

State of California
California Regional Water Quality Control Board, Los Angeles Region

RESOLUTION NO. 2005-014
December 1, 2005

Amendment to the *Water Quality Control Plan for the Los Angeles Region* to Revise the Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:

1. The federal Clean Water Act (CWA) requires the State to develop water quality standards that consist of criteria sufficient to protect designated uses for each water body found within the State as well as comply with federal anti-degradation requirements in order to protect high quality waters. In California, the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) establishes the water quality standards process. The Porter-Cologne Act requires the Regional Water Quality Control Board, Los Angeles Region (Regional Board) to establish water quality objectives to protect beneficial uses within the Los Angeles Region. State and regional water quality objectives and beneficial uses serve as federal criteria and designated uses. These water quality objectives and beneficial uses along with the State's anti-degradation policy (State Water Resources Control Board Resolution No. 68-16) represent water quality standards.
2. The amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) was developed in accordance with sections 13240, 13241 and 13242 of the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Chapter 4, Article 3).
3. The amendment will revise Chapter 3 "Water Quality Objectives" of the Basin Plan and, specifically, the implementation provision included as part of the freshwater ammonia objectives relative to the protection of Early Life Stages (ELS) of fish in inland surface waters.
4. The current Basin Plan contains ammonia objectives to protect ELS of fish in inland surface waters supporting aquatic life. The current ammonia objectives were incorporated into the Basin Plan as part of a Basin Plan amendment adopted by the Regional Board on April 25, 2002. Existing ammonia objectives are based on U.S. Environmental Protection Agency (U.S. EPA) guidance entitled, "1999 Update of Ambient Water Quality Criteria for Ammonia."
5. This amendment is submitted as a result of the Regional Board's direction to staff during the April 25, 2002 board meeting adopting the existing ammonia objectives for staff to evaluate the adequacy of the SPWN (Spawning, Reproduction, and/or Early Development) beneficial use designation as a proxy for the presence of ELS.
6. The current amendment revises the ELS implementation provision included in the freshwater ammonia objectives that became effective in the summer of 2003, following approval of the

earlier ammonia Basin Plan amendment by the Office of Administrative Law (OAL) and U.S. EPA. Specifically the current amendment revises the implementation provision that states, "waterbodies with a Basin Plan designation of "SPWN" support high quality aquatic habitats suitable for reproduction and early development of fish and, therefore, these waterbodies are designated as Early Life Stage (ELS) present waters."

7. At the direction of the Regional Board, Regional Board staff convened a Technical Advisory Committee (TAC), made up of experts in the field of fish biology and local fish populations. The purpose of the TAC was to discuss the most appropriate way to implement the ELS provision of the recently adopted freshwater ammonia objectives. The TAC met three times to discuss various implementation alternatives and key members of the TAC completed surveys to operationalize the recommended alternative.
8. The Regional Board recognizes that few fish species in the Los Angeles Region reproduce at temperatures less than 15 degrees Celsius. For major water bodies in the region, local experts know where these fish species are or have been present. Where these fish are present, the Regional Board assumes that ELS of these fish are present, unless obvious physical characteristics of the water body would preclude their presence in significant numbers. Where these fish are absent, the Regional Board concludes it is not necessary to apply the ELS present objective at low ambient water temperatures, since no local fish species are reproducing at these temperatures.
9. For all smaller water bodies, the Regional Board presumes that ELS are present, absent local knowledge to the contrary for these waters.
10. Where there is a site-specific ammonia objective for the water body, and the water body is not identified as ELS absent due to physical characteristics of the water body, separate implementation provisions to protect Early Life Stages of fish may apply, since the temperature threshold at which ELS are more sensitive than invertebrates may change based on these site-specific conditions. The potential for seasonality for all ELS present water bodies will be considered before the ELS provision is applied to water bodies with a site specific objective.
11. A National Consultation between U.S. EPA and U.S. Fish and Wildlife Service will take place in the next few years to determine if threatened and endangered (T&E) species are adequately protected by various U.S. EPA 304(a) criteria. If the outcome of this consultation results in the reconsideration of U.S. EPA's recommended criteria for ammonia on which Region 4's freshwater ammonia objectives are based, the Regional Board will reevaluate the existing ammonia objectives, including those applicable to Early Life Stages.
12. Re-assignment of water bodies to the ELS present or absent categories may be allowed provided that a water body specific assessment is conducted to justify re-assignment. Changes to the implementation provisions for the ammonia objectives, including the re-assignment of water bodies, must be approved through the Basin Plan Amendment process.
13. A complete list of water bodies subject to the 30-day average objective applicable to the "ELS absent" condition can be found in Attachment A, Table 1 hereto.
14. The Regional Board has considered the costs of implementing the amendment, and other factors, identified in California Water Code, section 13241. Water Code section 13241 only requires consideration of the enumerated factors when a water quality objective is being

