



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Steve Newcomb, Environmental Management Department Manager and
Karl Morgenstern, Drinking Water Source Protection Coordinator
DATE: May 24, 2013
SUBJECT: Berggren Demonstration Farm
OBJECTIVE: Information Only

Issue

This memo addresses a request for information from Commissioner Mital to provide justification for EWEB's support of the Berggren Demonstration Farm.

Background

The goal of EWEB's Drinking Water Source Protection Program is to measure the balance between watershed health and human activities in the McKenzie Watershed and implement actions that maintain this healthy balance for production of exceptional water quality for future generations. The program is designed to develop long-term solutions to current and future threats in a way that leverages EWEB's investments with outside funding and builds partner organizational capacity to carry on the work. The Berggren Demonstration Farm is an example of this approach, and is an important component of the larger Healthy Farms Clean Water Program to address threats from agricultural activities in the McKenzie Watershed.

EWEB conducted a detailed threat analysis of agricultural activities in the watershed. McKenzie agricultural activities occur mainly along the valley floor and account for approximately 5% of the land use above EWEB's intake at Hayden Bridge. The majority of farmland is used as pasture and for hay production (70%), with hazelnuts (11%), Christmas trees (7%), annual rotational crops (5%), and grass seed production (5%) being the other significant crops grown in the McKenzie. Based on typical pesticide use associated with these crops, approximately 6,700 lbs of pesticides (active ingredient) may be used on an annual basis. Hazelnut, nursery operations, blueberry, and grass seed production tend to have the highest pesticide use per acre. A recent study with the U.S Geological Survey (USGS) found that urban runoff and agriculture pose the highest threats to drinking water with regards to pesticide contamination. Agricultural pesticide runoff was identified because: 1) it was not well characterized in the study due to limited sampling opportunities (i.e., hard to find streams that drain only agricultural lands), 2) those small tributary streams draining agricultural lands that were sampled had moderately high concentrations of pesticides, and 3) agricultural lands tend to be located along the river.

The Berggren Demonstration Farm was purchased by the McKenzie River Trust (MRT) in 2010 with funds from both EWEB and the Bonneville Power Administration (BPA) to mitigate for

hydropower impacts on fish habitat. This acquisition also supports the initiatives of EWEB's Drinking Water Source Protection program to develop long-term solutions that help mitigate and slow development along the river and in the floodplain, and to reduce pesticide use associated with agriculture.

This 92-acre piece of property is owned by MRT and jointly managed by MRT and Cascade Pacific Resource Conservation and Development (RC&D). MRT and the McKenzie Watershed Council (MWC) are currently conducting restoration work in the approximately 50 acres of riparian habitat on the property. Cascade Pacific RC&D employs a farm coordinator and farm manager to manage the upper 30 acres of farmland, including applying for and administering grants, preparing the land for raising animals and crops, developing education programs for area students and coordinating workshops for area farmers.

Discussion

Commissioner Mital requested information about how the purchase and ongoing financial support of the farm helps to advance EWEB's source protection goals and to what extent it prevents chemicals and other pollutants from entering the McKenzie River.

There are several relevant pieces of information that address these concerns.

- 1) Prior to the purchase of the farm by MRT, the previous owner engaged in hay production using conventional chemicals. While it is difficult to quantify the exact amount of chemicals that may have run off the land into the river, it is clear that the current uses decrease that potential. The farm will be run as an organic operation without chemical use.
- 2) Prior to the purchase of the farm by MRT, the previous owner had plans to subdivide the property into three buildable lots. This would have resulted in additional development adjacent to the river with associated septic systems and potential yard chemical use. While a small number of new structures will arguably not have a major impact on the overall water quality of the McKenzie River, each additional residence and septic system contributes to the cumulative effect of development, which can cause problems over time. If all potentially buildable lots are developed over the next few decades, this may result in between 700 and almost 1,000 new structures along the McKenzie.
- 3) The goals of the demonstration farm align very well with EWEB's Drinking Water Source Protection Program. These goals include:
 - a. *Protect water quality within the McKenzie River Watershed by restoring habitat that maintains and enhances biological diversity and floodplain hydrology*

One of the goals of EWEB's drinking water source protection program is to encourage land uses in the floodplain that are compatible with and protective of water quality. In the case of the demonstration farm, EWEB would like to provide an example of how farming can successfully co-exist with restoration and maintenance of critical riparian habitat. Both MRT and the MWC have worked together with area experts to develop a restoration and management plan for the riparian area of the property that will advance this goal and also serve as a model for managing other riparian areas in the watershed.

