

LAKEHAVEN UTILITY DISTRICT
King County, Washington

SPECIAL BUSINESS MEETING
October 25, 2006

A special meeting of the Board of Commissioners of the Lakehaven Utility District, King County, Washington, was held on October 25, 2006 at Lakehaven Center, 31531 First Avenue South, Federal Way, Washington, 98003.

In President Tweddle's absence, Vice President Miller opened the meeting at 12:00 p.m. and asked Commissioner Nowicki to lead in the flag salute. Members/officials present were as follows:

Don Miller	Vice President of the Board
Ron Nowicki	Secretary of the Board
Ed Stewart	Commissioner
Chuck Gibson	Commissioner
Don Perry	General Manager
Bert Ross	Engineering Manager
Steve Pritchett	General Counsel

Upon motion of Commissioner Gibson, which was duly seconded by Commissioner Nowicki, the Board unanimously **excused** Commissioner Tweddle from the meeting.

APPROVAL OF AGENDA

Upon motion of Commissioner Gibson, which was duly seconded by Commissioner Nowicki, the Board unanimously **approved** the evening's agenda as presented.

INFORMATION ITEMS

#1, Well 33T Test Results: John Bowman, the District's Water Manager/Special Projects Manager, began the presentation by stating that since Well 19 does not pump a high enough volume of water to perfect the water right, staff hoped to have another producing well that would pump enough volume to complete the permit. He explained the thought process that went into the hope of reaching the correct number of gallons per minute (GPM) that would allow the District to perfect the annual quantity per year. He noted that once the pumping goal is met, that is all that is needed to perfect the well. He stated staff has submitted an application to the Department of Ecology (DOE) to add Well 17B to Well 19's permit; the capacity of that well can exceed what has been permitted. He went on to state that if the DOE allows the District to use 17B's water to meet the Well 19 permit, the Well 19 permit could nearly be perfected. Mr. Bowman added that Well 25 was an additional point of withdrawal for two certifications and went on to explain staff's plan for this area in further detail. He noted there were three different wells involved in the plan that could be used to perfect the water right. If the plan is successful, the District will be able to avoid drilling another production well. It was noted that staff is now proposing that the test hole be used as a production well to achieve the minimum excess needed to perfect the Well 19's permit. The current drilling site was chosen because it is more

advantageous to begin at this site as there will be no land costs, filtration or other infrastructure costs. Mr. Bowman noted that an alternative site is located near Lakota Jr. High. He went on to state that staff will have the opportunity over the next few years to perfect the Well 19 permit and get it to certification; however, this configuration doesn't have the reliability of what was originally proposed. He went on to discuss the issues involved that required running all three wells 24 hours per day, seven days a week, allowing for no down time. He then stated the decision can be made to keep to the original plan; do not develop this well and drill a new test well at the Lakota site. There is no guaranty of being successful the first time at that site and there is also some conflict with future water reclamation options in that area. He went on to explain the costs associated with this option, assuming a successful drill the first time. Mr. Bowman went on to explain a third option; wildcat for a production hole at this site or expect to get enough combined volume to reach a minimum volume of above 600 GPM. He then explained the issues with this option. A discussion then followed relating to the number of water rights that the District now owns as well as the number that remains to be perfected. During the discussion, Mr. Bowman explained the requirements that must be met in order to receive a certificate for a well. It was noted that the amount that can be withdrawn from an aquifer is based on the water levels of the aquifer in question. Mr. Bowman noted staff will need to apply for extensions on the permits as they have expiration dates and added the perfection process needs to be complete prior to 2010. He added staff felt developing the Well 33 test hole as a small production well and working with DOE to have Well 17B added as an additional point of withdrawal to Well 19's permit was the best course of action for perfecting Well 109's permit at this time. Subsequent to the discussion, the Board thanked Mr. Bowman for the presentation.