revised or amended. Here, the Basin Plan amendment only revises the implementation of the existing ammonia objectives. Therefore, the Regional Board's analysis is somewhat limited. Moreover, the analysis is limited solely to the changes resulting from this amendment. Based on the limited nature of the revisions, the Basin Plan amendment will protect past, present, and probable future beneficial uses; accounts for the existing quality of the water bodies; and accounts for conditions that could reasonably be achieved by coordinated control of all discharges. The decrease in the ammonia objective if a water body is treated as ELS present is not great enough to require additional treatment (beyond minor adjustments to treatment plant operations) if POTWs have in place nitrification and denitrification (N/DN). The need for N/DN was prompted by the requirements of the 1994 Basin Plan ammonia objectives. Additionally, the 30-day average objective applicable to the "ELS present" condition is only more stringent than that applicable to the "ELS absent" condition at temperatures less than 15 degrees Celsius. In the Los Angeles region, water bodies only infrequently have temperatures less than 15 degrees Celsius. Therefore the economic cost of this amendment should not be significant.

15. The amendment results in no or *de minimis* potential for adverse effect, either individually or cumulatively, on wildlife.
16. The regulatory action proposed meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
17. The amendment is consistent with the State Antidegradation Policy (State Water Resources Control Board (SWRCB) Resolution No. 68-16), in that the changes to water quality objectives (i) consider maximum benefits to the people of the state, (ii) will not unreasonably affect present and anticipated beneficial use of waters, and (iii) will not result in water quality less than that prescribed in policies. Likewise, the amendment is consistent with the federal Antidegradation Policy (40 CFR 131.12).
18. The basin planning process has been certified as 'functionally equivalent' to the California Environmental Quality Act requirements for preparing environmental documents and is, therefore, exempt from those requirements (Public Resources Code, Section 21000 et seq.). In performing the Regional Board's functionally equivalent environmental review, the "project" for purposes of the environmental document was solely the changes to the ELS implementation provision of the existing ammonia water quality objectives.
19. A CEQA Scoping meeting on this Basin Plan amendment was noticed on October 20, 2003 and held on November 3, 2003. The purpose of the meeting was to inform interested persons of proposed amendment and to solicit input on the appropriate scope and content of the Basin Plan amendment and its environmental documentation.
20. Regional Board staff prepared a staff report, describing the proposed amendment, and the proposed Basin Plan amendment language dated September 21, 2005, and sent the documents to all known interested persons to allow a 45-day public comment period in advance of the public hearing.
21. The staff report supporting the Basin Plan amendment, response to comments, and CEQA checklist are the Regional Board's substitute documents for purposes of CEQA. Together, the documents demonstrate that the project could not have a significant adverse impact on the environment.

22. The Regional Board held a public hearing on December 1, 2005, for the purpose of receiving testimony on the proposed Basin Plan amendment. Notice of the public hearing was sent to all known interested persons and published in accordance with California Water Code, section 13244.
23. The Basin Plan amendment must be submitted for review and approval by the State Water Resources Control Board (State Board) and the Office of Administrative Law (OAL). Once approved by the State Board, the amendment is submitted to OAL. The Basin Plan amendment will become effective for state law purposes upon approval by OAL. The amendment will also be forwarded to U.S. EPA so that it may be reviewed and approved, to the extent necessary, under the Clean Water Act. A Notice of Decision will be filed.

