



Volente Edition

PROJECT UPDATE

November, 2007

Nearly 70 Volente-area residents attended a meeting Thursday, November 15 at the Volente Fire Hall to hear a presentation by the BCRUA project team on the upcoming deep-water intake site re-evaluation process. Consultants will be looking at seven sites in the area with four intake technologies studied for each site, yielding 28 possible combinations. The four types of intakes to be evaluated at each site include a microtunnelled lake-tap intake, a microtunnelled lake-tap intake connected by a deep tunnel to a remote pump station, a tower intake, and an inclined pump. The complete presentation with a map of the seven sites and photos of intake structures similar to those being considered can be found on the project website www.bcru.org

Attendees were told the site selection will be based on multiple criteria including minimizing cost, compliance with regulatory and permitting requirements, minimizing social and environmental impacts, and the number of easements required. Concerns were raised over possible construction impacts such as noise, traffic disruptions, and dust. While HDR Vice President Duwain Whitis emphasized the elimination of all impacts is not possible, he said the project team will minimize impacts wherever we can.

Public input continues to be an important component of the site selection process. Consultants are specifically asking at this time whether anyone knows of additional potential sites or technologies that they believe the team should evaluate. If you do, please call the project hotline now at (512) 684-3200 or email your information to us at www.bcrua.org. At the meeting one resident suggested looking at the other side of Cypress Creek and referenced an undeveloped strip of land directly on the water.

As part of the public outreach effort, **the team will be holding “working meetings” with residents at the Volente Fire Hall on January 17, March 20, and April 17, prior to making the final recommendation to the BCRUA Board in April or May. All meetings are scheduled from 6:30 p.m. to 8:00 p.m.** Again, anyone with comments or questions is also welcome to call the project hotline at (512) 684-3200 or email questions and comments via the website at www.bcrua.org.

The consultant team is currently beginning a technical analysis of the seven sites and four intake technologies to answer two questions: 1) what is the estimated cost to locate at each site with each technology, and 2) is there a technical “fatal flaw” to any site or technology? The answers to those questions will be presented at the next meeting on January 17, as will preliminary pipeline routes from each site to the existing Cedar Park water treatment plant on the Sandy Creek Arm. Participants in the meeting will be invited to ask questions about that work. The consultants also will discuss a matrix of selection criteria they intend to use in further evaluating the sites and technologies and will ask residents to identify and explain additional variables they believe should be considered.

The following is a list of questions and answers from the meeting:

Question #1

How can you conduct a site analysis in areas where a specific site (lot) has not been selected? Similarly, how can an environmental analysis be done for these sites? In those areas where more than one lot works, how will you select a specific site?

A: The current study will determine which of seven sites will be recommended to the BCRUA board for selection. Four of the sites are located on specific properties, but three are shown as general areas encompassing more than one tract or lot. In the latter case, any of the properties within the indicated areas could provide access to deep water, and the selection of a specific lot is not necessary at this time to determine the relative feasibility of the seven sites. We expect that environmental and other factors within the circled areas will not vary enough to affect the overall ranking of the seven sites. If one of the three general sites is chosen, additional study would be required to determine which lot or lots will be utilized.

Question #2

Do any of the seven sites meet all of your selection criteria?

A: The site selection study now being undertaken will establish the exact criteria to be evaluated and conduct an investigation of each intake site and type based on this criteria. A site will be selected that meets the overall needs of the project with the minimum possible impacts to homeowners and the environment.

Question #3

Do you have as detailed a plan for the other sites as you do for Booth Circle?

A: All study of the Booth Circle site was suspended in late spring of this year. We do not anticipate preparing drawings at the same level of detail for all 28 site and intake alternatives; however, we will prepare representative drawings of each type of intake for illustrative purposes, concept development, and cost estimating. More detailed drawings will be prepared after a site is selected and preliminary design activities are restarted next year.

Question #4

What is the required distance from the deep-water intake?

A: TCEQ regulations typically require a 250-foot exclusion zone around water intakes for community water systems.

Question #5

What are the sources of noise we may hear? Once the barge is expanded to eight pumps, how will the noise compare with what we currently hear from the Cedar Park barge?

