

**CITY OF BELLEVUE  
ENVIRONMENTAL SERVICES COMMISSION  
MEETING MINUTES**

Thursday  
July 16, 2015  
5:30-7:30 p.m. CIP Tour  
7:45 p.m. Regular Meeting

Conference Room 1E-112  
Bellevue City Hall  
Bellevue, Washington

**COMMISSIONERS PRESENT:** Keith Swenson (Chair), Anne Howe, Aaron Morin, Diann Strom, and Calvin Wang

**COMMISSIONERS ABSENT:** Ticson Mach and Lisa Shin

**OTHERS PRESENT:** Andrew Lee, Deputy Director; Paul Bucich, Asst. Director Engineering; Kit Paulsen, Watershed Planning Manager; Brian Ward, Sr. Engineer; Phyllis Varner, NPDES Manager; Pam Maloney, Water Resource Planning Manager; and Doug Lane, Sr. Engineer

**MINUTES TAKER:** Laurie Hugdahl

1. **CIP TOUR** – Held from 5:30 to 7:30 p.m.
2. **CALL TO ORDER** – The meeting was called to order by Chair Swenson at 7:45 p.m. who commented that the CIP tour was very nice.
3. **ORAL COMMUNICATIONS**  
  
None
4. **APPROVAL OF AGENDA**  
  
**Motion made by Commissioner Wang, seconded by Commissioner Morin, to approve the agenda as presented. Motion passed unanimously (5-0).**
4. **ORAL COMMUNICATIONS**  
  
None
5. **APPROVAL OF MINUTES**  
  
June 18, 2015 Regular Meeting Minutes  
  
**Motion made by Morin, seconded by Commissioner Howe, to approve the minutes as presented. Motion passed unanimously (5-0).**

## 6. REPORTS AND SUMMARIES

- ESC Calendar/Council Calendar

Deputy Director Lee commented that August is recess. The September agenda is very full so some of the contents of that meeting may be switched to October. Staff would like to get input about the preferred day for a Commission retreat. The first two Thursdays of December are options.

The Council Calendar has changed a little. The Issaquah assumption item has been moved out to September. There is a solid waste transfer and disposal item that will be moved to September because the last July Council meeting was canceled.

## 7. NEW BUSINESS

- Storm System Plan Strategic Initiatives Discussion  
*Presenter: Paul Bucich, Assistant Director, Engineering  
Kit Paulsen, Watershed Planning Manager and Brian Ward, Sr. Engineer*

Asst. Director Bucich solicited feedback from the Commission on content that had been presented previously. There were no comments. Mr. Bucich noted that there would be an open house for the public on August 26. Those comments will be incorporated with any ESC comments along with any final edits. The final code draft will be going forward in September.

- Low Impact Development – LID Principles Project  
*Presenter: Phyllis Varner, NPDES manager*

Ms. Varner reviewed the Project Work Plan for the next year and a half which the Council approved on July 6. The Work Plan contains a Project Interest Statement, Project Principles and the Areas of Focus in the development-related codes and standards that staff will be exploring for opportunities to integrate LID principles. There is also a robust public participation plan.

The LID Principles Project is a requirement of the NPDES permit. The Permit required the City to review and revise its development related policies codes and standards to integrate LID Principles and Best Management Practices (BMP). The focus is on controlling stormwater runoff from new development and redevelopment. The intent is to make Low Impact Development (LID) the preferred and commonly used approach to site development. Any changes made to integrate LID principles into the codes, standards, and policies have to be completed by December 31, 2016. There are no metrics, which allows cities to determine their own appropriate measures. Ms. Varner then discussed differences between LID principles and LID BMPs. LID principles are not applied evenly everywhere, but are area

and context sensitive. The LID Principles Project is not about BMPs, retrofitting, or preventing growth. It is only about the principles. Considerations for making LID the preferred and commonly used approach to site development include the assumptions that a one-size fits all approach is inappropriate; that supporting growth in urban areas is appropriate (GMA and LID); and that balancing environmental benefits with economic development goals is important. Ms. Varner summarized that the LID Principles Project is about achieving the goals of growth and protecting the environment.

