

US EPA ARCHIVE DOCUMENT

Technical Expert Working Group (TEWG) Conference Call

February 25, 2014
10:00 – 11:15 a.m.

CALL SUMMARY

Attendees:

EPA Region 3 and contractors: Bill Arguto, George Rizzo, Wendy Gray, Michelle Hoover, Enid Chiu, Beth Garcia, Kathy Martel (Cadmus), Laura Dufresne (Cadmus)

The Washington Aqueduct: Mike Chicoine

DC Water: Maureen Schmelling, Jessica Edwards-Brandt

Fairfax Water: Matthew Jacobi

DDOE: William Slade, Pierre Erville

Concerned Citizens: Susan Kanen

Clean Water Action: Paul Schwartz

Parents for Non-Toxic Alternatives: Yanna Lambrinidou

Agenda and Housekeeping Issues

Bill Arguto led the call. He thanked the TEWG members for any inconvenience caused by rescheduling the call multiple times due to bad weather. He requested that if any TEWG members had comments on the minutes from the previous call held on August 2, 2013, they should forward comments to EPA. Bill reviewed the meeting agenda (included as Attachment A to this call summary).

Summary of Discussions by Topic Area

1. Washington Aqueduct Pipe Loop Update

Prior to the call, Mike Chicoine distributed graphs showing total and dissolved lead concentrations for the pipe loops located at both of Washington Aqueduct's water treatment plants (WTPs). Graphs for the McMillan WTP pipe loops summarize data for the period November 2010 to January 2014 and graphs for the Dalecarlia WTP pipe loops include data for the period March 2005 to January 2014. Mike Chicoine said that the flow rates for the pipe loops have changed per recommendations from Dr. Edwards, and these changes are indicated on the graphs. The graphs show that the Dalecarlia pipe loop C was increased from 1 gallon per minute (gpm) to 3 gpm for the period August 5, 2013 to September 12, 2013 while loops A&B continued to use a 1 gpm rate. The flow rate for the

McMillan pipe loop was reduced from 3 gpm to 1.5 gpm on September 17, 2013. Total and dissolved lead concentrations continue to be less than 1.0 ppb.

Susan Kanen asked Mr. Chicoine if the stagnation times in the pipe loops have ever been changed since they began operating in 2005. Ms. Kanen also raised several other issues including the replumbing of pipe loop piping, the absence of some samples from the dataset and a concern that water temperature data does not agree when comparing the different pipe loops. Mr. Chicoine replied that he is not aware of any changes in stagnation time for the Dalecarlia WTP pipe loop. He indicated that mechanical issues with sampling pumps and hoses have interrupted the sampling schedule on several occasions and the software program had to be stopped and restarted after the equipment was repaired. Ms. Kanen asked Mr. Chicoine if he could ask Lloyd Stowe and Patty Gamby if they were aware of any changes to the stagnation time. Mr. Chicoine replied that he would report any new information on the next call.

2. DC Water Pipe Loop Update

Jessica Edwards-Brandt provided pipe loop data from DC Water Loop 1 prior to the call. The graphs include data for the period January 2008 to January 2014. She indicated that the lead levels in pipe loop samples were generally in the range of 3 to 5 ppb. A 5 ppb lead level in January 2014 was most likely the result of physical vibrations in the building due to jack hammering construction activity at Fort Reno. There were no questions on the pipe loop data.

3. DC Water Update on Posting Data to the Website

Maureen Schmelling said that LCR data has been posted on the website and they are still working on uploading lead profile data. She and her staff are working with the DC Water Information Technology (IT) staff and hope that the profiles will be uploaded in the next couple of months. Ms. Kanen asked if there will be any lead profiles that represent summer months, as her records were from one performed in August 2009. Ms. Schmelling said yes, she is looking forward to doing lead profiles in the summer depending on staff availability.

4. DC Water Preliminary Lead and Copper Rule Results Update

Maureen Schmelling reported that they have started collecting LCR samples for the 1st semester of 2014 but have not received any results to date. Mr. Arguto asked Maureen to report on 2nd semester 2013 results. Maureen replied that 2013 data has been posted on the website and the 90th percentile lead level was 6 ppb for first draw samples and 10 ppb for second draw samples. She indicated that these results continue the slight decrease in lead levels observed over the last few years. She attributed the decreased lead levels to changing out lead faucets, replacing lead service lines, and the corrosion control treatment using orthophosphate for lead passivation.

5. DC Water LCR Sampling

Susan Kanen asked Ms. Schmelling to post additional information on the website including the LCR sampling protocol and data on the time between collection of first and second draw samples. Ms. Schmelling indicated that sampling instructions are posted on-line for non-regulatory samples (samples requested by customers) and she will send a link to this information to Bill Arguto for distribution to the TEWG. Ms. Schmelling said that the time between first and second draw samples is within 5 minutes for most LCR compliance samples and the times between first and second draw samples are not posted to the DC Water website. If the time exceeds 30 minutes, DC Water rejects the samples. The sampling instructions state that the second draw sample should be collected when the water temperature changes which typically occurs within a few minutes.

Yanna Lambrinidou offered her opinion that when customers are flushing for 3 to 5 minutes the second draw samples represent the water from the mains, not the water stagnating in the lead service line and are therefore not significant results. Maureen Schmelling replied that she believes that second draw samples sometimes capture the water stagnating in the lead service line and are therefore useful and DC Water will continue to ask customers to collect these samples. Ms. Kanen believes that customers should flush the tap for 30 to 60 seconds based on data presented during a recent webinar. Ms. Lambrinidou suggested that the TEWG review and provide suggestions on the DC Water LCR sampling instructions. Ms. Schmelling said that DC Water would consider suggestions from the TEWG. Ms. Lambrinidou said that she was satisfied with this approach and would like to continue the conversation at a later date.

