

**Mirror Pond Ad Hoc Committee  
Minutes  
May 21, 2014**

Committee Members Present: Don Horton, Executive Director, BPRD, City Councilor Victor Chudowsky, City Councilor Mark Capell, Scott Wallace, Chair, BPRD Board, Mel Oberst, City Community Development Director and Ned Dempsey, Citizen Member

Committee Members Absent: Ted Schoenborn, BPRD Board and Mike Olin, Citizen Member.

BPRD Legal Counsel: Neil Bryant, Paul Taylor and Dale Rasmussen.

Consultant: Erik Huffman, PE, PLS, CWRE, LEED, representing BECON

BPRD Staff Present: Jim Figurski, Mirror Pond Project Manager, Jan Taylor BPRD Community Relations Manager and Paula Lowery, BPRD Executive Assistant.

Media Present: Hillary Borrud, The Bulletin, Richard Coe, The Bulletin and Kandra Kent, KTVZ.

Visitors: Craig Lacy, Hillie Crowfoot, David Crowfoot, Justin Gottlieb, Sarah Olson, Jamie Christman, Ron Federspiel, Tom Carlsen, Yancy Lind, Ron Mason, Geri Mason, Angela Price, Spencer Dahl and Kara DiFrancesco.

Chair Scott Wallace convened the meeting at 1:05 pm.

Mark Capell moved to approve the minutes. Victor Chudowsky seconded the motion. The motion passed by a unanimous vote.

**Introduction of Dale Rasmussen, Attorney**

Neil Bryant introduced attorney Dale Rasmussen and explained he would be assisting the negotiating committee with regard to utility law.

**BPRD Dam Inspection Report Discussion**

Don Horton introduced Eric Huffman, BECON, and explained he would present an overview of the inspection report. Eric explained the intent of the report was to examine the condition of the dam and analyze risks and costs associated with meeting long-term safety goals. He noted three significant leakages that have occurred with the dam since 2008 associated with the timber crib. He stated that no laboratory analysis was done of the wood members. He stated the solution to manage the leaks has been the installation of sheet pile across the leaking needle bays and that has worked. He stated that practice can be continued, however, that does not reduce the force on the dam structure. He cited two proposed solutions for the spillway section including a grouted sheet pile rehabilitation or removal of the timber crib spillway completely and replace it with a concrete dam. He stated cost estimates ranged from \$2 million to \$4 million. He stated the report does not address fish passage, permitting costs and silt issues and focuses entirely on the dam structure itself. Ned Dempsey asked how the sheet pile affects the force on the face of the dam. Eric explained the sheet pile is connected to the upstream face of the dam and the hydrostatic force from the water does not change. Victor Chudowsky asked if Eric has seen other types of concrete structures that would allow us to alleviate the silt build up problem.

Eric stated that no alternatives were shown in the report, and there would need to be some sort of structure with moving parts within the dam and he is not aware of anything that could make that happen. He referred to an Obermyer hydroelectric dam and stated it is his understanding it is more expensive than the options presented and consists of moving parts that would require maintenance. Scott Wallace asked if roughly half of the dam has sheet pile installed on the upstream side and how the sheet pile was installed. Eric explained the sheet pile recently installed was done with a 16,000-pound vibratory hammer and the sheet pile was driven approximately 20 to 24 inches into a type of gravel material. He stated they are not grouted into bedrock. Scott asked if there would be an acceleration of the distress due to the force being put on those segments that do not have sheet pile. Eric stated there could be more velocity at the edges and in reality the majority of the force is coming from the hydrostatic load of the height of the water. He stated that narrowing the channel could increase the velocity, but that is just one component. He added that was not studied for the report. Ned asked if the leaks are due to the deterioration of the face boards or if they have moved. Eric stated that it is understanding that the leaks that have occurred since 2008 are due to the failure of the face boards. Ned asked if the sheet pile basically replaces the face boards. Eric stated the effect of sheet pile would be the same function as a face board. Don Horton asked if dry wood behind the sheet pile will deteriorate faster than it would if the spillway was at a constant level all the way across. Eric stated that would be an environment that would be conducive to rot. Scott asked if timber crib dams around the country are being replaced or removed not mitigated or repaired for long-term. Eric stated that it is his understanding there are very few people who have experience in working with timber crib dams. Ned noted that Crane Prairie is a timber crib dam. Scott asked about the condition of the buttress section, powerhouse and gates. Eric stated there are no concerns regarding any of the other sections of the dam.