#2, OASIS Planning: Mr. Bowman had a PowerPoint presentation prepared to facilitate in the discussion of this issue. He explained the goal of this program is to capture usable, available winter water and retain it underground for later, beneficial use. The purpose of pursuing this project is to optimize multiple water sources to meet a variety of water needs at minimal costs. He then showed a map, outlining the location of the District's four aquifers. In addition a cross section of the aquifers was provided. The target area for the OASIS project is the Mirror Lake Aquifer. Mr. Bowman provided a history of this aquifer dating back to 1979. During the discussion he noted that the first Aquifer Storage and Reuse (ASR) well was drilled in 1989 and became Well 25. Around this same time, it was determined that as the water levels in the aquifer were drawn down; the aquifer became shaped like a bowl. He went on to explain the various tests that were performed over the years and how the decision was made to pretreat the water prior to replenishing the aquifer. It was discovered that there was no clear legislation in place that allowed the State to permit the District to perform this process. In 1999 staff sought legislation to have ASR permitting become part of the reservoir process through the DOE. When the legislation became law, staff submitted an application to DOE. An advisory committee was formed, of which District staff were included, to develop rules. A Rule became effective in 2003 and a DOE processor was assigned to Lakehaven's application. A request was made that Lakehaven submit the application in 2004, which was done, and DOE subsequently provided a favorable exam report in September of 2005. After a process of submitting changes, the approved Reservoir Permit was received in September, 2006. Mr. Perry noted that it took over a decade to get this permit and added it allows the use of the Mirror Lake Aquifer as a reservoir to

store up to 29,000 acre feet of water. Mr. Bowman went on to explain that the source of the water could come from existing ground and surface water rights from other utilities and agencies. The time frame to recharge the aquifer would be from November through May and the recovery process would occur from June through October each year. There is a phased development schedule of 48 years with Pilot Phases I and II occurring by October 1, 2017. Provided appropriate conditions are met, as much as 78 millions gallons per day (mgd) of water could be utilized for this process. Mr. Bowman next addressed the concerns expressed by the DOE, which included induced drawdown from overlying aquifer and surface water bodies; slope stability along the beach areas; potential subsidence and uplift of the ground; and changes in the groundwater quality by chemistry changes in the water. From these concerns, the DOE set conditions related to phasing, reporting monitoring and mitigation as well as certification. Mr. Bowman went on to explain each of the conditions of the permit. He then moved on to discuss the components of the project by explaining first the two pilot phases, which will be six years for each phase. There are also six operational phases planned, which will also be six years each. The final reservoir certification or permit extension is a maximum of 29,000 acre feet of storage and 78 mgd of recovery capacity. In addition, there will be field monitoring of facilities and studies conducted. Mr. Bowman then indicated that three stream gauges will be installed and monitored for flows. In addition, a survey grid will be developed for readings that will be taken of the District's aquifers at both high and low points. These tasks, along with others discussed will be conducted to help staff to more accurately locate the boundaries of the Mirror Lake Aquifer as well as its depth. He also stated this project would require an observation well to help determine if the project will impact leakage from the upper to the lower aquifer. A conceptual drawing of the entire project was then presented that included the Second Supply project (SSP). The drawing showed where the treatment facility could be located along with the proposed piping to connect to other districts/agencies. Mr. Bowman indicated that Wells 20A/23A, which are connected to an isolated pipe, would be utilized to inject water into the Mirror Lake aquifer. Existing filters would be used when removing the water, if necessary. Phase II provides for another well along with more pipe for future use as well as the purchase of land. Mr. Bowman then reported what staff is currently working on relating to this project. He also discussed budgeting aspects for the project, which are spread out until 2016. He also noted that staff intended to move forward when the opportunity arises as streets are torn up in areas where the water mains might be installed. The Board thanked Mr. Bowman for the informative presentation.

#3, Water Reuse: Mr. Bowman also provided the presentation on this project. He began by providing a history of the reclamation project, which began in 1992 with the adoption of the Reclaimed Water Act. The District is required to include a chapter on water reuse in the Comprehensive Water and Wastewater Plans explaining how District staff intends to use or evaluate the project. Reclamation is a long term water management strategy and it effects both wastewater and water management. Water sources must maintain a balance with the natural hydrologic cycle and environmental needs and the District must be prepared for future change, such as growth, environmental demands and climate changes. Wastewater discharge compliance will continue to be more restrictive in the future and the District should be prepared for future changes here as well, including higher environmental standard and water demands. Staff needs

