

## Quarterly Project Status April 27, 2005

Vashon-Maury Island  
Water Resources Evaluation

April 27, 2005



## Quarterly Review

- Ambient monitoring report completed
- WRIA 15 support
- Ongoing monitoring
- Modeling
- Monitoring well installation
- Web Page improvements
- Budget

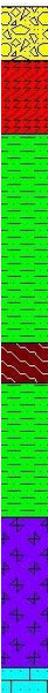
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## WRIA 15 Support

- Substantial unplanned commitment for 2005
- Some impacts on schedule for other project elements
- KC roles – planning process, public input, technical input, review
- Continued support anticipated for remainder of year

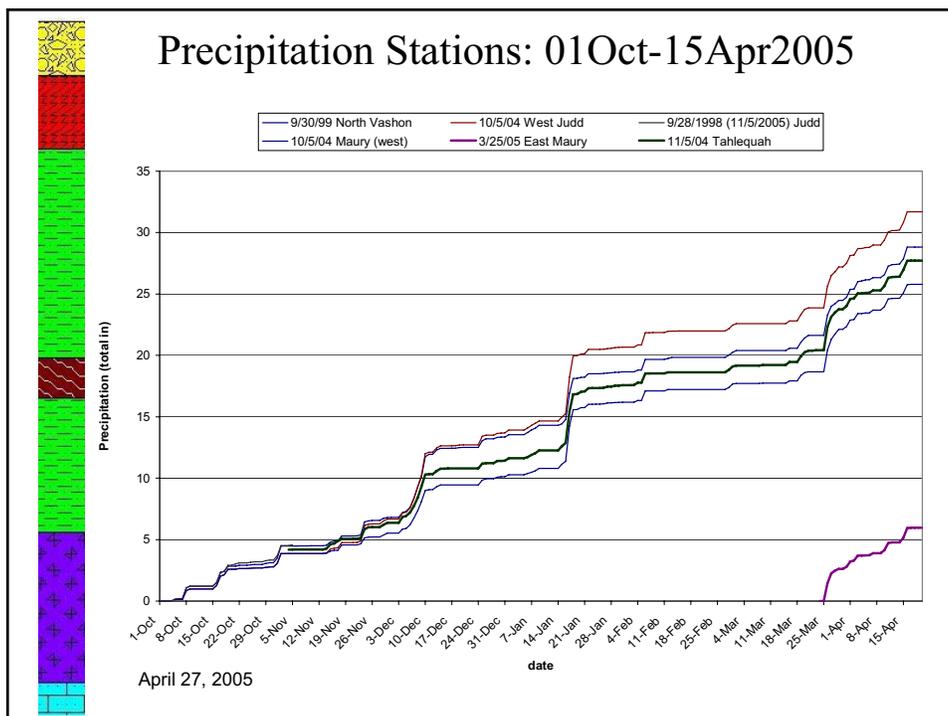
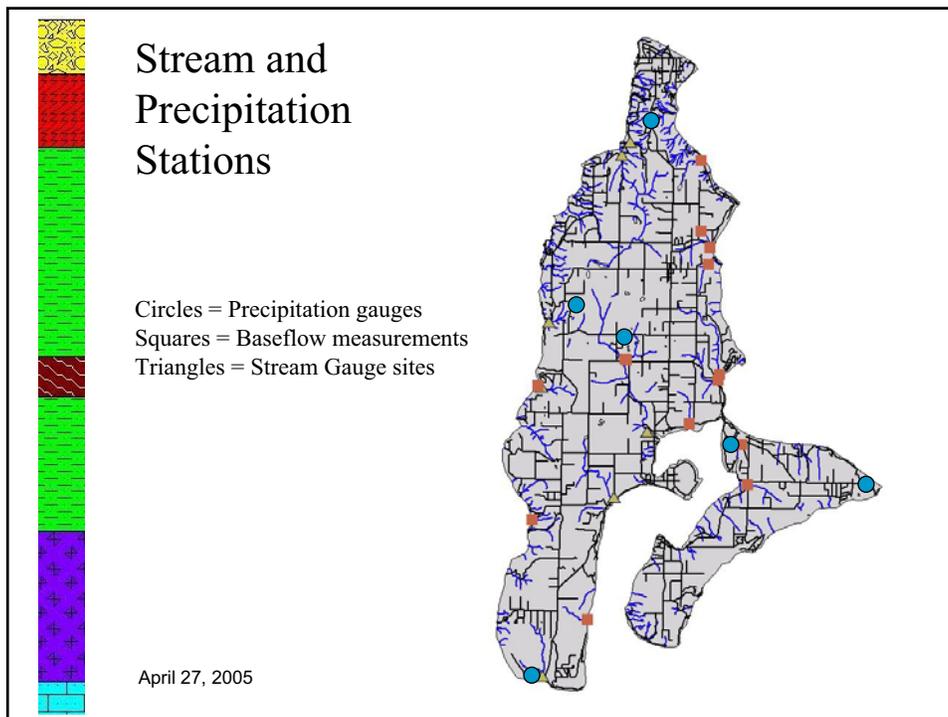
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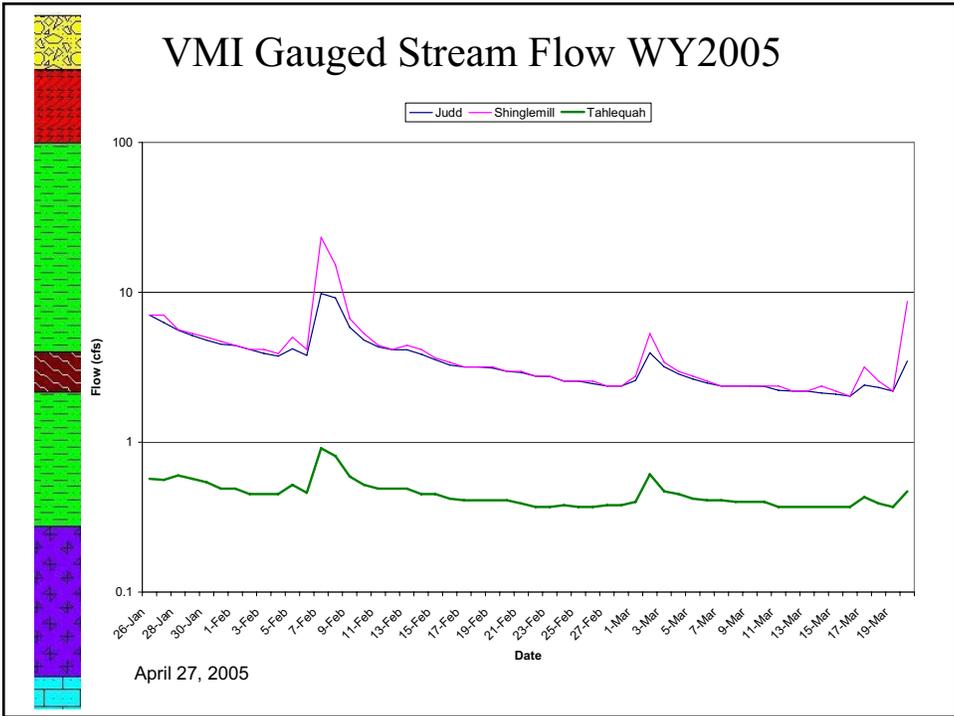
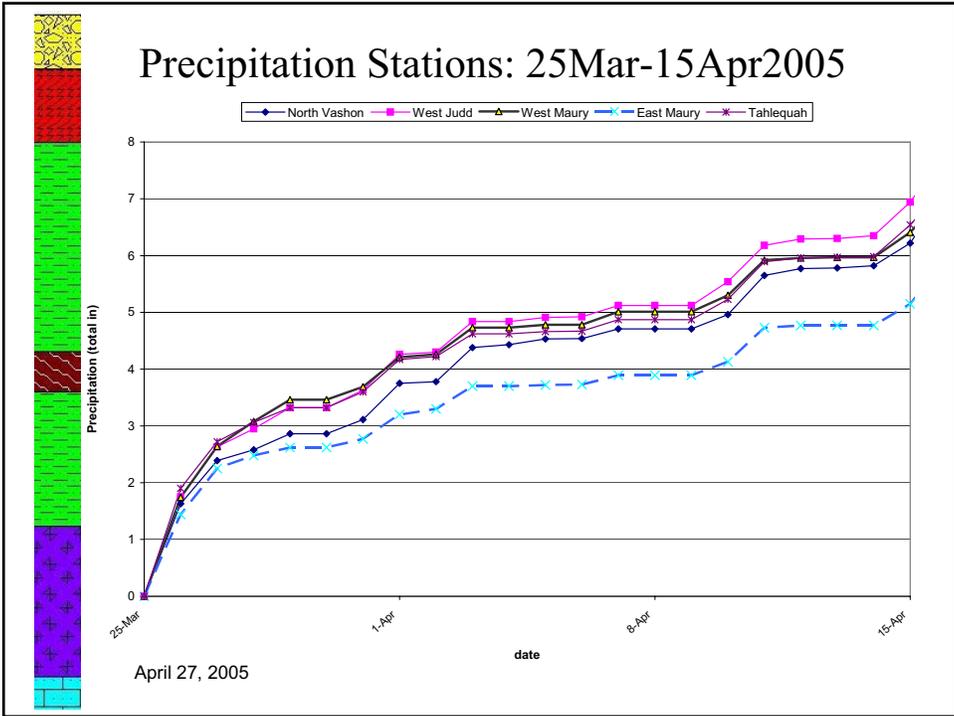


