29 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 3.52 | 17 | 8.30 | 6.90 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 25% | Yes | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 10/03 | 6/10 | 43 | 42 | µg/L | 1 | 1 | 6.00 | 38 | 15.9 | 14.0 | 7 | 16% | Yes | 2 | 2 | 0 | 0% | HBC | CTR Chronic |

**Bull Creek – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | | | | | | | | | | | | | 3 | 7% | No | 2 | 2 | 0 | 0% | 30 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 5.00 | 77.6 | 27.0 | 15.3 | 3 | 38% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 3 | 38% | Yes | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| Cyanide | Dry | 10/03 | 1/04 | 2 | 0 | µg/L | 10 | 10 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 5.2 | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 2 | µg/L | 10 | 10 | 9 | 23 | | | 1 | 25% | No | NS | NS | NS | NS | 22 | CTR Acute |
| *E. Coli* | Dry | 1/02 | 5/09 | 77 | 68 | MPN/100mL | 100 | 100 | 100 | 8600 | 1199 | 520 | 64 | 83% | Yes | 4 | 4 | 4 | 100% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/09 | 8 | 7 | MPN/100mL | 100 | 100 | 200 | 37000 | 8034 | 3050 | 7 | 88% | Yes | 1 | 1 | 1 | 100% | 126 | BP REC1 30-Day |
| Lead Total | Dry | 10/03 | 6/10 | 43 | 34 | µg/L | 1 | 1.1 | 0.35 | 26 | | | 1 | 2% | No | 2 | 2 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 2% | No | 2 | 2 | 0 | 0% | 19 | LAR Metals TMDL |
| | Wet | 10/03 | 12/07 | 8 | 5 | µg/L | 1 | 1 | 1.17 | 203 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 13% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Zinc Total | Dry | 10/03 | 6/10 | 43 | 43 | µg/L | AD | AD | 6.00 | 77 | 24.7 | 19.0 | 0 | 0% | No | 2 | 2 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 12/07 | 8 | 8 | µg/L | AD | AD | 16 | 324 | 105 | 35.0 | 1 | 13% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 25% | Yes | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Burbank Western Channel – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| 2,3,7,8-TCDD (Dioxin) | Dry | 2/07 | 8/13 | 64 | 32 | pg/L | 0.134 | 2.3 | 0.001 | 2.44 | 7.37 | 1.34 | 28 | 44% | Yes | 40 | 20 | 17 | 43% | 0.014 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.014 | CTR HH Organism |
| Benzo(a)Pyrene | Dry | 10/03 | 8/13 | 137 | 2 | µg/L | 0.1 | 5 | 0.32 | 0.41 | | | 2 | 1% | No | 45 | 1 | 1 | 2% | 0.049 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 0 | µg/L | 0.1 | 0.1 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 0.049 | CTR HH Organism |
| Benzo(b) Fluoranthene | Dry | 2/04 | 8/13 | 135 | 5 | µg/L | 0.14 | 5 | 0.18 | 0.32 | < 20% Detects | | 5 | 4% | No | 45 | 2 | 2 | 4% | 0.049 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.049 | CTR HH Organism |

**Burbank Western Channel – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| beta-BHC | Dry | 10/03 | 8/13 | 131 | 2 | µg/L | 0.0011 | 0.08 | 0.037 | 0.047 | | | 1 | 1% | No | 39 | 0 | 0 | 0% | 0.046 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 0 | µg/L | 0.05 | 0.05 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 0.046 | CTR HH Organism |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/03 | 8/13 | 137 | 73 | µg/L | 0.21 | 5 | 0.36 | 96 | 0.270 | 0.070 | 35 | 26% | Yes | 45 | 11 | 8 | 18% | 5.9 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 3 | µg/L | 1 | 1 | 9.40 | 77.1 | 26.4 | 13.6 | 3 | 75% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Cadmium Total | Dry | 10/03 | 10/13 | 298 | 256 | µg/L | 0.02 | 1 | 0.01 | 4.4 | | | 1 | 0% | No | 123 | 121 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 1/08 | 9 | 4 | µg/L | 0.3 | 1 | 0.245 | 0.465 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Chloride | Dry | 10/03 | 8/13 | 239 | 239 | mg/L | NA | NA | 36 | 489 | | | 8 | 3% | No | 125 | 125 | 4 | 3% | 190 | BP SSO |
| | Wet | 10/03 | 2/04 | 4 | 4 | mg/L | NA | NA | 5.24 | 117 | | | 0 | 0% | No | NS | NS | NS | NS | 190 | BP SSO |
| Chlorine (Total) | Dry | 10/03 | 10/13 | 1299 | 59 | µg/L | 10 | 100 | 100 | 2000 | < 20% Detects | | 59 | 5% | No | 526 | 18 | 18 | 3% | 100 | BP Aquatic Life Objective |
| | Wet | 2/04 | 2/12 | 42 | 5 | µg/L | 10 | 100 | 100 | 600 | < 20% Detects | | 5 | 12% | Yes | 7 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| Chloro-dibromomethane | Dry | 2/04 | 10/13 | 231 | 130 | µg/L | 0.063 | 0.5 | 0.13 | 69 | 8.91 | 1.16 | 27 | 12% | Yes | 123 | 56 | 1 | 1% | 34 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 34 | CTR HH Organism |
| Copper Dissolved | Dry | 10/03 | 10/13 | 166 | 165 | µg/L | 0.16 | 0.16 | 3.90 | 57 | 17.6 | 14.0 | 60 | 36% | Yes | 97 | 96 | 3 | 3% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 60 | 36% | Yes | 97 | 96 | 3 | 3% | 18 | LAR Metals TMDL |
| | Wet | 10/03 | 1/08 | 16 | 16 | µg/L | AD | AD | 7.50 | 40.3 | 19.6 | 16.7 | 11 | 69% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 12 | 75% | Yes | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 10/03 | 10/13 | 336 | 336 | µg/L | AD | AD | 1.20 | 177 | 21.8 | 17.2 | 145 | 43% | Yes | 152 | 152 | 21 | 14% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 148 | 44% | Yes | 152 | 152 | 28 | 18% | 19 | LAR Metals TMDL |
| | Wet | 10/03 | 1/08 | 16 | 16 | µg/L | AD | AD | 11.2 | 139 | 39.2 | 30.2 | 11 | 69% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 13 | 81% | Yes | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| Cyanide | Dry | 10/03 | 10/13 | 206 | 70 | µg/L | 0.48 | 10 | 0.33 | 14 | | | 15 | 7% | No | 93 | 24 | 1 | 1% | 5.2 | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 1 | µg/L | 10 | 10 | 12 | 12 | | | 0 | 0% | No | NS | NS | NS | NS | 22 | CTR Acute |
| *E. Coli* | Dry | 1/02 | 10/13 | 371 | 345 | MPN/100mL | 1 | 100 | 3.00 | 240000 | 2429 | 626 | 306 | 82% | Yes | 215 | 214 | 199 | 93% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/09 | 8 | 5 | MPN/100mL | 100 | 100 | 100 | 11000 | 2362 | 200 | 3 | 38% | No | 1 | 1 | 0 | 0% | 126 | BP REC1 30-Day |
| Heptachlor | Dry | 10/03 | 8/13 | 131 | 1 | µg/L | 0.0006 | 0.05 | 0.0081 | 0.0081 | | | 1 | 1% | No | 39 | 0 | 0 | 0% | 0.00021 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 0 | µg/L | 0.05 | 0.05 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 0.52 | CTR HH Acute |
| Lead Total | Dry | 10/03 | 10/13 | 321 | 304 | µg/L | 0.031 | 1.1 | 0.12 | 55 | | | 6 | 2% | No | 152 | 149 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 6 | 2% | No | 152 | 149 | 0 | 0% | 9.1 | LAR Metals TMDL |
| | Wet | 10/03 | 1/08 | 9 | 9 | µg/L | AD | AD | 0.98 | 2.85 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |

**Burbank Western Channel – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 10/03 | 8/13 | 244 | 178 | µg/L | 0.0001 | 1 | 0.0002 | 0.43 | | | 17 | 7% | No | 99 | 97 | 1 | 1% | 0.051 | CTR HH Organism |
| | Wet | 10/03 | 3/05 | 7 | 1 | µg/L | 0.022 | 1 | 0.242 | 0.242 | | | 1 | 14% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Nitrate as N | Dry | 10/03 | 10/13 | 865 | 863 | mg/L | 0.02 | 0.022 | 0.03 | 15 | | | 0 | 0% | No | 523 | 522 | 0 | 0% | 8 | LAR Nutrient TMDL |
| | Wet | 10/03 | 10/12 | 14 | 14 | mg/L | AD | AD | 0.187 | 4.54 | | | 0 | 0% | No | 1/09 | 10/12 | 0 | 0% | 8 | LAR Nutrient TMDL |
| Nitrite as N | Dry | 10/03 | 10/13 | 865 | 228 | mg/L | 0.002 | 0.1 | 0.025 | 3.1 | | | 8 | 1% | No | 523 | 178 | 0 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 10/03 | 10/12 | 14 | 3 | mg/L | 0.01 | 0.03 | 0.07 | 0.353 | | | 0 | 0% | No | 1/09 | 10/12 | 0 | 0% | 1 | LAR Nutrient TMDL |
| pH | Dry | 10/03 | 10/13 | 805 | 805 | pH Units | AD | AD | 6.06 | 9.9 | | | 12 | 1% | No | 249 | 249 | 0 | 0% | 6.5 | BP Minimum |
| | Wet | 10/03 | 1/08 | 41 | 41 | pH Units | AD | AD | 5.38 | 8.6 | | | 4 | 10% | No | NS | NS | NS | NS | 6.5 | BP Minimum |
| Selenium Total | Dry | 10/03 | 8/13 | 235 | 215 | µg/L | 0.13 | 0.28 | 0.2 | 15.3 | | | 15 | 6% | No | 99 | 95 | 0 | 0% | 5 | CTR Chronic |
| | Wet | 10/03 | 1/08 | 9 | 6 | µg/L | 0.1 | 5 | 0.3 | 3.56 | | | 0 | 0% | No | NS | NS | NS | NS | NA | NA |
| TDS | Dry | 10/03 | 8/13 | 170 | 170 | mg/L | AD | AD | 380 | 1480 | | | 2 | 1% | No | 55 | 55 | 1 | 2% | 950 | BP SSO |
| | Wet | 10/03 | 2/04 | 4 | 4 | mg/L | AD | AD | 78 | 520 | | | 0 | 0% | No | NS | NS | NS | NS | 950 | BP SSO |
| Thallium Total | Dry | 10/03 | 8/13 | 61 | 16 | µg/L | 0.02 | 5 | 0.02 | 15 | | | 1 | 2% | No | 21 | 1 | 0 | 0% | 6.3 | CTR HH Organism |
| | Wet | 10/03 | 3/05 | 7 | 0 | µg/L | 1 | 5 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 10/03 | 10/13 | 152 | 151 | µg/L | 0.13 | 0.13 | 1.30 | 152 | 52.0 | 58.0 | 0 | 0% | No | 97 | 96 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 1/08 | 9 | 9 | µg/L | AD | AD | 51 | 109 | 71.5 | 60.9 | 2 | 22% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 22% | Yes | NS | NS | NS | NS | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 10/03 | 10/13 | 321 | 321 | µg/L | AD | AD | 5.50 | 738 | | | 2 | 1% | No | 152 | 152 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 10/03 | 1/08 | 9 | 9 | µg/L | AD | AD | 55 | 130 | | | 1 | 11% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Caballero Creek – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Cadmium Total | Dry | 2/05 | 8/08 | 41 | 28 | µg/L | 0.3 | 0.33 | 0.01 | 24.9 | | | 2 | 5% | No | NS | NS | NS | NS | HBC | CTR Chronic |

**Caballero Creek – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | 1/05 | 12/07 | 4 | 3 | µg/L | 0.02 | 0.02 | 0.4 | 1 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Copper Dissolved | Dry | 2/05 | 8/08 | 40 | 38 | µg/L | 1 | 4 | 3 | 17 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 1/05 | 12/07 | 4 | 4 | µg/L | AD | AD | 5 | 12.4 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 25% | No | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 2/05 | 8/08 | 41 | 40 | µg/L | 4 | 4 | 4.00 | 1120 | 51.1 | 11.4 | 4 | 10% | Yes | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 1/05 | 12/07 | 4 | 4 | µg/L | AD | AD | 6.00 | 15.6 | 9.40 | 8.00 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| *E. Coli* | Dry | 7/04 | 5/09 | 48 | 42 | MPN/100mL | 100 | 100 | 100 | 49000 | 3000 | 850 | 38 | 79% | Yes | 4 | 2 | 1 | 25% | 126 | BP REC1 30-Day |
| | Wet | 10/04 | 1/09 | 6 | 5 | MPN/100mL | 100 | 100 | 300 | 15000 | 3463 | 580 | 5 | 83% | Yes | 1 | 1 | 1 | 100% | 126 | BP REC1 30-Day |
| Lead Total | Dry | 2/05 | 8/08 | 41 | 29 | µg/L | 1 | 1.1 | 0.29 | 162 | | | 2 | 5% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 1/05 | 12/07 | 4 | 2 | µg/L | 1 | 1 | 1 | 2.02 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 2/05 | 2/06 | 12 | 1 | µg/L | 0.022 | 0.022 | 0.108 | 0.108 | | | 1 | 8% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| | Wet | 1/05 | 3/05 | 2 | 1 | µg/L | 0.022 | 0.022 | 0.027 | 0.027 | | | 0 | 0% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Nickel Total | Dry | 2/05 | 8/08 | 41 | 41 | µg/L | AD | AD | 5.96 | 418 | | | 1 | 2% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 1/05 | 12/07 | 4 | 4 | µg/L | AD | AD | 12 | 17 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| Selenium Total | Dry | 2/05 | 8/08 | 41 | 41 | µg/L | AD | AD | 1.10 | 14.5 | 3.51 | 2.80 | 6 | 15% | Yes | NS | NS | NS | NS | 5 | CTR Chronic |
| | Wet | 1/05 | 12/07 | 4 | 4 | µg/L | AD | AD | 1.30 | 12.4 | 5.42 | 4.75 | 0 | 0% | No | NS | NS | NS | NS | NA | NA |
| Zinc Total | Dry | 2/05 | 8/08 | 41 | 41 | µg/L | AD | AD | 5 | 2280 | | | 2 | 5% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 1/05 | 12/07 | 4 | 4 | µg/L | AD | AD | 11 | 36.1 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Compton Creek – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Chloride | Dry | 6/09 | 6/11 | 4 | 4 | mg/L | AD | AD | 74 | 175 | | | 2 | 50% | No | 4 | 4 | 2 | 50% | 150 | BP SSO |

**Compton Creek – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 150 | BP SSO |
| Chlorpyrifos | Dry | 6/09 | 6/11 | 4 | 1 | µg/L | 0.001 | 0.001 | 0.122 | 0.122 | | | 1 | 25% | No | 4 | 1 | 1 | 25% | 0.041 | USEPA Chronic |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.083 | USEPA Acute |
| Copper Dissolved | Dry | 2/05 | 6/13 | 73 | 69 | µg/L | 4 | 4 | 0.88 | 19 | 5.70 | 4 | 6 | 8% | No | 32 | 32 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 2 | 3% | No | 32 | 32 | 0 | 0% | 18 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 8.00 | 11.8 | 1.79 | 8.20 | 2 | 50% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 25% | No | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 2/05 | 6/13 | 74 | 74 | µg/L | AD | AD | 1.30 | 28 | 8.43 | 6.73 | 11 | 15% | Yes | 32 | 32 | 2 | 6% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 7 | 9% | Yes | 32 | 32 | 1 | 3% | 19 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 13 | 21.1 | 3.71 | 17.3 | 2 | 50% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 50% | Yes | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| *E. Coli* | Dry | 1/02 | 5/09 | 77 | 50 | MPN/100mL | 100 | 100 | 100 | 170000 | 6082 | 305 | 35 | 45% | Yes | 4 | 2 | 1 | 25% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/09 | 8 | 8 | MPN/100mL | AD | AD | 100 | 240000 | 44145 | 13500 | 7 | 88% | Yes | 1 | 1 | 1 | 100% | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 2/05 | 6/13 | 74 | 71 | µg/L | 0.11 | 1.1 | 0.11 | 7 | | | 3 | 4% | No | 32 | 32 | 0 | 0% | HBC | CTR Chronic |
| | Dry | 2/05 | 6/13 | 74 | 71 | µg/L | 0.11 | 1.1 | 0.11 | 7 | | | 2 | 3% | No | 32 | 32 | 0 | 0% | 6 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 3 | µg/L | 1 | 1 | 1 | 2.09 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | Wet | 1/05 | 1/08 | 4 | 3 | µg/L | 1 | 1 | 1 | 2.09 | | | 0 | 0% | No | NS | NS | NS | NS | 51 | LAR Metals TMDL |
| Lead Total | Dry | 2/05 | 6/13 | 74 | 73 | µg/L | 1 | 1 | 1.17 | 21.9 | 4.91 | 3.87 | 11 | 15% | Yes | 32 | 32 | 2 | 6% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 7 | 9% | Yes | 32 | 32 | 2 | 6% | 8.9 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 3.00 | 14.8 | 5.82 | 8.80 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 2/05 | 6/11 | 16 | 4 | µg/L | 0.0036 | 0.022 | 0.01 | 0.434 | | | 1 | 6% | No | 4 | 2 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/05 | 3/05 | 2 | 1 | µg/L | 0.022 | 0.022 | 0.27 | 0.27 | | | 1 | 50% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Zinc Dissolved | Dry | 2/05 | 6/13 | 74 | 74 | µg/L | AD | AD | 2.46 | 110 | | | 0 | 0% | No | 32 | 32 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 19 | 66.9 | | | 1 | 25% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 2/05 | 6/13 | 74 | 74 | µg/L | AD | AD | 5.67 | 195 | 33.6 | 26.5 | 0 | 0% | No | 32 | 32 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 39 | 143 | 48.8 | 83.0 | 2 | 50% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Echo Park Lake – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Cadmium Total | Dry | 5/03 | 11/10 | 87 | 18 | µg/L | 0.01 | 0.5 | 0.01 | 4.02 | | | 1 | 1% | No | 24 | 2 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 2/04 | 2/05 | 6 | 3 | µg/L | 0.3 | 0.3 | 0.11 | 0.21 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| Copper Dissolved | Dry | 5/03 | 11/10 | 87 | 78 | µg/L | 1 | 4 | 2.00 | 28 | 6.69 | 5.04 | 12 | 14% | Yes | 24 | 24 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 2/04 | 2/05 | 6 | 6 | µg/L | AD | AD | 6.00 | 13 | 2.54 | 9.00 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| Copper Total | Dry | 5/03 | 11/10 | 87 | 87 | µg/L | AD | AD | 5.70 | 54 | 17.3 | 15.2 | 38 | 44% | Yes | 24 | 24 | 4 | 17% | HBC | CTR Chronic |
| | Wet | 2/04 | 2/05 | 6 | 6 | µg/L | AD | AD | 8.80 | 27 | 7.14 | 14.4 | 1 | 17% | No | NS | NS | NS | NS | HBC | CTR Acute |
| *E. Coli* | Dry | 10/02 | 11/10 | 582 | 389 | MPN/100mL | 100 | 100 | 52 | 15000 | 536 | 200 | 264 | 45% | Yes | 114 | 85 | 57 | 50% | 126 | BP REC1 30-Day |
| | Wet | 2/03 | 12/08 | 42 | 36 | MPN/100mL | 100 | 100 | 100 | 17000 | 1154 | 250 | 27 | 64% | Yes | NS | NS | NS | NS | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 5/03 | 11/10 | 86 | 51 | µg/L | 0.1 | 3 | 0.16 | 8.00 | 1.58 | 0.800 | 9 | 10% | Yes | 24 | 17 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 2/04 | 2/05 | 6 | 3 | µg/L | 3 | 3 | 2.00 | 4.00 | 3.00 | 3 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| Lead Total | Dry | 5/03 | 11/10 | 87 | 82 | µg/L | 2 | 3 | 1.54 | 15 | 5.25 | 4.68 | 20 | 23% | Yes | 24 | 21 | 1 | 4% | HBC | CTR Chronic |
| | Wet | 2/04 | 2/05 | 6 | 4 | µg/L | 3 | 3 | 2.00 | 7.00 | 4.25 | 4 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| Mercury Total | Dry | 5/03 | 11/10 | 87 | 23 | µg/L | 0.004 | 0.022 | 0.004 | 0.084 | 0.006 | 0.002 | 3 | 3% | No | 24 | 10 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 2/04 | 2/05 | 6 | 3 | µg/L | 0.022 | 0.022 | 0.133 | 0.143 | 0.131 | 0.078 | 3 | 50% | Yes | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| pH | Dry | 11/02 | 5/11 | 326 | 326 | pH Units | AD | AD | 6.64 | 9.83 | 8.34 | 8.30 | 77 | 24% | Yes | 126 | 126 | 28 | 22% | 8.5 | BP Maximum |
| | Wet | 2/03 | 2/05 | 16 | 16 | pH Units | AD | AD | 4.30 | 8.63 | 7.65 | 8.29 | 3 | 19% | No | NS | NS | NS | NS | 8.5 | BP Maximum |
| Zinc Total | Dry | 5/03 | 11/10 | 84 | 84 | µg/L | AD | AD | 3.87 | 296 | | | 2 | 2% | No | 21 | 21 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 2/04 | 2/05 | 6 | 6 | µg/L | AD | AD | 4 | 13.9 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 1 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/02 | 7/13 | 29 | 3 | µg/L | 1 | 5 | 9.90 | 50.9 | < 20% Detects | | 3 | 10% | Yes | 17 | 1 | 1 | 6% | 5.9 | CTR HH Organism |
| | Wet | 11/02 | 5/13 | 49 | 4 | µg/L | 1 | 5 | 8.86 | 62 | < 20% Detects | | 4 | 8% | No | 23 | 1 | 1 | 4% | 5.9 | CTR HH Organism |
| Cadmium Total | Dry | 3/01 | 7/13 | 112 | 52 | µg/L | 0.08 | 1 | 0.002 | 1.60 | | | 0 | 0% | No | 17 | 12 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 2/01 | 5/13 | 78 | 64 | µg/L | 0.1 | 1 | 0.168 | 5.17 | | | 0 | 0% | No | 46 | 42 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 6 | 8% | No | 46 | 42 | 1 | 2% | 3.1 | LAR Metals TMDL |
| Copper Dissolved | Dry | 3/01 | 7/13 | 143 | 128 | µg/L | 0.5 | 20 | 3.29 | 20 | 9.87 | 8.40 | 3 | 2% | No | 46 | 42 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 0 | 0% | No | 46 | 42 | 0 | 0% | 22 | LAR Metals TMDL |
| | Wet | 2/01 | 5/13 | 80 | 75 | µg/L | 0.5 | 10 | 3.25 | 77.2 | 11.4 | 9.60 | 38 | 48% | Yes | 48 | 44 | 30 | 63% | HBC | CTR Acute |
| | | | | | | | | | | | | | 28 | 35% | Yes | 48 | 44 | 22 | 46% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 3/01 | 7/13 | 144 | 134 | µg/L | 0.5 | 20 | 1.74 | 48.6 | 15.6 | 12.2 | 16 | 11% | Yes | 46 | 45 | 3 | 7% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 6 | 4% | No | 46 | 45 | 0 | 0% | 23 | LAR Metals TMDL |
| | Wet | 2/01 | 5/13 | 80 | 77 | µg/L | 0.5 | 10 | 9.56 | 424 | 60.8 | 39.4 | 68 | 85% | Yes | 48 | 46 | 45 | 94% | HBC | CTR Acute |
| | | | | | | | | | | | | | 68 | 85% | Yes | 48 | 46 | 46 | 96% | 17 | LAR Metals TMDL |
| Cyanide | Dry | 10/02 | 7/13 | 24 | 21 | µg/L | 5 | 10 | 6 | 109 | 29.5 | 20.3 | 21 | 88% | Yes | 13 | 11 | 11 | 85% | 5.2 | CTR Chronic |
| | Wet | 10/02 | 1/13 | 49 | 37 | µg/L | 5 | 10 | 5 | 1200 | 39.8 | 10.1 | 10 | 20% | Yes | 24 | 18 | 2 | 8% | 22 | CTR Acute |
| Diazinon | Dry | 10/02 | 7/13 | 36 | 3 | µg/L | 0.002 | 0.01 | 0.037 | 0.155 | | | 0 | 0% | No | 24 | 0 | 0 | 0% | 0.17 | USEPA Chronic |
| | Wet | 11/02 | 5/13 | 41 | 5 | µg/L | 0.003 | 0.01 | 0.03 | 0.179 | | | 1 | 2% | No | 16 | 0 | 0 | 0% | 0.17 | USEPA Acute |
| Dissolved Oxygen | Dry | 10/02 | 7/13 | 31 | 31 | mg/L | AD | AD | 5.04 | 22.3 | | | 0 | 0% | No | 20 | 20 | 0 | 0% | 5 | BP Minimum |
| | Wet | 11/02 | 5/13 | 41 | 41 | mg/L | AD | AD | 2.50 | 14.2 | | | 1 | 2% | No | 17 | 17 | 0 | 0% | 5 | BP Minimum |
| *E. Coli* | Dry | 2/01 | 7/13 | 342 | 324 | MPN/100mL | 100 | 1000 | 30 | 140000 | 4155 | 1093 | 302 | 88% | Yes | 91 | 90 | 80 | 88% | 126 | BP REC1 30-Day |
| | Wet | 2/01 | 5/13 | 36 | 35 | MPN/100mL | 100 | 100 | 100 | 240000 | 17118 | 5600 | 34 | 94% | Yes | 6 | 6 | 6 | 100% | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 3/01 | 7/13 | 144 | 78 | µg/L | 0.11 | 26 | 0.16 | 17 | | | 4 | 3% | No | 46 | 39 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 4 | 3% | No | 46 | 39 | 0 | 0% | 7.6 | LAR Metals TMDL |
| | Wet | 2/01 | 5/13 | 80 | 71 | µg/L | 0.5 | 5 | 0.09 | 82 | | | 3 | 4% | No | 48 | 48 | 3 | 6% | HBC | CTR Acute |
| | | | | | | | | | | | | | 3 | 4% | No | 48 | 48 | 3 | 6% | 51 | LAR Metals TMDL |
| Lead Total | Dry | 3/01 | 7/13 | 144 | 106 | µg/L | 0.2 | 26 | 0.21 | 37 | 5.66 | 2.06 | 9 | 6% | No | 46 | 45 | 2 | 4% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 6 | 4% | No | 46 | 45 | 0 | 0% | 12 | LAR Metals TMDL |
| | Wet | 2/01 | 5/13 | 80 | 78 | µg/L | 1 | 5 | 1.57 | 1070 | 69.8 | 26.6 | 25 | 31% | Yes | 48 | 48 | 18 | 38% | HBC | CTR Acute |
| | | | | | | | | | | | | | 15 | 19% | Yes | 48 | 48 | 9 | 19% | 62 | LAR Metals TMDL |
| Nitrite as N | Dry | 10/02 | 7/13 | 29 | 26 | mg/L | 0.03 | 0.50 | 0.04 | 1.60 | 0.43 | 0.19 | 6 | 21% | Yes | 17 | 14 | 0 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 11/02 | 1/13 | 48 | 29 | mg/L | 0.03 | 0.50 | 0.01 | 0.63 | 0.08 | 0.03 | 0 | 0% | No | 23 | 13 | 0 | 0% | 1 | LAR Nutrient TMDL |
| Mercury Total | Dry | 6/01 | 7/13 | 81 | 17 | µg/L | 0.0036 | 1 | 0.006 | 0.182 | < 20% Detects | | 11 | 14% | Yes | 17 | 0 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 11/02 | 5/13 | 52 | 2 | µg/L | 0.022 | 1 | 0.17 | 0.447 | < 20% Detects | | 2 | 4% | No | 23 | 0 | 0 | 0% | 0.051 | CTR HH Organism |

**LA River – Reach 1 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| pH | Dry | 10/02 | 7/13 | 48 | 48 | pH Units | AD | AD | 7.05 | 9.87 | 8.78 | 8.93 | 32 | 67% | Yes | 16 | 16 | 12 | 75% | 8.5 | BP Maximum |
| | Wet | 11/02 | 1/13 | 50 | 50 | pH Units | AD | AD | 6.16 | 9.04 | 7.17 | 7.07 | 2 | 4% | No | 23 | 23 | 0 | 0% | 8.5 | BP Maximum |
| Selenium Total | Dry | 3/01 | 7/13 | 119 | 107 | µg/L | 0.5 | 30 | 0.2 | 7.16 | | | 2 | 2% | No | 24 | 18 | 1 | 4% | 5 | CTR Chronic |
| | Wet | 2/01 | 5/13 | 48 | 24 | µg/L | 0.5 | 30 | 0.2 | 4.73 | | | 0 | 0% | No | 16 | 8 | 0 | 0% | NA | NA |
| Thallium Total | Dry | 3/01 | 7/13 | 91 | 11 | µg/L | 0.1 | 25 | 0.108 | 19 | | | 3 | 3% | No | 23 | 2 | 0 | 0% | 6.3 | CTR HH Organism |
| | Wet | 2/01 | 5/13 | 46 | 3 | µg/L | 0.1 | 25 | 0.114 | 0.205 | | | 0 | 0% | No | 16 | 3 | 0 | 0% | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 3/01 | 7/13 | 143 | 140 | µg/L | 1 | 17.2 | 4.15 | 97 | 43.2 | 31.8 | 1 | 1% | No | 46 | 45 | 1 | 2% | HBC | CTR Chronic |
| | Wet | 2/01 | 5/13 | 80 | 80 | µg/L | AD | AD | 4.00 | 665 | 82.6 | 55.9 | 23 | 29% | Yes | 48 | 48 | 19 | 40% | HBC | CTR Acute |
| | | | | | | | | | | | | | 16 | 20% | Yes | 48 | 48 | 14 | 29% | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 3/01 | 7/13 | 144 | 142 | µg/L | 10 | 17.2 | 14.5 | 143 | 71.6 | 52.3 | 2 | 1% | No | 46 | 46 | 2 | 4% | HBC | CTR Chronic |
| | Wet | 2/01 | 5/13 | 80 | 80 | µg/L | AD | AD | 12 | 2590 | 326 | 185 | 56 | 70% | Yes | 48 | 48 | 43 | 90% | HBC | CTR Acute |
| | | | | | | | | | | | | | 48 | 60% | Yes | 48 | 48 | 34 | 71% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective
AD - All values reported detected, no detection limit provided
HBC - Hardness Based Criteria, as defined by CTR
BP – Basin Plan
SSO – Site Specific Objective

