



**Joint Meeting of Water System Advisory Committee (WSAC)
and Creeks, Drainage, and Wastewater Advisory Committee (CDWAC)**

March 9, 2016 Meeting Notes

Seattle Municipal Tower, 700 Fifth Avenue

Room 4901

5:30 pm – 7:30 pm

Committee Members & CAC Staff	Present?	SPU Staff & Guests	Role
WSAC		Katie Atkins	Communication Consultant
Tom Grant	N	Alex Chen	SPU Water Planning and Program Manager
Chelsea Jefferson	N	Madeline Goddard	SPU Drainage and Wastewater Deputy Director
Melissa Levo	Y	Wylie Harper	SPU Water Quality & Treatment Director
Kelly McCaffrey	Y	Marieke Rack	SPU Communications
Teresa Stern	N	Juliet Acevedo	Guest
Kyle Stetler	Y	Eset Alemu	Guest
Rodney Schauf	Y	Rose Alves	Guest
		Clifford Armstrong III	Guest
CDWAC		Joshua Bennett	Guest
C'Ardis Gardner Gleser	N	Suzie Burke	CDWAC Alumnus
Schylar Hect	Y	Christina Ciampa	Guest
Patrick Jablonski	Y	Laura Reed	Guest
Kaifu Lam	Y	Paul Reed	Guest
Seth McKinney	Y	Mariela White	Guest
Noel Miller	Y	Michael Williams	Guest
Devin O'Reilly	N		
Gary Olson	Y		
Evan Osborne	N		
CAC Staff			
Heidi Fischer, CAC Program Support	Y		
Julie Burman, WSAC Policy Liaison	Y		
Sheryl Shapiro, CDWAC Policy Liaison and CAC Program Manager	Y		

Action Items:

- ✓ A correction to the February notes is needed. The section on Water Policies was repeated twice.
- ✓ Members can send suggestions for possible focus group members on natural drainage partnering in Longfellow Creek to Sheryl Shapiro, the CAC Program Manager.

Regular Business

- Committee Members, SPU staff, and guests introduced themselves.
- CDWAC/WSAC February meeting notes are approved.
 - ✓ One Member noted that a correction was needed. The section on Water Policies was repeated twice.

CDWAC & WSAC Election Results, Sheryl Shapiro, CAC Program Manager and CDWAC Policy Liaison

- The election results are as follows:
 - CDWAC Co-Chairs will be Schyler Hect and Devin O'Reilly.
 - WSAC Co-Chairs will be Kelly McCaffrey and Rodney Schauf.
- Sheryl thanked Noel Miller for his past service as CDWAC Co-Chair, and Kyle Stetler for his past service as WSAC Chair.
- Sheryl also thanked the Committee Members for their engagement in the election process.

Drinking Water Quality, Wylie Harper, SPU Water Quality & Treatment Director

- Before Wylie began, Julie Burman, WSAC Policy Liaison, noted that last month the Committees discussed the annual Drinking Water Quality Report. In the course of that discussion, Members had asked for more information on testing for lead and copper in the water system and what homeowners can do on their own to monitor water quality.
- Wylie is here today to address those topics.
- Wylie referred to a power point presentation.
- He will be discussing three things tonight:
 - The Lead and Copper Rule (LCR)
 - Substances that are monitored, but not detected in our water
 - The Annual Water Quality Report
- Wylie noted that there's been an elevated sense of awareness about lead in drinking water since the related story in Flint, MI.
- Wylie showed some charts and graphs relating to lead levels in Seattle's water.
 - The first showed that, of samples taken from 50 homes in Seattle in 2013, all were below the action level of 15 ug/L (microgram per liter).
 - The second and third showed Seattle's drinking water divided into 4 sub regions (Cedar River wholesale water, Tolt River wholesale water, Seattle and Bellevue).
 - From 2003 – 2005, lead levels in water in the Tolt wholesale region was above the lead action level of 15 parts per billion (ppb). Levels here rose to 20 ppb (parts per billion) in 2004 and then decreased.
 - Since 2005, all sub-regions measured lead levels below the action level of 15 ppb.