Susan Kanen has been reviewing LCR compliance data and noted that each year some sampling locations are taken off and new sites are added to the list. For example, in 2013 19 new sites were added and in other years, 20 sites were added. She asked if EPA was reviewing DC Water's explanations for changing sampling sites. George Rizzo replied that DC Water's bi-annual LCR compliance reports include explanations for changes in sampling locations. Susan Kanen questioned whether the 19 new sites in 2013 are Tier 1 sites because 15 of the 19 sites had water samples with lead levels in the range of 1 to 3 ppb. She compared these results to a Chicago study that observed lead levels greater than 3 ppb for homes with lead service lines. Bill Arguto responded that DC Water uses best available information for selecting Tier 1 sampling sites. EPA does not physically check the customer service lines but relies upon DC Water correspondence that documents changes in site conditions that prompt changes in sampling locations. George Rizzo added that the Safe Drinking Water Act is a self-reporting regulation and EPA does not have the resources to dig test pits to confirm the presence of lead service lines. Mr. Rizzo further clarified that EPA receives correspondence on corrections/changes to sample plans. Further, EPA expects that lead levels would decline after 10 years of corrosion control treatment.

Susan Kanen also observed that some sites with historical lead results varying from 3 to 10 ppb abruptly dropped to < 3 ppb and never showed lead levels above 3 ppb again. These

trends indicated to her that the sites are still in the LCR compliance sampling pool when the lead service line has been replaced. She suggested that DC Water send a letter to these customers asking them to confirm whether a lead service line is present. Wendy Gray pointed out that the chain of custody sent to customers contains sampling instructions and asks customers questions about whether a lead service line is present. Ms. Schmelling also clarified that the letter containing monitoring results says that a consumer's home has a lead service line and that they should notify DC Water if that inventory information is incorrect.

Yanna Lambrinidou asked George Rizzo to confirm the statement he made on review of DC Water documentation on LCR sampling sites. She asked if he was saying that EPA has no legal authority to confirm that homes reported as Tier 1 sites by DC Water are in fact Tier 1 sites. George Rizzo said the LCR rule is incumbent on water systems to provide proper LCR inventory information and that regulators trust that information provided is proper and true. If there are discrepancies, they are due to a water system lying or more commonly operating under false information that the public water system is unaware. DC Water has in the past notified EPA of inconsistencies upon becoming aware of an inconsistency. Further, Mr. Rizzo said that there needs to be a balance between regulatory compliance for the Lead and Copper Rule and other water system operation responsibilities. Bill Arguto added that EPA does have oversight responsibility and relies on the water systems to provide correct information. Mr. Arguto commented that should new information arise, EPA can respond accordingly.

Yanna Lambrinidou asked if homes with lead service lines could expect lead levels in their water samples to be less than 3 ppb. Mr. Rizzo replied that from a regulatory point of view, the water system is expected to optimize corrosion control treatment such that 90 percent of samples have lead levels less than 15 ppb. In other words, 10 percent of samples may have lead levels greater than 15 ppb and the LCR rule does not mandate that a water system remove all of the lead out of the water supply. The ultimate goal of water systems is to optimize treatment to minimize lead in all samples. Ms. Lambrinidou asked Mr. Rizzo for the scientific evidence that leads EPA Region 3 to believe that the orthophosphate is the reason for the observed low lead levels in regulatory compliance samples. She thinks that the low lead levels are a red flag that indicate the selected sampling sites may not in fact have a lead service line. Bill Arguto replied that George Rizzo is saying that the orthophosphate contributed to DC Water meeting the regulation as documented by the sampling results. Ms. Lambrinidou said that the issue on the table is the homes that are being used to conduct the regulatory sampling. She asked if EPA would be willing to investigate if the homes in the DC Water LCR compliance sampling pool with low lead levels meet Tier 1 criteria. George Rizzo replied that EPA relies on the tap sampling results and the results are lower as compared to sampling results prior to corrosion control treatment. Ms. Lambrinidou replied that EPA's response represents beliefs that orthophosphate reduces lead levels, but does not provide scientific evidence. Bill Arguto responded that the whole process of changing corrosion control treatment involved a rigorous review by many technical experts. Ms. Lambrinidou applauded the involvement of experts during this process but requested that EPA continue the conversation until she gets satisfactory answers regarding the DC Water sampling pool.

Maureen Schmelling commented that DC Water tries to verify lead service line information by asking customer's questions about their service line in the chain-of-custody form. Ms. Schmelling noted that customers may not always know the type of service line if changes occur during a planned or unplanned maintenance activity. Bill Arguto said that LCR sampling sites as Tier 1 sites was already discussed. Ms. Schmelling confirmed that all DC Water LCR compliance sites are Tier 1 sites. All sites have lead in their service lines and at least 50 percent have a full lead service line. Susan Kanen said that according to the 2002 LCR guidance, up to 50 percent of sampling sites can qualify if they use lead solder for the service line even if a lead service line is not present. Ms. Schmelling said that EPA Region 3 requires that all sampling sites have a lead service line and does not allow sites with only lead solder.

Susan Kanen reiterated that she would like EPA to review her analysis of LCR sampling data organized by sampling location (discussed above). Bill Arguto said that TEWG members are always welcome to submit data and information to EPA. Further, he said that the LCR is currently being revised and the LCR workgroups may be discussing these same issues.

Paul Schwartz commented that he is a water consumer in DC and has been actively engaged in lead issues for the last 10+ years. He thought that EPA should trust and believe (DC Water) but should also verify the information. He would like to see EPA conduct test pits and collect hard data (on the presence of lead service lines) rather than relying on qualitative beliefs. Mr. Schwartz also had the opinion that partial lead service line replacements made the problem worse. He is not convinced that the LCR sampling results showing low lead levels means that there has been a big improvement. Further, he thinks the Chicago study is a red flag regardless of what the LCR workgroups are doing. Maureen Schmelling replied that DC Water does the best it can even if the LCR is imperfect. DC Water does communicate with customers on an individual basis and provides health information on the website. Wendy Gray commented that DC Water's annual customer confidence report has a lead health statement that exceeds the minimum language required. Ms. Lambrinidou commented that this is not the best way to reach the public since not everyone reads the report. Mr. Schwartz commented that he had not observed a strong public education program based on conversations with other DC Water customers. Maureen Schmelling replied that lead release is specific to each home and advised that customers can call DC Water and have their home tap water tested. Mr. Schwartz said that he appreciates DC Water's efforts in complying with the LCR and educating the public. Ms. Lambrinidou also acknowledged DC Water's efforts. She agreed with Mr. Schwartz's opinion that EPA should audit DC Water's information. Bill Arguto said that EPA Region 3 staff would discuss the issue.