THEREFORE, be it resolved that

1. Pursuant to sections 13240, 13241, and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendment to the Water Quality Control Plan for the Los Angeles Region, to revise the Early Life Stage implementation provision of the freshwater ammonia objectives as set forth in Attachment A.
2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of section 13245 of the California Water Code.
3. The Regional Board requests that the State Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to OAL and the U.S. EPA.
4. If during its approval process Regional Board staff, the State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
5. The Executive Officer is authorized to sign a Certificate of Fee Exemption.

I, Jonathan Bishop, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 1, 2005.



Jonathan Bishop
Executive Officer

1/17/06
Date

**Proposed Amendment To The Water Quality Control Plan – Los Angeles
Region With Respect To The Early Life Stage Implementation Provision Of
The Inland Surface Water Ammonia Objectives For Freshwaters**

Amendment:

Chapter 3. Water Quality Objectives

Ammonia

[Amendments begin with third paragraph under “Ammonia” in Chapter 3 of the Basin Plan and are shown in underline/strikeout text below.]

The one-hour average objective is dependent on pH and fish species (salmonids present or absent), but not temperature. It is assumed that salmonids may be present in waters designated in the Basin Plan as "COLD" or "MIGR" and that salmonids are absent in waters not designated in the Basin Plan as "COLD" or "MIGR," in the absence of additional information to the contrary. The 30-day average objective is dependent on pH, and temperature and. ~~At lower temperatures, the 30-day average objective also is dependent on the presence or absence of early life stages of fish (ELS). Implementation of the ELS Provision is described under “Implementation”, subparagraph 3. Water bodies with a Basin Plan designation of “SPWN” support high quality aquatic habitats suitable for reproduction and early development of fish and, therefore, these water bodies are designated as ELS present waters.~~ The four-day average objective is 2.5 times the 30-day average objective.

Table 3-2. 30-day Average Objective for Ammonia-N for Freshwaters Applicable to Waters Subject to the “Early Life Stage Present” Condition Designated SPWN (mg N/L)