- Sampling frequency is now once every three years for each region.
- The fourth chart compared monitored residential lead levels in Seattle since 1978.
 - Lead levels dropped significantly in 1982/1983 due to corrosion control treatment.
 - Lead levels further decreased after the Lead and Copper Rule was implemented in 1991.
 - In 1991, EPA published a regulation to control lead and copper in drinking water. This regulation is known as the Lead and Copper Rule (also referred to as the LCR). The treatment technique for the rule requires systems to monitor drinking water at customer taps. If lead concentrations exceed an action level of 15 ppb or copper concentrations exceed an action level of 1.3 ppm in more than 10% of customer taps sampled, the system must undertake a number of additional actions to control corrosion.
 - These actions reduce water corrosivity and prevent the leaching of these metals from the premise plumbing and drinking water distribution system components. If those actions are not sufficient, the rule prescribes water quality parameter monitoring, corrosion control treatment, source water monitoring and treatment, removal of lead service lines and public education.
 - Lead levels in Seattle's drinking water decreased even more in 2001, when SPU added a new treatment facility for Tolt River water.
 - Tolt water is more corrosive when untreated. The Cedar River water picks up more mineral content, which mitigate corrosiveness.
 - Lead levels have been below the lead action level since 2005 in the Tolt Wholesale region, and since 2003 for the other three regions.
- We take samples to test for lead from 50 homes as required by federal rules.
 - We test 50 homes from each of our 4 sub regions (Cedar River wholesale water, Tolt River wholesale water, Seattle and Bellevue).
 - We do this every three years.
 - One Member asked why we test every three years rather than every year.
 - Wylie responded that we are eligible to test every three years because our past results have indicated that lead concentrations do not exceed an action level of 15 ppb in more than 10% of customer taps sampled. He noted that critics say that testing every year is preferable.
 - One Member asked whether renters were part of the sampling pool.
 - Wylie responded that federal guidelines prioritize the homes to be tested, with the first tier begin those with lead service lines (but Seattle does not have these), the second tier being individual residences, and the third tier being multi- family properties. The rationale for individual residences coming before multi-family properties is unclear.
 - We take our samples from:
 - Residential customers' taps

- From volunteer participants
- From “High Risk” homes, defined as:
 - a home with the potential for higher levels of lead in the drinking water due to the leaching of metals from the plumbing system containing copper piping and tin-lead solder. The City of Seattle banned the use of tin-lead solder in 1980, so homes built or replumbed with copper piping prior to 1980 are in the “high risk” category.
- One Member asked if SPU has any socioeconomic data about the locations and demographics of households used for lead sampling.
 - Wylie replied that the houses are selected for sampling based mostly on the age of the home and other construction criteria, as well as on who is willing to volunteer, but that adding a demographic lens would be helpful.
- Each residential sampling participant receives the following instructions:
 - Thank you for participating again in the Lead and Copper Monitoring Program. The information collected at your homes helps us determine if we are providing optimum treatment of our drinking water. To insure the information collected is accurate, please follow the instructions below.
 1. It is very important that no water is used for at least six hours before collecting the morning standing water sample. Please indicate the approximate time of last water use and the time of sample collection so that we can record the standing time for your sample.
 2. At the cold water kitchen tap and before using water anywhere in or outside the house, slowly fill the larger (1 liter) bottle to the fill line near the top. Please take care not to spill any of this water or overfill the bottle.
 3. If water was accidentally used prior to sampling, or other difficulties were experienced, please notify the contact person listed below to arrange for another collection.
 4. Please leave the bottles by you front door for pick-up the same morning.
- Every participating resident gets an individual letter reporting the results of their sampling.
 - If a sample shows higher than expected lead levels, we may do additional testing as requested by the homeowner.
 - One Member asked if the homeowners are responsible for lead from their own plumbing.
 - Wylie responded that in Seattle, a sample with elevated lead is usually due to plumbing in the home. When we take samples to test, we try to select a fixture that’s lead free. Even if a home’s plumbing does contain lead, SPU controls the chemistry of the water to be as least corrosive as possible, so if the customer flushes her pipes before drinking the water, lead exposure is reduced.
- Every customer receives the SPU Annual Water Quality Report which reports the overall results of residential lead sampling.