Bill Arguto said that the LCR is a corrosion control treatment rule, not a health based rule. He added that while zero lead in the water is the ultimate goal, water systems face contributing factors outside of their control, namely service lines and premise plumbing. The action level of 15 ppb reflects the goal of reducing corrosion of the water. Yanna Lambrinidou did not agree that the LCR is a corrosion control rule but it is a public health

rule. She thinks that EPA has created this viewpoint and is misleading the advisory committee and experts.

6. Wrap-Up

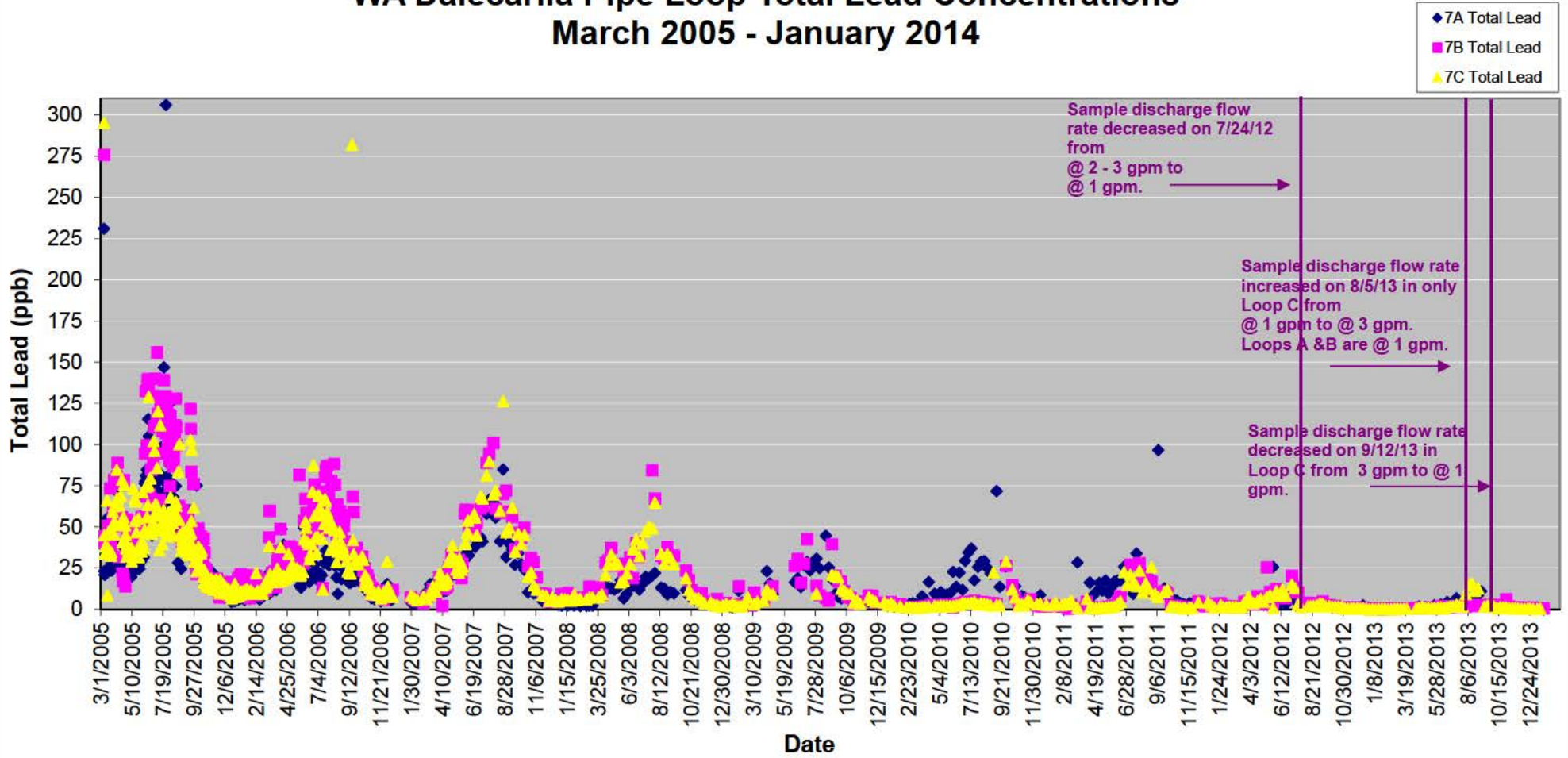
Bill Arguto thanked the TEWG members for the in-depth discussion and indicated that the meeting notes will be prepared and distributed to TEWG members prior to the next call. The next call is not scheduled at this time but a notice will be emailed to the TEWG. Susan Kanen asked Wendy Gray if the website can be updated with the minutes. Wendy Gray said the website was recently updated.