		Temperature, °C																
pH	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
6.5	6.67	6.46	6.06	5.68	5.33	4.99	4.68	4.39	4.12	3.86	3.62	3.39	3.18	2.98	2.80	2.62	2.46	
6.6	6.57	6.36	5.97	5.59	5.25	4.92	4.61	4.32	4.05	3.80	3.56	3.34	3.13	2.94	2.75	2.58	2.42	
6.7	6.44	6.25	5.86	5.49	5.15	4.83	4.52	4.24	3.98	3.73	3.50	3.28	3.07	2.88	2.70	2.53	2.37	
6.8	6.29	6.10	5.72	5.36	5.03	4.72	4.42	4.14	3.89	3.64	3.42	3.20	3.00	2.82	2.64	2.47	2.32	
6.9	6.12	5.93	5.56	5.21	4.89	4.58	4.30	4.03	3.78	3.54	3.32	3.11	2.92	2.74	2.57	2.41	2.25	
7.0	5.91	5.73	5.37	5.04	4.72	4.43	4.15	3.89	3.65	3.42	3.21	3.01	2.82	2.64	2.48	2.32	2.18	
7.1	5.67	5.49	5.15	4.83	4.53	4.25	3.98	3.73	3.50	3.28	3.08	2.88	2.70	2.53	2.38	2.23	2.09	
7.2	5.39	5.22	4.90	4.59	4.31	4.04	3.78	3.55	3.33	3.12	2.92	2.74	2.57	2.41	2.26	2.12	1.99	
7.3	5.08	4.92	4.61	4.33	4.06	3.80	3.57	3.34	3.13	2.94	2.76	2.58	2.42	2.27	2.13	2.00	1.87	
7.4	4.73	4.59	4.30	4.03	3.78	3.55	3.32	3.12	2.92	2.74	2.57	2.41	2.26	2.12	1.98	1.86	1.74	
7.5	4.36	4.23	3.97	3.72	3.49	3.27	3.06	2.87	2.69	2.53	2.37	2.22	2.08	1.95	1.83	1.72	1.61	
7.6	3.98	3.85	3.61	3.39	3.18	2.98	2.79	2.62	2.45	2.30	2.16	2.02	1.90	1.78	1.67	1.56	1.47	
7.7	3.58	3.47	3.25	3.05	2.86	2.68	2.51	2.36	2.21	2.07	1.94	1.82	1.71	1.60	1.50	1.41	1.32	
7.8	3.18	3.09	2.89	2.71	2.54	2.38	2.23	2.10	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17	
7.9	2.80	2.71	2.54	2.38	2.24	2.10	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17	1.10	1.03	
8.0	2.43	2.36	2.21	2.07	1.94	1.82	1.71	1.60	1.50	1.41	1.32	1.24	1.16	1.09	1.02	0.957	0.897	
8.1	2.10	2.03	1.91	1.79	1.68	1.57	1.47	1.38	1.29	1.21	1.14	1.07	1.00	0.938	0.879	0.824	0.773	
8.2	1.79	1.74	1.63	1.53	1.43	1.34	1.26	1.18	1.11	1.04	0.973	0.912	0.855	0.802	0.752	0.705	0.661	
8.3	1.52	1.48	1.39	1.30	1.22	1.14	1.07	1.00	0.941	0.882	0.827	0.775	0.727	0.682	0.639	0.599	0.562	
8.4	1.29	1.25	1.17	1.10	1.03	0.966	0.906	0.849	0.796	0.747	0.700	0.656	0.615	0.577	0.541	0.507	0.475	
8.5	1.09	1.06	0.990	0.928	0.870	0.816	0.765	0.717	0.672	0.630	0.591	0.554	0.520	0.487	0.457	0.428	0.401	
8.6	0.920	0.892	0.836	0.784	0.735	0.689	0.646	0.606	0.568	0.532	0.499	0.468	0.439	0.411	0.386	0.362	0.339	
8.7	0.778	0.754	0.707	0.663	0.622	0.583	0.547	0.512	0.480	0.450	0.422	0.396	0.371	0.348	0.326	0.306	0.287	
8.8	0.661	0.641	0.601	0.563	0.528	0.495	0.464	0.435	0.408	0.383	0.359	0.336	0.315	0.296	0.277	0.260	0.244	
8.9	0.565	0.548	0.513	0.481	0.451	0.423	0.397	0.372	0.349	0.327	0.306	0.287	0.269	0.253	0.237	0.222	0.208	
9.0	0.486	0.471	0.442	0.414	0.389	0.364	0.342	0.320	0.300	0.281	0.264	0.247	0.232	0.217	0.204	0.191	0.179	

* At temperatures below 14 °C, the objective is the same as that shown for 14 °C.

Reference: U.S. EPA 1999 Update of Ambient Water Quality Criteria for Ammonia¹

¹ For freshwaters ~~subject to the “Early Life Stage Present” condition-designated SPWN~~, the thirty-day average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values described by the following equation.

$$\text{30-day Average Concentration} = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * \text{MIN} \left(2.85, 1.45 * 10^{0.028 * (25 - T)} \right)$$

Where T = temperature expressed in °C.

In addition, for freshwaters, the highest four-day average within the 30-day period shall not exceed 2.5 times the 30-day average objective as calculated above.

Table 3-3. 30-day Average Objective for Ammonia-N for Freshwaters Applicable to Waters Subject to the “Early Life Stage Absent” Condition Not Designated SPWN (mg N/L)

pH	Temperature, °C								
	0-7	8	9	10	11	12	13	14	15*
6.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73
7.1	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92
7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09
7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36
8.1	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48
8.4	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892
8.7	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754
8.8	1.07	1.01	0.944	0.885	0.829	0.778	0.729	0.684	0.641
8.9	0.917	0.86	0.806	0.756	0.709	0.664	0.623	0.584	0.548
9.0	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471

* At 15 °C and above, the regional 30-day average objective for waters subject to the “Early Life Stage Absent” condition ~~not designated SPWN~~ is the same as that for waters subject to the “Early Life Stage Present” condition ~~designated SPWN~~.