**LA River – Reach 2 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Cadmium Total | Dry | 3/01 | 6/10 | 168 | 60 | µg/L | 0.02 | 1 | 0.002 | 2.34 | 0.210 | 0.060 | 0 | 0% | No | 2 | 2 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 1/08 | 15 | 9 | µg/L | 0.08 | 1 | 0.2 | 5.00 | 0.990 | 0.440 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 13% | Yes | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Copper Dissolved | Dry | 3/01 | 6/13 | 261 | 240 | µg/L | 4 | 20 | 2.26 | 25 | 8.80 | 7.80 | 8 | 3% | No | 89 | 89 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 3 | 1% | No | 89 | 89 | 0 | 0% | 21 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 38 | 36 | µg/L | 10 | 10 | 1.92 | 26 | 9.54 | 8 | 4 | 11% | Yes | 23 | 23 | 4 | 17% | HBC | CTR Acute |
| | | | | | | | | | | | | | 9 | 24% | Yes | 23 | 23 | 3 | 13% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 3/01 | 6/13 | 263 | 247 | µg/L | 4 | 20 | 3.75 | 39 | 13.4 | 11.0 | 23 | 9% | Yes | 89 | 89 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 16 | 6% | No | 89 | 89 | 0 | 0% | 22 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 38 | 37 | µg/L | 10 | 10 | 9.00 | 129 | 39.2 | 24.8 | 23 | 61% | Yes | 23 | 23 | 21 | 91% | HBC | CTR Acute |
| | | | | | | | | | | | | | 30 | 79% | Yes | 23 | 23 | 23 | 100% | 17 | LAR Metals TMDL |
| E. Coli | Dry | 2/01 | 9/12 | 591 | 568 | MPN/100mL | 100 | 100 | 41 | 120000 | 2670 | 960 | 564 | 95% | Yes | 94 | 93 | 93 | 99% | 126 | BP REC1 30-Day |
| | Wet | 1/01 | 1/09 | 59 | 57 | MPN/100mL | 100 | 100 | 100 | 77000 | 11649 | 5500 | 56 | 95% | Yes | 2 | 2 | 1 | 50% | 126 | BP REC1 30-Day |

**LA River – Reach 2 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Lead Dissolved | Dry | 3/01 | 6/13 | 263 | 146 | µg/L | 0.11 | 26 | 0.1 | 31 | | | 4 | 2% | No | 89 | 83 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 4 | 2% | No | 89 | 83 | 0 | 0% | 7.3 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 38 | 29 | µg/L | 1 | 5 | 0.02 | 16 | | | 0 | 0% | No | 23 | 23 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 23 | 23 | 0 | 0% | 51 | LAR Metals TMDL |
| Lead Total | Dry | 3/01 | 6/13 | 264 | 184 | µg/L | 1 | 26 | 0.11 | 57.1 | 4.17 | 1.54 | 11 | 4% | No | 89 | 89 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 10 | 4% | No | 89 | 89 | 0 | 0% | 11 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 38 | 35 | µg/L | 1 | 3 | 1.28 | 119 | 23.4 | 13.1 | 7 | 18% | Yes | 23 | 23 | 7 | 30% | HBC | CTR Acute |
| | | | | | | | | | | | | | 4 | 11% | Yes | 23 | 23 | 4 | 17% | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 4/01 | 6/10 | 108 | 32 | µg/L | 0.004 | 0.3 | 0.0044 | 0.19 | 0.040 | 0.018 | 21 | 19% | Yes | 2 | 1 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/01 | 3/05 | 9 | 3 | µg/L | 0.022 | 0.3 | 0.023 | 0.2 | 0.046 | 0.007 | 2 | 22% | Yes | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| pH | Dry | 3/06 | 2/08 | 40 | 40 | pH Units | AD | AD | 7.47 | 9.55 | 8.77 | 8.75 | 30 | 75% | Yes | NS | NS | NS | NS | 8.5 | BP Maximum |
| | Wet | 12/07 | 1/08 | 4 | 4 | pH Units | AD | AD | 7.91 | 8.85 | 8.42 | 8.46 | 2 | 50% | No | NS | NS | NS | NS | 8.5 | BP Maximum |
| Thallium Total | Dry | 3/01 | 2/06 | 112 | 8 | µg/L | 0.5 | 25 | 0.8 | 10.8 | | | 2 | 2% | No | NS | NS | NS | NS | 6.3 | CTR HH Organism |
| | Wet | 1/01 | 3/05 | 11 | 1 | µg/L | 0.5 | 25 | 1 | 1 | | | 0 | 0% | No | NS | NS | NS | NS | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 3/01 | 6/13 | 262 | 258 | µg/L | 10 | 17.2 | 11.90 | 74.5 | 33.2 | 31.1 | 0 | 0% | No | 89 | 89 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 4/12 | 38 | 38 | µg/L | AD | AD | 4.00 | 249 | 64.2 | 37.0 | 6 | 16% | Yes | 23 | 23 | 6 | 26% | HBC | CTR Acute |
| | | | | | | | | | | | | | 7 | 18% | Yes | 23 | 23 | 5 | 22% | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 3/01 | 6/13 | 264 | 260 | µg/L | 10 | 17.2 | 17.7 | 97 | 54.4 | 44.6 | 0 | 0% | No | 89 | 89 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 4/12 | 38 | 38 | µg/L | AD | AD | 19 | 667 | 203 | 78.5 | 21 | 55% | Yes | 23 | 23 | 20 | 87% | HBC | CTR Acute |
| | | | | | | | | | | | | | 23 | 61% | Yes | 23 | 23 | 21 | 91% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 3, Above LAG – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| 2,3,7,8-TCDD (Dioxin) | Dry | 8/07 | 9/13 | 13 | 1 | pg/L | 0.48 | 12 | 0.015 | 0.015 | | | 1 | 8% | No | 9 | 0 | 0 | 0% | 0.014 | CTR HH Organism |
| | Wet | 2/10 | 2/10 | 2 | 1 | pg/L | 0.95 | 0.95 | 2.44 | 2.44 | | | 1 | 50% | No | 2 | 1 | 1 | 50% | 0.014 | CTR HH Organism |
| Ammonia as N | Dry | 2/02 | 11/13 | 359 | 284 | mg/L | 0.05 | 0.05 | 0.05 | 15.2 | 1.57 | 0.190 | 53 | 15% | Yes | 231 | 168 | 0 | 0% | Ammonia | BP 30-Day Average |

**LA River – Reach 3, Above LAG – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | 2/04 | 2/12 | 8 | 7 | mg/L | 0.05 | 0.05 | 0.12 | 9.40 | 1.42 | 0.295 | 1 | 13% | No | 4 | 0 | 0 | 0% | Ammonia | BP 30-Day Average |
| Bis(2-ethylhexyl) Phthalate | Dry | 2/02 | 9/13 | 44 | 10 | µg/L | 0.3 | 1.9 | 0.3 | 6.88 | | | 1 | 2% | No | 14 | 1 | 0 | 0% | 5.9 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 3 | 1 | µg/L | 0.3 | 1 | 0.9 | 0.9 | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 5.9 | CTR HH Organism |
| Chlorine (Total) | Dry | 1/02 | 11/13 | 562 | 2 | µg/L | 50 | 100 | 100 | 130 | | | 2 | 0% | No | 231 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| | Wet | 11/03 | 2/12 | 13 | 0 | µg/L | 50 | 100 | ND | ND | | | 0 | 0% | No | 4 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| Copper Dissolved | Dry | 3/01 | 6/13 | 127 | 120 | µg/L | 10 | 20 | 3.02 | 30 | 11.1 | 10.7 | 9 | 7% | No | 30 | 30 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 5 | 4% | No | 30 | 30 | 0 | 0% | 22 | LAR Metals TMDL |
| | Wet | 1/01 | 1/08 | 8 | 7 | µg/L | 10 | 10 | 5.00 | 43.7 | 14.5 | 10.6 | 1 | 13% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 4 | 50% | Yes | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 3/01 | 8/13 | 189 | 186 | µg/L | 10 | 10 | 4.97 | 38 | 14.5 | 13.0 | 33 | 17% | Yes | 50 | 50 | 1 | 2% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 21 | 11% | Yes | 50 | 50 | 0 | 0% | 23 | LAR Metals TMDL |
| | Wet | 1/01 | 2/10 | 10 | 9 | µg/L | 10 | 10 | 6.00 | 78.4 | 20.8 | 15.5 | 1 | 10% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 5 | 50% | Yes | 1 | 1 | 0 | 0% | 17 | LAR Metals TMDL |
| Cyanide | Dry | 2/02 | 11/13 | 64 | 8 | µg/L | 2 | 4 | 2.2 | 17 | | | 5 | 8% | No | 22 | 0 | 0 | 0% | 5.2 | CTR Chronic |
| | Wet | 2/04 | 2/10 | 2 | 0 | µg/L | 4 | 4 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 22 | CTR Acute |
| Dibenzo(a,h) Anthracene | Dry | 2/02 | 9/13 | 47 | 5 | µg/L | 0.0082 | 1.9 | 0.02 | 0.13 | < 20% Detects | | 2 | 4% | No | 15 | 1 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 2 | 0 | µg/L | 0.02 | 0.05 | ND | ND | ND | ND | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| *E. Coli* | Dry | 2/01 | 11/13 | 665 | 649 | MPN/100mL | 1 | 100 | 52 | 87000 | 1555 | 514 | 642 | 97% | Yes | 320 | 314 | 309 | 97% | 126 | BP REC1 GEo |
| | Wet | 1/01 | 2/12 | 32 | 32 | MPN/100mL | AD | AD | 240 | 58000 | 7731 | 3200 | 32 | 100% | Yes | 5 | 5 | 5 | 100% | 126 | BP REC1 30-Day |
| Indeno (1,2,3-cd)Pyrene | Dry | 2/02 | 9/13 | 22 | 1 | µg/L | 0.02 | 1.7 | 0.12 | 0.12 | | | 1 | 5% | No | 9 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 2 | 0 | µg/L | 0.02 | 0.07 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| Lead Dissolved | Dry | 3/01 | 6/13 | 125 | 68 | µg/L | 0.11 | 26 | 0.17 | 36 | | | 4 | 3% | No | 30 | 26 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 4 | 3% | No | 30 | 26 | 0 | 0% | 7.6 | LAR Metals TMDL |
| | Wet | 1/01 | 1/08 | 8 | 3 | µg/L | 1 | 5 | 0.58 | 11 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 51 | LAR Metals TMDL |
| Lead Total | Dry | 3/01 | 8/13 | 189 | 114 | µg/L | 1 | 26 | 0.11 | 114 | | | 9 | 5% | No | 50 | 41 | 1 | 2% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 8 | 4% | No | 50 | 41 | 1 | 2% | 12 | LAR Metals TMDL |
| | Wet | 1/01 | 2/10 | 10 | 6 | µg/L | 1 | 3 | 1.54 | 23.6 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 5/01 | 11/13 | 129 | 32 | µg/L | 0.004 | 0.3 | 0.004 | 0.176 | 0.015 | 0.002 | 11 | 9% | Yes | 23 | 5 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/01 | 2/10 | 7 | 2 | µg/L | 0.022 | 0.3 | 0.022 | 0.2 | | | 1 | 14% | No | 1 | 1 | 0 | 0% | 0.051 | CTR HH Organism |
| Nickel Total | Dry | 3/01 | 8/13 | 140 | 126 | µg/L | 5 | 20 | 2.8 | 121 | | | 2 | 1% | No | 19 | 19 | 0 | 0% | HBC | CTR Chronic |

**LA River – Reach 3, Above LAG – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | 1/01 | 2/10 | 10 | 9 | µg/L | 20 | 20 | 3 | 40.2 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| Nitrite as N | Dry | 2/02 | 11/13 | 339 | 262 | mg/L | 0.02 | 0.02 | 0.03 | 2.45 | | | 25 | 7% | No | 231 | 183 | 0 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 2/04 | 2/12 | 6 | 4 | mg/L | 0.02 | 0.02 | 0.06 | 1.26 | | | 1 | 17% | No | 4 | 2 | 0 | 0% | 1 | LAR Nutrient TMDL |
| pH | Dry | 1/02 | 11/13 | 583 | 583 | pH Units | AD | AD | 6.1 | 8.9 | | | 11 | 2% | No | 232 | 232 | 11 | 5% | 6.5 | BP Minimum |
| | Wet | 11/03 | 2/12 | 14 | 14 | pH Units | AD | AD | 7.1 | 8.5 | | | 0 | 0% | No | 4 | 4 | 0 | 0% | 6.5 | BP Minimum |
| Selenium Total | Dry | 3/01 | 8/13 | 120 | 116 | µg/L | 30 | 30 | 0.3 | 5.76 | | | 2 | 2% | No | 19 | 19 | 0 | 0% | 5 | CTR Chronic |
| | Wet | 1/01 | 2/10 | 9 | 7 | µg/L | 1 | 30 | 1 | 9 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | NA | NA |
| Sulfate | Dry | 2/02 | 11/13 | 68 | 68 | mg/L | AD | AD | 120 | 307 | | | 1 | 1% | No | 21 | 21 | 0 | 0% | 300 | BP SSO |
| | Wet | 2/04 | 2/10 | 4 | 4 | mg/L | AD | AD | 99.7 | 239 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 300 | BP SSO |
| Thallium Total | Dry | 3/01 | 8/13 | 91 | 32 | µg/L | 0.01 | 25 | 0.01 | 11.5 | | | 2 | 2% | No | 18 | 16 | 0 | 0% | 6.3 | CTR HH Organism |
| | Wet | 1/01 | 2/10 | 7 | 0 | µg/L | 0.01 | 25 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 3/01 | 6/13 | 127 | 125 | µg/L | 10 | 17.2 | 4.40 | 80.9 | 40.1 | 37.9 | 0 | 0% | No | 30 | 30 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 1/08 | 8 | 8 | µg/L | AD | AD | 10 | 131 | 50.4 | 32.6 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 25% | Yes | NS | NS | NS | NS | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 3/01 | 8/13 | 189 | 187 | µg/L | 10 | 17.2 | 16.9 | 91.8 | | | 0 | 0% | No | 50 | 50 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 2/10 | 10 | 10 | µg/L | AD | AD | 15 | 272 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 10% | No | 1 | 1 | 0 | 0% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 3, Below LAG – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| 2,3,7,8-TCDD (Dioxin) | Dry | 8/07 | 9/13 | 14 | 2 | pg/L | 0.72 | 10 | 0.025 | 0.96 | < 20% Detects | | 2 | 14% | Yes | 11 | 2 | 2 | 18% | 0.014 | CTR HH Organism |
| | Wet | 2/10 | 2/10 | 2 | 1 | pg/L | 0.39 | 0.39 | 0.014 | 0.014 | Too Few Samples | | 1 | 50% | No | 2 | 1 | 1 | 50% | 0.014 | CTR HH Organism |
| Ammonia as N | Dry | 2/02 | 11/13 | 471 | 464 | mg/L | 0.05 | 0.05 | 0.05 | 19.4 | 2.40 | 0.350 | 52 | 11% | Yes | 233 | 230 | 0 | 0% | Ammonia | BP 30-Day Average |
| | Wet | 2/04 | 2/12 | 11 | 11 | mg/L | AD | AD | 0.11 | 11.2 | 3.35 | 1.47 | 2 | 18% | Yes | 4 | 4 | 0 | 0% | Ammonia | BP 30-Day Average |

**LA River – Reach 3, Below LAG – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Benzo(a) Anthracene | Dry | 2/02 | 9/13 | 75 | 1 | µg/L | 0.0048 | 1.2 | 0.19 | 0.19 | | | 1 | 1% | No | 16 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 3 | 0 | µg/L | 0.09 | 0.14 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| Bis(2-ethylhexyl) Phthalate | Dry | 2/02 | 9/13 | 70 | 15 | µg/L | 0.3 | 3 | 0.3 | 28.169 | | | 1 | 1% | No | 15 | 2 | 0 | 0% | 5.9 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 5 | 2 | µg/L | 0.3 | 1 | 0.5 | 1.2 | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 5.9 | CTR HH Organism |
| Cadmium Total | Dry | 3/01 | 8/13 | 183 | 71 | µg/L | 0.02 | 1 | 0.002 | 1.65 | | | 0 | 0% | No | 21 | 14 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 2/10 | 11 | 8 | µg/L | 0.3 | 1 | 0.14 | 4.9 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 9% | No | 1 | 1 | 0 | 0% | 3.1 | LAR Metals TMDL |
| Chlorine (Total) | Dry | 1/02 | 11/13 | 741 | 3 | µg/L | 100 | 100 | 120 | 600 | | | 3 | 0% | No | 231 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| | Wet | 11/03 | 2/12 | 21 | 0 | µg/L | 100 | 100 | ND | ND | | | 0 | 0% | No | 4 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| Chrysene | Dry | 2/02 | 9/13 | 75 | 1 | µg/L | 0.004 | 1.5 | 0.16 | 0.16 | | | 1 | 1% | No | 16 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 3 | 0 | µg/L | 0.05 | 0.12 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| Copper Dissolved | Dry | 3/01 | 4/13 | 113 | 104 | µg/L | 4 | 20 | 1.91 | 23 | 9.06 | 7.90 | 12 | 11% | Yes | 28 | 28 | 1 | 4% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 1% | No | 28 | 28 | 0 | 0% | 21 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 33 | 32 | µg/L | 10 | 10 | 2.16 | 18 | 8.05 | 7 | 1 | 3% | No | 25 | 25 | 1 | 4% | HBC | CTR Acute |
| | | | | | | | | | | | | | 6 | 18% | Yes | 25 | 25 | 0 | 0% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 3/01 | 8/13 | 214 | 207 | µg/L | 10 | 20 | 3.35 | 33 | 14.0 | 11.8 | 9 | 4% | No | 49 | 49 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 5 | 2% | No | 49 | 49 | 0 | 0% | 26 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 36 | 35 | µg/L | 10 | 10 | 8.00 | 118 | 33.0 | 30.7 | 22 | 61% | Yes | 26 | 26 | 21 | 81% | HBC | CTR Acute |
| | | | | | | | | | | | | | 29 | 81% | Yes | 26 | 26 | 24 | 92% | 17 | LAR Metals TMDL |
| Cyanide | Dry | 2/02 | 11/13 | 102 | 12 | µg/L | 2 | 4 | 2.3 | 23 | | | 6 | 6% | No | 23 | 0 | 0 | 0% | 5.2 | CTR Chronic |
| | Wet | 2/04 | 2/10 | 3 | 0 | µg/L | 4 | 4 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 22 | CTR Acute |
| Dibenzo(a,h) Anthracene | Dry | 2/02 | 9/13 | 75 | 8 | µg/L | 0.0082 | 1.9 | 0.02 | 0.4 | | | 6 | 8% | No | 16 | 2 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 3 | 0 | µg/L | 0.02 | 0.05 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| Dichloro-bromomethane | Dry | 8/07 | 8/13 | 15 | 12 | µg/L | 0.06 | 0.08 | 0.31 | 1.91 | | | 0 | 0% | No | 10 | 9 | 0 | 0% | 46 | CTR HH Organism |
| | Wet | 2/10 | 2/10 | 1 | 1 | µg/L | AD | AD | 1.00 | 1.00 | Too Few Samples | | 1 | 100% | No | 1 | 1 | 0 | 0% | 46 | CTR HH Organism |
| Dissolved Oxygen | Dry | 1/02 | 11/13 | 879 | 879 | mg/L | AD | AD | 2.12 | 15.3 | | | 17 | 2% | No | 235 | 235 | 0 | 0% | 5 | BP Minimum |
| | Wet | 11/03 | 2/12 | 19 | 19 | mg/L | AD | AD | 7.23 | 11.2 | | | 0 | 0% | No | 4 | 4 | 0 | 0% | 5 | BP Minimum |
| *E. Coli* | Dry | 2/01 | 11/13 | 739 | 640 | MPN/100mL | 100 | 1000 | 30 | 61000 | 764 | 199 | 534 | 72% | Yes | 325 | 315 | 249 | 77% | 126 | BP REC1 30-Day |
| | Wet | 1/01 | 2/12 | 36 | 34 | MPN/100mL | 100 | 100 | 100 | 61000 | 7406 | 3450 | 33 | 92% | Yes | 5 | 4 | 3 | 60% | 126 | BP REC1 30-Day |
| Indeno (1,2,3-cd)Pyrene | Dry | 2/02 | 9/13 | 34 | 3 | µg/L | 0.02 | 1.7 | 0.02 | 0.09 | | | 2 | 6% | No | 9 | 1 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | 2/04 | 2/10 | 3 | 0 | µg/L | 0.02 | 0.07 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 0.049 | CTR HH Organism |

**LA River – Reach 3, Below LAG – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Lead Dissolved | Dry | 3/01 | 4/13 | 113 | 60 | µg/L | 0.11 | 26 | 0.14 | 16.2 | | | 3 | 3% | No | 28 | 24 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 3 | 3% | No | 28 | 24 | 0 | 0% | 7.5 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 32 | 27 | µg/L | 1 | 5 | 0.12 | 12 | | | 0 | 0% | No | 24 | 24 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 24 | 24 | 0 | 0% | 51 | LAR Metals TMDL |
| Lead Total | Dry | 3/01 | 8/13 | 214 | 122 | µg/L | 1 | 26 | 0.12 | 31.8 | | | 6 | 3% | No | 49 | 38 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 6 | 3% | No | 49 | 38 | 0 | 0% | 12 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 36 | 32 | µg/L | 1 | 3 | 2.03 | 60.6 | | | 0 | 0% | No | 26 | 26 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 26 | 26 | 0 | 0% | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 4/01 | 11/13 | 156 | 43 | µg/L | 0.0036 | 0.3 | 0.004 | 0.265 | 0.017 | 0.002 | 17 | 11% | Yes | 23 | 6 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/01 | 2/10 | 8 | 2 | µg/l | 0.022 | 0.3 | 0.0085 | 0.22 | < 20% detects | | 1 | 13% | No | 1 | 1 | 0 | 0% | 0.051 | Ctr hh organism |
| Nitrite as N | Dry | 2/02 | 11/13 | 431 | 318 | mg/L | 0.02 | 0.02 | 0.02 | 2.5 | | | 31 | 7% | No | 233 | 178 | 1 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 2/04 | 2/12 | 7 | 5 | mg/L | 0.02 | 0.02 | 0.06 | 0.96 | | | 0 | 0% | No | 4 | 2 | 0 | 0% | 1 | LAR Nutrient TMDL |
| pH | Dry | 1/02 | 11/13 | 899 | 899 | pH Units | AD | AD | 6.4 | 8.6 | | | 1 | 0% | No | 235 | 235 | 1 | 0% | 6.5 | BP Minimum |
| | Wet | 11/03 | 2/12 | 21 | 21 | pH Units | AD | AD | 7 | 8.1 | | | 0 | 0% | No | 4 | 4 | 0 | 0% | 6.5 | BP Minimum |
| Thallium Total | Dry | 3/01 | 8/13 | 86 | 33 | µg/L | 0.01 | 25 | 0.02 | 10.7 | | | 2 | 2% | No | 18 | 16 | 0 | 0% | 6.3 | CTR HH Organism |
| | Wet | 1/01 | 2/10 | 7 | 1 | µg/L | 0.5 | 25 | 0.08 | 0.08 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 3/01 | 4/13 | 112 | 110 | µg/L | 10 | 17.2 | 13.5 | 79 | | | 0 | 0% | No | 28 | 28 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 4/12 | 33 | 32 | µg/L | 4 | 4 | 11 | 136 | | | 0 | 0% | No | 25 | 25 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 3% | No | 25 | 25 | 0 | 0% | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 3/01 | 8/13 | 226 | 224 | µg/L | 10 | 17.2 | 18.7 | 470 | 53.8 | 47.8 | 7 | 3% | No | 61 | 61 | 7 | 11% | HBC | CTR Chronic |
| | Wet | 1/01 | 4/12 | 24 | 24 | µg/L | AD | AD | 16 | 293 | 137 | 131 | 11 | 46% | Yes | 14 | 14 | 11 | 79% | HBC | CTR Acute |
| | | | | | | | | | | | | | 14 | 58% | Yes | 14 | 14 | 14 | 100% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River Reach 4 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Ammonia as N | Dry | 2/02 | 11/13 | 486 | 403 | mg/L | 0.05 | 0.05 | 0.05 | 18.2 | 2.34 | 0.215 | 105 | 22% | Yes | 228 | 161 | 0 | 0% | Ammonia | BP 30-Day Average |
| | Wet | 1/05 | 4/11 | 13 | 10 | mg/L | 0.05 | 0.05 | 0.22 | 8.87 | 2.32 | 0.330 | 3 | 23% | Yes | 5 | 3 | 0 | 0% | Ammonia | BP 30-Day Average |
| Cadmium Total | Dry | 3/01 | 8/13 | 222 | 107 | µg/L | 0.08 | 1 | 0.002 | 2.95 | 0.350 | 0.140 | 0 | 0% | No | 14 | 11 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 12/07 | 15 | 11 | µg/L | 0.08 | 1 | 0.08 | 5.30 | 1.25 | 0.660 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 13% | Yes | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Chlorine (Total) | Dry | 1/02 | 11/13 | 865 | 3 | µg/L | 100 | 100 | 100 | 300 | | | 3 | 0% | No | 227 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| | Wet | 11/03 | 4/11 | 21 | 0 | µg/L | 100 | 100 | ND | ND | | | 0 | 0% | No | 5 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| Chrysene | Dry | 2/02 | 8/13 | 38 | 1 | µg/L | 0.05 | 1.5 | 0.11 | 0.11 | | | 1 | 3% | No | 10 | 0 | 0 | 0% | 0.049 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.049 | CTR HH Organism |
| Copper Dissolved | Dry | 3/01 | 6/13 | 223 | 207 | µg/L | 1 | 20 | 2.00 | 35.8 | 12.3 | 10.9 | 45 | 20% | Yes | 59 | 59 | 1 | 2% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 28 | 13% | Yes | 59 | 59 | 0 | 0% | 19 | LAR Metals TMDL |
| | Wet | 1/01 | 4/12 | 42 | 40 | µg/L | 10 | 10 | 2.86 | 49.9 | 12.9 | 9.97 | 4 | 10% | Yes | 27 | 27 | 2 | 7% | HBC | CTR Acute |
| | | | | | | | | | | | | | 14 | 33% | Yes | 27 | 27 | 5 | 19% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 3/01 | 8/13 | 330 | 322 | µg/L | 4 | 20 | 4.00 | 306 | 19.1 | 15.5 | 102 | 31% | Yes | 80 | 80 | 3 | 4% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 35 | 11% | Yes | 80 | 80 | 0 | 0% | 26 | LAR Metals TMDL |
| | Wet | 1/01 | 5/13 | 42 | 41 | µg/L | 10 | 10 | 16.8 | 140 | 42.3 | 38.3 | 25 | 60% | Yes | 27 | 27 | 22 | 81% | HBC | CTR Acute |
| | | | | | | | | | | | | | 39 | 93% | Yes | 27 | 27 | 17 | 63% | 17 | LAR Metals TMDL |
| Cyanide | Dry | 2/02 | 11/13 | 123 | 10 | µg/L | 2 | 4 | 2 | 17 | | | 7 | 6% | No | 37 | 2 | 1 | 3% | 5.2 | CTR Chronic |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | NS | CTR Acute |
| Diazinon | Dry | 6/11 | 9/13 | 7 | 1 | µg/L | 0.002 | 0.006 | 0.63 | 0.63 | | | 1 | 14% | No | 7 | 1 | 1 | 14% | 0.17 | CTR Chronic |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.17 | USEPA Acute |
| Dissolved Oxygen | Dry | 1/02 | 11/13 | 901 | 901 | mg/L | AD | AD | 2.8 | 21.2 | | | 8 | 1% | No | 227 | 227 | 0 | 0% | 5 | BP Minimum |
| | Wet | 11/03 | 4/11 | 21 | 21 | mg/L | AD | AD | 6.1 | 13.4 | | | 0 | 0% | No | NS | NS | NS | NS | 5 | BP Minimum |
| *E. Coli* | Dry | 2/01 | 11/13 | 934 | 789 | MPN/100mL | 100 | 1000 | 20 | 220000 | 1735 | 274 | 721 | 77% | Yes | 291 | 284 | 259 | 89% | 126 | BP REC1 30-Day |
| | Wet | 1/01 | 1/13 | 108 | 106 | MPN/100mL | 100 | 100 | 100 | 41000 | 4887 | 3150 | 104 | 96% | Yes | 49 | 48 | 46 | 94% | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 3/01 | 6/13 | 219 | 115 | µg/L | 0.11 | 26 | 0.11 | 24 | | | 9 | 4% | No | 59 | 52 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 8 | 4% | No | 59 | 52 | 0 | 0% | 6.6 | LAR Metals TMDL |
| | Wet | 1/01 | 5/13 | 41 | 29 | µg/L | 0.11 | 5 | 0.11 | 8.30 | | | 0 | 0% | No | 26 | 25 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 26 | 25 | 0 | 0% | 51 | LAR Metals TMDL |
| Lead Total | Dry | 3/01 | 8/13 | 330 | 196 | µg/L | 1 | 26 | 0.17 | 99.5 | | | 27 | 8% | No | 80 | 69 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 23 | 7% | No | 80 | 69 | 0 | 0% | 10 | LAR Metals TMDL |
| | Wet | 1/01 | 5/13 | 42 | 36 | µg/L | 1 | 5 | 5.00 | 47.6 | | | 0 | 0% | No | 27 | 27 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 27 | 27 | 0 | 0% | 62 | LAR Metals TMDL |