- b. *Promote the development of community food systems by demonstrating sustainable and economically viable farming practices*

EWEB works closely with partners to provide coordinated support to local farmers in the watershed as a way of both supporting the local food economy, and also keeping farmland as farmland within the watershed while reducing chemical use on farms. In general, farming is a preferred floodplain land use to development. Conversion of farmland to residential uses often involves subdividing large properties into smaller buildable lots, removal of riparian forest buffers and the addition of septic systems, impervious surfaces and residential chemical use.

- c. *Provide educational and outreach opportunities for farmers and students*

The farming population in the McKenzie Watershed and elsewhere is aging and farmland is at risk of being sold off and converted to other land uses that may be more detrimental to water quality. One of the objectives of the demonstration farm is to provide a venue for workshops aimed at local farmers, and especially beginning farmers, interested in a long-term career in agriculture. The staff at the demonstration farm are working together with a local group to develop a robust farm internship program modeled off a successful effort in southern Oregon.

In addition, the demonstration farm has coordinated with local schools to provide educational opportunities out at the farm where students can learn about where food comes and how it is grown, as well as why watershed protection and fish and wildlife habitat is so critical to a healthy, functioning ecosystem. Finally, University of Oregon students have done project work at the farm where they researched and designed a native pollinator garden for the farm. This project work is expected to continue.

- 4) EWEB originally invested \$240,000 in the farm over the first three years (or \$80,000 per year) to help get the farm up and running. This included hiring necessary staff, purchasing farm equipment, designing and developing sustainable farming operations, applying for grants (and using EWEB money to leverage grant funding) and establishing educational programs to be based at the farm. EWEB has recently committed an additional \$80,000 to the farm over the next two years (or \$40,000 per year). EWEB anticipates its funding commitment to continue to decrease over time as the farm becomes more established, builds partner relationships, generates income, and develops a long-term funding plan. The farm has had success in obtaining grant funding, the most recent success resulting in a \$200,000 grant from Meyer Memorial Trust to build a mobile meat processing unit, support the annual Local Food Connection Event, develop a farm internship program, among other things.
- 5) As previously mentioned, the demonstration farm is also viewed as part of EWEB's larger Healthy Farms Clean Water Program (<http://eweb.org/sourceprotection/farms>). The overall program goal is to protect critical drinking water resources by reducing chemical use on farms while increasing the economic viability of farming. The program seeks to engage growers by providing them with a menu of options ranging from free agricultural chemical disposal, to nutrient management consultation, to assistance with accessing local food markets. This program has attracted over \$300,000 in grant funding that spurred two additional projects where EWEB and other partner organizations have worked together with

both McKenzie hazelnut farmers and regional blueberry growers on addressing serious problems they are facing by exploring alternatives to traditional chemicals. The demonstration farm is a venue where new techniques can be evaluated and modeled, without farmers having to incur risk directly on their farms.

- 6) In 2012, the demonstration farm received a Specialty Crop grant from the Oregon Department of Agriculture to establish a demonstration truffle orchard at the farm. This project is an attempt to test out the viability of a new and potentially lucrative crop in Oregon. If successful, as local hazelnut growers gradually replace their blight-stricken hazelnut trees over time, they may consider inoculating their new blight resistant hazelnut varieties with these high value culinary truffles. This could potentially open up a whole new niche market for local growers. Furthermore, growing truffles would necessitate changes in chemical use, as truffle crops cannot be sprayed with pesticides. However, farmers would not experiment with truffle growing on their own, as it would be too risky. But the demonstration farm is serving as a testing ground for such new markets and farming techniques without incurring the same amount of personal financial risk.

In summary, the Berggren Demonstration Farm is a long-term investment in watershed protection in the McKenzie Watershed. While the purchase and current management of the property has prevented some potential chemical runoff into the river as well as the development of three additional residences close to the river, the main strength of the demonstration farm lies more with its future goals and the partnerships it grows. By demonstrating how farming and floodplain habitat can co-exist successfully and still remain protective of water quality, this can be a vehicle to encourage other farmers in the watershed to take a similar approach. In addition, the farm will be used to showcase a variety of ecologically-appropriate farming practices such as planting riparian buffers, livestock and pasture management to reduce erosion, stormwater runoff treatment, establishment of native pollinator habitat, accessing new local food markets, water and energy conservation, etc.

TBL Assessment

The Healthy Farms Clean Water Program and Berggren Demonstration Farm embrace and encourage sustainable agricultural practices that benefit the Eugene community thru reduced chemical use on farms, development of local food infrastructure, reduced floodplain development, education and research opportunities, and creating jobs while protecting Eugene's sole source of drinking water.