to look for both near term and beyond comprehensive planning horizons to maintain reuse as a future feasible water management tool. Funding opportunities must be secured to minimize potential future costs of implementing reclamation and the relationship of reuse to other projects needs to be defined to control timing and costs. Mr. Bowman went on to explain that the OASIS project may require supplemental water from the Redondo-Milton Channel and added the components of OASIS could be funded under reclamation or vice versa. During the discussion it was noted that a reuse transmission and distribution system will take years to build; potential routes need to be defined early to allow for a logical development plan, which would be over a 20 to 40 year time span. The routes determined to be feasible can be completed jointly with road or other public works projects as well as private development. It is important to maintain a hydrologic balance to protect existing source capacity and provide additional water for environmental needs. Reclamation could provide about 3 mgd to these future issues; based on SSP costs, 3 mgd capacity could cost about \$18,000,000. Mr. Bowman next discussed future supplemental sources. He indicated that the District has about 3 mgd of “dry” water rights; and added that existing facilities could produce this water, if available. This would then make supplies available for local or regional sales. In addition, it will be necessary to prepare for future NPDES permit requirements as treatment plants may need nitrification/denitrification. Funding to upgrade wastewater treatment plants may be provided by the Bureau of Reclamation. The discussion then moved to the components of a future reclamation system, which included additional treatment facilities at wastewater treatment plants, a new distribution system, delivery of the system to groundwater or environmental needs, distribution for irrigation or other nonpotable uses and funding by water and wastewater. It was noted that other funding may become available after the planning stage. In addition, there are four phases included in the components of a future system – the concept verification phase from 2007-2017; the initial system phase from 2017 – 2023; the system expansion phase from 2023 – 2041 and the last phase, which is future expansion and is planned for 2041 and beyond as capacity needs to be expanded further. A discussion followed as to the need for this type of project, given that currently, there seems to be no economic need for it. It was noted that the regulations will be changing in the future and this project could be beneficial in approximately ten years. Mr. Bowman stated that there is no current need to meet Class A water standards and use it at this time. He noted that a public hearing was planned for the next evening at the regular Board meeting for comments on this issue. He also noted that this plan will be reviewed each time the comprehensive plan is revised. The Board thanked Mr. Bowman for the presentation.

#4, 2006 Comprehensive Water System Plan: Mr. Ross next discussed the 2006 Comprehensive Water System Plan. He stated the SEPA process was scheduled to be completed within the next week or two and the plan was scheduled to be included on the November 9th Board meeting agenda for adoption. The Board had been provided a summary of the content of the plan at the September 28th Board meeting. Mr. Ross indicated that he was prepared to address feedback from the Board at this meeting. In response to a question from Commissioner Nowicki, Mr. Ross explained the contents of the plan and how District staff and the consultant worked together in order to obtain the appropriate information to be able to develop the plan. Mr. Perry interjected that it was his goal to have the next comprehensive plan developed by District staff and went on to explain how District staff would be able to complete the next

update. There are software products available to assist in the plan development and Mr. Ross noted that the GIS information will also be beneficial. Staff felt that a planning consultant would probably have to be retained to perform some of the tasks, such as population and land use analysis, as there are a lot of different elements that go into the plan. A discussion followed during which Commissioner Nowicki made suggestions of things he would like to see in a document that would be for District use. It was noted that the comprehensive plan is a document that communicates the District's plans for outside agencies. In addition, Lakehaven's comprehensive plan impacts six cities and two counties. Subsequent to the discussion, Mr. Perry asked Board members to contact Mr. Ross as soon as possible for any questions or concerns relating to this project.

It was noted that a tour of the Headworks for the SSP was scheduled for November 17th, 2006. Board members expressed an interest in participating in the tour.

ADJOURNMENT

There being no further business to come before the Board, the meeting was adjourned at approximately 3:30 p.m.

<u>ABSENT</u>	<u>Yea</u>	<u>Nay</u>	<u>Abstain</u>
<u>President Tweddle</u>	Yea	Nay	Abstain
ATTEST:			
<u>Vice President Miller</u>	Yea	Nay	Abstain
<u>Secretary Nowicki</u>	Yea	Nay	Abstain
<u>Commissioner Stewart</u>	Yea	Nay	Abstain
<u>Commissioner Gibson</u>	Yea	Nay	Abstain