

Water Treatment Plant 4

Quarterly Briefing Environmental Board

October 20, 2010



WTP Facilities - Status

- Raw Water Facilities:
 - Raw Water Pump Station (GMP 2) – 95% design in City review
 - Raw Water System (GMP1) – Out for Bid
 - RW Excavation & Stormwater – Construction 70% complete
- Water Treatment Plant Facilities:
 - Construction Documents Finalized and Delivered to CMAR
 - Remaining Design: MSPS, OGSB, & BHR Ductbank
 - CMAR – Bidding of GMPs 3C, 3D & 3E in progress
 - GMP 3A (Equipment) – Shop Drawing submittal phase
 - GMP 3B (Clearwells & UFCs) – In Construction/On Schedule
 - WTP Stormwater – Construction 90% complete
 - Bullick Hollow Roadway Improvements – Project Closeout
 - PEC T/L Relocation – In Construction



WTP 4 – GMP Procurement Schedule

| GMP | Scope of Work | Anticipated Council Dates |
|-----------|--|------------------------------------|
| GMP 3A | Early Out Procurement - Purchase of Process Equipment | May 2010 \$7.5M (approved) |
| GMP 3B | Cleanwells & Upflow Clarifiers (UFCs) - Excavate and Construct Cleanwells & UFCs - Excavate Filter Complex | June 2010 \$22.8M (approved) |
| GMP 3C | WTP Walls, Conveyances & Site Fencing WTP Filter Complex (except EIC) Main Electrical Gear (WTP & RWPS) | November 2010 (planned) |
| GMP 1 | Raw Water Intake, RW Tunnels - Construct RW Intake - Construct RW Tunnel - Construct RW Transmission Main | January 2011 (planned) |
| GMP 3D | WTP Washwater, Solids, Lime and Chemical CSM's WTP Electrical Package & Admin Bldg RWPS Valves, Meters, Surge Tank & Pumps (F&I) WTP and RWPS SCADA | February 2011 (planned) |
| GMP 3E | WTP Underground M&E, Electrical Bldg, Maint Bldg | March 2011 (planned) |
| GMP 2 | RWPS Construction | June 2011 (planned) |
| GMP 5 & 6 | Jollyville & Forest Ridge Tunnels | August 2011 (planned) |
| GMP 4 | WTP4 & RWPS Site Finishes - Final paving, lighting, landscaping, etc. | September 2011 (planned) |



