



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

June 10, 2015 Meeting Notes

Seattle Municipal Tower, 700 Fifth Avenue

Room 5965

5:30 pm – 7:30 pm

| Committee Members & CAC Staff | Present? | SPU Staff & Guests | Role |
|-----------------------------------------------------------------|----------|--------------------|--------------------------------------------|
| WSAC | | Mark Jaeger | SPU Interagency Coordination |
| Tom Grant | Y | Alex Chen | SPU Water Planning & Program Management |
| Jessy Hardy | N | Julie Crittenden | SPU, Drainage & Wastewater |
| Chelsea Jefferson | N | Craig Omoto | SPU Finance |
| Kelly McCaffrey | N | Shannon Kelleher | SPU Planning, Policy, & Regulation |
| Kyle Stetler | N | Yolanda Quiroga | Guest |
| Chris Thompson | N | Matt MacDonald | Guest |
| | | Mario Bolden | Guest |
| CDWAC | | Joshua Bennet | Guest on the phone |
| Kendra Aguilar | N | Ella Andrews | Guest |
| Jeremy Andrews | N | | |
| Marilyn Baylor | Y | | |
| Suzie Burke | Y | | |
| C’Ardiss Gardner Gleser | N | | |
| Schyler Hect | N | | |
| Kaifu Lam | Y | | |
| Seth McKinney | N | | |
| Noel Miller | Y | | |
| Devin O’Reilly | Y | | |
| | | | |
| Heidi Fischer, CAC Program Support | Y | | |
| Julie Burman, WSAC Policy Liaison | Y | | |
| Sheryl Shapiro, CDWAC Policy Liaison and CAC Program Manager | Y | | |

Action Items:

- ✓ Sheryl, the CDWAC Policy Liaison, will follow up with Shannon about a return briefing about the Green Lake/Aurora Drainage and Wastewater Master Plan.
- ✓ Heidi will send out notes from the CAC's officers' meeting with City Councilmember Sally Bagshaw to Committee Members soon.
- ✓ Members agreed to break for the summer and resume meetings in August.
- ✓ August's meeting will be a combined meeting of CDWAC and WSAC, and will be on either August 12th or 19th: Sheryl will send out a Doodle poll to determine the best date. The poll will also have some summer field trip possibilities.

Regular Business

- Committee Members, SPU staff, and guests introduced themselves.
- CDWAC/WSAC May meeting notes are approved.

Directors' Updates

Water Line of Business (LOB), Alex Chen, Water Planning and Program Management

- A seismic study is planned to determine how SPU's water system would fare in a major earthquake. We will be hiring a consultant to perform the study, and the selection process is nearly complete.
- SPU has also recently issued \$341 million in bonds to support the Water LOB capital projects.
 - \$290 million of that was a refunding of previously issued bonds due to favorable rates
 - The overall interest rate was approximately 3.1%.
 - Whenever SPU issues bonds, Standard and Poor's and Moody's rating agencies reviews our bond ratings and they affirmed our current strong water bond ratings of AA+ and Aa1, respectively.

Drainage & Wastewater (DWW) LOB, Julie Crittenden, Drainage & Wastewater Planning & Program Management

- The new Deputy Director for the DWW Branch will be joining SPU in twelve days. Her name is Madeline Goddard.
 - The City Council began the DWW rates review process yesterday.
 - The Plan to Protect Seattle's Waterways was submitted to Ecology at the end of May, meeting our regulatory deadline.
 - The stormwater code is being updated and is scheduled to take effect in January 2016. The code will be going to the City Council for adoption this fall.
- ❖ Committee Member Question: What is involved with stormwater permits?
- Answer: We have National Pollution Discharge Elimination System (NPDES) permits that cover discharges to Seattle's waters from our drainage and combined sewer systems. We have

additional obligations (e.g., Consent Decree) that address the wastewater system. Use the following link to access our 2015 Stormwater Management Plan:

http://www.seattle.gov/util/cs/groups/public/@spu/@drainsew/documents/webcontent/1_037857.pdf

- In 2010 and 2011, Seattle Public Utilities (SPU) purchased property in southeast Seattle at the lower reaches of Taylor Creek near the south end of Lake Washington. These purchases will allow SPU to improve creek and shoreline habitat, particularly for threatened juvenile Chinook salmon.
 - SPU completed the project's Public Access Options Analysis in fall 2013 and is currently in the planning phase. SPU will develop and evaluate planning concepts and identify a preferred alternative.
 - The plan for SPU to acquire an apartment building at the site was approved by the City Council yesterday. This will further improve design flexibility and reduce/avoid impacts to the nearby Parks property.