Recommendation

EWEB staff recommends continued funding support for the Berggren Demonstration Farm as approved by the Board on 5/7/13.

Requested Board Action

None at this time.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

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TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Roger Kline, Generation Manager, and Mike McCann, Carmen-Smith Project Manager
DATE: May 21, 2013
SUBJECT: Carmen-Smith Substation Relocation Project
OBJECTIVE: Information Only

Issue

At the March 5, 2013 EWEB Board Meeting, staff were asked to prepare an analysis of the process and timing for moving the transformers associated with the Carmen substation off of the powerhouse roof deck and away from the McKenzie River (Trail Bridge Reservoir).

Background

The Carmen substation is located on the river side of the roof deck of the Carmen powerhouse. It has been there since facility construction. The substation contains two step-up transformers, each of which contains roughly 7,000 gallons of mineral oil, and four potential transformers, each of which contains roughly 23 gallons of mineral oil, among other electrical devices. The roof deck was originally constructed in the early 1960s to drain rainwater directly to the river. In the late 1970s, the roof drainage system was modified in response to new EPA regulations to capture all runoff from the roof and direct it through an 8,000-gallon underground storage tank modified to function as an oil/water separator. A thirty-inch high concrete wall surrounds the substation on three sides and a six-inch high aluminum plate is present on the fourth side, facing the roadway and generator air housings. The substation containment system meets current EPA regulations for spill prevention and containment, and is further specified in EWEB's Oil Spill Prevention, Containment and Countermeasures (OSPCC) Plan for the Carmen-Smith facility.

As part of the Carmen-Smith relicensing process, EWEB staff evaluated the condition of the Carmen substation and determined that the components, including the step-up transformers, were at or near the end of their useful life and should be replaced. Staff subsequently included the replacement of the transformers in EWEB's 2006 Final License Application (FLA) to FERC.

EWEB staff began the planning process for replacing or relocating the Carmen substation in 2010 by completing an assessment of the current substation equipment and an evaluation of potential alternatives. Current code requirements for new construction require larger clearances (spacing) than were required for the original (existing) design, as well as rupture and blast protection for the transformers from each other in the event of a failure. In situations where it is not possible to achieve these clearances, the code allows engineered "blast wall" to be installed in between two

transformers. As part of the preliminary design analysis, staff determined that neither configuration is possible within the current substation footprint.

In 2011, the substation analysis was further developed with the completion of an in-house substation alternative evaluation report that used a triple bottom line (TBL) analysis. This report considered three alternatives including replacement on an expanded footprint on the powerhouse roof deck and replacement at a location up the hill and away from the river (two alternatives with differing equipment configurations). The TBL analysis involved investigation of social, economic and environmental impacts and benefits. Additionally, technical feasibility of each option was investigated. The options were scored using a weighted scale for each category. The expected cost for the three options ranged from \$7.59M to \$8.65M, using the information available at the time. The evaluation team concluded that the most economic, most reliable and most environmentally friendly option was to construct a remote substation approximately 500 feet away from the Carmen Powerhouse. Staff subsequently began working on the design of the new substation in that location, and that design work remains underway.

Discussion

Staff looked at several options for replacement of the Carmen substation and reached unanimous agreement on the project team that moving the substation from its current location to new location off of the powerhouse roof deck and away from the river is the preferred alternative. It provides additional spatial area for a substation designed to today's standards and it moves a substantial amount of transformer mineral oil off of and away from the McKenzie River. Staff then began the process of finding the best location and layout for the new substation given site constraints and power distribution and transmission requirements.

Because the proposed location of the new substation is within the existing FERC project boundary but in an area that is currently undeveloped, the project requires an environmental assessment (EA) for evaluation under the National Environmental Policy Act (NEPA). NEPA assessments are required for most federal actions that affect or have the potential to affect the environment. For the Carmen-Smith Project, the FERC completed an EA in 2009 for the issuance of the new project license. This EA covers all actions contained in EWEB's 2006 FLA and the 2008 Settlement Agreement, including replacement of the Carmen transformers. Unfortunately, coverage (protection) under the FERC EA does not apply until after the FERC license for Carmen-Smith is issued. Consequently, EWEB is prohibited from initiating construction on the new substation until the FERC issues the new Carmen-Smith license.

Without FERC NEPA coverage, EWEB would be required to complete a separate NEPA EA under USDA Forest Service jurisdiction, including the funding or completion of separate environmental studies in support of the EA. A separate EA addressing the substation move, as currently envisioned, would take approximately two years to complete and cost EWEB between \$50,000 to \$75,000. EWEB approached the Forest Service regarding the completion of a separate EWEB-funded EA covering just the substation move and was told that Federal agencies can not undertake competing NEPA analyses for the same action in order to prevent inconsistencies in analysis and interpretation. Therefore, because the FERC EA covers the substation relocation, the Forest Service will not entertain a separate EA from EWEB.