Attachment A

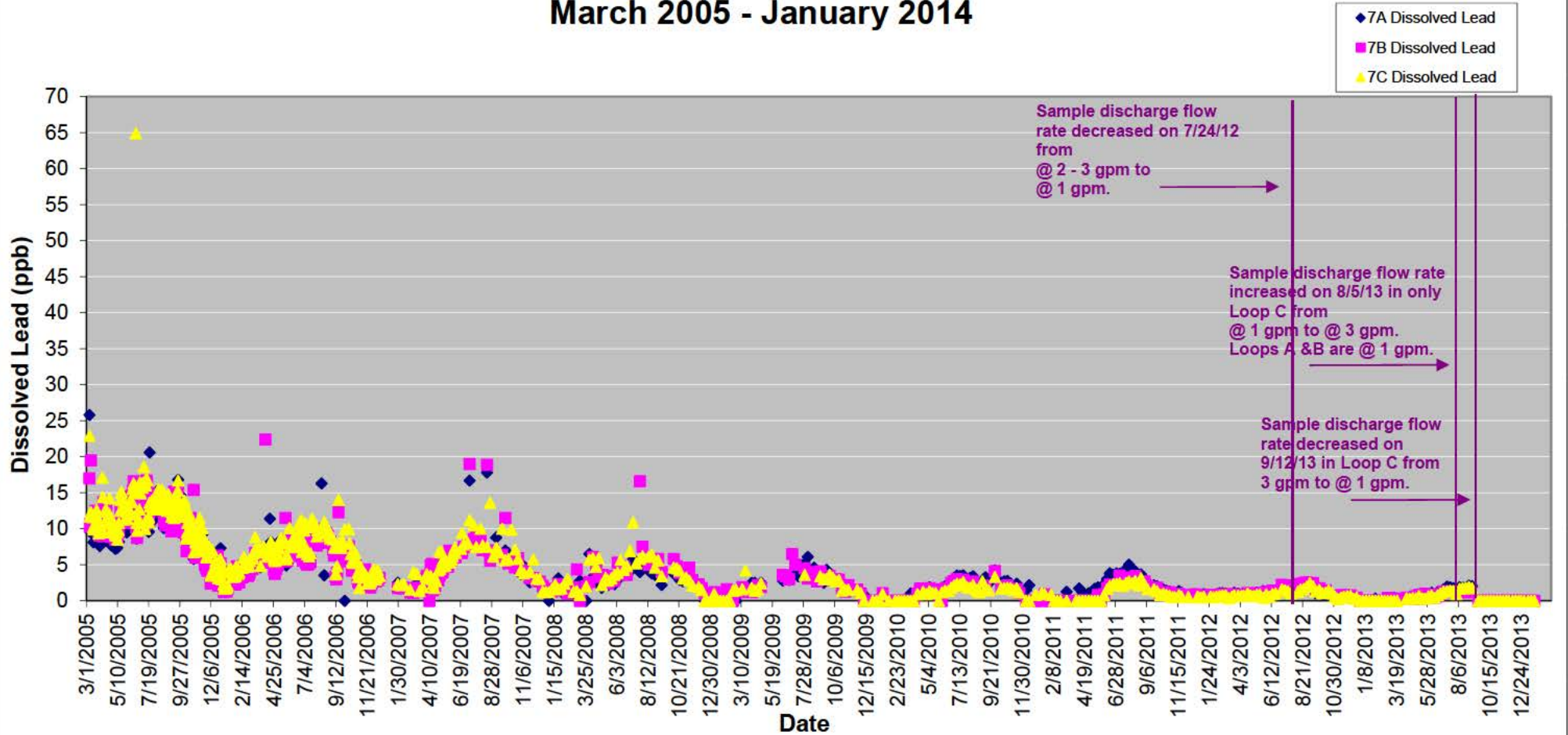
Agenda for TEWG Call on February 25, 2014

- Washington Aqueduct pipe loop update
- DC Water pipe loop update
- DC Water update on posting data to website
- DC Water preliminary lead and copper rule results update
- DC Water LCR sampling

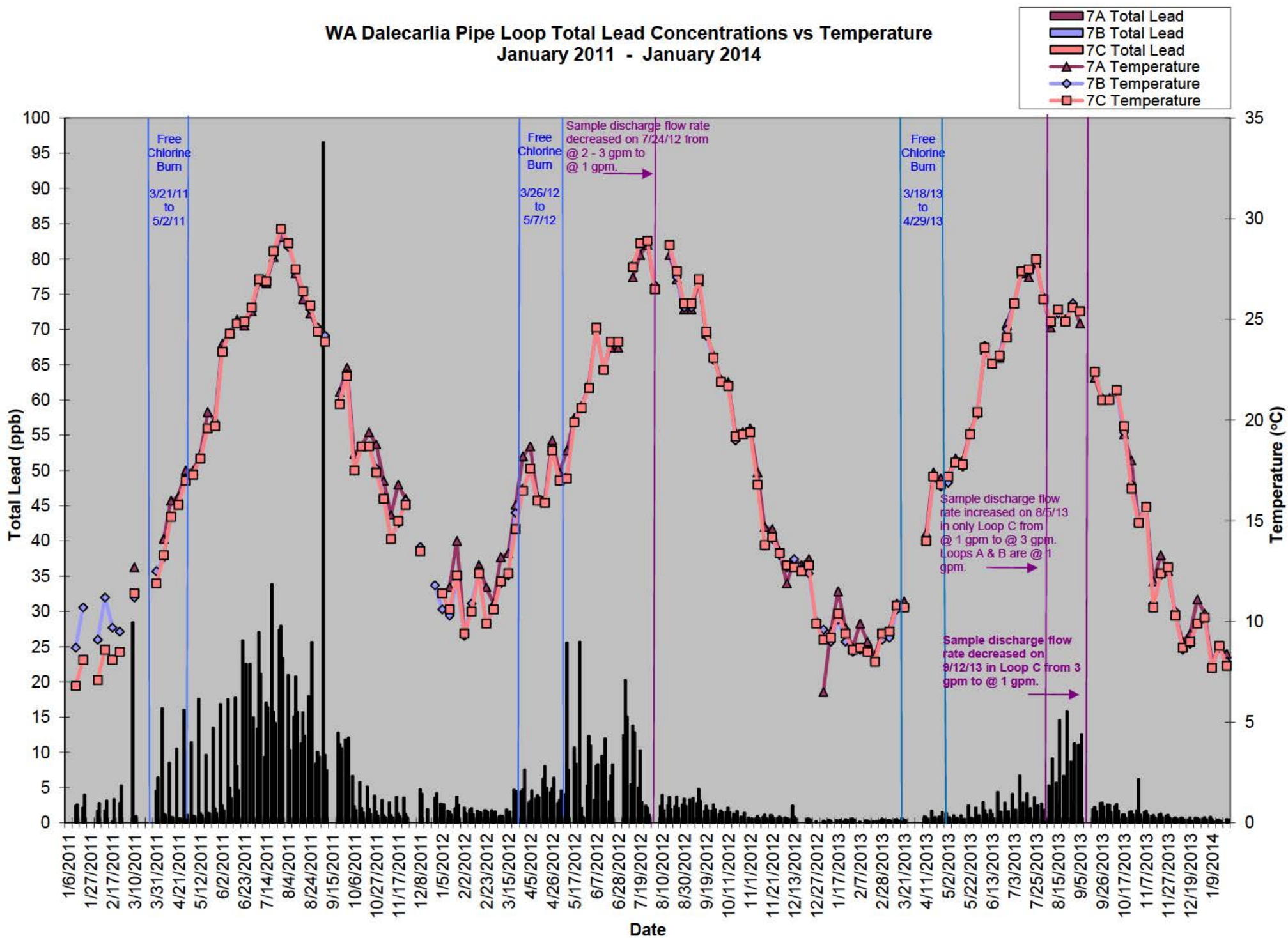
WA Dalecarlia Pipe Loop Total Lead Concentrations March 2005 - January 2014



