MINUTES
ENVIRONMENTAL POLICY ADVISORY COMMITTEE
OCTOBER 2, 2014

A meeting of the Environmental Policy Advisory Committee (EPAC) was convened on Thursday, October 2, 2014, at 5:15 p.m., in the Pueblo County Department of Planning and Development Conference Room, 229 West 12th Street. Chair Kester called the meeting to order at 5:20 p.m.

ROLL CALL

Those members present were:

Susan Finzel-Aldred
Lois Illick
Doris Kester
Ted Lopez
Gene Michael

Members absent were: Betty Alt and Chad Wolgram.

Guests present: Nancy Keller, City Wastewater Department; and Gabe Racz, Water Quality Attorney.

Staff present was: Sandy Blanco, EPAC Recording Secretary.

APPROVAL OF MINUTES FROM THE AUGUST 7, 2014 MEETING

Ms. Finzel-Aldred moved to approve the minutes of the August 7, 2014 meeting. Mr. Lopez seconded the motion. The motion carried unanimously.

CHAIR'S REPORT – DORIS KESTER

Chair Kester reported she's upset with the progress of getting something done about the trash problem in Pueblo, noting it's become so political. They did their part and nobody is paying any attention.

ENVIRONMENTAL COORDINATOR (EC) REPORT – SUSAN FINZEL-ALDRED

Ms. Finzel-Aldred stated in August she did a lot of educational programs and work to prepare for the education booth at the Colorado State Fair. She was also presented with two Colorado open record requests that took up a lot of her time. In September, she did two clean-up events--one in Avondale and the other in Pueblo West. The attendance is down, but they're still collecting a lot of solid waste. Creek Week on the Fountain Creek Watershed kicked off this past Saturday and runs through the 5th of October. They have over 12 groups and 150 volunteers working. They cleaned parks, shorelines, neighborhoods, and bike trails. It was nicely coordinated and she thanked the City Stormwater Department and CSU Extension Office for helping to promote and recruit it. The CSU Pueblo students stepped up and filled 40 trash bags in three hours on the north side of town. The new Recycle Guide for the fall will be out in a couple of weeks and her website will have a new look to it, which is much more user friendly. October 18th is the Free Day at the Landfill. Anyone living in the City of Pueblo will have free entrance with their car or truck, and trailers will be charged 40 percent off the posted gate rate. The line forms early and all loads must be covered to reduce and mitigate any littering that might occur.

WATER QUALITY SUBCOMMITTEE – GENE MICHAEL

Mr. Michael stated he had nothing to report.

DISCHARGE-SPECIFIC VARIANCE APPLICATION – GABE RACZ AND NANCY KELLER

Mr. Michael introduced their guests Gabe Racz, Water Quality Attorney from Denver, and Nancy Keller from the City Wastewater Department. The City of Pueblo is preparing an application for a discharger-specific variance for selenium, which is problematic in the Arkansas River and the Fountain Creek. EPAC and PACOG are important because PACOG is the area-wide water quality planning agency that will be asked to make a finding on whether this will be consistent with the 208 Plan.

Mr. Racz gave a presentation, noting a discharger-specific variance is a temporary water quality standard that's provided under EPA regulations that the Water Quality Control Commission adopted in 2010. The main thrust is to set the temporary standard based on the highest degree of water quality that's feasible to achieve. There are three different ways of looking at what's feasible. One is the limits of technology; another is what's affordable for the community; and the third falls under other consequences, which looks at the environmental harm. They are focusing on other consequences, which looks at whether the consequences of meeting water quality standards are worse than leaving the pollution in place. If the variance is granted, it would be for alternative effluent limits for the wastewater reclamation facility. The limits represent the highest degree of protection for classified uses that are feasible. They are to consider the influent and effluent quality that could be achieved together with a safety factor. If they set the limit at the best the facility can do, they're setting themselves up for failure. The effluent limits should include a safety factor to insure compliance moving forward. Any addition to that may include practice-based limits. If the current condition is the best achievable quality, then the variance can be written based on that and maintained. It also requires ongoing investigation of controls, noting if new technology comes along, they would look at it. It also includes an expiration date. If temporary standards are set, it will be reviewed by the Water Quality Control Commission.

Ms. Illick questioned if there was a limit on the number of years. Mr. Racz replied the EPA and the Water Quality Control Commission haven't sent that, noting the EPA is considering rule changes that would include that. The draft is at ten years, but could be longer from what he heard. Mr. Michael stated the State of Colorado has always used the temporary modification, noting every three years they get a water quality review and determine whether anything has changed. He would assume the State has to review the variance every three years using the same approach. Mr. Racz stated that's the Water Quality Control Commission's plan. They can distinguish it from a temporary modification because they temporarily hold water quality at current conditions while they figure out what the standard should be. A variance is for a situation where they've looked at all other options and it's just not feasible to achieve what those standards are, so they set the temporary standard at what's feasible to achieve. The current standards for the Lower Arkansas, Segment 1A, are ambient based standards that were set by the Commission in 2008 at the acute value of 19.1 micrograms per liter for selenium, chronic at 14.1, and sulfate at 329 milligrams per liter.

