

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

Thursday  
April 4, 2013  
6:30 p.m.

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

**COMMISSIONERS PRESENT:** Vice Chair Swenson; Commissioners Cowan, Mach, Wang, and Weller<sup>1</sup>

**COMMISSIONERS ABSENT:** Chair Helland, Morin

**OTHERS PRESENT:** Bob Mulvey, Councilmember John Stokes, Scott Taylor, Regan Sidie, Lucy Liu, Bob Brooks

**MINUTES TAKER:** Laurie Hugdahl

**1. CALL TO ORDER:**

The meeting was called to order by Vice Chair Swenson at 6:30 p.m.

**2. ORAL COMMUNICATIONS - None**

**3. APPROVAL OF AGENDA**

**Motion made by Commissioner Mach, seconded by Commissioner Cowan, to approve the agenda. Motion passed unanimously (4-0).**

**4. APPROVAL OF MINUTES**

March 7, 2013 Regular Meeting Minutes

**Motion made by Commissioner Mach, seconded by Commissioner Cowan, to approve the minutes as presented. Motion passed unanimously (4-0).**

**5. FOLLOW UP QUESTIONS AND ANSWERS**

Deputy Director Mulvey noted that Kit Paulsen had prepared a written response to a question about Puget Sound lock levels which was posed at the last meeting. Vice Chair Swenson said he hadn't realized there was that much separation from sea level. Commissioner Wang pointed out that the relevant thing is that there is only two feet of variation in the level of Lake Union and Lake Washington.

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<sup>1</sup> Commissioner Weller arrived at 7:20 p.m.

## 6. REPORTS AND SUMMARIES

- Conservation & Outreach Events & Volunteer Opportunity

Deputy Director Mulvey noted that information describing events occurring in April and May was added to the Commission's packets.

- Council Calendar

Deputy Director Mulvey explained that several items will be going forward in April for consent. On April 22 there will be a briefing on the New NPDES Municipal Stormwater Permit.

Commissioner Wang asked about details of the award of the bid for the Coal Creek Culvert Parkway Culvert Replacement Project. Scott Taylor replied that the bid was awarded to Scarsella Brothers for about \$3.3 million, which was below the engineers' estimate of \$3.9 million. Commissioner Mach asked if the low bids were close. Mr. Sidie replied that the bids were pretty evenly spread and not too close at the bottom.

- ESC Calendar

Deputy Director Mulvey pointed out that the Tentative - City Comprehensive Plan Update currently scheduled for May 2 will be moved to June 6. He announced that the Brightwater tour is coming up on April 30 from 9:30 to 11:30. There was consensus to have Deputy Director Mulvey drive the van to carry commissioners that wanted to carpool.

- CIP Accomplishments

Scott Taylor, Construction Services Manager, and Regan Sidie, Design Services Manager

Mr. Taylor reviewed CIP project highlights from 2011 and 2012. He stated his intention was to provide insight to unique design and construction challenges in the City, highlight innovative construction techniques and technology, illustrate typical construction impacts, demonstrate efficient and effective implementation, and increase familiarity with various CIP projects.

### Storm Water Infrastructure Rehab Project: CIP Plan No. D-64, 2012 Trenchless Storm Drainage Rehabilitation

Mr. Taylor explained that this was a project that the City did up on Somerset. There was an existing storm drain line that ran down the back of some homes in an easement. Also in the easement was Olympic Pipeline's petroleum pipeline. This was a good candidate for a cured-in-place liner which is a pipe

that can be installed within an existing pipe. He showed a sample of a liner and explained the process for installing and curing it inside the host pipe using steam. The resulting interior pipe has the structural strength of a brand new pipe. This is a trenchless way that repairs can be made.

Commissioner Mach asked about cost effectiveness of trenchless versus typical construction. Mr. Sidie explained that in this case it was installed at about \$250 per foot. The typical cost for constructing a 30" storm pipe would be \$600 per foot. He stated that this trenchless technology is more cost-effective than dig and repair methods in almost every case where it can be done. The costs have been coming down in the last 15 years. However, if the existing pipe is too deformed it may not be possible to use the trenchless method. Commissioner Swenson observed that the trenchless method would reduce capacity slightly. Mr. Taylor agreed, but explained that since it is very smooth it is actually an improvement on the corrugated pipe.