**LA River Reach 4 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Mercury Total | Dry | 4/01 | 11/13 | 231 | 81 | µg/L | 0.0036 | 0.3 | 0.0037 | 0.24 | 0.025 | 0.005 | 32 | 14% | Yes | 37 | 9 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/01 | 3/05 | 10 | 2 | µg/L | 0.022 | 0.3 | 0.17 | 0.2 | < 20% Detects | | 2 | 20% | Yes | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Nitrite as N | Dry | 2/02 | 11/13 | 446 | 321 | mg/L | 0.02 | 0.02 | 0.02 | 3.14 | 0.302 | 0.090 | 57 | 13% | No | 228 | 173 | 0 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 11/08 | 4/11 | 7 | 6 | mg/L | 0.02 | 0.02 | 0.04 | 0.11 | 0.061 | 0.060 | 0 | 0% | No | 5 | 4 | 0 | 0% | 1 | LAR Nutrient TMDL |
| Selenium Total | Dry | 3/01 | 10/13 | 237 | 225 | µg/L | 1 | 30 | 0.3 | 7.1 | | | 7 | 3% | No | 36 | 36 | 0 | 0% | 5 | CTR Chronic |
| | Wet | 1/01 | 12/07 | 15 | 11 | µg/L | 1 | 30 | 0.5 | 9.8 | | | 0 | 0% | No | NS | NS | NS | NS | NA | NA |
| Sulfate | Dry | 2/02 | 11/13 | 111 | 111 | mg/L | AD | AD | 84 | 636 | | | 10 | 9% | No | 21 | 21 | 1 | 5% | 300 | BP SSO |
| | Wet | 3/06 | 12/07 | 3 | 3 | mg/L | AD | AD | 119 | 134 | | | 0 | 0% | No | NS | NS | NS | NS | 300 | BP SSO |
| TDS | Dry | 2/02 | 8/13 | 75 | 75 | mg/L | AD | AD | 400 | 1320 | | | 6 | 8% | No | 19 | 19 | 0 | 0% | 950 | BP SSO |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 950 | BP SSO |
| Thallium Total | Dry | 3/01 | 8/13 | 128 | 23 | µg/L | 0.01 | 25 | 0.02 | 10.2 | | | 2 | 2% | No | 10 | 8 | 0 | 0% | 6.3 | CTR HH Organism |
| | Wet | 1/01 | 3/05 | 12 | 1 | µg/L | 0.5 | 25 | 1.7 | 1.7 | | | 0 | 0% | No | NS | NS | NS | NS | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 3/01 | 6/13 | 220 | 216 | µg/L | 10 | 17.2 | 0.4 | 135 | | | 0 | 0% | No | 59 | 59 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 4/12 | 42 | 42 | µg/L | AD | AD | 4.00 | 117 | | | 0 | 0% | No | 27 | 27 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 3 | 7% | No | 27 | 27 | 1 | 4% | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 3/01 | 8/13 | 284 | 280 | µg/L | 10 | 17.2 | 14.4 | 344 | 62.3 | 55.3 | 1 | 0% | No | 72 | 72 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 4/12 | 42 | 42 | µg/L | AD | AD | 44.8 | 518 | 148 | 120 | 13 | 31% | Yes | 27 | 27 | 13 | 48% | HBC | CTR Acute |
| | | | | | | | | | | | | | 17 | 40% | Yes | 27 | 27 | 15 | 56% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River Reach 5 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| 4,4-DDD | Dry | 2/02 | 8/13 | 72 | 2 | µg/L | 0.001 | 0.006 | 0.002 | 0.004 | < 20% Detects | | 2 | 3% | No | 30 | 1 | 1 | 3% | 0.00084 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.00084 | CTR HH Organism |
| 4,4-DDE | Dry | 2/02 | 8/13 | 72 | 4 | µg/L | 0.001 | 0.004 | 0.002 | 0.007 | < 20% Detects | | 4 | 6% | No | 30 | 2 | 2 | 7% | 0.00059 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.00059 | CTR HH Organism |
| Ammonia as N | Dry | 2/02 | 11/13 | 1021 | 853 | mg/L | 0.05 | 0.1 | 0.05 | 25.2 | | | 76 | 7% | No | 674 | 547 | 0 | 0% | pH and Temp Dependent | BP 30-Day Average |
| | Wet | 1/05 | 4/11 | 18 | 13 | mg/L | 0.05 | 0.1 | 0.05 | 0.69 | | | 0 | 0% | No | 12 | 10 | 0 | 0% | | BP 30-Day Average |
| Bis(2-ethylhexyl) Phthalate | Dry | 2/02 | 8/13 | 84 | 27 | µg/L | 0.3 | 3 | 0.3 | 26.027 | | | 1 | 1% | No | 30 | 2 | 0 | 0% | 5.9 | CTR HH Organism |
| | Wet | 3/05 | 3/05 | 3 | 1 | µg/L | 0.3 | 0.3 | 0.7 | 0.7 | | | 0 | 0% | No | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Cadmium Total | Dry | 2/02 | 8/13 | 81 | 47 | µg/L | 0.08 | 1 | 0.07 | 1.84 | | | 0 | 0% | No | 39 | 31 | 0 | 0% | HBC | CTR Chronic |
| Chloride | Dry | 5/07 | 11/13 | 81 | 81 | mg/L | AD | AD | 90.5 | 186 | 138 | 139 | 23 | 28% | Yes | 60 | 60 | 17 | 28% | 150 | BP SSO LAR and tributaries, upstream SFCB |
| Chlorine (Total) | Dry | 1/02 | 11/13 | 1634 | 7 | µg/L | 100 | 100 | 100 | 500 | < 20% Detects | | 7 | 0% | No | 674 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| | Wet | 11/03 | 4/11 | 36 | 0 | µg/L | 100 | 100 | ND | ND | ND | ND | 0 | 0% | No | 12 | 0 | 0 | 0% | 100 | BP Aquatic Life Objective |
| Copper Total | Dry | 2/02 | 8/13 | 111 | 111 | µg/L | AD | AD | 5.00 | 89.2 | 13.8 | 11.2 | 13 | 12% | Yes | 57 | 57 | 6 | 11% | HBC | CTR Chronic |
| | Dry | 2/02 | 8/13 | 111 | 111 | µg/L | AD | AD | 5.00 | 89.2 | 13.8 | 11.2 | 8 | 7% | No | 57 | 57 | 3 | 5% | 30 | LAR Metals TMDL |
| Cyanide | Dry | 2/02 | 11/13 | 156 | 8 | µg/L | 2 | 4 | 2 | 21 | | | 4 | 3% | No | 102 | 1 | 1 | 1% | 5.2 | CTR Chronic |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 22 | CTR Acute |
| Diazinon | Dry | 5/12 | 9/13 | 18 | 2 | µg/L | 0.006 | 0.03 | 0.53 | 0.59 | < 20% Detects | | 2 | 11% | Yes | 18 | 2 | 2 | 11% | 0.17 | USEPA Chronic |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.17 | USEPA Acute |
| Dibenzo(a,h) Anthracene | Dry | 2/02 | 8/13 | 75 | 1 | µg/L | 0.02 | 1.9 | 0.57 | 0.57 | | | 1 | 1% | No | 30 | 1 | 1 | 3% | 0.049 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.049 | CTR HH Organism |
| Dissolved Oxygen | Dry | 1/02 | 11/13 | 1684 | 1684 | mg/L | AD | AD | 0.46 | 16.98 | | | 128 | 8% | No | 674 | 674 | 24 | 4% | 5 | BP Minimum |
| | Wet | 11/03 | 4/11 | 36 | 36 | mg/L | AD | AD | 6.10 | 11.3 | | | 0 | 0% | No | 12 | 12 | 0 | 0% | 5 | BP Minimum |
| *E. Coli* | Dry | 3/07 | 11/13 | 932 | 843 | MPN/100mL | 10 | 100 | 10 | 24200 | 356 | 146 | 537 | 58% | Yes | 668 | 647 | 363 | 54% | 126 | BP REC1 30-Day |
| | Wet | 11/08 | 4/11 | 15 | 15 | MPN/100mL | AD | AD | 52 | 1780 | 499 | 457 | 12 | 80% | Yes | 12 | 12 | 9 | 75% | 126 | BP REC1 30-Day |
| Heptachlor | Dry | 2/02 | 8/13 | 72 | 2 | µg/L | 0.001 | 0.008 | 0.003 | 0.007 | | | 2 | 3% | No | 30 | 0 | 0 | 0% | 0.00021 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.52 | CTR HH Acute |
| Indeno(1,2,3-cd) Pyrene | Dry | 2/02 | 8/13 | 75 | 1 | µg/L | 0.02 | 1.7 | 0.45 | 0.45 | | | 1 | 1% | No | 30 | 1 | 1 | 3% | 0.049 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.049 | CTR HH Organism |
| Mercury Total | Dry | 2/02 | 11/13 | 156 | 46 | µg/L | 0.0036 | 0.3 | 0.0036 | 0.586 | | | 6 | 4% | No | 102 | 22 | 0 | 0% | 0.051 | CTR HH Organism |
| Nickel Total | Dry | 2/02 | 8/13 | 72 | 66 | µg/L | 5 | 20 | 3.4 | 138 | | | 1 | 1% | No | 30 | 30 | 1 | 3% | HBC | CTR Chronic |
| Nitrite as N | Dry | 2/02 | 11/13 | 1001 | 625 | mg/L | 0.02 | 0.02 | 0.02 | 5.69 | | | 27 | 3% | No | 674 | 444 | 0 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 11/08 | 4/11 | 15 | 9 | mg/L | 0.02 | 0.02 | 0.04 | 0.15 | | | 0 | 0% | No | 12 | 7 | 0 | 0% | 1 | LAR Nutrient TMDL |

**LA River Reach 5 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Nitrate as N | Dry | 2/02 | 11/13 | 1001 | 1001 | mg/L | AD | AD | 0.34 | 8.94 | | | 2 | 0.2% | No | 674 | 674 | 0 | 0% | 8 | LAR Nutrient TMDL |
| | Wet | 11/08 | 4/11 | 15 | 15 | mg/L | AD | AD | 2.85 | 5.43 | | | 0 | 0% | No | 12 | 12 | 0 | 0% | 8 | LAR Nutrient TMDL |
| pH | Dry | 1/02 | 11/13 | 1684 | 1684 | pH Units | AD | AD | 5.5 | 9 | | | 4 | 0% | No | 674 | 674 | 1 | 0% | 6.5 | BP Minimum |
| | Wet | 11/03 | 4/11 | 36 | 36 | pH Units | AD | AD | 7.6 | 8.7 | | | 0 | 0% | No | 12 | 12 | 0 | 0% | 6.5 | BP Minimum |
| Selenium Total | Dry | 5/07 | 10/13 | 120 | 118 | µg/L | 0.11 | 0.11 | 0.26 | 12.6 | 3.78 | 1.88 | 39 | 33% | Yes | 99 | 97 | 32 | 32% | 5 | CTR Chronic |
| Sulfate | Dry | 5/07 | 11/13 | 81 | 81 | mg/L | AD | AD | 91.5 | 727 | 281 | 176 | 29 | 36% | Yes | 60 | 60 | 22 | 37% | 300 | BP SSO |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 300 | BP SSO |
| TDS | Dry | 5/07 | 8/13 | 78 | 78 | mg/L | AD | AD | 468 | 1660 | 854 | 672 | 25 | 32% | Yes | 57 | 57 | 18 | 32% | 950 | BP SSO |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 950 | BP SSO |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**LA River – Reach 6 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| 2,3,7,8-TCDD (Dioxin) | Dry | 8/07 | 8/08 | 4 | 1 | pg/L | 0.46 | 9.6 | 0.021 | 0.021 | | | 1 | 25% | No | NS | NS | NS | NS | 0.014 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.014 | CTR HH Organism |
| Cadmium Total | Dry | 3/01 | 6/10 | 148 | 87 | µg/L | 0.02 | 1 | 0.002 | 4.66 | | | 0 | 0% | No | 1 | 0 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 12/07 | 12 | 10 | µg/L | 0.3 | 1 | 0.11 | 5 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 8% | No | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Chloride | Dry | 2/02 | 6/10 | 49 | 49 | mg/L | AD | AD | 35.8 | 219 | 145 | 146 | 21 | 43% | Yes | 1 | 1 | 1 | 100% | 150 | BP SSO |
| | Wet | 3/06 | 12/07 | 2 | 2 | mg/L | AD | AD | 26.1 | 60.9 | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | 150 | BP SSO |
| Chlorine (Total) | Dry | 1/02 | 1/09 | 321 | 2 | µg/L | 100 | 100 | 100 | 100 | | | 2 | 1% | No | 3 | 0 | 0 | 0% | 100 | BP Objective |
| | Wet | 11/03 | 1/09 | 8 | 0 | µg/L | 100 | 100 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 100 | BP Objective |
| Chrysene | Dry | 2/02 | 8/08 | 15 | 1 | µg/L | 0.05 | 1.5 | 0.11 | 0.11 | | | 1 | 7% | No | NS | NS | NS | NS | 0.049 | CTR HH Organism |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 0.049 | CTR HH Organism |
| Copper Dissolved | Dry | 3/01 | 6/13 | 153 | 137 | µg/L | 1 | 20 | 1.70 | 57 | 8.88 | 7.63 | 2 | 1% | No | 30 | 30 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 2 | 1% | No | 38 | 38 | 0 | 0% | 29 | LAR Metals TMDL |

**LA River – Reach 6 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | 1/01 | 4/12 | 35 | 34 | µg/L | 10 | 10 | 4.00 | 23.2 | 10.6 | 9.09 | 4 | 11% | Yes | 23 | 23 | 4 | 17% | HBC | CTR Acute |
| | | | | | | | | | | | | | 13 | 37% | Yes | 23 | 23 | 9 | 39% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 3/01 | 6/13 | 198 | 191 | µg/L | 4 | 20 | 1.70 | 126 | 15.1 | 11.9 | 14 | 7% | No | 31 | 31 | 1 | 3% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 14 | 7% | No | 31 | 31 | 1 | 3% | 30 | LAR Metals TMDL |
| | Wet | 1/01 | 3/13 | 35 | 34 | µg/L | 10 | 10 | 4.00 | 82.7 | 30.7 | 27.0 | 17 | 49% | Yes | 23 | 23 | 16 | 70% | HBC | CTR Acute |
| | | | | | | | | | | | | | 25 | 71% | Yes | 23 | 23 | 17 | 74% | 17 | LAR Metals TMDL |
| Cyanide | Dry | 2/02 | 1/09 | 44 | 3 | µg/L | 2 | 4 | 2.7 | 16 | | | 1 | 2% | No | 1 | 0 | 0 | 0% | 5.2 | CTR Chronic |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 22 | CTR Acute |
| Dissolved Oxygen | Dry | 1/02 | 1/09 | 340 | 340 | mg/L | AD | AD | 2.6 | 30.4 | | | 1 | 0% | No | 3 | 3 | 0 | 0% | 5 | BP Minimum |
| | Wet | 11/03 | 1/09 | 9 | 9 | mg/L | AD | AD | 10.5 | 23.4 | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 5 | BP Minimum |
| *E. Coli* | Dry | 2/01 | 5/09 | 420 | 409 | MPN/100mL | 100 | 1000 | 100 | 240000 | 2015 | 969 | 401 | 95% | Yes | 11 | 11 | 9 | 82% | 126 | BP REC1 30-Day |
| | Wet | 1/01 | 1/09 | 40 | 39 | MPN/100mL | 100 | 100 | 200 | 100000 | 8492 | 3050 | 39 | 98% | Yes | 3 | 2 | 2 | 67% | 126 | BP REC1 30-Day |
| Lead Total | Dry | 3/01 | 6/13 | 199 | 112 | µg/L | 0.11 | 26 | 0.14 | 39 | | | 5 | 3% | No | 31 | 27 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 3 | 2% | No | 31 | 27 | 0 | 0% | 19 | LAR Metals TMDL |
| | Wet | 1/01 | 3/13 | 35 | 29 | µg/L | 1 | 5 | 1.45 | 26.8 | | | 0 | 0% | No | 23 | 23 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 23 | 23 | 0 | 0% | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 4/01 | 6/10 | 111 | 36 | µg/L | 0.0036 | 0.3 | 0.004 | 0.213 | 0.023 | 0.005 | 13 | 12% | Yes | 2 | 1 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/01 | 3/05 | 7 | 1 | µg/L | 0.022 | 0.3 | 0.15 | 0.15 | < 20% Detects | | 1 | 14% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Nitrite as N | Dry | 2/02 | 6/10 | 112 | 35 | mg/L | 0.02 | 0.04 | 0.03 | 1.41 | | | 2 | 2% | No | 4 | 3 | 0 | 0% | 1 | LAR Nutrient TMDL |
| | Wet | 11/08 | 1/09 | 2 | 0 | mg/L | 0.02 | 0.02 | ND | ND | | | 0 | 0% | No | 1 | 0 | 0 | 0% | 1 | LAR Nutrient TMDL |
| Selenium Total | Dry | 3/01 | 6/13 | 183 | 177 | µg/L | 1 | 30 | 0.3 | 18.6 | 7.98 | 7.47 | 163 | 89% | Yes | 37 | 37 | 34 | 92% | 5 | CTR Chronic |
| | Wet | 1/01 | 12/07 | 12 | 10 | µg/L | 1 | 30 | 0.9 | 23.7 | 7.17 | 4.26 | 0 | 0% | No | NS | NS | NS | NS | NA | NA |
| Sulfate | Dry | 2/02 | 6/10 | 49 | 49 | mg/L | AD | AD | 123 | 743 | 517 | 517 | 48 | 98% | Yes | 1 | 1 | 1 | 100% | 300 | BP SSO |
| | Wet | 3/06 | 12/07 | 2 | 2 | mg/L | AD | AD | 65.9 | 274 | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | 300 | BP SSO |
| TDS | Dry | 2/02 | 11/08 | 28 | 28 | mg/L | AD | AD | 988 | 1732 | 1300 | 1304 | 28 | 100% | Yes | NS | NS | NS | NS | 950 | BP SSO |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 950 | BP SSO |
| Thallium Total | Dry | 3/01 | 8/08 | 71 | 28 | µg/L | 0.5 | 25 | 0.02 | 29 | 2.29 | 0.570 | 6 | 8% | Yes | NS | NS | NS | NS | 6.3 | CTR HH Organism |
| | Wet | 1/01 | 3/05 | 8 | 2 | µg/L | 1 | 25 | 2.60 | 3.50 | < 20% Detects | | 0 | 0% | No | NS | NS | NS | NS | 6.3 | CTR HH Organism |
| Zinc Dissolved | Dry | 3/01 | 6/13 | 154 | 145 | µg/L | 0.4 | 17.2 | 0.4 | 163 | 14.3 | 10.2 | 0 | 0% | No | 30 | 28 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/01 | 3/13 | 35 | 34 | µg/L | 4 | 4 | 4.00 | 143 | 34.1 | 20.9 | 0 | 0% | No | 23 | 23 | 0 | 0% | HBC | CTR Acute |
| | | | | | | | | | | | | | 4 | 11% | Yes | 23 | 23 | 3 | 13% | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 3/01 | 6/13 | 179 | 170 | µg/L | 6 | 17.2 | 1.30 | 248 | 35.5 | 21.1 | 0 | 0% | No | 30 | 30 | 0 | 0% | HBC | CTR Chronic |

**LA River – Reach 6 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| | Wet | 1/01 | 3/13 | 35 | 35 | µg/L | AD | AD | 11 | 656 | 111 | 108 | 8 | 23% | Yes | 23 | 23 | 8 | 35% | HBC | CTR Acute |
| | | | | | | | | | | | | | 11 | 31% | Yes | 23 | 23 | 11 | 48% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective
HBC - Hardness Based Criteria, as defined by CTR
AD - All values reported detected, no detection limit provided
BP – Basin Plan
SSO – Site Specific Objective

**Rio Hondo – Reach 1 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Copper Dissolved | Dry | 2/05 | 4/13 | 51 | 51 | µg/L | AD | AD | 0.08 | 68.9 | 18.6 | 16.0 | 14 | 27% | Yes | 14 | 14 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 35 | 69% | Yes | 14 | 14 | 5 | 36% | 12 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 6.00 | 12.9 | 8.99 | 8.54 | 1 | 25% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 25% | No | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 2/05 | 4/13 | 52 | 52 | µg/L | AD | AD | 0.08 | 85.5 | 25.6 | 22.8 | 29 | 56% | Yes | 14 | 14 | 3 | 21% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 44 | 85% | Yes | 14 | 14 | 9 | 64% | 13 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 7.33 | 18.1 | 5.03 | 11.5 | 1 | 25% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 25% | No | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| *E. Coli* | Dry | 1/02 | 3/09 | 69 | 66 | MPN/100mL | 100 | 100 | 100 | 240000 | 11627 | 1500 | 62 | 90% | Yes | 2 | 2 | 2 | 100% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/08 | 7 | 5 | MPN/100mL | 100 | 100 | 860 | 160000 | 26153 | 3000 | 5 | 71% | Yes | NS | NS | NS | NS | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 2/05 | 4/13 | 52 | 42 | µg/L | 1 | 1.1 | 0.06 | 15.2 | 2.27 | 1.19 | 4 | 8% | No | 14 | 14 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 5 | 10% | Yes | 14 | 14 | 1 | 7% | 3.7 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 2 | µg/L | 1 | 1 | 0.52 | 1.94 | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 51 | LAR Metals TMDL |
| Lead Total | Dry | 2/05 | 4/13 | 52 | 49 | µg/L | 1 | 1.1 | 0.06 | 70.2 | 7.47 | 3.61 | 12 | 23% | Yes | 14 | 14 | 4 | 29% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 23 | 44% | Yes | 14 | 14 | 6 | 43% | 5 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 3 | µg/L | 1 | 1 | 1.31 | 9.77 | 3.31 | 1.66 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Zinc Dissolved | Dry | 2/05 | 4/13 | 51 | 51 | µg/L | AD | AD | 0.2 | 259 | | | 0 | 0% | No | 14 | 14 | 0 | 0% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 2% | No | 14 | 14 | 0 | 0% | 128 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 4.00 | 34.7 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 97 | LAR Metals TMDL |
| Zinc Total | Dry | 2/05 | 4/13 | 52 | 52 | µg/L | AD | AD | 0.2 | 501 | | | 1 | 2% | No | 14 | 14 | 1 | 7% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 4 | 8% | No | 14 | 14 | 1 | 7% | 131 | LAR Metals TMDL |
| | Wet | 1/05 | 1/08 | 4 | 4 | µg/L | AD | AD | 8.00 | 65.4 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Rio Hondo – Reach 2 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 29.5 | 35.6 | Too Few Samples | | 2 | 100% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 3 | µg/L | 1 | 1 | 20.8 | 48.2 | 28.6 | 28.2 | 3 | 75% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Copper Dissolved | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 8.20 | 12.1 | Too Few Samples | | 1 | 50% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 4 | µg/L | AD | AD | 6.63 | 12.1 | 9.53 | 9.70 | 3 | 75% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 50% | Yes | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 21.2 | 23.9 | Too Few Samples | | 2 | 100% | Yes | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 4 | µg/L | AD | AD | 12.4 | 123 | 42.7 | 17.6 | 4 | 100% | Yes | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 50% | Yes | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| Cyanide | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 5 | 25 | Too Few Samples | | 1 | 50% | No | NS | NS | NS | NS | 5.2 | CTR Aquatic Life Chronic |
| | Wet | 10/03 | 2/04 | 4 | 2 | µg/L | 10 | 10 | 10 | 10 | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | 22 | CTR Aquatic Life Acute |
| Diazinon | Dry | 10/03 | 1/04 | 2 | 0 | µg/L | 0.01 | 0.01 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 0.17 | USEPA Chronic |
| | Wet | 10/03 | 2/04 | 4 | 1 | µg/L | 0.01 | 0.01 | 0.202 | 0.202 | | | 1 | 25% | No | NS | NS | NS | NS | 0.17 | USEPA Acute |
| Lead Total | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 2.09 | 2.12 | | | 1 | 50% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 4 | µg/L | AD | AD | 2.06 | 71.1 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 25% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| pH | Dry | 10/03 | 1/04 | 2 | 2 | pH Units | AD | AD | 6.49 | 7.72 | | | 1 | 50% | No | NS | NS | NS | NS | 6.5 | BP Minimum |
| | Wet | 10/03 | 2/04 | 4 | 4 | pH Units | AD | AD | 6.49 | 7.01 | | | 1 | 25% | No | NS | NS | NS | NS | 6.5 | BP Minimum |
| Zinc Total | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 68 | 87 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 10/03 | 2/04 | 4 | 4 | µg/L | AD | AD | 50 | 395 | | | 1 | 25% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 25% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Rio Hondo – Reach 3 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituents | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Max | Min | Max | Min | | | | | | N | N Detect | N Exceed | % Exceed | | |
| Benzo(a)Pyrene | Dry | 2/11 | 8/6 | 43 | 2 | µg/L | 0.02 | 0.02 | 0.011 | 0.11 | | | 1 | 2% | No | 9 | 2 | 1 | 50% | 0.049 | CTR HH Organism |
| Benzo(k) Fluoranthene | Dry | 2/11 | 8/6 | 43 | 3 | µg/L | 0.02 | 0.02 | 0.022 | 0.21 | | | 1 | 2% | No | 9 | 2 | 1 | 50% | 0.049 | CTR HH Organism |
| Chloride | Dry | 1/6 | 12/17 | 111 | 110 | mg/L | 10 | 10 | 1.8 | 430 | | | 1 | 1% | No | 52 | 51 | 0 | 0% | 190 | BP SSO |
| Chrysene | Dry | 2/11 | 8/6 | 43 | 3 | µg/L | 0.02 | 0.02 | 0.013 | 0.18 | | | 1 | 2% | No | 9 | 2 | 1 | 50% | 0.049 | CTR HH Organism |
| Copper Total | Dry | 1/6 | 12/17 | 105 | 103 | µg/L | 100 | 100 | 2.41 | 2500 | 93.3 | 5.56 | 25 | 24% | Yes | 46 | 46 | 3 | 7% | HBC | CTR Chronic |
| Diazinon | Dry | 2/9 | 11/5 | 60 | 3 | µg/L | 0.05 | 0.05 | 0.18 | 0.75 | 2.95 | 1.56 | 3 | 5% | No | 17 | 2 | 2 | 100% | 0.17 | CTR Acute |
| Dibenzo(a,h) Anthracene | Dry | 2/11 | 8/6 | 43 | 8 | µg/L | 0.02 | 0.02 | 0.01 | 0.54 | < 20% Detects | | 2 | 5% | No | 9 | 7 | 2 | 29% | 0.049 | CTR HH Organism |
| Dissolved Oxygen | Dry | 1/7 | 12/17 | 210 | 210 | mg/L | AD | AD | 1.5 | 12.5 | 5.76 | 5.6 | 75 | 75% | Yes | 46 | 46 | 19 | 41% | 5 | BP Minimum |
| *E. Coli* | Dry | 12/17 | 12/17 | 59 | 59 | MPN/100mL | AD | AD | 11 | 79000 | 2536 | 300 | 43 | 73% | Yes | 46 | 46 | 32 | 70% | 126 | BP REC1 30-Day |
| Indeno(1,2,3-cd) Pyrene | Dry | 2/11 | 8/6 | 36 | 6 | µg/L | 0.02 | 0.02 | 0.01 | 0.16 | | | 1 | 3% | No | 8 | 6 | 1 | 17% | 0.049 | CTR HH Organism |
| Mercury | Dry | 2/11 | 12/17 | 74 | 42 | µg/L | 0.04 | 0.04 | 0.01 | 0.15 | 0.022 | 0.01 | 2 | 3% | No | 41 | 32 | 1 | 3% | 0.051 | CTR HH Organism |
| pH | Dry | 1/7 | 12/17 | 210 | 210 | pH Units | AD | AD | 6.84 | 9.24 | 8.16 | 8.09 | 44 | 21% | Yes | 46 | 46 | 5 | 11% | 8.5 | BP Maximum |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Tujunga Wash – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Ammonia as N | Dry | 6/09 | 6/11 | 3 | 2 | mg/L | 0.05 | 0.05 | 1.2 | 93 | | | 1 | 33% | No | 3 | 2 | 1 | 33% | 10.7 | LAR Nutrient TMDL |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | NA | NA |
| Cadmium Total | Dry | 2/05 | 6/11 | 38 | 27 | µg/L | 0.01 | 0.33 | 0.01 | 10.6 | | | 1 | 3% | No | 3 | 1 | 0 | 0% | HBC | CTR Chronic |
| | Wet | 1/05 | 3/06 | 3 | 0 | µg/L | 0.3 | 0.3 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Chloride | Dry | 6/09 | 6/11 | 3 | 3 | mg/L | AD | AD | 338 | 432 | 372 | 346 | 3 | 100% | Yes | 3 | 3 | 3 | 100% | 150 | BP SSO |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 150 | BP SSO |
| Copper Dissolved | Dry | 2/05 | 6/13 | 69 | 67 | µg/L | 4 | 4 | 1.79 | 305 | 27.1 | 22.7 | 52 | 75% | Yes | 31 | 31 | 21 | 68% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 43 | 62% | Yes | 31 | 31 | 22 | 71% | 19 | LAR Metals TMDL |
| | Wet | 1/05 | 3/06 | 3 | 3 | µg/L | AD | AD | 4.00 | 6.00 | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 11 | LAR Metals TMDL |
| Copper Total | Dry | 2/05 | 6/13 | 70 | 69 | µg/L | 4 | 4 | 2.27 | 327 | 39.0 | 28.2 | 60 | 86% | Yes | 32 | 32 | 26 | 81% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 50 | 71% | Yes | 32 | 32 | 25 | 78% | 20 | LAR Metals TMDL |
| | Wet | 1/05 | 3/06 | 3 | 3 | µg/L | AD | AD | 4.00 | 10 | 7.33 | 8.00 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 17 | LAR Metals TMDL |
| *E. Coli* | Dry | 1/02 | 9/12 | 159 | 151 | MPN/100mL | 100 | 100 | 100 | 73000 | 3305 | 1700 | 148 | 93% | Yes | 90 | 90 | 89 | 99% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/09 | 7 | 4 | MPN/100mL | 100 | 100 | 100 | 92000 | 41775 | 37500 | 3 | 43% | No | 1 | 1 | 0 | 0% | 126 | BP REC1 30-Day |
| Lead Dissolved | Dry | 2/05 | 6/13 | 68 | 56 | µg/L | 0.11 | 1.1 | 0.06 | 8.4 | 1.36 | 0.83 | 6 | 9% | No | 31 | 30 | 1 | 3% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 2 | 3% | No | 31 | 30 | 0 | 0% | 6.6 | LAR Metals TMDL |
| | Wet | 1/05 | 3/06 | 3 | 0 | µg/L | 1 | 1 | ND | ND | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 51 | LAR Metals TMDL |
| Lead Total | Dry | 2/05 | 6/13 | 70 | 64 | µg/L | 0.11 | 1.1 | 0.19 | 671 | 16.9 | 2.17 | 12 | 17% | Yes | 32 | 32 | 4 | 13% | HBC | CTR Chronic |
| | | | | | | | | | | | | | 7 | 10% | Yes | 32 | 32 | 2 | 6% | 10 | LAR Metals TMDL |
| | Wet | 1/05 | 3/06 | 3 | 2 | µg/L | 1 | 1 | 2.00 | 2.00 | Too Few Samples | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 2/05 | 6/11 | 15 | 7 | µg/L | 0.022 | 0.022 | 0.01 | 0.059 | | | 1 | 7% | No | 3 | 3 | 0 | 0% | 0.051 | CTR HH Organism |
| | Wet | 1/05 | 3/05 | 2 | 0 | µg/L | 0.022 | 0.022 | ND | ND | | | 0 | 0% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| TDS | Dry | 6/09 | 6/09 | 1 | 1 | mg/L | AD | AD | 1130 | 1130 | | | 1 | 100% | No | 1 | 1 | 1 | 100% | 950 | BP SSO |
| | Wet | NS | NS | NS | NS | NS | NS | NS | NS | NS | | | NS | NS | NS | NS | NS | NS | NS | 950 | BP SSO |
| Zinc Total | Dry | 2/05 | 6/13 | 70 | 70 | µg/L | AD | AD | 1.96 | 868 | | | 4 | 6% | No | 32 | 32 | 1 | 3% | HBC | CTR Chronic |
| | Wet | 1/05 | 3/06 | 3 | 3 | µg/L | AD | AD | 5 | 26 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | NS | NS | NS | NS | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

