

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

Thursday
January 16, 2014
6:30 p.m.

Conference Room 1E-113
Bellevue City Hall
Bellevue, Washington

COMMISSIONERS PRESENT: Chair Helland, Vice Chair Swenson; Commissioners Cowan, Howe, Mach, and Wang

COMMISSIONERS ABSENT: Commissioner Morin

OTHERS PRESENT: Paul Bucich, Assistant Director, Engineering; Phyllis Varner, NPDES Coordinator; Kit Paulsen, Watershed Planning Supervisor; Paul Andersson, Environmental Stewardship Initiative Program Administrator; Brian Ward, Stormwater Engineer

MINUTES TAKER: Laurie Hugdahl

1. CALL TO ORDER:

The meeting was called to order by Chair Helland at 6:35 p.m.

2. ORAL COMMUNICATIONS

None

3. APPROVAL OF AGENDA

Commissioner Wang pointed out a numbering error on the agenda under item 2. He stated that it should refer to item 9.

Motion made by Commissioner Swenson, seconded by Commissioner Cowan, to approve the agenda as amended. Motion passed unanimously (6-0).

4. APPROVAL OF MINUTES

December 19, 2013 Regular Meeting Minutes

Motion made by Commissioner Mach, seconded by Commissioner Howe, to approve the minutes as amended.

Commissioner Wang referred to page 6 of the minutes, the second full paragraph regarding the composition of the Advisory Committee for downtown, and asked if any representatives from the ESC were on that committee. Chair Helland indicated he was participating on that committee.

Motion passed unanimously (6-0).

5. PUBLIC MEETING

- NPDES Annual Report – Draft 2014 Stormwater Management Program Plan

Staff presentation:

Phyllis Varner commented that the draft program was provided to the ESC in December for their review and was also available on the website. She pointed out that she was not asking the ESC to take any action tonight, but would be returning in February to convey to City Council any public comments received as well as a recommendation on submitting the plan to Ecology.

Ms. Varner reminded the ESC that the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit is promulgated through the Federal Clean Water Act and administered in the State of Washington by the Department of Ecology. The purpose of this Permit is to protect water quality and fishable, swimmable uses by reducing the pollution discharge through municipal storm drains into surface water. The Permit is broken up into two parts: Phase I and Phase II based on the size of cities in the 1990 census. Bellevue is included in the Phase II Permit as it had less than the 100,000 population number in the 1990 census. Ecology has said that as the issuance of permits continues over time the two permits will become so similar that there is essentially no real distinction between the two. Ms. Varner reviewed the history of the City's Phase II Permit, explaining that the first 5-year Permit was issued in 2007. Through that Permit the City was required to establish a Stormwater Management Program that administered the Permit and included programs for public education and outreach, public involvement, illicit discharge detection and elimination, controlling runoff from new development and redevelopment and construction sites, pollution prevention and O&M for municipal operations, and water quality monitoring. At the end of the first 5-year Permit, Ecology issued two Permits. The first one was a re-issuance of the first Permit for a one-year period. The second was the issuance of a new 5-year Permit starting August 1, 2013 and extending through August 1, 2018. At the same time Ecology issued a new 2012 Stormwater Management Manual developed by the Department of Ecology. A Phase II Coalition, including Bellevue, appealed certain conditions of the new 5-year Permit and manual to the Pollution Control Hearings Board (PCHB) on August 30, 2012. Several Phase I jurisdictions also appealed certain conditions in their Permit and the manual. The current status of the appeal is

that a consolidated hearing of similar Phase I and Phase II issues have been heard and a ruling should be forthcoming from the State Pollution Control Hearings Board in the near future. The consolidated hearing primarily focused on technical low-impact development requirements in the manual and the public review process. A separate hearing on Phase II issues was scheduled for April of this year; however, the coalition met with Ecology and developed a settlement proposal that is currently being reviewed for approval by city councils of the coalition jurisdiction. The settlement agreement would end the appeal process and the April Phase II hearing would not be necessary.

