



Longview Drinking Water Improvement Study  
Customer Advisory Committee Meeting #7

# Meeting Summary

**MEETING DATE:** TUESDAY, JUNE 9, 2015  
**LOCATION:** LONGVIEW CITY HALL, TRAINING ROOM  
**TIME:** 6:00 PM – 9:00 PM (*meeting ran over until 9:20 pm*)

## In Attendance

### *CAC Members Present*

Bill Beltz  
Mark Bergeson  
Orranda Chamberlain  
Raymond Colwell  
Philip Dennis  
Rich Kirkpatrick  
Alissa Lee

Patrick Mccoy  
Stephanie Owens  
Dave Quinn  
Vincent Scalesse  
Preston Worth  
Ken Botero, City Council Liaison  
Bonnie Decius, BHWSO Liaison

### *CAC Members Absent*

Dave Hooper  
Amber Olson

### *Staff and Consultants*

Jeff Cameron, City of Longview  
Amy Blain, City of Longview  
Jeff Coleman, City of Longview  
Lee Odell, CH2M

Brad Phelps, CH2M  
Adrienne DeDona, JLA Public Involvement  
Jamie Harvie, JLA Public Involvement  
Jeff Meyers, Law, Lyman, Daniel, Kamerrer & Bogdanovich

### *Members of the Public*

Ray Byers  
Dawn Cemulini  
Leeann Colwell  
Wayne Clark  
Craig Dickenson  
Jewel & Doug and Gale  
Joann Goff  
Tracy Goldsmith  
Keath Huff

Toni & Ron Jones  
Linda Lakefish  
Art Mahlum  
David Millard  
Kristi Morrow  
Steve Powell  
Jerry Reagor  
Ken Spring  
Barb Westrick

## Overview Summary

- The CAC reviewed and discussed water supply options, heard public comment and discussed next steps.
- **The CAC selected two preferred groups of options to carry forward for public comment: New Surface Water Source (Cowlitz River) and Ranney Collector (Cowlitz River). Other options were removed from further consideration unless public sentiment strongly indicates otherwise.**
- A public open house would be held on June 30 and an online survey would also be distributed prior to the next CAC meeting. The next CAC meeting was tentatively scheduled for July 16.

## Information Requests / Parking Lot Items

- CH2M to check the cost estimates for water supply options Y and Z (Ranney Collector on the Cowlitz River, downstream – one with Mint Farm Treatment (Y) and the other with a new treatment facility (Z)).

## Welcome, Introductions, Review Agenda

Adrienne welcomed everyone to the meeting and noted that the meeting had been extended to three hours to accommodate the full agenda. Project team members and Customer Advisory Committee (CAC) members introduced themselves. Adrienne summarized what had happened during the previous CAC meeting, including eliminating three groups of options from further committee consideration, and reviewed the meeting agenda. She said that the goal of tonight's meeting was to further narrow the options under consideration to a reasonable list to take to the general public for consideration and feedback. She noted it would be up to the committee to decide what number of options would be reasonable, though two to six options would probably be ideal. Adrienne explained that the list of options had been grouped into clusters or categories based on the water source for ease of review.

## May 19 Meeting Summary

There were no comments on the meeting summary. It was approved and would be posted to the project website.

## Project Updates

Amy Blain, City of Longview, provided recent water testing results. She reminded the committee of previous organic nitrogen testing results. She presented the recent results of chlorine decay testing, showing a graph depicting the decay rate for chlorine and free chlorine (attached to this summary). The desired result is for chlorine and free chlorine to converge. For two wells, chlorine and free chlorine converged over a period of several days; two wells did not converge. Amy said they were still compiling data and should have final results by the end of the month. She said that one option that would be discussed tonight is filtration using granulated activated carbon, which is a treatment for removing organic nitrogen and chloramines.

Amy presented the results of water quality testing that had been done at two homes in areas where water quality complaints had been received. Water was tested at the water meter (from the distribution system) and then at several points within the residences in both hot and cold taps. The samples were then run through laboratory and flavor profile tests and scored from 1 to 9, with 5 and above being considered a failing score. At House A, the water at the meter registered slightly high on iron and slightly low on chlorine, but nonetheless met all water quality requirements and received a passing taste score. The cold water in the bathroom had slightly higher iron, and the flavor score was less favorable than at the meter, but still passing. The hot water in the bathroom had substantially higher bacteria counts and low level sulfides, and the water received a failing flavor score. At House B, the water quality at the meter was very good. She said they have not yet received the bacteria counts for that house, but she expected that it would come back high. The cold water in the bathroom received a passing flavor score but the kitchen received a failing score. The hot water failed the flavor test in both the kitchen and bathroom faucets.

- A CAC member asked why bacteria counts would rise from the street to the bathroom tap. Amy said it is likely caused by a biofilm issue within the private hot water pipes of the house.
- A CAC member asked the location and age of House A. Amy replied it was on 19<sup>th</sup> Avenue and the private plumbing had been replaced in 2007.
- A committee member asked whether the complaints that they received began to develop before or after the switch of the source. Jeff Coleman, City of Longview, replied he had noticed that complaints more recently had to do with chlorine rather than discoloration. He said the house on 19<sup>th</sup> Avenue had complained soon after the change and again since then. A complaint had not been received from the house on Garfield Street; however it was in the same area where another complaint had been received.

Amy provided trending results from the ongoing well testing program (attached to this summary). She said that 256 different compounds were tested for, which she had organized into twelve testing groups to make the information more comprehensible. She explained that "detection" means any level of presence for a particular substance and "exceedance" means it exceeds a particular screening level. The results were:

- Volatiles: No detections
- Semi-Volatiles: No detections
- PAHs: Handful of detections in 2011, but the lab used an incorrect test method; retesting came back as non-detect
- Herbicides: Roughly half dozen detections but no exceedances. Amy explained that half of these were found to be lab contamination; half retested and registered as non-detect so were attributed to field sampling errors. The wells that had detections were near ditches where herbicides were present.
- Plasticides: One detection and one exceedance. Both were attributed to sampling error because retests came back as non-detect. Amy explained that other jurisdictions have also struggled with false detections in this category due to the use of plastic equipment in the testing.
- Pesticides/Insecticides: No detections
- CPOCs: No detections
- Surfactants: No detections
- Radionuclides: Present. Amy explained that these have been present since the wells came online; they are not exceeding any screening levels and do not appear to be increasing.
- Metals: Present. Amy noted the only ones that exceed secondary Maximum Contaminant Levels (MCLs) were iron and manganese. She noted that the well water exceeds the primary MCL for arsenic in one of the monitoring wells but not in the production wells.
- General chemistry: The only parameter exceeded is color.

Amy noted she had sent trend information to the committee. She said she could not trend every item in every well because the sampling did not perfectly align. She noted that she had trended the results for arsenic, iron and manganese because these were treated at the plant. She noted the sampling well DW6 has shown increases in total dissolved solids, color, turbidity, conductivity – all of which correlate with increases in iron and manganese. She hasn't noted any other general trends in the other wells.

She also trended mercury, fluoride and cyanide because there was historical use of those chemicals at nearby industrial facilities. She said that mercury had always been non-detect. She provided explanation of fluoride, noting that there is a naturally occurring level of fluoride in the groundwater. She said the trend results showed fluoride suddenly appear, which was not because levels had increased, but because the Method Reporting Limit (MRL) had been lowered. Fluoride had always been present at a very low level. Cyanide was non-detect.

