



**Creeks, Drainage, and Wastewater Advisory Committee (CDWAC)**

**October 17, 2018 Meeting Notes**

**Seattle Municipal Tower, 700 Fifth Avenue**

**Room 4901**

**5:30 pm – 7:30 pm**

Committee Members	Present?	SPU Staff & Guests	Role
Ben Billick	N	Sheryl Shapiro	CAC Program Manager
Colum Lang	N	Julie Crittenden	CMOM Program Manager, DWW Branch
Gary Olson	Y	Keith Ward	Ship Canal Water Quality Project Executive
Mariela White	Y	Dylan King	Sr. Communications & Outreach Specialist
Michael Williams	Y	Rose Ann Lopez	
Maria McDaniel	Y	<b>Guests</b>	
Thy Pham	N	Isabelle Carrera Zamanillo	Guest
Andrew Schiffer	Y	Nico Onoda	Guest
Lisa Mikesell	N		

**1. Regular Business**

- Mariela White opened the meeting at 5:35 PM and reminded everyone to sign-in.
- Committee Member, Presenter and Guest introductions
- Meeting notes from September to be distributed for review and approval
- Sheryl indicated emergency exits and exit procedures

**2. CAC Program Updates**

- Membership update
  - Ben Billick is resigning.
  - SPU is in active, on-going recruiting mode for the Advisory Committees. The new outreach flyer was shared. Members were encouraged to share with their networks and communities.
- Upcoming meeting schedule
  - Next Wednesday is the All-CAC meeting focused on SPU’s Risk Assessment and Resiliency Framework.
  - Due to next month’s CDWAC meeting falling the day before Thanksgiving, we polled members and staff to select a different date. Members and staff were most available on Tuesday, Nov. 13, but the presenter is not able to present at that time. Should we look for another presentation for that date or cancel with optional attendance at the WSAC meeting on Wednesday, Nov. 14. Members were open to either option.
  - Susan Harper will present on the DWW Programs Assessment at a future meeting.

**3. Orientation to SPU's Drainage and Wastewater:** Julie Crittenden, Manager, CMOM, DWW Branch  
See attached presentation

- **A CAC Member** asked if the Meadowbrook Pond construction project to remove silt from the pond falls under the regulatory requirements.
  - **Response:** It is not a regulatory requirement for the NPDES Municipal Separated Storm Sewer System (MS4) permit. We have a number of permit requirements under the MS4. The stormwater permit tries to control potential pollutants that could be discharged through an outfall to a stream. We try to protect streams and make improvements. But, they aren't considered a part of SPU's drainage system.
- **A CAC Member** asked how many overflows there are.
  - **Response:** The Ship Canal Project will keep over 75 million gallons of polluted stormwater and sewage out of Salmon Bay, Lake Union and the Ship Canal each year on average and will reduce polluted stormwater and sewage overflows from as many as 129 times per year to an average of less than 6 per year. King County hosts a website that has live data about outfall overflows in the area.  
<https://www.kingcounty.gov/services/environment/wastewater/cso-status.aspx>
- **A CAC Member** asked if we are still in compliance if we average less than one per year across the whole system.
  - **Response:** We are out of compliance because the less than one per year average is based on each outfall, not an average across the entire system. However, we have fewer CSOs on average than we used to because of the work we have done to improve our system. We are continuing to push forward on projects to control CSOs.
- **A CAC Member** asked so if flooded basements count as overflows if it occurs as a result of side sewer issues. They also asked if it is caused by SPU's system, does the flooding that may occur in multiple homes on the same street count as multiple back-ups or just one.
  - **Response:** We do not "count" overflows that occur due to side sewer issues against our sewer overflow performance. If the overflow is caused by an issue with the sewer main, it might impact multiple addresses and we record it as one overflow event.
- **A CAC Member** asked what we are considering a GSI on slide 15 from the presentation.
  - **Response:** The count is cells per project, and we only count the cells in the right-of-way that SPU has constructed and not the ones constructed on private property.
- **A CAC Member** asked how much installation of a Filterra system costs.
  - **Response:** The presenter didn't know but indicated that SPU could follow-up. The estimate provided was \$10,000. It also requires pavement restoration, which can add an additional 30% to project costs.
- **A CAC Member** asked if GSI cells are maintenance intensive.
  - **Response:** It depends on what type of water quality facility it is. For reference, we have about 19,900 stormwater catch basins throughout the city, and our crews spend a lot of time inspecting and cleaning them.
- **A CAC Member** asked who pays for upgrades to the sewer systems required to serve new development. For example, the light rail project where new multifamily housing being built in one area would contribute significantly to sewer usage.