WA Dalecarlia Pipe Loop Dissolved Lead Concentrations March 2005 - January 2014

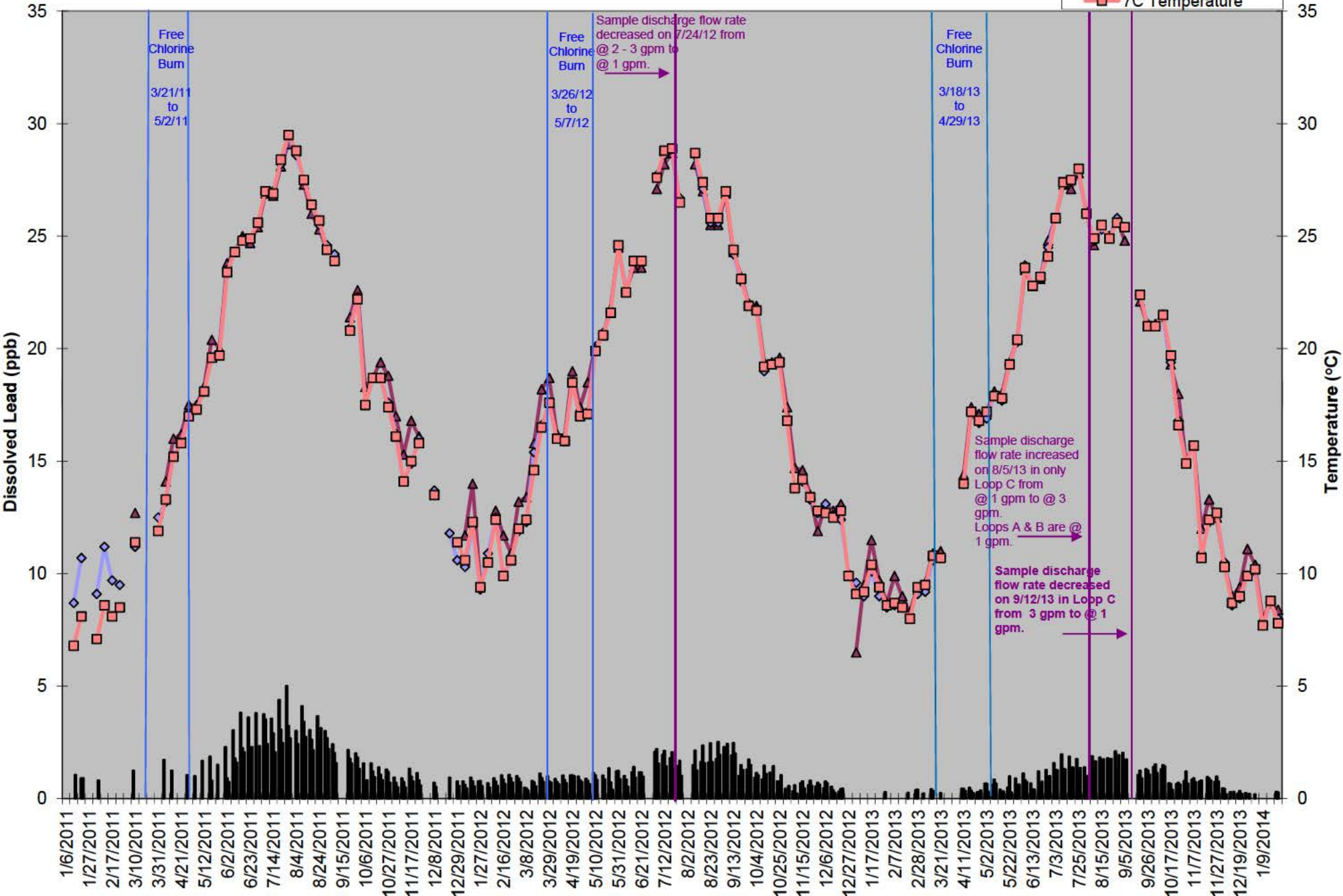


WA Dalecarlia Pipe Loop Total Lead Concentrations vs Temperature January 2011 - January 2014



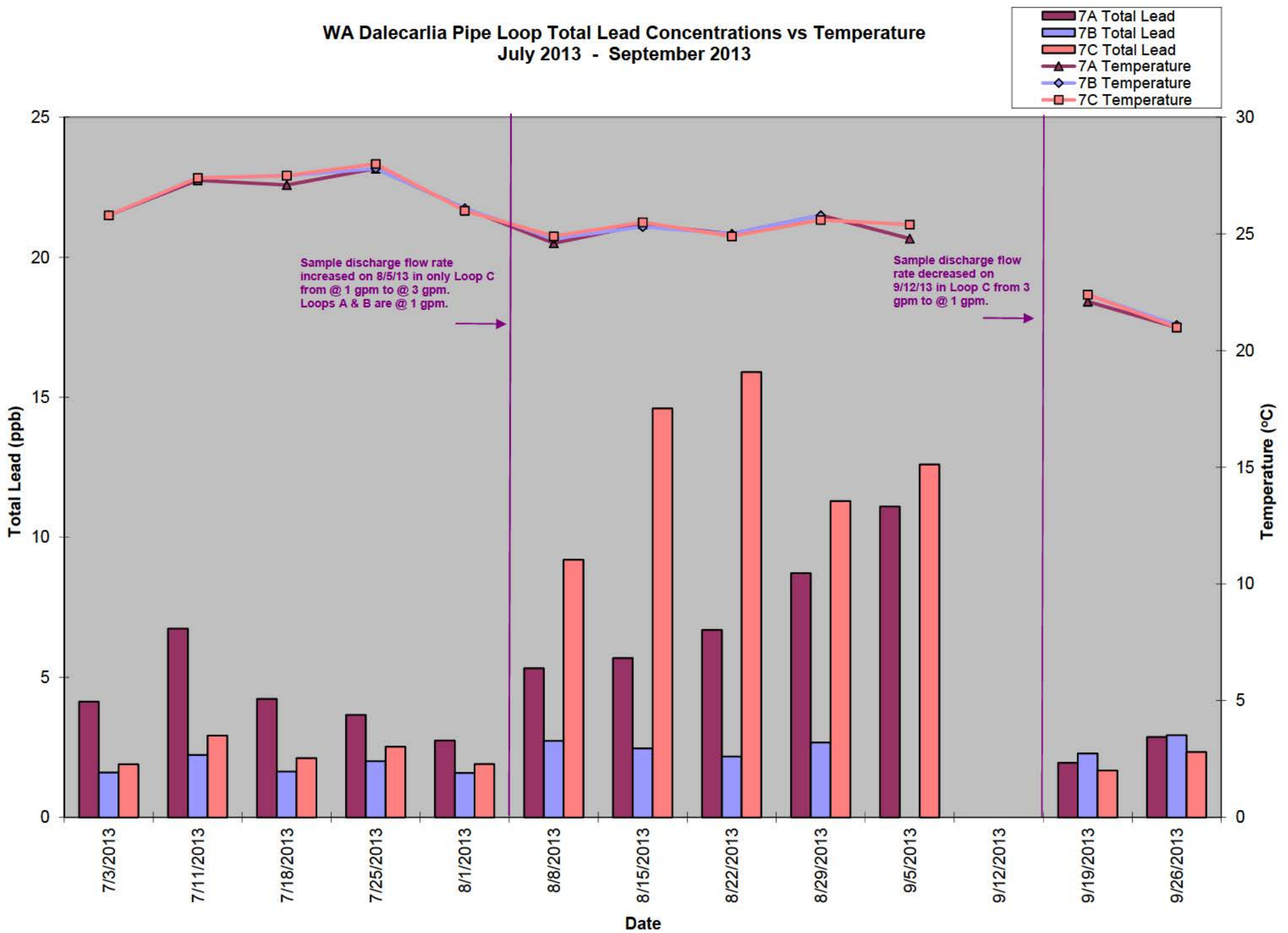
WA Dalecarlia Pipe Loop Dissolved Lead Concentrations vs Temperature January 2011 - January 2014