Ms. Keller stated Pueblo has a lot of Pierre shale, which is very high in selenium and sulfate. As small amounts of groundwater seeps into the collection system, they see high selenium going into and leaving the plant. The drought period is from 2004 to 2009 for the discharge,

noting the maximum for selenium is 32 micrograms per liter. The pre-drought period is from 1995 to 2002, and the maximum is 234. Ms. Illick questioned what WRF means, and Ms. Keller replied water reclamation facility. If they look at the post drought period, the highest number for sulfate was 828, and if they include the pre-drought data, it goes up to 885. The groundwater is getting into the system and they're seeing higher numbers. Typically, the high numbers occur during a storm event, which is good because they're not seeing a big impact on the river. It's also variable depending on the part of town, how long the storm event lasts, and what the groundwater table is doing. It could have big impacts on what the concentration of the selenium is going in and out of the facility.

Mr. Lopez stated during storm events when the streams provide dilution, the additional water should bring the numbers down. Ms. Keller replied a lot of the water in the river is coming from rainwater during storms, so it's low. If it goes through the plant, they're picking up more groundwater, noting the storm events raise the groundwater table and they're getting more in the collection system. What's coming out in the effluent is higher, but it's diluted by the extra flow in the river. Mr. Lopez questioned if effluent refers to discharge from the plant, and Ms. Keller replied yes. The Arkansas River is dependent on releases from the Reservoir and is very low in selenium so it has very little impact. The Fountain Creek has low flow, noting occasionally there's a point that has a peak, but they haven't had any long wet periods. They did some hydrologic studies that showed the groundwater infiltrating the collection system was keeping it from flowing to the river, and 50 percent of the selenium is removed by the WRF. The groundwater throughout Pueblo ranges anywhere from 16 to over 3,000 micrograms per liter, noting there's a huge range and a very definite pattern that matches the Pierre shale. Ms. Illick questioned if the system was pulling out the selenium. Ms. Keller replied the groundwater is loaded with selenium and when there's a seam in a sewer line, they get inflow from the groundwater. Mr. Michael stated once the wastewater gets to the treatment plant it's being mixed into a very high organic bacterial solution, and tends to associate with the solids. They call it incidental removal, noting it's not something they do by design and not something they can control.

Ms. Finzel-Aldred questioned if they're trying to stay within the 19.1, which is the acute limit. Ms. Keller replied that's the State standard and they could be over 200 because of infiltration. It is an added environmental benefit the plant is providing, noting they have a significant amount that's not reaching the river. Mr. Michael stated the table value standard for selenium is 4.6, but in 2010, the State indicated they couldn't get close to that. The only thing they can do in the Arkansas River is to establish an ambient standard. Ms. Keller stated they did massive studies that looked at the sources of selenium and the impacts on aquatic life and took it to the Water Quality Control Commission, noting that's what they based the ambient standard on. The Wildhorse Creek has over 2,000, noting it's 22 percent of the loading. Fountain Creek is 21 percent of the loading, and the water reclamation facility is six percent of the loading going to the river. The groundwater has very wide ranges of concentrations depending on whether it's in the Pierre shale layers or not. The two high areas in Pueblo are University Park and Fairmount Park, noting they had a well with over 3,000 micrograms per liter. The Pierre shale is the primary source and the soils are alkaline so it mobilizes the selenium. The selenium concentrations are over 100 times higher in areas that have Pierre shale. The irrigated alluvial zones don't have higher selenium levels than the non-irrigated zones so it's not an irrigation problem. They also get sulfate from Pierre shale, which is a blessing. Both selenium and sulfate are micronutrients for aquatic life that compete for uptake, which explains why fish never show any evidence of deformities or reproductive problems. If the Division sets a standard with low flow, they might be able to meet the standard, but as soon as they get high flow, they

probably won't meet the standard. They looked at some of the technology and reverse osmosis is one that can be used, but it's very expensive. Only 85 percent of the water would be returned to the river and 15 percent would become hazardous waste brine that would have to be disposed of, which is another expense. It would only remove a portion and four percent of the loading to the river, which has never been done at a wastewater facility on that scale. It's more of a drinking water process, and not technically feasible in wastewater. They would spend hundreds of millions of dollars and basically do nothing to the river. The next option would be to stop the infiltration from going into the system, which might be less expensive than reverse osmosis, but if they don't want it in the system, it would end up in somebody's basement.