DWW Rates Proposal, Craig Omoto, SPU Finance

Craig started by giving some background on the Drainage and Wastewater LOB.

- Drainage and wastewater is managed by three kinds of systems:
 - 1) Combined
 - Wastewater from toilets, sinks, showers, and washing machines, roof runoff, and other stormwater runoff to streets all flows together into the King County Treatment Plant.
 - In this system, in heavy rains, the amount of stormwater combined with sewer waste that enters these combined systems may sometimes be more than they can handle.
 - The excess is released at outfall points without treatment into the city's waterways, threatening human and aquatic health and our quality of life.
 - Each year, on average, more than 300 sewage overflows send millions of gallons of raw sewage and stormwater into Seattle's creeks, lakes, the Ship Canal, the Duwamish River, and Elliott Bay.
 - These combined sewage overflows (CSOs) create significant health and environmental risks.
 - To address this problem, SPU has invested in CSO storage tanks, which hold the excess water until the heavy rains subside, and then send it through the system to the treatment plant.
 - The Windermere CSO Storage project will hold 2.05 million gallons, and the Joint West Ship Canal CSO Storage Project will hold 15 million gallons.

- SPU also uses green stormwater infrastructure (GSI) to naturally absorb and filter stormwater runoff, thereby lessening the amount of stormwater that enters the drainage system.
- 2) Partially Separated
 - Wastewater from toilets, sinks, showers, and washing machines, and roof runoff flows into the King County Treatment Plant, but other stormwater runoff to streets goes into a storm drain, ditch, creeks, or receiving water body.
- 3) Fully separated
 - Wastewater from toilets, sinks, showers, and washing machines flows into the King County Treatment Plant, but roof runoff and other stormwater runoff to streets goes into a storm drain, ditch, creeks, or receiving water body.
- Wastewater is the water from toilets, sinks, showers, and washing machines, and it is billed by SPU at a uniform rate, based on water usage in ccfs (1ccf = 748 gallons).
 - The current rate per ccf is \$11.84, and the typical monthly residential bill is \$50.91.
 - The proposed new rates would raise the per ccf cost to \$12.27 in 2016, \$12.28 in 2017, and \$12.43 in 2018.
 - The typical bill would be \$52.76 in 2016, \$52.80 in 2017, and \$53.45 in 2018.
- Drainage is the stormwater that runs off of land into a storm drain, ditch, creeks, or receiving water body, or into the treatment system.
 - It's billed by King County for SPU, based on the property's square footage.
 - Properties that are less than 10,000 sq. ft. currently are billed at the following annual flat rates:
 - Tier 1: 0-2999 sq. ft. - \$199
 - Tier 2: 3000-4999 sq. ft. - \$258
 - Tier 3: 5000-6999 sq. ft. - \$350
 - Tier 4: 7000-9999 sq. ft. \$444
 - The proposed new rates would divide the first tier into 2 classifications:
 - 0-1999 sq. ft., which would be billed annually at \$124 in 2016, \$139 in 2017, and \$154 in 2018
 - 200 – 2999 sq. ft., which would be billed annually at \$207 in 2016, \$230 in 2017, and \$250 in 2018
 - This minimizes lot size and percent impervious variances between properties , and results in greater customer equity, so bills more accurately reflect property characteristics and impact to system.
- Overall, the proposed new rates are a decrease in 2016 and 2018 over what was previously projected, and an increase in 2017 over what was previously projected.
 - Changes that increased rates
 - Loss of Port of Seattle drainage fees beginning in 2016 (the Port will have their own system)
 - Higher capital investment project (CIP) forecast
 - More gradual reductions in cash balance

- Updated King County estimated treatment rates
 - Changes that decreased rates
 - Improved consumption forecast for 2015-2020
 - Improved 2014 results
 - Net decrease in operations and maintenance costs
 - More favorable bond assumption
 - The proposed rates are within the Strategic Business Plan’s target of an overall 4.6% average annual rate increase.
 - They also reflect recent changes in operating and management and in capital investment projects while maintaining Strategic Business Plan service levels.
 - The proposed rates reflect the latest demand forecasts, and meet or exceed all financial policies each year.
- ❖ Committee Member Question: With regard to drainage bills for properties over 10,000 sq. ft., do the owners get data that tells them how much impervious surface they are billed for?
- Answer: No, the customers just see the amount, but we can send out inspectors if they would like their rate class reevaluated.
- SPU presented the proposed rates to the City Council’s Seattle Public Utilities and Neighborhoods (SPUN) Committee yesterday.
 - On June 23, SPUN is expected to vote the proposal out of committee.
- ❖ Committee Member Comment: When the proposed rates meet the Strategic Business Plan’s targets, it seems the Council is likely to approve them without much discussion.