This leaves EWEB with several options regarding the existing substation during the ongoing delay in the Carmen-Smith license proceeding. With the unit transformers and other substation equipment close to their end of life, increased monitoring and condition-based maintenance of the equipment will be needed in the coming years. EWEB staff is in the process of identifying additional monitoring and maintenance measures that can be used to extend the life of the equipment. One indicator of transformer condition is dissolved gas analysis (DGA) of the insulating oil. This analysis can be trended and trigger points for action identified based on IEEE standards. Staff has increased monitoring of the mineral oil in the two Carmen step-up transformers from annually to quarterly in order to provide a more frequent indicator of potential failure of the transformers. Additionally, online monitoring of this gas level is used at the plant for analysis. This will enable staff to take appropriate action to place operational constraints on a transformer or remove a transformer from service before failure, should an indication of future problems be detected. As an additional measure, in the event the end of life is imminent as shown through condition monitoring, the transformers can be reconditioned with an extended outage.

Staff looked at the potential for adding containment walls adjacent to or a structure over the transformers as additional protection against a catastrophic environmental release, and determined that the additional heat trapped by any structure would cause operational issues and further constraints on the units that do not appear to be warranted based on the current condition assessment.

Summary

EWEB staff has begun the process to relocate the Carmen substation off of the powerhouse roof deck and away from the river. This move will enable EWEB to construct a new substation to existing code and design standards that will serve the project for the next 50 years. The substation move is covered by FERC's EA for the new operating license and, consequently, construction cannot be initiated until after the new license is issued. The Forest Service has indicated that they cannot entertain a separate NEPA analysis on the substation relocation since FERC has previously filed their EA. This limits EWEB's options to monitoring and maintenance of the existing substation and to evaluating options that can be executed without a FERC license.

Staff do not believe that the current transformers are at immediate risk of catastrophic failure, but based on the age and environmental risk of failure of the units, have increased the frequency of monitoring of the transformers from annually to quarterly. This will enable staff to track performance issues should they develop. Staff can and will take measures necessary to repair or replace the transformers in-kind, as necessary, in order to keep the system operating safely prior to license issuance and subsequent substation replacement.

Recommendation

This memorandum is being provided for the Board's information only.

Requested Board Action

None.



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

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TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Brad Taylor, Water Operations Manager; Jeannine Parisi, Community and Local Government Outreach Coordinator
DATE: May 22, 2013
SUBJECT: College Hill Reservoir Access Plan
OBJECTIVE: Provide General Direction

Issue

Over the past few months, new measures have been put in place to safeguard drinking water at the College Hill Reservoir. Early indications suggest that these measures are having the intended effect of raising public awareness and reducing waste on the reservoir surface. This status report includes a staff recommendation to monitor compliance with posted restrictions, continue public education on safety risks, and consider other potential security enhancements before implementing more permanent changes.

Background

The College Hill Reservoir is a vital drinking water and fire protection storage system serving south Eugene residents. Unfortunately, the 75 year-old rooftop is prone to leaking through the multiple joints between the concrete panels. Last year's attempt to re-seal the joints with all new caulking was moderately successful, but follow-up tests show that the roof is not completely waterproof. State regulators are now requiring EWEB to test the reservoir water bi-weekly until corrective action is taken (e.g., the roof is made watertight). Management plans a comprehensive review of engineering alternatives that meet this requirement by the end of 2014, including decommissioning the facility and building new storage capacity elsewhere.

In the meantime, recognizing there is an elevated public health risk at this facility, EWEB is actively pursuing ways to minimize known threats. Animal waste is the most likely source of contamination, so interim measures have focused on keeping dogs off the reservoir roof. After preliminary conversations with several neighbors, EWEB erected gates and "No Dogs" signs at both entrances to the reservoir roof.

On April 9, EWEB hosted a neighborhood meeting to explain facility use expectations and new security measures. The concept of adding a fence to the gates and restricting public access to planned activities via a reservation system was discussed. Neighbors proposed a volunteer 'reservoir watch' system as an alternative solution, and feedback on both potential solutions was requested from attendees (see Attachment 1 for a summary).

Later in the month, staff attended the Friendly Area Neighborhood meeting and provided an update on the gates and other security enhancements under consideration. At that meeting, neighbors voted to form a reservoir watch committee to partner with EWEB staff in monitoring the reservoir for animal waste and other hazards.