Reference: U.S. EPA 1999 Update of Ambient Water Quality Criteria for Ammonia²

² For freshwaters subject to the “Early Life Stage Absent” condition not designated SPWN, the thirty-day average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values described by the following equation.

$$\text{30-day Average Concentration} = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * 1.45 * 10^{0.028 * (25 - \text{MAX}(T, 7))}$$

Where T = temperature expressed in °C.

In addition, for freshwaters, the highest four-day average within the 30-day period shall not exceed 2.5 times the 30-day average objective as calculated above.

IMPLEMENTATION

Implementation Provisions for the Application of Ammonia Objectives to Inland Surface Waters in the Los Angeles Region

3. Selection of 30-day Average Objective – Early Life Stage (ELS) Provision

Early life stages of fish are presumptively present and must be protected at all times of the year unless the water body is listed in Table 3-X or unless a site-specific study is conducted, which justifies applying the ELS absent condition or a seasonal ELS present condition. Any change in the implementation provision for the ELS present/absent condition, including the assignment of water bodies, must be approved through the Basin Plan Amendment process.

If recent data and information are submitted to the Regional Board that provide clear and convincing substantial evidence that the physical conditions of a water body listed in Table 3-X have changed due to restoration efforts such that there is habitat suitable for Early Life Stages of fish and one or more fish species that reproduce below 15 degrees Celsius is known to be present, in that or the adjacent water bodies, the Regional Board shall reconsider this implementation provision to ensure protection of Early Life Stages of fish in the water body.

To justify the ELS absent provision, information regarding fish species distributions, spawning periods, nursery periods and the duration of early life stages found in the water body must be presented. Expert opinions from fisheries biologists and other scientists will be considered. Where it can be obtained, a consensus opinion from a diverse body of experts would carry significant weight in determining the presence or absence of the ELS. Information on water body temperature, including spatial, seasonal and inter-annual variability will also be considered. The determination of the time frame during the year when early life stages are most likely not to be present in numbers that, if chronic toxicity did occur, would affect the long-term success of the fish populations, should include adequate scientific justification. The Regional Board will use the record supporting a Basin Plan amendment as the basis upon which to approve or disapprove changes to these implementation provisions for the 30-day average ammonia objective. The record should clearly explain all the factors and information considered in arriving at the determination. The Regional Board will consider and weigh the breadth and depth of scientific evidence in determining whether to remove the early life stage specification of a water body.

Water bodies with a Basin Plan designation of “SPWN” support high quality aquatic habitats suitable for reproduction and early development of fish and, therefore, these water bodies are designated as ELS present waters. Early Life Stages are assumed present year-round unless a site-specific study is conducted which justifies a seasonal provision. The Basin Plan Amendment process must be followed to develop a seasonal beneficial use designation.

Where there is a site-specific ammonia objective for the water body, and the water body is not identified as ELS absent due to physical characteristics of the water body, separate implementation provisions to protect Early Life Stages of fish may apply, since the temperature threshold at which ELS are more sensitive than invertebrates may change based on these site-specific conditions. The potential for seasonality for all ELS present water bodies will be considered before the ELS provision is applied to water bodies with a site-specific objective.

Notwithstanding anything to the contrary herein, a watershed may have some reaches and tributaries with ELS present conditions and others with ELS absent conditions. Implementation actions to achieve applicable ammonia objectives must implement downstream objectives.

