

JOLLYVILLE TRANSMISSION MAIN: Environmental Commissioning Monthly Report

**Presented to the Austin Environmental Board
May 16, 2012**

Thais Perkins, Watershed Protection Department



Environmental Commissioning Activities - JVTM

- Monthly shaft site (surface) visits concurrent with plant site visits
- Weekly interior shaft/tunnel visits
- Biweekly meetings of the Environmental Commissioning Coordination Group to resolve possible issues
- Environmental monitoring of groundwater and surface water
- Have begun sampling for age dating of deep vs. shallow groundwater systems
- Discovery of Jollyville Plateau Salamander near Spicewood shaft site triggered adaptive management process



Environmental Commissioning Cost Summary

Initial INTERA Contract Amount	\$ 1,713,814
<i>Glen Rose groundwater analysis</i>	TBD
<i>Hydrophobic Grout analysis</i>	TBD
<i>Age Dating</i>	TBD
Total Amount Billed to Date (Feb 2012)	\$1,260,615
Total Remaining	\$453,198

Other EC Costs:

Age Dating lab work \$30,000 (projected, Black & Veatch contract)

Total Age Dating Costs: \$41,180 (projected)

Weekly Shaft and Tunnel Visits

Reach 1 Tunnel May 2012



Weekly Shaft and Tunnel Visits



-Jollyville Reservoir Shaft





Spicewood Shaft Adaptive Management

- EC participated in the Adaptive Management process, including visiting the site and discussing recommendations/ lessons learned from the Four Points Shaft
- Reviewed and concurred with the Spicewood Shaft Adaptive Management Report, including proposed changes to shaft design and E/S controls
- Enhanced environmental monitoring
 - *Additional surface flow monitoring site upstream*
 - *Recommended an additional monitoring well (JT-130) at the soil/rock interface to monitor groundwater most likely to feed Trib 4 JPS site*
 - *Will dedicate continuous monitoring instruments (TROLLs) to new and existing wells*
 - *Once wells recover post-construction, may reduce monitoring frequency*