A: The noise from the floating intake barge will come from the motors. Based on calculations using sound data published in reference texts for motors of the size planned, we estimate that the sound level at the park at the end of Trails End Road would be approximately 45 dBA. Also, according to typical reference data, the background noise of residential areas varies from 40-60 dBA with quiet residential areas falling in the lower end of this range. The conclusion drawn from this brief analysis is that while the sound of the pumps may be audible from a significant distance away, the sound pressure levels are comparable with sound pressure levels in quiet residential areas. It is also important to note that the floating intake is an interim facility that will be operated continuously only until the deep-water intake is constructed. After that time, the intake would be used only in the event of a power or equipment failure at the deep-water intake, which would be very rare events based on experience at similar installations elsewhere.

Question #6

When the deep-water intake comes on line, will the floating intakes go away?

A: The BCRUA's floating intake will cease to be used on a day-to-day basis. However, it will remain in place as an emergency standby facility with highly infrequent operation. The existing Cedar Park and Leander/LCRA intakes will continue to operate except during periods when the lake is extremely low (below 620 feet elevation) and the barges must be moved to prevent becoming grounded.

Question #7

Of the four types of intakes, which will make the least noise?

A: All of the permanent, deep-water intakes under consideration would utilize submersible motors. These motors would be located well below the water level, virtually eliminating any motor noise. Doing this also eliminates the need for loud, high-capacity ventilation fans to cool the room housing the motors. All of the intake types would be comparable from a noise perspective.

Question #8

Can't the BCRUA partner with the City of Austin on the intake? Where can we find information on your analysis of this option?

A: The BCRUA considered the idea of a joint facility with Austin, but a joint facility was not found to be feasible or in the best interests of the project. The primary reason was due to concerns about the additional cost of a joint facility, but environmental concerns also weighed heavily in the decision. A memorandum describing the investigations that were conducted that led to this decision can be found on the www.bcrua.org website at this address: <http://www.bcrua.org/wp-content/uploads/2007/10/memo-re-joint-austin-intake.pdf>

Question #9

Why does one of these seven sites have to be selected?

A: The LCRA's management plan predicts Lake Travis may drop below elevation 576 in a severe drought. Therefore, an intake below 576 is required to ensure water is available in such a drought. Deep water is only accessible near the original river channel in Lake Travis. The Volente area offers access to this deep water and is in close proximity to the BCRUA, Cedar Park, and Leander/LCRA plant sites.

Question #10

Will pipes be exposed or buried?

A: All pipelines will be buried.

Question #11

What is the route they will be taking from the intake site to the Cedar Park Water Treatment Plant?

A: Potential pipeline routes will be re-evaluated for each intake site during the initial phase of the site selection study. No routes have been determined yet. Routes used in a brief study in 2006 were conceptual and only used for estimating pipeline lengths for cost estimating purposes without regard for the various selection criteria now under consideration.

Question #12

Why can't the pipeline be routed on the bottom of the lake?

A: There is no readily feasible method for installing such a pipeline other than tunneling, which is prohibitively expensive for long distances.

Question #13

What is going to be done to mitigate pipeline construction in roadways?

A: If the pipeline is located along an existing roadway, all efforts will be made to ensure that two-way traffic is maintained for most, if not all of the alignment. This can be accomplished by 1) obtaining permanent easements and constructing the pipeline totally outside of the road or 2) by constructing the pipeline inside the road and using temporary lanes during construction.

Question #14

How deep does the trench have to be?

A: At least 13 feet, and possibly deeper where the pipeline must cross underneath other utilities.

Question #15

Where are you planning to blast and what recourse do we have if there are damages?

A: Blasting is commonly done for excavation projects as would be required for a microtunnelled lake-tap. Excavation of a stable shaft in rock requires careful planning and execution to prevent fracturing of the surrounding rock. The amount of explosives used does not result in a cinematic event, and the results are anticlimactic to watch. Seismic monitoring equipment will be employed to ensure that ground vibrations are kept well below the threshold above which damage can occur. Only the microtunnelled lake-tap is anticipated to require blasting.

Question #16

Besides Lake Travis, where do the Round Rock, Leander, and Cedar Park get their water?

A: Lake Travis is the only water source for the cities of Leander and Cedar Park. Round Rock currently obtains its water supply from groundwater from the Edwards Aquifer and from contracts with the Brazos River Authority (BRA) for water from Lake Georgetown and Stillhouse Hollow Reservoir.

Question #17

What are the three cities doing to conserve water and make sure water is in Lake Travis?