The LID Principles Project will assist in realizing other City Council priorities and goals. For example, the LID principle of minimizing native vegetation loss will support the City's proposed tree canopy goals, reinforce Bellevue's reputation as a "City in a Park," decrease greenhouse gases through uptake CO<sub>2</sub>, and aid salmon recovery. It will support the NPDES permit compliance now and in the future. Additionally, an improved streetscape means an improved user experience. City Council has approved the Project Interest Statement and the Project Principles.

Commissioner Morin asked if the LID approach would be mandated or if the City just hopes the principles would be used. Ms. Varner explained that developers will be required to consider whether the principles can be used on the site during early site design.

Ms. Varner then reviewed the Project Road Map. Staff already came to the ESC earlier with policy recommendations the consultant had; Council is in the process right now of adopting those as part of the Comprehensive Plan Update. We are now moving forward with exploring "areas of focus" in the development codes and standards to integrate LID Principles. Public participation will be included throughout the process. If there are proposed changes those will go to a Planning Commission Public Hearing in June 2016 and to Council for adoption by November 21, 2016. Staff is moving full steam ahead now that Council has provided direction.

Commissioner Wang asked about East Bellevue Community Council's (EBCC's) role in the approval process. Ms. Varner thought that EBCC had the authority to not adopt it in their area. Mr. Bucich noted that it comes under the legal underpinnings of the Council's agreement with that area when it was annexed. Commissioner Wang requested that staff follow up on what EBCC's role is compared to Council.

Ms. Varner explained that the codes and standards Opportunity Analysis is completed. The comprehensive review and staff meetings on codes and standards resulted in the following area of focus:

- Land Use Code: Evaluate use of LID early in the site design process; reduce impervious surface coverage; preserve and enhance tree canopy; and improve options for clustering development

- Transportation Code and Design Standards: Reduce impervious surfaces in rights-of-way; enhance tree canopy in transportation facilities

Ms. Varner reviewed descriptions and examples of each. She explained these are the areas staff will explore and focus on in the codes and standards to determine if there are opportunities to integrate the LID principles further.

Commissioner Wang referred to the site design slide and asked if developers could fit the same number of lots on the proposed cul-de-sac design as the traditional one. Ms. Varner explained that the same number of lots could fit, and the LID example would have significantly less impervious surfaces. The roadway is narrower and is pervious. The houses and lots are smaller. Mr. Bucich commented that this type of development sells very well because many people don't want to have a big yard.

Commissioner Strom asked if the goal is to move developers from conventional to LID or to have them start with LID. Ms. Varner replied the goal is to have them start with LID. This is why it is important to make the changes and get them out early. The architects and engineers are invited to be part of this process through the public participation element.

Commissioner Wang commented on the lack of parking for guests. Mr. Bucich noted that it is becoming more of the norm. The Permit requires the City to see how this can be made the normal way of development assuming it fits on the site.

Chair Swenson noted that in his real estate business he has encountered many people who don't want a big yard. Mr. Bucich commented that the wild space surrounding the neighborhood is a wonderful place for kids to play and it is what people see when looking out their back window. Chair Swenson agreed and added that that 60% of the general public also wants front porches on their homes.

Commissioner Morin asked if pervious sidewalks are effective and how they need to be treated. Ms. Varner noted that mulch or leaves, sediment can fill in the spaces which then become excellent places for growing moss which become a safety issue. If the site conditions are good, it is very well accepted and used. Pervious sidewalks require maintenance such as super vacuums that try to vacuum out any dirt and particles so that it maintains the infiltration capacity. The City will be very careful about when and where pervious surfaces can be used in the BMPs to avoid situations where moss will grow. Commissioner Morin expressed concern about the energy required to do the maintenance and asked where the tradeoff is. Mr. Bucich explained this tradeoff is considered as part of the process.