- 7A Dissolved Lead
- 7B Dissolved Lead
- 7C Dissolved Lead
- ▲ 7A Temperature
- ◆ 7B Temperature
- 7C Temperature



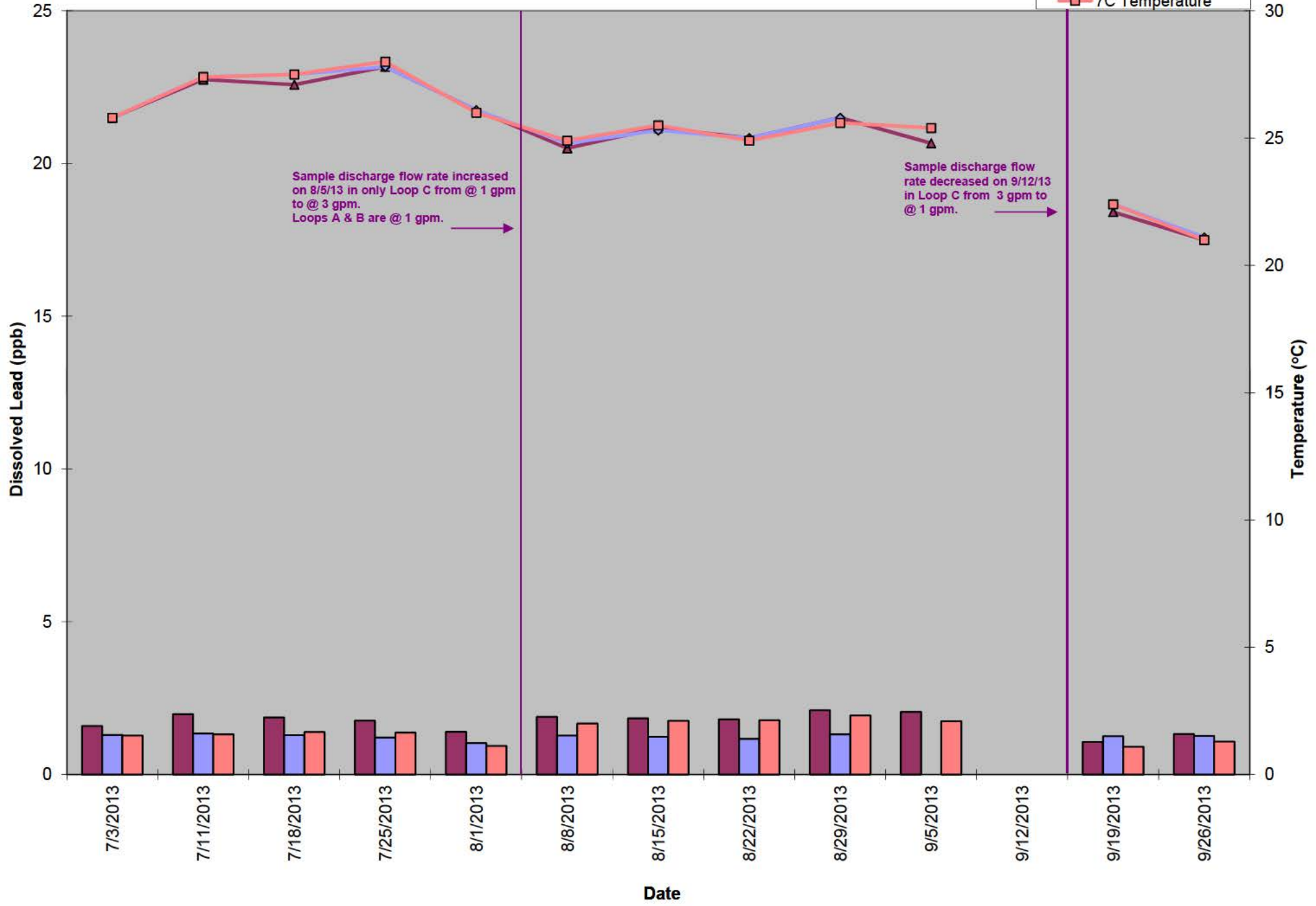
Date

WA Dalecarlia Pipe Loop Total Lead Concentrations vs Temperature July 2013 - September 2013