- A committee member asked Amy's opinion of why there are increasing metal levels in one of the monitoring wells. Amy replied that they think that well is pulling in a localized iron pocket from within the aquifer.
- Another committee member asked where there was herbicide contamination within the well. Amy clarified that the herbicide results had come from testing and lab methods and had registered non-detect upon retesting.
  - The committee member asked why the contamination would show in only three of the wells. Amy replied that those three wells happen to be close to a drainage ditch.
  - The committee member said herbicide contamination would be a serious problem if found within the aquifer.
- A committee member asked for confirmation that chlorine as an oxidant is responsible for many of the water quality complaints and that the City is looking for alternate ways to oxidize the water so not as much chlorine is required. Amy confirmed that this was correct.

Adrienne provided the group an update on stakeholder interviews. She said she had conducted a phone interview with Peace Health Hospital on May 21. Their main concerns were corrosion on equipment due to silica, water hardness, increased cost due to the need to flush equipment, and increased cost for chemicals used to combat the issues they were encountering. There had been some complaints from staff and patients about color and taste of the water. She had updated interview summary and posted it on the project website.

## Potential Liability for Water Quality Impacts

Jeff Myers of Law, Lyman, Daniel, Kamerrer & Bogdanovich law offices introduced himself and reviewed his background as a lawyer. He said the City of Longview had asked him to look at potential liability that might arise from the City's provision of drinking water, with the assumption that the drinking water being provided was in a system which was reviewed and approved by the Department of Health, that the water purveyor was providing it in accordance with Department of Health guidelines, and that the drinking water was in compliance with primary and secondary MCLs. He referred to a memo that he had provided to the City and had been distributed to the committee

(attached to this summary). He said that he had focused on two areas of liability – negligence and nuisance. He summarized the City’s responsibility to provide healthy drinking water on a regular basis. He explained that most of the complaints he had heard would fall more under the nuisance category rather than negligence since negligence cases usually involve contamination of the drinking water supply and failure to meet regulatory requirements. He said that it would be very difficult to be found liable for negligence when providing drinking water that meets regulatory requirements on a regular basis. He said there were only a small number of cases that address the issue of nuisance, but he provided one example that was similar, in which the court rejected the case because the water had been provided in accordance with safe drinking water standards. He said he did not think the committee should let liability concerns drive their recommendation and instead should look at reasonable actions to address those concerns. He noted the term “identify the right problem” in the committee’s vision and said that he thought identifying the problem and then identifying reasonable solutions were key for this process.

- A CAC member asked for clarity about whether the City can only be held liable if the water is not fit for human consumption. Jeff replied that the fundamental duty is to provide healthy drinking water; he has not found any cases in which a water purveyor has been found liable for failing to remove naturally occurring minerals within the bounds of water quality regulations.
- Another CAC member asked where the water quality testing must be done in terms of location. Jeff replied that the regulations provide for the location of testing to be at the point it left the treatment facility. He said it was possible that there could be problems within the distribution system, which the purveyor was required to maintain. In this case, the purveyor would be required to look into options to rectify the problem. In the case of Longview, the City had tried to resolve this issue by flushing the system, which would be considered a reasonable response.
- A committee member asked whether the City would only be responsible for water up to the point where the water enters private plumbing. Jeff confirmed that this would be the case.
  - The committee member asked about who would be responsible if water pressure changed and caused damage to private plumbing. Jeff replied that he had not looked into that particular issue, but it would likely depend on whether the pressure exceeded the design capacity or if the City did not exercise reasonable care, but it would depend on the specifics of the case.
- A CAC member asked whether the water reversal that had happened during the switch to Mint Farm could have affected people’s private plumbing. Jeff noted that is probably a temporary impact and the question to consider is whether the City had taken actions to address the issue. He said that flushing pipes is considered a reasonable action for a municipality to take in order to address water quality issues.
- A CAC member asked whether silica would be considered a nuisance issue. Jeff replied that silica is not a regulated water contaminant.
- A CAC member asked whether the City has paid any water quality claims. Jeff said that the City had paid one claim as reimbursement for consumables.
  - Adrienne noted that the claims information had been provided to the CAC prior to the meeting (attached to this summary).
- A CAC member asked the value of the liability maximum for the City’s insurance policy. Jeff said he was not sure exactly, but perhaps around \$7 million, noting it would be different for individual versus aggregated claims.
  - The CAC member said it would be a big issue if a high value lawsuit were filed and won.

## Water Quality Supply Options

Brad Phelps, CH2M, noted that the goal of the meeting was not to come up with a preferred solution, but to identify the groups of options that should be presented to the public for their consideration and feedback. Brad reviewed each of the groups of options in more detail.

- A CAC member said that the Modify Distribution System group of options, including replacing pipes, had the highest impact to rate payers and said that the pipes were already being replaced as part of current operations. He asked whether the costs shown for the Distribution System group shouldn’t be included for all of the options that include groundwater. Brad said that could be part of the CAC’s recommendation – that the upgrade options in this group be made in addition to other options.
- The group discussed the option to update the distribution system pipes. A CAC member asked whether replacing the pipes in the distribution system was something that the City would do anyway. Lee Odell, CH2M, replied that the City would complete routine updating of water pipes as part of their ongoing regular maintenance program.
- A CAC member expressed concern that the cost estimates were too high. Brad said that the intention is to be able to compare all of the options to each other using the same metrics. The CAC member said that those numbers would be misleading compared to the status quo, which costs nothing. Lee said that they had tried to be conservative with cost estimating; however, it was very hard

to conceptualize all costs associated with projects at this early level. The CAC member expressed concern with contingencies being included in some of the metrics, such as financing.

- A CAC member noted that options Y and Z (Raney Collector on the Cowlitz River Downstream) had the same cost, yet one treated water at the Mint Farm and the other at a new treatment plant. Lee said he would look into this discrepancy and update it.

Lee presented an overview of each of the water supply option categories. He made the following comments:

- None of the options within the Modifying Existing Treatment category would address all of the customer perception issues; some of them would require quite a few treatment changes, would take time to implement and would be more complicated to operate.
- The water quality of Other Groundwater Source options would be unknown until further testing was done.
- Based on the testing results done by the City, none of the Distribution Changes options would address the taste and odor problems.
- All of the options in Surface Water Source on the Cowlitz River category would address customer perception issues; however, they would take time to implement and would require overcoming environmental permitting challenges. The range of costs for this category depends mainly on how far the water must be transmitted.
- A Surface Water Source on the Columbia River would be similar to the Cowlitz River in terms of the trade-offs.
- The main issue involved with the Other Surface Water Source category would be the acquisition of a new water right.
- It's CH2M's assumption that the Ranney Collector options would address customer perception issues. Treatment requirements would vary depending on the water testing results.
- Aquifer Storage and Recovery (ASR) would involve sourcing water from a surface water source and injecting it underground when demand is low; then withdrawing it when demand was high or when restrictions prevent withdrawal from the intake. The intent would be to supply surface water at a lower cost. Further analysis is needed to better understand the technical feasibility of this option.
- The Blending options would involve sourcing smaller amounts of surface water and blending with water from Mint Farm to lower the silica content of the water.