Drainage and Wastewater Master Planning (A-06): Green Lake/Aurora/Roosevelt, Shannon Kelleher, SPU Planning, Policy, and Regulation

- CDWAC has received earlier briefings (see 10/8/14; 1/28/15 notes) about SPU’s Drainage and Wastewater Planning Program and its various elements.
- One of those elements is the Master Planning process, where SPU plans infrastructure improvements in a forward thinking way, to anticipate growth and climate change, coordinate efficiently with other City efforts and projects, and integrate community plans.
 - The Master Planning process has been broken down into several stages:
 1. Existing Conditions – Looking at what is happening in the area currently (and historically)
 2. Future Conditions – Looking at how growth, climate change, and other factors will affect the planning area
 - a. A review of the existing and future conditions yields potential focus areas, which may be geographical, or based on maintenance schedules, or about addressing a particular issue, such as a ditch and culvert system, or whether to

build a swale (green stormwater infrastructure) even if it results in reduced parking availability.

3. Focus Area Selection – deciding which areas, both geographic and systemic, the planning effort should concentrate on.
 4. Building ‘scenarios’ around each of the focus areas to address the problems within area
 5. Analyzing options within the focus area scenarios and determining the best one(s).
 6. Creating an implementation plan which lays out the ‘best’ way to implement the Master Plan
- There are ten planning areas, and our first master plan is the Green Lake Aurora Roosevelt (GLAR) area.
 - Shannon referred to several maps of the GLAR area, which is quite large.
 - GLAR planning is currently completing stages 1-2. Shannon would like CDWAC’s feedback on number 3, the focus area selections.
 - She asked specifically for feedback on how to balance different problems. What criteria are more ‘important’ than others?
 - In considering this, Shannon explained that there are a small cluster of homes in the University District that experienced one storm related sewer backup event. She asked CDWAC whether this should be a focus area despite the relatively small number of houses affected and the lack of repeated incidences.
- ❖ Committee Member Question: Isn’t one of the main concerns whether storms cause combined sewer overflows into protected waters?
- Answer: No combined sewers overflowed during the particular storm that may have caused this sewer backup.
- ❖ Committee Member Question: What did maintenance crews say about the cause after they saw the damage?
- Answer: They can’t always identify the cause, but in this case they believe it was the storm.
- ❖ Committee Member Question: What are other potential causes of sewer backups?
- Answer: Tree roots, pipes cracking when a new connection is tapped, and fats, oils, and grease in the pipes are some. Again, we don’t always know the cause.
- Shannon asked the Committee Members whether they thought that sewer problems are always more important than drainage problems, and what priority a problem that is not dangerous but results in repeated nuisance should have (for example, stormwater pooling in the street, but the streets remaining passable). She explained that addressing any problem is a function of cost, frequency, the number of people affected, and whether traffic is impeded.
 - One Member responded that SPU should consider the problem’s frequency and weigh criteria.
 - A Guest added that there is a cost associated with nuisance.

- Another Member noted that if nuisance flooding happens every time there's a storm, the cumulative effect may result in significant damage.
- Another Member noted that when stormwater gets into a basement, it's almost as bad as sewage.
- Julie Crittenden noted that there is a fix for sewer backups, and the City is responsible for that fix.
- Shannon asked Committee Members whether a one-time sewage backup is worse than regularly occurring flooding stormwater.
 - One Member responded that people tend to be more vocal about sewage backups.
 - Shannon explained that the GLAR area has a lot of drainage problems, but does not have chronic sewer problems. However, lots of growth is expected there.
 - One Member asked how many of the sewage backup events there had been since 2010.
 - Shannon responded that SPU is reviewing that information now. More storm related sewer backups have been reported since 2010, but crews sometimes misidentify the problem.
 - Julie Crittenden likened spending a lot of public money to address very infrequent sewer or drainage problems to the City spending a lot of money to prepare for snow storms. Since snow storms are so infrequent, public funds are better spent elsewhere.
 - One Member asked for the amount of the drainage and wastewater planning budget.
 - Shannon reported that the planning budget is \$700,000 this year, which includes master plans and triage plans (plans that are needed to address more sudden and urgent issues), and projects that may be needed as accompaniments to SDOT levy projects.
 - One Member reported that commercial projects have installed sewer backflow preventers, and wondered if they might also be used in the University District's residential area.
 - Shannon responded that this question was being considered.
 - Julie Crittenden added that SPU has been installing some pilot backflow preventers in the Broadview area and are considering using them in South Park. SPU is concerned about transferring impacts to downstream customers, about who pays to install and maintain backflow preventers, and who is responsible if they fail. We don't want to transfer a deficiency in the system to our customers, and we want to be consistent across the City.
 - The Member responded that we can't tell people that the reason we won't offer backflow preventers is that some people might not maintain them. It's an option we should communicate to customers with backup problems. She added that storm flooding events that cause sewer backups into homes are a City problem.
 - Another Member suggested that we educate people, and tell them the warning signs to avoid the problem, for example, watching for slowing tub drain.