- **Response:** There are codes requiring a developer to manage their drainage or wastewater, and so they pay for that.
- **A CAC Member** asked who pays for the sewer main.
  - Developers sometimes need to extend services for new development. However, SPU does not charge development charges right now. Currently King County charges a connection fee. SPU does not have a development charge right now, but the City is exploring a system development charge. Additional information about this will be provided at an upcoming CAC meeting. Sewer pipes are designed to run at 10% flow. So, it will take a long time to hit our max flow. We are stepping up our modeling so that we can identify demand and consider pipe upsizing when we are performing sewer rehabilitation on a segment of pipe.
- **A CAC Member** asked if street sweeping is there something the trucks do to get pollutants and not just trash.
  - **Response:** They are vacuuming. It is dependent on the curb and gutter system, rainfall, and other things.
- **A CAC Member** asked about seeing street sweepers on side streets and wondered about location, frequency, schedule, and routes.
  - **Response:** SPU focuses on arterials because that is where the bulk of pollution occurs. SPU indicated that it will follow-up with more information. <http://www.seattle.gov/util/environmentconservation/projects/sewageoverflowprevention/streetsweeping/>
- **A CAC Member** asked is that the final graphic for the “Cooking Oil and Greece” outreach?
  - **Response:** Yes, we believe it is. You will get additional updates about this moving forward.
- **A CAC Member** asked if the pollution prevention group deals with homeless encampments? For example, when encampments contribute to human waste in creeks.
  - **Response:** Encampments in the City are a big issue that is multilayered, involves partnerships, and response is unique for each situation. The City’s Navigation team leads that effort and SPU’s Solid Waste LOB does some work relating to RV encampments. In addition, SPU’s spill response and other teams respond to reports or clean-up. The best option is to report issues through the Find It Fix It App so that the City can receive the information, prioritize issues, and forward to the appropriate department to address it. However, while the team has increased, there may still be a delay in response time depending on the complexity of the issue and the number of other reports that have come in.

#### 4. Ship Canal Water Quality Project: Keith Ward, SPU Ship Canal Water Quality Executive

See attached presentation

- **A CAC Member** asked if the projected outfall number and volume based on current weather conditions and data or climate change related significant weather events.
  - **Response:** The 90 million gallons on this slide is based on the past. However, we are doing some cutting-edge modeling to look out to the year 2100 and the statistical

confidence of the capacity need with climate change factors added on. However, there is some challenges when modeling because we use historical data to predict the future. In 2017 we almost doubled the size of the storage tunnel in response to climate change. There is some uncertainty, but we are making design decisions to take climate change into account.

- **SPU staff member, Julie Crittenden** asked what the cost share is based on because King County's basin looks bigger on the map.
  - **Response:** There are two factors:
    - 1) The share of volume. King County needs about 40% and SPU needs about 60%. Just because the basin is a larger area doesn't mean it has more flow.
    - 2) How much it would cost each department if they constructed separate projects. It would cost SPU a higher percentage, which is why we have the cost breakdown that we do.
- **A CAC Member** asked if Federal funds going to the project?
  - **Response:** SPU has a state revolving fund that includes Federal dollars. In addition, we are also applying for federal Water Infrastructure Finance and Innovation Act (WIFIA) These loans save debit financing costs to the rate payers. It is difficult to get grants for regulatory requirements, but we do have loan options.
- **A CAC Member** asked how soon after a rainfall event will it be able to start draining.
  - **Response:** It depends. King County and SPU operations staff came together to work on ways to collect and share data gathered through sensors. Once the sensors reach a certain point, then the system can start discharging. It would probably be about 12 hours or so.
- **A CAC Member** asked if there will be sitting water.
  - **Response:** In the summer, the tank will be dry. During winter with back-to-back storms, the tank will have consistent flow. Generally, it won't fill up except for one per year or so. In addition, the project will include odor control on the tank, which a lot of cities do not do.
  - **A CAC Member** asked if SPU is basically using the same tunneling principle as they did for the 99 tunnel.
  - **Response:** The 99 tunnel is one of the largest diameter tunnels in the world at 55 ft. diameter vs. our 18 ft. 10 in. diameter tunnel. The Ship Canal tunnel is much smaller in diameter. As the machine moves forward, it must have something to push against, so we are designing the project to address this. In addition to having a machine, operators are important. SPU can share YouTube videos of it.  
<https://www.youtube.com/watch?v=MuDnzcQXhk>
- **A Guest** asked if SPU anticipates similar problems to what "Bertha" encountered.
  - **Response:** We don't anticipate that. Our tunnel diameter is a more industry standard diameter. Also, none of the area we are tunneling in is fill. They had to design a machine that could start out in fill and then get into other conditions. In our case, it is all hard soil, no rock, and groundwater. However, our machine will encounter different soil

conditions as it goes across. There is also a King County tunnel that we will be close to, so we will be monitoring that.

- **A CAC Member** asked what kind of contamination is in the soil at the Ballard site.
  - **Response:** There are low grade metals in the soil. There used to be a foundry and other industrial businesses in the area that contributed to that.
- **A CAC Member** asked if the post office nearby will be closed for construction.
  - **Response:** No. There will be some traffic interruptions, but we will keep most streets open.

**Adjourned 7:39 PM**