Austin's Water Treatment Plant 4

History, Finances and Next Steps

July 17, 2009

The quest for Water Treatment Plant 4 (WTP 4) is a 30-year plus saga in Austin history. This document will discuss: why the City is building the plant; review the project's history; provide a detailed report of the financial history and projections; and describe next steps to construct the plant and bring it online by the spring of 2014.

In December 2007 the City Council chose not to build at what is known as the Bull Creek site, an environmentally fragile tract at the headwaters of Bull Creek in far northwest Austin -- a property that the City purchased for a water treatment plant in 1984. Instead the Council chose a new, less environmentally sensitive site, less than two miles from the Bull Creek site at the southwest corner of the intersection of RM 620 and Bullick Hollow Road/RR 2222 (see Figure 1).

The first phase is planned for a capacity of 50 million gallons per day (MGD), with the potential for an ultimate capacity of 300 MGD. The Austin Water Utility (AWU) has completed the preliminary engineering phase and began the design phase this past summer.

Overall project benefits include:

- Added water treatment and transmission capacity to meet projected increases in demand on a schedule that accounts for increased water conservation;
- Utilization of water supplies secured through agreements with the Lower Colorado River Authority (LCRA);
- Capacity for plant expansion to meet future needs for decades to come;
- Increased system redundancy and reliability.

The particular benefits of a Lake Travis plant include:

- Higher water source elevation results in reduced pumping to deliver water and thus reduces greenhouse gas emissions and energy costs;
- Deepest surface water source in the area;
- More consistent water quality due to intake upstream of urban development;
- Highest volume water supply lake;
- Increased supply diversity and reliability from additional water source;
- Water contracts with LCRA provide for withdrawal from Lake Travis;
- Increased system operation flexibility at northwest location.

The early years

The origins of WTP 4 can be traced at least as far back as Austin's 1975 Comprehensive Master Water Supply Development Plan, a consultant study

commissioned by the City. That plan recommended construction of a water treatment plant to draw water from Lake Travis, in the vicinity of the current site.

The consultant predictions on population growth were close to what has occurred. Water demand predictions, however, were much higher than what has actually occurred.

- In 2005 the served water population was approximately 800,000.
- The 1975 study estimated that the 2005 population would be 755,000.
- The 1983 report estimated that the 2005 population would be 865,000.

As another example, the current City of Austin population projection for 2025 is 1.2 million while the 1975 study projected a service population of 1.1 million.

While population predictions were on target, water demand projections were much higher than what has actually occurred. The projected demand figures from the 1975 study were large both in terms of per capita water use and overall magnitude. Figures from a subsequent consultant study in 1983-85 were lower, but still much higher than current AWU projections.

- The 1975 study predicted peak demand of 455 MGD by 2005.
- The 1983 study, which only projected to 2005, predicted peak demand of up to 400 MGD.
- The highest actual peak demand reached by 2005 was 247 MGD.

Current demand projections for the year 2025 are less than half what was predicted in the 1975 study; the 1975 study projected demand of 738 MGD while current projected peak demand for 2025 is 325 MGD.

Likewise current projections for per capita demand are less than half what was predicted in the 1975 study. Additionally the 1975 study predicted that per capita usage would continually increase over time. The increasing population has led to increased demand although not at the level predicted in the earlier studies.

The City initiated a water conservation program in 1983 although it was not originally housed at AWU. A combination of rebates, educational programs and watering restrictions led to a steady drop in per capita use (see Figure 2). Nonetheless, overall demand continued to grow steadily due to population and industrial growth (see Figure 3).

The 1975 plan called for WTP 4 to be in operation by 1980, but the issue was not put before voters until 1984. Voters approved $190 million for design and construction of a plant and related facilities. A specific site was not put on the ballot. Six sites were evaluated and in October 1984 a site was purchased at the headwaters of Bull Creek. The City moved forward with design for WTP 4 then sought construction bids in the summer of 1986.

The City, however, had not yet acquired the right to withdraw water from Lake Travis. The City sought that authorization from the LCRA but the new General Manager balked at that request, saying Austin's water needs were excessive. The construction process stalled. It was also during this period that community concerns began to emerge about the potential environmental impact of the proposed plant.

The City and the LCRA finally came to an agreement in December 1987 as part of state adjudication of water rights in the basin. The resulting Comprehensive Water Settlement Agreement gave Austin authorization to draw water from Lake Travis and gave LCRA an option to purchase an initial ownership interest in the project. (The provision giving LCRA the option to participate in the WTP 4 project was removed by mutual consent in the 1999 amendment to the 1987 agreement between the City and LCRA.)

By December 1987 the Austin area was in the midst of a severe economic bust, with the real estate sector particularly hard hit. The bust and a combination of other factors, including cost, led to plans for WTP 4 being put on hold.

A switch to expansion at an existing plant

Although the economy picked up again in the early 1990s, construction of WTP 4 remained on hold while the City pursued a strategy of expanding capacity at existing plants.

Options on this front were limited, however. Downtown's Green plant was not only the oldest facility, but also had the smallest site area. The Davis plant is landlocked in its west Austin neighborhood with little, if any, room for expansion. The Ullrich plant south of the Tom Miller Dam, however, offered the most space and expansions were carried out there during the late 1980's and 1990's, increasing capacity from approximately 40 MGD to 100 MGD. Another expansion completed in 2007 increased Ullrich's capacity to 167 MGD and the entire AWU system to a capacity of 285 MGD. Green ceased treatment operations in September and no longer contributes towards AWU's capacity of 285 MGD.