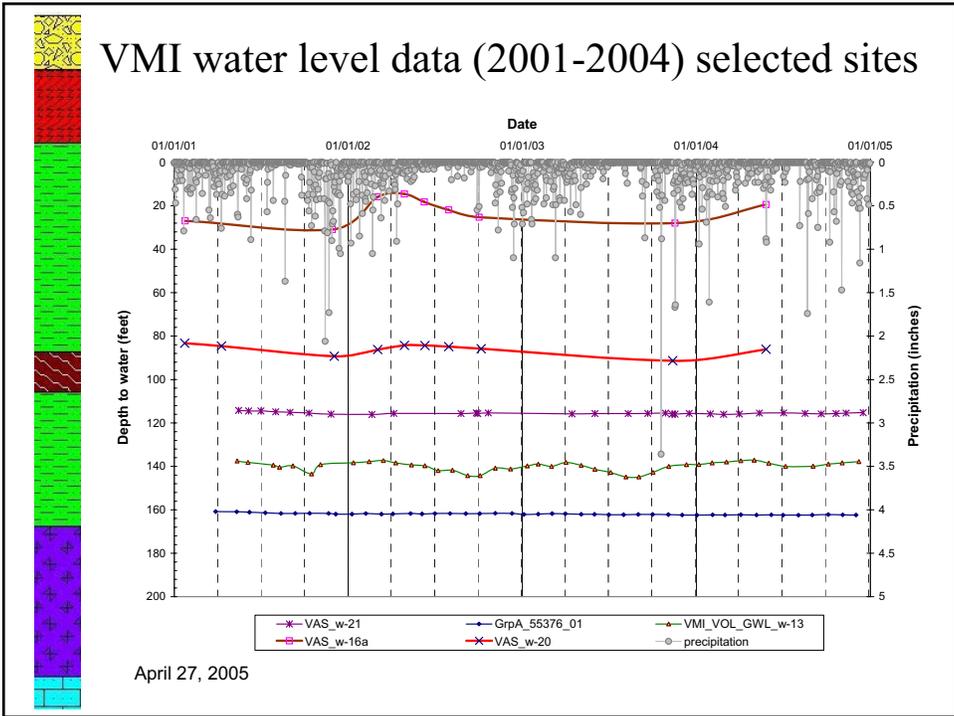
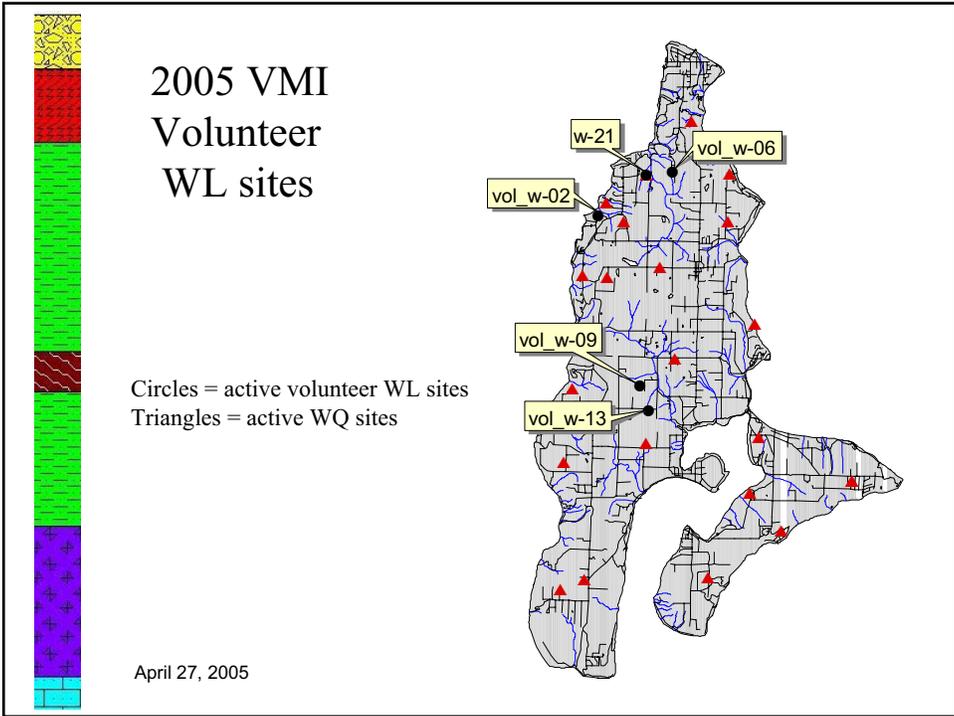
## Continuous Gauging

