Recommendations to the TOC Concerning Monitoring for the Settlement Agreement

Pete Rawlik
For the Water Quality Monitoring Subteam
April 26, 2016
Water Quality Subteam Met to Address Multiple Issues

- Rules for monitoring G300 and G301 (diversion structures)
- Ions monitoring at G311 and G302
- Pesticides Monitoring
- Metals monitoring
  - Copper
  - Iron
S5A and Associated Structures Showing G300 and G301
Monitoring at G300 and G301

• At the last meeting, the TOC agreed to monitoring at these structures to do the following:
  – Response monitoring, weekly when in use
    – Physical parameters (DO, pH, specific conductivity, temperature)
    – TPO$_4$, OPO$_4$, TDPO$_4$, alkalinity, Ca, Cl, Na, K, Mg, SO$_4$, TN, NO$_x$, NH$_4$, TSS

• The following clarifications are suggested:
  – This includes reverse flow events
  – Prior to a diversion event District staff will collect a pre-discharge sample for the above parameters initiated either by the following:
    – Falling into the 5-day impact cone of a storm
    – The initiation of interagency diversion discussions
Ions at G311 and G302

• It is suggested that the parameter list at G311 and G302 be adjusted by adding Mg, Na, K, and SiO$_2$ to the weekly recorded flow grab samples

• Weekly Grab Samples
  – TP

• Weekly Recorded Flow Grab Samples
  – TDP, OPO$_4$
  – TKN, NO$_x$, NH$_4$
  – Alkalinity, Ca, Cl, SO$_4$, Mg, Na, K, SiO$_2$
  – TSS

• Quarterly
  – DOC
Pesticides

- “Water quality monitoring shall include timely data on . . . pesticides/herbicides . . .”
- Quarterly monitoring of 17 stations, 9 overlap with the NECP permit required pesticide monitoring meaning 8 are strictly Settlement Agreement
- Team reviewed the last ten years of data
Pesticides

• Consideration
  – Reduce frequency of pesticide monitoring
  – However, TOC action will have no impact on 9 overlapping NECP permit stations
  – Stakeholder concerns in western WCA-3A

• Recommendation
  – All 9 NECP stations to remain quarterly
  – L3BRS, S8, and S12A to remain quarterly pending coordination with stakeholders
  – 5 Stations (S5A, S6, S7, US41-25 and Tambr105) to change from quarterly to semi-annually
Pesticides Monitoring

- Settlement Agreement
- Settlement Agreement and NECP Permit
- Recommended for Reduction
Copper Monitoring at S5A

- Since 2009, 20 samples collected (2 to 4 samples per year)
- 16 samples were below the detection limit of 2.00 µg/L
- 4 samples from 2011 and 2012 detected copper
- All values far below variable standard
- Recommend to implement the previously agreed to frequency of annually during the wet season

<table>
<thead>
<tr>
<th>Date</th>
<th>Hardness</th>
<th>Standard (µg/L)</th>
<th>Cu (µg/L)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/12/2011</td>
<td>269</td>
<td>22</td>
<td>10.3</td>
<td>Acceptable</td>
</tr>
<tr>
<td>3/19/2012</td>
<td>247</td>
<td>20</td>
<td>2.1</td>
<td>Acceptable</td>
</tr>
<tr>
<td>6/11/2012</td>
<td>311</td>
<td>25</td>
<td>2.8</td>
<td>Acceptable</td>
</tr>
<tr>
<td>9/10/2012</td>
<td>364</td>
<td>28</td>
<td>3.4</td>
<td>Acceptable</td>
</tr>
</tbody>
</table>
Iron Monitoring at S5A

• Since 2010, 609 samples collected at 44 Settlement Agreement stations (primarily inflows and marsh)
• 95% of samples below half of the state standard of 1,000 µg/L
• Only 2 samples above the standard
• Data was provided to partners for potential optimization
• This will be a subject for discussion at the next subteam meeting
Recommendations to the TOC for Approval

- Clarifications of G300 and G301
- Supplemental monitoring of ions at G311 and G302
- Reduced monitoring for pesticides at 5 stations (quarterly to semi-annually)
- Maintain Cu monitoring at S5A annually during the wet season
Future Discussions

• Iron

• A surrogate station for S5AE, S5AW, and S5AS
Discussion