WTP 4 and the environment

The area around the Bull Creek site has been a key focus of controversy over development and the environment since at least the 1970s. The 1979 Austin Tomorrow Plan, developed during several years of an intensive citizen involvement process, called for sparse development in the Hill Country of western Travis County

The Bull Creek site was at a critical spot in this environmentally fragile area – located at the headwaters of Bull Creek, a scenic creek that flows through a fragile karst area with numerous caves, springs, seeps, and other critical environmental features before emptying into Lake Austin.

Additionally, a number of citizens and citizen groups worried that the plant's location outside Austin's preferred growth corridors would spur heavy development in the western hills where official City plans called for sparse development.

Citizens also called for conservation instead of a new plant and, as mentioned above, the City began a water conservation program in 1983.

Another environmental issue rose to the fore in the late 1980s and early 1990s: the presence of endangered species in western Austin and western Travis County. Several endangered species were identified including the golden-cheeked warbler and black capped vireo as well as six endangered cave-dwelling invertebrates. All were present in the vicinity of the Bull Creek site.

Due to the presence of the endangered species numerous construction projects were being held up by the federal Endangered Species Act. The City, the County, and a coalition of citizens developed plans for the Balcones Canyonlands Preserve (BCP) which would set aside land for preservation so that other lands could be developed.

Austin voters in 1992 approved $22 million to purchase preservation lands to protect endangered species. The plan provided special status for Water Treatment Plant 4 as a "Special Use Tract," meaning this use on this site was contemplated and provided for with the Endangered Species Act permit for The Balcones Canyonlands Conservation Plan.

The U.S. Fish and Wildlife Service issued a permit for the region in 1996 and the City was cleared to build WTP 4. The BCP plan established infrastructure corridors to

accommodate the WTP 4 project on the Bull Creek site, including construction of electrical facilities to service the plant and water transmission mains from the site to the water distribution system.

Later, however, City staff discovered another potentially endangered species, the Jollyville Plateau Salamander (JPS) in the Bull Creek Watershed. The Bull Creek WTP 4 site proved to be one of the principal habitats of the JPS which as its name implies only inhabits a small range of habitat. In 2005 the Save Our Springs Alliance petitioned to have the JPS listed as an Endangered Species. In 2007, after several years of uncertainty, the Fish and Wildlife Service found the JPS as "warranted" for endangered species protection, but "precluded" from actual listing. This approach opened the door for lawsuits to force the Fish and Wildlife Service and the federal government to fund listing of the salamander and means uncertainty for a plant at that site because of potential delays or even stoppages if the salamander is listed.

Another environmental issue that emerged in more recent years is climate change. Water treatment and delivery is energy intensive, resulting in the creation of significant greenhouse gas emissions. A Lake Travis plant, however, would have lower greenhouse gas emissions than a Lake Austin or Lady Bird Lake plant and lower greenhouse gas emissions than result from current operations.

Lake Travis is at a higher elevation than both Lake Austin and Lady Bird Lake. This results in lower energy demands in delivery of water. While energy will be required to pump raw water uphill to the plant, the high elevation means that less pumping will be required to deliver water to customers than if the plant and water source were at a lower elevation – in which case more water would have to be pumped uphill to customers. Thus, the higher elevation results in less greenhouse gas emissions than if the plant were at a lower elevation. Greenhouse gases will also be reduced relative to the status quo because the higher elevation will reduce pumping to the existing service area.

2002, Revival of the Bull Creek option

As demand continued to grow, AWU revived plans for WTP 4 in 2002 and brought it forward as the City's next capacity improvement project. In April of that year the Council awarded a contract to Carollo Engineers for professional engineering services which included preliminary site assessment and environmental studies relative to the use of the Bull Creek site.

Carollo completed its initial scope of work in late 2004 and AWU returned to Council in February 2005 for funding authorization of the next phase in preliminary engineering. At that point significant community opposition to the plant reemerged. The City Environmental Board in particular raised a number of questions and issues. Community concerns focused on:

- The fragile nature of the location including its location at the headwaters of Bull Creek;
- The significant karst features including numerous seeps and streams;
- Concerns that excavation required for a water treatment plant would permanently disrupt spring and groundwater flow in the karst;
- The potentially endangered Jollyville Plateau Salamander and the uncertainties associated with that situation.

Many citizens also continued to question whether a plant should be built anywhere on Lake Travis and some questioned the need for another plant at all. Citizens also urged a stronger emphasis on water conservation.

In response to these concerns, the City Council postponed until May 5, 2005 a further decision on funding engineering services and issued a set of directives based largely on issues raised by the Environmental Board and the community concerns regarding the environmental sensitivity of the Bull Creek site. The Council called for a Phase 1 preliminary engineering effort including:

- Evaluation of alternative sites;
- Water conservation analysis; and
- Demand forecasting review.

Reconsideration, a look at a new Green Plant, and increased conservation

While deliberations on plant location continued, a decommissioning study was taking place for the Green WTP. The plant was aging, and the Council was considering the property on which Green sits as a vital part of downtown revitalization plans. It became clear that the plant would have to close.

The potential closing of Green raised additional concern in parts of the environmental community. As Green is the only plant with an intake downstream from the outlet of Barton Creek into the Colorado River at Lady Bird Lake, if it were to close the City would no longer draw drinking water from the springs or Southern Edwards Aquifer. Some members of the environmental community feared that this would cause the City to not be focused on protecting water quality in the Barton Springs Zone.