Councilmember Stokes asked what kind of preparation has to be done for the trenchless repair. Mr. Taylor reviewed the process. He explained that a pre-construction video is performed to determine the condition of the pipe before the contract is awarded. Next, the contractor cleans the pipe, removes obstructions, does the insertion, then performs a post-insertion video to confirm that the end result is a good product. Councilmember Stokes asked if a combination of the cured-in-place liners and the traditional replacement method can be used. Mr. Taylor replied that if the section is long enough that it has to be excavated, it will be done as a separate contract because the cure-in-place liner method is specialty work. However, if there are spot repairs such as a small section that has collapsed those can be fixed and then the whole section can be relined with the new pipe.

Commissioner Cowan asked about the life expectancy of the liners. Mr. Taylor stated that it is at least fifty years.

#### Sewage Pump Station Improvements CIP Plan No. S-16: Emerald Ridge Pump Station Improvements

Mr. Taylor discussed how the contractors built the new Emerald Ridge Pump Station on 118th by I-90. He explained that the contractors had to dewater the site by sinking a 13-foot diameter caisson 35 feet into the ground. This was because of the site's proximity to wetlands. He displayed photos which showed how contractors drilled the dewatering well, unloaded a 13-foot diameter caisson, set the 25,000 lb. piece of steel upright, used clam shell excavation to remove dirt from inside the steel caisson, and used a LoDrill auger operation. After the first 25-foot section was in place the next 10-foot piece was brought in, the two pieces were welded together, further excavation was done, and a vibratory hammer was used to advance the caisson. Once the caisson was installed with a base plate installed, formwork for the wet well

was built, and concrete was pumped into the wet well forms. Site work was then done to install piping and controls in a small space. Finally, a top slab was set on top of the well, station controller cabinets were installed, and curbing and parking lot were completed.

#### Sewer System Rehabilitation CIP Plan NO S-24: CBD Sanitary Sewer Improvements and Repair

Mr. Taylor reviewed how this work was accomplished. There were two projects right in the downtown core at NE 8th Street & Bellevue Way and NE 8th Street & 106th. Extensive traffic control and detours were set up with variable message boards to inform the public about the work. For this project, crews worked around the clock from Friday night through Sunday afternoon in order to have the work done for the Monday morning commute. The first task was to remove pavement by grinding the pavement out. By the next morning, trench excavation began. The contractor excavated some utilities because it was necessary to cross underneath them. New PVC sewer pipe was installed, and trench protection systems were used. Mr. Taylor explained that there were some difficult shoring and bracing challenges. After work was complete in the trench it was backfilled and ready for paving and patching. Finally, the asphalt was ground to give the intersection a complete overlay. Mr. Taylor stated that the contractor did a great job getting this done ahead of schedule.

Commissioner Mach asked if the weekend was really the best time to do this considering the heavy traffic at Bellevue Square on the weekend. Mr. Taylor agreed that Bellevue Square does have a lot of traffic, but the weekday commute traffic has a much higher volume. In this case, the City was able to keep NE 8th westbound open so folks coming off the freeway could take NE 8th Street all the way to the parking garage on the west side of Bellevue Square. Staff worked out an extensive traffic plan so that shoppers could get to the parking lot, delivery trucks could have access to the loading docks, and pedestrians could still have access.

#### West CBD Trunkline Capacity Improvements CIP Plan No. S-54

This was a joint project between the City of Bellevue and King County Wastewater Treatment Division. The County needed to upsize a trunk sewer to their pump station; the City needed to upsize one of the lines that serves the downtown and the new growth that is anticipated. Staff worked cooperatively with King County and ended up saving about \$500,000 over the original project estimate. The project started at SE 3<sup>rd</sup> Street south of Main to install a new sewer. Because the street was so narrow, it was necessary to put the sewer in the same location that it existed. As part of that, a sewer bypass system was constructed to maintain flows for the downtown area. Mr. Taylor then reviewed the County's project where a new trunkline down on 102nd was

installed. When the County got done installing the pipe, the City came in to overlay the streets so everything looked nice.

#### Utility Relocations SR 520 Expansion Project and I-405 Braids Project

The City is doing work in conjunction with WSDOT on same major freeway projects that involved relocating utilities. Sewer and water lines crossed the highway, and some of those needed to be relocated to accommodate the new construction. On the SR 520 project 1400 feet of sewer and 1300 feet of water main were relocated. On the I-405 project 1600 feet of sewer and 1100 feet of water main were relocated. At 108th and SR 520 the ramp was getting widened, and the sewer needed to be moved to the edge. In this case because the sewer was going in under the ramp, the City put it in a steel casing to enable future repairs without digging up the ramp. 40-foot pieces of steel were welded together and laid on grade which proved to be a challenge for the contractor since the site was relatively flat. On the 405 project the NE 12th Bridge was replaced across 405. The City had a water main that crossed the freeway at that location so when the bridge was replaced the water pipe was also replaced. The water pipe went inside a casing which went under the concrete approach slab to the new bridge. Mr. Taylor displayed photos showing the pipe inside the completed bridge on rollers with seismic braces and insulation.