**Table 3-X. Water Bodies Subject to 30-day Average Objective
 Applicable to “ELS Absent” Condition**

<u>Hydro Unit No.</u>	<u>Waterbody</u>
<u>VENTURA RIVER WATERSHED</u>	
<u>402.10</u>	<u>Canada Larga</u>
<u>CALLEGUAS-CONEJO CREEK WATERSHED</u>	
<u>403.11</u>	<u>Calleguas Creek</u>
<u>403.11</u>	<u>Revolon Slough</u>
<u>403.61</u>	<u>Beardsley Wash</u>
<u>403.12</u>	<u>Conejo Creek</u>
<u>403.63</u>	<u>Conejo Creek</u>
<u>403.64</u>	<u>Arroyo Conejo</u>
<u>406.68</u>	<u>Arroyo Conejo</u>
<u>403.12</u>	<u>Arroyo Las Posas</u>
<u>403.62</u>	<u>Arroyo Las Posas</u>
<u>403.62</u>	<u>Arroyo Simi</u>
<u>403.67</u>	<u>Arroyo Simi</u>
<u>MALIBU CREEK WATERSHED</u>	
<u>404.21</u>	<u>Cold Creek</u>
<u>404.23</u>	<u>Medea Creek</u>
<u>404.24</u>	<u>Medea Creek</u>
<u>404.24</u>	<u>Triunfo Creek</u>
<u>404.25</u>	<u>Triunfo Creek</u>
<u>BALLONA CREEK WATERSHED</u>	
<u>405.13</u>	<u>Ballona Creek to Estuary</u>
<u>405.15</u>	<u>Ballona Creek</u>
<u>DOMINGUEZ CHANNEL WATERSHED</u>	
<u>405.12</u>	<u>Dominguez Channel to Estuary</u>
<u>LOS ANGELES RIVER WATERSHED</u>	
<u>405.12</u>	<u>Los Angeles River to Estuary</u>
<u>405.15</u>	<u>Los Angeles River</u>
<u>405.21</u>	<u>Los Angeles River</u>
<u>405.15</u>	<u>Rio Hondo below Spreading Grounds</u>
<u>405.15</u>	<u>Rio Hondo to Spreading Grounds</u>
<u>405.41</u>	<u>Rio Hondo (except from Whittier Narrows to 4 miles north)</u>
<u>405.32</u>	<u>Arroyo Seco</u>
<u>405.21</u>	<u>Tujunga Wash</u>

<u>Hydro Unit No.</u>	<u>Waterbody</u>
<u>405.15</u>	<u>Compton Creek</u>
<u>405.15</u>	<u>Arroyo Seco S. Of Devil's Gates (L)</u>
<u>405.31</u>	<u>Arroyo Seco S. Of Devil's Gates (U)</u>
<u>405.21</u>	<u>Burbank Western Channel</u>
<u>405.21</u>	<u>Pacoima Wash</u>
SAN GABRIEL RIVER WATERSHED	
<u>405.15</u>	<u>San Gabriel River: Firestone Blvd-Estuary</u>
<u>405.15</u>	<u>San Gabriel River: Whittier N-Firestone (2)</u>
<u>405.41</u>	<u>San Gabriel River</u>
<u>405.42</u>	<u>San Gabriel River</u>
<u>405.15</u>	<u>Coyote Creek to Estuary</u>
<u>405.41</u>	<u>San Jose Creek</u>
<u>405.51</u>	<u>San Jose Creek</u>

Notes:

- 1) All wetlands/estuaries and lagoons are assumed to have ELS.
- 2) Whittier Narrows flood control basin is listed separately in the Basin Plan
- 3) Based on published literature and expert opinion, fish species known to reproduce in significant numbers below 15 degrees Celsius are absent in these water bodies, or the water bodies are known to have physical conditions that preclude reproduction and early development of these species in significant numbers. These species include: steelhead/rainbow trout, three-spine stickleback, brown trout, prickly sculpin, staghorn sculpin, striped mullet, starry flounder, arrow goby, and Pacific lamprey.
- 4) ~~A water body may have some reaches with ELS present conditions and others with ELS absent conditions. Implementation actions to achieve applicable ammonia objectives must consider downstream objectives.~~