A combination of these factors led the Council and AWU to consider building a new Green WTP on Lady Bird Lake rather than a plant at Lake Travis. A new Green Plant became the leading option, and several sites were identified including two private parcels and a 29-acre portion of the recently acquired and still developing Roy G. Guerrero Park in East Austin on the south side of the Colorado River. The park site became the preferred location but it was met with intense community opposition, particularly from East Austin residents who did not want to give up part of a long awaited park. The Council decided not to build on the park site, but continued consideration of a new Green water treatment plant on private sites. The Council also began considering sites on Lake Travis other than the Bull Creek site.

Council also directed staff to advise them on how an aggressive water conservation plan and leak detection program would change the time line for plant construction. This led to incorporation of a two-year delay in the target completion date, based on projected savings from Council's stated water conservation goal to save peak day demand of one percent per year for ten years. The Water Conservation Task Force was then appointed by Council to develop a program to gain 25 MGD of peak day savings to reduce demand aimed at achieving the deferral of WTP 4 to 2013 and to lay the foundation for future deferrals.

AWU and the Council also studied numerous other water supply possibilities. For example the City examined various deep water intake and plant sharing options that would include Cedar Park, Leander, and Round Rock (now collectively referred to as the Brushy Creek Regional Utility Authority). However, due to location, environmental, cost, and timing issues, no clear overall benefits from a joint project resulted from the various evaluations. The City also looked at groundwater and further expansion of existing plants.

In June 2006, amid concern that the time to build a plant without the risk of demand exceeding capacity was slipping away, AWU brought forward to Council two main options for constructing additional water treatment capacity. Conservation was incorporated into this plan. The options were:

- Build a Lake Travis WTP 4 first and then New Green WTP in 2041.
- Build New Green WTP first with a Lake Travis plant following in 2017.

After considerable discussion Council directed staff to move forward with WTP 4 on Lake Travis, but at an alterative site called Cortaña. The Council also instructed staff to develop a plan to purchase and land bank one of the private parcels identified for the future new Green WTP – an approximately 50-acre site near Thompson Lane and US 183, which was purchased in May 2007.

The 45-acre Cortaña site also faced numerous environmental concerns. Although it was considered less environmentally sensitive than Bull Creek, Cortaña was part of the Balcones Canyonland Preserve and, to develop the site as a water treatment plant, it required approval from Austin's BCP partner Travis County.

This was a significant complication. When the Council designated Cortaña as the top site, they also voted to authorize construction of WTP 4 on the original Bull Creek site in the event that Travis County did not grant approval by the end of September 2006. The County did not meet the deadline, but the Travis County Commissioners Court took a vote on October 4, 2006. The Commissioners refused to grant approval for use of the Cortaña site. The City then moved forward with designing the plant for construction on the Bull Creek site.

Back to Bull Creek and then to Bullick Hollow

By the summer of 2007 the beginning of construction at the Bull Creek site was imminent. The Environmental Board and others continued to express serious reservations about a plant on the Bull Creek site and those objections intensified as the commencement of construction grew near.

Access roads and water quality ponds were to be constructed first. The beginning of construction required a conditional use permit from the Zoning and Platting Commission. The ZAP approved the required permit, but it was appealed to the Council and was scheduled for August 9, 2007. At this point Council and community discussion of whether to proceed at Bull Creek intensified.

At the brink of authorizing construction the Council decided to make one more search for an alternative site, voting unanimously on August 9, 2007 to delay construction for up to one year and commence another site search. Expanded search criteria were established including allowing greater slopes, greater distances from the intake structure, and consideration of smaller ultimate plant capacity, opening the possibility for smaller sites.

The WTP 4 completion date was moved to Spring 2014 based on projected savings from the water conservation measures recommended by the Council-appointed Water Conservation Task Force (see Figure 4).

An interdepartmental team consisting of staff from AWU, Watershed Protection and Development Review, Public Works, and Law developed criteria for new sites and conducted an extensive site search and evaluation of potential sites. Staff returned to the Council in December 2007 with recommendation of the approximately 95-acre Bullick Hollow site and a proposed backup site. Council unanimously approved purchase of the two sites. Purchase of the Bullick Hollow site took place in January 2008 and the backup

site tract acquisition was completed in June 2008. The City plans to sell the backup site at some point in the future after it is certain that a plant will be constructed on the Bullick Hollow site.

Earlier this year staff developed a Site Development Ordinance (SDO) which provides upfront variances for impervious cover while setting up a process for administrative approval of other variances. The SDO also establishes that the Bull Creek site will be set aside for preservation. The SDO received unanimous recommendations from the Environmental Board, the Planning Commission and the ZAP and was unanimously passed by the City Council on May 15, 2008.

The Bullick Hollow site and the environment

While the new location is in an environmentally sensitive area not far from the Bull Creek site, this particular tract has multiple advantages over the long disputed Bull Creek site. (The site is in the Lake Travis Watershed and does not drain into Bull Creek.) The advantages over the Bull Creek site include:

- There are no Jollyville Plateau Salamanders on or downstream from the site;
- No karst invertebrates were found during Watershed Protection's inspection of the site;
- No bird impacts are expected and if that were to change mitigation is available from the BCP;
- There are few springs and seeps compared to multiple springs and seeps on the Bull Creek site;
- The site was a private site already planned for development, meaning that development won't occur and thus won't generate the level of traffic generated by a high density development.