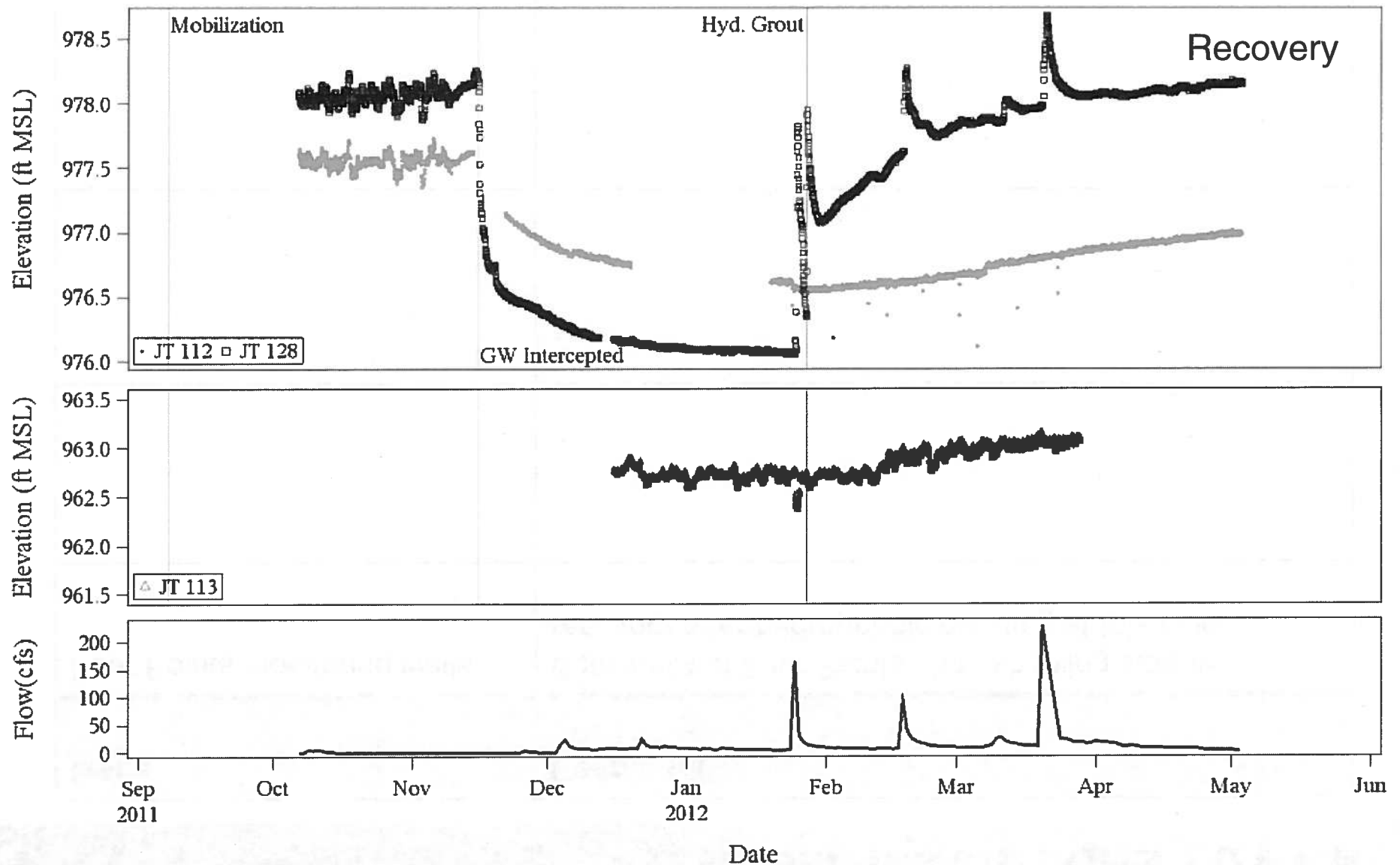




Environmental Commissioning Issues/Resolutions - JVTM

Issue	Resolution
Four Points monitoring wells	Both wells at Four Points shaft showing steady recovery after hydrophobic grouting at this time.