- In Flint, tests show toxic lead is leaching into the tap water in the following ways:
 - Lead solder in copper pipe connections, especially in pre-1986 homes, can contain lead.
 - Researchers have found Flint water to be more corrosive to pipes than water from the Detroit system, Flint's previous water source.
 - One Member commented that Flint was trying to save money. They anticipated a cost savings of \$1 million.
 - Flint hasn't adequately controlled corrosion of the pipes.
 - The city draws and disinfects water from the Flint River, which then enters city pipes, and then goes into the service lines that connect directly to homes and businesses. These service lines can be made of lead, and lead can leach directly from the pipe wall into the water.
 - Flint also failed to adequately monitor the water system.
- Wylie showed a slide comparing the pipes in Seattle, Flint, and Chicago.
 - In Flint, the water service lines may contain lead.
 - In Chicago, a portion of the water service lines that are on private property may contain lead.
 - Chicago tried to replace service lines that were made of lead, but only up to the private property line. However, in the process, they shook things loose and made lead levels increase.
 - Seattle has never used lead service lines.
 - Some are galvanized steel.
 - Seattle banned lead solder in home plumbing in 1980. King County banned it in 1985.
 - The system isn't completely lead free – there are still some small connectors in the system that contain lead. *Note: Since this meeting, SPU is looking further into these connectors.*
- Corrosion control is intended to create mineral deposit on the pipe wall, which builds up over time and protects water from exposure to lead pipes.
 - Seattle's untreated source water is considered "soft"
 - Snow melt and rainwater have low mineral content, which can be aggressive or corrosive to plumbing materials
 - We do not add phosphates.
 - We adjust the pH and alkalinity of the water:
 - In the Tolt, we add lime and CO_2
 - In the Cedar, we add lime
 - Untreated, the water measures:
 - pH is 6.8 – 7.4
 - alkalinity 6.4 – 8.9 mg/L as CaCO_3

- Multiple corrosion control studies set the following optimized targets:
 - pH 8.2
 - alkalinity 19 mg/L
- The pH and alkalinity are monitored daily at the treatment facilities
- 10 distribution sites (direct service and wholesale) are monitored/ reported monthly to Washington Department of Health
- Additional locations monitored several times each week
- Increased regulations have resulted in more corrosion control over time.
- We've also covered reservoirs.
- Seattle was doing corrosion control studies back in the 1970s and 80s.
- Wylie explained a few simple steps residents can take in the home to reduce the risk of lead in their drinking water:
 - If water has been standing in pipes for over 2 hours, flush out the pipes by running the tap until you feel a temperature change before using for drinking or cooking
 - Always draw drinking and cooking water from COLD water tap -- lead dissolves more quickly in hot water.
 - Never make baby formula or other drinks or food for children from the HOT water tap. Start with water taken from the cold water faucet (after flushing) and warm it if necessary
 - If you are making plumbing changes, be sure to select low-lead or no-lead fixtures. As of January 2014, a new federal law is in effect, reducing the amount of lead in plumbing fixtures from 8 percent to 0.25 percent. Manufacturers are already offering faucets that meet the new standard
- Wylie showed a slide and passed out a handout listing additional substances for which SPU is required to monitor the water.
 - None of these were detected.
 - Seattle's drinking water comes from a protected watershed.
 - One Member asked if SPU tests for pharmaceuticals in the water.
 - Wylie responded that we do test for them and have not seen any. He added that pharmaceuticals are usually present only when wastewater is upstream, which is not the case in Seattle.
 - In accordance with the Unregulated Contaminants Monitoring Rule, water systems are required to test for about 20-30 substances to track their presence in the water system.
 - The EPA uses the results to decide whether to regulate these substances.
 - Metals may naturally occur in the water system, and we did find these in low parts per billion, which gets reported in the Annual Water Quality Report.
 - We haven't seen E. coli in the distribution system, but we do still see in the source water from wildlife.
- Wylie passed around a working draft of the Annual Water Quality Report.
 - He noted that we are working on incorporating the Committees' feedback from last month about improving the table and adding the infographic about water from source to tap.
 - The Report is also known as the Consumer Confidence Report.