Basic Project Scope:
50 MGD plant with future expansion planned to 300 MGD

The plant will take raw water from Lake Travis by way of an intake structure having three (3) screened intake points set at varying depths. The intake structure will be completely submerged at normal lake levels and will be connected to the raw water pump station via a 9-foot diameter tunnel. The raw water pump station will house vertical turbine pumps in a building designed to be similar in architectural treatment to that in the nearby development. From this pump station, raw water will be pumped up to the 50 MGD water treatment facility.

Under this initial, 50 MGD phase, the major structures to be constructed include two (2) upflow clarifiers, filter basins, clearwells, onsite generation of disinfection, solids handling treatment, and a finished water pump station. It will also include chemical feed/storage areas, an administration/operations building, electrical power substation, and all appurtenances required to make it a complete and operable system; including storm water quality ponds and other necessary site improvements. This treatment plant will utilize a lime softening process consistent with the Utility's other water treatment plants. Approximately 7.5 miles of finished water transmission mains (84" and 48" diameter) are included in this project. These lines will transmit the treated water into the Utility's

existing distribution system and provide the transmission capacity needed for the plant's production.

Historical cost information

Cost information related to WTP 4 can generally be broken into two separate site costs. These sites are:

- Bull Creek Site – costs from 1984 Bond approval through new site selection
- Bullick Hollow Site – costs from new site selection through present

Below is the breakdown in costs incurred for the Bull Creek site as of June 30, 2009:

WTP 4 Costs at Bull Creek Site

	Costs	
Engineering	$33.7	Million
Site Acquisition	$19.5	Million
Easement Acquisition	$1.2	Million
Surveying/Testing/Inspections	$0.4	Million
Preliminary Environmental Commissioning	$0.4	Million
Perimeter Fencing	$0.1	Million
Legal Services	$0.2	Million
Miscellaneous	$0.2	Million
Total WTP 4 Costs at Bull Creek Site	$55.7	Million

Below is the breakdown in costs incurred for the Bullick Hollow site as of June 30, 2009::

WTP 4 Costs at Bullick Hollow Site

	Costs	
Engineering	$12.2	Million
Bullick Hollow Site Acquisition	$32.0	Million
Raw Water Pump Station Site	$ 7.2	Million
Easement Acquisition	$0.3	Million
Perimeter Fencing	$0.3	Million
Legal Services	$0.3	Million
Preliminary Environmental Commissioning	$0.2	Million
Miscellaneous	$0.2	Million
Total WTP 4 Costs at Bullick Hollow Site	$52.7	Million

Note: The costs currently expended at the Bullick Hollow site have been included in the projected costs for completion of WTP 4 shown on the following page.

Costs at the Bull Creek site should not change as work on that site has ceased. Costs at the Bullick Hollow site will continue to increase as additional costs are incurred.
Below is the breakdown in costs incurred for the WTP 4 backup site as of June 30, 2009:

WTP 4 Costs for Backup Site Acquisition

Backup Site Acquisition		$12.1 Million

Note: AWU anticipates eventual sale of the backup site.

Projected costs for WTP 4 at Bullick Hollow site

The cost estimates for constructing a 50 MGD WTP 4 at the Bullick Hollow site are based on preliminary engineering estimates that will change as the engineering design proceeds over the next 2 years. The current cost estimate for WTP 4 is shown below:

	Estimated Cost in Millions
Plant Facilities	
Raw Water Intake and Tunnel to Pump Station	$21.6
Raw Water Pump Station and Tunnel to Plant	55.9
Plant Facilities and Electrical Substation	153.3
Engineering / Administration	49.5
Total Plant Facilities	$280.3
Transmission Mains	
Jollyville TM	$77.5
Forest Ridge TM	15.9
Engineering / Administration	23.4
Total Transmission Mains	$116.8
Other Costs	
Environmental Commissioning	$4.2
Off-site improvements	4.0
Engineering Applicable from Bull Creek Site	5.6
Total Other Costs	$13.8
Sub-Total Cost (Present Value)	$410.9
Inflationary Costs	$54.2
Land Costs	
Bullick Hollow Site	$32.0
Raw Water Pump Station	7.2
Easements	3.7
Total Land Costs	$42.9
Total WTP 4 Cost Estimate	$508.0

Bond Authority

The original revenue bond authority to construct WTP 4 and related facilities was approved by the voters in September 1984. WTP 4 was included in Proposition #4 of this bond election. The facilities approved in the bond election are detailed below:

1984 Prop. 4 Project Description Detail:	Funds:
Water Treatment Plant #4	$165,000,000
Four Points Reservoir	$9,400,000
Four Points Transmission Main	$15,600,000
Original Project Cost Estimate	$190,000,000
Less: Capital Recovery Fees	$67,298,000
Add: Reserve Requirements	$18,408,000
Net 1984 Bond Proposition #4	$141,110,000

The 1984 Bond Proposition #4 assumed funding of $67.3 million in capital recovery fees would be available to offset the need for voter authorized bonds to fund the original project cost estimate of $190.0 million. The Utility also anticipated $18.4 million in bond reserve requirements that would be funded by the issuance of bonds. The resulting Net 1984 Bond Proposition #4 totaled $141.1 million. Subsequent changes to State law regarding the implementation and use of capital recovery fees changed how the AWU planned to use the capital recovery fees. Also, the collection of capital recovery fees was significantly less than what was anticipated.