**Verdugo Wash – Reach 1 – Constituents that have been detected and have exceeded relevant water quality objectives**

| Constituent | W/D | Date Range of Available Data | | N | N Detects | Units | Detection Limits | | Detected Values | | Average | Median | N Exceed | % Exceed | Meets Listing Criteria | In Past 5 Years | | | | WQO | Source of Lowest Water Quality Objective (WQO) Utilized |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Min | Max | Min | Max | | | | | | N | N Detects | N Exceed | % Exceed | | |
| Bis(2-ethylhexyl) Phthalate | Dry | 10/03 | 1/04 | 2 | 2 | µg/L | AD | AD | 4.60 | 27 | Too Few Samples | | 2 | 100% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| | Wet | 10/03 | 2/04 | 4 | 3 | µg/L | 1 | 1 | 44.4 | 86.7 | 55.5 | 55.4 | 3 | 75% | Yes | NS | NS | NS | NS | 5.9 | CTR HH Organism |
| Cadmium Total | Dry | 10/03 | 8/08 | 41 | 17 | µg/L | 0.02 | 1 | 0.01 | 1.42 | | | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 10/03 | 1/08 | 8 | 3 | µg/L | 0.3 | 1 | 0.129 | 142 | | | 1 | 13% | No | NS | NS | NS | NS | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 13% | No | NS | NS | NS | NS | 3.1 | LAR Metals TMDL |
| Copper Dissolved | Dry | 10/03 | 8/08 | 41 | 35 | µg/L | 4 | 4 | 2.47 | 23 | 7.91 | 8.00 | 0 | 0% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 2% | No | NS | NS | NS | NS | 22 | LAR Metals TMDL |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 4.75 | 13.3 | 7.31 | 7.07 | 2 | 22% | Yes | 1 | 1 | 1 | 100% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 11% | No | 1 | 1 | 0 | 0% | 11 | LAR Metals TMDL |
| Copper Total | Dry | 10/03 | 8/08 | 41 | 40 | µg/L | 4 | 4 | 4.00 | 108 | 14.0 | 10.5 | 1 | 2% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | | | | | | | | | | | | | 3 | 7% | No | NS | NS | NS | NS | 20 | LAR Metals TMDL |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 7.84 | 62 | 18.6 | 12.8 | 4 | 44% | Yes | 1 | 1 | 1 | 100% | HBC | CTR Acute |
| | | | | | | | | | | | | | 2 | 22% | Yes | 1 | 1 | 1 | 100% | 17 | LAR Metals TMDL |
| *E. Coli* | Dry | 1/02 | 5/09 | 77 | 75 | MPN/100mL | 100 | 100 | 100 | 52000 | 3436 | 1800 | 74 | 96% | Yes | 4 | 4 | 4 | 100% | 126 | BP REC1 30-Day |
| | Wet | 12/02 | 1/09 | 8 | 8 | MPN/100mL | AD | AD | 200 | 69000 | 13578 | 3550 | 8 | 100% | Yes | 1 | 1 | 1 | 100% | 126 | BP REC1 30-Day |
| Lead Total | Dry | 10/03 | 8/08 | 41 | 29 | µg/L | 1 | 1.1 | 0.58 | 23.3 | | | 1 | 2% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | | | | | | | | | | | | | 1 | 2% | No | NS | NS | NS | NS | 12 | LAR Metals TMDL |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 0.98 | 30.4 | | | 1 | 11% | No | 1 | 1 | 1 | 100% | HBC | CTR Acute |
| | | | | | | | | | | | | | 0 | 0% | No | 1 | 1 | 0 | 0% | 62 | LAR Metals TMDL |
| Mercury Total | Dry | 10/03 | 2/06 | 14 | 1 | µg/L | 0.022 | 1 | 0.038 | 0.038 | | | 0 | 0% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| | Wet | 10/03 | 3/05 | 6 | 2 | µg/L | 0.022 | 1 | 0.023 | 1 | | | 1 | 17% | No | NS | NS | NS | NS | 0.051 | CTR HH Organism |
| Zinc Total | Dry | 10/03 | 8/08 | 41 | 41 | µg/L | AD | AD | 5.00 | 318 | 33.0 | 21.0 | 1 | 2% | No | NS | NS | NS | NS | HBC | CTR Chronic |
| | Wet | 10/03 | 4/12 | 9 | 9 | µg/L | AD | AD | 21.2 | 223 | 72.6 | 50.0 | 2 | 22% | Yes | 1 | 1 | 1 | 100% | HBC | CTR Acute |
| | | | | | | | | | | | | | 1 | 11% | No | 1 | 1 | 0 | 0% | 159 | LAR Metals TMDL |

NA - No Available adopted water quality objective

HBC - Hardness Based Criteria, as defined by CTR

AD - All values reported detected, no detection limit provided

BP – Basin Plan

SSO – Site Specific Objective

# Appendix 3.C
# Discharge Data Analysis

Per Part VI.C.5.a.i (pg 58) of the Permit, each EWMP shall include a characterization of stormwater and non-stormwater discharges from the MS4. A characterization was conducted on stormwater and non-stormwater discharges from the MS4 associated with constituents identified in a TMDL, a 303(d) listing, or through the receiving water data analysis described above. The following sources of discharge characterization data were reviewed:

- TMDL Staff Reports for TMDLs identified in **Appendix 3.B**.
- Los Angeles River Bacteria Source Identification Study (BSI Study) completed by the Cleaner Rivers through Effective Stakeholder-led TMDLs (CREST) group in 2008.
- Data collected as part of the 2007 Southern California Coastal Water Research Project (SCCWRP) Technical Report 510 titled "*Sources, patterns and mechanisms of storm water pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA*."
- Land Use data collected as part of previous MS4 Permit monitoring and presented in the 2000 report titled "*Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report*."

Utilizing the sources above, several tables of summary information were generated. *E. coli* and fecal coliform summary statistics utilized in the LA River Bacteria TMDL for dry weather discharges are presented in **Table 25**. **Table 26** and **Table 27** present the available average concentration of TMDL, 303(d) listed, and other constituents of interest in stormwater runoff from various land uses collected as part of County of Los Angeles stormwater program (between 1996 and 2000) and SCCWRP Technical Report 510 (collected between 2000 and 2005), respectively. Note that the land use data are not specific to the LA River watershed per se; however, they are considered generally representative. Complete summary statistics for these two sources, including all measured constituents, are presented in **Attachment 4.**

**Table 25. Indicator Bacteria Concentrations in Dry Weather Storm Drain Discharges in the Los Angeles River Watershed[1]**

| | Concentration (MPN or CFU per 100mL) | | | | |
|---|---|---|---|---|---|
| Indicator Bacteria | N | Median | Min | Max | % SSM WQO Exceedance[2] |
| Fecal coliform | 85 | 2,300 | ND | 5,000,000 | 80% |
| *E. coli* | 610 | 970 | ND | 73,000,000 | 80% |

**1** – Table 33 from the CREST Los Angeles River Bacteria TMDL Source Assessment Appendix.

**2** – The SSM WQOs for *E. coli* and fecal coliform are 235 and 400 MPN/100mL, respectively.

**Table 26. Summary of Mean Concentrations of Constituents in Stormwater Runoff for Relevant Constituents by Land Use Categories Sampled by Los Angeles County Department of Public Works and Presented in the 2000 report titled "*Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report*"**

| Constituents | Units | Commercial | Vacant | High Density Single Family Residential | Transportation | Light Industrial | Educational | Multifamily Residential | Mixed Residential |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | mg/L | 1.26 | 0.13 | 0.41 | 0.29 | 0.59 | 0.33 | 0.47 | 0.67 |
| NH3-N | | 1.04 | 0.11 | 0.34 | 0.24 | 0.48 | 0.28 | 0.39 | 0.56 |
| Nitrate | | 2.6 | 5.2 | 3.9 | 2.9 | 4.1 | 2.6 | 5.3 | 6.8 |
| Nitrate-N | | 0.48 | 1.05 | 0.86 | 0.7 | 0.87 | 0.51 | 1.1 | 0.55 |
| Nitrite-N | | 0.16 | 0.05 | 0.1 | 0.09 | 0.09 | 0.09 | 0.1 | 0.12 |
| Cyanide | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chloride | | 50 | 6.6 | 5 | 5.6 | 12 | 34 | 13 | 3.5 |
| Sulfate | | 35 | 17 | 6.9 | 9.5 | 12.6 | 17.3 | 15 | 7.4 |
| Total Dissolved Solids | | 226 | 237 | 58 | 62 | 95 | 147 | 105 | 53 |
| pH | pH Units | 7 | 8.1 | 6.5 | 6.7 | 6.8 | 7 | 6.9 | 6.5 |
| Benzo(a) anthracene | ug/L | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)pyrene | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Denzo(b) fluoranthene | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Bis(2-ethylhexyl) phthalate | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chlorpyrifos | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Diazinon | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chrysene | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0.62 |
| Dibenz(a,h) anthracene | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Indeno (1,2,3-cd)pyrene | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Cadmium | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Total Cadmium | | 0.73 | S.I.D. | S.I.D. | 1.1 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Copper | | 14 | S.I.D. | 8.5 | 33 | 20 | 13 | 6.9 | 12 |
| Total Copper | | 39 | 15 | 15 | 56 | 32 | 24 | 12 | 19 |
| Dissolved Lead | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Units | Commercial | Vacant | High Density Single Family Residential | Transportation | Light Industrial | Educational | Multifamily Residential | Mixed Residential |
|---|---|---|---|---|---|---|---|---|---|
| Total Lead | ug/L | 18 | S.I.D. | 10 | 10 | 17 | 4.9 | 5.8 | 11 |
| Dissolved Mercury | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Total Mercury | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Nickel | | S.I.D. | S.I.D. | S.I.D. | 3.9 | 5 | S.I.D. | S.I.D. | S.I.D. |
| Total Nickel | | 15 | S.I.D. | S.I.D. | 6 | 9.8 | 4.7 | S.I.D. | S.I.D. |
| Dissolved Zinc | | 152 | S.I.D. | 44 | 192 | 407 | 66 | 83 | 133 |
| Total Zinc | | 241 | 46 | 79 | 291 | 639 | 138 | 146 | 203 |
| Total Selenium | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Total Thallium | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Oil and Grease | | 3.3 | S.I.D. | 1.3 | 3.1 | 1.7 | S.I.D. | S.I.D. | S.I.D. |
| Organochlorine Pesticides & PCBs | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fecal Coliform | MPN/ 100ml | 528750 | 1397 | 933333 | 328750 | 338220 | S.I.D. | S.I.D. | S.I.D. |
| Fecal Enterococcus | | 86250 | 679 | 610000 | 32000 | 98200 | S.I.D. | S.I.D. | S.I.D. |
| Total Coliform | | 1140000 | 9187 | 1366667 | 692500 | 454000 | S.I.D. | S.I.D. | S.I.D. |

S.I.D. = Statistically Invalid Data, not enough data above detection limit collected.

**Table 27. Summary of Mean Concentrations of Constituents in Runoff for Relevant Constituents by Land Use Categories Sampled by the Southern California Coastal Water Research Project (SCCWRP) as Part of Technical Report 510 titled "*Sources, patterns and mechanisms of stormwater pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA.*"**

| Constituents | Units | High Density Residential | Low Density Residential | Commercial | Industrial | Recreation | Transportation |
|---|---|---|---|---|---|---|---|
| Ammonia as N | mg/L | 0.56 | 0.33 | 1.07 | 0.76 | 1.07 | 0.69 |
| Nitrate + Nitrite as N | | 0.52 | 0.25 | 0.35 | 0.32 | 1.05 | 0.25 |
| Nitrate as N | | 0.32 | 0.13 | S.I.D. | S.I.D. | 0.99 | S.I.D. |
| Nitrite as N | | 0.36 | 0.04 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Phosphorus as P | | 0.78 | 0.71 | 0.99 | 3.36 | S.I.D. | 0.71 |
| Cadmium | ug/L | 0.68 | 0.61 | 1.15 | 1.80 | 0.63 | 0.55 |
| Copper | | 24.4 | 32.3 | 41.7 | 72.4 | 32.9 | 20.0 |
| Lead | | 17.2 | 7.38 | 23.3 | 24.5 | 13.3 | 4.56 |
| Mercury | | 1.01 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Nickel | | 5.68 | 5.75 | 12.29 | 14.92 | 16.19 | 6.31 |
| Selenium | | 0.55 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Zinc | | 173 | 88 | 372 | 597 | 128 | 162 |
| Benz(a)anthracene | | 0.15 | 0.03 | 0.06 | 0.05 | 0.09 | 0.02 |
| Benzo(a)pyrene | | 0.160 | 0.051 | 0.141 | 0.063 | 0.031 | 0.028 |
| Benzo(b)fluoranthene | | 0.233 | 0.042 | 0.115 | 0.070 | 0.064 | 0.036 |
| Chlordane, alpha- | | 0.05 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chlordane, gamma- | | 0.04 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chlorpyrifos | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chrysene | | 0.206 | 0.060 | 0.141 | 0.135 | 0.066 | 0.054 |
| Diazinon | | 0.14 | 0.15 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Dibenz(a,h)anthracene | | 0.061 | 0.036 | 0.069 | 0.106 | 0.019 | S.I.D |
| DDD(o,p') | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| DDD(p,p') | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| DDE(o,p') | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| DDE(p,p') | | 0.15 | 0.07 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| DDT(o,p') | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| DDT(p,p') | | S.I.D. | 0.0025 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Dieldrin | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Heptachlor | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Indeno(1,2,3-c,d)pyrene | | 0.146 | 0.102 | 0.164 | 0.132 | 0.032 | 0.025 |
| PCB AROCLOR 1016 | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Units | High Density Residential | Low Density Residential | Commercial | Industrial | Recreation | Transportation |
|---|---|---|---|---|---|---|---|
| PCB AROCLOR 1221 | ug/L | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| PCB AROCLOR 1232 | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| PCB AROCLOR 1242 | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| PCB AROCLOR 1248 | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| PCB AROCLOR 1254 | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| PCB AROCLOR 1260 | | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| *E. coli* | MPN/ 100ml | 5615 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Enterococcus | | 24086 | 11963 | 115880 | 26074 | 110115 | 9022 |
| Fecal Coliforms | | 12651 | 16968 | 17704 | 4214 | 387629 | 3091 |
| Total Coliforms | | 329379 | 115960 | 528034 | 185664 | 1206826 | 157852 |

S.I.D. = Statistically Invalid Data, not enough data above detection limit collected.

# Attachment 4. Summary Statistics for Land Use Runoff Water Quality Data

**Summary of Stormwater Runoff by Land Use Categories Sampled by the Southern California Coastal Water Research Project (SCCWRP) as Part of Technical Report 510 titled "Sources, patterns and mechanisms of storm water pollutant loading from watersheds and land uses of the greater Los Angeles area, California, USA."**

| | | High Density Residential | | | | | | | Low Density Residential | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter Code | Result Units | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Acenaphthene | ug/L | 42 | 8 | 19% | 0.04 | 0.03 | 0.09 | 0.02 | 27 | 6 | 22% | 0.02 | 0.01 | 0.04 | 0.01 |
| Acenaphthylene | ug/L | 42 | 11 | 26% | 0.02 | 0.02 | 0.04 | 0.01 | 27 | 4 | 15% | 0.01 | 0.01 | 0.03 | 0.01 |
| Aldrin | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Aluminum | ug/L | 21 | 21 | 100% | 720.04 | 237.00 | 2940.00 | 108.00 | NA | NA | NA | NA | NA | NA | NA |
| Ammonia as N | mg/L | 62 | 57 | 92% | 0.56 | 0.49 | 1.34 | 0.09 | 37 | 29 | 78% | 0.33 | 0.34 | 0.57 | 0.07 |
| Anthracene | ug/L | 42 | 22 | 52% | 0.06 | 0.03 | 0.20 | 0.01 | 27 | 10 | 37% | 0.02 | 0.02 | 0.05 | 0.00 |
| Antimony | ug/L | 21 | 12 | 57% | 0.94 | 0.83 | 1.48 | 0.63 | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | ug/L | 66 | 62 | 94% | 1.79 | 1.40 | 3.27 | 0.93 | 37 | 30 | 81% | 2.75 | 2.25 | 3.82 | 1.55 |
| Barium | ug/L | 21 | 21 | 100% | 64.61 | 11.50 | 140.00 | 7.35 | NA | NA | NA | NA | NA | NA | NA |
| Benz(a)anthracene | ug/L | 42 | 30 | 71% | 0.15 | 0.06 | 0.57 | 0.01 | 27 | 15 | 56% | 0.03 | 0.01 | 0.12 | 0.00 |
| Benzo(a)pyrene | ug/L | 42 | 30 | 71% | 0.16 | 0.08 | 0.56 | 0.01 | 27 | 13 | 48% | 0.05 | 0.02 | 0.19 | 0.01 |
| Benzo(b)fluoranthene | ug/L | 42 | 32 | 76% | 0.23 | 0.13 | 0.72 | 0.01 | 27 | 18 | 67% | 0.04 | 0.02 | 0.14 | 0.01 |
| Benzo(e)pyrene | ug/L | 42 | 31 | 74% | 0.18 | 0.11 | 0.65 | 0.02 | 27 | 16 | 59% | 0.06 | 0.02 | 0.27 | 0.01 |
| Benzo(g,h,i)perylene | ug/L | 42 | 22 | 52% | 0.27 | 0.22 | 0.70 | 0.03 | 27 | 15 | 56% | 0.07 | 0.02 | 0.28 | 0.01 |
| Benzo(k)fluoranthene | ug/L | 42 | 30 | 71% | 0.14 | 0.08 | 0.53 | 0.02 | 27 | 17 | 63% | 0.04 | 0.01 | 0.15 | 0.00 |
| Beryllium | ug/L | 21 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Biphenyl | ug/L | 42 | 20 | 48% | 0.03 | 0.02 | 0.05 | 0.01 | 27 | 8 | 30% | 0.03 | 0.01 | 0.12 | 0.01 |
| Bolstar | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | ug/L | 66 | 27 | 41% | 0.68 | 0.50 | 1.51 | 0.20 | 37 | 14 | 38% | 0.61 | 0.40 | 1.49 | 0.20 |
| Chlordane, alpha- | ug/L | 33 | 2 | 6% | 0.05 | 0.05 | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Chlordane, gamma- | ug/L | 33 | 2 | 6% | 0.04 | 0.04 | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Chlorpyrifos | ug/L | 26 | 0 | 0% | NA | NA | NA | NA | 7 | 0 | 0% | NA | NA | NA | NA |
| Chromium | ug/L | 66 | 56 | 85% | 5.17 | 3.51 | 14.55 | 1.40 | 37 | 24 | 65% | 8.27 | 5.00 | 19.48 | 2.31 |
| Chrysene | ug/L | 42 | 39 | 93% | 0.21 | 0.06 | 0.78 | 0.01 | 27 | 21 | 78% | 0.06 | 0.03 | 0.15 | 0.01 |
| Cobalt | ug/L | 21 | 8 | 38% | 1.90 | 1.58 | 4.12 | 0.54 | NA | NA | NA | NA | NA | NA | NA |
| Copper | ug/L | 66 | 66 | 100% | 24.43 | 15.85 | 60.07 | 5.35 | 37 | 37 | 100% | 32.34 | 20.00 | 77.26 | 8.82 |
| DDD(o,p') | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| DDD(p,p') | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| DDE(o,p') | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| DDE(p,p') | ug/L | 33 | 4 | 12% | 0.15 | 0.16 | 0.18 | 0.10 | 16 | 1 | 6% | 0.07 | 0.07 | NA | NA |
| DDT(o,p') | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| DDT(p,p') | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 1 | 6% | 0.00 | 0.00 | NA | NA |
| Demeton-S | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Diazinon | ug/L | 26 | 7 | 27% | 0.14 | 0.14 | 0.17 | 0.10 | 7 | 4 | 57% | 0.15 | 0.16 | 0.24 | 0.06 |
| Dibenz(a,h)anthracene | ug/L | 42 | 16 | 38% | 0.06 | 0.06 | 0.13 | 0.01 | 27 | 5 | 19% | 0.04 | 0.01 | 0.09 | 0.01 |
| Dibenzothiophene | ug/L | 19 | 10 | 53% | 0.02 | 0.01 | 0.06 | 0.01 | NA | NA | NA | NA | NA | NA | NA |
| Dichlorvos | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dieldrin | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Dimethoate | ug/L | 26 | 0 | 0% | NA | NA | NA | NA | 6 | 1 | 17% | 0.05 | 0.05 | NA | NA |
| Dimethylnaphthalene, 2,6- | ug/L | 42 | 13 | 31% | 0.03 | 0.02 | 0.06 | 0.01 | 27 | 5 | 19% | 0.02 | 0.02 | 0.05 | 0.01 |
| Disulfoton | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| E Coli | mpn/100mL | 24 | 24 | 100% | 5614.58 | 3210.00 | 23744.00 | 698.50 | NA | NA | NA | NA | NA | NA | NA |
| Endosulfan I | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Endosulfan II | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |

| | | High Density Residential | | | | | | | Low Density Residential | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter Code | Result Units | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Endosulfan Sulfate | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Endrin | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Endrin Aldehyde | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Endrin Ketone | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Enterococcus | mpn/100mL | 72 | 72 | 100% | 24086.48 | 8527.00 | 43019.00 | 1107.30 | 42 | 42 | 100% | 11962.52 | 6394.00 | 33414.60 | 3597.00 |
| Ethoprop | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fecal Coliforms | mpn/100mL | 47 | 47 | 100% | 12650.56 | 3654.00 | 33017.51 | 158.20 | 42 | 42 | 100% | 16967.71 | 2120.00 | 29433.50 | 558.70 |
| Fenchlorphos | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fensulfothion | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fenthion | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | ug/L | 42 | 42 | 100% | 0.34 | 0.09 | 1.04 | 0.02 | 27 | 26 | 96% | 0.09 | 0.04 | 0.28 | 0.02 |
| Fluorene | ug/L | 42 | 11 | 26% | 0.03 | 0.03 | 0.08 | 0.01 | 27 | 8 | 30% | 0.02 | 0.02 | 0.03 | 0.01 |
| HCH, alpha | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| HCH, beta | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| HCH, delta | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| HCH, gamma | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Heptachlor | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Heptachlor Epoxide | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Hexachlorobenzene | ug/L | 7 | 0 | 0% | NA | NA | NA | NA | 10 | 2 | 20% | 0.03 | 0.03 | NA | NA |
| Indeno(1,2,3-c,d)pyrene | ug/L | 42 | 24 | 57% | 0.15 | 0.10 | 0.50 | 0.01 | 27 | 8 | 30% | 0.10 | 0.04 | 0.40 | 0.01 |
| Iron | ug/L | 66 | 64 | 97% | 1271.94 | 430.00 | 5269.00 | 120.00 | 37 | 37 | 100% | 1996.38 | 1060.00 | 4562.00 | 332.00 |
| Lead | ug/L | 66 | 66 | 100% | 17.16 | 6.85 | 64.63 | 1.60 | 37 | 37 | 100% | 7.38 | 3.40 | 15.44 | 1.46 |
| Malathion | ug/L | 26 | 3 | 12% | 0.12 | 0.11 | 0.15 | 0.10 | 7 | 4 | 57% | 0.09 | 0.08 | 0.14 | 0.06 |
| Manganese | ug/L | 21 | 20 | 95% | 49.85 | 17.05 | 166.15 | 5.01 | NA | NA | NA | NA | NA | NA | NA |
| Mercury | ug/L | 21 | 1 | 5% | 1.01 | 1.01 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Merphos | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Methoxychlor | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Methylnaphthalene, 1- | ug/L | 42 | 19 | 45% | 0.04 | 0.02 | 0.10 | 0.01 | 27 | 14 | 52% | 0.01 | 0.01 | 0.03 | 0.00 |
| Methylnaphthalene, 2- | ug/L | 42 | 24 | 57% | 0.04 | 0.03 | 0.11 | 0.01 | 27 | 14 | 52% | 0.02 | 0.01 | 0.06 | 0.00 |
| Methylphenanthrene, 1- | ug/L | 42 | 19 | 45% | 0.03 | 0.02 | 0.10 | 0.01 | 27 | 8 | 30% | 0.03 | 0.01 | 0.08 | 0.01 |
| Mevinphos | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mirex | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Molybdenum | ug/L | 21 | 21 | 100% | 1.25 | 1.13 | 2.30 | 0.72 | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | ug/L | 42 | 19 | 45% | 0.04 | 0.04 | 0.10 | 0.01 | 27 | 18 | 67% | 0.02 | 0.01 | 0.06 | 0.01 |
| Nickel | ug/L | 66 | 51 | 77% | 5.68 | 5.40 | 12.95 | 1.13 | 37 | 18 | 49% | 5.75 | 5.65 | 8.58 | 3.03 |
| Nitrate + Nitrite as N | mg/L | 29 | 29 | 100% | 0.52 | 0.45 | 1.12 | 0.07 | 22 | 22 | 100% | 0.25 | 0.24 | 0.33 | 0.19 |
| Nitrate as N | MG/L | 38 | 35 | 92% | 0.32 | 0.27 | 0.68 | 0.07 | 17 | 16 | 94% | 0.13 | 0.11 | 0.24 | 0.07 |
| Nitrite as N | mg/L | 26 | 7 | 27% | 0.36 | 0.06 | 1.38 | 0.04 | 7 | 2 | 29% | 0.04 | 0.04 | NA | NA |
| Nitrogen, Total Kjeldahl | mg/L | 62 | 62 | 100% | 2.36 | 1.70 | 6.00 | 0.70 | 37 | 37 | 100% | 1.86 | 1.00 | 4.56 | 0.30 |
| Nonachlor, trans- | ug/L | 33 | 4 | 12% | 0.05 | 0.05 | 0.06 | 0.03 | 16 | 0 | 0% | NA | NA | NA | NA |
| Oxychlordane | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Parathion, methyl | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 018 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 028 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 031 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 033 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 037 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |

| | | High Density Residential | | | | | | | Low Density Residential | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter Code | Result Units | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| PCB 044 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 049 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 052 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 066 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 070 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 074 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 077 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 081 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 087 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 095 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 097 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 099 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 101 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 105 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 110 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 114 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 118 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 119 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 123 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 126 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 128 | ug/L | 7 | 0 | 0% | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB 128/167 | ug/L | 26 | 0 | 0% | NA | NA | NA | NA | 4 | 0 | 0% | NA | NA | NA | NA |
| PCB 132/168 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 138 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 141 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 149 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 151 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 153 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 156 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 157 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 158 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 167 | ug/L | 7 | 0 | 0% | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB 169 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 170 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 177 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 180 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 183 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 187 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 189 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 194 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 200 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 201 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB 206 | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 14 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1016 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1221 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1232 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1242 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| | | High Density Residential | | | | | | | Low Density Residential | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter Code | Result Units | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| PCB AROCLOR 1248 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1254 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1260 | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perylene | ug/L | 42 | 17 | 40% | 0.08 | 0.04 | 0.25 | 0.01 | 27 | 6 | 22% | 0.02 | 0.02 | 0.04 | 0.01 |
| Phenanthrene | ug/L | 42 | 40 | 95% | 0.27 | 0.08 | 0.57 | 0.02 | 27 | 27 | 100% | 0.07 | 0.04 | 0.17 | 0.02 |
| Phorate | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phosphate as P | MG/L | 40 | 32 | 80% | 0.19 | 0.13 | 0.43 | 0.06 | 22 | 21 | 95% | 0.09 | 0.09 | 0.11 | 0.06 |
| Phosphorus as P | mg/l | 35 | 17 | 49% | 0.78 | 0.55 | 2.22 | 0.30 | 17 | 10 | 59% | 0.71 | 0.64 | 0.99 | 0.57 |
| Pyrene | ug/L | 42 | 41 | 98% | 0.33 | 0.08 | 0.98 | 0.02 | 27 | 27 | 100% | 0.09 | 0.04 | 0.27 | 0.01 |
| Selenium | ug/L | 21 | 4 | 19% | 0.55 | 0.54 | 0.62 | 0.50 | NA | NA | NA | NA | NA | NA | NA |
| Silver | ug/L | 66 | 16 | 24% | 3.08 | 0.70 | 11.25 | 0.24 | 37 | 7 | 19% | 1.63 | 1.20 | 3.75 | 0.25 |
| Strontium | ug/L | 21 | 21 | 100% | 43.62 | 30.00 | 81.60 | 24.70 | NA | NA | NA | NA | NA | NA | NA |
| Tetrachlorvinphos | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | ug/L | 21 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tin | ug/L | 21 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Titanium | ug/L | 21 | 21 | 100% | 33.61 | 11.50 | 141.00 | 5.39 | NA | NA | NA | NA | NA | NA | NA |
| Tokuthion | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Coliforms | mpn/100mL | 72 | 72 | 100% | 329379 | 79305 | 1299700 | 10860 | 42 | 42 | 100% | 115960 | 50660 | 594240 | 15815 |
| Total Suspended Solids | mg/L | 62 | 60 | 97% | 46.56 | 18.00 | 162.05 | 3.96 | 38 | 38 | 100% | 95.16 | 36.00 | 220.65 | 7.51 |
| Toxaphene | ug/L | 33 | 0 | 0% | NA | NA | NA | NA | 16 | 0 | 0% | NA | NA | NA | NA |
| Trichloronate | ug/L | 19 | 0 | 0% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trimethylnaphthalene, 1,6,7- | ug/L | 19 | 11 | 58% | 0.04 | 0.03 | 0.06 | 0.01 | NA | NA | NA | NA | NA | NA | NA |
| Trimethylnapthalene, 2,3,5- | ug/L | 23 | 3 | 13% | 0.04 | 0.03 | 0.06 | 0.03 | 27 | 12 | 44% | 0.04 | 0.03 | 0.08 | 0.01 |
| Vanadium | ug/L | 21 | 21 | 100% | 4.56 | 2.65 | 11.60 | 2.05 | NA | NA | NA | NA | NA | NA | NA |
| Zinc | ug/L | 66 | 66 | 100% | 173.22 | 149.50 | 580.00 | 23.77 | 37 | 37 | 100% | 88.27 | 66.00 | 155.40 | 31.20 |

| | | Commercial | | | | | | | Industrial | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Acenaphthene | ug/L | 38 | 2 | 5% | 0.03 | 0.03 | NA | NA | 39 | 4 | 10% | 0.06 | 0.06 | 0.09 | 0.02 |
| Acenaphthylene | ug/L | 38 | 2 | 5% | 0.03 | 0.03 | NA | NA | 39 | 14 | 36% | 0.04 | 0.03 | 0.09 | 0.01 |
| Aldrin | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Aluminum | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ammonia as N | mg/L | 47 | 44 | 94% | 1.07 | 0.58 | 4.72 | 0.25 | 55 | 55 | 100% | 0.76 | 0.45 | 2.15 | 0.23 |
| Anthracene | ug/L | 39 | 14 | 36% | 0.03 | 0.02 | 0.07 | 0.01 | 39 | 20 | 51% | 0.03 | 0.02 | 0.11 | 0.00 |
| Antimony | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | ug/L | 47 | 34 | 72% | 2.14 | 1.80 | 5.18 | 1.00 | 55 | 50 | 91% | 2.91 | 2.05 | 4.80 | 1.05 |
| Barium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benz(a)anthracene | ug/L | 39 | 23 | 59% | 0.06 | 0.01 | 0.25 | 0.00 | 39 | 28 | 72% | 0.05 | 0.01 | 0.26 | 0.01 |
| Benzo(a)pyrene | ug/L | 38 | 14 | 37% | 0.14 | 0.10 | 0.46 | 0.01 | 39 | 16 | 41% | 0.06 | 0.03 | 0.21 | 0.01 |
| Benzo(b)fluoranthene | ug/L | 38 | 19 | 50% | 0.11 | 0.06 | 0.40 | 0.01 | 39 | 18 | 46% | 0.07 | 0.02 | 0.26 | 0.01 |
| Benzo(e)pyrene | ug/L | 39 | 21 | 54% | 0.14 | 0.04 | 0.52 | 0.01 | 39 | 18 | 46% | 0.08 | 0.03 | 0.28 | 0.01 |
| Benzo(g,h,i)perylene | ug/L | 38 | 21 | 55% | 0.19 | 0.08 | 0.78 | 0.02 | 39 | 21 | 54% | 0.11 | 0.05 | 0.29 | 0.02 |
| Benzo(k)fluoranthene | ug/L | 38 | 16 | 42% | 0.14 | 0.11 | 0.43 | 0.01 | 39 | 18 | 46% | 0.04 | 0.02 | 0.21 | 0.01 |
| Beryllium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| | | Commercial | | | | | | | Industrial | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Biphenyl | ug/L | 38 | 15 | 39% | 0.06 | 0.04 | 0.15 | 0.02 | 39 | 16 | 41% | 0.04 | 0.04 | 0.08 | 0.00 |
| Bolstar | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | ug/L | 47 | 29 | 62% | 1.15 | 0.90 | 3.92 | 0.24 | 55 | 49 | 89% | 1.80 | 2.10 | 4.50 | 0.30 |
| Chlordane, alpha- | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Chlordane, gamma- | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Chlorpyrifos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | ug/L | 47 | 26 | 55% | 6.40 | 3.50 | 26.00 | 1.92 | 55 | 55 | 100% | 6.54 | 5.15 | 14.30 | 2.27 |
| Chrysene | ug/L | 39 | 28 | 72% | 0.14 | 0.05 | 0.51 | 0.01 | 39 | 33 | 85% | 0.13 | 0.07 | 0.57 | 0.02 |
| Cobalt | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | ug/L | 47 | 47 | 100% | 41.70 | 18.00 | 165.20 | 7.46 | 55 | 55 | 100% | 72.41 | 40.50 | 243.00 | 7.90 |
| DDD(o,p') | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| DDD(p,p') | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| DDE(o,p') | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| DDE(p,p') | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| DDT(o,p') | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| DDT(p,p') | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Demeton-S | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Diazinon | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenz(a,h)anthracene | ug/L | 38 | 5 | 13% | 0.07 | 0.04 | 0.15 | 0.02 | 39 | 4 | 10% | 0.11 | 0.11 | 0.18 | 0.03 |
| Dibenzothiophene | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dichlorvos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dieldrin | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Dimethoate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dimethylnaphthalene, 2,6- | ug/L | 38 | 10 | 26% | 0.20 | 0.05 | 0.70 | 0.03 | 39 | 9 | 23% | 0.05 | 0.04 | 0.12 | 0.02 |
| Disulfoton | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| E Coli | mpn/100mL | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endosulfan I | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Endosulfan II | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Endosulfan Sulfate | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Endrin | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Endrin Aldehyde | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Endrin Ketone | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Enterococcus | mpn/100mL | 51 | 51 | 100% | 115880.26 | 8600.00 | 479150.00 | 59.80 | 66 | 65 | 98% | 26073.52 | 5200.00 | 74420.00 | 736.00 |
| Ethoprop | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fecal Coliforms | mpn/100mL | 51 | 44 | 86% | 17703.84 | 5298.50 | 94920.00 | 12.35 | 66 | 65 | 98% | 4213.98 | 1733.00 | 15500.00 | 321.60 |
| Fenchlorphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fensulfothion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fenthion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | ug/L | 45 | 40 | 89% | 0.13 | 0.03 | 0.50 | 0.01 | 39 | 34 | 87% | 0.17 | 0.07 | 0.62 | 0.02 |
| Fluorene | ug/L | 38 | 7 | 18% | 0.09 | 0.06 | 0.18 | 0.03 | 39 | 9 | 23% | 0.04 | 0.03 | 0.12 | 0.01 |
| HCH, alpha | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| HCH, beta | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| HCH, delta | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| HCH, gamma | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Heptachlor | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Heptachlor Epoxide | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Hexachlorobenzene | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 9 | 0 | 0% | NA | NA | NA | NA |

| | | Commercial | | | | | | | Industrial | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Indeno(1,2,3-c,d)pyrene | ug/L | 38 | 12 | 32% | 0.16 | 0.11 | 0.54 | 0.02 | 39 | 3 | 8% | 0.13 | 0.16 | 0.17 | 0.08 |
| Iron | ug/L | 47 | 47 | 100% | 1316.38 | 390.00 | 7682.00 | 70.00 | 55 | 55 | 100% | 2586.55 | 1320.00 | 8044.00 | 401.00 |
| Lead | ug/L | 47 | 47 | 100% | 23.32 | 4.20 | 158.90 | 0.90 | 55 | 55 | 100% | 24.48 | 19.00 | 62.43 | 6.91 |
| Malathion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Manganese | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mercury | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Merphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Methoxychlor | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Methylnaphthalene, 1- | ug/L | 38 | 11 | 29% | 0.10 | 0.03 | 0.33 | 0.01 | 39 | 19 | 49% | 0.04 | 0.03 | 0.08 | 0.01 |
| Methylnaphthalene, 2- | ug/L | 38 | 14 | 37% | 0.13 | 0.05 | 0.53 | 0.01 | 39 | 19 | 49% | 0.06 | 0.05 | 0.14 | 0.02 |
| Methylphenanthrene, 1- | ug/L | 38 | 11 | 29% | 0.04 | 0.04 | 0.07 | 0.01 | 39 | 28 | 72% | 0.06 | 0.04 | 0.16 | 0.01 |
| Mevinphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mirex | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Molybdenum | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | ug/L | 38 | 6 | 16% | 0.07 | 0.04 | 0.18 | 0.01 | 39 | 19 | 49% | 0.07 | 0.05 | 0.15 | 0.03 |
| Nickel | ug/L | 47 | 29 | 62% | 12.29 | 9.50 | 39.00 | 3.22 | 55 | 52 | 95% | 14.92 | 16.00 | 31.35 | 3.44 |
| Nitrate + Nitrite as N | mg/L | 33 | 32 | 97% | 0.35 | 0.24 | 0.80 | 0.05 | 50 | 49 | 98% | 0.32 | 0.29 | 0.84 | 0.04 |
| Nitrate as N | MG/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nitrite as N | mg/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nitrogen, Total Kjeldahl | mg/L | 46 | 46 | 100% | 2.88 | 1.71 | 7.92 | 0.53 | 55 | 55 | 100% | 4.32 | 1.95 | 13.49 | 0.51 |
| Nonachlor, trans- | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Oxychlordane | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Parathion, methyl | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 018 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 028 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.07 | 0.07 | NA | NA |
| PCB 031 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.09 | 0.09 | NA | NA |
| PCB 033 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.06 | 0.06 | NA | NA |
| PCB 037 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.03 | 0.03 | NA | NA |
| PCB 044 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.09 | 0.09 | NA | NA |
| PCB 049 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.08 | 0.08 | NA | NA |
| PCB 052 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.08 | 0.08 | NA | NA |
| PCB 066 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.05 | 0.05 | NA | NA |
| PCB 070 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.07 | 0.07 | NA | NA |
| PCB 074 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.03 | 0.03 | NA | NA |
| PCB 077 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 081 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 087 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 1 | 5% | 0.03 | 0.03 | NA | NA |
| PCB 095 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.04 | 0.04 | NA | NA |
| PCB 097 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 1 | 5% | 0.07 | 0.07 | NA | NA |
| PCB 099 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.02 | 0.02 | NA | NA |
| PCB 101 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.06 | 0.06 | NA | NA |
| PCB 105 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 110 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.08 | 0.08 | NA | NA |
| PCB 114 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 118 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.07 | 0.07 | NA | NA |
| PCB 119 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 123 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |

| | | Commercial | | | | | | | Industrial | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| PCB 126 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 128 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 9 | 0 | 0% | NA | NA | NA | NA |
| PCB 128/167 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB 132/168 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 1 | 5% | 0.01 | 0.01 | NA | NA |
| PCB 138 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.08 | 0.08 | NA | NA |
| PCB 141 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 149 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 1 | 5% | 0.05 | 0.05 | NA | NA |
| PCB 151 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 153 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 2 | 11% | 0.03 | 0.03 | NA | NA |
| PCB 156 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 157 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 158 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 167 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 9 | 0 | 0% | NA | NA | NA | NA |
| PCB 169 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 170 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 177 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 180 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 183 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 187 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 189 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 194 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 200 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 201 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB 206 | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1016 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1221 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1232 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1242 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1248 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1254 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| PCB AROCLOR 1260 | ug/L | NA | NA | NA | NA | NA | NA | NA | 10 | 0 | 0% | NA | NA | NA | NA |
| Perylene | ug/L | 39 | 13 | 33% | 0.06 | 0.03 | 0.20 | 0.01 | 39 | 11 | 28% | 0.04 | 0.03 | 0.08 | 0.01 |
| Phenanthrene | ug/L | 41 | 32 | 78% | 0.14 | 0.04 | 0.57 | 0.01 | 39 | 29 | 74% | 0.21 | 0.10 | 0.75 | 0.02 |
| Phorate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phosphate as P | MG/L | 20 | 20 | 100% | 0.08 | 0.08 | 0.14 | 0.05 | 27 | 27 | 100% | 0.12 | 0.09 | 0.21 | 0.06 |
| Phosphorus as P | mg/l | 27 | 27 | 100% | 0.99 | 0.50 | 2.77 | 0.22 | 28 | 28 | 100% | 3.36 | 0.77 | 11.57 | 0.24 |
| Pyrene | ug/L | 42 | 37 | 88% | 0.18 | 0.04 | 0.68 | 0.01 | 39 | 35 | 90% | 0.20 | 0.10 | 0.68 | 0.02 |
| Selenium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Silver | ug/L | 47 | 15 | 32% | 1.30 | 1.00 | 3.21 | 0.20 | 55 | 7 | 13% | 1.04 | 0.70 | 2.99 | 0.20 |
| Strontium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachlorvinphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tin | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Titanium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tokuthion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Coliforms | mpn/100mL | 51 | 51 | 100% | 528034 | 88932 | 2419200 | 3558 | 66 | 65 | 98% | 185664 | 88200 | 876540 | 4021 |
| Total Suspended Solids | mg/L | 47 | 46 | 98% | 56.87 | 26.50 | 275.75 | 9.00 | 57 | 57 | 100% | 89.60 | 43.00 | 248.60 | 12.80 |

| | | Commercial | | | | | | | Industrial | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Toxaphene | ug/L | 6 | 0 | 0% | NA | NA | NA | NA | 19 | 0 | 0% | NA | NA | NA | NA |
| Trichloronate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trimethylnaphthalene, 1,6,7- | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trimethylnapthalene, 2,3,5- | ug/L | 38 | 3 | 8% | 0.22 | 0.20 | 0.32 | 0.15 | 39 | 7 | 18% | 0.05 | 0.03 | 0.12 | 0.02 |
| Vanadium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Zinc | ug/L | 47 | 47 | 100% | 371.98 | 188.00 | 1268.00 | 63.30 | 55 | 55 | 100% | 597.47 | 493.50 | 1279.00 | 204.40 |

| | | Recreation | | | | | | | Transportation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Acenaphthene | ug/L | 11 | 1 | 9% | 0.01 | 0.01 | NA | NA | 20 | 1 | 5% | 0.08 | 0.08 | NA | NA |
| Acenaphthylene | ug/L | 11 | 2 | 18% | 0.01 | 0.01 | NA | NA | 20 | 0 | 0% | NA | NA | NA | NA |
| Aldrin | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ammonia as N | mg/L | 20 | 20 | 100% | 1.07 | 1.06 | 1.47 | 0.71 | 20 | 20 | 100% | 0.69 | 0.49 | 1.02 | 0.32 |
| Anthracene | ug/L | 11 | 8 | 73% | 0.01 | 0.01 | 0.03 | 0.01 | 19 | 7 | 37% | 0.02 | 0.01 | 0.05 | 0.00 |
| Antimony | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | ug/L | 20 | 20 | 100% | 4.44 | 4.65 | 5.61 | 2.86 | 20 | 3 | 15% | 3.03 | 1.20 | 6.33 | 1.02 |
| Barium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benz(a)anthracene | ug/L | 11 | 2 | 18% | 0.09 | 0.09 | NA | NA | 20 | 12 | 60% | 0.02 | 0.02 | 0.04 | 0.01 |
| Benzo(a)pyrene | ug/L | 11 | 11 | 100% | 0.03 | 0.02 | 0.10 | 0.01 | 20 | 11 | 55% | 0.03 | 0.02 | 0.07 | 0.01 |
| Benzo(b)fluoranthene | ug/L | 11 | 11 | 100% | 0.06 | 0.04 | 0.19 | 0.02 | 20 | 11 | 55% | 0.04 | 0.02 | 0.09 | 0.01 |
| Benzo(e)pyrene | ug/L | 11 | 11 | 100% | 0.04 | 0.02 | 0.10 | 0.01 | 20 | 12 | 60% | 0.03 | 0.02 | 0.05 | 0.01 |
| Benzo(g,h,i)perylene | ug/L | 11 | 6 | 55% | 0.03 | 0.02 | 0.05 | 0.01 | 20 | 12 | 60% | 0.05 | 0.04 | 0.10 | 0.02 |
| Benzo(k)fluoranthene | ug/L | 11 | 11 | 100% | 0.02 | 0.01 | 0.06 | 0.01 | 20 | 10 | 50% | 0.03 | 0.02 | 0.05 | 0.01 |
| Beryllium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Biphenyl | ug/L | 11 | 1 | 9% | 0.01 | 0.01 | NA | NA | 20 | 3 | 15% | 0.02 | 0.02 | 0.03 | 0.01 |
| Bolstar | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Cadmium | ug/L | 20 | 3 | 15% | 0.63 | 0.60 | 0.78 | 0.51 | 20 | 10 | 50% | 0.55 | 0.25 | 1.76 | 0.20 |
| Chlordane, alpha- | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chlordane, gamma- | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chlorpyrifos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | ug/L | 20 | 20 | 100% | 15.60 | 13.50 | 27.25 | 8.76 | 20 | 13 | 65% | 6.42 | 2.40 | 24.60 | 1.18 |
| Chrysene | ug/L | 11 | 11 | 100% | 0.07 | 0.04 | 0.18 | 0.03 | 20 | 16 | 80% | 0.05 | 0.04 | 0.15 | 0.01 |
| Cobalt | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | ug/L | 20 | 20 | 100% | 32.85 | 32.00 | 43.75 | 22.00 | 20 | 20 | 100% | 20.03 | 10.50 | 37.00 | 5.96 |
| DDD(o,p') | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DDD(p,p') | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DDE(o,p') | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DDE(p,p') | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DDT(o,p') | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DDT(p,p') | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Demeton-S | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Diazinon | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenz(a,h)anthracene | ug/L | 11 | 1 | 9% | 0.02 | 0.02 | NA | NA | 20 | 0 | 0% | NA | NA | NA | NA |

| | | Recreation | | | | | | | Transportation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Dibenzothiophene | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dichlorvos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dieldrin | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dimethoate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dimethylnaphthalene, 2,6- | ug/L | 11 | 0 | 0% | NA | NA | NA | NA | 20 | 1 | 5% | 0.05 | 0.05 | NA | NA |
| Disulfoton | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| E Coli | mpn/100mL | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endosulfan I | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endosulfan II | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endosulfan Sulfate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endrin | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endrin Aldehyde | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Endrin Ketone | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Enterococcus | mpn/100mL | 24 | 24 | 100% | 110114.50 | 54850.00 | 511055.00 | 15360.60 | 23 | 22 | 96% | 9022.32 | 6107.00 | 23975.55 | 2051.45 |
| Ethoprop | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fecal Coliforms | mpn/100mL | 24 | 24 | 100% | 387629.33 | 448150.00 | 920250.00 | 813.30 | 23 | 23 | 100% | 3091.17 | 1000.00 | 14525.40 | 21.00 |
| Fenchlorphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fensulfothion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fenthion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | ug/L | 11 | 11 | 100% | 0.11 | 0.08 | 0.25 | 0.06 | 20 | 20 | 100% | 0.06 | 0.05 | 0.13 | 0.02 |
| Fluorene | ug/L | 11 | 5 | 45% | 0.01 | 0.01 | 0.01 | 0.01 | 20 | 5 | 25% | 0.03 | 0.03 | 0.04 | 0.02 |
| HCH, alpha | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HCH, beta | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HCH, delta | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| HCH, gamma | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Heptachlor | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Heptachlor Epoxide | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hexachlorobenzene | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-c,d)pyrene | ug/L | 11 | 7 | 64% | 0.03 | 0.02 | 0.08 | 0.01 | 20 | 4 | 20% | 0.02 | 0.02 | 0.04 | 0.01 |
| Iron | ug/L | 20 | 20 | 100% | 12666.00 | 11200.00 | 20580.00 | 6651.50 | 20 | 17 | 85% | 377.65 | 310.00 | 980.00 | 38.00 |
| Lead | ug/L | 20 | 20 | 100% | 13.29 | 11.65 | 21.95 | 7.81 | 20 | 20 | 100% | 4.56 | 3.25 | 8.23 | 1.59 |
| Malathion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Manganese | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mercury | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Merphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Methoxychlor | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Methylnaphthalene, 1- | ug/L | 11 | 0 | 0% | NA | NA | NA | NA | 20 | 1 | 5% | 0.18 | 0.18 | NA | NA |
| Methylnaphthalene, 2- | ug/L | 11 | 2 | 18% | 0.01 | 0.01 | NA | NA | 20 | 1 | 5% | 0.31 | 0.31 | NA | NA |
| Methylphenanthrene, 1- | ug/L | 11 | 6 | 55% | 0.01 | 0.01 | 0.02 | 0.01 | 20 | 8 | 40% | 0.03 | 0.02 | 0.07 | 0.01 |
| Mevinphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Mirex | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Molybdenum | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | ug/L | 11 | 0 | 0% | NA | NA | NA | NA | 20 | 2 | 10% | 0.29 | 0.29 | NA | NA |
| Nickel | ug/L | 20 | 20 | 100% | 16.19 | 15.00 | 25.15 | 10.94 | 20 | 10 | 50% | 6.31 | 3.25 | 19.71 | 2.23 |
| Nitrate + Nitrite as N | mg/L | 20 | 20 | 100% | 1.05 | 1.00 | 2.09 | 0.06 | 21 | 18 | 86% | 0.25 | 0.12 | 0.64 | 0.02 |
| Nitrate as N | MG/L | 23 | 23 | 100% | 0.99 | 0.98 | 1.74 | 0.02 | NA | NA | NA | NA | NA | NA | NA |
| Nitrite as N | mg/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| | | Recreation | | | | | | | Transportation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| Nitrogen, Total Kjeldahl | mg/L | 20 | 20 | 100% | 7.11 | 7.30 | 9.98 | 2.37 | 20 | 20 | 100% | 2.27 | 1.20 | 3.48 | 0.58 |
| Nonachlor, trans- | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Oxychlordane | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Parathion, methyl | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 018 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 028 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 031 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 033 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 037 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 044 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 049 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 052 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 066 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 070 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 074 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 077 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 081 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 087 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 095 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 097 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 099 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 101 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 105 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 110 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 114 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 118 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 119 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 123 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 126 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 128 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 128/167 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 132/168 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 138 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 141 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 149 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 151 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 153 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 156 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 157 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 158 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 167 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 169 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 170 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 177 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 180 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 183 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 187 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| | | Recreation | | | | | | | Transportation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ParameterCode | ResultUnits | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile | No. of Samples | No. of Detects | Percent Detects | Mean of Detects | Median of Detects | Upper 95th Percentile | Lower 95th Percentile |
| PCB 189 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 194 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 200 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 201 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB 206 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1016 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1221 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1232 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1242 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1248 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1254 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PCB AROCLOR 1260 | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perylene | ug/L | 11 | 6 | 55% | 0.02 | 0.01 | 0.03 | 0.01 | 20 | 4 | 20% | 0.02 | 0.02 | 0.04 | 0.01 |
| Phenanthrene | ug/L | 11 | 11 | 100% | 0.05 | 0.03 | 0.10 | 0.02 | 20 | 19 | 95% | 0.07 | 0.05 | 0.18 | 0.02 |
| Phorate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phosphate as P | MG/L | 44 | 44 | 100% | 2.45 | 0.66 | 6.84 | 0.02 | 10 | 10 | 100% | 0.03 | 0.03 | 0.05 | 0.02 |
| Phosphorus as P | mg/l | NA | NA | NA | NA | NA | NA | NA | 10 | 10 | 100% | 0.71 | 0.53 | 1.78 | 0.31 |
| Pyrene | ug/L | 11 | 11 | 100% | 0.09 | 0.06 | 0.22 | 0.05 | 20 | 20 | 100% | 0.07 | 0.07 | 0.20 | 0.02 |
| Selenium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Silver | ug/L | 20 | 6 | 30% | 2.27 | 1.80 | 4.52 | 0.83 | 20 | 2 | 10% | 0.20 | 0.20 | NA | NA |
| Strontium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachlorvinphos | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tin | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Titanium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tokuthion | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Total Coliforms | mpn/100mL | 24 | 24 | 100% | 1206826 | 701550 | 1705900 | 11188 | 23 | 23 | 100% | 157852 | 25000 | 685060 | 4377 |
| Total Suspended Solids | mg/L | 17 | 17 | 100% | 361.29 | 300.00 | 1078.80 | 131.20 | 20 | 17 | 85% | 25.29 | 18.00 | 69.60 | 8.40 |
| Toxaphene | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trichloronate | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trimethylnaphthalene, 1,6,7- | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Trimethylnapthalene, 2,3,5- | ug/L | 11 | 0 | 0% | NA | NA | NA | NA | 20 | 2 | 10% | 0.03 | 0.03 | NA | NA |
| Vanadium | ug/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Zinc | ug/L | 20 | 20 | 100% | 128.45 | 125.00 | 181.55 | 77.60 | 20 | 20 | 100% | 162.30 | 93.50 | 311.50 | 57.45 |

**Notes**

NA = Not enough data above detection limit collected to develop summary statistics.