- Shannon explained that the City makes a lot of plans, and for them to be implementable, we have to be mindful of the elements we control. SDOT has its own priorities and plans, as does the Parks Department and private developers. Green Lake is a good example. SPU has some control over the projects we do there, but we do not control how the park operates. Therefore we need to allocate our resources accordingly.
 - One Member responded that SPU could just share that information with people so that they realize SPU's constraints.
 - A Guest added that people want to know that SPU is thinking about what Shannon just said, and that the City is working towards a way to use our resources collaboratively.
 - One Member suggested sharing information with the public about how SPU does successfully partner with SDOT.
 - A Guest added that it's good to know the City is forward thinking, and concerned with operational efficiency.
- A Member noted that he would like to have Shannon back to brief the Committee after SPU had developed its criteria for ranking the focus areas.
 - Shannon responded that her team is going to develop the criteria, then choose focus areas in a workshop on July 16. Subject matter specialists will do the ranking, and consultants will get involved starting on July 28. After that, Shannon could come and report back to the group.
 - ✓ Sheryl, the CDWAC Policy Liaison, will follow up with Shannon about a return briefing.
- One Member asked what the City pays in claims related to sewer backups into homes.
 - Shannon responded that she did not have those numbers.
 - The Member suggested that it was likely to be quite a number.

SPU Strategic Plan Action Item (A-02) "Decentralized Green Systems," Follow up from May 20, Mark Jaeger, SPU Interagency Project Coordination

- Mark gave a presentation on this topic at last month's meeting; he is back to have a discussion with and take questions from the Committee Members.
- He started today with a brief recap.
 - In recent years, some agencies have been moving to augment or replace centralized systems with smaller, decentralized and distributed self-contained models.
 - As part of the Strategic Business Plan, SPU is studying and evaluating how and where these decentralized systems might fit into our overall strategy for delivering utility services now and into the future. SPU is looking at what others have done and are doing as well as doing a bit of its own "out of the box" thinking with our specific local context in mind to identify opportunities that these systems present as well as trying to understand what the cumulative impacts might be.
 - We need to better understand the impacts of decentralized systems, and identify desired outcomes in a number of key areas/lenses like:

- We need to try and identify and be aware of potential unintended consequences. We're doing a number of things to help us decide how best to move forward:
- As we consider how decentralized systems work in Seattle, we also want to consider local contextual factors like climate, topography, population and land use, and existing systems and investments.
- In considering policies for decentralized systems, we hope to employ whole system thinking, which allows us to see how all of the parts involved interact, rather than how they act separately. We want to balance all of the pieces for overall system optimization.
- In employing whole systems thinking, we want to view the possibilities through different lenses, including:
 - Regulatory
 - Public health
 - Environmental protection
 - Social equity
 - Sustainability and resiliency
 - Management and operations
 - Economics
- Discussion and Questions:
 - One Member asked whether SPU has a good understanding of peoples' motivations and interests in creating decentralized systems, and explained that he felt this was necessary to make effective value judgments about the systems.
 - Mark responded that SPU's knowledge indicates there's a range, and at one end are the people who believe very passionately in the value of decentralized systems for the environment, and are somewhat fixed in their position. Other folks want to get in on the green building market, and still others have a general interest in taking environmentally friendly actions.
 - Julie Burman, the Water Policy Liaison, asked the Member whether SPU should be working harder to identify peoples' motivations.
 - The Member responded that it would be useful for SPU over the long term to have an in depth understanding of peoples' motivations. Some might think that implementing decentralized systems here will provide good information for doing it in other places.
 - Another Member commented that conserving water here in Seattle doesn't help other places that are in need of water.
 - Mark responded that the upcoming focus group will be discussing this.
 - One Member commented that if SPU understands the spectrum of motivation, from passionate believers to those who see a financial benefit, it may be better

equipped to educate those concerned with financial goals about how decentralized systems might meet those goals.