The $141.1 million in bond authority approved in 1984 is obviously insufficient to build WTP 4 today. When the Utility re-initiated the WTP 4 project in 2002 with the selection of Carollo Engineering as the design engineer, it was determined that additional funding would have to be approved by the City Council and/or the voters of Austin. In August 2004, the Audit and Finance Committee approved a change to the Utility's financial policies that would provide authority for additional funding for voter authorized bond projects that have been deferred significantly and therefore have insufficient funding due to the inflationary impacts. The financial policy providing this authority is shown below:

> Council Approved Financial Policy: Voter approved revenue bonds will be used to finance new water and wastewater plants, capital expansions, and growth-related projects that are located in the Drinking Water Protection Zone. Such projects located in the "Desired Development Zone" and capital improvement projects necessary to comply with local, state and federal mandates or regulations will not require voter approval. Projects that have been approved by voters but which require additional funding to complete the original scope of the project will also not require voter approval provided such additional funding amount does not exceed 50 percent of the original project cost estimate as adjusted for inflation.

The calculation of the total funding authorization for WTP 4 through June 2009 based on the financial policy above is shown below:

Original Projects Cost Estimate:	$190.0 Million
Inflationary Adjustment 1984 – June 2009	2.075967276
Inflation Adjusted Original Project Cost Estimate	$394.4 Million
Financial Policy Limit of Original Cost Estimate	150%
1984 Proposition 4 Bond Authorization Limit	$591.7 Million

The basis for calculation is the Consumer Price Index as published by the Bureau of Labor Statistics. The Utility monitors the WTP 4 bond authorization limit periodically to ensure that the costs already incurred and the projected costs for completion of the plant will be below the authorization limit allowed in the financial policies.

Rate impacts

Determining the rate impact of a specific CIP project that is as large as WTP 4 can be complicated by the significant number of financial variables and unknowns that affect how a specific project is absorbed into the Utility's future financial projections. Given these variables, the Utility has estimated the water rate impact of constructing WTP 4 to be between 12% and 15%. This impact will be spread over multiple years as construction costs are realized.

The Utility, as it does every year during the budget process, assesses its financial condition, determines it operating requirements, prioritizes its capital spending, and proposes rate increases. The Utility mitigates rate increases as much as possible and will continue to do so as WTP 4 spending will be a significant portion of the utility's CIP for the next five years.

Current project schedule and next steps

In order to have the plant operational to meet the projected 2014 summer demand, several critical milestones will need to be achieved. These milestones include authorizations for Professional Services Agreements (PSAs) and amendments, easement acquisitions, design, local and federal permitting, and bid/award of several construction contracts. As we look forward to the purchase of the raw water pump station site in the near future, site assessments and surveying will be engaged to continue final design for this portion of the water treatment plant facility.

Plant facilities:
All plant facilities will be designed by the Carollo Engineering team. Several early site preparation construction packages are being bid out similarly to how most all other City construction work is bid; specifically, as design-bid-build construction projects. The balance and majority of construction, including the finished water transmission mains, will be constructed via the Construction Manager at Risk delivery method. The preliminary design phase for the plant facilities is complete and final design began in August of 2008. Final design, permitting and bidding are sequential phases that will span over into the early part of 2010 with the bulk of major construction beginning in 2010.

Finished Water Transmission Mains:

Two (2) finished water transmission mains that will transport finished water from the plant into the City's water distribution system are being designed by two (2) separate consultants. These transmission mains are the 84" Jollyville Transmission Main (Black & Veatch) and the 48" Forest Ridge Transmission Main (Lockwood, Andrews, and Newnam). Two additional transmission mains are planned to be constructed in conjunction with future plant expansions. Both designs are in the preliminary/route selection phase and construction is projected to occur in 2011-2014.

Other:

The remainder of easements needed for the finished water transmission mains will be identified, negotiated and purchased. These easement acquisitions will occur simultaneously with design of the plant and transmission mains once final route selections are complete.

Additionally, two (2) consultants have been selected to perform Value Engineering (VE) for the project. CDM will be VE the design of the plant facilities (intake, pump stations, all process areas) and Jacobs will VE the large diameter RW and FW piping systems (RW intake tunnel, RW transmission, and both FW transmission mains.

During the design process there has been and will continue to be a significant amount of coordination and communication with local agencies, boards/commissions, neighborhood groups, and other stakeholders. In addition to ongoing public outreach, we are providing quarterly project updates to both the Environmental Board and Water and Wastewater Commission, and are actively coordinating project specifics with various agencies, including LCRA, Travis County, US Army Corp of Engineers, BCCP, Austin Energy, Pedernales Electric Cooperative (PEC), TxDOT, and WCID #17.

Next Steps for Council

Over the next five years the following Council Actions are anticipated as summarized below:

Anticipated Council Actions		
Description	**Type of Action by Council**	**Timeline**
Easement Acquisitions	Purchase)	Continuous
Bullick Hollow Road Improvements	Construction Contract Award	August 2009
Construction Manager at Risk	Approval of Pre-construction Phase Service	August 2009
RWPS Mass Excavation	Construction Contract Award	October 2009
WTP Clearing & Stormwater	Construction Contract Award	November 2009
WTP 4 Construction Phase and Warrantee Phase Services	PSA amendment	Spring 2010
Jollyville Transmission Main Design Phase	PSA amendment	Spring 2010
Forest Ridge Transmission Design Phase	PSA amendment	Spring 2010
CM@R – Various Guaranteed Maximum Price (GMP) Construction Packages	GMP/Construction Approval	Continuous, beginning as early as March 2010
Jollyville Transmission Main Construction Phase and Warrantee Phase Services	PSA amendment	Spring 2011
Forest Ridge Transmission Construction Phase and Warrantee Phase Services	PSA amendment	Spring 2011