**Summary of Stormwater Runoff by Land Use Categories Sampled by Los Angeles County Department of Public Works and Presented in the 2000 report titled "Los Angeles County 1994-2000 Integrated Receiving Water Impacts Report**

| Constituents | Data Included Since[a] | DL | Units | Commercial | | | | | | Vacant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Cyanide | 96 | 0.01 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 15 | 15 | 0 | S.I.D. | S.I.D. | S.I.D. |
| TPH | 94 | 1 | mg/l | 8 | 2 | 75 | 3.1 | 2.9 | 0.63 | 21 | 19 | 10 | S.I.D. | S.I.D. | S.I.D. |
| Oil and Grease | 94 | 1 | mg/l | 8 | 1 | 88 | 3.3 | 2.9 | 0.51 | 21 | 17 | 19 | S.I.D. | S.I.D. | S.I.D. |
| Total Phenols | 94 | 0.1 | mg/l | 8 | 8 | 0 | S.I.D. | S.I.D. | S.I.D. | 21 | 21 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Coliform | 94 | 20 | MPN/100ml | 8 | 0 | 100 | 1,140,000 | 1,250,000 | 0.71 | 21 | 1 | 95 | 9,187 | 2,200 | 1.25 |
| Fecal Coliform | 94 | 20 | MPN/100ml | 8 | 0 | 100 | 528,750 | 90,000 | 1.35 | 21 | 2 | 90 | 1,397 | 500 | 2.6 |
| Ratio Fecal Coliform/Total Coliform | 94 | | | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 0 | 100 | 52% | 64% | 0.79 |
| Fecal Streptococcus | 94 | 20 | MPN/100ml | 8 | 0 | 100 | 212,875 | 150,000 | 1.37 | 21 | 1 | 95 | 2,254 | 800 | 1.57 |
| Fecal Enterococcus | 94 | 20 | MPN/100ml | 8 | 0 | 100 | 86,250 | 40,000 | 1.18 | 21 | 1 | 95 | 679 | 500 | 0.98 |
| Ammonia | 94 | 0.1 | mg/l | 33 | 7 | 79 | 1.26 | 0.3 | 2.11 | 41 | 27 | 34 | 0.13 | 0.05 | 2.48 |
| Calcium | 96 | 1 | mg/l | 30 | 0 | 100 | 19 | 11 | 0.86 | 39 | 0 | 100 | 50 | 50 | 0.09 |
| Magnesium | 96 | 1 | mg/l | 30 | 0 | 100 | 6.8 | 3.9 | 0.92 | 39 | 0 | 100 | 15 | 16 | 0.26 |
| Potassium | 94 | 1 | mg/l | 36 | 0 | 100 | 4 | 2.8 | 0.81 | 45 | 0 | 100 | 2.4 | 2.4 | 0.22 |
| Sodium | 96 | 1 | mg/l | 33 | 0 | 100 | 37 | 19 | 1.03 | 45 | 0 | 100 | 13 | 14 | 0.2 |
| Bicarbonate | 94 | 2 | mg/l | 33 | 0 | 100 | 48 | 21 | 0.93 | 42 | 0 | 100 | 175 | 176 | 0.15 |
| Carbonate | 94 | 2 | mg/l | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 36 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Chloride | 94 | 2 | mg/l | 33 | 0 | 100 | 50 | 15.8 | 1.28 | 43 | 0 | 100 | 6.6 | 6.5 | 0.26 |
| Fluoride | 94 | 0.1 | mg/l | 33 | 18 | 45 | 0.13 | 0.05 | 0.81 | 43 | 0 | 100 | 0.37 | 0.36 | 0.21 |
| Nitrate | 94 | 0.1 | mg/l | 33 | 1 | 97 | 2.6 | 2 | 0.63 | 43 | 0 | 100 | 5.2 | 4.6 | 0.56 |
| Sulfate | 94 | 0.1 | mg/l | 33 | 0 | 100 | 35 | 11 | 1.18 | 43 | 0 | 100 | 17 | 15 | 0.4 |
| Alkalinity | 94 | 4 | mg/l | 33 | 0 | 100 | 48 | 21 | 0.93 | 42 | 0 | 100 | 169 | 174 | 0.13 |
| Hardness | 96 | 2 | mg/l | 30 | 0 | 100 | 76 | 42 | 0.87 | 39 | 0 | 100 | 185 | 190 | 0.11 |
| COD | 97 | 5 | mg/l | 24 | 0 | 100 | 98 | 89 | 0.8 | 34 | 15 | 56 | 17 | 11 | 1.35 |
| pH | 94 | 0-14 | | 33 | 0 | 100 | 7 | 6.8 | 0.07 | 42 | 0 | 100 | 8.1 | 8.1 | 0.03 |
| Specific Conductance | 94 | 1 | umhos/cm | 31 | 0 | 100 | 356 | 167 | 0.99 | 38 | 0 | 100 | 386 | 390 | 0.11 |
| Total Dissolved Solids | 96 | 2 | mg/l | 29 | 0 | 100 | 226 | 106 | 0.93 | 36 | 0 | 100 | 237 | 240 | 0.09 |
| Turbidity | 94 | 0.1 | NTU | 33 | 0 | 100 | 31 | 24 | 0.67 | 41 | 0 | 100 | 69 | 5.6 | 2.3 |
| Total Suspended Solids | 96 | 2 | mg/l | 29 | 0 | 100 | 66 | 53 | 0.65 | 39 | 1 | 97 | 186 | 18 | 3.27 |
| Volatile Suspended Solids | 94 | 1 | mg/l/hr | 31 | 0 | 100 | 32 | 29 | 0.54 | 41 | 7 | 83 | 36 | 12 | 2.48 |
| MBAS | 97 | 0.05 | mg/l | 22 | 11 | 50 | 0.18 | 0.04 | 1.52 | 30 | 30 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Organic Carbon | 94 | 1 | mg/l | 35 | 0 | 100 | 10 | 7.3 | 0.74 | 43 | 0 | 100 | 5.3 | 3.6 | 0.84 |
| BOD | 94 | 2 | mg/l | 26 | 1 | 96 | 27 | 24 | 0.58 | 39 | 4 | 90 | 12 | 5 | 1.01 |
| Dissolved Phosphorus | 94 | 0.05 | mg/l | 33 | 1 | 97 | 0.3 | 0.19 | 0.86 | 37 | 21 | 43 | 0.11 | 0.03 | 3.38 |
| Total Phosphorus | 94 | 0.05 | mg/l | 32 | 1 | 97 | 0.39 | 0.28 | 0.77 | 39 | 16 | 59 | 0.16 | 0.05 | 2.63 |
| NH3-N | 94 | 0.1 | mg/l | 33 | 8 | 76 | 1.04 | 0.25 | 2.11 | 41 | 30 | 27 | 0.11 | 0.05 | 2.41 |
| Nitrate-N | 96 | 0.1 | mg/l | 31 | 7 | 77 | 0.48 | 0.43 | 0.82 | 40 | 1 | 98 | 1.05 | 0.94 | 0.53 |
| Nitrite-N | 94 | 0.1 | mg/l | 34 | 7 | 79 | 0.16 | 0.07 | 1.74 | 43 | 30 | 30 | 0.05 | 0.05 | 0.2 |
| TKN | 96 | 0.1 | mg/l | 32 | 0 | 100 | 3.4 | 2.2 | 0.94 | 40 | 0 | 100 | 0.79 | 0.68 | 0.6 |

| Constituents | Data Included Since[a] | DL | Units | Commercial | | | | | | Vacant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Dissolved Aluminum | 96 | 100 | ug/L | 33 | 24 | 27 | 241 | 50 | 3.19 | 42 | 29 | 31 | 190 | 50 | 2.39 |
| Total Aluminum | 96 | 100 | ug/L | 33 | 8 | 76 | 4055 | 295 | 4.87 | 42 | 13 | 69 | 1681 | 234 | 5.25 |
| Dissolved Antimony | 97 | 5 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Antimony | 97 | 5 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Arsenic | 97 | 5 | ug/L | 24 | 23 | 4 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Arsenic | 97 | 5 | ug/L | 24 | 22 | 8 | S.I.D. | S.I.D. | S.I.D. | 34 | 32 | 6 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Barium | 97 | 10 | ug/L | 24 | 2 | 92 | 39 | 33 | 0.81 | 34 | 2 | 94 | 57 | 58 | 0.41 |
| Total Barium | 97 | 10 | ug/L | 24 | 2 | 92 | 114 | 41 | 2.64 | 34 | 2 | 94 | 83 | 62 | 1.59 |
| Dissolved Beryllium | 97 | 1 | ug/L | 17 | 17 | 0 | S.I.D. | S.I.D. | S.I.D. | 22 | 22 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Beryllium | 97 | 1 | ug/L | 24 | 23 | 4 | S.I.D. | S.I.D. | S.I.D. | 34 | 33 | 3 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Boron | 97 | 100 | ug/L | 24 | 3 | 88 | 198 | 188 | 0.49 | 32 | 14 | 56 | 121 | 116 | 0.65 |
| Total Boron | 97 | 100 | ug/L | 24 | 1 | 96 | 261 | 254 | 0.41 | 32 | 8 | 75 | 178 | 170 | 0.59 |
| Dissolved Cadmium | 97 | 1 | ug/L | 24 | 21 | 13 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Cadmium | 97 | 1 | ug/L | 24 | 19 | 21 | 0.73 | 0.5 | 0.71 | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Chromium | 97 | 5 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium | 97 | 5 | ug/L | 24 | 18 | 25 | 27 | 2.5 | 4.18 | 34 | 33 | 3 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Chromium +6 | 94 | 10 | ug/L | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. | 41 | 41 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium +6 | 94 | 10 | ug/L | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. | 41 | 41 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Copper | 97 | 5 | ug/L | 24 | 3 | 88 | 14 | 11 | 0.84 | 34 | 31 | 9 | S.I.D. | S.I.D. | S.I.D. |
| Total Copper | 97 | 5 | ug/L | 24 | 0 | 100 | 39 | 22 | 1.57 | 34 | 15 | 56 | 15 | 5.5 | 3.14 |
| Dissolved Iron | 94 | 100 | ug/L | 39 | 17 | 56 | 382 | 106 | 2.81 | 45 | 35 | 22 | 202 | 50 | 3.27 |
| Total Iron | 94 | 100 | ug/L | 40 | 2 | 95 | 5319 | 587 | 5.24 | 45 | 14 | 69 | 3003 | 233 | 5.23 |
| Dissolved Lead | 97 | 5 | ug/L | 24 | 20 | 17 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Lead | 97 | 5 | ug/L | 24 | 15 | 38 | 18 | 2.5 | 2.8 | 34 | 31 | 9 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Manganese | 98 | 100 | ug/L | 14 | 14 | 0 | S.I.D. | S.I.D. | S.I.D. | 18 | 18 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Manganese | 98 | 100 | ug/L | 14 | 13 | 7 | S.I.D. | S.I.D. | S.I.D. | 18 | 14 | 22 | 67 | 50 | 0.48 |
| Dissolved Mercury | 94 | 1 | ug/L | 37 | 35 | 5 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Mercury | 94 | 1 | ug/L | 37 | 35 | 5 | S.I.D. | S.I.D. | S.I.D. | 43 | 42 | 2 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Nickel | 97 | 5 | ug/L | 24 | 21 | 13 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Nickel | 97 | 5 | ug/L | 24 | 16 | 33 | 15 | 2.5 | 3.69 | 34 | 29 | 15 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Selenium | 94 | 5 | ug/L | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Selenium | 94 | 5 | ug/L | 40 | 35 | 13 | S.I.D. | S.I.D. | S.I.D. | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Silver | 97 | 1 | ug/L | 24 | 23 | 4 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Silver | 97 | 1 | ug/L | 24 | 22 | 8 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Thallium | 97 | 5 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Thallium | 97 | 5 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Zinc | 94 | 50 | ug/L | 40 | 4 | 90 | 152 | 130 | 0.66 | 45 | 43 | 4 | S.I.D. | S.I.D. | S.I.D. |
| Total Zinc | 94 | 50 | ug/L | 40 | 0 | 100 | 241 | 192 | 0.71 | 45 | 33 | 27 | 46 | 25 | 1.67 |
| Bis(2-ethylhexyl)phthalate | 99 | 1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthene | 99 | 0.05 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Since[a] | DL | Units | Commercial | | | | | | Vacant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Acenaphthylene | 99 | 0.05 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Antracene | 99 | 0.05 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)anthracene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)pyrene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(b)fluoranthene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(k)fluoranthene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chrysene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dibenz(a,h)anthracene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Fluoranthene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Fluorene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Indeno (1,2,3-cd)pyrene | 99 | 0.1 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Naphthalene | 99 | 0.05 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Phenanthrene | 99 | 0.05 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Pyrene | 99 | 0.05 | ug/L | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| All other SVOCs | 94 | 0.05-5.0 | ug/L | 23 | 23 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Organochlorine Pesticides & PCBs | 94 | 0.05-1.0 | ug/L | 19 | 19 | 0 | S.I.D. | S.I.D. | S.I.D. | 38 | 38 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Carbofuran | 96 | 5 | ug/L | 28 | 28 | 0 | S.I.D. | S.I.D. | S.I.D. | 38 | 38 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Glyphosate | 98 | 25 | ug/L | 14 | 14 | 0 | S.I.D. | S.I.D. | S.I.D. | 18 | 18 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Diazinon | 96 | 0.01 | ug/L | 24 | 21 | 13 | S.I.D. | S.I.D. | S.I.D. | 36 | 36 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chlorpyrifos | 96 | 0.05 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 36 | 36 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Thiobencarb | 96 | 1 | ug/L | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. | 36 | 36 | 0 | S.I.D. | S.I.D. | S.I.D. |
| All other N- and P- Pesticides | 94 | 1.0-2.0 | ug/L | 28 | 28 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4-D | 96 | 10 | ug/L | 17 | 17 | 0 | S.I.D. | S.I.D. | S.I.D. | 35 | 35 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4,5-TP | 96 | 1 | ug/L | 17 | 17 | 0 | S.I.D. | S.I.D. | S.I.D. | 35 | 35 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Bentazon | 96 | 2 | ug/L | 17 | 17 | 0 | S.I.D. | S.I.D. | S.I.D. | 35 | 35 | 0 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Since[a] | DL | Units | Transportation | | | | | | Light Industrial | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Cyanide | 96 | 0.01 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| TPH | 94 | 1 | mg/l | 4 | 0 | 100 | 3.1 | 2.8 | 0.47 | 5 | 1 | 80 | 1.7 | 1.4 | 0.68 |
| Oil and Grease | 94 | 1 | mg/l | 4 | 0 | 100 | 3.1 | 2.8 | 0.47 | 5 | 1 | 80 | 1.7 | 1.4 | 0.68 |
| Total Phenols | 94 | 0.1 | mg/l | 4 | 4 | 0 | S.I.D. | S.I.D. | S.I.D. | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Coliform | 94 | 20 | MPN/100ml | 4 | 0 | 100 | 692,500 | 600,000 | 0.82 | 5 | 0 | 100 | 454,000 | 160,000 | 1.42 |
| Fecal Coliform | 94 | 20 | MPN/100ml | 4 | 0 | 100 | 328,750 | 205,000 | 1.22 | 5 | 0 | 100 | 338,220 | 30,000 | 2.09 |
| Ratio Fecal Coliform/Total Coliform | 94 | | | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fecal Streptococcus | 94 | 20 | MPN/100ml | 4 | 0 | 100 | 176,000 | 195,000 | 0.68 | 5 | 0 | 100 | 253,000 | 160,000 | 1.46 |
| Fecal Enterococcus | 94 | 20 | MPN/100ml | 4 | 0 | 100 | 32,000 | 32,000 | 0.65 | 5 | 0 | 100 | 98,200 | 130,000 | 0.73 |
| Ammonia | 94 | 0.1 | mg/l | 62 | 16 | 74 | 0.29 | 0.16 | 1.52 | 47 | 7 | 85 | 0.59 | 0.32 | 1.35 |
| Calcium | 96 | 1 | mg/l | 61 | 0 | 100 | 8.4 | 7.7 | 0.46 | 40 | 0 | 100 | 12 | 8.8 | 1.01 |
| Magnesium | 96 | 1 | mg/l | 61 | 4 | 93 | 1.6 | 1.5 | 0.48 | 40 | 0 | 100 | 2.3 | 1.9 | 1.13 |

| Constituents | Data Included Since[a] | DL | Units | Transportation | | | | | | Light Industrial | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Potassium | 94 | 1 | mg/l | 63 | 2 | 97 | 2.1 | 1.7 | 0.56 | 50 | 1 | 98 | 2.7 | 2.2 | 0.59 |
| Sodium | 96 | 1 | mg/l | 62 | 0 | 100 | 8.3 | 6.4 | 0.81 | 47 | 0 | 100 | 14 | 12 | 0.69 |
| Bicarbonate | 94 | 2 | mg/l | 63 | 0 | 100 | 20 | 18 | 0.57 | 47 | 0 | 100 | 26 | 20 | 0.92 |
| Carbonate | 94 | 2 | mg/l | 63 | 63 | 0 | S.I.D. | S.I.D. | S.I.D. | 47 | 47 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chloride | 94 | 2 | mg/l | 64 | 3 | 95 | 5.6 | 4.4 | 0.82 | 47 | 0 | 100 | 12 | 8.6 | 0.8 |
| Fluoride | 94 | 0.1 | mg/l | 64 | 41 | 36 | 0.1 | 0.05 | 0.97 | 47 | 22 | 53 | 0.13 | 0.11 | 0.94 |
| Nitrate | 94 | 0.1 | mg/l | 64 | 2 | 97 | 2.9 | 1.8 | 1.27 | 47 | 0 | 100 | 4.1 | 2.4 | 1.09 |
| Sulfate | 94 | 0.1 | mg/l | 64 | 0 | 100 | 9.5 | 6.4 | 1.07 | 47 | 0 | 100 | 12.6 | 9.2 | 1.02 |
| Alkalinity | 94 | 4 | mg/l | 63 | 0 | 100 | 20 | 16 | 0.55 | 47 | 0 | 100 | 25 | 19 | 0.94 |
| Hardness | 96 | 2 | mg/l | 61 | 0 | 100 | 27 | 24 | 0.46 | 40 | 0 | 100 | 39 | 30 | 1.02 |
| COD | 97 | 5 | mg/l | 52 | 7 | 87 | 50 | 33 | 0.99 | 36 | 4 | 89 | 80 | 51 | 0.92 |
| pH | 94 | 0-14 | | 63 | 0 | 100 | 6.7 | 6.6 | 0.05 | 47 | 0 | 100 | 6.8 | 6.8 | 0.06 |
| Specific Conductance | 94 | 1 | umhos/cm | 63 | 0 | 100 | 99 | 84 | 0.66 | 43 | 0 | 100 | 147 | 119 | 0.77 |
| Total Dissolved Solids | 96 | 2 | mg/l | 61 | 0 | 100 | 62 | 54 | 0.69 | 40 | 0 | 100 | 95 | 77 | 0.8 |
| Turbidity | 94 | 0.1 | NTU | 64 | 0 | 100 | 31 | 22 | 1.25 | 47 | 0 | 100 | 76 | 55 | 1.59 |
| Total Suspended Solids | 96 | 2 | mg/l | 61 | 0 | 100 | 78 | 50 | 1.3 | 41 | 0 | 100 | 240 | 129 | 1.36 |
| Volatile Suspended Solids | 94 | 1 | mg/l/hr | 63 | 1 | 98 | 31 | 20 | 1.22 | 43 | 0 | 100 | 57 | 46 | 0.79 |
| MBAS | 97 | 0.05 | mg/l | 51 | 30 | 41 | 2.6 | 0.025 | 6.95 | 32 | 10 | 69 | 0.13 | 0.11 | 0.9 |
| Total Organic Carbon | 94 | 1 | mg/l | 63 | 0 | 100 | 8.7 | 6.8 | 0.71 | 47 | 0 | 100 | 11.9 | 9.8 | 0.77 |
| BOD | 94 | 2 | mg/l | 54 | 0 | 100 | 21 | 19 | 0.8 | 37 | 0 | 100 | 20 | 17 | 0.67 |
| Dissolved Phosphorus | 94 | 0.05 | mg/l | 59 | 3 | 95 | 0.34 | 0.28 | 0.79 | 46 | 4 | 91 | 0.27 | 0.2 | 1.01 |
| Total Phosphorus | 94 | 0.05 | mg/l | 59 | 1 | 98 | 0.44 | 0.32 | 0.84 | 45 | 2 | 96 | 0.41 | 0.3 | 0.92 |
| NH3-N | 94 | 0.1 | mg/l | 62 | 19 | 69 | 0.24 | 0.14 | 1.51 | 48 | 9 | 81 | 0.48 | 0.26 | 1.36 |
| Nitrate-N | 96 | 0.1 | mg/l | 61 | 15 | 75 | 0.7 | 0.4 | 1.68 | 43 | 2 | 95 | 0.87 | 0.52 | 1.32 |
| Nitrite-N | 94 | 0.1 | mg/l | 64 | 10 | 84 | 0.09 | 0.06 | 0.72 | 47 | 9 | 81 | 0.09 | 0.06 | 0.73 |
| TKN | 96 | 0.1 | mg/l | 61 | 0 | 100 | 1.9 | 1.3 | 0.93 | 45 | 0 | 100 | 3 | 2.3 | 0.72 |
| Dissolved Aluminum | 96 | 100 | ug/L | 62 | 29 | 53 | 159 | 107 | 1.18 | 47 | 23 | 51 | 460 | 117 | 1.96 |
| Total Aluminum | 96 | 100 | ug/L | 63 | 10 | 84 | 672 | 354 | 1.65 | 47 | 7 | 85 | 1824 | 470 | 2.37 |
| Dissolved Antimony | 97 | 5 | ug/L | 54 | 53 | 2 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Antimony | 97 | 5 | ug/L | 54 | 53 | 2 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Arsenic | 97 | 5 | ug/L | 54 | 54 | 0 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Arsenic | 97 | 5 | ug/L | 54 | 52 | 4 | S.I.D. | S.I.D. | S.I.D. | 37 | 34 | 8 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Barium | 97 | 10 | ug/L | 54 | 15 | 72 | 19 | 17 | 0.75 | 37 | 6 | 84 | 34 | 26 | 0.81 |
| Total Barium | 97 | 10 | ug/L | 54 | 9 | 83 | 34 | 27 | 0.88 | 37 | 4 | 89 | 68 | 36 | 1.38 |
| Dissolved Beryllium | 97 | 1 | ug/L | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. | 34 | 34 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Beryllium | 97 | 1 | ug/L | 54 | 54 | 0 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Boron | 97 | 100 | ug/L | 54 | 16 | 70 | 146 | 132 | 0.55 | 37 | 18 | 51 | 122 | 102 | 0.71 |
| Total Boron | 97 | 100 | ug/L | 54 | 5 | 91 | 219 | 214 | 0.5 | 36 | 10 | 72 | 187 | 181 | 0.63 |
| Dissolved Cadmium | 97 | 1 | ug/L | 54 | 50 | 7 | S.I.D. | S.I.D. | S.I.D. | 37 | 34 | 8 | S.I.D. | S.I.D. | S.I.D. |
| Total Cadmium | 97 | 1 | ug/L | 54 | 32 | 41 | 1.1 | 0.5 | 1.04 | 37 | 30 | 19 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Since[a] | DL | Units | Transportation | | | | | | Light Industrial | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Dissolved Chromium | 97 | 5 | ug/L | 54 | 51 | 6 | S.I.D. | S.I.D. | S.I.D. | 37 | 33 | 11 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium | 97 | 5 | ug/L | 54 | 40 | 26 | 4.8 | 2.5 | 1.15 | 37 | 25 | 32 | 6.8 | 2.5 | 1.6 |
| Dissolved Chromium +6 | 94 | 10 | ug/L | 63 | 63 | 0 | S.I.D. | S.I.D. | S.I.D. | 47 | 47 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium +6 | 94 | 10 | ug/L | 63 | 63 | 0 | S.I.D. | S.I.D. | S.I.D. | 47 | 47 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Copper | 97 | 5 | ug/L | 54 | 0 | 100 | 33 | 27 | 0.63 | 37 | 5 | 86 | 20 | 14 | 1.07 |
| Total Copper | 97 | 5 | ug/L | 54 | 0 | 100 | 56 | 39 | 1.15 | 37 | 0 | 100 | 32 | 21 | 1.03 |
| Dissolved Iron | 94 | 100 | ug/L | 65 | 34 | 48 | 200 | 50 | 1.9 | 51 | 25 | 51 | 698 | 104 | 2.99 |
| Total Iron | 94 | 100 | ug/L | 65 | 2 | 97 | 1188 | 512 | 1.74 | 51 | 5 | 90 | 6504 | 600 | 4.26 |
| Dissolved Lead | 97 | 5 | ug/L | 54 | 48 | 11 | S.I.D. | S.I.D. | S.I.D. | 37 | 32 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Total Lead | 97 | 5 | ug/L | 54 | 29 | 46 | 10 | 2.5 | 1.57 | 37 | 18 | 51 | 17 | 5.1 | 1.88 |
| Dissolved Manganese | 98 | 100 | ug/L | 27 | 25 | 7 | S.I.D. | S.I.D. | S.I.D. | 26 | 23 | 12 | S.I.D. | S.I.D. | S.I.D. |
| Total Manganese | 98 | 100 | ug/L | 27 | 25 | 7 | S.I.D. | S.I.D. | S.I.D. | 26 | 23 | 12 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Mercury | 94 | 1 | ug/L | 63 | 63 | 0 | S.I.D. | S.I.D. | S.I.D. | 48 | 48 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Mercury | 94 | 1 | ug/L | 63 | 62 | 2 | S.I.D. | S.I.D. | S.I.D. | 48 | 45 | 6 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Nickel | 97 | 5 | ug/L | 54 | 41 | 24 | 3.9 | 2.5 | 0.93 | 37 | 23 | 38 | 5 | 2.5 | 0.9 |
| Total Nickel | 97 | 5 | ug/L | 54 | 29 | 46 | 6 | 2.5 | 1.07 | 37 | 15 | 59 | 9.8 | 6 | 1.47 |
| Dissolved Selenium | 94 | 5 | ug/L | 65 | 65 | 0 | S.I.D. | S.I.D. | S.I.D. | 51 | 51 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Selenium | 94 | 5 | ug/L | 65 | 61 | 6 | S.I.D. | S.I.D. | S.I.D. | 51 | 48 | 6 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Silver | 97 | 1 | ug/L | 54 | 54 | 0 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Silver | 97 | 1 | ug/L | 54 | 54 | 0 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Thallium | 97 | 5 | ug/L | 54 | 54 | 0 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Thallium | 97 | 5 | ug/L | 54 | 54 | 0 | S.I.D. | S.I.D. | S.I.D. | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Zinc | 94 | 50 | ug/L | 65 | 5 | 92 | 192 | 152 | 0.74 | 51 | 3 | 94 | 407 | 303 | 1.18 |
| Total Zinc | 94 | 50 | ug/L | 65 | 0 | 100 | 291 | 218 | 0.99 | 51 | 0 | 100 | 639 | 366 | 1.53 |
| Bis(2-ethylhexyl)phthalate | 99 | 1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthene | 99 | 0.05 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthylene | 99 | 0.05 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Antracene | 99 | 0.05 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)anthracene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)pyrene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(b)fluoranthene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(k)fluoranthene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chrysene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dibenz(a,h)anthracene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Fluoranthene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Fluorene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Indeno (1,2,3-cd)pyrene | 99 | 0.1 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Naphthalene | 99 | 0.05 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Phenanthrene | 99 | 0.05 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Pyrene | 99 | 0.05 | ug/L | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Since[a] | DL | Units | Transportation | | | | | | Light Industrial | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| All other SVOCs | 94 | 0.05-5.0 | ug/L | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Organochlorine Pesticides & PCBs | 94 | 0.05-1.0 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 20 | 20 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Carbofuran | 96 | 5 | ug/L | 60 | 60 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Glyphosate | 98 | 25 | ug/L | 27 | 25 | 7 | S.I.D. | S.I.D. | S.I.D. | 26 | 26 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Diazinon | 96 | 0.01 | ug/L | 57 | 56 | 2 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chlorpyrifos | 96 | 0.05 | ug/L | 57 | 57 | 0 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Thiobencarb | 96 | 1 | ug/L | 57 | 57 | 0 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| All other N- and P- Pesticides | 94 | 1.0-2.0 | ug/L | 58 | 58 | 0 | S.I.D. | S.I.D. | S.I.D. | 43 | 43 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4-D | 96 | 10 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 22 | 22 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4,5-TP | 96 | 1 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 22 | 22 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Bentazon | 96 | 2 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 22 | 22 | 0 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Since[a] | DL | Units | Multifamily Residential | | | | | | Mixed Residential | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Cyanide | 96 | 0.01 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 0 | 100 | S.I.D. | S.I.D. | S.I.D. |
| TPH | 94 | 1 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 0 | 100 | S.I.D. | S.I.D. | S.I.D. |
| Oil and Grease | 94 | 1 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Phenols | 94 | 0.1 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 1 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Coliform | 94 | 20 | MPN/100ml | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 0 | 100 | S.I.D. | S.I.D. | S.I.D. |
| Fecal Coliform | 94 | 20 | MPN/100ml | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 0 | 100 | S.I.D. | S.I.D. | S.I.D. |
| Ratio Fecal Coliform/Total Coliform | 94 | | | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fecal Streptococcus | 94 | 20 | MPN/100ml | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 1 | 0 | 100 | S.I.D. | S.I.D. | S.I.D. |
| Fecal Enterococcus | 94 | 20 | MPN/100ml | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Ammonia | 94 | 0.1 | mg/l | 38 | 9 | 76 | 0.47 | 0.29 | 1.44 | 42 | 4 | 90 | 0.67 | 0.39 | 1.13 |
| Calcium | 96 | 1 | mg/l | 35 | 0 | 100 | 19.3 | 8 | 1.2 | 39 | 1 | 97 | 7.5 | 6.4 | 0.7 |
| Magnesium | 96 | 1 | mg/l | 35 | 9 | 74 | 3.3 | 1.9 | 1.24 | 39 | 7 | 82 | 1.7 | 1.5 | 0.82 |
| Potassium | 94 | 1 | mg/l | 44 | 4 | 91 | 2.3 | 2.1 | 0.65 | 45 | 6 | 87 | 2.2 | 2.1 | 0.89 |
| Sodium | 96 | 1 | mg/l | 44 | 1 | 98 | 10 | 5.4 | 1.2 | 45 | 2 | 96 | 6.5 | 4.8 | 1.31 |
| Bicarbonate | 94 | 2 | mg/l | 39 | 0 | 100 | 39 | 17 | 1.19 | 40 | 0 | 100 | 17 | 14 | 0.82 |
| Carbonate | 94 | 2 | mg/l | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chloride | 94 | 2 | mg/l | 37 | 8 | 78 | 13 | 3 | 1.49 | 38 | 10 | 74 | 3.5 | 2.7 | 0.93 |
| Fluoride | 94 | 0.1 | mg/l | 37 | 20 | 46 | 0.16 | 0.05 | 1.07 | 38 | 25 | 34 | 0.11 | 0.05 | 0.98 |
| Nitrate | 94 | 0.1 | mg/l | 37 | 1 | 97 | 5.3 | 3.6 | 0.87 | 38 | 3 | 92 | 6.8 | 2.3 | 3.74 |
| Sulfate | 94 | 0.1 | mg/l | 37 | 0 | 100 | 15 | 4.1 | 1.52 | 38 | 0 | 100 | 7.4 | 5 | 0.94 |
| Alkalinity | 94 | 4 | mg/l | 39 | 0 | 100 | 37 | 17 | 1.18 | 40 | 0 | 100 | 16 | 14 | 0.73 |
| Hardness | 96 | 2 | mg/l | 35 | 0 | 100 | 55 | 26 | 1.11 | 39 | 1 | 97 | 25 | 20 | 0.75 |
| COD | 97 | 5 | mg/l | 43 | 6 | 86 | 60 | 26 | 2.02 | 45 | 8 | 82 | 64 | 34 | 1.27 |
| pH | 94 | 0-14 | | 39 | 0 | 100 | 6.9 | 6.6 | 0.1 | 40 | 0 | 100 | 6.5 | 6.4 | 0.05 |
| Specific Conductance | 94 | 1 | umhos/cm | 33 | 0 | 100 | 169 | 61 | 1.18 | 40 | 1 | 98 | 85 | 58 | 0.85 |
| Total Dissolved Solids | 96 | 2 | mg/l | 33 | 0 | 100 | 105 | 42 | 1.19 | 40 | 1 | 98 | 53 | 37 | 0.88 |