#### 164<sup>th</sup> Avenue NE Water Service Saddle Replacement Project:

Mr. Taylor showed samples of corroded saddles and photos of an existing corroded saddle on AC pipe. He pointed out that even with all the corrosion, the saddles don't always leak. Sometimes the only thing holding the saddle on is the dirt so when the dirt is removed sometimes the saddles leak and emergency repairs must be done. Mr. Taylor discussed new construction techniques. Typically when you expose a service saddle the excavator digs down until it gets close, and then someone else digs down with a shovel to find it with a hand tool. Contractors now are using portable trailer-mounted vactor equipment to do the excavation instead of hand digging which speeds up the process considerably. The vactor is also less likely to break the fragile service connections. As part of this project old brittle plastic service lines were replaced with new copper service lines. The contractor pulled the copper lining underneath the roadway to the meter on the far side using the existing service line in the ground. The copper pipe is more expensive than plastic initially, but it has a longer service life. In this case a nylon-coated saddle was used with a stainless steel strap.

Vice Chair Swenson asked about the cause of the corrosion to the saddles. Mr. Sidie explained that it is a combination of things such as galvanic corrosion of the brass fitting next to the steel. Sometimes the soil conditions are more corrosive in certain locations. Additionally, if the older style (uncoated with a

mild steel strap) saddle is connected to a ductile iron water main there can be a lot of corrosion activity.

Mr. Taylor reviewed projects that will be in construction this summer. There are some more utility relocations to complete on the SR 520 expansion project. Some of those will be coming up in the next couple weeks such as some night work that will be done at 108<sup>th</sup>. The Coal Creek Parkway Culvert Replacement has been awarded, and construction is expected to begin in early May. This is a two-year project to facilitate the culvert replacement and relocation of two petroleum pipelines, a natural gas pipeline, and some fiber-optic cables. Some AC main contracts are out in construction as part of the AC Main Replacement 2013 program to ramp up replacement of the City's aging water infrastructure. About 3.5 miles worth of pipe per year are being replaced, ramping up to 5 miles per year by 2018. This year two contracts will be running, and next year three contracts will be running simultaneously. Some older commercial water meters with parts that are no longer available will also be replaced. There is a large fish passage improvement project at Kelsey Creek starting at NE 8th Street and going down through Glendale Country Club. This is about a \$1.4 million contract. About three Pressure Reducing Valve (PRV) replacements will be done per year as an ongoing program. Some more sanitary sewer trenchless repairs will also be done to rehabilitate existing systems.

Commissioner Mach asked how the decision is made to do trenchless versus traditional repairs. Mr. Sidie replied that staff looks at each situation, including the condition of the pipe, the capacity of the existing pipe, and the merits of going trenchless versus digging it up in each situation. Doing trenchless wherever possible usually makes sense. In locations where there is enough room, pipe bursting and slip lining are great methods to use. In pipe bursting a plastic pipe is pulled through with a cone in front that breaks up the old concrete pipe. This can even be used to increase the diameter of pipes. Commissioner Mach asked how the cost of the liners compares to traditional method. Mr. Taylor explained that it is less expensive to use the liner for both stormwater and sanitary sewer. Mr. Taylor added that as part of Utilities' assessment of pipes they use the TV inspection program to help see the issues that might need attention and make the decision about trenchless repair.

*7:20 Commissioner Weller arrived.*

Vice Chair Swenson asked if the recent court decision regarding the tribes against the State would have any specific effect on Bellevue. Mr. Taylor replied eventually there will be some trickle down, but the focus right now is on the state highway department to improve their culverts. The permitting process already requires the City to make any culvert improvements fish passable. For example, the new Coal Creek Parkway culvert will be completely fish passable. Another very expensive culvert replacement project

is on the horizon at NE 8<sup>th</sup> Street at Kelsey Creek, and it also will have to be fish passable. As part of the City's design and permitting process, those regulations are already being accommodated. Vice Chair Swenson thought that the state's projects might trigger other utility actions. Mr. Sidie concurred that there could be an impact for utilities adjacent to a state culvert replacement project. He stated that staff will be monitoring this situation.