JT112, JT113, and JT128 Wells

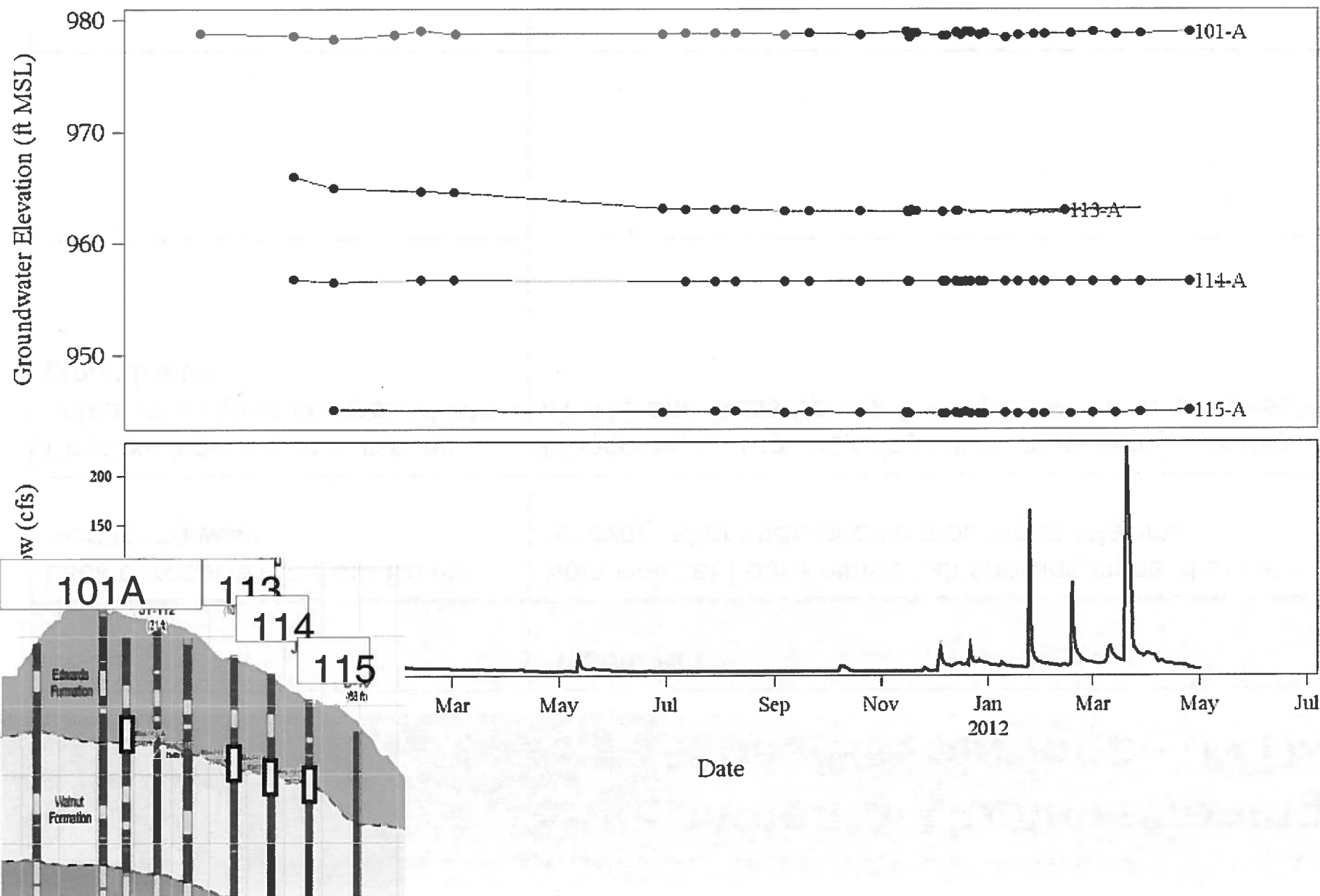


Near well (JT-128) shows recovery to 978.25 ft MSL (above pre-excavation level);
Far well (JT-112) to 976.85 ft MSL (within 0.75 ft of pre-excavation level) as of 5/9

Environmental Monitoring Update – Four Points wells

West Edwards Wells

• 101-A • 113-A • 114-A • 115-A •





Environmental Commissioning Issues/Resolutions - JVTM

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Lack of recovery in Four Points monitoring wells	Both wells at Four Points shaft showing signs of steady recovery after hydrophobic grouting at this time.
Possible leaching of di-n-butyl phthalate in grout compound into groundwater	Monitoring for organic compounds proceeding monthly at JT-112 and Gaas Spring. 9 samples so far; none detected.



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Rapid water level rise in JT128 after storms on 1/25 and 2/18 and modest rise after 3/10 and 3/20 rains	Driller contracted through B&V to repair JT-128 well beginning week of May 14 th .



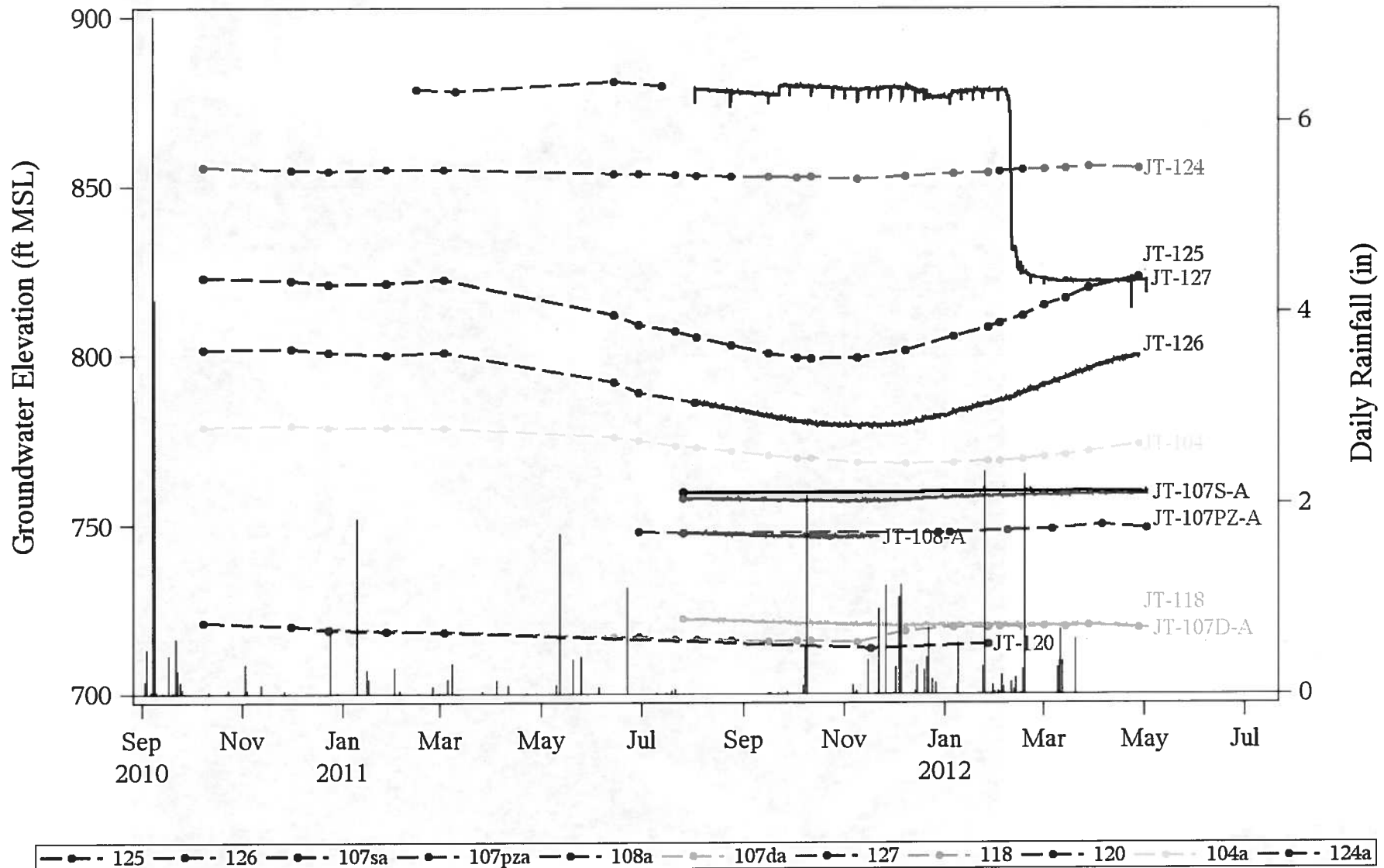
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Rapid water level rise in JT128 after storms on 1/25 and 2/18 and modest rise after 3/10 and 3/20 rains	Driller contracted through B&V to repair JT-128 well next week.
Age dating of groundwater	Field sample collection underway; first surface water/spring results expected in 4-6 weeks.