Figures

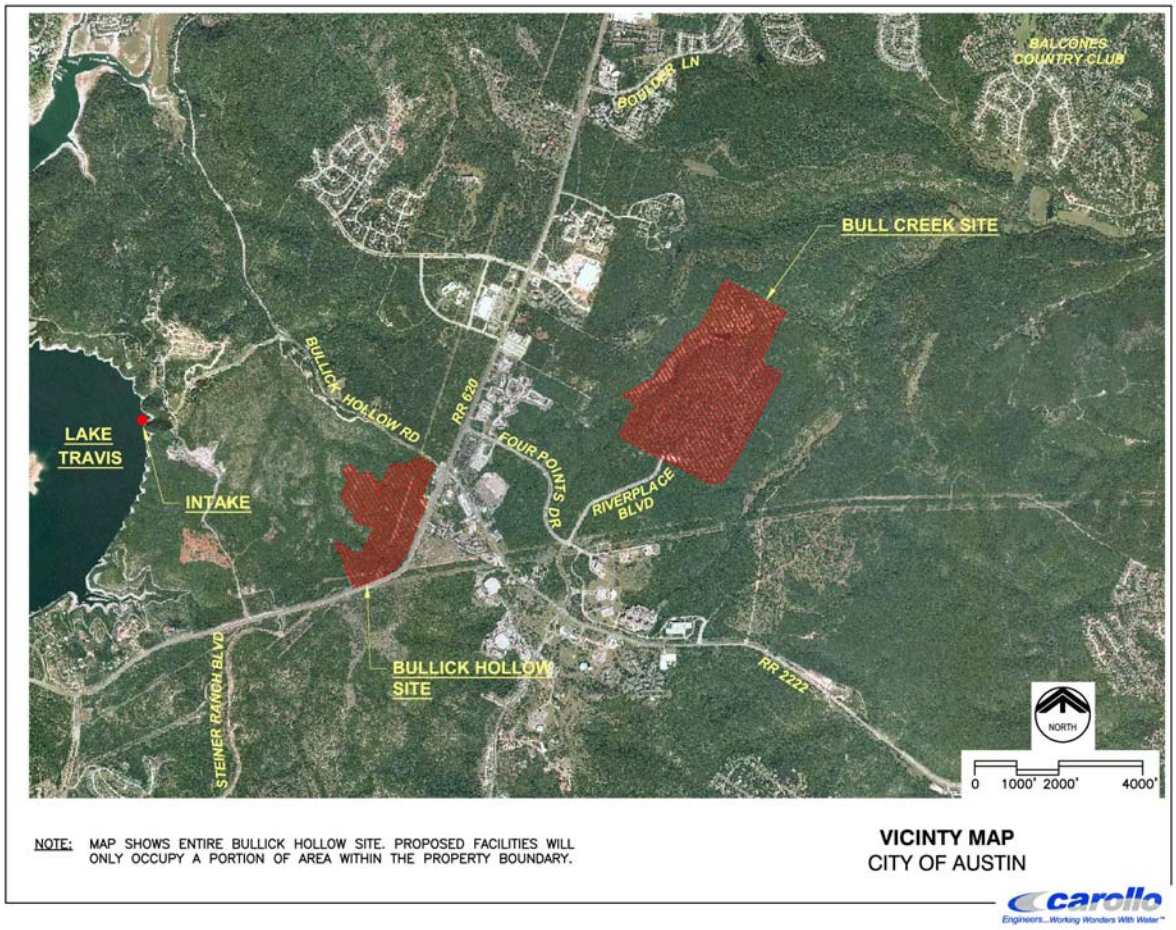

Figure 1

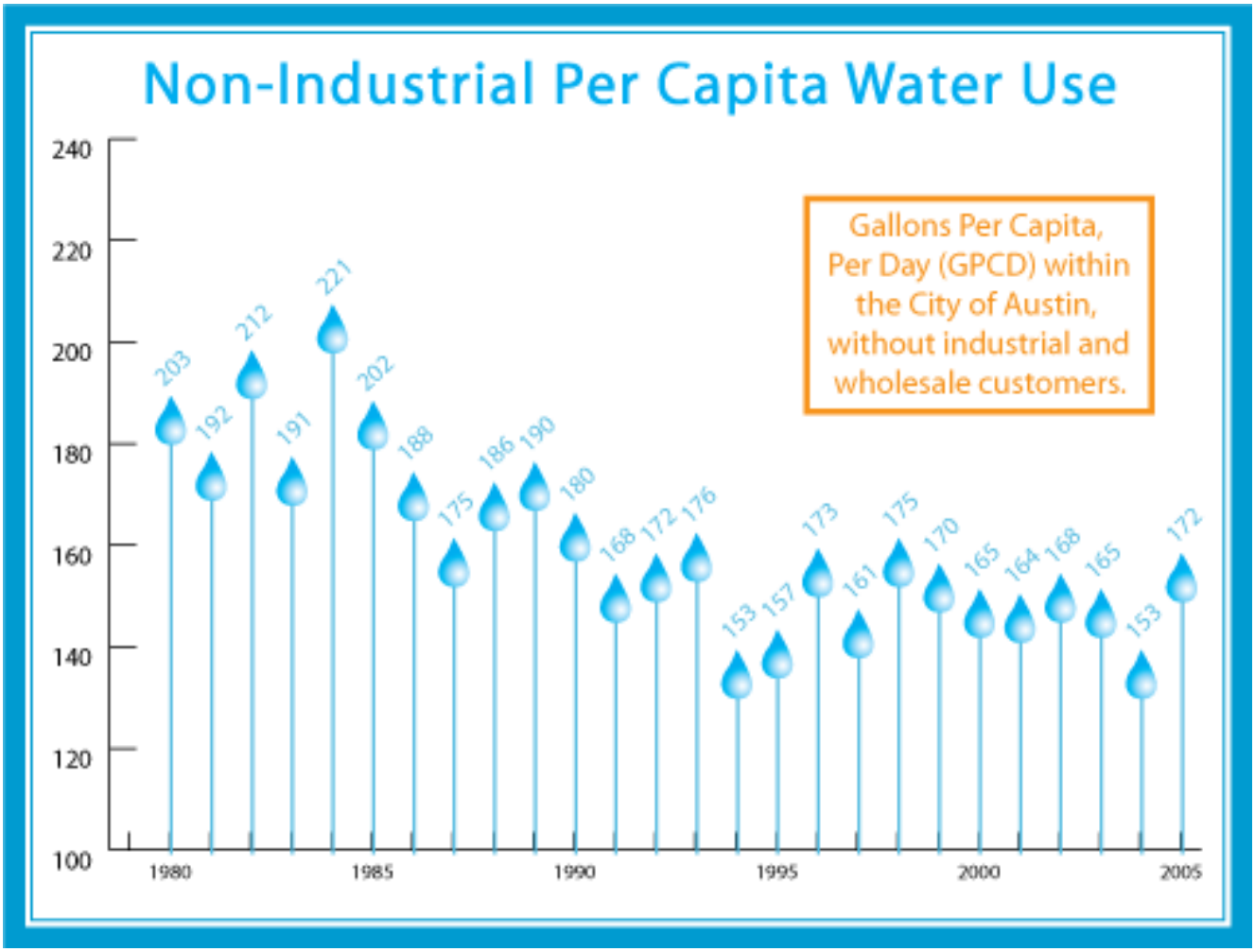
Non-Industrial Per Capita Water Use
240
220
200
180
160
140
120
100
1980
1985
1990
1995
2000
2005
203
192
212
191
221
202
188
175
186
190
180
168
172
176
153
157
173
161
175
170
165
164
168
165
153
172