Chair Helland asked what was at issue in the settlement proposal. Ms. Varner replied that it was Permit definitions that expanded potential requirements to ditches rather than to surface water like streams. Chair Helland asked if there is a plan to brief the ESC on this. Ms. Varner said that the City Attorney provided a briefing to City Council. There is also a memo going to City Council on January 16 on the settlement proposal. Mr. Bucich commented that staff would be happy to come back to the ESC to talk about the particulars of the settlement agreement. He summarized that this was a negotiated settlement between the coalition membership, Ecology, and all of the attorneys. The attorneys have indicated that this is a great deal.

Ms. Varner continued to discuss the implementation of the Permit. The appeal has not resulted in a stay on meeting the Permit requirements. As a result, staff is moving forward to implement the Permit requirements which are phased in over the five years of the Permit period.

The new Permit retains the first Permit's structure and stays with the phased implementation approach. It also continues and builds upon the first Permit's requirements by requiring additional operational activities under Illicit Discharge and O&M programs. It adds a new water quality monitoring requirement and two significant new development-related requirements that have citywide impacts.

Ms. Varner gave an overview of significant new program requirements. First, there is a new annual regional stormwater monitoring fee of \$85,000. This allows the City to save a significant amount of money versus doing the monitoring on our own. Additionally, participation in the regional program confers compliance, removing local liability for independently meeting the monitoring condition. The regional program will also be conducting random testing of small, stormwater influenced streams and near shore marine waters in the greater Puget Sound area with the premise that the results will allow generalizations to be made on water quality conditions and Permit effectiveness.

The new 2012 Stormwater Management Manual requires the use of low impact development (LID) facilities unless proven unfeasible. Currently

Bellevue and other jurisdictions have been encouraging the use of LID development alternatives such as rain gardens, bio-retention facilities and in some cases pervious asphalt and concrete. The new Permit requires that the City amend Stormwater codes and standards to adopt the new manual and require the use of certain LID facilities unless proven infeasible. The deadline for doing this is December 31, 2016.

For Operation and Maintenance, there is a requirement to implement a new two-year catch basin inspection frequency for the municipal storm drainage system. There will be budgetary impacts from this which will be brought forward in the next budget cycle process.

Chair Helland asked if the City is on target to meet the LID requirements by 2016 or ahead of schedule. Ms. Varner replied that right now it is just encouraged, but not required. Now every Permit that comes through will have to go through a process to determine if the LID facilities are feasible. Staff is aiming to be compliant by 2016. The City has some issues with some of the technical issues, including the infeasibility requirements, which were addressed in the appeal. Mr. Bucich reiterated that there were some provisions of the technical aspects of the Stormwater Manual that the City had concerns with. Until the findings from the Pollution Control Hearings Board are known, it would be wise for the City to wait to make any changes.

Commissioner Swenson referred to a home in his neighborhood that had an elaborate rain garden system which the owner said was part of a requirement for construction. Since then other homes have been built that didn't have similar requirements. He asked how this fits into tonight's discussion. Ms. Varner said the 2005 Manual had a requirement for on-site rainwater management, but didn't define how to assess that. The City hired a consultant to help define this. She noted that although this reads like a requirement, but it actually is just requested if feasible. She acknowledged that this hasn't been made clear in all circumstances. It's actually from implementation of this that staff is identifying some issues. Commissioner Swenson summarized that his neighbor got one interpretation of this requirement, and the others got a different one. Ms. Varner commented that his lot must have met the infiltration criteria that could allow it to happen.

Commissioner Wang asked if the catch basin requirement applies only to city-owned catch basins. Ms. Varner replied that it does. Commissioner Wang asked about private catch basins. Ms. Varner said it doesn't apply to private development. Chair Helland asked how often the private catch basins are tested. Ms. Varner replied that it is every two years. Chair Helland asked if the private conveyance is covered under the Phase II Permit. Ms. Varner said it is not covered, and this is an issue that the City has identified. Mr. Bucich explained that those private conveyances that the city ties into are not covered

under the Permit. He discussed the interconnectedness of the systems between the public and private systems.