- Continued stream gauging
  - 3 gauges up in running
  - Green Valley and Fisher Creek gauges not behaving
- Continued precipitation gauging
  - 5 precipitation stations up in running
  - Includes new gauge at Pt Robinson

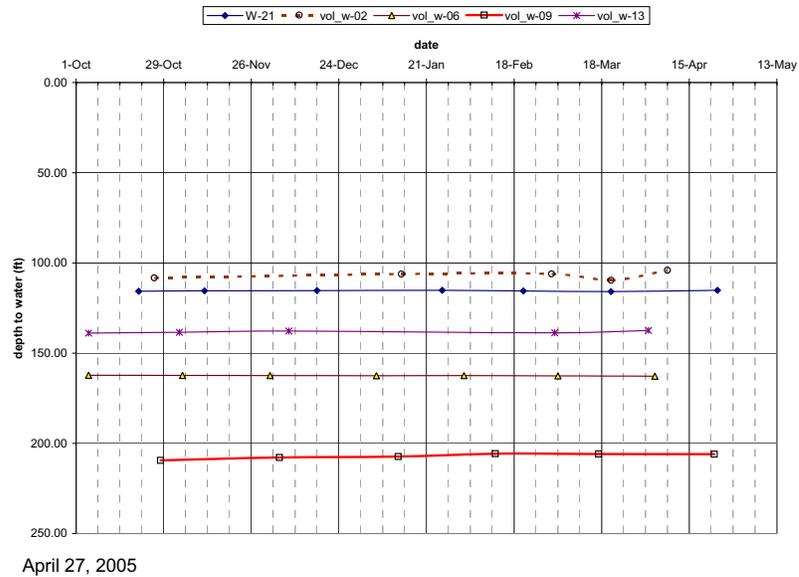
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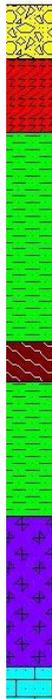
## VMI Volunteer WL data WY2005