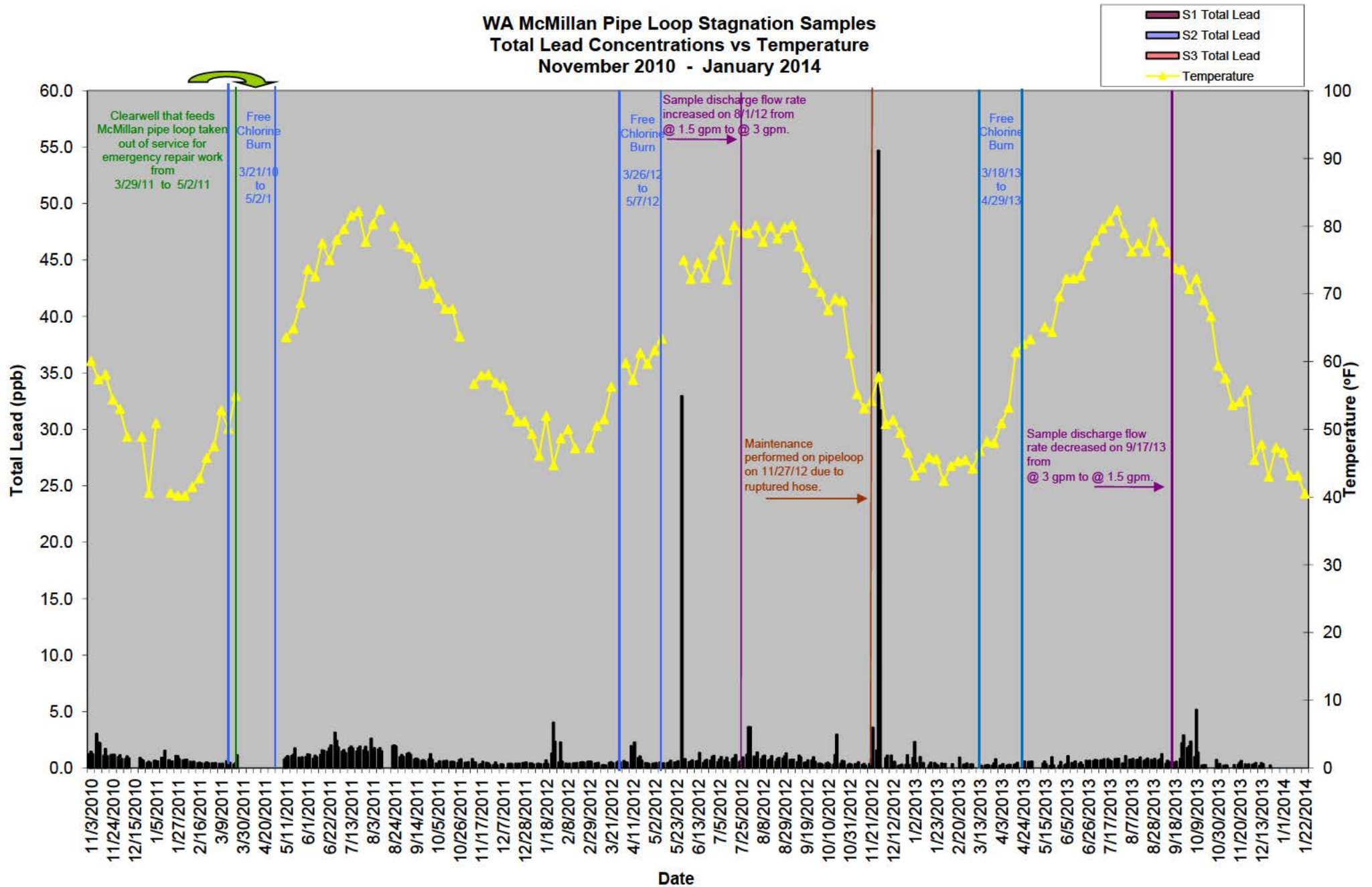


WA Dalecarlia Pipe Loop Dissolved Lead Concentrations vs Temperature July 2013 - September 2013

- 7A Dissolved Lead
- 7B Dissolved Lead
- 7C Dissolved Lead
- ▲ 7A Temperature
- ◆ 7B Temperature
- 7C Temperature

