



## PROJECT UPDATE

July, 2007

### Mission

The Brushy Creek Regional Utility Authority (BCRUA), a partnership of the cities of Cedar Park, Leander, and Round Rock, has a responsibility to provide reliable, cost-effective sources of water for their fast growing jurisdictions. If the cities do not develop a new regional water supply system, resources will not be adequate in three to seven years, jeopardizing the health, safety, and quality of life for residents and negatively impacting the region's economic future.

### Project Background

The three cities have been seeking solutions to providing long-term water supplies for several years. The Sandy Creek arm of Lake Travis is the current site of Cedar Park's and Leander's intake structures. However, this area of the lake is vulnerable to low lake levels. In fact, the need for a deep-water intake along the main channel of the lake became critical during the drought conditions of the past few years. If those drought conditions had not ended with recent rains, the two cities' current intake structures would have been "grounded", meaning they literally would not have been able to draw any water from the lake. That realization caused city leaders to accelerate planning for a comprehensive water supply system.

The BCRUA plans to develop the water system in three phases. The estimated timelines below may be adjusted pending project developments.

**Phase 1**—Construction of new temporary floating intake structure on Lake Travis, a raw water pipeline within the Trails End Road right of way, a new treatment plant in Cedar Park, and a new treated water pipeline. Construction is expected to begin in 2008 and be completed in 2010. Cost is estimated at \$160 million.

**Phase 2A**—Construction of permanent deep-water intake and raw water pipeline from the intake to the existing raw water pipeline. Construction is expected to be required no later than 2016, but it may be accelerated depending on drought conditions and lake levels. Cost estimate is \$80 million.

**Phase 2B**—Expansion of the water treatment plant. Expected to be needed in 2016. Ultimate cost of entire project estimated at \$330 million, including the future Phase 3 expansion of the water treatment plant.

The BCRUA estimates a supply of 30 million gallons per day (mgd) of water will be needed by the summer of 2010 to ensure adequate supply to the three cities. The water treatment plant is planned to allow an ultimate raw water capacity of 106 mgd. Key to the project is development of the deep-water intake, which will have an ultimate capacity of 142 mgd to serve the BCRUA regional plant as well as the existing plants.

**Recent heavy rains and rising lake levels have provided an opportunity to continue studies of potential sites for the deep-water intake. As a result, the BCRUA has asked its engineering consultant to continue investigation of intake sites and designs. No final decision on a site has been made.**

The project team recognizes the need for open, honest, continuous, and two-way communication regarding the project. Public input is essential and welcome. To that end, the BCRUA has hired a public involvement firm to facilitate communications. On June 21, 2007 the BCRUA held an Open House at the Volente Community Center to answer questions and receive input. Close to 100 people attended and viewed six stations of displays including information on the project mission, timeline and overview, intake site selection, intake design, raw water pipeline alternative routes, project schedule, and public involvement opportunities. Project team members were on hand to answer questions and solicit input. The following is a list of some of the most commonly heard questions and answers to those questions.

## **Frequently Asked Questions Regarding the Project**

**Q: Why did you narrow the options to the Booth Circle area of Volente, which is residential? How many other sites were considered and are any of them in commercial areas?**

*A: Seven sites, including the Booth Circle site, were evaluated this year. Most of them would involve construction in residential areas, but two are in commercial areas. Most tracts on the north side of the lake in the deepest areas near Volente have been subdivided for residential use. The City of Cedar Park had already secured an easement in Booth Circle. For the type of intake structure initially planned, a "lake-tap" intake, the study indicated Booth Circle would be the most technically feasible option and would cost roughly half as much as the other sites. The Booth Circle site allowed the project to move forward in a timely manner. Finally, BCRUA remains committed to minimizing and/or mitigating any potential effects of the project. The project team feels comfortable that the aesthetics of the intake will help make it acceptable to the neighborhood residents.*

**Q: Does Cedar Park legally own the easement?**

*A: It is the opinion of project attorneys that the city legally owns the easement.*

**Q: What's the hurry toward a decision? Doesn't resident input matter?**

*A: The low lake levels last year threatened the cities' water supply, and rapid acceleration of the intake planning was required for the health and safety of citizens. On the other hand, input matters greatly, and the project team is listening. The BCRUA has directed project consultants to prepare a new scope of work now that the lake is full again and drought conditions are relieved. The proposed work would include a more thorough evaluation of potential sites, including the commercial sites. The evaluation would also include consideration of different types of intake structures. Additional funding for the work would need BCRUA approval. It is still possible the Booth Circle site may, ultimately, be chosen for the intake.*

**Q: The City of Austin is planning a deep-water intake near the Oasis. Why not partner with Austin? Sharing an intake site surely has to be less expensive than building a new one.**