Ms. Varner explained that there have also been some changes with the Illicit Discharge Detection & Elimination (IDDE) requirements. Now the City has to develop a methodology and field screen 40% of the municipal storm drainage system for illicit discharges. The City is working with Ecology and others in the region to figure out methodologies that will be approved by Ecology. Once that is known, the fiscal impacts will be known. Chair Helland asked if this is an annual requirement or a one-time requirement. Ms. Varner explained that it has to be completed by December 31, 2017. Commissioner Wang commented that since this only covers the public system it really isn't a full picture since there are many developments that have their private systems dumping into the city system. Ms. Varner concurred. She explained that the City does have a Stormwater Management Program that goes beyond the Permit, and there is a private drainage inspection program. Mr. Bucich acknowledged that the drainage from private systems into the public system is a recognized problem and one of the struggles that all cities have with multiple discharge points into the public system.

Ms. Varner continued to explain that the Permit requires that the City look at and revise citywide regulations to require LID land use management strategies that minimize impervious surfaces and minimize native vegetation loss. This is the most far reaching of all the new requirements. This work has to be completed by December 31, 2016, which is the same deadline for adopting the new manual with LID Stormwater facilities. The overarching goal of the LID requirements is to make LID the preferred and commonly used approach to site development where feasible.

The NPDES Permit Annual Report is one of the continuing Permit requirements. The City Manager signs and certifies the annual report which is due by March 31 each year. The report must contain a Stormwater Management Program Plan and a Compliance Report. The 2014 Stormwater Management Program Plan describes the action the City will take in the upcoming year to implement the Permit conditions. The Compliance Report summarizes the actions the City took in the previous calendar year to implement the Permit requirements and maintain its compliance with the Permit. However, Ms. Varner noted that, for this first annual report under the new permit, Ecology waived the requirement for a 2013 Compliance Report. It is believed Ecology did this because 2013 was a transition year between the old and new permit and developing a compliance checklist would have been complex and difficult. Ms. Varner said the 2014 Stormwater Management Program overall can be described in two sentences, the City will continue implementing the first Permit's ongoing SWMP requirements and the City will begin the phased implementation of significant new Permit requirements.

Ms. Varner then reviewed some of the major work plan items that are being initiated in 2014. The first task in all of the work plans is to continue to implement ongoing program requirements from the first Permit. Specifically for the SWMP Administration Work Plan, this includes the Annual Report documenting compliance and developing a citywide NPDES budget estimate for the 2015-2016 budget process. Also, in 2014, the City will be documenting internal NPDES coordination mechanisms. Under Public Education and Outreach Work Plan the requirements address the fact that everyone has a role in preventing pollution from our everyday activities. The Permit's Public Involvement & Participation condition requires municipalities to provide an opportunity for public comment on the Stormwater Management Program Plan. She acknowledged that it is confusing for the City to request this public input on federal Permit requirements which cannot be altered, but explained that the public can influence what the City Council eventually adopts in terms of codes or standards to meet the Permit requirements. In the new Permit, one of the new requirements presents an opportunity for the public to comment on and influence the outcome of the LID Land Use Principles Requirement to minimize impervious surfaces/native vegetation loss. She reviewed the approach that will be used to manage this process including an Opportunity Analysis (review of overarching policies in the Comprehensive Plan and review of citywide codes, standards, and practices) with the help of a consultant, development of options by a consultant, and amending codes by December 31, 2016.

The Illicit Discharge Detection and Elimination (IDDE) Program is responsible for response and enforcement on pollutant spills and releases. Over 200 illicit discharges are reported each year. The new Permit requires municipalities to document specific information on each illicit discharge response. The individual reports are to be attached to future Annual Compliance Reports. This requirement took effect January 1 of this year. Bellevue staff participated on an Ecology committee to develop a voluntary standard reporting form and have begun implementing that new form. Also in 2014 the Water Quality Group is beginning to implement the revised IDDE field screening program requirements. Under the Controlling Runoff from New Development, Redevelopment, and Construction Sites Work Plan Ms. Varner referred to the new LID conditions which the City will begin implementing this year.