| Constituents | Data Included Since[a] | DL | Units | Multifamily Residential | | | | | | Mixed Residential | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Turbidity | 94 | 0.1 | NTU | 39 | 0 | 100 | 23 | 10 | 1.55 | 40 | 0 | 100 | 21 | 15 | 1.06 |
| Total Suspended Solids | 96 | 2 | mg/l | 36 | 1 | 97 | 46 | 24 | 1.41 | 38 | 0 | 100 | 63 | 40 | 1.19 |
| Volatile Suspended Solids | 94 | 1 | mg/l/hr | 36 | 2 | 94 | 19 | 13 | 1.01 | 37 | 2 | 95 | 35 | 25 | 1.33 |
| MBAS | 97 | 0.05 | mg/l | 36 | 26 | 28 | 0.049 | 0.025 | 1.13 | 39 | 25 | 36 | 0.068 | 0.025 | 1.86 |
| Total Organic Carbon | 94 | 1 | mg/l | 37 | 0 | 100 | 6.9 | 6 | 0.85 | 43 | 0 | 100 | 8.8 | 6.8 | 0.74 |
| BOD | 94 | 2 | mg/l | 31 | 2 | 94 | 11 | 9 | 0.91 | 34 | 0 | 100 | 18 | 14 | 0.9 |
| Dissolved Phosphorus | 94 | 0.05 | mg/l | 30 | 1 | 97 | 0.16 | 0.1 | 1.04 | 39 | 2 | 95 | 0.2 | 0.14 | 0.87 |
| Total Phosphorus | 94 | 0.05 | mg/l | 30 | 1 | 97 | 0.19 | 0.14 | 1 | 39 | 1 | 97 | 0.26 | 0.18 | 0.99 |
| NH3-N | 94 | 0.1 | mg/l | 38 | 9 | 76 | 0.39 | 0.24 | 1.43 | 42 | 5 | 88 | 0.56 | 0.33 | 1.13 |
| Nitrate-N | 96 | 0.1 | mg/l | 37 | 12 | 68 | 1.1 | 0.8 | 1.01 | 38 | 13 | 66 | 0.55 | 0.44 | 0.91 |
| Nitrite-N | 94 | 0.1 | mg/l | 37 | 10 | 73 | 0.1 | 0.05 | 1.65 | 38 | 7 | 82 | 0.12 | 0.06 | 1.47 |
| TKN | 96 | 0.1 | mg/l | 41 | 0 | 100 | 2 | 1.5 | 1.11 | 43 | 1 | 98 | 2.5 | 1.7 | 0.95 |
| Dissolved Aluminum | 96 | 100 | ug/L | 45 | 33 | 27 | 115 | 50 | 1.58 | 44 | 33 | 25 | 182 | 50 | 2.72 |
| Total Aluminum | 96 | 100 | ug/L | 45 | 5 | 89 | 387 | 300 | 0.91 | 45 | 6 | 87 | 513 | 271 | 1.89 |
| Dissolved Antimony | 97 | 5 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Antimony | 97 | 5 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Arsenic | 97 | 5 | ug/L | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Arsenic | 97 | 5 | ug/L | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Barium | 97 | 10 | ug/L | 45 | 18 | 60 | 20 | 14 | 0.92 | 45 | 19 | 58 | 18 | 14 | 1.11 |
| Total Barium | 97 | 10 | ug/L | 45 | 13 | 71 | 25 | 20 | 0.81 | 45 | 12 | 73 | 29 | 22 | 1.45 |
| Dissolved Beryllium | 97 | 1 | ug/L | 31 | 31 | 0 | S.I.D. | S.I.D. | S.I.D. | 31 | 31 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Beryllium | 97 | 1 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Boron | 97 | 100 | ug/L | 42 | 12 | 71 | 148 | 128 | 0.65 | 44 | 21 | 52 | 114 | 111 | 0.66 |
| Total Boron | 97 | 100 | ug/L | 43 | 7 | 84 | 202 | 168 | 0.58 | 44 | 11 | 75 | 164 | 161 | 0.58 |
| Dissolved Cadmium | 97 | 1 | ug/L | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. | 45 | 43 | 4 | S.I.D. | S.I.D. | S.I.D. |
| Total Cadmium | 97 | 1 | ug/L | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. | 45 | 43 | 4 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Chromium | 97 | 5 | ug/L | 45 | 43 | 4 | S.I.D. | S.I.D. | S.I.D. | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium | 97 | 5 | ug/L | 45 | 39 | 13 | S.I.D. | S.I.D. | S.I.D. | 45 | 42 | 7 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Chromium +6 | 94 | 10 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium +6 | 94 | 10 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Copper | 97 | 5 | ug/L | 45 | 20 | 56 | 6.9 | 5 | 0.91 | 45 | 17 | 62 | 12 | 8 | 1.42 |
| Total Copper | 97 | 5 | ug/L | 45 | 4 | 91 | 12 | 12 | 0.54 | 45 | 1 | 98 | 19 | 13 | 1.29 |
| Dissolved Iron | 94 | 100 | ug/L | 45 | 33 | 27 | 194 | 50 | 2.4 | 45 | 33 | 27 | 353 | 50 | 3.45 |
| Total Iron | 94 | 100 | ug/L | 45 | 9 | 80 | 791 | 350 | 2.14 | 45 | 10 | 78 | 1475 | 400 | 2.67 |
| Dissolved Lead | 97 | 5 | ug/L | 45 | 41 | 9 | S.I.D. | S.I.D. | S.I.D. | 45 | 40 | 11 | S.I.D. | S.I.D. | S.I.D. |
| Total Lead | 97 | 5 | ug/L | 45 | 31 | 31 | 5.8 | 2.5 | 1.48 | 45 | 23 | 49 | 11 | 2.5 | 2.6 |
| Dissolved Manganese | 98 | 100 | ug/L | 21 | 21 | 0 | S.I.D. | S.I.D. | S.I.D. | 20 | 18 | 10 | S.I.D. | S.I.D. | S.I.D. |
| Total Manganese | 98 | 100 | ug/L | 21 | 20 | 5 | S.I.D. | S.I.D. | S.I.D. | 20 | 18 | 10 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Mercury | 94 | 1 | ug/L | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. | 44 | 44 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Mercury | 94 | 1 | ug/L | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. | 44 | 44 | 0 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Since[a] | DL | Units | Multifamily Residential | | | | | | Mixed Residential | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Dissolved Nickel | 97 | 5 | ug/L | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. | 45 | 42 | 7 | S.I.D. | S.I.D. | S.I.D. |
| Total Nickel | 97 | 5 | ug/L | 45 | 39 | 13 | S.I.D. | S.I.D. | S.I.D. | 45 | 42 | 7 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Selenium | 94 | 5 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Selenium | 94 | 5 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 44 | 2 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Silver | 97 | 1 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Silver | 97 | 1 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Thallium | 97 | 5 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Thallium | 97 | 5 | ug/L | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. | 45 | 45 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Zinc | 94 | 50 | ug/L | 45 | 21 | 53 | 83 | 53 | 1.53 | 45 | 9 | 80 | 133 | 89 | 1.33 |
| Total Zinc | 94 | 50 | ug/L | 45 | 5 | 89 | 146 | 89 | 1.37 | 45 | 1 | 98 | 203 | 125 | 1.35 |
| Bis(2-ethylhexyl)phthalate | 99 | 1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthene | 99 | 0.05 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthylene | 99 | 0.05 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Antracene | 99 | 0.05 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)anthracene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 4 | 43 | 0.38 | 0.05 | 1.7 |
| Benzo(a)pyrene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(b)fluoranthene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Benzo(k)fluoranthene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 6 | 14 | S.I.D. | S.I.D. | S.I.D. |
| Chrysene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 2 | 71 | 0.62 | 0.3 | 1.32 |
| Dibenz(a,h)anthracene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Fluoranthene | 99 | 0.1 | ug/L | 6 | 4 | 33 | 0.17 | 0.05 | 1.54 | 7 | 2 | 71 | 0.29 | 0.27 | 1 |
| Fluorene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Indeno (1,2,3-cd)pyrene | 99 | 0.1 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Naphthalene | 99 | 0.05 | ug/L | 6 | 6 | 0 | S.I.D. | S.I.D. | S.I.D. | 7 | 7 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Phenanthrene | 99 | 0.05 | ug/L | 6 | 4 | 33 | 0.21 | 0.025 | 2.08 | 7 | 2 | 71 | 0.5 | 0.24 | 1.43 |
| Pyrene | 99 | 0.05 | ug/L | 6 | 4 | 33 | 0.2 | 0.025 | 1.95 | 7 | 2 | 71 | 0.35 | 0.3 | 1.03 |
| All other SVOCs | 94 | 0.05-5.0 | ug/L | 30 | 30 | 0 | S.I.D. | S.I.D. | S.I.D. | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Organochlorine Pesticides & PCBs | 94 | 0.05-1.0 | ug/L | 36 | 36 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Carbofuran | 96 | 5 | ug/L | 43 | 43 | 0 | S.I.D. | S.I.D. | S.I.D. | 44 | 44 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Glyphosate | 98 | 25 | ug/L | 21 | 20 | 5 | S.I.D. | S.I.D. | S.I.D. | 20 | 20 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Diazinon | 96 | 0.01 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 33 | 15 | S.I.D. | S.I.D. | S.I.D. |
| Chlorpyrifos | 96 | 0.05 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Thiobencarb | 96 | 1 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| All other N- and P- Pesticides | 94 | 1.0-2.0 | ug/L | 37 | 37 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4-D | 96 | 10 | ug/L | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4,5-TP | 96 | 1 | ug/L | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Bentazon | 96 | 2 | ug/L | 33 | 33 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Sincea | DL | Units | High Density Single Family Residential | | | | | | Educational | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Cyanide | 96 | 0.01 | mg/l | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| TPH | 94 | 1 | mg/l | 3 | 0 | 100 | 1.3 | 1.2 | 0.23 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Oil and Grease | 94 | 1 | mg/l | 3 | 0 | 100 | 1.3 | 1.2 | 0.23 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Total Phenols | 94 | 0.1 | mg/l | 3 | 3 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Total Coliform | 94 | 20 | MPN/100ml | 3 | 0 | 100 | 1,366,667 | 1,600,000 | 0.3 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fecal Coliform | 94 | 20 | MPN/100ml | 3 | 0 | 100 | 933,333 | 900,000 | 0.7 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Ratio Fecal Coliform/Total Coliform | 94 | | | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fecal Streptococcus | 94 | 20 | MPN/100ml | 3 | 0 | 100 | 1,233,333 | 1,600,000 | 0.51 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fecal Enterococcus | 94 | 20 | MPN/100ml | 3 | 0 | 100 | 610,000 | 140,000 | 1.41 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Ammonia | 94 | 0.1 | mg/l | 34 | 6 | 82 | 0.41 | 0.3 | 1.05 | 40 | 12 | 70 | 0.33 | 0.18 | 1.62 |
| Calcium | 96 | 1 | mg/l | 32 | 1 | 97 | 6.7 | 5.8 | 0.55 | 39 | 0 | 100 | 16 | 10 | 0.71 |
| Magnesium | 96 | 1 | mg/l | 32 | 8 | 75 | 1.5 | 1.2 | 0.66 | 39 | 8 | 79 | 3.2 | 2.4 | 0.96 |
| Potassium | 94 | 1 | mg/l | 38 | 0 | 100 | 3.6 | 2.9 | 0.66 | 41 | 0 | 100 | 3.4 | 2.7 | 0.49 |
| Sodium | 96 | 1 | mg/l | 36 | 0 | 100 | 6.2 | 5 | 0.81 | 41 | 0 | 100 | 26 | 8 | 2.21 |
| Bicarbonate | 94 | 2 | mg/l | 35 | 0 | 100 | 21 | 13 | 1.04 | 40 | 0 | 100 | 39 | 28 | 0.76 |
| Carbonate | 94 | 2 | mg/l | 35 | 35 | 0 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chloride | 94 | 2 | mg/l | 33 | 2 | 94 | 5 | 4.2 | 0.69 | 40 | 4 | 90 | 34 | 4.6 | 2.89 |
| Fluoride | 94 | 0.1 | mg/l | 33 | 27 | 18 | S.I.D. | S.I.D. | S.I.D. | 40 | 24 | 40 | 0.14 | 0.05 | 1.21 |
| Nitrate | 94 | 0.1 | mg/l | 33 | 1 | 97 | 3.9 | 2.1 | 1.38 | 40 | 2 | 95 | 2.6 | 2.2 | 0.73 |
| Sulfate | 94 | 0.1 | mg/l | 33 | 0 | 100 | 6.9 | 3.8 | 1.05 | 40 | 0 | 100 | 17.3 | 9.3 | 1.23 |
| Alkalinity | 94 | 4 | mg/l | 35 | 0 | 100 | 20 | 13 | 0.91 | 40 | 0 | 100 | 36 | 26 | 0.72 |
| Hardness | 96 | 2 | mg/l | 31 | 0 | 100 | 23 | 20 | 0.53 | 39 | 0 | 100 | 52 | 40 | 0.79 |
| COD | 97 | 5 | mg/l | 32 | 5 | 84 | 89 | 39 | 1.87 | 40 | 10 | 75 | 37 | 34 | 0.85 |
| pH | 94 | 0-14 | | 35 | 0 | 100 | 6.5 | 6.5 | 0.06 | 40 | 0 | 100 | 7 | 6.9 | 0.07 |
| Specific Conductance | 94 | 1 | umhos/cm | 33 | 0 | 100 | 90 | 61 | 0.77 | 39 | 0 | 100 | 243 | 111 | 1.41 |
| Total Dissolved Solids | 96 | 2 | mg/l | 32 | 0 | 100 | 58 | 38 | 0.8 | 39 | 0 | 100 | 147 | 68 | 1.35 |
| Turbidity | 94 | 0.1 | NTU | 34 | 0 | 100 | 34 | 19 | 1.17 | 41 | 0 | 100 | 64 | 36 | 1.14 |
| Total Suspended Solids | 96 | 2 | mg/l | 30 | 0 | 100 | 95 | 61 | 1.16 | 39 | 0 | 100 | 95 | 61 | 1.05 |
| Volatile Suspended Solids | 94 | 1 | mg/l/hr | 31 | 0 | 100 | 48 | 31 | 0.91 | 39 | 0 | 100 | 23 | 21 | 0.69 |
| MBAS | 97 | 0.05 | mg/l | 29 | 26 | 10 | S.I.D. | S.I.D. | S.I.D. | 38 | 33 | 13 | S.I.D. | S.I.D. | S.I.D. |
| Total Organic Carbon | 94 | 1 | mg/l | 38 | 0 | 100 | 9.8 | 7.1 | 0.76 | 42 | 0 | 100 | 7.5 | 6.5 | 0.5 |
| BOD | 94 | 2 | mg/l | 27 | 0 | 100 | 16 | 15 | 0.68 | 34 | 0 | 100 | 13 | 12 | 0.68 |
| Dissolved Phosphorus | 94 | 0.05 | mg/l | 32 | 0 | 100 | 0.29 | 0.25 | 0.57 | 37 | 1 | 97 | 0.27 | 0.2 | 0.86 |
| Total Phosphorus | 94 | 0.05 | mg/l | 32 | 0 | 100 | 0.39 | 0.32 | 0.77 | 37 | 0 | 100 | 0.31 | 0.23 | 0.65 |
| NH3-N | 94 | 0.1 | mg/l | 34 | 7 | 79 | 0.34 | 0.25 | 1.04 | 40 | 12 | 70 | 0.28 | 0.15 | 1.58 |
| Nitrate-N | 96 | 0.1 | mg/l | 32 | 11 | 66 | 0.86 | 0.46 | 1.51 | 39 | 12 | 69 | 0.51 | 0.48 | 0.86 |
| Nitrite-N | 94 | 0.1 | mg/l | 33 | 12 | 64 | 0.1 | 0.05 | 1.01 | 39 | 13 | 67 | 0.09 | 0.05 | 1.41 |
| TKN | 96 | 0.1 | mg/l | 35 | 0 | 100 | 2.9 | 2 | 1.04 | 39 | 0 | 100 | 1.6 | 1.3 | 0.73 |
| Dissolved Aluminum | 96 | 100 | mg/l | 36 | 26 | 28 | 105 | 50 | 1.03 | 42 | 11 | 74 | 397 | 248 | 1.21 |
| Total Aluminum | 96 | 100 | mg/l | 36 | 6 | 83 | 599 | 287 | 1.08 | 42 | 2 | 95 | 881 | 720 | 0.83 |

| Constituents | Data Included Sincea | DL | Units | High Density Single Family Residential | | | | | | Educational | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Dissolved Antimony | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Antimony | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Arsenic | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 39 | 7 | S.I.D. | S.I.D. | S.I.D. |
| Total Arsenic | 97 | 5 | mg/l | 32 | 29 | 9 | S.I.D. | S.I.D. | S.I.D. | 42 | 39 | 7 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Barium | 97 | 10 | mg/l | 32 | 17 | 47 | 14 | 5 | 0.92 | 42 | 6 | 86 | 28 | 26 | 0.72 |
| Total Barium | 97 | 10 | mg/l | 32 | 11 | 66 | 21 | 21 | 0.72 | 42 | 6 | 86 | 37 | 33 | 0.74 |
| Dissolved Beryllium | 97 | 1 | mg/l | 19 | 19 | 0 | S.I.D. | S.I.D. | S.I.D. | 29 | 29 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Beryllium | 97 | 1 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Boron | 97 | 100 | mg/l | 32 | 12 | 63 | 126 | 125 | 0.58 | 42 | 5 | 88 | 189 | 153 | 0.65 |
| Total Boron | 97 | 100 | mg/l | 32 | 5 | 84 | 181 | 171 | 0.52 | 42 | 4 | 90 | 254 | 227 | 0.58 |
| Dissolved Cadmium | 97 | 1 | mg/l | 32 | 31 | 3 | S.I.D. | S.I.D. | S.I.D. | 42 | 40 | 5 | S.I.D. | S.I.D. | S.I.D. |
| Total Cadmium | 97 | 1 | mg/l | 32 | 30 | 6 | S.I.D. | S.I.D. | S.I.D. | 42 | 34 | 19 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Chromium | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 41 | 2 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium | 97 | 5 | mg/l | 32 | 29 | 9 | S.I.D. | S.I.D. | S.I.D. | 42 | 33 | 21 | 3.6 | 2.5 | 0.74 |
| Dissolved Chromium +6 | 94 | 10 | mg/l | 36 | 36 | 0 | S.I.D. | S.I.D. | S.I.D. | 43 | 43 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Chromium +6 | 94 | 10 | mg/l | 36 | 36 | 0 | S.I.D. | S.I.D. | S.I.D. | 43 | 43 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Copper | 97 | 5 | mg/l | 32 | 15 | 53 | 8.5 | 6.7 | 0.95 | 42 | 8 | 81 | 13 | 9.9 | 0.94 |
| Total Copper | 97 | 5 | mg/l | 32 | 2 | 94 | 15 | 11 | 0.57 | 42 | 0 | 100 | 24 | 15 | 1.49 |
| Dissolved Iron | 94 | 100 | mg/l | 38 | 27 | 29 | 123 | 50 | 1.2 | 42 | 15 | 64 | 454 | 190 | 2.3 |
| Total Iron | 94 | 100 | mg/l | 38 | 7 | 82 | 1117 | 546 | 1.36 | 42 | 4 | 90 | 2705 | 625 | 3.32 |
| Dissolved Lead | 97 | 5 | mg/l | 32 | 28 | 13 | S.I.D. | S.I.D. | S.I.D. | 42 | 40 | 5 | S.I.D. | S.I.D. | S.I.D. |
| Total Lead | 97 | 5 | mg/l | 32 | 14 | 56 | 10 | 5.4 | 1.03 | 42 | 30 | 29 | 4.9 | 2.5 | 1.09 |
| Dissolved Manganese | 98 | 100 | mg/l | 11 | 10 | 9 | S.I.D. | S.I.D. | S.I.D. | 17 | 17 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Manganese | 98 | 100 | mg/l | 11 | 10 | 9 | S.I.D. | S.I.D. | S.I.D. | 17 | 17 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Mercury | 94 | 1 | mg/l | 35 | 35 | 0 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Mercury | 94 | 1 | mg/l | 35 | 34 | 3 | S.I.D. | S.I.D. | S.I.D. | 40 | 40 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Nickel | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 38 | 10 | S.I.D. | S.I.D. | S.I.D. |
| Total Nickel | 97 | 5 | mg/l | 32 | 27 | 16 | S.I.D. | S.I.D. | S.I.D. | 42 | 26 | 38 | 4.7 | 2.5 | 0.69 |
| Dissolved Selenium | 94 | 5 | mg/l | 38 | 38 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Selenium | 94 | 5 | mg/l | 38 | 38 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Silver | 97 | 1 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Silver | 97 | 1 | mg/l | 32 | 31 | 3 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Thallium | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Total Thallium | 97 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 42 | 42 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Dissolved Zinc | 94 | 50 | mg/l | 38 | 30 | 21 | 44 | 25 | 1.42 | 42 | 19 | 55 | 66 | 56 | 0.83 |
| Total Zinc | 94 | 50 | mg/l | 38 | 13 | 66 | 79 | 66 | 0.75 | 42 | 5 | 88 | 138 | 98 | 1.73 |
| Bis(2-ethylhexyl)phthalate | 99 | 1 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthene | 99 | 0.05 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Acenaphthylene | 99 | 0.05 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Antracene | 99 | 0.05 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |

| Constituents | Data Included Sincea | DL | Units | High Density Single Family Residential | | | | | | Educational | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV | No. of Samples | No. of Non-detects | Percent Detects | Mean | Median | CV |
| Benzo(a)anthracene | 99 | 0.1 | mg/l | 5 | 4 | 20 | S.I.D. | S.I.D. | 1.24 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Benzo(a)pyrene | 99 | 0.1 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Benzo(b)fluoranthene | 99 | 0.1 | mg/l | 5 | 4 | 20 | S.I.D. | S.I.D. | 1.29 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Benzo(k)fluoranthene | 99 | 0.1 | mg/l | 5 | 4 | 20 | S.I.D. | S.I.D. | 1.18 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Chrysene | 99 | 0.1 | mg/l | 5 | 4 | 20 | S.I.D. | S.I.D. | 1.18 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Dibenz(a,h)anthracene | 99 | 0.1 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fluoranthene | 99 | 0.1 | mg/l | 5 | 3 | 40 | 0.53 | 0.05 | 1.67 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Fluorene | 99 | 0.1 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Indeno (1,2,3-cd)pyrene | 99 | 0.1 | mg/l | 5 | 5 | 0 | S.I.D. | S.I.D. | S.I.D. | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Naphthalene | 99 | 0.05 | mg/l | 5 | 3 | 40 | 0.04 | 0.025 | 0.59 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Phenanthrene | 99 | 0.05 | mg/l | 5 | 3 | 40 | 0.13 | 0.025 | 1.66 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| Pyrene | 99 | 0.05 | mg/l | 5 | 1 | 80 | 0.83 | 0.37 | 1.44 | 0 | 0 | S.I.D. | S.I.D. | S.I.D. | S.I.D. |
| All other SVOCs | 94 | 0.05-5.0 | mg/l | 26 | 26 | 0 | S.I.D. | S.I.D. | S.I.D. | 23 | 23 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Organochlorine Pesticides & PCBs | 94 | 0.05-1.0 | mg/l | 31 | 31 | 0 | S.I.D. | S.I.D. | S.I.D. | 22 | 22 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Carbofuran | 96 | 5 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 43 | 43 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Glyphosate | 98 | 25 | mg/l | 11 | 11 | 0 | S.I.D. | S.I.D. | S.I.D. | 17 | 15 | 12 | S.I.D. | S.I.D. | S.I.D. |
| Diazinon | 96 | 0.01 | mg/l | 30 | 28 | 7 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Chlorpyrifos | 96 | 0.05 | mg/l | 30 | 30 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Thiobencarb | 96 | 1 | mg/l | 30 | 30 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| All other N- and P- Pesticieds | 94 | 1.0-2.0 | mg/l | 32 | 32 | 0 | S.I.D. | S.I.D. | S.I.D. | 39 | 39 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4-D | 96 | 10 | mg/l | 27 | 27 | 0 | S.I.D. | S.I.D. | S.I.D. | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. |
| 2,4,5-TP | 96 | 1 | mg/l | 27 | 27 | 0 | S.I.D. | S.I.D. | S.I.D. | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. |
| Bentazon | 96 | 2 | mg/l | 27 | 27 | 0 | S.I.D. | S.I.D. | S.I.D. | 24 | 24 | 0 | S.I.D. | S.I.D. | S.I.D. |

**Notes**
CV = Coefficient of variation
DL = Detection Limit
S.I.D. = Statistically Invalid Data, not enough data above detection limit collected
a) Detection limits have changed throughout the monitoring process. Only data matching the current detection limit is displayed in this table. The Data Included Since field indicates the first year of the storm season with the current detection limit.

# Appendix 3.D.
# Source Assessment

The following are common sources of key pollutants identified for the Upper Los Angeles River Watershed Management Area.

## 3.D.1 Bacteria

### 3.D.1.1 Escherichia coli

The sources identified in the LA River Bacteria TMDL source assessment "include, but are not limited to, domestic pets, horses, direct human inputs all contributing to the bacteria in the urban runoff, leaks and overflows from wastewater collection systems, illicit connections, failing septic systems, and sediments" (LARWQCB 2010). Because many of these sources are conveyed through the MS4 and discharged to the LA River, there is a linkage between MS4 discharges and bacteria loadings in the LA River.
The LA River Watershed Bacteria TMDL Source Assessment states "A myriad of bacteria sources are present in the Watershed and can potentially degrade the quality of storm drain discharges, including sewage sources, homeless persons, domestic pets, food waste, trash, horses, wildlife, illicit discharges, sediment, and regrowth". The source assessment for the Long Beach City beaches and LA River Estuary TMDL also identifies MS4 discharges as a significant source of bacteria loading, in addition to Caltrans facilities, vessels covered under the Vessel Discharge Permit, facilities operating under the Statewide General Industrial and Construction Storm Water permits, general NPDES permits, and various nonpoint sources (USEPA 2012).

Bacteria loads associated with MS4 and Caltrans Stormwater Permits, minor and general NPDES permits (Table 2-13 above) are largely unknown due to lack of monitoring for bacteria; however the main contributor of flow and associated bacteria loading is the stormwater conveyance system.

## 3.D.2 Current and Historical Organics

Urban storm water has been recognized as a substantial source of organic pollutants such as PAHs, PCBs and organochlorine compounds (Suffet and Stenstrom, 1997). This is also reflected in routine storm water monitoring performed by LACDPW under the MS4 permit (LACDPW, 2002).

The predominant source of PAHs in urban storm water in the greater Los Angeles area is from aerial deposition and subsequent wash-off of PAHs associated with combustion byproducts (Stein et. al., 2006). The loadings of pesticides, PCBs and dioxins reflect historic uses in Los Angeles River watershed. Although the uses of these compounds are banned, these legacy pollutants continue to remain elevated in sediments. DDT and PCB loadings appear to have declined over the last 30 years (Stein et al., 2003).

In summary, the major contributor of associated organochlorine compounds, pesticides, PCBs and PAHs loading to Los Angeles River is believed to be wet-weather runoff discharged from the storm water conveyance system (USEPA and CA RWQCB, 2005; USEPA, 2012). In the highly urbanized areas of the watershed, the contribution of stormwater runoff and storm-borne sediment loads from these areas drain to the MS4 system.

### 3.D.2.1 Pesticides (DDT, DDE, DDD, Chlorpyrifos, Diazinon and Beta-BHC)

DDT is an organochlorine insecticide that was widely used on agricultural crops and to control disease-carrying insects. In California, DDT was used primarily for agricultural activities. The use of DDT was banned in the U.S. in 1972, except for public health emergencies involving insect diseases and control of body lice. Although DDT is no longer used, it persists in the environment, adhering strongly to soil particles. Total DDT consists of two isomers (p,p-DDT and o,p-DDT) and several degradation products (p,p-DDE, o,p-DDE, p,p-DDD, and o,p-DDD).