Mr. Michael stated if they were hit with more restrictive standards for selenium, the first thing he would do is seal the sewers. Ms. Finzel-Aldred stated that would force it to the basins, which would kick up the levels in the creek and river, noting it has to go somewhere. Ms. Keller stated it's not uncommon to get calls from people complaining because their basement is flooding from the groundwater. Mr. Lopez questioned I & I controls. Mr. Racz replied inflow and infiltration controls, to replace the old sewer lines or line them to seal out the groundwater. Ms. Finzel-Aldred stated they can repair or replace the lines, but some people's houses are 100 years old. Ms. Keller stated they only own the sewer mains, noting the line that goes from the house to the sewer main could be cracked and in pieces, but it's up to the homeowner. Mr. Lopez asked if they're looking at groundwater below the surface infiltrating into a system that's leaking. Ms. Keller responded there are areas of town that have good drainage and areas that don't. University Park has a lot of clay so the drainage in that area isn't good. Mr. Lopez stated landscaping also affects the groundwater. Ms. Finzel-Aldred stated so do sprinkler systems. Mr. Michael stated so does the availability of storm sewers. Mr. Lopez stated it would be a combination of remedies to eliminate problems with basement flooding. Ms. Keller stated it's more cost effective, but still wouldn't be cheap. They are spending $4 million now a year in sewer line repairs, which would go up if they were to address this issue. They looked at some other alternatives. Total or partial effluent containment, land application of the effluent, moving the discharge point, partial or total reuse of the effluent, ion exchange, and biological treatment. Mr. Racz stated in looking at the alternatives, the thrust is to maintain the current condition. To maintain the current selenium and sulfate effluent conditions, the City would maintain a minimum of 40 percent removal of selenium on an annual basis, lock in the incidental removal, and set the sulfate effluent at the current condition as the annual average concentration. Ms. Illick asked Mr. Racz if those were independent ions and not a combination. Mr. Racz replied they're not a combination, noting the State has separate standards for each of them. They would also include the conditions in Pueblo's permit that prevent new industrial sources of selenium and sulfate, and have an exception for wet weather conditions for the Fountain Creek basins. They are focusing on what's causing high groundwater so the City isn't penalized for something that's totally out of its control. The industry isn't going to increase in sulfate and selenium. Ms. Finzel-Aldred questioned how they were going to enforce that. Mr. Michael replied they would have to control it through their industrial pretreatment program, noting they would issue a permit that prohibits anyone from discharging above the standard for selenium and sulfate. Ms. Keller stated that's in place right now at Vestas.

Mr. Racz stated the temporary modification expires in 2016. They asked the Water Quality Control Commission to hold a rule-making hearing in April, 2015, which makes the proposal due at the end of the month in order for the Commission to approve the hearing notice at its November hearing. The evidence will be due in January, 2015. Ms. Finzel-Aldred questioned if the numbers were sustainable and if they really removed 40 percent every year. Ms. Keller replied the number is based on data from 1993, noting 1995 and 1998 were the only two years

that had really high flows. The 40 percent is an annual average, which seems to be very reasonable. Ms. Finzel-Aldred questioned what happens in the event of a violation. Mr. Michael replied they could be fined or reevaluated. They are basing their proposal on 20 years of data, noting they just recently changed their treatment process. They are going to be generating a larger volume of bio-solids than they used to with the trickling filter. Ms. Keller stated they have data since March, 2013, when the new process went online and it looks comparable. They don't know what it's going to do in a storm event. Mr. Lopez questioned if what they remove goes to solids, and Mr. Michael replied yes. Mr. Lopez asked Mr. Michael where the solids are disposed of, and Mr. Michael replied they go to the landfill because of the high selenium. Mr. Lopez questioned if the City did a study in the 1990s on the potential and beneficial use of sludge, and Mr. Michael replied yes. Ms. Keller stated they went to the EPA and received approval to apply it, but only in areas with no children. The cost is significantly higher because of all the extra hoops they have to go through, but it could be used. Mr. Lopez questioned non-agricultural uses, and if it could be used as supplement for poor soils. Ms. Keller replied that could be a possibility. Ms. Finzel-Aldred stated they have a lot of sludge, noting they could find enough areas for it. Mr. Michael stated that wouldn't be prohibited, noting it's not being able to find areas, but a matter of finding people who want to use it. It doesn't have real high nutrient values, so it's not as potent as fertilizer.

Chair Kester asked Ms. Keller what they needed from EPAC. Ms. Keller replied just their agreement to support the proposal. Mr. Michael stated the resolution, supported by EPAC, would be before PACOG at its November meeting.

Mr. Lopez moved that EPAC recommend the proposal by the City Waste Water Department for Pueblo's Discharge Specific Variance to PACOG for its consideration and support, and to get ready for the pre-hearing in January, 2015. Ms. Finzel-Aldred seconded the motion. The motion carried unanimously.

SOLID WASTE SUBCOMMITTEE – T. LOPEZ

Mr. Lopez had nothing to report.

AGENDA FOR DECEMBER 4, 2014 MEETING

The next regularly scheduled EPAC meeting is Thursday, December 4, 2014, at 229 West 12th Street, from 5:15 p.m. to 6:30 p.m.

ADJOURNMENT

There being no further business before EPAC, the meeting was adjourned at 6:23 p.m.

Respectfully submitted,

Sandy Blanco
EPAC Recording Secretary

SJB