*A: The BCRUA had seriously considered such a partnership. While it is true there could be an initial cost savings in sharing an intake structure, the cost of transporting the water from that site to the new treatment plant in Cedar Park is prohibitive and not a responsible use of taxpayer dollars. Preliminary estimates indicate the additional expense could be in excess of \$200 million. Environmental concerns are another major obstacle since the pipeline would need to cross the protected habitat of the Balcones Canyonlands Preserve to serve the existing Cedar Park and Leander plants. The pipeline would also run along RM 620, which has endangered species and karst features in some sections and large commercial areas in other sections. Another significant factor negating a partnership is differing project schedules.*

**Q: Why not get water from other sources such as the Brazos River Authority?**

*A: Extensive planning has been undertaken as part of the statewide water planning effort authorized by the Texas Legislature beginning in 1998. The Brazos G Regional Water Planning Group (Brazos G) is one of the regional planning groups established to develop a regional water plan for its 37-county planning area, which includes Williamson County.*

*The resulting plan comprehensively integrates all of the water resources available for the region, including groundwater and surface water. The current plan being implemented by the cities is in accordance with the regional water plan and is the most economical solution available.*

**Q: Will this intake drain the lake?**

*A: No. The BCRUA is only one of many customers that purchase water from the Lower Colorado River Authority that is stored in Lakes Travis and Buchanan. The LCRA operates the lakes pursuant to a water rights permit issued by the Texas Commission on Environmental Quality (TCEQ) and a water management plan reviewed by the TCEQ. In the future, LCRA operations will likely cause more frequent variations of the lake level as the number of customers and use of stored water increases, but the water rights permit and water management plan were written with this in mind. Lake Travis was funded and constructed as a water supply and flood control reservoir for the benefit of Central Texas residents.*

**Q: Why didn't you come to us sooner with these plans? We feel "blindsided" by all this.**

*A: Since so much of the planning work is in the preliminary stages, releasing some types of information was considered premature. Also, as mentioned earlier, drought conditions caused the cooperating cities to proceed much faster than originally anticipated. However, the project team recognizes the importance of good communications. We cannot go back, but we are going forward with a commitment to open, honest communication.*

**Q: Why should Volente support this project? What's in it for us?**

*A: In a time of exploding growth, the need for water is a critical, regional issue. Communities increasingly will need to cooperate with each other to ensure an adequate supply for everyone. The BCRUA is open to discussions with Volente on potential benefits such as supplying water to the Village. The three cities want to be good neighbors and will work diligently to minimize impacts and mitigate any problems that might arise.*

**Q: What type of deep-water intake structure is planned?**

*A: The original plan was to construct a microtunnelled lake-tap intake. This would have a deep shaft or hole called a wet-well excavated next to the lake with tunnels at different elevations built into the lake underwater. Gates would be installed on the end of each tunnel inside the shaft to allow water to be withdrawn from the lake near the surface, where the water quality is generally best. As the lake drops, lower gates would be opened. Pumps would either be suspended in this shaft or in a shaft located farther from the lake and connected by a deep tunnel to the shaft next to the lake.*

**Q: What other options are possible?**

*A: A tower intake is another possibility. This type of intake has a tall platform built in the lake with the pumps suspended below it. A bridge connects the platform to shore and has the raw water pipeline and power conduits suspended beneath. The platform usually has walls to enclose the equipment. Other innovative approaches and variations may be possible.*

**Q: How long will construction take?**

*A: Actual construction of the Phase 2A intake and pump station will take approximately 24 months, depending on what type of intake is constructed. Construction of the Phase 2A pipeline will take approximately 12 months.*

**Q: If the intake structure is built near Booth Circle, what impact might construction have on our wells?**

*A: The intake structure itself is expected to have no adverse impact on wells. It is possible the raw water pipeline could have impacts depending on depth and proximity to wells. Any potential impacts will be fully researched and mitigation will be implemented, if necessary.*

**Q: Will blasting be necessary? If so, will that impact nearby homes? And, what about noise from the intake structure?**

**A:** *Engineers expect blasting would be needed for construction of underground shafts. However, no blasting would be required for general construction. Blasting for shaft excavation must be carefully controlled to avoid weakening the surrounding rock as well as any nearby structures and homes. The pumps and motors for the intake facility would be immersed deep in the lake or wet-well, so very little noise is expected. Engineers say the sound would be comparable to a residential air conditioner.*

**Q: Would dangerous chemicals be necessary for facility operations?**

**A:** *It is anticipated that a liquid chemical feed system will be installed to prevent biological growth on the inside of the raw water pipeline. No gaseous chlorine or other chemicals that could be released to the atmosphere will be used, and no flammable, highly toxic, or explosive chemicals will be used. The storage tank will be double-contained for spill prevention and shielded from view.*

