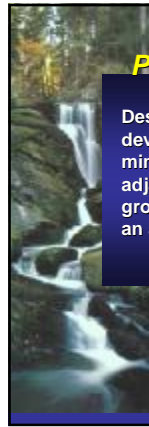


Puget Sound Low Impact Development Pilot Project Monitoring

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Project Goals

Design an integrated low impact development system that more closely mimics native hydrologic function to protect adjacent stream values, enhance groundwater recharge, as well as construct an affordable and livable neighborhood.



Monitoring Goals

- Determine if project meets flow control standards.

Flow control standard: match flow durations for pre-development forested condition from 50% of the 2-year peak flow up to the full 50-year peak flow.

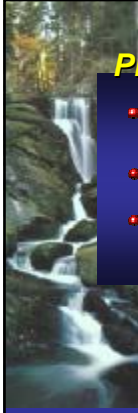
- Determine water budgets for individual LID techniques.
- Assess stormwater runoff quality treatment performance of project as a whole at point-of-compliance.







Additional Monitoring Goal

Can a basic set of LID practices meet restrictive flow control standards given inadequate specifications and lack of guidance for the developer and builder during construction?



Pre-construction Monitoring

- Initial surface and subsurface flow characterization
- Detailed soil analysis
- Full scale PIT infiltration tests



Results from PIT infiltration tests

- ◆ Pit 1: 0.3 in/hr
- ◆ Pit 2: 0.0 in/hr
- ◆ Pit 3: 2.5 in/hr



Weather Station:
precipitation and ET



Flume/PT and auto sampler:
continuous surface flow and flow weighted water quality samples at point of compliance



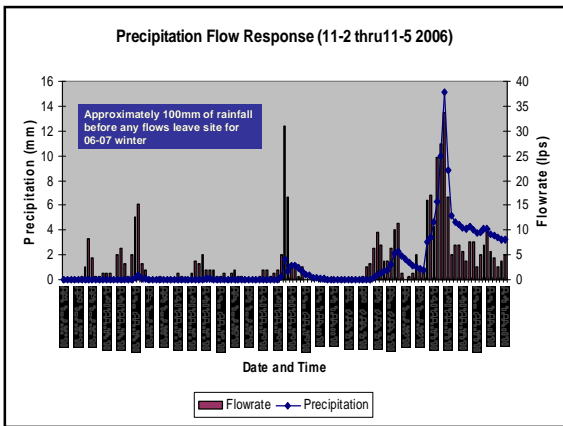


Permeable Concrete Infiltration

Road shoulder

- Newly installed (3/29/06): 1096 cm/hr
- Post-construction (2/1/07): 3.32 cm/hr






Contributors

- The Russell Family Foundation
- Washington State Department of Ecology
- Pierce County Advanced Planning
- Water Environment Research Foundation



Annual Results

<http://www.pierce.wsu.edu>

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