Discussion

Neighbors and EWEB staff both report that since the installation of the gates, there is a dramatic reduction in dog-walking on the reservoir; EWEB has no documentation of dog waste being left on top recently. However, past experience is that continued compliance will require on-going monitoring and communication about expectations. Staff has met with neighbors to explore the 'reservoir watch' concept in more detail, including tracking of volunteer activity and documentation of any problems noted. Neighbors have proposed using a 'Google' calendar for scheduling volunteers and giving EWEB access to the calendar to review the inspection log (see Attachment 2). Given that the gates/signage seem to be working well, any partnership with neighbors will only enhance monitoring and provide quicker removal of potential hazards than weekly staff inspections. Other comments received from community members on this topic are included in Attachment 3.

In addition, management is also planning ahead for the July 4 holiday, when fireworks have caused damage to the rooftop the past few years. To reduce the likelihood of firework damage this year, the gates will be locked and posted that the reservoir is closed to public access. Exact dates are still being confirmed but the intent is to lock the gates starting the weekend before July 4 through the weekend after. As in the past, media notices will accompany signage, and extra EWEB security personnel will be assigned to patrol that facility more frequently, particularly the evening of July 4. The closure provides another opportunity for community education to raise awareness about the potential risks to drinking water at the facility and emphasize the dog prohibition.

TBL Assessment

A TBL review of a fencing option versus status quo (pre-gates) was conducted and can be finalized upon request.

Recommendation

With general Board direction, staff will continue to work with neighbors to implement the reservoir watch concept on a trial basis, as well as move forward with notifications to close the facility over the July 4 holiday. Over the next few months, management will also consider if there are additional measures that would enhance facility security (e.g. lighting and/or cameras) as well as continue to track incidences of dog waste and vandalism to see if a change in approach is necessary.

Triggers signaling a need to step up security would include declining participation in the reservoir watch program, increased evidence of dogs or other activities that elevate risks to drinking water, and collection of a confirmed positive water sample. It may be worth noting here that even if it is determined that fencing can be avoided at this time, permanent solutions that address a broader range of deficiencies associated with this aging facility may preclude public access in the future. However, with this determination at least a year out, management's recommended approach is both cost-effective and flexible to different potential alternatives.

Requested Board Action

Management requests general board concurrence with the recommended approach.

College Hill Reservoir Status Update – April 2013

Overview

The College Hill Reservoir is not only a popular neighborhood amenity, it is a vital drinking water and fire protection storage system serving south Eugene residents. Unfortunately, the 75 year-old rooftop is prone to leaking through the multiple joints between the concrete panels. Last year's attempt to re-seal the joints with all new caulking was moderately successful, but follow-up tests show that the roof is not completely waterproof. With a leaky roof, graffiti/vandalism, dog waste and fireworks all increase risk that contaminants will reach the water supply that goes directly to your taps.

State regulators are now requiring EWEB to test the water at this reservoir bi-weekly (from a typical monthly schedule) until a more permanent solution is found. A positive sample from bacterial contamination, including giardia and cryptosporidium which are not impacted by chlorine, would require EWEB to issue a boil water notice to thousands of customers. This is a serious and disruptive situation unprecedented in EWEB's 101-year history that we would like to avoid. Recognizing that there is a small, but real, elevated public health risk at this facility, EWEB is actively considering how to minimize known threats.

To reduce risk of a contamination event, EWEB is asking neighbors to help raise awareness of this issue and to assist in keeping dogs off the reservoir roof. The recently installed gates and "No Dogs" signage were erected with this in mind, but our experience with fireworks is that signage alone is not always effective in changing long-standing behavior. A higher measure of protection would be to add a wrought-iron fence to the entrance gates, restricting access to only planned activities via a reservation system (e.g. starazing parties, picnics). However, EWEB recognizes that this option represents a significant change to the current level of 24/7 access.

Community Input So Far

Some neighbors have suggested trying out a 'reservoir watch' system to enhance compliance of posted rules, remove any waste found during daily inspections, and alert EWEB of any other problems. This option would require organization of neighborhood volunteers to develop a program that could be sustained over time, as well as a formalized commitment to document activities and findings.

EWEB hosted an information session on April 9 to discuss these two options with about 35 people in attendance. Some **general themes** were:

- People like the gates and with the new signs, are seeing fewer dogs on top.
- Some people said fencing with a reservation system seemed fair and placed drinking water safety as the highest priority. Ideas included making it easier to reserve the roof (give key to FAN?) and/or improving the old reservoir (handrails around perimeter, ramps to top).
- Concerns about fencing included that this option would be permanent even if the roof were eventually waterproofed and that it would result in fewer eyes on the reservoir.

