Public Workshop

Draft Clean Water Act Sections 305(b) and 303(d) Integrated Report for the San Diego Region

July 2016
AGENDA

• 9:30-9:35  Logistics
• 9:35-9:40  Project Introduction  
  (David Gibson)
• 9:40-10:20  Project Presentation  
  (Xueyuan Yu and Chad Loflen)
• 10:20-11:30  Public Input
PURPOSE OF THE WORKSHOP

• Introduce for public review and comment:

Procedures and results of assessment conducted for the preparation of 2014 Draft Clean Water Act Section 305(b)/303(d) Integrated Report (Integrated Report) for the San Diego Region

Draft Integrated Report (including Appendices) available online at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/303d_list/index.shtml
OUTLINE

• Background
• Integrated Report Process
• Assessment Results
• Region Specific Analysis
• Path Forward
LEGAL REQUIREMENTS

• Goal of Clean Water Act (CWA)
• CWA Section 305(b)
  – Requires States to biennially submit a report assessing statewide surface water quality.
• CWA Section 303(d)
  – Requires each State to submit a list of those waterbody segments that are not meeting water quality standards
  – Impaired waterbody segments on 303(d) list require Total Maximum Daily Loads (TMDLs) or TMDL alternatives
PREVIOUS INTEGRATED REPORTS (IRs)

- Between 1976 and 1998: IR updated every two years
- Since 2000: IR updated every four years for the San Diego Region
**2014 IR CYCLE**

For data submitted between **January through August 2010** (i.e. originally for the 2012 Cycle):

**Proposed Reporting Cycles by Region**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2012 Integrated Report</strong></td>
<td>the North Coast Regional Water Quality Control Board (Region 1); the Lahontan Regional Water Quality Control Board (Region 6); and the Colorado River Basin Regional Water Quality Control Board (Region 7)</td>
</tr>
<tr>
<td><strong>2014 Integrated Report</strong></td>
<td>the Central Coast Regional Water Quality Control Board (Region 3); the Central Valley Regional Water Quality Control Board (Region 5); and the <strong>San Diego Regional Water Quality Control Board</strong> (Region 9)</td>
</tr>
<tr>
<td><strong>2016 Integrated Report</strong></td>
<td>the San Francisco Bay Regional Water Quality Control Board (Region 2); the Los Angeles Regional Water Quality Control Board (Region 4); and the Santa Ana Regional Water Quality Control Board (Region 8)</td>
</tr>
</tbody>
</table>
INTEGRATED REPORT PROCESS
THE LISTING POLICY

• The Water Quality Control Policy for Developing California’s Clean Water Act Section 303(d) List (2004, State Board)


• Provides guidelines for water quality assessment process and establishes standard approach for developing California’s 303(d) list
DATA SOLICITATION

• Data included in assessment: received at the State Water Board between January 14, 2010 through August 30, 2010

• Data sources

• Data collected after August 30, 2010 AND submitted to California Environmental Data Exchange Center (CEDEN):
  – The majority will be assessed in the next cycle of 303(d) update for the San Diego Region of 2020
  – Priority waterbody(ies) and/or pollutants identified by the San Diego Water Board may be assessed off-cycle before 2020
DATA ASSESSMENT OVERVIEW

Assessment performed in State Water Board hosted database

1. Solicit Data
2. Check Data Quality
   - Evaluate for “Core” Beneficial Uses
   - Compare data against Applicable Water Quality Standards/Guidelines*
3. Data Assessment
   - Summarize results in Lines of Evidence (LOEs)
4. Compare exceedance rates with requirements in Listing Policy
5. Make Listing/Delisting Decisions
6. Categorize Water Body Segments
   - Integrated Report
Water Quality Standards/Guidelines*

- Regulatory Limits as contained in
  - Water Quality Control Plan for the San Diego Basin (Basin Plan)
  - California Ocean Plan
  - California Toxics Rule (40 CFR 131.27)
  - California Code of Regulations (e.g. Title 22, Maximum Contaminant Levels)

- Other evaluation guidelines (e.g., OEHHA fish consumption advisories and CDPH health advisories, see complete list in Appendix K)
CATEGORIZE WATERBODY SEGMENTS

• Five Categories in 305(b):
  - Category 1
  - Category 2
  - Category 3
  - Category 4 (TMDL is NOT needed)
  - Category 5 (TMDL is needed)

303(d)
ASSESSMENT RESULTS
STATISTICS OF 2014 CYCLE

• Data evaluated in 2014 increased by 190% compared with in 2010

<table>
<thead>
<tr>
<th>Statistics</th>
<th>2014</th>
<th>2010</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Waterbody Segments</td>
<td>401</td>
<td>274</td>
<td>101</td>
</tr>
<tr>
<td>Total Number of New LOEs</td>
<td>4996</td>
<td>2635</td>
<td>1424</td>
</tr>
<tr>
<td>Total Number of Decisions</td>
<td>3548</td>
<td>1623</td>
<td>935</td>
</tr>
</tbody>
</table>

• 236 new listing decisions
• 6 new delisting decisions
• Results summarized in Appendices A and I
## SUMMARY OF CATEGORIES/WATERBODIES