The Municipal Operations and Maintenance requirements address ongoing inspection and maintenance of the storm system and pollution prevention activities on city-owned properties. In 2014 staff will begin to modify the Storm System O&M program to meet the new catch basin inspection program.

As a result of the Monitoring and Assessment requirements the City will enter into an interagency agreement with Ecology to fund a regional stormwater monitoring program with the first \$85,000 payment to Ecology by August 15,

2014. Commissioner Cowan asked if Ecology oversees the monitoring program. Ms. Varner affirmed that Ecology oversees it.

Ms. Varner reviewed the next steps for NPDES requirements. The NPDES Annual Report schedule is:

- ESC February 20th Commission recommendation
- City Council March 3rd Management Brief Transmittal
- City Council March 3rd Resolution

The citywide budget process addressing NPDES resource needs occurs in 2014. THE LID Land Use Principles project schedules include an opportunity analysis in 2014; developing options and recommendations in 2015-2016 and amending codes in 2016. The LID stormwater best management practices (BMPs) will be adopted into development codes by the end of 2016.

Public Meeting:

Chair Helland opened the public meeting at 7:25 p.m. and reviewed the procedures for public testimony. One comment received from Mr. Mitchell Halliday that he was pro-low impact development (LID). Seeing no further comments the public meeting was closed at 7:27 p.m.

6. REPORTS AND SUMMARIES

- City Comp Plan Update (CPU) Stream Habitat & Materials Mgmt. Policies

Environmental Stewardship Review

Environmental Stewardship Initiative Program Administrator Paul Andersson reviewed the recent meeting regarding Environmental Stewardship and the Comp Plan Update. He explained that the City is still in the process of gathering feedback from the public, boards, and commissions and identifying gaps, gather information, as they start moving forward towards drafting new policies and/or update old policies. The objective of that evening was to gather community feedback to help guide the next steps in the developing these updates relating specifically to Environmental Stewardship. He then proceeded to review the topics discussed at the joint forum as well as feedback received.

Natural Environment: Stream Habitat - Bellevue is a community that really values streams, nature, and open spaces. Bellevue currently has many existing Comprehensive Plan Policies that touch on stream habitat. There are also Critical Areas Regulations, but these are mostly preventative, not restorative. Programs and actions include: barrier removal and restoration, Stream Team, quality testing, stream day-lighting projects, and private homeowner stream

restoration. Private homeowner stream restoration can be costly so this ends up being fairly piecemeal. The private sections of streams tend to be the areas where there are gaps in care. There are 83 miles of stream habitat in Bellevue. 50% of that is owned by the City; 50% exists on private land. The privately owned areas contain a lot of key spawning habitat. Only a fraction of spawning areas are publicly owned.

Commissioner Wang asked about a culvert being replaced on Coal Creek Parkway. Mr. Andersson was not specifically familiar with that particular project, but thought it was an example of a project on public lands. This is the kind of work the City is inclined to do on public lands, but is not necessarily beneficial when there is a barrier just up or downstream on private lands.

The current state of three major Bellevue Creeks (Lewis Creek, Coal Creek, and Kelsey Creek) was reviewed. B-IBI scores for those three creeks indicate that the quality of the stream habitats are impaired. A more regional perspective measures Chinook, Coho, and Sockeye salmon counts in Chittenden Locks from 2000 through 2011 and how the counts are declining.

What are others doing?

- Federal Way – Public/private partnerships
- Kirkland – Restoration grants for private land
- Issaquah – Targeted acquisitions of streams

Survey results:

When asked if Bellevue should strengthen Comprehensive Plan policies focused on restoring stream habitat on private land, 38% strongly agreed, 8% agreed, 38% were neutral, 8% disagreed, and 8% strongly disagreed. Written responses indicated that the public has an interest in protecting and restoring tree canopy and salmon stream habitat. When asked what kinds of government actions will best advance the public's interest, responses stressed providing information/education to the public, working in public/private partnerships, providing grants or incentives, and city government leading by example. Also important to respondents was setting goals and targets, developing an action plan, and regulatory approach. Chair Helland requested a copy of the updated presentation.