Ms. Varner explained that in addition to the ESC, information briefings will be held for all the commissions. There will be public workshops in three locations to introduce the project, educate people about Low Impact

Development, and gather input about people's interests and ideas. Public open houses will be held to present options and gather more feedback. The public participation process will occur simultaneously with the codes and standards development. At the end a package will be taken to the Planning Commission for a public hearing in June of 2016. This will start the formal adoption and Council consideration process in the fall of 2016.

Commissioner Strom asked if any of the workshops or open houses would be targeted to developers. Ms. Varner said the open houses wouldn't be specifically for developers, but would be open to all stakeholders. Mr. Bucich noted that staff meets with Master Builders regularly, and they have been invited to participate in the process.

- **Water System Plan – Plan Findings & Recommendations**  
*Presenters: Doug Lane, Sr. Engineer.*

Mr. Lane reviewed the findings and recommendations surrounding the Water System Plan.

Commissioner Wang referred to the last page of the summary where it says Bellevue has no independent water supply. He asked if Bellevue has any sort of cooperative arrangement with neighboring cities such as Issaquah, Kirkland, and Redmond so that if one needs water the other cities could help. Mr. Lane replied that there is a policy that encourages interconnectivity with other districts. There is currently an ability to receive water from Kirkland and Coal Creek, but not with Issaquah.

Chlorine Residuals: There are low chlorine residuals in some of the system extremities due to older water age. The City meets Department of Health requirements, but wants to evaluate alternatives to maintain residuals. The recommendation is to conduct an engineering evaluation.

Air and Vacuum Release Valves: The system contains some obsolete air and vacuum release valve assemblies with vents that could present opportunity for backflow. The recommendation is to selectively abandon valves that are not needed or upgrade them so that they meet standards.

Chair Swenson asked about the possibility of someone sabotaging the system. Mr. Lane noted that it is pressurized so the risk wouldn't be any more than at a hydrant.

Wellhead Protection: The land uses at the emergency well sites is not consistent with wellhead protection measures. The recommendation is to perform a siting analysis to see if the use of the site can be changed or to identify other sites.

Cross-Connection Control Program: At high hazard sites, the Department of Health (DOH) requires inspections, but DOH is not very clear on the frequency required. The recommendation is to evaluate practices and alternatives to achieve acceptable service levels and mitigate risks.

Asset Management: There is an effort underway to develop a Strategic Asset management Plan (SAMP) for each type of asset and modify the Asset Management Program and CIP as appropriate.

Fire Flow: About 4% of households do not yet have at least 1,000 gpm available fire flow. The recommendation is to use our new water model to identify and analyze different operational strategies that could increase pressure and fire flow and also to continue to use the Water Main Replacement Program to improve fire flow availability as small diameter mains are replaced.

Inlet Capacity: Due to population growth, additional inlet capacity will be required to meet peak hour demands in the West Operating Area. The recommendation is to evaluate and then add new inlet(s) or expand existing based on evaluation. Commissioner Wang asked if the project to improve water system ability to move water from the east to west operating area was completed. Mr. Lane responded that it is a recommendation from the storage evaluation (not yet implemented).

Storage Evaluation: Due to population growth, engineering analysis confirmed that some areas of the system have projected storage deficits due to growth or limited transmission capacity. The recommendation is to address anticipated deficit for Downtown and Bel-Red (est. 2022): EOA-WOA Transmission and add PRV to access Clyde Hill dead storage. The recommendation is to also conduct engineering analysis to address smaller deficits in Clyde Hill, Pikes Peak, and Richards Road, areas.

Minimum Pressure: Portions of the 270 zone have isolated customers with less than 30-psi pressure at customer meters. The recommendations are to work with Issaquah to add a PRV station, create a separate pressure zone in South Cove, and increase upstream pressure in Bellevue. New modeling software will also be used to evaluate operational changes to increase pressure.

The Lake Hills 520 zone historically received customer complaints of low pressure operational changes were made to increase pressure, but this made operations less efficient and may impact water quality. The recommendation is to evaluate whether adding PRVs to split the Lake Hills 520 zone could optimize operations while maintaining improved customer service.