WTP 4 Facilities Highlights

Raw Water Pump Station



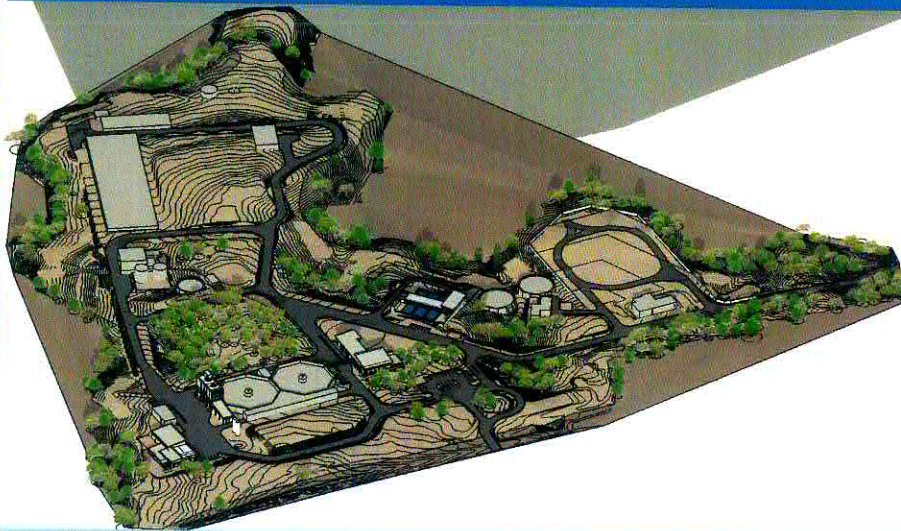
Raw Water Pump Station

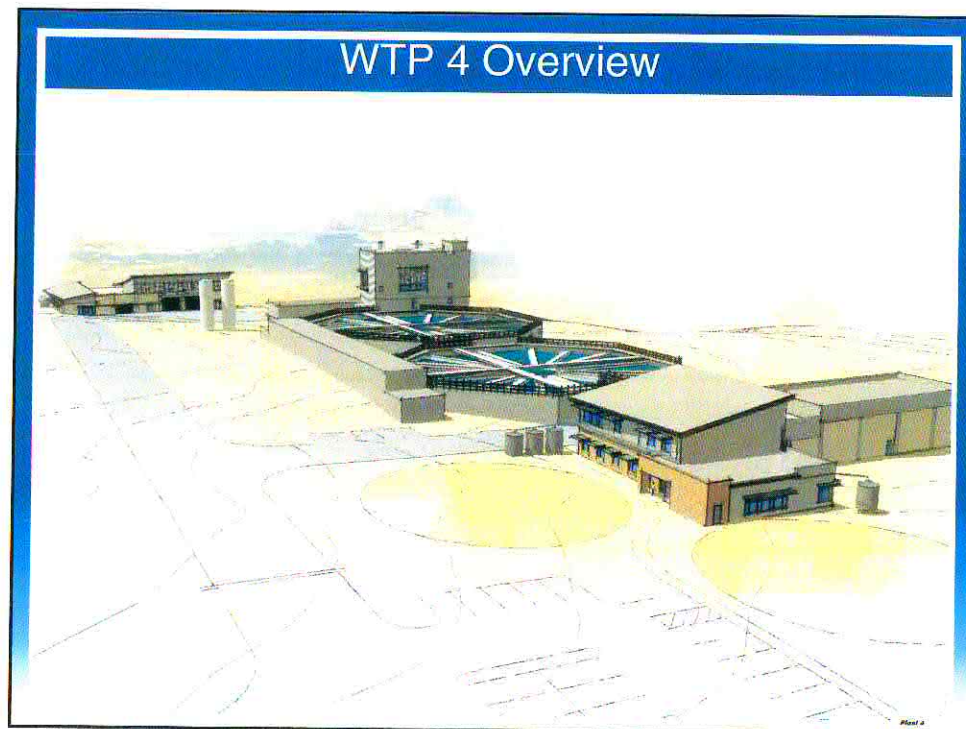


Raw Water Pump Station

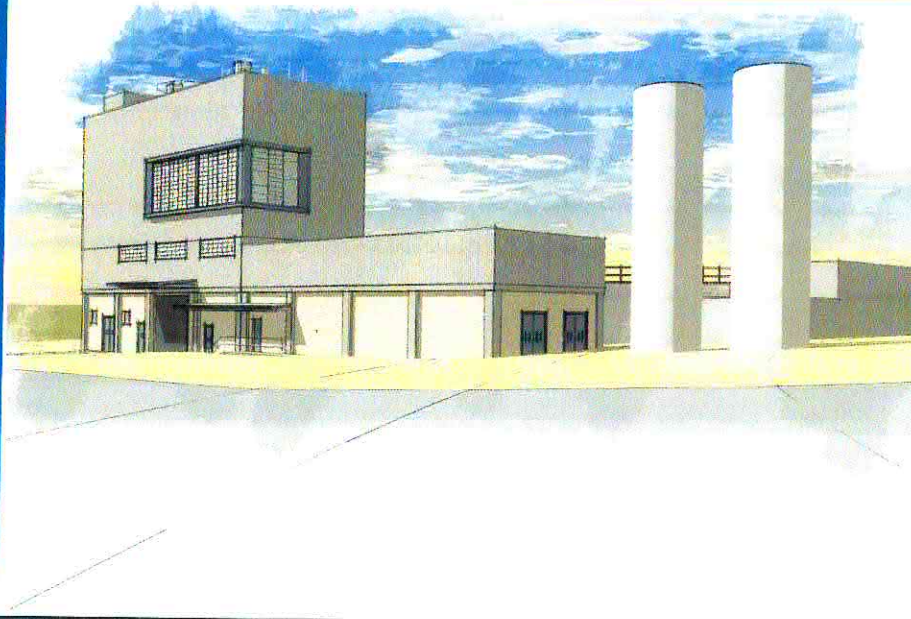


WTP 4 Site Rendering

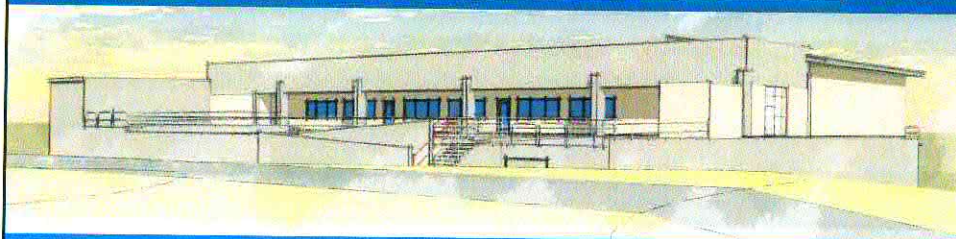




Lime Building, UFC & CO₂



Filter Building



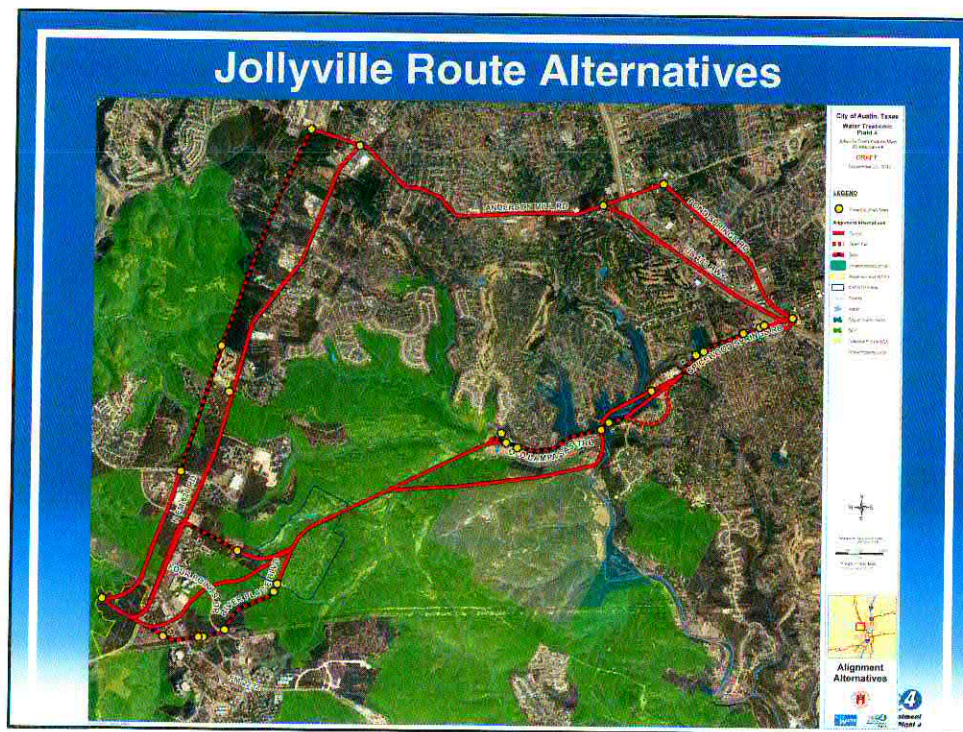
Admin Building



Maintenance Shop



Jollyville Transmission Main



Route Alternative Considerations

- Environmental Impacts
- Community Impacts
- Cost/Schedule
- Constructability



Jollyville Recommended Route



Community Impacts Repurposing of Spicewood Springs Site

Spicewood shaft site repurposed from working shaft to retrieval shaft

- Retrieval shaft is smaller (20-30' versus 40-50')
- Excavation of tunnel shifted to Jollyville shaft site
- Remaining work at Spicewood: Excavation of shaft, retrieval of boring machines, pipe installation, grouting