## Island-Wide Surveys

- Well water level survey planned
  - Goal = 20 to 30 wells monitored
  - Purpose – to obtain water level data from many places to help with phase 2 model development
  - Recruit volunteers in May
  - Recon wells in June
  - Measurements in July, Sept, Dec
- Stream measurements
  - done in March, again in Sept
  - 21 sites
  - 3<sup>rd</sup> round of measurements

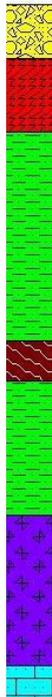
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## Water Quality Monitoring

- Sampling set for mid-June (13<sup>th</sup>-22<sup>nd</sup>)
- 21 Wells
- Nitrate, chloride, arsenic
- Pesticides
  - analyte list sent to committee members for discussion/comments.
  - send any suggested changes by May 13<sup>th</sup> to Eric Ferguson.

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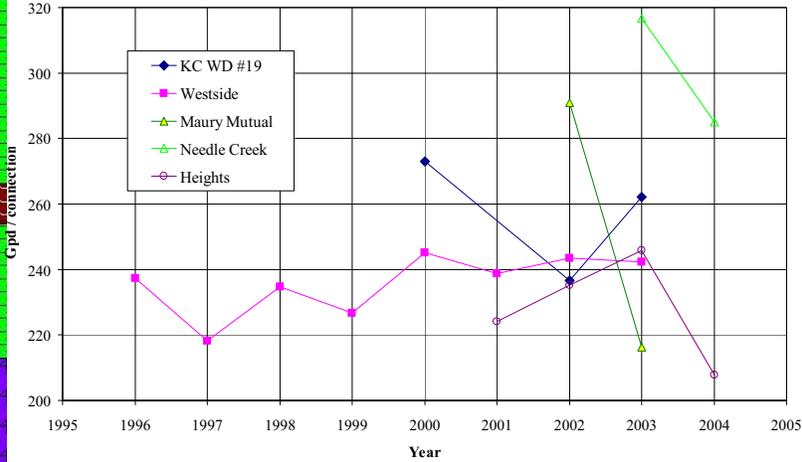


## Modeling

- Phase I model behind schedule and over budget
- Phase I model outstanding issues
  - Residential consumption rates
  - Agricultural uses
  - Aquifer parameters
  - Aquifer depths
- Phase I model and report will be completed by next quarterly update
- Phase I modeling Peer Review
- Phase II surface water modeling begins in fall 2005

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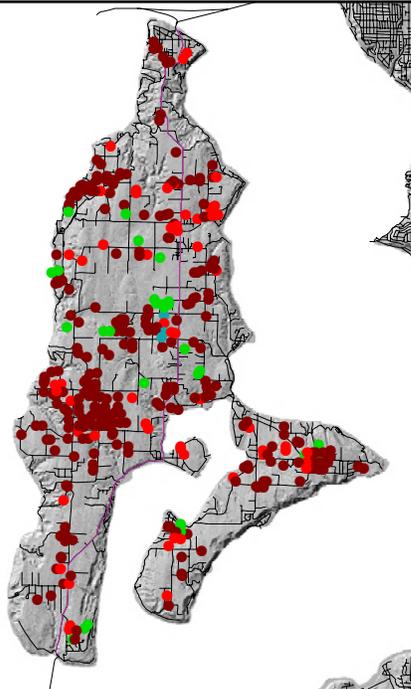
## Residential Consumption (based on large Group As)