- Others preferred a partnership model to enhance security/inspection on reservoir with perhaps some additional technical tools in addition to daily inspections (webcams, texting pictures).
- General support for the idea of giving the 'reservoir watch' a trial run to see how it works and then evaluate if additional measures were needed.

What's Next

So where are we at now? Staff have kept the EWEB Board briefed but are waiting to make a recommendation until later this spring. This should allow enough time for neighbors to learn more about the issues, provide input to staff, and if there is energy and interest, more fully develop an alternate proposal for Board consideration. Ultimately, we would like to have additional protective measures in place before the July 4 holiday.

We invite your thoughts and suggestions to find a reasonable balance between risk mitigation, public access, and the financial burden to all customers who support infrastructure maintenance through their water rates. Please feel free to share your questions and comments with me directly (jeannine.parisi@eweb.org) as I will be compiling these as part of the staff recommendation to the Board.

You are also welcome to attend EWEB Board meetings and share your ideas directly with commissioners. Upcoming Board meetings are on Tuesday, May 7 and June 4. Board agendas with times for public comment are posted online the Friday before meetings at www.eweb.org.

College Hill Reservoir Watch Program

In response to the discovery that the seams atop the College Hill Reservoir are leaking and EWEB's concern that contaminants could wash through those seams into the water supply, the Friendly Area Neighborhood in a general meeting has authorized the creation of a subcommittee to find a way to keep our water safe and keep the reservoir top open to the public. Along with the agreement, which was approved by the Friendly Area Neighborhood Board, to put up gates and signage that dogs are now not let on the reservoir, the College Hill Reservoir subcommittee is creating a Reservoir Watch program to ensure that potential contaminants are not allowed to linger on the reservoir's concrete surface.

With assistance from Friendly Area Neighbors and members of the Eugene Astronomical society, the College Hill Reservoir Subcommittee has organized a task force of volunteers who are patrolling the surface of the reservoir on a daily basis. Any contaminants such as dog waste, litter, or anything else that shouldn't be left on the surface is being removed. The goal is to prevent anything from seeping through the joints during rainstorms, to maintain the beauty of the area for those who enjoy using it, and to provide EWEB with assurance that public use of the reservoir will reduce rather than increase any danger to the water supply caused by the leaking seams.

There are currently enough volunteers to make the task bi-weekly at most for any participating individual. We expect to expand that list of volunteers over time until no one volunteer needs to patrol the reservoir more than once a month. The committee has set up an online calendar where volunteers can sign up ahead of time and report the completion of their patrol, ensuring that the reservoir will be patrolled at least once per day and providing documentation of that patrol. The College Hill Reservoir Subcommittee members will monitor this calendar to make sure the patrol does in fact happen daily. They have volunteers who will fill in for anyone who misses. EWEB is invited to monitor this calendar as well.

Recognizing that many people use the reservoir on a daily basis, the College Hill Reservoir Subcommittee also plans an education campaign that will enlist the public at large to help keep the reservoir clean, both by reducing litter to begin with and by encouraging visitors to pick up any litter that they see.

It's encouraging to note that the reservoir has been patrolled daily since April 16th and so far no dog waste and very little litter has been found on the reservoir surface. In fact, no dogs have been spotted on the reservoir surface at all since the gates and "No dogs" signs went up. The gates, signs, and public awareness of the need for a clean surface seem to be working, and it is the College Hill Reservoir Subcommittee's intention to ensure that it continues to work so that closure of the reservoir remains unnecessary.

The College Hill Reservoir Subcommittee officers are Greg Giesy, Chairman (541-687-1858, ggsb@continent.com), Jerry Oltion (541-343-4758, j.oltion@sff.net), Larry Deckman (541-731-1227, ldeckman@gmail.com), Bill Murray (541-684-5978, bmurray47@gmail.com), and Ethen Perkins (541-345-3944, epandlk@efn.org). They welcome any input from EWEB on this Reservoir Watch program.

Additional Comments Received

Jeannine,

Just a quick observation. I am on the reservoir over an hour everyday seven days a week and can represent that since the gates went up I have not seen a dog on the reservoir or evidence of dogs on the reservoir.

It is also interesting to note that the foot traffic on the reservoir seems to be down. Perhaps people see the gates and assume the surface is closed.

Fred Siegrist

I'm very aware that you need to comply with the requirements of OHA/DWS. It is essential that the College Hill Reservoir be made watertight, and, failing that, that it ultimately be decommissioned.