Gallons Per Capita, Per Day (GPCD) within the City of Austin, without industrial and wholesale customers.

Figure 2

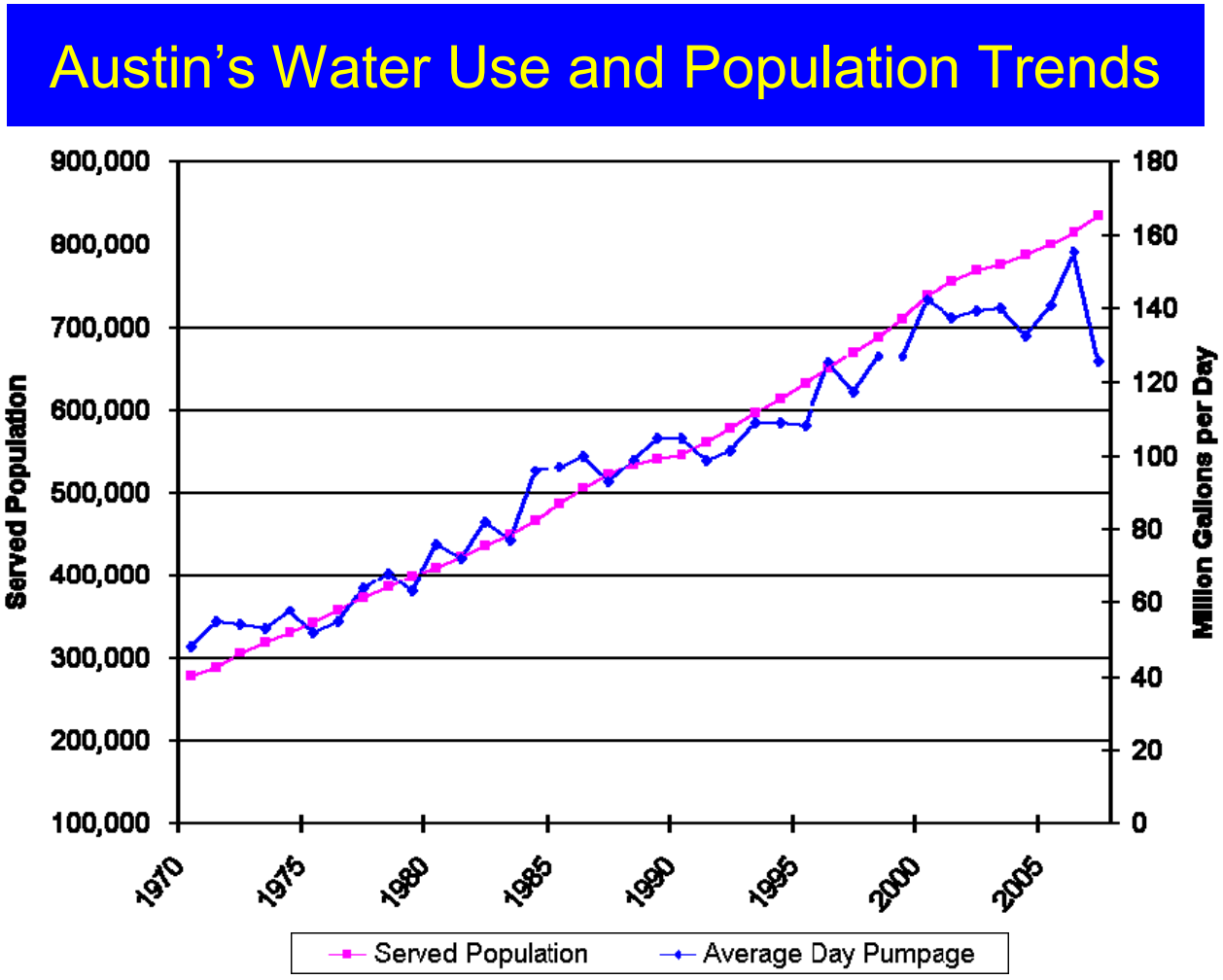
Austin's Water Use and Population Trends
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
Served Population
180
160
140
120
100
80
60
40
20
0
Million Gallons per Day
1970
1975
1980
1985
1990
1995
2000
2005
Served Population
Average Day Pumpage