The committee discussed the report. Ned Dempsey noted there is no analysis of a short-term solution and he stated in reading the report he did not gain any additional information on the condition of the dam. Scott Wallace stated he thinks we understand there is a finite amount of time left in the life of this spillway in terms of maintaining the pool level long-term in its current condition and sheet piling is a temporary solution. Victor Chudowsky stated he feels it is clear the time for this dam is up and of the two options presented in the report it seems the concrete option is the better one. He stated going forward consideration should be given to the cost of adding a fish ladder along with what is associated with doing that. He stated in consideration of the public interest he would like to have some sort of ballpark figure for the hybrid option. Don Horton stated that the life of the timber crib structure is limited and there may some things we can do to extend that and the wisest move would be to figure out what we could use to replace the timber crib. He stated we need to get some better cost estimates for the various options and determine whether the hybrid option is even doable. He recommended taking the work we have done so far and narrowing it down to a couple of options of a more traditional dam structure with a fish ladder and something that is more along the lines of the hybrid, obtain cost estimates for each of the options and test the options with the community. Ned stated it will take time to permit a new dam in the Deschutes River and something will have to be done with the existing dam and the timeframe is critical. Mark Capell stated he feels we have eliminated one of the four options to repair the existing dam, and we still don't have enough information on the three remaining options to remove the dam, replace the dam with a concrete structure or the hybrid option. He stated we need more information regarding costs, regulatory issues and the timeframe on the permitting issues. He stated that we still need to address the long-term silt management. Victor asked if the permitting is easier to do with a new dam than moving the location upstream. Neil Bryant explained the difference in permitting and water right issues associated with repairing an existing structure, a new dam and moving the location. Ned stated that based on his experience, the project would be easier to permit if a fish ladder is included. The committee discussed what would be considered a new dam vs. repair of the existing dam. Jim Figurski noted that any transfer of water rights is also a transfer of use of the water

rights. The committee also discussed the hybrid option. Scott noted that the portion of the river downstream of the dam is not a paddle portion of the river as neither Pacific or Pioneer parks are capable of supporting a high volume of river users such as McKay, Miller's Landing, Riverbend and Farewell Bend. Mel Oberst stated it may be good for the committee to come to some agreement on the fish ladder issue. He stated there has been real strong sentiment around environmental issues of the river. He stated whether we replace the existing dam or not, we should proceed with the fish ladder as part of the option. The committee agreed to provide a fish passage in each of the options under consideration. Scott asked Ned if, based on his experience, there would be a way to determine the life of the spillway. Ned explained that without sufficient data, it would not be possible to predict. He stated for the record he does not agree the dam is in trouble. He stated there are wood crib dams all over the world that have been around for hundreds of years and they are still being used. He briefly explained the differences in types of possible repair and stated that would be cheaper than replacing the dam.

### **Public Comment Period**

Spencer Dahl addressed the committee regarding acquisition of water rights and reaching a solution to other issues before buying the dam. He stated the dam is repaired and the pond is in the best condition it has been in years. He stated there are other options for replacing the spillway with a series of split gates instead of a complete concrete structure. He explained how the gates would operate and noted the benefit of this system would address the silt problem. He added a fish ladder could be a part of this option.

Craig Lacey addressed the committee and provided a written copy of his remarks identifying his concerns regarding acquisition of the dam and unanticipated expenses and situations. He cited a 1993 FERC review of the project and resulting preferred alternative for continuation with the addition providing fish passage and fish habitat improvements. He noted that FERC ultimately ruled they had no authority over the project, and stated that in the event the project changes hands and major repairs are undertaken, it is likely that FERC will again review the project. He cited the possibility of toxins in the sediment that would increase the cost of removal and questioned whether DEQ studies have been requested. He stated it is not clear what PacifiCorp's responsibilities or liabilities will be if the project is retired and urged the committee to consult with the Department of Water Resources regarding the process. He asked the committee not to rush the process until the public's concerns have been satisfied.

The meeting was concluded at 2:11 pm.

### **EXECUTIVE SESSION**

Chair Scott Wallace convened an executive session at 2:15 pm pursuant to ORS 192.660(2)(e) for the purpose of discussing real property transactions.

Prepared by,

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Bend Park & Recreation District