- It's required by regulations.
- The Annual Water Quality Report must be mailed by the end of June (delivered to customers on or before July 1st).
- It covers the previous calendar year.
- Much of the data and language must be used verbatim.
 - The data that is reported is a tiny fraction of what we collect.
- We do have some flexibility in format, font, color and additional narrative.
 - Wylie noted that reports from the past 4-5 years are posted on our website.
 - http://www.seattle.gov/util/MyServices/Water/Water_Quality/WaterQualityAnnualReport/index.htm

Natural Drainage Systems Partnering: Draft Program Materials, Marieke Rack, SPU Communications & Katie Atkins, Consultant

- SPU will be executing a large capital project from now until 2024 to achieve water quality goals set out in the Integrated Plan. We will be working with sister agencies (like King County) to achieve these goals and meet regulatory requirements.
 - Natural drainage systems are a part of this project.
 - Natural drainage systems—also called green stormwater infrastructure (GSI)—include rain gardens built between the street and the sidewalk to:
 - Capture runoff
 - Slow the flow of stormwater
 - Filter pollutants
 - Allow the stormwater to slowly seep into the ground
- The Integrated Plan includes natural drainage systems within three creek basins in Seattle:
 - Piper's Creek (northwest)
 - Thornton Creek (northeast)
 - Longfellow Creek (southwest) watersheds
- SPU would like to partner with local residents and community organizations to identify areas to build rain gardens along residential streets beginning in 2018.
- Marieke and Katie are here today to get the Committees' feedback on the power point presentation and written materials they will use to introduce this partnering opportunity to communities.
- Katie gave the power point presentation, and then asked for comments from the Committees.
 - One alumnus suggested using a graphic for street sweeping that is similar to the dump trucks graphic shown.
 - One Member suggested that the presentation specify the amount of pollutants removed over a discrete time period.
 - Another Member asked if this program was partnering with the Adopt-a-Stream work that's being done in Thornton Creek.
 - Marieke responded that outreach for this program hasn't started yet, but when it does they will be speaking to numerous community groups.

- Another Member asked about the funding for this program.
 - Marieke responded that this is capital project for SPU which is funded by ratepayer dollars. The funding is guaranteed for the next 5 years.
 - Madeline Goddard, SPU Drainage and Wastewater Deputy Director, added that our stormwater permit requires us to use green stormwater infrastructure (GSI). We are also partnering with SDOT, which will allow our funding to go further, installing bio- retention along with sidewalks.
- Another Member expressed disappointment that his past questions about GSI costs per block have not been clearly answered. He added that GSI benefits a limited number of people, depending on where it's installed.
 - Madeline responded that analyses have been made that found GSI to be more cost effective than installing full pipes and doing road restoration. GSI slows down the water enough so that the existing drainage system can handle it. She added that GSI systems are new and monitoring continues to extract the data on efficacy.
 - The Member asked about the cost over a period of five years. He also asked whether SPU's ranking system for projects like these was still in place.
 - Madeline responded that data is begin gathered to answer that question. She added that SPU continues to use ranking criteria (which the Committees have seen previously) to maximize ratepayer dollars when identifying drainage projects like GSI. GSI is a cost effective way of meeting regulatory requirements.
- One alumnus noted that it's educational for both the public and our politicians to hear about GSI.
- Madeline noted that the presentation may need some additional slides to further explain why we are doing this.
- Another Member suggested that the presentation emphasize that this program is different from Rainwise, so that people are not confused.
- Another Member suggested calling the program "streetside" (or curbside) natural drainage systems."
- Another Member asked who would be responsible for the GSI's ongoing maintenance.
 - Madeline responded that there is a plan for maintenance. The goal is to enlist people living on the same block where the GSI is installed to help us maintain it.
 - One Member suggested that there should be a slide explaining that.
- Another Member asked about where the removed contaminants will eventually go, noting that people considering GSI in their neighborhood will want to know that it's not just going to gather contaminants that stay there.
 - Madeline responded that the contaminants are removed to a landfill in a vector truck.
- Alex Chen, SPU Water Planning and Program Manager, noted that the presentation contained a picture of standing water, and suggested that the presenters be prepared to answer questions about whether the GSI will drain properly.

- One Member suggested that “roadside rain gardens” puts a picture in your head, and is a more accessible name than “natural drainage systems.”
 - One Member thought the cover photo on this brochure was not effective.
- One Member suggested that three brochures might be effective – one for each creek basin.
- Members can let Sheryl know if they would like to explore this topic in more depth. She can organize a smaller work group between regular meetings.