#### *Committee discussion*

- A CAC member asked whether a Ranney collector would provide long-term reliability, noting that long-term viability was very important in the CAC's main goals. Lee replied that the number of Ranney collectors needed to get the required volume wouldn't be known until further testing was done. Lee said Ranney collectors in the region currently varied greatly in their production.
- A CAC member asked whether Kelso's Ranney collector had been successful and sustainable. Lee replied that Kelso had lower demand than Longview and they had some water quality and treatment challenges.
- A CAC member asked whether tests could be done to determine the best location for a Ranney collector. Lee replied, yes that test wells could be drilled.
- A CAC member asked whether it would be reasonable to consider Ranney collectors in other places as examples. Lee replied that there were enough Ranney collectors in the Columbia Valley to say that a Ranney collector would likely be a viable option for a municipal supply. He said some Ranney collectors have very high levels of iron and that they would not be without their challenges, but noted that Longview already had a treatment plant that removes iron and manganese.
- A CAC member asked whether Ranney collectors were reliable in the long term. Lee replied they were viewed as quite reliable and that a number of lateral collectors could be installed to accommodate the anticipated needs.
  - The CAC member expressed concern that the table did not reflect this level of reliability. Lee said he had placed a question mark under reliability because testing would be required for any Ranney collector option.
- A CAC member asked about water supply demand levels for Longview. Lee replied that the project team had used the City's 20-year plan as a standard, which had estimated peak levels that were higher than recent years because water demand had decreased.
  - The CAC member asked whether anticipated capacity included increased industrial needs. Lee said that the 20-year plan included some industrial growth.
  - The CAC member asked whether some water that municipal users find unacceptable could be used for industrial use? Lee replied that this could be a possibility.
- A CAC member asked whether electrocoagulation could be used. Lee replied that it had been approved for drinking water but it hadn't been applied on a large scale. He explained that coagulation was the addition of metal salts in water so that metals could be separated and that electrocoagulation was a process of getting iron salts in the water and then removing them. He noted that the

pH must be raised very high and then lowered once the materials were removed and that settling basins would need to be added to catch the particles that fall out.

- Another CAC member asked why they would want to consider adding iron when they are already treating to remove iron. Lee replied that electrocoagulation would remove some of the silica.
- A CAC member asked whether reverse osmosis was being considered and what the impact on silica would be. Lee replied that reverse osmosis was commonly used for treatment of groundwater, but involved significant operating costs. He said it would completely remove silica from water that is treated, but that only part of the supply would be treated and then blended to keep costs down.
  - Amy Blain noted that Cowlitz River also contained silica at levels of 20–25 mg/liter. Their studies indicate that lowering silica levels to this amount would significantly reduce the spotting issues.
- A CAC member commented that Ranney collectors had a lower cost, environmental benefits, and fewer treatment issues and would make the water more acceptable to the community. He said he has been concerned whether the solution that they choose would reverse the flow in the pipes, which would not be the case if the water were treated at Fishers Lane. He said his main concern with Ranney collectors was that chemically it would be different than the surface water from before the switch.
  - Another CAC member said Ranney collectors were a good option and if the other options weren't as good, then the committee should get rid of them.

Adrienne told the committee that the next step would be to take the narrowed list of options to the community for further input. Lee asked the committee whether they would prefer to individually complete the provided worksheets or go straight to group discussion of the options. CAC members indicated they would prefer to complete the individual worksheets prior to a group discussion.

## Public Comment

Steve Powell likened the Longview phone survey results to a business finding that 80% of its customers were unhappy with their product. He said that an online survey had recently been conducted by concerned citizens regarding the indirect costs being borne by citizens due to the Mint Farm water. The survey had received 185 responses up to the date of the meeting – 62% expressed concern about the effect of the water on their health; 30% indicated they spent at least \$50 per month on health-related treatments; 82% indicated the water had damaged large appliances to the point they required repairs; 61% indicated they had spent over \$100 and 35% over \$500 in the past two years or anticipated over the coming 12 months due to appliance issues; 76% indicated they bought more bottled water; 72% indicated they spent more than \$10 per month on bottled water; 51% indicated they spent more than \$20 per month on bottled water; many expressed that taste, purity and silica issues were reasons they bought bottled water; 46% indicated they had bought filter systems; 35% had spent more than \$100 per year on filter-related expenses; 68% indicated they would pay an additional \$5 per month in rates; and 56% indicated they would pay an additional \$10 or more per month in rates to fix these issues. He noted that this survey could not be taken to represent community opinion at large because respondents were not randomly selected and the sample size was small; however, it showed that the Status Quo option was not free or the lowest cost option. He recommended that the CAC recommend a Ranney collector on the Cowlitz River with enough capacity to meet current needs and that Mint Farm well water be held in reserve for future industrial needs.

Joanne Goff said she lived on 50<sup>th</sup> Avenue. She showed the committee photos of five homes from the Old West Side, the Lone Oak area, Sunset Village, the Lexington area, 38<sup>th</sup> Avenue and her house. She said these five homes had accrued over \$20,000 in damages. She showed a one year old red Kitchen Aid pan that had been washed with Longview water and had silica staining. She said she was worried about the health effects of the water and the bacteria levels. She said it had been recommended to let the hot water run for a while before using and asked whether they were supposed to let the water run cold before they could take a shower.

Craig Dickenson said he had expressed concern about drawing water from the Reynolds area before the switch but his concerns had not been listened to. He said the source of the water was the main problem. He said that Longview was plumbed a certain way and that the best solution would be to go back to the Cowlitz River. He said that when smelt were an issue, then the Ranney system could be used and when they weren't, the surface water could be used. He said when they used Cowlitz surface water they hadn't had the problems with the smells or the concerns about toxicity from the surrounding contaminated areas. He said the groundwater had been a bad idea since the beginning. He said there would be plenty of water available for a Ranney collector on the Cowlitz but that he preferred the surface water with a Ranney collector as a back-up.

Dave Miller said that the original cost of the Mint Farm had been \$36 million and the quoted cost for drawing water from Kelso had been \$46 million and he would like to know how much money had been spent since Mint Farm was built. He said in June the newspaper had said the wells were the cheapest way to go, which he found laughable. He said they were spending money on the current study when they already knew that the water from the wells would not be able to be changed. He said staying with the wells would be like putting horseshoes on a dead horse. He said smelt had been coming up the Cowlitz River for many years. He said they had been affected by the silt but had come back. He thought the committee should recommend a Ranney system on the Cowlitz River. He said that if the cost is \$10–\$20, that would be fine and that they had seen rates go up repeatedly anyway.

Barb Westrick said that she always thought it was a bad idea to go to a well system at the Mint Farm site and she had expressed her concern to elected officials. She said her water smelled like a swimming pool. She said that white silt settled to the bottom of a drinking water glass that had been left to rest. She said that was not acceptable. She likened the current situation to a supposedly earthquake-proof hospital that had fallen down during an earthquake and to the government saying that Agent Orange was not harmful. She said her biggest problem was that her family's skin itches and that she had to buy bottled water. She said that changing to the wells was a mistake that should be apologized for and fixed. She said that quality water was not a privilege; it was a right.

Art Mahlum said he was a graduate of University of Washington in chemical engineering and worked 40 years with Weyerhaeuser. He said the City had paid \$219,000 to CH2MHill and other contractors. He said the contract did not meet legal standards because no other bids were taken. He said that Adrienne was paid by CH2MHill as a facilitator. He said that hot water was a problem for silica and he noted that hot water heaters, dishwashers and other appliances all heat water. He said he didn't think that Amy understood philosophy and theory. He said people should ask themselves what changed on January 1, 2013. He said that scientists get paid to do permitting, logistics, modelling, etc. and that they were paid to screw data to a biased conclusion.

Dawn Cemulini said she agrees with what most others have said but she felt it was important to speak because she didn't like the status quo. She said the community's expectations were what they had before and the current water does not compare with what they had before. She said well water is very different from surface water and said she found it disappointing that the current problems – such as silica levels, changing direction in the pipes, and concerns drawing from industrial areas – were not anticipated before switching. She said the current water was not acceptable. She said that status quo is not good for the committee to consider as a control because it was not a good option to begin with. She said she hopes the committee will remove it from consideration. She said it was a difficult decision and thanked the committee for their work.

Kristi Morrow thanked the committee for acting on the community's best interest. She said she wanted to remind the committee that they were trying to bring in more industrial activity to the area where the drinking water was currently sourced and that they were currently relying on only one source. She said they needed to have more than one source in case of disaster. She said she was a former laboratory analyst and that herbicide contamination results in a water test would not happen from fertilizer on a laboratory worker's hands. She said it could have happened from another type of sampling error. She said that the dark spots were caused by iron bacteria and would be either present or absent. She said that the test results had been glossed over. She said a Daily News article from 2011 noted that toxic waste was dumped into the area where the wells were. She said that wouldn't just go away.