Commissioner Mach said it looked like most of the projects were coming in under the engineers' estimate. Mr. Sidie concurred and noted that most of the bids in 2012 came in about 13% below the engineers' estimate. Out of a dozen bids, two came in above the engineers' estimate. One was the CBD project which was unique work so it was hard to get an estimate since it is not a routine thing. The other one was a trenchless project which came in a little higher. That also was a type of project that is not done very often. The City tries not to be the low bidder on a job; the estimates are adjusted as the economy changes. Back in 2006-2008, the City's bids were often coming in low because the costs of construction were rising so quickly it was extremely difficult to predict. After the crash in late 2008, prices plummeted, and the City benefited from that by being able to get a lot of economies with projects.

Councilmember Stokes stated he needed to leave the meeting early and had the following comments before his departure:

- Council decided not to continue with the Interlocal Agreement with King County on solid waste disposal past the 2028 period. He suggested that a briefing be given by staff to the Commission to explain the details of this. He pointed out that the City has several options for how to proceed.
- He stated he had appointed Chair Helland to the Citizen Advisory Committee for the Downtown Livability Initiative. This means the ESC will have a voice on that committee
- He has also recommended Commissioners Swenson and Mach for reappointment to a new term to the ESC. Both indicated they were willing to continue.

*Councilmember Stokes left the meeting at 7:30 in order to attend a meeting in Kirkland at 8:00.*

- Budget Monitoring Year End 2012 Report

Ms. Liu reported that all three utilities finished 2012 in good financial condition. The most significant reason is cost containment which began in 2010 and continued into 2012 in order to address the projected budget shortfalls, especially in the Water fund where operating reserves were projected to be below target levels. As a result of this there were significant savings from cost containment totaling approximately \$9 million across the three funds. A good portion of this (approximately \$5 million) is from savings

from prior years which contributed to the beginning fund balance for 2012. In addition to cost containment there were some unanticipated revenues and cost savings which resulted in ending fund balances across the three funds that are above budgeted levels. She explained that the Council adopted utilities financial policy regarding fund balances is: “At the end of the budget cycle, fund balances that are greater than anticipated and other one-time revenues should be transferred to the R&R account until it is shown that projected R&R funds will be adequate to meet long-term needs, and only then used for rate relief.” Ms. Liu noted that based on this, the bulk of the ending fund balances for the three funds were transferred to the R&R account for each fund. She then reviewed each fund and highlighted the key areas where there were variances from the budget.

Commissioner Wang asked if there is some flexibility in the Council’s financial policy. He thinks that in some years where there are steep rate increases, the ending fund balance should be used to give relief to the rate payer. Ms. Liu stated that Council has flexibility to change this policy if they wish. She added that in 2012 much of the variance was one-time revenues which would not be appropriate to use for buying down rates due to future rate rebound effects. This can actually cause spikiness in rates, which is contrary to another financial policy. Commissioner Wang noted that it is impossible to avoid the spiking the way it is now because every two years there is a rate change. Ms. Liu agreed that consistent with financial policy wholesale costs are passed through and can create spikiness. But said that the City tries to be level in the rates with the local portion that the City has more control over. Mr. Brooks added that it only happens in Sewer because their rate increases are effective in odd-number years and good for two years. Cascade is now doing increases on an annual basis so it is smoother. Commissioner Wang reiterated that part of the utility’s savings should be used for rate reductions. Deputy Director Mulvey stated that this would be considered; staff is constantly monitoring the fund balances and the rates. Mr. Brooks added that when the transfers are made to R&R, it does have an impact by lowering future rates because less R&R funding will be needed in the future. This is helpful for smoothing out rates over time. Commissioner Wang said he wished the ratepayers could understand that this is a delayed effect and not an immediate reduction.

### Water Utility

Ms. Liu explained that Water revenues were slightly higher than anticipated, and expenditures were below budgeted levels. This created an ending fund balance which was higher than anticipated and the bulk of that was transferred to R&R. Cost containment provided about \$1.9 million in savings. About \$400,000 of the ending fund balance was from prior year savings that were included in the beginning fund balance for 2012. There were also reductions in the capital program, personnel vacancy savings, and operations costs

savings. In addition, to that there were savings in water wholesale costs of \$1.1 million due to a change in Cascade's cost projections and method of allocating costs among members.