CDWAC-WSAC Discussion re: Meeting Schedule and Structure

- Alex Chen began the discussion by giving some background information.
 - CDWAC and WSAC are two separate groups, but last year, because of the WSAC Policy Liaison’s extended leave and the smaller number of members in WSAC, we decided to have them start meeting together.
 - The WSAC Policy Liaison has now returned.
 - Today we’d like to have a discussion about whether the two groups will continue meeting together or will separate. We might also consider a hybrid arrangement that allows for some combined and some separate meetings.
 - Alex noted that his personal observation was that the combined meetings had produced unexpected benefits, and that the groups’ topics lend themselves to natural coordination.
 - Last year we had a productive combined meeting about fish and water temperature in the Cedar River Watershed followed by a study about one of our urban watersheds, Thornton Creek, and drainage.
 - Last month we discussed policies in both drinking water and drainage and wastewater, and Alex found it helpful to see these policies from the combined perspective of both lines of business.
 - How much time each Committee needs to accomplish its work depends on the number and complexity of workplan topics and the schedule for each, as well as how many members are currently on each Committee.
 - Alex noted that he personally liked the combined meeting structure.
- One alumnus noted that having combined meetings of CDWAC and WSAC is beneficial to strategic planning, and helps to support SPU’s effort to work as One Team. She added that the meetings don’t need to be separate.
 - Another Member (WSAC) said that he agreed. He added that he has learned a lot from CDWAC, and he hoped they felt the same way. Combining the meetings has provided more input from more areas. He added that he liked the idea of combined meetings with the option of separating for a meeting or two if needed.
- Another Member noted that another way to work separately on some issues would be to have subcommittees.
- One Member asked whether it might be better to have CDWAC and WSAC combine into one committee, and then have subcommittees for particular issues as needed.
- One alumnus noted that discussions about rates might be well suited for a subcommittee.

- One Member agreed that it might be useful separate the committees for a couple of meetings to discuss rates, and then come back together for shared topics.
- Sheryl, the CAC Program Manager, noted that the third Wednesday of the month is available for additional committee meetings.
- One Member suggested that the Committees could also separate for part of the regularly scheduled meetings if needed.
 - Sheryl agreed that agendas could be planned to accommodate time for the Committees to separate.
- Another Member asked if both Committees' responsibilities could be effectively covered in one monthly meeting.
 - Sheryl responded that it depends on the agenda. Some topics are briefings and do not require feedback, so instead of an in-meeting presentation, they could be covered with links to online information and possibly additional reading material.
- Another Member asked if all CAC meetings (meetings with CDWAC, WSAC, and SWAC) are also planned.
 - Sheryl responded that all CAC meetings are still planned 3-4 times per year.
- One Member noted that he participates on other committees that have 10 people, and in any given meeting three to four cannot attend, which limits feedback. Combining CDWAC and WSAC brings more people to the meeting and therefore more opportunities for feedback.
 - Sheryl agreed that the number of members in each Committee is a relevant consideration. WSAC currently has seven members and CDWAC has nine. Both have members whose terms will end at the end of the year.
- Another Member noted that he has been with WSAC for two and a half years, and before the Committees combined, some WSAC meetings had only 1-2 members in attendance. Now WSAC membership is up, but there's still some natural variance in attendance. Summer usually brings somewhat decreased attendance due to vacation schedules. He added that combining the meetings has worked well, and that it has made discussions more productive.
- Another Member agreed that we could have separate meetings, but that combined meetings have usually worked well for him.
- Members agreed to continue meeting jointly, working with chairs and committee liaisons to determine agendas and assess the need for breakout sessions during one meeting or schedule separate meetings.

Around the Table

- Sheryl, the CAC Program Manager, reminded Members Wednesday, March 30, 5:30 – 8:30 pm has been confirmed for an all-CAC Orientation. This is for all Members (not just new Members), and will feature an organizational overview of SPU (including asset management, finance, budgeting, governance) and our relationships with the Mayor and City Council.
- Sheryl also thanked Suzie Burke for her long service and dedication to CDWAC. Suzie's official membership term has ended but she is invited to attend future meetings as an alumnus.

7:39 meeting adjourned.