- Mark responded that one of SPU's goals is to educate people, to bring all of the stakeholder groups along with us, working with the same information and concepts.
- One Member commented that SPU should also be open to information and ideas from the other stakeholders, to learn about peoples' interests, to avoid too much of a sense of a government agency that already knows best.
 - Mark responded that that's why SPU is meeting with folks, to identify critical information we need to collect and to learn how to think about this issue. The goal is to sit down with people from all of the different lenses (regulatory, public health, environmental protection, social equity, sustainability and resiliency, management and operations, economics), to learn about what we don't understand.
- A guest asked whether part of the goal is to address capacity issues.
 - Mark respond that addressing capacity is not really part of the goal, but we do want to look at how these decentralized systems fit in with what SPU is trying to accomplish.
 - Julie Crittenden added that SPU is considering more green stormwater infrastructure (GSI) projects to augment stormwater capacity.
 - Mark explained that the larger discussions about decentralized systems are about different ways of delivering utility services. Some centralized systems are nearing capacity, and SPU wants to evaluate the available technologies and determine what will integrate well with the systems we already have.
 - Sometimes new technologies come along that deliver a service better and more cost effectively than the existing technology, and then the question becomes how best to make the transition.
 - For example, the Gates Foundation is working on a new toilet for developing countries. If they come up with one, it would require a lot of vetting, but if it worked, would a sewer system continue to be necessary?
 - Mark appreciates the Bullitt Center's work on decentralized green systems, which continues to provide important research and demonstration of new systems and valuable information.
 - Julie Crittenden added that if the future brings waterless toilets, Seattle may be able to further delay developing additional water supplies (which we are not projected to need until 2060). This would save money, but the reduced consumption of water could also lead to increased water rates. Also, the City is planning on a certain level of sewage use and has allocated

- capital investments accordingly. If sewer systems became obsolete, that investment would lose its value.
 - Another consideration would be, for instance, if the waste from composting toilets had to be transported by truck, how far would it go, how much would it cost, and what environmental impact would the truck's emissions have?
 - Mark added that disease prevention would also be an important consideration in such a technology's vetting process, especially with King County/Seattle Public Health .
 - One Member commented that decentralized technology for stormwater retention in the form of green stormwater infrastructure (GSI), is further along, and seems to be integrated with the larger system. She asked which areas had so far received some GSI.
 - Julie Crittenden replied that Ballard, Delridge, and the 66 blocks between Pipers, Thornton, and Longfellow Creeks would all be getting some GSI installations.
- Julie Burman, the Water Policy Liaison, asked Committee Members to continue thinking about what factors and criteria are most important for SPU to consider with regard to decentralized systems.
- Sheryl, the Creeks, Drainage, and Wastewater Policy Liaison, advised the Committee Members to let her know if they want to take part in the upcoming focus groups, which will be starting in the fall.

Debrief 5/26/16 Meeting with Councilmember Bagshaw, Noel Miller, CDWAC Co-Chair

- Noel reported that Councilmember Bagshaw was engaged, inquisitive, and supportive.
- Sheryl added that the Councilmember encouraged the Committee Members to be vocal and to use social media.
- ✓ Heidi will send out notes from the meeting to the Committee Members soon.

CAC Business

- Sheryl asked the Committee Members about meeting in July.
 - ✓ Members agreed to break for the summer and resume meetings in August.
- August's meeting will be a combined meeting of CDWAC and WSAC, and will be on either August 12th or 19th.
 - ✓ Sheryl will send out a Doodle poll to determine the best date.
 - The poll will also have some summer field trip possibilities.
- Sheryl will also be setting up some Joint CAC Meetings starting in the fall.
- Sheryl reminded the Members that the comment period for the City's Comprehensive Plan Draft Environmental Impact Statement ends on June 18.
- The Equity Analysis from the Comprehensive Plan will be a topic for a future Joint CAC Meeting.

Around the Table

- One Member noted that Brown Bear Car Wash recycles all of the water they use, so it's better than washing your car at home.
- With respect to the Comprehensive Plan, another Member expressed concern and frustration about the current trend of development. He described the fact that there's already an apartment building on one side of his house, and now another one is being constructed on the other side. He needs his car to commute to his job, and now parking near his home is often unavailable. He noted that he feels as if he's being gentrified by the City. He's expressed his concerns to City Council but so far has not received a reply.
 - Other Members suggested he might try contacting the City Council Chair of the Department of Planning and Development (DPD) Committee

7:35, meeting adjourned.