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DESCRIPTION</th>
<th>WATERBODY SEGMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All assessed beneficial uses supported and no beneficial uses known to be impaired.</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>At least one, but not necessarily all, core beneficial use is supported.</td>
<td>111</td>
</tr>
<tr>
<td>3</td>
<td>There is insufficient data and/or information to make a beneficial use support determination but information and/or data indicates beneficial uses may be potentially threatened.</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>At least one beneficial use is not supported but a TMDL is not needed.</td>
<td>68</td>
</tr>
<tr>
<td>4a</td>
<td>A TMDL has been developed and approved by USEPA for a waterbody-pollutant combination and the approved implementation plan is expected to result in full attainment of the water quality standard within a specified time frame.</td>
<td>19</td>
</tr>
<tr>
<td>4b</td>
<td>Another regulatory program is reasonably expected to result in attainment of the water quality standard within a reasonable, specified time frame.</td>
<td>19</td>
</tr>
<tr>
<td>4c</td>
<td>The non-attainment of any applicable water quality standard for the waterbody segment is the result of pollution and not caused by a pollutant.</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>At least one beneficial use is not supported and a TMDL is needed.</td>
<td>182</td>
</tr>
</tbody>
</table>
POLLUTANT LISTINGS

TOTAL NUMBER OF POLLUTANT LISTINGS IN 2014 = 619

- Metals, 133
- Indicator Bacteria, 131
- Nutrients, 112
- Pesticides, 54
- Toxicity, 52
- Conventional Pollutants, 50
- Benthic Community Effects, 28
- Trash, 22
- Synthetic Organics, 15
- Others, 22

TOTAL NUMBER OF POLLUTANT LISTINGS IN 2014 = 619
TMDL SCHEDULES

- Thirty eight U.S. EPA adopted TMDLs or TMDL alternatives
- Five water bodies with TMDLs/TMDL alternatives in progress
REGION SPECIFIC ANALYSIS
Integrated Report: Stream Bioassessment Data

An evaluation of the condition of a waterbody based on the organisms living within it.
Why Bioassessment?

- Chemical, Physical, and Biological Integrity
- Integrated Report: Chemical Focus
- Beneficial Uses Relate to Biological Integrity
California Stream Condition Index (CSCI)

The CSCI is a biological scoring tool that helps aquatic resource managers translate data about benthic macroinvertebrates found living in a stream into an overall measure of stream health.
California Stream Condition Index  **CSCI**

CSCI = 1.00  Expected Condition at Similar Reference Sites

CSCI < 0.79  Likely Altered

CSCI < 0.63  Very Likely Altered
CSCI and Degradation of Biology

Listing Policy:

1) Degradation per CSCI Scores

2) Associated Pollutants (Impairment)

- Approach used by Los Angeles Regional Board in 2010
- All three regions in current listing cycle
CSCI and Degradation of Biology

Waterbody Segment: Impaired?

→ CSCI Score(s)

Multiple Sites

CSCI ≤ 0.79

Associated Pollutants?

Yes:
List Category 5

No:
Do Not List Category 5
Example: Loma Alta Creek

- CSCI Score(s): Yes

Multiple Sites

- 3 Sites, 8 sampling events

CSCIs < 0.79

- 0.54, 0.57
- 0.50, 0.68
- 0.64, 0.66
- 0.58, 0.63

Associated Pollutants?

- Toxicity
- Pesticides
- Selenium
- Nutrients (Slough)

Yes:

List Category 5
Example: Loma Alta Creek

CSCI Score(s): Yes

Yes:

List Category 5
Example: Loma Alta Creek

CSCI Score(s): Yes

Yes: List Category 5

Hydromodification/Habitat Alteration?

Yes: Also List as Category 4c
Category 4c: Impaired by “Pollution”

Examples of pollution (USEPA 2015):
- Habitat Alteration
- Hydrologic Alteration

What does it mean?
- Water Body is Impaired
- A TMDL is not needed
- States use other tools for restoration
- Managers use to set priorities

REGION SPECIFIC ANALYSIS
CSCI and Degradation of Biology

• 28 Waterbody Segments Listed Impaired under Category 5

• All 28 Co-listed under Category 4c

• Nutrients, Pesticides, Toxicity
Bioassessment and Category 1

All assessed beneficial uses supported and no beneficial uses known to be impaired.
Bioassessment and Category 1

Stream Bioassessment Scores Do Not Indicate Degradation

- CSCI Scores ≥ 0.92
- Algal Index of Biotic Integrity Scores
- California Rapid Assessment Method Scores
- Reference Screens
- 25 Waterbody Segments (there’s more though)
Bioassessment and Category 1
Bioassessment and Category 1
PATH FORWARD
• Written Comment Period – July 12, 2016 to August 12, 2016

• Public Hearing and Consideration for Adoption at Board Meeting – October 12, 2016

• Submit to the State Water Board for approval at a Public Hearing – 2017

• State Water Board submit to U.S. EPA for approval
For More Information, Contact

• Xueyuan Yu, (619)521-5893
  heyu@waterboards.ca.gov

• Chad Loflen, (619)521-3370
  Cloflen@waterboards.ca.gov