Jerry Reagor referenced a brochure that he said would pay for the current program. He said it was a brochure that had been provided to the community when the switch was being considered. He said it showed a diagram with gravel from the river to the current wells, which had later turned out to be rock. He said that the tests had been inaccurate and that none of the tests had showed silica. He said that the testing consultants should be sued to pay for the current changes that were needed.

Ken Spring said that most of the committee members were probably as unhappy with the water as everyone else. He thinks the recommendation should be to go back to the Cowlitz River. He said they could try a Ranney collector, but if not, to go back to the old intake. He said it didn't make sense to spend more money to figure out what to do. He said the best thing to do when the silica was discovered would have been to go back to the Cowlitz River. He said the City spends money on flushing water from the system. He said he resented the attempt to intimidate them with a lawyer. He said his opinion was that the City would be sued. He said that he had spoken to lawyers about suing them; he had built a house five years ago and that many of the appliances were ruined.

Tracy Wilson thanked the committee members for their service. She asked the committee to please remember their goal of having high customer satisfaction when making their recommendation.

Leeann Colwell said she thought the public should have been invited for pizza. She said that the lab tests shouldn't have been done twice and paid for twice; if the results were flawed in the first place, the lab should pay for that. She thought that was a waste of money and unreasonable.

Edward Silver said it appeared to him that the committee was set up as a smokescreen to save some jobs at the City.

During the break, Wayne Clark spoke to a member of the project team and indicated that he preferred the Ranney Collector on the Cowlitz River option and keeping the water flow the same by treating it at the Mint Farm. Wayne also indicated that he had issues with his water, mainly from silica spotting.

## **Further discussion of water supply options**

Brad Phelps presented the results of the committee member worksheets (attached to this summary): the top six options, which were (in order of committee preference): 1) Ranney Collector on Cowlitz River; 2) Ranney Collector on the Columbia River; 3/4) Modified Treatment of Mint Farm Water / Ranney Collector on Kalama River (tied); 5) Surface Water Source on Cowlitz River; and 6) Blending Cowlitz River Water with Mint Farm Water.

Adrienne noted that these results were a tool for the committee to begin conversation.

### *Committee discussion*

- A CAC member asked how the Status Quo was ranked. Brad replied it would have been number 7.

- A CAC member said that the Ranney collector on Kalama River had a low cost and he was surprised it didn't rank higher. He also said he was surprised that the Columbia River was considered a viable source because he would be worried about pollution.
- Another CAC member said he thought the cream had risen to the top in this exercise. He said he ranked the Kalama River lower because of the long transmission requirements.
- A CAC member asked whether the Kalama River would be able to provide the needed capacity. Lee replied that this was an unknown.
  - Another committee member said the capacity issue would justify it being ranked lower than the Columbia River because the Columbia didn't have a question of supply.
  - A CAC member said that the Kalama River was much smaller and more susceptible to variations in flows. He thought the Cowlitz River would be a more reliable supply than the Kalama River.
- A CAC member said he ranked all the Ranney collector options highly but was concerned about the Columbia River's reputation as having high contamination. He noted that a Columbia River Keepers office had opened in Longview and they would probably object to drawing water from the Columbia.
- A CAC member said he rated anything to do with the Columbia River very low due to pollution concerns.
- A CAC member said she was surprised that the Cowlitz River surface source ranked so low because, given the importance of customer perception, the most commonly heard request is to go back to the Cowlitz.
- Another committee member said the Ranney collector options, including the Columbia River option, ranked highly because getting into the aquifer below was more attractive and secure than a straight surface water source.
- A CAC member proposed that any source involving the Columbia River be removed. She said that if the concern in regards to wells is toxicity, then the Columbia River should have the same concerns.
- A CAC member said the a New Well Field Source should be added to the list under consideration because it has a low cost, would get out of industrial area, and would hopefully be able to be tested for some of the things that are currently problematic for the Mint Farm. He said a new well field wasn't his top choice, but that Ranney Collectors wouldn't be perfect either.
  - Another committee member asked where the \$7 cost for a new well field came from. Lee replied they estimated that development of new well field would cost same as Mint Farm. The committee asked if a geographic radius was considered. Lee replied that no location was considered.
  - The New Well Source option was added to the list for further consideration.
- A CAC member said he would like to keep the Treatment Modifications for silica on the table. He said that every solution had some problems; there was not a perfect solution. He said the biggest problem with Mint Farm was silica and he would like to see this aspect weighed against other options. He said the Columbia River would not run out; it was a sustainable source.
- Another CAC member said she would like to keep ASR on the Cowlitz River as an option. However she later withdrew this request.
- A CAC member asked whether other committee members would be in favor of blending. One person said he would like to discuss this further. Another said he didn't see why they would blend if the cost to do so is very high.

**Resulting from the discussion, Adrienne confirmed with the committee that they would like to remove seven groups of options from consideration: the Status Quo; Modifying the Distribution System of the Mint Farm Source; New Surface Water Source (Columbia River); New Surface Water Source (Other); ASR (Cowlitz River); ASR (Columbia River); and Blending (Columbia River). The committee agreed by consensus to remove these options from further consideration.**

The committee completed a thumbs up/down/sideways poll on the remaining seven groups of options to determine whether they had consensus on removing any additional options. Up indicated a desire to keep the option for consideration; down indicated a desire to remove the option from consideration; sideways indicated that the committee member could go either way. The results of the vote were as follows.

#### *Mint Farm Wells – Modify Treatment*

- 3 thumbs up; 7 thumbs down; 2 thumbs sideways
- Those committee members with thumbs up deferred to the majority.
- **The committee decided to remove the Mint Farm Wells – Modify Treatment category from further consideration.**



### *New Wellfield*

- 2 thumbs up; 9 thumbs down; 1 thumbs sideways
- Those committee members with thumbs up deferred to the majority.
- **The committee decided to remove the New Wellfield category from further consideration.**

### *New Surface Source (Cowlitz River)*

- 6 thumbs up; 5 thumbs down; 1 thumbs sideways
- Those committee members with thumbs down deferred to the majority.
- **The New Surface Source (Cowlitz River) was kept on the list for further discussion by the committee.**

### *Ranney Collector (Cowlitz River)*

- 12 thumbs up; 0 thumbs down or sideways
- **The Ranney Collector (Cowlitz River) was kept on the list for further consideration.**

### *Ranney Collector (Columbia River)*

- 1 thumbs up; 9 thumbs down; 2 thumbs sideways
- The committee member with thumbs up deferred to the majority option.
- **The committee decided to remove the Ranney Collector (Columbia River) group of options from further consideration.**

### *Ranney Collector (Kalama River)*

- 1 thumbs up; 5 thumbs down; 6 thumbs sideways
- A CAC member asked whether the cost estimate for this group was realistic. Lee confirmed that it was, to best of their knowledge. He noted the biggest challenge with that option would be obtaining water rights.
- A CAC member expressed concern that the uncertainty around the capacity of the Kalama River is not easily answered, so if no decision was made, it would stay in limbo for a long time.
- A CAC member asked whether Kalama was offering them water. Lee said that this option would involve Longview getting its own water right and building a separate facility.
- The CAC members took another poll on this option which resulted in: 1 thumbs up; 11 thumbs down; 0 thumbs sideways
- The committee member with thumbs up deferred to the majority option.
- **The committee decided to remove the Ranney Collector (Kalama River) category from further consideration.**

### *Blending (Cowlitz River)*

- 3 thumbs up; 7 thumbs down; 2 thumbs sideways
- The committee members with thumbs up deferred to the majority option.
- **The committee decided to remove the Blending (Cowlitz River) category from further consideration.**

Following the group polling, Adrienne noted that the only two options under consideration were a New Surface Water Source (Cowlitz River) and Ranney Collector (Cowlitz River).