Based on responses, staff developed some sample policy language related to stream habitat:

1. Pursue restoration of stream habitat on private lands in partnership with private landowners. Prioritize restoration of habitat that is critical to spawning and endangered species.
2. Establish goals and targets for aquatic habitat restoration in streams throughout Bellevue.

3. Develop prioritized strategies or an action plan to identify and sequence actions necessary.

Chair Helland asked about the canopy policies. Mr. Andersson explained those were more complicated because of private lands, public lands, right-of-ways, etc. issues. Staff will be looking at coming up with a right-of-way action plan, establishing planting regulations for right-of-way, and other actions. Chair Helland asked if the City has considered incentivizing removal of older trees or trees that could become hazards. Mr. Andersson replied that staff has looked at what sort of incentives or programs might get property owners more willing to plant on their own property. Chair Helland spoke in support of incentives to encourage this.

Mr. Andersson asked for feedback. Chair Swenson said he and three other commissioners were at the joint forum, and it seemed like there were more than just 12 or 13 people there. Mr. Bucich replied that there were a lot of staff members there because more participants were anticipated. Commissioner Swenson joked that the ESC represented a quarter of the participants.

Chair Helland asked if there is an incentive system being considered for stream habitat restoration. He acknowledged that this is more difficult than canopy maintenance. Mr. Bucich concurred and noted that stream restoration work is very specialized and extremely expensive. This is why you do not see private property owners doing this work on their own. Most jurisdictions fund this through a lot of grant activity. The public/private partnership entails the private property owners letting the City go onto their property to do the restoration work necessary to get the outcome the community is looking for. Commissioner Howe asked how successful this was in Federal Way. Mr. Bucich reviewed the results of those partnerships. Ms. Howe stressed the need to make the public aware of what the benefit is of the City maintaining the streams. Mr. Andersson summarized that it is important to stress the public education portion along with the no-cost benefit.

Commissioner Wang asked if someone is responsible for replacing trees that fall down in green belts. Mr. Andersson replied that on public lands in open spaces and parks, staff is very proactive about removing dangerous trees, cleaning up fallen trees, replanting, and always improving the land. There is no such program on private lands. Chair Helland suggested policy language encouraging tree replacement. Commissioner Cowan went back to the point of education. He stated that eliminating two full-time education positions in the Utilities budget is directly related to this issue. Chair Helland agreed and reiterated that it was pretty unanimous among the Commission that the Outreach position should be prioritized and not cut.

Commissioner Cowan referred to the reduction in tree canopy associated with I-405 and 520 asked about some ability for the City to try to work with an easement to try to maintain more of the aesthetic views. Chair Helland asked if there is a mitigation policy about those kinds of infrastructure projects. Mr. Andersson said there is not one currently except in draft form. The recommendation of one of the attendees of the joint forum was, "One tree gone, one tree replaced." Mr. Bucich explained that the State by RCW is not required to follow local jurisdictional codes and requirements. The local jurisdictions can try to negotiate with them, but within their right-of-way the Department of Transportation is supreme.

Chair Helland referred to the Sample Policy Language and noted that the City could have a policy stating that when a state agency comes in and removes trees, the City of Bellevue takes it upon itself to do something. He also stressed the importance of prioritizing stream restoration in *contiguous* portions of streams. Mr. Andersson agreed that would be an excellent thing to add to the prioritization criteria.

Ms. Howe asked about tree canopy policies in the public right-of-way. Mr. Andersson stated that his understanding was there used to be a tree landscaping manual and guideline that was embedded within the Transportation Code. At that time, Transportation would consult with Parks to develop and ensure that these requirements were being met. That was moved out of the Transportation Code and was supposed to go back into a Land Use Code, but this hasn't happened except for downtown. Currently, if the City builds a new roadway they are not bound by any requirements to put in trees as part of their treescape. Mr. Andersson added that one often sees private developers having better landscaping than the City does because it's a requirement for new development and redevelopment on private lands, but not on right-of-ways. Chair Helland asked when staff expects to have a policy. Mr. Andersson indicated he could come back with those policy ideas in the future if the ESC is interested. Chair Helland thought that the ESC was an obvious place to start brainstorming some of those ideas. Vice Chair Swenson commented that typically a lot of land in a city is tied up in public right-of-way. He recommended looking at how the City could effectively use that land. Mr. Andersson commented that one of the policy concepts related to this is to establish goals and targets.