Revenues for fire flow service came in higher than anticipated at \$300,000. This is primarily for fire flow services provided to jurisdictions outside of Bellevue. Fire flow service reimbursement for 2010 and 2011 services provided \$0.5 million. Service revenues came in \$0.5 million below budgeted levels. This is higher than what was projected in forecast levels. Additionally, higher taxes accounted for \$0.4 in revenue. This is primarily due to the City's utility tax rate increase to address fire flow services. All of these items enabled the City to have savings of about \$1.7 million above budgeted levels. Of this, \$1.4 million was transferred into the Water R&R. This will help to mitigate the need for rate increases in future years.

### Wastewater Utility

Key variances from budget for the Wastewater fund were due to cost containment savings of \$4.4 million of this amount, approximately \$2.8 million was from cost containment savings from prior years. In 2012, there were savings in the CIP totaling \$1.3 million. Savings from personnel vacancies and operating costs totaling \$0.3 million. In addition, Wastewater service revenues came in \$1.4 million higher than anticipated Wastewater revenues did not decline as anticipated. Despite the long-term effects of ongoing conservation, Wastewater rate revenues have not followed the same trends as water. Staff will be analyzing this in 2013 to determine the new normal levels. The combination of savings and higher-than-anticipated service revenues allowed the City to transfer an additional \$5.7 million to the R&R account. She reminded the Commission that the City is just now beginning system replacement for Wastewater. In addition to that, in the last budget cycle the City eliminated the R&R contribution in Wastewater. This transfer helps to make that up.

### Storm and Surface Water:

Like the other two utilities, revenues came in higher than anticipated in the Storm and Surface Water Utility. Consistent with financial policies, the bulk (\$3.6 million) of the ending fund balance was transferred to the R&R account. Cost containment was the bulk of the variance from the budget. The fund started out with \$1.8 million in savings from prior years. In 2012, there were personnel vacancy savings (\$600,000) operational costs savings (\$0.2 million). In addition to that, Utilities had budgeted \$0.9 million for vehicle purchases. Which deferred into future years. Annexation of new areas in 2012 brought in about \$0.3 million in additional rate revenues. The combination of these factors allowed for the transfer of \$3.6 million to the R&R account. Ms. Liu explained that the storm system replacement has not even begun, and

there are a lot of unknowns for this utility. The strategy is to continue to build the R&R account in order to address future infrastructure needs.

Commissioner Wang pointed out that the City is in the process of replacing culverts so some storm system improvements are actually being made. Ms. Liu concurred; the City is also doing spot repairs, but does not have a systematic replacement program.

Vice Chair Swenson asked if the funding for the Coal Creek project came from county flood hazard funds. Mr. Brooks noted that there is revenue for that in the 2013 budget, but historically it hasn't been there. Commissioner Wang asked if that funding was intended for the Coal Creek project. Staff did not recall which project it was dedicated to.

Commissioner Mach asked if the rate of replacement would be increased now that there has been an increase in transfers to the R&R. Mr. Brooks stated that for Storm Water staff is still trying to get a handle for what the needs are. There won't be any change to the overall approach until that is figured out, but this money will reduce the need for rate funding for the future. Commissioner Mach asked about the Sanitary Sewer and Water utilities. Mr. Brooks indicated that the Sewer funds would be set aside for the lakeline replacement which will be a very expensive, short duration project starting in 2020.

Commissioner Swenson asked if the cost containment would be continuing in the future at the same level. Ms. Liu acknowledged that a lot of these savings, particularly prior year savings, were one-time savings and are not sustainable. In the 2013 ongoing savings that are more sustainable are budgeted.

## **7. NEW BUSINESS**

Deputy Director Mulvey said he received an email from Brad Helland who was interested in changing the day of the ESC meetings due to conflicts he has in the foreseeable future. Vice Chair Swenson asked how a change in the meeting day would impact the Commission's schedule vis-à-vis other commissions, the City Council, and staff allocation. Deputy Director Mulvey thought that staff would not have a problem with a day change, but he was not sure how this would impact the Commission's relationship to other meetings. Commissioner Weller suggested resolving this issue by email. Commissioner Mach said Thursday works very well for him since he has commitments on other days.

Commissioner Mach asked about using laptops for the ESC materials instead of paper printouts. Deputy Director Mulvey noted that staff could look into that.

**+8. DIRECTOR'S OFFICE REPORT** - None

**9. CONTINUED ORAL COMMUNICATIONS** - None

**10. ADJOURNMENT**

The meeting was adjourned at 8:02 p.m.