A: All three cities have water conservation and drought-contingency plans in place.

Round Rock: Has been using reuse water (treated sewage) to water city-owned Forest Creek Golf Course since 1998; is planning for using reuse water for irrigation at Old Settlers Park, Stony Point High School and the Round Rock Higher Education Center and other parks and public facilities in rapidly-growing northeast Round Rock. The City also has a conservation program that calls for voluntary water conservation measures from May to September, and mandatory water rationing during periods of extended drought and extended peak demand on our supply system.

Cedar Park: Uses untreated water to irrigate Twin Creeks Golf Course; adopted inverted block rates (also known as conservation rates) earlier this year. Generally, inverted block rates increase as consumption increases. This rate structure rewards efficient users and applies surcharges for nonessential and non-efficient water users. Cedar Park's Drought Contingency Ordinance triggers different stages of mandatory water conservation when Lake Travis and Lake Buchanan reach certain storage levels. These storage levels correspond with the levels in LCRA's Water Management Plan. Cedar Park's conservation plan calls for voluntary water conservation measures year round. The City also sells water conservation devices (low flow aerators, low flow toilet flaps, etc.) at low prices at City Hall.

Leander: Also has water conservation and drought contingency plans in place. In recent months, the city amended its ordinances to provide a variety of water conservation requirements for commercial car washes, dishwashers, and clothes washers, and individual water metering for multi-family and mixed-use properties. In addition, all new landscapes (non-residential and residential) are required to have a minimum of 6" of soil depth in areas planted with turf grass. Homebuilders are now required to offer a "WaterWise" landscape option to buyers. All irrigation systems (both residential and non-residential) shall be installed in accordance with state law, and contractors who install the system must be a TCEQ Licensed Irrigator. All new residential and non-residential irrigation systems are required to have pressure regulators, because extensive misting due to high pressure wastes water.

Question #18

What does Volente get out of this?

A: Potential benefits, as well as potential impacts and mitigation of those impacts, would depend in part on the ultimate location of the intake site and the route of the pipeline from the intake to the existing Cedar Park Water Treatment Plant. These locations are the subject of the studies over the next few months. The BCRUA wants to be a good neighbor and will work diligently to minimize impacts and mitigate any problems that might arise

during construction and operation of the intake and raw water pipeline. We will work to restore streets or any other property impacted by construction to original or better condition where possible. The BCRUA is open to discussions with Volente on potential benefits, and looks forward to input from Volente's elected leaders and residents over the next several months.

Question #19

Is the clearing of trees that is currently happening at Arrowhead Point a result of the Brushy Creek project?

A: No. There are no activities underway at any of the intake study sites that are connected to the BCRUA project.

Question #20

How much land do you need for a pump station?

A: One to two acres would be the preferred minimum, depending on the alternative site and intake type.

Question #21

Once the intake is in place, what type of maintenance equipment will be needed and how often? What will traffic be like each day to the facility?

A: The frequency of visits will depend on the policy of the BCRUA maintenance staff after they are hired and in place. Typically, routine visits do not exceed one trip per day by one vehicle (usually a pickup truck) for this type of facility. With the remote monitoring capabilities that are being planned, less frequent visits are likely after the facility is commissioned and operation has been verified. The pumps will not need routine maintenance and typically run for five to ten years before needing to be removed for service. Three of the intake designs being investigated have indoor hoisting equipment, so the only evidence of activity will be the presence of a few vehicles outside the building.

Question #22

How long will it take to build the intake and when will construction begin?

A: Construction is expected to begin in 2010 and take approximately two years.

Question #23

If you were pulling as much water as you could for 24 hours a day/7days a week, what would be the impact on lake levels?

A: The ultimate capacity of the project is 142 million gallons per day. This provides enough capacity to meet the peak-day demands for the new BCRUA Regional Water Treatment Plant and the two existing water treatment plants that serve Cedar Park and Leander. Water treatment plants typically do not run at full capacity except for very short periods of time, and their peak capacity is usually about double what is normally produced in a year. Lakes Travis and Buchanan have a combined capacity of about 650 billion gallons. If the reservoir were full and you took all the water the three cities are allowed in a year out of Lake Travis instantaneously (that is, you took 67,000 acre feet out at once, which would be equal to pumping almost 60 million gallons per day for 365 days) it would drop the lake level by about four feet.