Chair Helland expressed interest in getting more information about the Downtown Livability work. Mr. Andersson commented that the Comprehensive Plan is ultimately driving all other work in the City. If the desired policies are included in the Comprehensive Plan the City is setting itself up for success. He stated he would be open to coming back at a future date for discussion on the topics of tree canopy and lifecycle materials management.

- Floodplain Management Briefing

Stormwater Engineer Brian Ward, who also serves as the City's Certified Floodplain Manager, delivered a PowerPoint presentation regarding floodplain management. He first reviewed basic floodplain terms important to understand when discussing this topic. He discussed the concept of floodplain development. He explained that the 100-year flow is used to tell how deep the water can get in the creek during a storm with a 1% probability of occurring. Flood Insurance Rate Maps (FIRM) are made available to businesses, real estate companies and banks which is intended to be used on a large scale map. An Elevation Certificate documents the elevation of the house and compares it to the elevation of the flood plain to determine the risk at a specific site. Commissioner Cowan asked how often the Rate Maps are produced. Mr. Ward replied that it is not very often except for Kelsey Creek, the rate maps are from when the City joined NFIP in 1978. The Letter of Map Change Amendments and Revisions are made occasionally.

Mr. Ward explained that the National Flood Insurance Program (NFIP) was started by Congress in 1968 to partner with communities. If a community joins the NFIP the residents get subsidized flood insurance from the federal government in exchange for the community having regulations about development in the floodplain and keeping the maps updated. Bellevue joined the NFIP in 1978. A voluntary program exists for NFIP communities to provide incentives in the form of premium discounts to "go beyond" minimum NFIP standards. Bellevue's Class 5 ranking represents the level of service that Bellevue offers.

Mr. Ward summarized that Bellevue has 535 acres, 390 buildings, and 994 parcels in the floodplain. Bellevue does not generally allow development in the floodplain (Zero-rise standard), but there is a Reasonable Use Exception in certain circumstances with certain engineering standards. Mr. Ward stated that there is a list of allowed uses in the floodplain. There are some engineering methods that can be used to build in the floodplain with no displacement of water.

There have been new NFIP requirements since 2008 when floodplain activities in the NFIP were deemed by the courts to have the potential to have an adverse effect on salmon habitat. Today, an allowed floodplain development triggers a comprehensive biological assessment. The Applicant must prove to the City that the proposed project has no "adverse effect" on listed species. NOAA Fisheries has final approval of Biological Opinion.

Mr. Ward explained that floodplain management in Bellevue is an integrated program. The organizational structure of floodplain management in Bellevue was reviewed. Many departments in the City are involved in the floodplain management. The Utilities Department is the lead for many areas. He pointed

out that most of the floodplain development work is under the development of the Critical Areas Ordinance.

Vasa Creek Floodplain Mapping Updates: The City is currently involved in a study to more accurately delineate the floodplain for Vasa Creek. This will enable the City to work with residents to develop properties in a safe way. Chair Helland asked who in the city answers specific questions about floodplain maps. Mr. Ward replied that DSD is primarily who can answer those questions, although he often gets involved as a consultant. Chair Helland asked about the role of GIS in the process. Mr. Ward explained that GIS is an important tool in floodplain management, but it is a portrayal of the base flood elevation and is sometimes limited by the technology of the mapping tool. It is important to distinguish between a map view of a floodplain versus the cross-section profile. Mr. Bucich asked if it is fair to say that the historical FEMA mapping which was done in the 1970's is not a site level depiction that can be relied on. Mr. Ward agreed. He said he advises staff to refer to the Flood Insurance Rate Maps as a first cut, but then to dig a little deeper.