Chlorpyrifos is a broad-spectrum, chlorinated organophosphate (OP) insecticide. Chlorpyrifos was first registered for use in the U.S. in 1965. Chlorpyrifos is used on agricultural food and feed crops, cattle ear tags, golf course turf, industrial plants and vehicles, non-structural wood treatments including processed wood products, fence posts and utility poles, and to control public health pests such as mosquitoes and fire ants (NPIC, 2011).

Diazinon is the common name for a synthetic organophosphate pesticide first registered in the U.S. in 1956. Diazinon is used in agriculture to control soil and foliage insects and pests on a variety of fruit, vegetable, nut and field crops. Diazinon is also used on non-lactating cattle in an insecticidal ear tag. Diazinon was one of the most widely used insecticides for household and agricultural pest control. Prior to the cancellation of all residential uses by 2004, diazinon was used outdoors on lawns and gardens, indoors for fly control and in pet collars designed to control fleas and ticks. Current agricultural uses of diazinon are limited to selected crops, and diazinon products (other than cattle ear tags) are regulated as restricted use pesticides (NPIC, 2011a).

Beta-BHC is a synonym of beta-hexachlorocyclohexane (beta-HCH), which is one of the isomers of hexachlorocyclohexane. It is a byproduct of the production of the insecticide lindane. This pesticide was widely used during the 1960s and 1970s, particularly on cotton plants. Although banned as a pesticide more than 30 years ago, traces of beta-HCH can still be found in water and soil (USEPA, 2013a).

In a previous study by Young et al. (1973), the annual wet weather loads for DDTs from the adjacent Ballona Creek watershed were around 18 kg during 1971-1972 water year, which was a particularly wet year. In the 1987-88 period, wet weather loadings for DDT during a comparable size storm year were around 8 kg (Stein et al., 2003). There were no detectable concentrations of DDT in stormwater samples from 1994 to 2005 (LADPW, 2005). However, the detection limits for DDT used by the Los Angeles County lab are two orders of magnitude greater than the Communities of Practice (COP)'s human health objective.

More recently, Curren et al. (2011) evaluated the contribution of subwatersheds to chlorinated pesticide loading during wet weather flow in Los Angeles area. Fifteen storm drains were sampled during three storms during the 2005 - 2006 winter rainy season. The suspended solids were analyzed for chlorinated pesticides. Curren et al. (2011) found DDT concentrations in stormwater during the 2005-2006 season that ranged from non-detect to 0.4 ng/l. This indicates that DDT concentrations in stormwater may exceed the human health criteria. The total DDT loadings based on the average concentrations from these three storms sampled by Curren et al. (2011) were estimated to be 6.2 g.

Based on approved Santa Monica Bay TMDLs for DDTs and PCBs, the concentrations of DDT in the wastewater effluent are currently at or near the detection limits. From 1947 to 1971 large quantities of DDT were discharged from the Montrose Chemical plant in Los Angeles, which manufactured DDT, to the Los Angeles County Joint Water Pollution Control Plant (JWPCP). The concentrations of DDT in surface sediments have decreased substantially since the early 1970s as much of the contamination has been buried below the active sediment layer or degraded as a result of natural processes (USEPA, 2012).

Both chlorpyrifos and diazinon are man-made pesticides. Agricultural sources of chlorpyrifos and diazinon in the watershed are likely causing exceedance of water quality objectives, based on similarity of agricultural practice in the Lower Salinas River watershed. Based on the agricultural application location and amount applied using the Pesticide Use Report (PUR) provided by the California Department of Pesticide Regulation (CDPR), applications of currently registered pesticides such as Chlorpyrifos and Diazinon are reported at the section level or square mile level. The pesticide use

report allows for fairly accurate identification of sources in time and space. It is estimated that agricultural application could be accounted for over 90% of chlorpyrifos use and diazinon uses. In addition, the various uses of diazinon and chlorpyrifos in an urban setting include landscape applications and pest control. Both pesticides can be transported to surface water via urban storm water conveyance systems (CA SWRCB, 2011).

### 3.D.2.2 PCBs

Polychlorinated biphenyls (PCBs) are mixtures of up to 209 individual chlorinated compounds (known as congeners). PCBs were used in a wide variety of applications, including dielectric fluids in transformers and capacitors, heat transfer fluids, and lubricants. In 1976, the manufacture of PCBs was prohibited because of evidence that they build up in the environment and can cause harmful health effects.

PCBs are typically associated with more urban areas. In addition, PCBs were commonly used in a number of household products (e.g., fluorescent light fixtures, paints, waxes, caulking). Although there is little information available to estimate the potential loads from rural areas, rural areas are unlikely to be a major source of PCBs (USEPA, 2012).

Potential pollutants from construction sites include sediment, which may contain historic PCBs from construction materials and the heavy equipment used on construction sites. In addition, in the highly urbanized areas within Los Angeles River watershed re-development of former industrial sites has a higher potential to discharge sediments laden with pollutants such as PCBs. During wet weather, runoff from construction sites has the potential to contribute metals loadings to the creek (USEPA and CA RWRCB, 2005).

In the 1971-1972 water year, the annual wet weather loads for PCBs were around 15 kg (Young et al., 1973). In the 1987-88 water year, the wet weather loadings for PCBs were around 7 kg. LADPW has not indicated detectable levels of PCBs in stormwater since the mid-1990s. However, detection levels for PCBs measured as arochlors were 65 ng/l, which are more than three orders of magnitude greater than the COP human health objective. In 1995-1996 water year, Suffet and Stenstrom (1997) measured PCB congeners and found elevated concentrations of total PCBs (calculated as the sum of the 18 congeners) ranging between 15,100 ng/l to 390,000 ng/l in stormwater runoff.

More recently, Curren et al. (2011) found concentrations of total PCBs that were much lower, ranging from 0.74 ng/l to 16.07 ng/l in the 2005-06 rainy season. These most recent values are all higher than the COP objective. The estimate of PCB loads based on the average concentrations from the three storms sampled by Curren et al. (2011) was 32.9 g. However, a disproportionate mass of PCB loading came from a site which had no obvious sources.

Based on approved TMDL for Calleguas Creek Watershed Organochlorine Pesticides and PCBs, most PCB residues in the watershed are due to past use of PCBs as coolants and lubricants in transformers, capacitors, and other electrical equipment. Atmospheric deposition is also a potential source of PCBs. Urban runoff and publicly owned treatment works (POTWs) are minor sources of PCBs (California RWQCB, 2005).

Furthermore, based on approved Santa Monica Bay TMDLs for DDTs and PCBs, the concentrations of PCBs in the wastewater effluent are currently at or near the detection limits. PCBs entered the JWPCP from several industrial sources in the Los Angeles area. The concentrations of PCBs in surface sediments have decreased substantially since the early 1970s as much of the contamination has been

buried below the active sediment layer or degraded as a result of natural processes (USEPA, 2012). The continued presence of high PCBs in sediments also suggest land-based inputs to the storm drain system, although there is limited information to assess the impact of hundreds of individual industrial or construction stormwater projects (USEPA, 2012).

Atmospheric deposition may be a potential nonpoint source of PCBs. There may also be potential losses of PCBs that may occur as a result of volatilization. Sabin et al. (2011) provide limited information on net-gas exchange during dry weather from sites near Ballona Creek Estuary and Los Angeles Harbor. Volatilization may be an important loss term process for PCBs. However, the rates of volatilization are a function of concentrations in both the air and water which can vary greatly over time and space.

### 3.D.2.3 PAHs

Polynuclear aromatic hydrocarbons (PAHs) are a group of over 200 different chemicals. They are found in nature in coal and crude oil and in emissions from combustion of fossil fuels, forest fires and volcanoes. Most PAHs entering the environment are formed unintentionally during burning (coal, oil, wood, gasoline, garbage, tobacco and other organic material) or in certain industrial processes. Important sources of PAHs in surface waters include deposition of airborne PAHs, municipal waste water discharge, urban storm water runoff particularly from roads, runoff from coal storage areas, effluents from wood treatment plants and other industries, oil spills, and petroleum pressing (ATSDR, 1995).

The loadings of PAHs are attributable to historical and ongoing activities in the watershed. Atmospheric deposition may be a potential nonpoint source of metals and PAHs to the watershed, through either direct or indirect deposition. PAHs are released to the atmosphere through natural and synthetic sources of emissions. The largest sources of PAHs to the atmosphere are from synthetic sources, including wood burning in homes; automobile and truck emissions; and hazardous waste sites and former manufactured-gas sites (USEPA and CA RWRCB, 2005).

It is believed that the primary source of PAHs to Los Angeles River watershed is urban storm water runoff. Indirect atmospheric deposition reflects the process by which metals and PAHs deposited on the land surface may be washed off during storm events and delivered through storm water runoff to Los Angeles River watershed. Most airborne PAHs are deposited on the land (e.g., through precipitation or indirect atmospheric deposition) and are transported to Los Angeles River through storm water runoff (USEPA and CA RWQCB, 2005).

Stein et. al. (2006) characterized the sources and temporal patterns of PAHs in urban storm water by analyzing PAH concentrations and loads from a range of homogeneous land use sites and in-river mass emission sites throughout the greater Los Angeles region. Samples were collected at 30- to 60-min intervals over the course of a storm during multiple storm events over a four-year period in order to investigate PAH sources and inter- and intra-storm patterns in loading. Polycyclic aromatic hydrocarbon storm fluxes ranged from 1.3 g/km$^2$ for the largely undeveloped watershed to 223.7 g/km$^2$ for the highly urbanized watershed, with average storm fluxes being 46 times higher in developed versus undeveloped watersheds (Stein et. al. 2006). Early-season storms repeatedly produced substantially higher loads than comparably sized late season storms. Within individual storms, PAHs exhibited a moderate first flush with between 30 and 60% of the total PAH load being discharged in the first 20% of the storm volume. The predominant source of PAHs in urban storm water in the greater Los Angeles area is from aerial deposition and subsequent wash-off of PAHs associated with combustion byproducts (Stein et. al., 2006; Sabin and Schiff, 2004; Gunther et. al., 1987).

### 3.D.2.4 Dioxin

Dioxin is the name given to a group of persistent, very toxic chemicals. Dioxins can be released into the environment through forest fires, backyard burning of trash, certain industrial activities, and residue from past commercial burning of waste. Dioxins break down very slowly and past releases of dioxins from both man-made and natural sources still exist in the environment.

The most toxic form of dioxin is 2,3,7,8-tetrachlorodibenzo-p-dioxin or TCDD. 2,3,7,8-TCDD is released to the environment in stack emissions from the incineration of municipal refuse and certain chemical wastes, in exhaust from automobiles powered by leaded gasoline, in emissions from wood burning in the presence of chlorine, in accidental fires involving transformers containing PCBs and chlorinated benzenes, and from the improper disposal of certain chlorinated chemical wastes. TCDD has been released to the environment as a low level impurity in various pesticides.

Based on a survey of storm water runoff for Dioxins in the San Francisco Bay area, the California Regional Water Quality Control Board estimated the mass contribution from industrial and municipal wastewater discharges, storm water, and direct atmospheric deposition (California Regional Water Quality Control Board, 1998). It is expected that these are similar Dioxin source categories for Los Angeles River watershed.

For the largest categories of direct deposition and storm water runoff, the California Regional Water Quality Control Board expects air emissions from disperse sources or from "reservoir sources" to be the ultimate source due to uniformity of concentrations throughout the region independent of industrial activity. The current known air sources are on- and off-road mobile sources (e.g., motor vehicles, including diesel), and residential wood burning. Dioxin legacy sources may include medical waste incinerators and other combustion sources that operated historically in the area (USEPA, 2013).

In the municipal water discharge category, the suspected sources are also diffuse, including laundry gray-water, storm water inflow, shower water, human waste, bleached toilet paper, food waste, and industrial sources. Of these, the predominant one appears to be laundry gray-water. Dioxins in gray-water may come from pentachlorophenol-treated cotton from overseas, chloranil-based dyes in the fabric, fabric bleaching, soil and human skin (USEPA, 2013). For example, based on the previous study in San Francisco Bay, current best estimate is that municipal wastewater treatment plants contribute less than 10% of the dioxins delivered to the San Francisco Bay (BACWA, 2008).

For the industrial category, the only documented source of dioxins in the California is expected from petroleum refineries. Within the industrial process, the specific source is the wash waters from catalyst regeneration reformers. Further studies suggest that the dioxins that remain in the discharge are primarily due to storm water runoff from areas surrounding the refineries (USEPA, 2013).

### 3.D.2.5 Bis(2-ethylhexyl)Phthalate

Bis-2-ethylhexylpthalate is a plasticizer used in the manufacture of polyvinyl chloride (PVC). It is also is a common contaminant of sample containers, sampling apparatus, and analytical equipment. For example, it has been identified as a common laboratory contaminant during groundwater monitoring data analysis (WI DNR, 2002). Attribution to MS4 discharges is uncertain and can possibly be attributable to lab contamination, which is largely a function of lab design, practices and housekeeping.

### 3.D.2.6 Chlorination Byproduct Trihalomethanes (THM)

Trihalomethane compounds chlorodibromomethane and dichlorobromomethane are disinfection byproducts formed from the reactions of chlorine with organic matter in water. These constituents are regulated in the discharges from the WRPs that discharge to the LA River and are likely the primary sources of the Category 3 exceedance level in LA River Reach 3 below the LA-Glendale WRP discharge and the Category 2 exceedance level in the Burbank Western Channel into which the Burbank WRP discharges. As such, these THM exceedances should not be attributed to the MS4 system.

## 3.D.3 Metals

Under the Los Angeles River Metals TMDL, cadmium, copper, lead, selenium, and zinc have separate dry/wet weather numeric targets and/or load allocations within the watershed. The sources and delivery of metals can vary depending on weather and flow conditions. Wet weather metal loads are typically greater than dry weather loads, with wet weather stormwater runoff shown to be the dominant source of annual metals loading (LACDPW, 2010). During dry weather, most of the metals loadings are in the dissolved form. The three major publicly owned treatment works that discharge to the river constitute the majority of flow and metals loadings during dry weather. Storm drains also contribute a large percentage of dry weather loadings because although their flows are typically low, concentrations of metals in urban runoff may be quite high (LARWQCB, 2010b).

During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather stormwater flow. On an annual basis, stormwater contributes about 40% of the cadmium loading, 80% of the copper loading, 95% of the lead loading and 90% of the zinc loading, the majority of which is permitted through the Los Angeles County MS4 (in addition to the Caltrans stormwater permit, general construction stormwater permit, and general industrial stormwater permit) (LARWQCB, 2010b).

### 3.D.3.1 Toxic Organic Chemicals

The fertilizers used for land and landscape maintenance of municipal areas are also a source of metals. Fertilizers, herbicides, and pesticides contain metals such as cadmium, copper, lead, and zinc. Heavy metals in municipal stormwater can also come from car debris, roof shingles, building materials, and plastics (LACDPW, 2012a).

### 3.D.3.2 Road Infrastructure

"A California study found that cars are the leading source of metal loads in stormwater, producing over 50 percent of the copper, cadmium, and zinc loads. Wear from brake pads, tires, and engine parts is a significant source of metal pollutants. For example, almost 50 percent of the copper loads in roadway stormwater originates from brake pads, and tire wear accounts for over 50 percent of the total cadmium and zinc loads delivered to the San Francisco Bay each year. Such conditions are expected to be similar for the Los Angeles region. Leaking oil, grease, and coolant also contribute metals and PAHs to the roadway loads." (LACDPW, 2012a). Table 2-14 shows common sources of contaminants in runoff from roads and highways.

**Table 2-14 Common Sources of Roadway Pollutants**

| Source | Cadmium | Copper | Nickel | Lead | Zinc | PAHs | Nutrients | Synthetic Organic Chemicals |
|---|---|---|---|---|---|---|---|---|
| Gasoline | • | • | | • | • | | | |
| Exhaust | | | • | • | | • | | • |
| Motor oil and grease | | | • | • | • | • | | |
| Antifreeze | • | • | | • | • | • | | |
| Undercoating | | | | • | • | | | |
| Brake linings | | • | • | • | • | | | |
| Tires | • | • | | • | • | • | | |
| Asphalt | • | • | • | | • | • | | |
| Concrete | | • | • | | • | | | |
| Diesel oil | • | | | • | • | | | • |
| Engine wear | | | • | • | • | | | |
| Fertilizers, pesticides, and herbicides | • | • | • | | • | | • | • |

Adapted from LACDPW (2012a)

### 3.D.3.3 Silver

According to the TMDL development for the Lower St. Johns River in Florida, silver compounds in soil are released into the environment by rain and may be carried long distances in air and water. Silver is stable and remains in the environment in one form or another until it is taken out again by people. Because silver is an element, it does not break down, but it can change its form by combining with other substances (USEPA, 2004). Silver has also been identified as a component in vehicle fuels (Lee, 1993).

There are limited studies and literature on the sources of silver in the Los Angeles River watershed, but MS4 discharges cannot be eliminated as possible sources of silver. However, it should be noted that over the past five years, there have only been two exceedances of total silver in the watershed out of 70 samples (at Centinela Creek), and no exceedances for dissolved silver. Over the past ten years, there have been seven exceedances of total silver in the watershed out of 168 samples (4%), and four exceedances of dissolved silver out of 128 samples (3%). This low number of exceedances may indicate that silver is not a significant constituent of concern in the watershed.

### 3.D.3.4 Mercury

The adopted San Francisco Bay Basin Plan TMDL identified sources of mercury in San Francisco Bay to include bed erosion (about 38%), the Central Valley watershed (about 36%), urban stormwater runoff (about 13%), the Guadalupe River watershed (about 8%), direct atmospheric deposition (about 2%), non-urban stormwater runoff (about 2%), and wastewater discharges (about 1.5%). There was also a potential that mercury may enter the Bay from Bay margin contaminated sites and abandoned mercury mines outside the Guadalupe watershed (SFBRWQCB, 2006).

The organic form of mercury (methylmercury) is toxic and bioavailable. Sources of methylmercury in Delta waters include tributary inputs from upstream watersheds and within-Delta sources such as methylmercury flux from wetland and in-channel sediments, municipal

and industrial wastewater, agricultural drainage, and urban runoff (CVRWQCB, 2010). Various sources of mercury have been identified, including urban stormwater runoff, correlating to a linkage to MS4 discharges.

It should be noted that over the past five years, there have been only two exceedances for mercury in the Los Angeles River watershed out of 276 samples, one each for Burbank Western Channel and Rio Hondo. This indicates that mercury may not be a significant constituent of concern in the watershed.

Mercury is also recognized to be a potential laboratory contaminant. Mercury is found in thermometers, manometers, vacuum pumps, switches, discharge tubes, dental amalgams, and as a component in chemical reactions. Because of its frequent use, it is not unusual for mercury to be spilled, or otherwise contaminate laboratory, storage, or office areas. Contamination of laboratory spaces from historic mercury spills is also common (University of Florida, 2012).

### 3.D.3.5 Selenium

Selenium was placed on the 303(d) list of impairments for Burbank Western Channel due to a sufficient number of exceedances of the CTR CCC limit for selenium for freshwater aquatic life protection. Exceedances were shown in receiving water quality monitoring data from the Burbank Water Reclamation Plant Annual Monitoring Reports (2003-2007). (SWRCB, 2010).

The Los Angeles River and Tributaries Metals TMDL (May 2010) states in the source analysis amendment: "The sources of selenium appear to be related to natural levels of selenium in soils in the upper watershed. Separate studies are underway to evaluate whether selenium levels represent a 'natural condition' for this watershed."

Although the upper part of the watershed included in the Metals TMDL source analysis of areas draining to LA River Reach 1 and its tributaries, a similar natural condition may exist in the upper watershed draining to Burbank Western Channel. Further analysis of studies indicating presence of marine shale in the ULAR geology and comparison to the Burbank Western Channel upper watershed geology may be completed in the final version of the WQP memo.

Receiving water monitoring reports indicate that largest source of selenium levels in Burbank Western Channel may be the discharges from the Burbank Water Reclamation Plant, potentially eliminated MS4 discharges as a significant source.

### 3.D.3.6 Thallium

Thallium is a highly toxic element that is found mainly in soil, but also present in fossil fuels, alloys, and in electronic utilities. The element has been increasingly used in energy production. Thallium is also found in airborne dust particles from cement production. High concentrations of thallium have been found in the vicinity of cement plants in Poland. About 15 tons of thallium is produced annually in the world, and it is estimated that 2,000 to 5,000 tons are mobilized through industrial processes. In the U.S., about 1,000 tons of thallium is estimated to be released to the environment annually. These amounts are released as dust and vapors (35 tons), bound to non-ferrous metals (60 tons) and in fluids and solid wastes (>500 tons) (Karlsson, 2006).

The presence of thallium in the watershed seems to be a result of industrial and manufacturing facilities, which are regulated by California's statewide General Industrial Stormwater Permit or individual NPDES permits processes. It should be noted that over the past five years, there have been zero exceedances for thallium in the Los Angeles River watershed out of 71 samples. Over the past ten years, thallium

exceeded WQOs in only 19 of 640 samples (3%). This indicates that thallium may not be a significant constituent of concern in the watershed.

## 3.D.4 Nutrients

### 3.D.4.1 Ammonia-N, Nitrate- N, Nitrite-N, Nitrate-N + Nitrite-N

The staff report for TMDL for Nitrogen Compounds and Related Effects for Los Angeles River and Tributaries states "The three largest POTWs (Donald C. Tillman Water Reclamation Plant, Los Angeles-Glendale Water Reclamation Plant, and Burbank Water Treatment Plant) constitute the major sources of nitrogen in the watershed". Urban and residential stormwater runoff presents loadings of nutrients that is smaller than that of POTWs, but still represents a linkage to MS4 discharges (LARWQCB 2003). The nutrient loading for stormwater runoff from the land uses draining to MS4s would typically occur during storm events where runoff will carry pollutants from land uses (for example, fertilizers in residential areas) into the storm drain system.

## 3.D.5 Pollutant Class To Be Determined

The section includes water quality conditions that are not specific pollutants (i.e., pH and dissolved oxygen), per se, or constituents where the linkage to another type of constituent will be further investigated during EWMP development.

### 3.D.5.1 Benthic-Macroinvertebrates

Benthic macroinvertebrates impairment was placed on the 303(d) list of impairments for Compton Creek and Arroyo Seco Reach 1 due to Southern California Index of Biological Integrity (IBI) scores that were very poor in October of 2003 and very poor in October of 2004 indicating impairment of benthic community structure. (SWRCB 2010)

The sources of impairment to benthic-macroinvertebrate communities cannot be quantified at this time because specific pollutants have not been identified with a site-specific study. While specific toxic pollutants may be contributing the impairment indicated by a shift in the benthic-macroinvertebrate communities, it is currently not possible to identify specific pollutants or other stressors. Some of the potential pollutants and water quality data that were considered when evaluating these Benthic macroinvertebrates impairments include coliform bacteria, cyanide, nitrite, metals, trash, dissolved oxygen and pH. (SWRCB 2010)

Due to these unknowns MS4 discharges cannot be eliminated as possible sources of benthic-macroinvertebrate related impairment. Further analysis or site-specific studies will likely be completed during development of a benthic-macroinvertebrates TMDL.

### 3.D.5.2 Chlorine

Chlorine is a category 2 pollutant for Burbank Western Channel for wet weather and a Category 3 pollutant for LA River Reached 3 through 6 for dry weather. The Chlorine TMDL for the Santa Fe River in New Mexico identified POTW effluent, agriculture and mining as sources of chlorine (NMEDSWQB 2000). There is no significant runoff from mining or agriculture to MS4s in the LA River watershed, leaving residual chlorine in POTW effluent as the primary source of chlorine in the LA River watershed.

### 3.D.5.3 Cyanide

The sources of cyanide are generally anthropogenic in nature, but can also include some natural non-point sources. Point sources of cyanide can include stormwater runoff from industrial facilities, e.g.,

metal plating and finishing operations may contain cyanide (LACDPW, 2005). Sand and gravel operations, oil and natural gas facilities, transportation, recycling and manufacturing facilities have been identified as possible industrial sources (LACDPW, 2006). These sources are regulated by California's statewide General Industrial Stormwater Permit or individual NPDES permits.

Non-point sources of cyanide may include pesticide use, which can be transported to storm drains during dry weather flow (e.g., over-irrigation) or wet weather flow. The largest likely source of cyanide in the watershed is air-borne deposition from motor vehicle emissions (LACDPW, 2005). The amount of cyanide that could be released to the environment from natural sources is comparatively low. Natural sources may include incomplete combustion from forest fires, decomposition of plant material and fungi. (LACDPW, 2005).

While some potential sources of cyanide may be attributed to industrial facilities, e.g., metal plating, finishing, and manufacturing operations, the MS4 cannot be eliminated as a significant linkage for cyanide impairment as the MS4 is the conduit for cyanide that comes from some of the most significant sources. The largest likely sources of cyanide in the watershed are linked to MS4 discharges, as both air-borne deposition from motor vehicle emissions and pesticide use are linked to surface runoff in the MS4 and from the MS4 to the LA River.

The low level of cyanide exceedances might also be attributed to laboratory contamination issues. For example, laboratories are noted as a possible source of cyanide in the Commercial and Institutional category in the San Francisco area (BACWA, 2008).

### 3.D.5.4 Dissolved Oxygen

Low dissolved oxygen concentration results when there is insufficient aeration of oxygen into water. Slow-moving, stagnant, and pooled water has little opportunity for aeration, resulting in low concentrations of dissolved oxygen. Biologically, oxygen is also removed from the water column during respiration by plants for cell production. The chemical removal of oxygen can occur as ammonia is oxidized to nitrite, and eventually nitrate, thereby removing available oxygen from the water column. The saturation of oxygen in water is lastly a function of temperature and salinity; water with lower temperature and salinity retains more dissolved oxygen, relative to higher temperature and salinity (CCRWQCB, 2006).

A characterization study conducted in Washington found that increased stream temperatures likely heavily influence lower dissolved oxygen levels (SWDE, 2013). An indicator of low dissolved oxygen is benthic algae cover. Benthic algae is a natural plant in most stream systems and is a vital component of the stream food web. Under natural conditions, algal density is kept at levels that do not adversely affect dissolved oxygen. Factors limiting algal growth include (but not limited to): 1) nutrients, 2) light, 3) substrate, 4) flowing water, and 5) temperature. The direct impact of urban storm water runoff on dissolved oxygen conditions in receiving waters is not thought to be substantial. However, the secondary impacts on the dissolved oxygen balance in receiving waters due to nutrient enrichment, eutrophication, and resulting sediment oxygen demand may be important. Therefore, there is still an indirect linkage between the MS4 and low dissolved oxygen.

### 3.D.5.5 pH

The receiving water analysis for pH identified exceedances for both the Basin Plan minimum and maximum objectives. Wet weather samples exhibited exceedances for the both minimum/maximum WQOs, while dry weather samples only exhibited exceedances for maximum WQOs. A characterization

study conducted in Washington found that increased low pH is likely a result of the combination of large wet-season precipitation events, the acidity of rainfall and shallow groundwater, and the poor buffering capacity of the stream and surrounding landscape (SWDE, 2013). Most pH impacts in urban waters are caused by runoff of rainwater with low pH levels (acid precipitation). In fact, urban areas tend to have more acidic rainfall than less developed areas (USEPA, 1999).

Higher levels of pH may be caused by the respiration of aquatic plants, e.g. benthic algae. Photosynthesis is accelerated during afternoon hours when peak solar radiation is present. Photosynthesis by algae uses water column carbon dioxide. The reduced carbon dioxide has a net effect of increasing pH. Central Coast Regional Board staff concluded that benthic algae is a source of biologic removal of dissolved oxygen in lower Chorro Creek during afternoon hours, and is a factor causing impairment of low dissolved oxygen and high pH (CCRWQCB, 2006). Higher levels of pH may be attributed to the MS4 by way of nutrient enrichment, which promotes algal growth.

## 3.D.6 Salts

Salts identified as Category 2 and 3 pollutants for ULAR include chloride, sulfate and total dissolved solids (TDS). The staff report for the Santa Clara River Chloride TMDL and Interim Waste Load Allocations for sulfate and TDS identifies chloride sources as primarily from imported water and chloride added by domestic uses such as self-regenerating water softeners. Both of these sources are linked to POTWs and not MS4 discharges, however could be linked to MS4s for discharges of imported water directly to storm drains (LARWQCB 2008). The Los Angeles River watershed is also heavily dependent on imported water, and may have similar sources of salts to that of the Santa Clara River.

## 3.D.7 Trash

A numeric target of 0 (zero) trash in the water has been established by the Los Angeles River and Legg Lake TMDLs. According to the TMDL Staff Reports, the major source of trash in Los Angeles River and Legg Lake results from litter, which is intentionally or accidentally discarded in watershed drainage areas. Transport mechanisms include: (1) storm drains: trash is deposited throughout the watershed and is carried to the various reaches of the river and its tributaries during and after significant rainstorms through storm drains, (2) wind action: trash can also blow into the waterways directly, and (3) direct disposal: direct dumping also occurs. Several studies conclude that urban runoff is the dominant source of trash. The correlation between trash and urban runoff through storm drains can be evidenced by the large amount of trash that accumulates at the base of storm drains (LARWQCB, 2007a, LARWQCB, 2007b). For Legg Lake, based on the land uses in the vicinity of the lake, the observed trash characteristics at the lake, and the fact that only two storm drains discharge to the lake, it is determined that nonpoint sources are the dominant source of trash to Legg Lake. Although the MS4 is not the dominant source of trash at Legg Lake, trash still accumulates at the base of storm drains discharging to the lake and catch basins which collect runoff from surrounding lands (LARWQCB, 2007b).