**Gaas
Spring
4/17/12**

Hydrographs for Eastern Area



- JT-127/ Jollyville Reservoir water level stable
- All other east wells showing modest decline or slowing rate of rise



Pit Spring, 4.19.12

Environmental Monitoring Update – Surface flow

- All springs and stream reaches flowing
- Water quality parameters within expected range
- Nondetects for indicators of mining, vehicular operation, and drilling (TPH, Cu, Cr, Zn)
- Background Screening for phthalates from hydrophobic grout injection at Four Points (JT-112 and Gaas Spring) negative. Will continue screening on monthly basis.



Jollyville Plateau Salamander Monitoring (no new data)

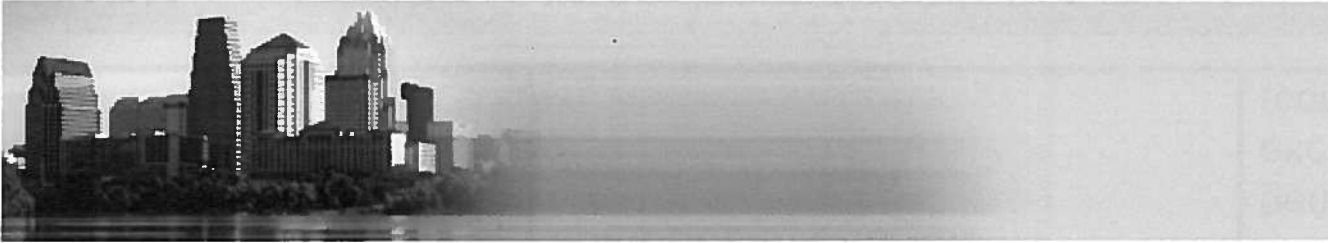
Spring	Date of Last Count	Count #	Historical Average (& last four counts)
Lanier	Jan 3, 2012	85	65 (56,48,59,85)
Franklin/Pit	Feb 2, 2012	39	78 (102,73,87,39)
Tanglewood	March 2012	0	8 (1,0,0,0)
Lower Ribelin	Jan 6, 2012	42	42 (53,176,43,42)
Upper Ribelin	Feb 2011	67	64 (64,123,74,67)

-- provided by Nathan Bendik, Salamander Biologist for WPD



JVTM Environmental Monitoring Summary (cont.)

Trigger	Range	Recent Occurrences
TROLL Alarms	Outside of range of historical Variability	None
Tunnel Inflow Triggers	Baseline water inflow triggers: 50 gpm over 10 feet of tunnel length 200 gpm over 500 feet of tunnel length 400 gpm over a single tunnel reach (1, 2, or 3) Sensitive area triggers: 25 gpm over 10 ft of tunnel length 100 gpm over 500 ft of tunnel length	No measurable inflow, very dry
Spring/Streamflow Triggers	Relative to one another; paired comparison analysis	All surface sites responding consistently with rainfall and general trends; with exception of Tanglewood (consistent rise)



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