Commissioner Swenson referred to the flows near the trestle shown in one of the slides. He commented that flood mapping ought to reflect changes in the community as it urbanizes. Mr. Ward concurred. He noted that the City is responsible for updating maps with updated hydrology, but this is a slow, methodical process that is often driven by need. Commissioner Swenson asked if the amount of area in the floodplains is actually growing as this process occurs. Mr. Ward replied that it is shifting. Mr. Bucich commented that this is a tough question because it is likely that in many locations the base flood elevation is inaccurate, both too high and too low.

Commissioner Mach asked if critical areas are separate from floodplains. Mr. Ward replied that critical areas include wetlands, riparian zones next to creeks, steep slopes, and floodplains. Sometimes the riparian corridor is within the width of the floodplain, but sometimes the floodplain is contained within the setback limits of the riparian corridor. It depends how steep the ravine is. Commissioner Mach asked if it is all handled by one department. Mr. Ward replied that Utilities works collaboratively with other departments. Regulations are done in DSD, but all the engineering is done in Utilities. Mr. Bucich explained that IT/GIS, Land Use Division, Building Division, Clear & Grade Division, and Utilities are all involved.

There was a request that all three presentations be sent electronically to the Commission.

There was a recess from 8:47 to 8:53 p.m.

- Phantom/Larsen Lake Drainage Update

Paul Bucich reviewed a graphic of the drainage basin to Phantom Lake. This is a mix of commercial and residential. There is a historic landfill in the area. The City has a history of involvement with water quality in Phantom Lake. The primary outlet from Phantom Lake was hand dug as a channel by a farmer years ago who wanted to drain wetland areas. As a result of the water going down the steep hill toward Lake Sammamish there was a lot of erosion. The Parks Department was been challenged with trying to stabilize this channel. This is a very important component of the drainage infrastructure for the Phantom Lake drainage system. Phantom Lake has also traditionally flowed out to the north-northwest through the Larsen Lake greenbelt area, through Larsen Lake, and out into Kelsey Creek.

Mr. Bucich reviewed the history of the community's concerns regarding this area. In the 80's and 90's the City, as a good faith effort and working with the Department of Ecology, conducted a survey using consultants and came up with recommendations as to what could be done to address the water quality in the lake. One of those recommendations was to construct a berm around a portion of the lake on the northwest quadrant to prevent high nutrient groundwater from flowing into the lake early in the season to help control algae growth. There was also an installation of an in-lake aerator device to try to get more oxygen into the lake. This turned out to be a bad idea and was turned off after two years. The third component was the construction of a water quality weir at the Phantom Lake outlet with the intention that stop logs would be added in late spring/early summer to keep the lake level up so that as it evaporated down the lake would be at a higher elevation for more of the year to help improve the lake water quality. In addition a configuration of outlet channels was built through the Larsen Lake greenbelt.

Chair Helland asked what direction water flowed out of Larsen Lake. Mr. Bucich explained that Larsen Lake flows to the north to Kelsey Creek, but the floodplain which is south of it that flows into Larsen Lake historically also flowed at certain times into Phantom Lakes and at other times Phantom Lake would flow through the Larsen Lake greenbelt.

Through investigations, staff determined that past flooding is not a clear indicator of future events. Beaver activity highly affects lake levels. The outlet channel maintenance is critical to maintaining lake levels. The 1990's berm constructed to prevent nutrients to the lake is essentially gone. The Larsen Lake greenbelt drainage system is in need of enhanced maintenance. The aerator in the lake needs to be removed. Water quality trends are inconclusive, and the responsibility for actions is in question.

Commissioner Wang said it appears to him that there are actually two associations representing Phantom Lake. He wondered who the City actually deals with. Mr. Bucich explained that the Washington Sensible Shorelines

Association is engaged through the Shoreline Management Program and represents people who live around lakes. When dealing with Phantom Lake he has been dealing primarily with the Phantom Lake Homeowners Association which represents those who live right along the shoreline of the lake. He explained that one of the challenges with Phantom Lake is that it is viewed as a private lake by people who live on the lake, but the City has some access to the lake via a park with a limit to how many people can use the lake at a time. In this case the public owns some of the land; private owners own some of the land, but the court said that the waters are public. Were it not for a lawsuit settlement agreement that the City struck with the landowners about limiting access to non-residents, there would be no impediment to the public using the lake.