In light of these realities and different possible outcomes, you need flexibility regarding exclusion of the public. Fortunately there are now gates on the reservoir top that can be locked, effectively fencing off the surface. As you move forward with remediation, or for special occasions like July 4th, you can lock the gates and exclude the public, and then make a decision about public access after the remediation is accomplished. In the event that remediation is not successful and a new reservoir is built elsewhere, you would be able to simply unlock the gates and allow the public back on the surface.

Another virtue of locking the gates rather than building a fence is that you are not committed to permanent exclusion of the public, and can accurately maintain to OHA/DWS that you're taking all appropriate steps to secure the water supply. Furthermore, the neighborhood is already accepting of the gates, so locking them is an incremental step and not likely to produce significant community push back.

Regardless of whether it is the existing gated fence or a wrought iron fence, some persons will find a way over. However, the vast majority will honor a locked gate and signs that excludes entrance, and those that don't will be liable to prosecution as trespassers. The community will be involved in making sure such trespass is caught through the eyes and ears of the neighbors.

In a nutshell, you can save money by buying a couple of hardened locks rather than a new fence, and have the added benefit of flexibility and public acceptance. As we move forward with fixing or replacing the reservoir, all options will remain open regarding future public access.

Thanks for your consideration of this perspective.

Larry Deckman

Thanks for getting back to me in such a timely manner.

I regularly walk the reservoir and pick up trash as I do so. I also will talk with people who bring their dogs on the surface, though this has only happened once since the gates have been installed. I will at times purposely not pick up a piece of trash, just to see how long it takes for someone else to do so. There has been some broken glass, probably a beer bottle, in the northeast corner now for at least four to five days.

In my hope to be part of the solution/ compromise, I am already on the list of neighborhood people who have volunteered to monitor the reservoir surface in a more organized and systematic fashion.

Thanks again, Bill Watson

Additional Comments Received

Here is my two cents:

You are doing a great job:) Thank you! My only gripe with signs is that they often miss the mark. For example, "No Fireworks" is not as effective as *"Fireworks contain heavy metals that leak into our reservoir. Please, enjoy your fireworks away from our water source."*

What is really happening is ignorance. Really, an educational mini-lesson about the reservoir to our local schools would be very helpful. It's just a matter of putting it in the right way. Give a text if you need help:)

Keep on trucking, Jill

Via phone: EWEB needs to install gates on the College Hill Reservoir to keep dogs out. Maintaining water quality and preventing contamination should be the first priority. She is tired of dog poop on reservoir. She is fine if EWEB fences the reservoir. (Marianne, Donald St. Eugene)

Hi Jeannine,

I had to leave the April 9th public meeting early due to a previous commitment so I'd like to express my thoughts on the public access to College Hill Reservoir via this email.

I have lived across Lincoln Street from College Hill Reservoir since 1990. My family and friends have almost exclusively used the grassed area and the inactive reservoir to the north of the active reservoir to play Frisbee and watch the sunset. Occasionally we hang out on the active reservoir when a special event was occurring like the Star Gazers.

Unfortunately, we have also experienced the loud, drunken folks who like to hang-out at the reservoir mostly during the summer months. We also go across the street to the inactive reservoir every July 4th to monitor those who like to light fireworks and launch them across the street toward our house.

When the issue of water quality protection came up following 9/11 and EWEB held a Board meeting to hear feedback from the public regarding restricting access to the reservoir to protect water quality and delivery of water, I was shocked to hear how many folks at that meeting were opposed to the proposed restrictions. And now here we are some 10 years later revisiting the decision that allowed and, in some cases, encouraged access like the access ramp to the reservoir.

Like then, my position on this remains that water quality should be EWEB's highest management priority and that I support prohibiting public access to the active reservoir - period. At the same time, I know that EWEB is under lots of pressure to ensure public access continues. So, here's my own list of options as to how I'd like to see the reservoir managed, listed in priority order.

Option 1 - PROHIBIT PUBLIC ACCESS TO THE ACTIVE RESERVOIR - NO EXCEPTIONS. Install appropriate fencing, gates that can lock, and monitoring webcams. Provide an option to use the inactive reservoir to the north by upgrading public access along its eastern side by using fill material so that a gentle slope

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results providing an easy walk up from the existing grassed area to reservoir's surface. Fence the inactive reservoir to prevent falling off the reservoir's surface.