**Q: What might the facility look like? An “industrial” looking building in our neighborhood is not appropriate.**

**A:** *A top priority of the project team is for any building to be aesthetically pleasing and compatible with its surroundings. For example, if a structure is built near or in a residential area, the architecture would be reflective of the residential setting and utilize appropriate materials such as stone, stucco, and/or brick. Any exterior lighting would be subdued landscape-type lighting since low-light video surveillance would eliminate the need for annoying bright lights. Architectural fencing would be used instead of industrial chain link fencing, and existing vegetation would be maintained as much as possible with supplemental landscaping.*

**Q: Where would the raw water pipeline be located in Volente?**

**A:** *The exact alignment has not been determined yet and will change if an alternative intake site is ultimately selected. A route study for the Booth Circle site has been completed. In this case, the pipeline would either extend from the intake/pump station site (which is near the intersection of Booth Circle and Ray Vista Drive) in a northerly direction within the right-of-way of Ray Vista Drive or Booth Circle to the intersection of FM 2769. It would cross FM 2769 and extend north on Ray Vista Drive to Mary Street. From Mary Street, it would either extend in a westerly direction within the Mary Street right-of-way to Lime Creek Road, then north within Lime Creek Road right-of-way to the proposed Volente MUD, or it would extend in an easterly direction within the Mary Street right-of-way to the proposed Volente MUD. It would extend generally in a northerly direction within the Volente MUD to the MUD’s northern boundary, then extend in a westerly direction to Lime Creek Road and would follow the Lime Creek Road right-of-way to the City of Cedar Park’s existing water treatment plant.*

**Q: How big is the pipeline from the pump station?**

**A:** *Preliminary hydraulic analysis indicates that an 84” (7 feet) diameter pipeline is sufficient. However, the final pipe size will be determined during final design after a surge analysis is completed.*

**Q: How will the pipeline be installed?**

**A:** *The pipeline will likely be installed by open cut and cover methods except for road crossings where detour routes are not feasible.*

**Q: What impact will construction have on traffic?**

**A:** *If construction is ultimately done near a two-way road, traffic might be narrowed to one lane in areas where pipe is being installed. Traffic will be controlled by a flagging operation to divert traffic from two lanes into one lane at a time*

**Q: How will the area be restored following construction?**

**A:** *The existing roadways affected by construction will be re-constructed to new condition following installation of the pipeline.*

**Q: After construction is completed, will there be any visible signs of the pipeline?**

**A:** Pipeline marker signs will be installed at strategic locations, such as street crossings. Air release valves will be installed at certain locations and will be visible because they are located inside manholes.

**Q: Will everything be installed initially or will there also be future construction?**

**A:** The entire pipeline will be installed at one time. The only future work that will be required will be periodic maintenance of the pipeline. Additional pumps will also be installed inside the pump station, but no visible outdoor construction is expected to be required.

**Q: What is the next step with the project?**

**A:** As mentioned earlier, the project consultants are drafting a scope of work to include a more thorough evaluation of potential intake sites. This re-evaluation will not include more consideration of partnering with the City of Austin for reasons stated above. All of the sites to be looked at again are in the necessary deep channel of Lake Travis near Volente. The scope will be considered by the BCRUA’s city managers and elected officials in the next two months. If the work is approved, the re-evaluation could take six to nine months.

**Thank You for Your Interest**

The project team realizes this list of questions is by no means exhaustive. Additional questions and concerns may arise as the project progresses. The project team will be scheduling more open house events, briefings to elected officials, and presentations. Team members are available to attend neighborhood association and civic organization meetings to discuss the project as well. Other mechanisms to receive answers and provide additional input are underway.

**BCRUA Website Online**

Project information such as engineering reports, maps, and schedules can now be found on the Internet at this address: **bcrua.org**. The website is a source of current information as well as a repository of project information. The website features a “Contact Us” section in which you can email comments and/or questions and receive a timely email reply or call back.

**BCRUA Hotline Operational**

An additional way to ask questions and provide input is by calling the **BCRUA Project Hotline**. The number is **(512) 684-3200**. The hotline will be answered during normal business hours Monday through Friday. Messages may be left after-hours and on weekends.

<b>Project Team</b>	
<i>City of Round Rock  City of Leander  City of Cedar Park  BCRUA Project Manager, Chris Lippe</i>	<i>Consultants:  HDR Engineering, Inc.  Carter &amp; Burgess, Inc.  K. Friese &amp; Associates, Inc.  Lockwood, Andrews &amp; Newnam, Inc.  CDM  Group Solutions RJW</i>