Backup Power Supplies: During an extended power outage, a summer demand situation could potentially result in insufficient pumping capacity if demands are not curtailed. The recommendation is to evaluate the

risk and consequences of an extended outage and implement recommendations.

Seismic Vulnerability: The City last performed an evaluation of seismic vulnerability of the piping system in 1996. There is an ongoing program that looks at reservoir seismic stability, but that doesn't address piping. The City is participating in a study by the Central Puget Sound Water Supply Forum. The recommendation is to continue to participate in the forum to evaluate seismic resiliency and consider forum recommendations. The recommendation is also to update the 1996 seismic study to reflect current codes and standards.

Commissioner Strom asked what size of event the water supply forum is looking at versus the 1996 study. Deputy Director Lee stated that he wasn't sure about the 1996 study, but the Water Supply Forum is looking at an approximate 2,500 year occurrence interval for a maximum shallow crustal zone event and also a 500-year occurrence level event. There are different faults, but the one that would affect Bellevue the most is the Seattle Fault. Other faults being considered are the Tacoma Fault and the South Whidbey Island Fault.

Wells: Currently the City buys 100% of its water from Cascade Water Alliance. The risk is that the City isn't able to supplement that supply if needed in an emergency. The recommendation is to analyze the risk relative to the cost of supply for developing existing wells for three scenarios: emergency-only non-potable supplies; off-line potable water supply; and on-line (connected to the distribution system) potable water supply. It is not known which one would be the most appropriate option.

Commissioner Wang recommended that the engineering study incorporate analyzing improved interconnectedness with other cities. Mr. Bucich noted that in a dire emergency those other jurisdictions would also be in need of water. The wells would provide a backup for when the City can't get water anywhere else.

Property Management: Property availability for future facilities has become an issue because Bellevue is so built out and property values have gone up. The recommendation is to analyze long-term needs so that the City is ready to take advantage of opportunities that become available.

Commissioner Strom asked if the City already has potential sites identified. Mr. Lane replied that there are some sites that the City owns, but staff hasn't really taken a comprehensive look at what will be needed in the future versus what the City already has. Mr. Bucich explained that this came up last year when the City was trying to find property where a reservoir could be located. There are opportunities, but they are diminishing rapidly. It is important for the City to have a choice on where to locate facilities in the future.

Mr. Lane offered that staff could come back in September if there are additional comments or questions. Otherwise, the Draft PWater System Plan will be provided for review in October.

**8. COMMISSION REPORT**

None

**9. DIRECTOR'S OFFICE REPORT**

Deputy Director Lee stated it was one of the hottest Junes on records. Water use was up 40% compared to the 10-year average of June usage. This was pretty typical for the region. Additionally, Bellevue is up 15% higher on cumulative year usage. The combination of low snowpack and warm weather has resulted in a decline in water levels, and Seattle Public Utilities recently changed their water supply forecast from good to fair. The City will continue to recommend that people be wise with their water use, but there is not a drought situation.

Commissioner Wang commented that in previous years the City has not used all of its allocated amount with the Cascade Water Alliance. He asked how close Bellevue is to the block usage. Staff was not sure, but Mr. Lane commented that so far the highest demand day the City has had hasn't been as high as the 2009 maximum day. Based on the current trend it doesn't look exceptional. Deputy Director Lee stated he would follow up on that.

Commissioner Morin asked if the block measurement is year-by-year or for a chunk of years. Deputy Director Lee stated he would look into that.

Staff has been going through consultant evaluations to select a consultant to assist with technology evaluations and put together a vendor RFP for the AMI (Automated Meter Infrastructure) project. Staff has evaluated eight different consultant proposals this week, will be interviewing them next week, and hope to have a contract in September.

The Commission welcomed new ESC Commissioner Diann Strom.

**10. CONTINUED ORAL COMMUNICATIONS**

None

**11. ADJOURNMENT**

**Motion made by Commissioner Wang, seconded by Commissioner Howe, to adjourn the meeting at 9:14 p.m. Motion passed unanimously (5-0).**

The meeting was adjourned at 9:14 p.m.