### *Further discussion*

- The committee generally agreed that they supported carrying these two options forward for public comment.
- A CAC member suggested keeping the Status Quo option on the list for public comment.

- Several CAC members indicated they would not like to keep the Status Quo option on the list.
- A CAC member noted that the public could comment on it even if the CAC had not recommended it.
- A CAC member said it would be more appropriate to keep the Modified Treatment option on the table rather than the Status Quo, because the Modified Treatment would be a new approach that addresses the silica issue.
- A CAC member said that not everyone in the community supported returning to the Cowlitz River and that the only two options left on the table include the Cowlitz River. He suggested leaving the Modified Mint Farm source on the table for one more round to hear what the community thinks.
  - Another CAC member supported this suggestion.
  - A CAC member said that modifying the well source would be high maintenance. He said the estimated costs are only for initial installation; however, he would assume that rates could continue to go up if this option were selected.
  - Brad Phelps talked about the next steps. He said that the open house will present quite bit of information to the public so they can better understand the options that had been considered.
  - A CAC member said she was concerned about pollution in the Mint Farm source and she did not want to include it in the list under consideration.
  - A CAC member said that there was currently a proposal for an oil refinery and trains along the Cowlitz River, so there would be a risk that it could be contaminated.
- A CAC member said she would be open to bringing information about a non-Cowlitz option to the public so that education and feedback could be better-rounded.
- A CAC member said that any discussion about the Columbia River needs to take into consideration contamination along the entire waterway.
- A CAC member said he thought it was important to have a non-Cowlitz option on the list; however he does not think it should be a Mint Farm source, which is why he had suggested a new well field.
- One CAC member said the committee had consistently favored the Ranney Collector on the Cowlitz River. He said that the Ranney Collector (Cowlitz River) category included eight different possible solutions. He said that the CAC should not include extra options for the sake of hearing from the public; the public could comment on the various options independently of what the CAC recommended.
- A CAC member asked whether any members were intending to change their votes to include any of the options that had been removed from consideration. No committee members indicated they would change their votes.
- A CAC member asked, if it were easy to modify treatment of the well water, why hadn't it been done already. Lee replied that it would not be easy; it would be a complex treatment process.

**Following their discussion, the committee decided to only carry forward the New Surface Water Source (Cowlitz River) and Ranney Collector (Cowlitz River) categories as their preferred options.**

Adrienne noted that the next step is to have a public open house and survey to receive feedback on the CAC's recommendations. A CAC member reminded the group that they could go a different direction if public feedback indicates something different.

## Next Steps

Adrienne said that a public open house was planned for June 30 and the next CAC meeting planned for July 16, which was the original date for the Council workshop. Ken Botero noted he would not be able to make the July 16 meeting.

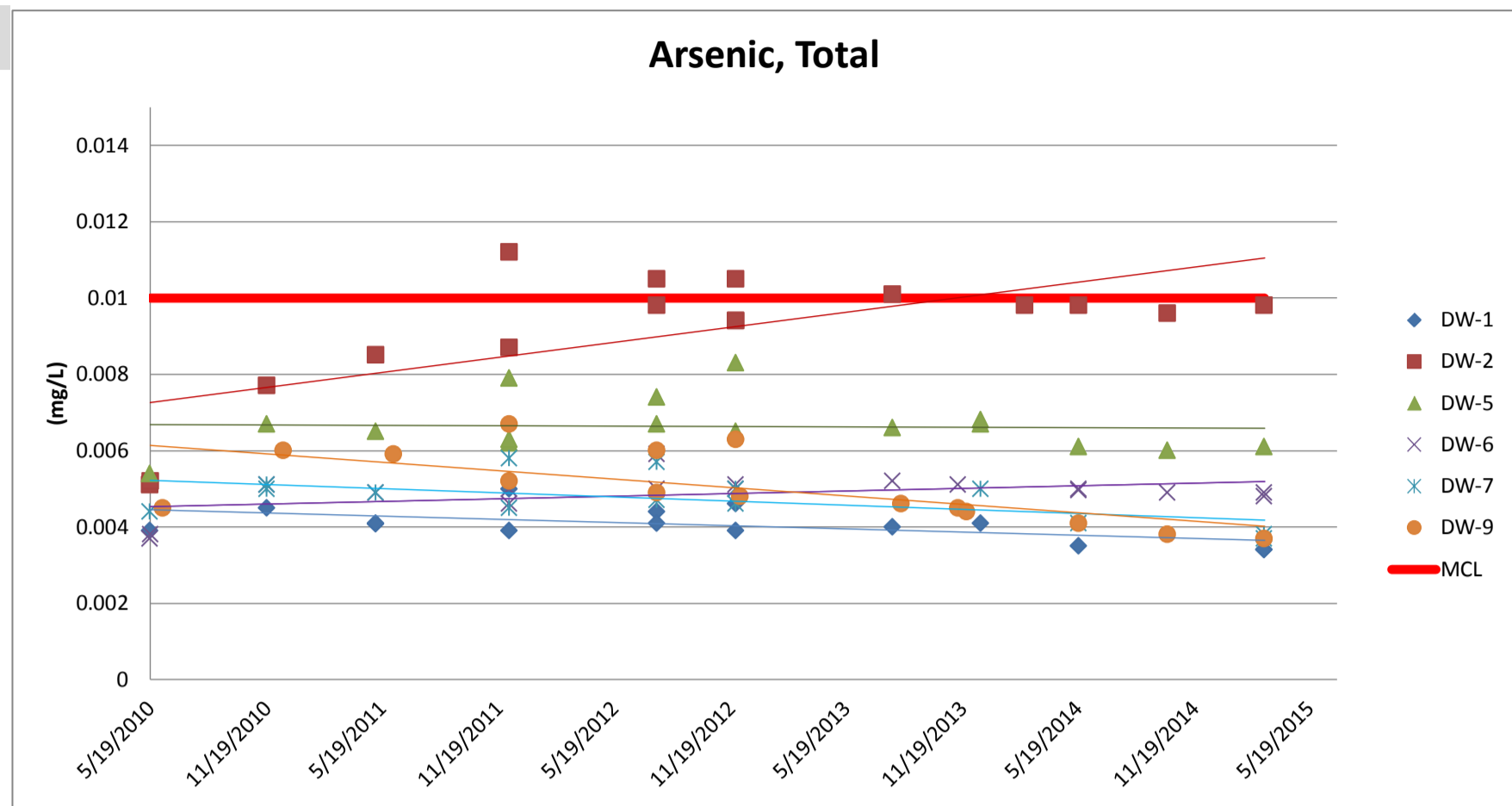
Preston Worth said he wanted to make sure the public knew that a citizen advisory committee was working on this issue and that it wasn't being done in the back room. He noted The Daily News and local radio had been posting notifications about the committee's work, but wanted to make it more widely known so later on the community would know that all options had been considered. Adrienne noted that the City would be placing reader boards along the road to advertise the survey and open house as well as a press release, newspaper ads and e-mails to the project stakeholder list. She asked CAC members to send her any additional ideas for public outreach.

- A CAC member suggested condensing the meeting summaries and publishing them in The Daily News.
- A CAC member suggested adding information to the water bills; however, Jeff Cameron noted that this wouldn't fit with the CAC's timeframes because the water billing cycle is every two months.
- A CAC member suggested posting the website to the Facebook page started by citizens regarding the water.