Option 2 - RESTRICTED-SCHEDULED PUBLIC ACCESS. IF EWEB feels compelled to provide some public access, then here's my recommended conditions for that alternative:

- Install the same "appropriate fencing, locking gates, and webcams per above, and require the organizer to enter into a written, signed agreement with EWEB that specifies the date/time of the access and that the following conditions are imposed: No Dogs; No Fire Works; No Motorized Vehicles; No Paint or Other Similar Chemicals, and that the condition of the reservoir's surface is to match the pre-scheduled event condition.
- A non-refundable "user fee" is imposed for the costs EWEB incurs for managing the scheduled events.
- A "clean-up deposit" is to be paid prior to the scheduled event so that any discrepancies found between the before and after condition of the reservoir can be paid for at no cost to EWEB. If no discrepancies are found following the scheduled event, the deposit is returned to the user. If discrepancies are found, the deposit will be used to pay costs for clean-up.
- A "user" that fails to perform to the conditions of the user agreement more than once shall be prohibited for any future use.
- Access to the locked gate shall be provided via a "code" that EWEB provides to the user. The code shall be available to unlock the gate for the period of time of the scheduled event. When the scheduled event is over, the access code will be eliminated and a new code will be provided to the next user at the scheduled time of the agreement.
- Provide an option to use the inactive reservoir to the north by upgrading public access along its eastern side by using fill material so that a gentle slope results providing an easy walk up from the existing grassed area to reservoir's surface. Fence the inactive reservoir to prevent falling off the reservoir's surface.

Lastly, I hope EWEB keeps the bigger picture in mind that this is about the safe and healthy delivery of drinking water to its customers. This shouldn't be about those who selfishly feel its their "right" to continue to use the reservoir even if it results in increased risks to water quality.

Let me know if you have any questions.

Tim Bingham

My interest in keeping the reservoir surface open to the public is both personal and related to what I think is best for the neighborhood. My children, grandchildren and I all use the reservoir surface for recreation, as do many of my neighbors.

Placing gates with more emphatic signage at the entrances to the reservoir appears to have stopped usage of the surface by those few but consistent pet owners who had continued to ignore the previous signage.

In the almost three years I've been an EWEB customer, I've never been made aware of a documented contamination event at the College Hill Reservoir. Closing the surface to access except for licensed larger events seems excessive, given the low or nonexistent number of episodes where the public health has been documented as being at risk. In looking on the internet, one can have a water sample tested for coliform for

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\$25 or \$30 per day. If you chose to do so, you could test daily for a rather low annual cost, considering your entire budget or the cost of resurfacing the reservoir, and allow safe public use of the space.

In addition, concerns about toxic paint could rather easily be dealt with by beefing up the fence and locking the gates before nightfall, since graffiti painting is basically done under cover of darkness. A collateral issue is that your decision could potentially impact adjacent property values.

I have worked for the U.S. Center for Disease Control and Prevention in the past, so I am well aware of issues related to water quality, public safety and tradeoffs that sometimes are required. This Board decision requires careful consideration and, I believe, compromise.

Thanks for taking the time to read my note.

Bill Watson



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Mark Freeman, Energy Management & Customer Services Manager, Steve Mangan and Tom Williams, Key Account Managers
DATE: May 24, 2013
SUBJECT: Economic Development Loan Program update and Reserve transfer
OBJECTIVE: Information Only

Issue

Last year the Board authorized an Economic Development Loan Program. This backgrounder is to update the board on program activity.

Background

This Economic Development program was designed to assist both new and existing electric, water and/or telecom customers by providing financing options for EWEB service costs including equipment purchase, construction cost, engineering and service connection fees. Before this program, EWEB policy required customers to pay 100% of projected costs for utility services prior to establishing or expanding EWEB services.

To qualify for the program, customers need to meet two levels of criteria. The first level of eligibility consists of a project review, which is based on benefits to EWEB customers. A point system matrix is applied to determine program eligibility. Criterion includes:

1. Alignment with Regional Prosperity Initiative or Metro Partnership goals
2. Ability to participate in EWEB programs
3. Social Equity
4. Environmental Health
5. Economic Prosperity

The next step for program eligibility is a review of the applicant's credit worthiness.

Discussion

To date two projects have been approved. Pacific Recycling is approved for \$393K to expand operations including 15 to 20 new jobs plus expanded rail activity. This project represents a significant demand response opportunity with 5 MW's new retail electric service that is available for immediate interruption or curtailment. Project will utilize state-of-the-art energy efficient equipment for long term persistent energy savings. Scheduled to start construction in April the project was

stopped during the preconstruction meeting and is on hold due to legal challenge related to permitting issues. Once online the project is forecast to generate \$500K per year in new retail electric revenue.

The Ninkasi Brewing Company is approved for over \$500K for economic development and energy management loans. The expansion is underway and estimated to bring an additional 30 jobs plus construction activity while building LEED certified buildings. Ninkasi has an ongoing commitment to this community and the Whitaker neighborhood. Additional retail electric and water revenue to EWEB is projected at \$250K per year.

Recommendation and Requested Board Action

None at this time.