The 2012 Study recommended that there be neighborhood meetings with the Phantom Lake Home Owners Association (PLHOA). There has been agreement that the aerator will be removed. The permitting has been completed, and it will be removed in 2014. There are a couple options for what to do with it. The berm will not be rebuilt, but instead will be revegetated. The outlet channel maintenance has been a difficult issue. The residents feel that this ought to be taken care of by the City even though it is on private property and the City didn't build it. Since recent meetings, the PLHOA has been having work parties to clear out the channel and the culvert. Staff has attempted to show them that the outlet channel and the culvert are the key to the lake levels. The Board is convinced that keeping that culvert clear is key. Mr. Bucich expressed concern that the culvert is on private property owned by three different landowners who do not appear to understand they own this infrastructure. He noted that there are two dissimilar pipes that are joined in the middle through a box structure that is inaccessible. When those pipes fail it will affect the lake. The PLHOA agreed with the City that starting in 2014 the boards will no longer be put in the water quality weir in order to determine the impact on water quality.

Chair Helland asked which is most critical between the weir and the culvert. Mr. Bucich replied that when the boards are taken out of the weir the water just pours straight on down. The most critical component is the 24-inch diameter culvert. Maintaining the culvert and keeping beaver dams clear will go a long ways towards solving their high lake level problems. Other items to address include evaluation of Lake Hills Boulevard and Larsen Lake greenbelt culverts.

Mr. Bucich then reviewed the results of the 2013 Residential Survey. The intention of the survey was to assess the residents' attitudes on issues surrounding Phantom Lake. It was not intended to be used for making management decisions or directing actions. It will be used in partnership with the PLHOA to craft a series of neighborhood meetings. Key findings were that the lake is widely used. There are broad concerns about the lake's health

especially the water level and vegetation. The residents' willingness to take action showed that 17 of 30 are willing to take some action to solve their issues. 10 may be willing to help in general. He commented that it is interesting to note that those who have lived on the lake the longest are the least likely to want to get involved to help.

Chair Helland asked about a Lake Management District. Mr. Bucich replied that he has discussed forming one just for the residents around the lake. If nothing else, he thinks it would be beneficial for the Homeowners Association to develop an easement from the residents along the channel and the culvert and have everyone chip in to have someone go clean the outlet channel. More about this will be coming in 2014. Eventually there will be a recommendation going to Council. The members of the ESC thanked Mr. Bucich for his excellent work.

- ESC Calendar/Council Calendar

Mr. Bucich pointed out that the calendar is getting quite full for the first six months of 2014. The CIP Tour is planned for the meeting in July along with the Water System Tour. These may be done on the same night or on separate nights.

7. NEW BUSINESS

Mr. Bucich had the following comments:

- There has been no action yet on filling the Deputy Director position.
- Staff is identifying unmet CIP needs over the next three planning horizons for the upcoming Council retreat.
- Thanks to Commissioner Wang for joining him this morning for a tour of the Crossroads Reservoir.

Commissioner Wang suggested that the agenda could have a section for Commissioner Comments/Reports. He commented that the tour of the water tank site was very eye opening. Chair Helland suggested that it was appropriate to handle items like this under New Business. Mr. Bucich suggested that an item for Commissioner Comments could be added to the agenda following the Director's Report.

Commissioner Swenson brought up the issue of the education positions being eliminated. He thinks this needs to be addressed and prioritized. Chair Helland concurred. He noted that there are a couple areas where there is a disconnect between what this commission does and what Council is doing. He thinks there is a need to communicate more effectively what the ESC thinks to Council. Commissioner Wang thought that maybe this should be Councilmember Stokes' responsibility. Commissioner Howe asked if the ESC Chair had the opportunity to

present to Council when they are taking up certain issues. Chair Helland replied that there is not.

8. DIRECTOR'S OFFICE REPORT

None

9. CONTINUED ORAL COMMUNICATIONS

None

10. ADJOURNMENT

The meeting was adjourned at 9:45 p.m.