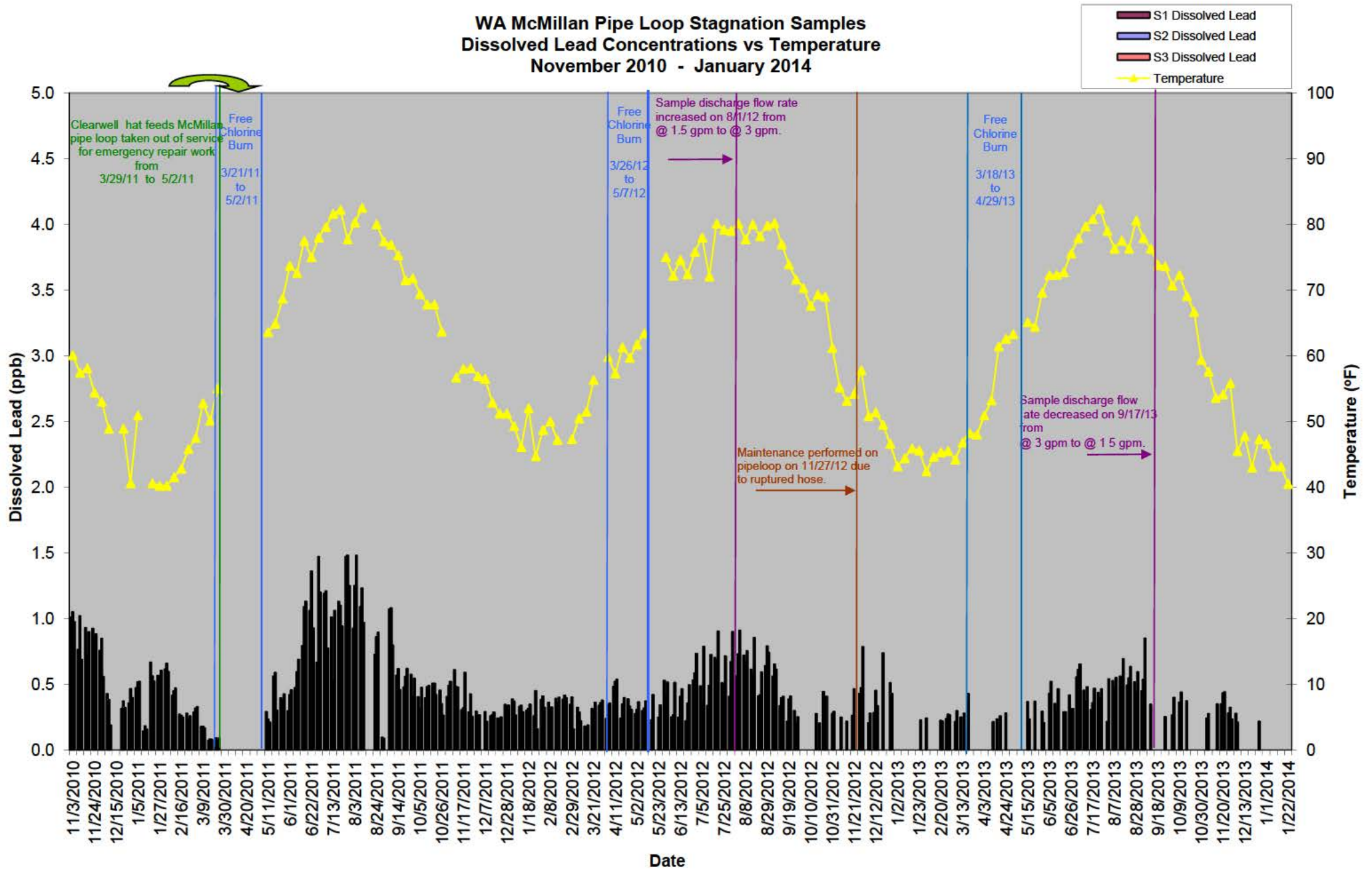


WA McMillan Pipe Loop Stagnation Samples Total Lead Concentrations vs Temperature November 2010 - January 2014



Note: Solenoids were installed on 6/7/2012 in order to isolate the sample discharges for loops 1, 2, and 3 from a common discharge. Lead data prior to this date represent the three loops being tied together at their discharge. So roughly, prior to 6/7/2012, the first sample contains the first third of all three loops, the second sample the second third, and the last sample the final third.

WA McMillan Pipe Loop Stagnation Samples Dissolved Lead Concentrations vs Temperature November 2010 - January 2014

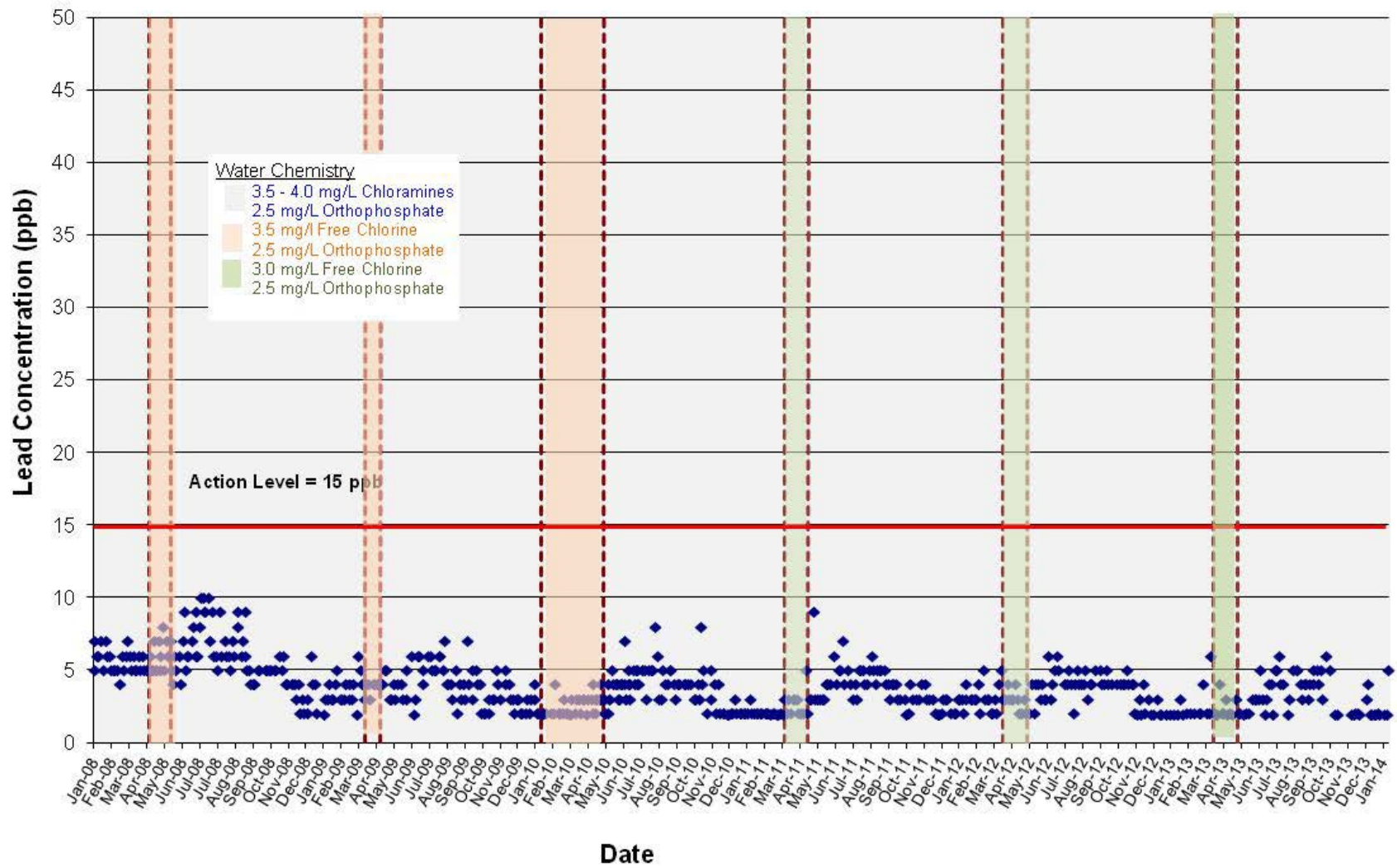


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DC Water Pipe Loop Data

Feb 2, 2014

Pipe Loop 1 Final (Control Loop): 1/08 - Current



Pipe Loop 3 Final: 1/08 - Current