Figure 3

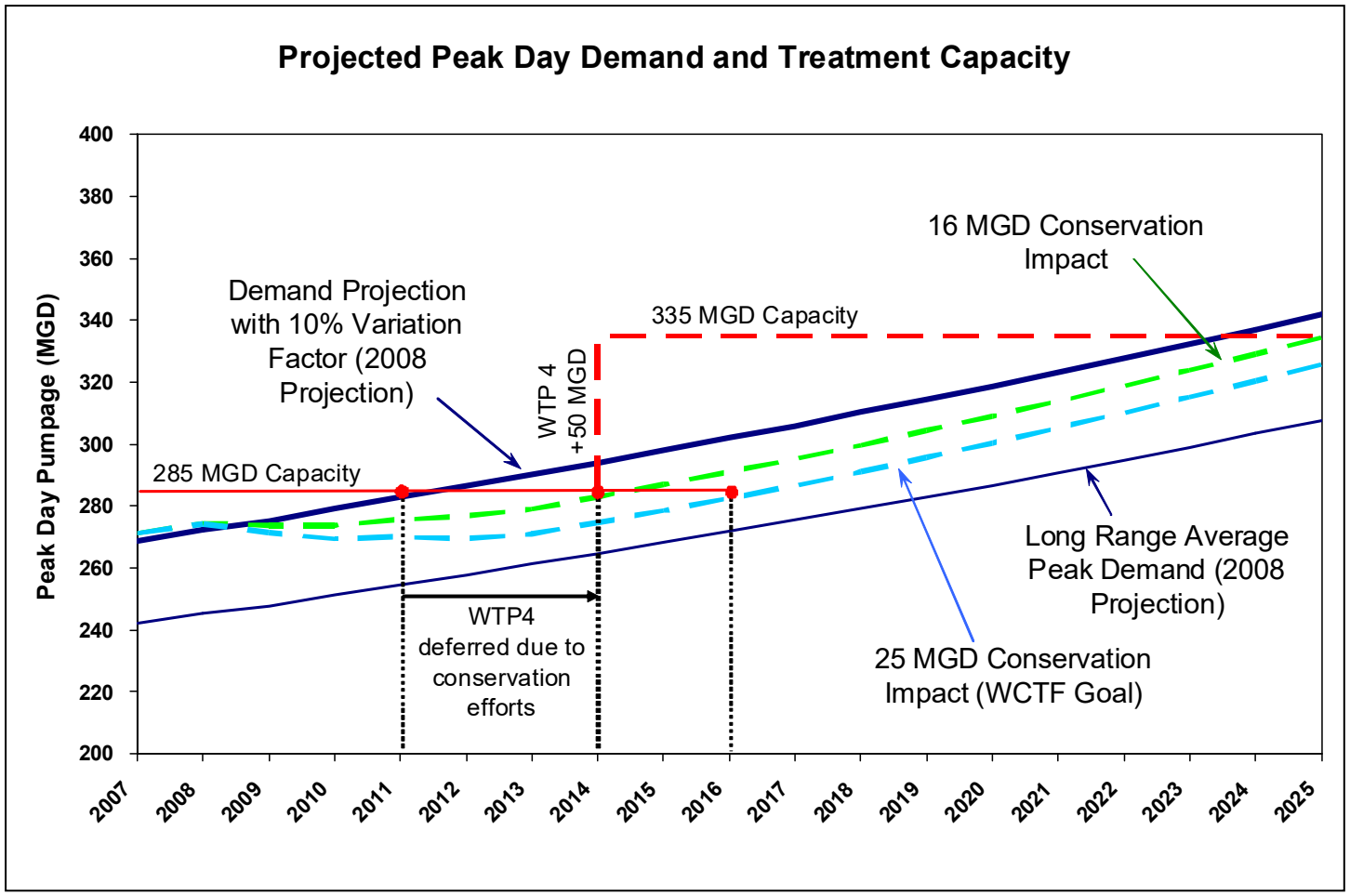
Projected Peak Day Demand and Treatment Capacity
Peak Day Pumpage (MGD)
400
380
360
340
320
300
280
260
240
220
200
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
16 MGD Conservation Impact
Demand Projection with 10% Variation Factor (2008 Projection)
335 MGD Capacity
WTP 4 +50 MGD
285 MGD Capacity
WTP4 deferred due to conservation efforts
Long Range Average Peak Demand (2008 Projection)
25 MGD Conservation Impact (WCTF Goal)

Figure 4