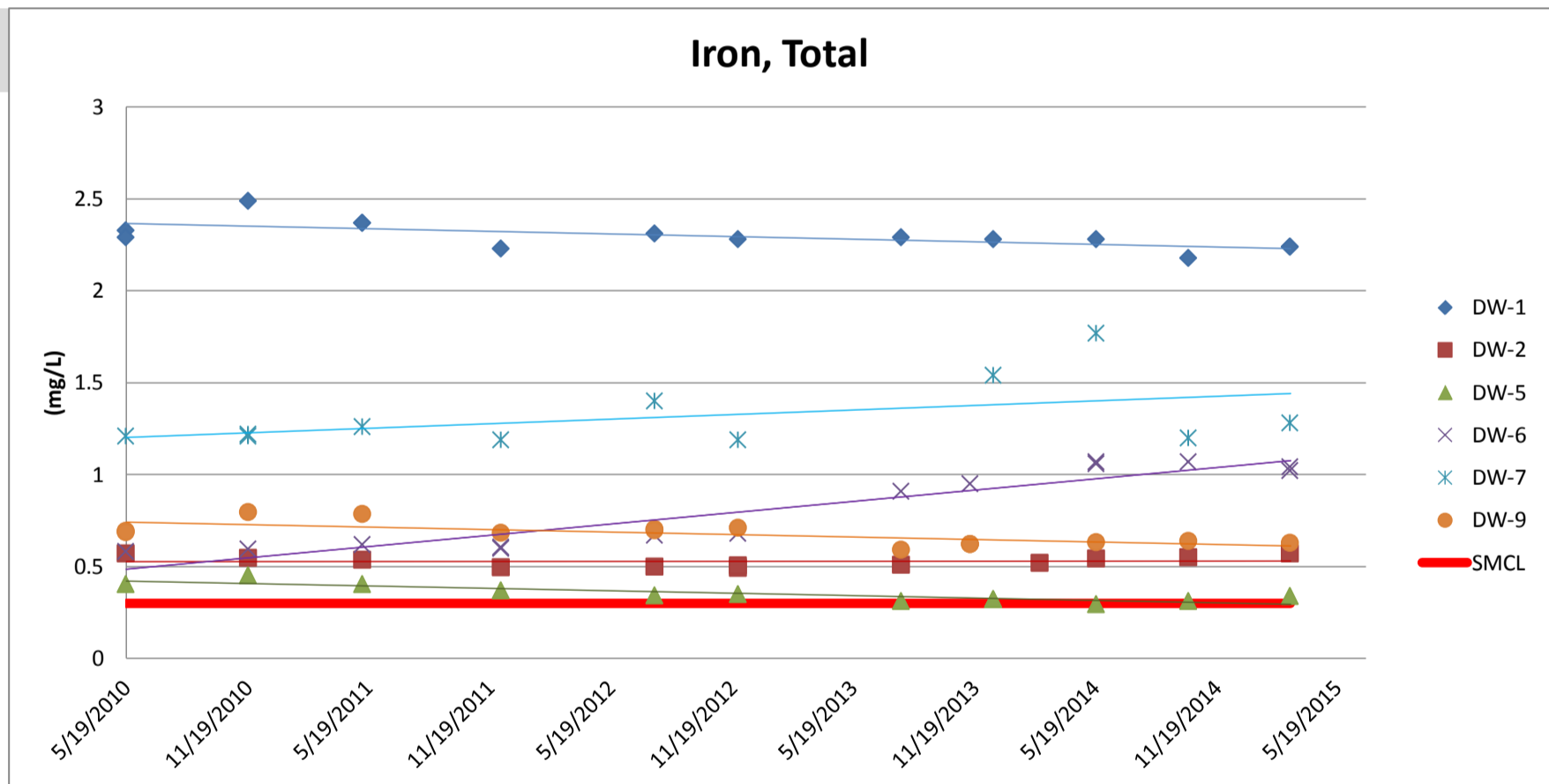
- Another CAC member said that The Daily News and local radio were two great outlets for educating the community. He said people who have attended meetings had been well informed, but there were many who do not follow the process or attend the meetings.
- Adrienne noted that the project team would be producing a video outlining the process and the options being considered and would be available on the project website.

The meeting was adjourned at 9:22 p.m.

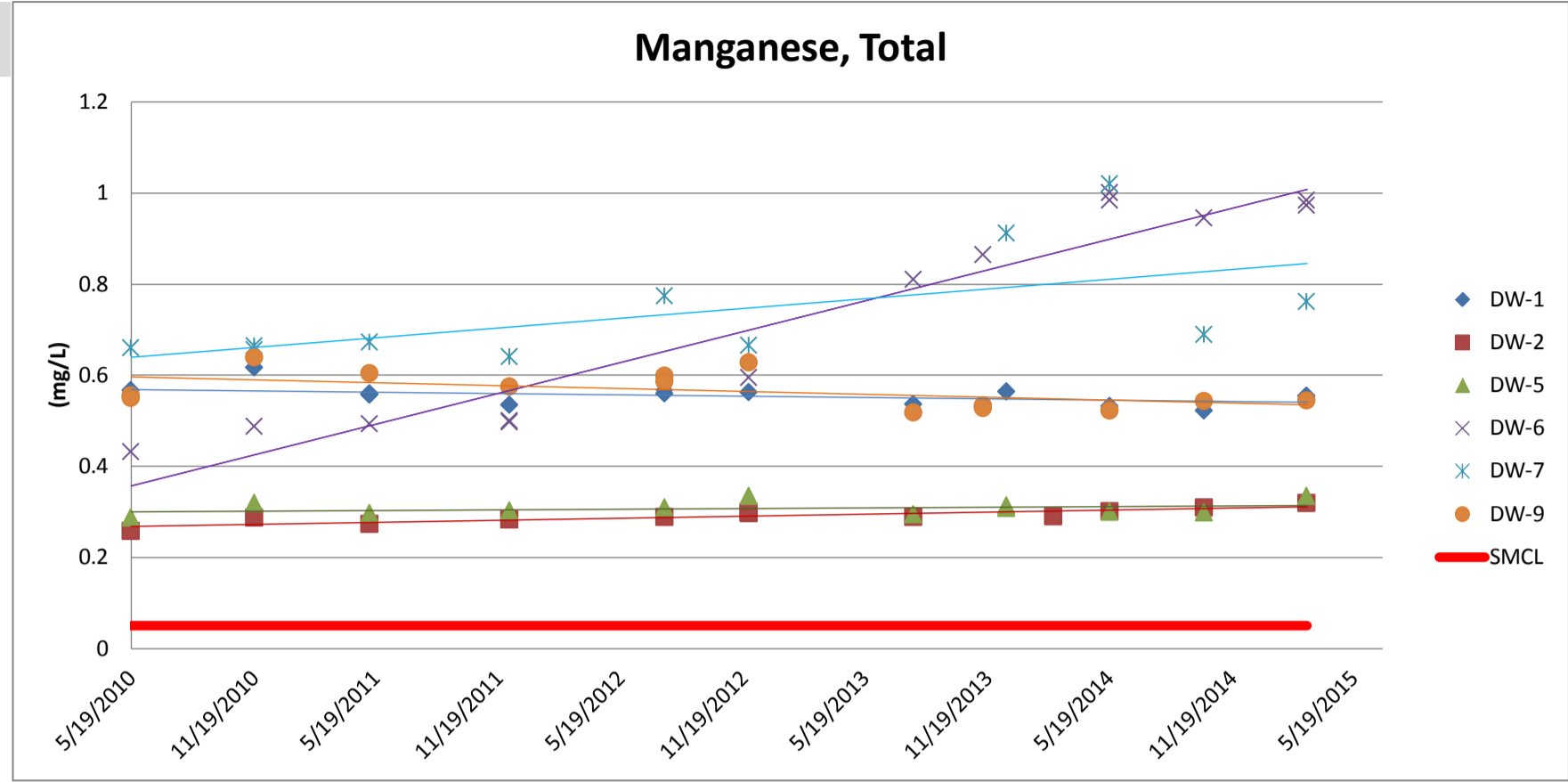
Arsenic (mg/L)							
	DMW-1	DMW-2	DMW-5	DMW-6	DMW-7	DMW-9	MCL
5/19/2010	0.0039	0.0051	0.0054	0.0037	0.0044		0.01
5/20/2010		0.0052		0.0038			0.01
6/8/2010						0.0045	0.01
11/19/2010	0.0045	0.0077	0.0067	0.0051	0.0051		0.01
11/19/2010					0.005		0.01
12/15/2010						0.006	0.01
5/10/2011	0.00408	0.0085	0.0065	0.0049	0.0049		0.01
5/10/2011	0.0041						0.01
6/7/2011						0.0059	0.01
12/6/2011	0.005	0.01	0.0079	0.0050	0.0058	0.0067	0.01
12/6/2011	0.0039	0.0087	0.0062	0.0046	0.0045	0.0052	0.01
12/6/2011			0.0063				0.01
7/25/2012	0.0044	0.0105	0.0074	0.0059	0.0057	0.006	0.01
7/25/2012	0.0041	0.0098	0.0067	0.0050	0.0047	0.0049	0.01
11/27/2012	0.0046	0.0105	0.0083	0.0050	0.005	0.0063	0.01
11/27/2012	0.0039	0.0094	0.0065	0.0051	0.0046		0.01
11/27/2012		0.0094					0.01
12/3/2012						0.0048	0.01
7/31/2013	0.004	0.0101	0.0066	0.0052			0.01
8/14/2013						0.0046	0.01
11/12/2013				0.0051		0.0045	0.01
11/25/2013						0.0044	0.01
12/17/2013	0.0041		0.0067		0.005		0.01
12/17/2013			0.0068				0.01
2/25/2014		0.0098					0.01
5/21/2014	0.0035	0.0098	0.0061	0.00496	0.0041	0.0041	0.01
5/21/2014				0.005			0.01
10/7/2014		0.0096	0.006	0.0049		0.0038	0.01
3/9/2015	0.0034	0.0098	0.0061	0.0049	0.0038	0.0037	0.01
3/9/2015	0.00341			0.0048	0.0037		0.01