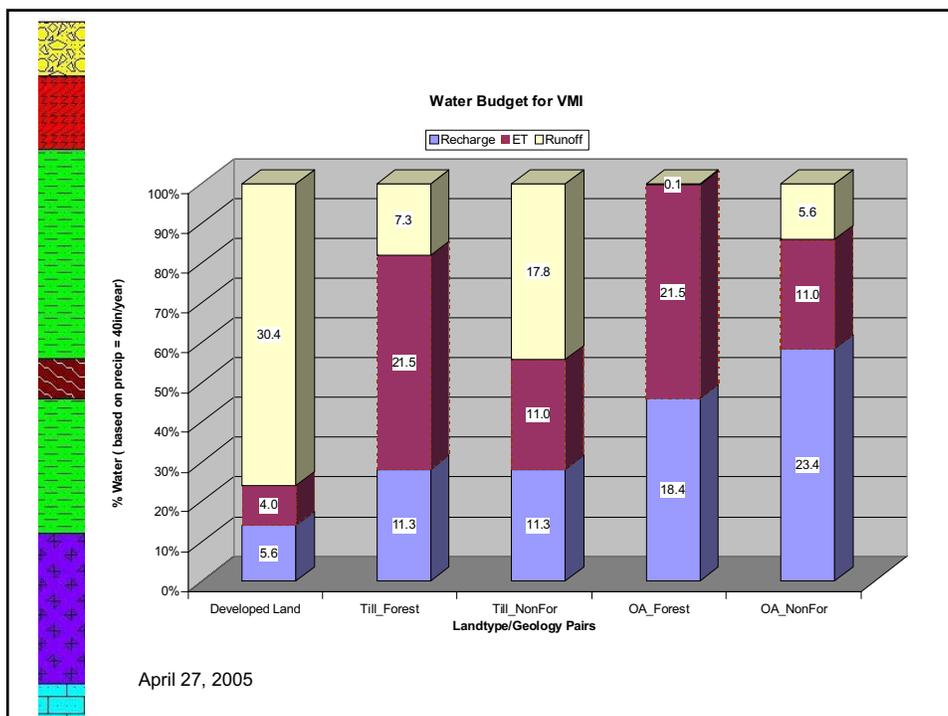
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## Agricultural Uses

- Parcels from KC Ag program and KCD
- Water use rates:
  - Livestock = 17"/yr
  - Horticulture = 21"/yr
  - Mixed = 7"/yr
  - Unknown = 15"/yr
- Total pumpage high (2180 gpm = Many times all PWSs?)



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## Monitoring Well Installation

- Scoping & site location – summer
- Drilling & installation of wells – fall
- About 10 wells planned
- Probably use public-owned lands and rights-of-way
- Working with King County DOT
- Need to balance
  - Cost, locations, depths, drilling methods

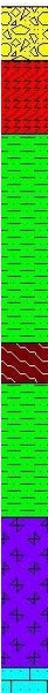
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## Purpose of Monitoring Wells

- Water levels (flow regime)
  - Where flow directions or levels are uncertain but important
- Aquifer areas of water quality concern
  - May want to track water quality into the future
- Stratigraphy
  - Clarify major changes in aquifers or aquitards
  - e.g., gap in aquitard means window between aquifers
- Aquifer properties

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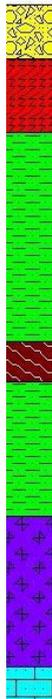


## Stratigraphic Gaps

- Cross sections (by GeoMapNW)
- Qva fairly well understood
- Questions mainly about deeper zones, below Qva (Qpff, Q(A)c)



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## New Groundwater webpages!

- Interactive webpage/database goes public next Monday!
- Updating all of the programs webpages.
- Check out:  
<http://dnr.metrokc.gov/wlr/wq/groundwater.htm>

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## 2005 Budget

- Project budget for 2005 is \$377,371
- Expenses to date: ~\$40,000
  - 11% of our budget
- Project “big- ticket” items coming in the next two quarters:
  - Monitoring well installation (121K)
  - Phase II modeling (55K)
  - GW water quality sampling (15K)

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