Reduces truck traffic by over 90%

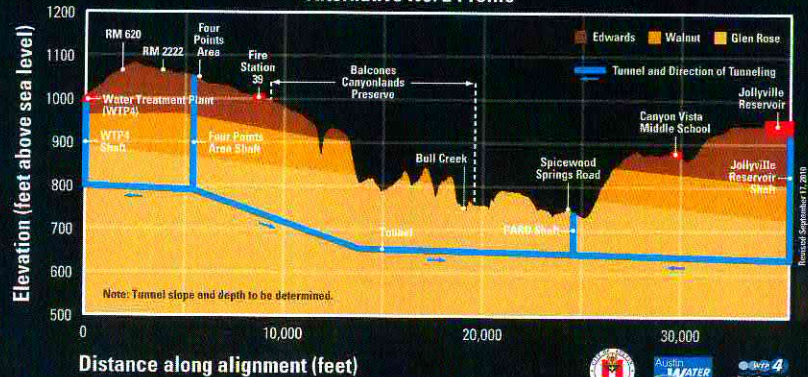
- Truck trips reduced from 11,500 to less than 800
- Honors the restricted trucking hours of 9 a.m. to 3 p.m.

Reduces construction days by more than 50%

- Construction days reduced from 1000 to less than 400



Jollyville Transmission Main Alternative No. 2 Profile



Spicewood Springs Site Activities

Excavation of shaft

- 60 construction days (24 to sink shaft)
- 10-20 Equipment/material deliveries, 160-180 total truck trips; 5-8/day peak truck trips

Retrieval of tunnel boring machine

- 20 construction days per TBM (40 total)
- 10-20 Equipment/material total truck trips per TBM (20-40 total); 4-6/day peak truck trips

Pipe Installation

- 250-275 construction days (approx one calendar year)
- 1-2 trucks/day total truck trips; 1-2 peak truck trips

Grouting of tunnel

- 60-70 construction days
- 200 total truck trips; 3-5/day peak truck trips



Current Shaft Sites on Parkland

Comal Shaft
Nash Hernandez
St. and Comal St.



Riverside Shaft
Riverside Dr. and S. First St.



Completed Shaft Sites on Parkland



Red Bud Isle Park

Shoal Creek Greenbelt



Environmental Compliance

Environmental Compliance

Tropical Storm Hermine

- 16" of rain recorded
- All disturbed areas mulched prior to rain event
- All stormwater contained in large excavation at Raw Water Pump Station (RWPS) site (per design)
- Rain for Rent treatment system utilized at RWPS for filtering stormwater resulting in high quality discharge
- No major issues identified during post rain event inspections
- Additional controls added in isolated areas

Tropical Storm Hermine

Plant Site



Tropical Storm Hermine

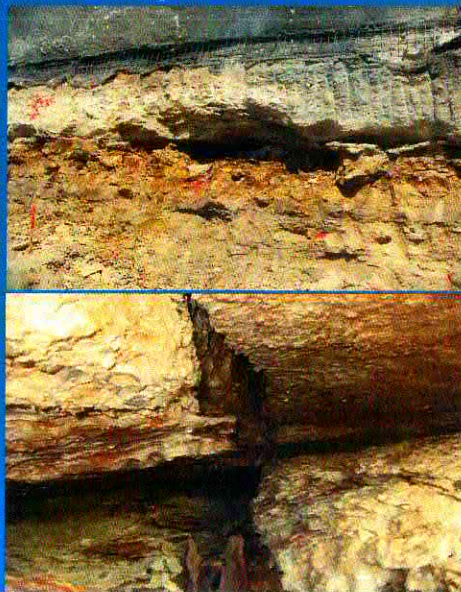
Raw Water Pump Station



Environmental Compliance

Voids

- One encountered on Raw Water Pump Station site
- Feature evaluated per Comanche Canyon Ranch 10(a) permit requirements
- All findings reported to Fish & Wildlife Service (FWS)
- Construction activities resumed with FWS concurrence



Questions?

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