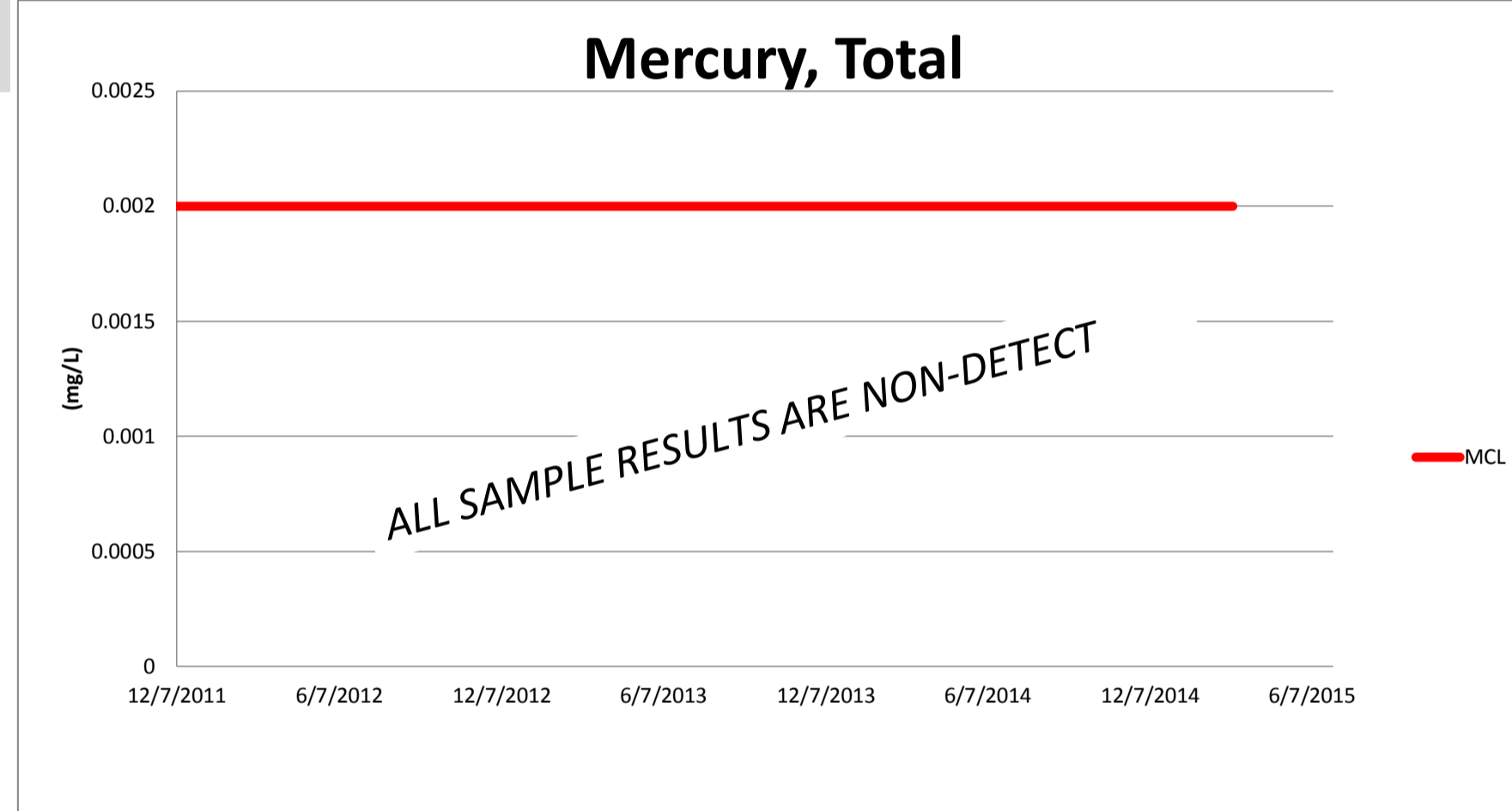
Iron (mg/L)							
	DMW-1	DMW-2	DMW-5	DMW-6	DMW-7	DMW-9	SMCL
5/19/2010	2.33	0.571	0.404	0.58	1.21	0.695	0.3
5/19/2010	2.29					0.688	0.3
11/19/2010	2.49	0.547	0.451	0.593	1.22	0.795	0.3
11/19/2010					1.21		0.3
5/10/2011	2.37	0.535	0.403	0.617	1.26	0.784	0.3
5/10/2011	2.37						0.3
12/5/2011	2.23	0.495	0.37	0.599	1.19	0.682	0.3
12/5/2011				0.604			0.3
7/24/2012	2.31	0.499	0.343	0.669	1.4	0.705	0.3
7/24/2012						0.696	0.3
11/27/2012	2.28	0.491	0.347	0.68	1.19	0.712	0.3
11/27/2012		0.505					0.3
7/31/2013	2.29	0.51	0.31	0.91		0.59	0.3
11/12/2013				0.95		0.623	0.3
11/12/2013						0.623	0.3
12/17/2013	2.28		0.32		1.54		0.3
12/17/2013			0.32				0.3
2/25/2014		0.52					0.3
5/21/2014	2.28	0.542	0.294	1.07	1.77	0.633	0.3
5/21/2014				1.06			0.3
10/7/2014	2.18	0.55	0.31	1.07	1.2	0.64	0.3
3/9/2015	2.24	0.57	0.34	1.04	1.28	0.63	0.3
3/9/2015	2.24			1.02			0.3



Manganese (mg/L)							
	DMW-1	DMW-2	DMW-5	DMW-6	DMW-7	DMW-9	SMCL
5/19/2010	0.566	0.257	0.287	0.432	0.66	0.555	0.05
5/19/2010	0.552					0.55	0.05
11/19/2010	0.616	0.287	0.319	0.487	0.663	0.639	0.05
11/19/2010					0.655		0.05
5/10/2011	0.559	0.273	0.297	0.493	0.672	0.604	0.05
5/10/2011	0.556						0.05
12/5/2011	0.534	0.282	0.302	0.497	0.64	0.574	0.05
12/5/2011				0.5			0.05
7/24/2012	0.559	0.288	0.309	0.583	0.774	0.598	0.05
7/24/2012						0.586	0.05
11/27/2012	0.562	0.297	0.334	0.594	0.665	0.628	0.05
11/27/2012		0.299					0.05
7/31/2013	0.535	0.288	0.293	0.809		0.518	0.05
11/12/2013				0.864		0.533	0.05
11/12/2013						0.528	0.05
12/17/2013	0.564		0.308		0.911		0.05
12/17/2013			0.313				0.05
2/25/2014		0.29					0.05
5/20/2014	0.531	0.3	0.299	0.983	1.02	0.522	0.05
5/20/2014				1.00			0.05
10/8/2014	0.522	0.309	0.298	0.945	0.688	0.542	0.05
3/10/2015	0.554	0.318	0.334	0.983	0.761	0.544	0.05
3/10/2015	0.554			0.972			0.05

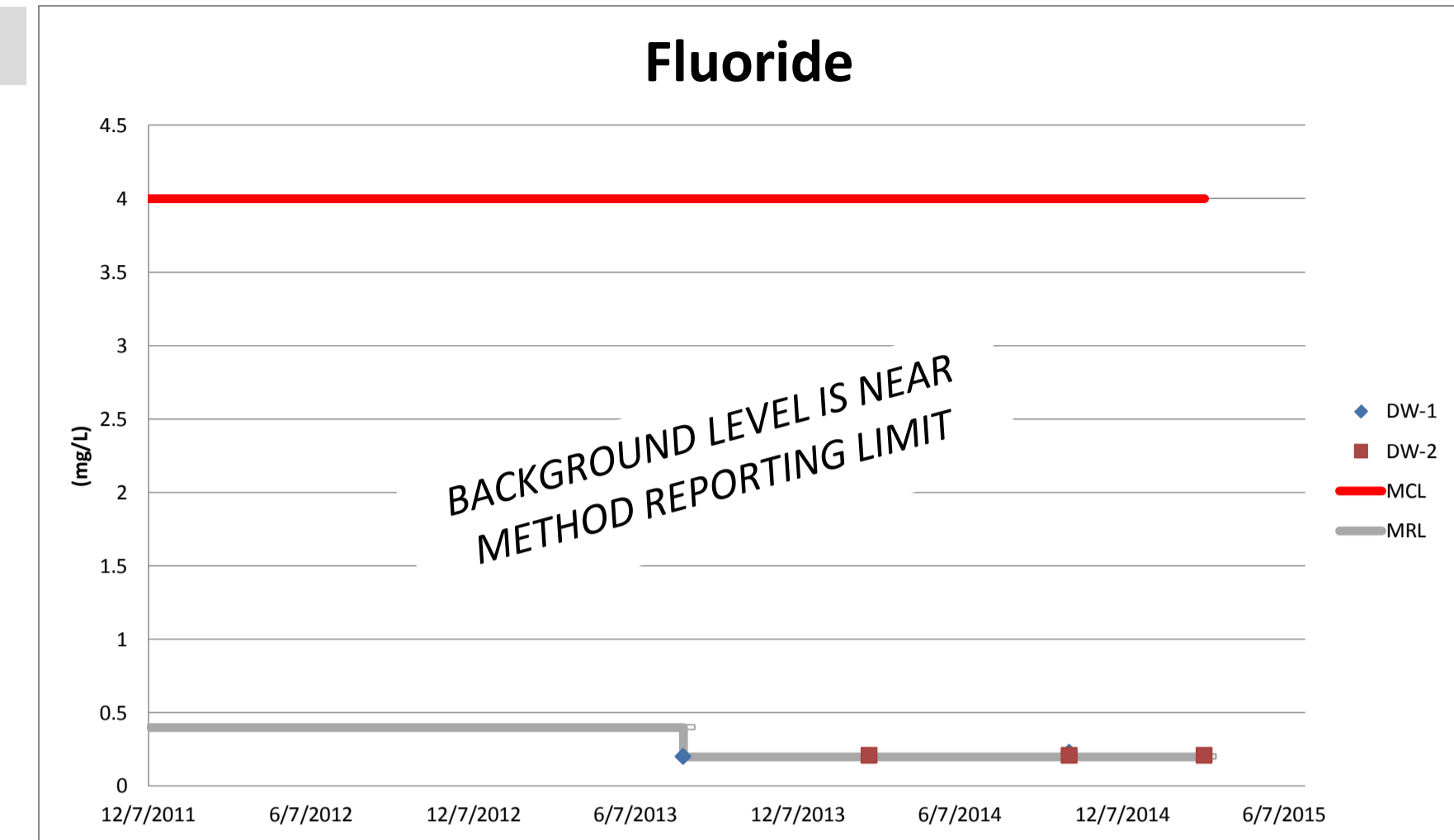


Mercury (mg/L)							
	DMW-1	DMW-2	DMW-5	DMW-6	DMW-7	DMW-9	MCL
12/7/2011	0	0	0	0	0	0	0.002
12/7/2011	0						0.002
7/25/2012	0	0	0	0	0	0	0.002
7/25/2012							0.002
11/26/2012	0	0	0	0	0	0	0.002
11/26/2012	0						0.002
7/31/2013	0	0	0	0		0	0.002
11/12/2013				0		0	0.002
11/12/2013						0	0.002
12/17/2013	0		0		0		0.002
2/25/2014		0					0.002
5/20/2014	0	0	0	0	0	0	0.002
5/20/2014		0					0.002
10/7/2014	0	0	0	0	0	0	0.002
3/9/2015	0	0		0		0	0.002
3/9/2015	0		0	0	0		0.002



Fluoride (mg/L)	DMW-1	DMW-2	DMW-5	DMW-6	DMW-7	DMW-9	MCL	MRL
12/7/2011							4.0	0.4
12/7/2011							4.0	0.4
7/25/2012							4.0	0.4
7/25/2012							4.0	0.4
11/26/2012							4.0	0.4
11/26/2012							4.0	0.4
7/31/2013	0.2						4.0	0.4
7/31/2013							4.0	0.2
11/12/2013							4.0	0.2
11/12/2013							4.0	0.2
12/17/2013							4.0	0.2
2/25/2014		0.21					4.0	0.2
2/25/2014							4.0	0.2
5/20/2014							4.0	0.2
5/20/2014							4.0	0.2
10/8/2014	0.23	0.21					4.0	0.2
10/8/2014	0.22						4.0	0.2
3/9/2015							4.0	0.2
3/9/2015		0.21					4.0	0.2

Color indicates Non-Detect



Cyanide (mg/L)	DMW-1	DMW-2	DMW-5	DMW-6	DMW-7	DMW-9	MCL
12/7/2011	0	0	0	0	0	0	0.2
7/25/2012	0	0	0	0	0	0	0.2
11/26/2012	0	0	0	0	0	0	0.2
7/31/2013	0	0	0	0	0	0	0.2
11/12/2013				0		0	0.2
11/12/2013						0	0.2
12/17/2013	0		0		0		0.2
12/17/2013			0				0.2
2/25/2014		0					0.2
5/20/2014	0	0	0	0	0	0	0.2
10/8/2014	0	0	0	0	0	0	0.2
3/9/2015	0	0	0	0	0	0	0.2

