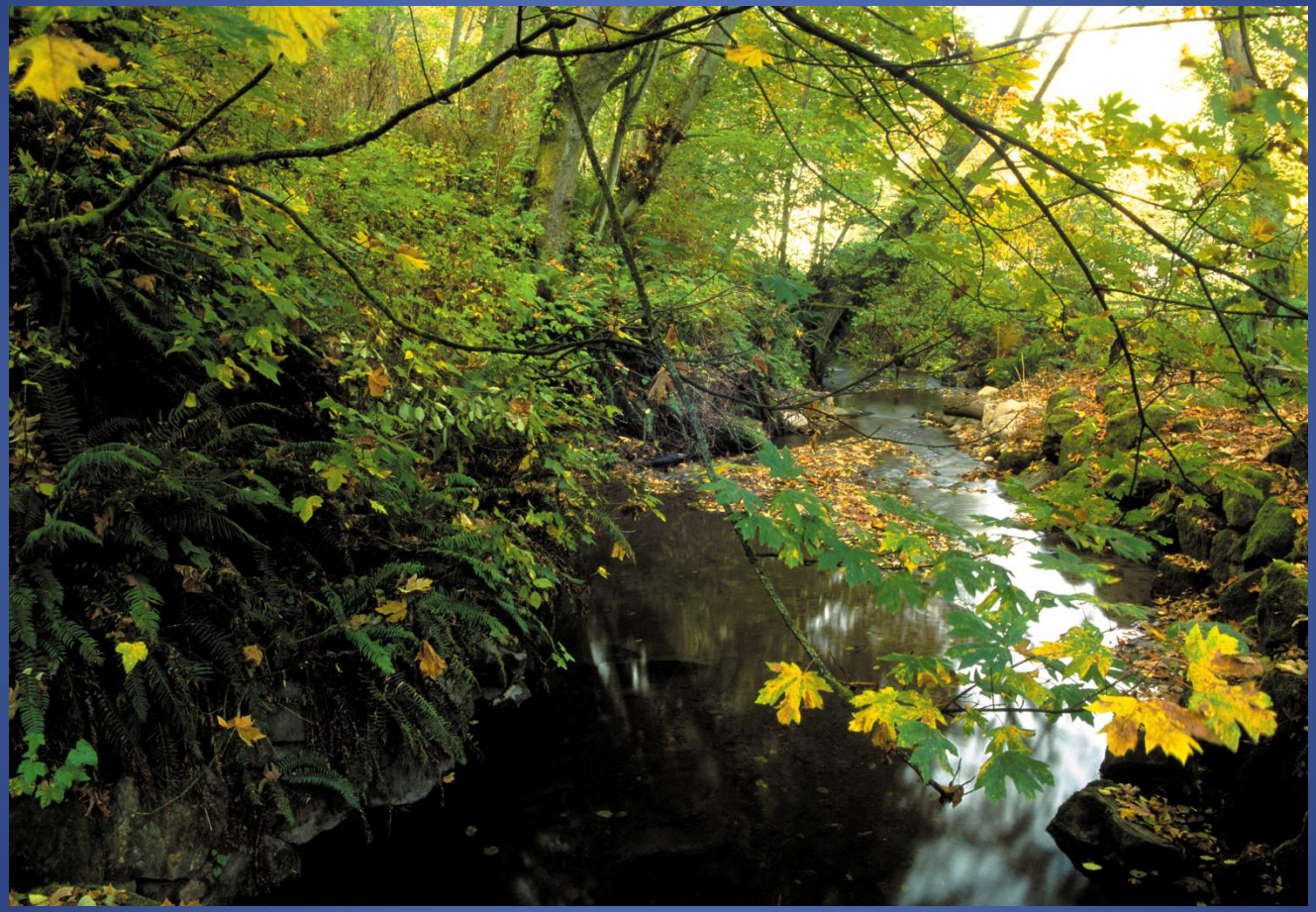
Today's Agenda:

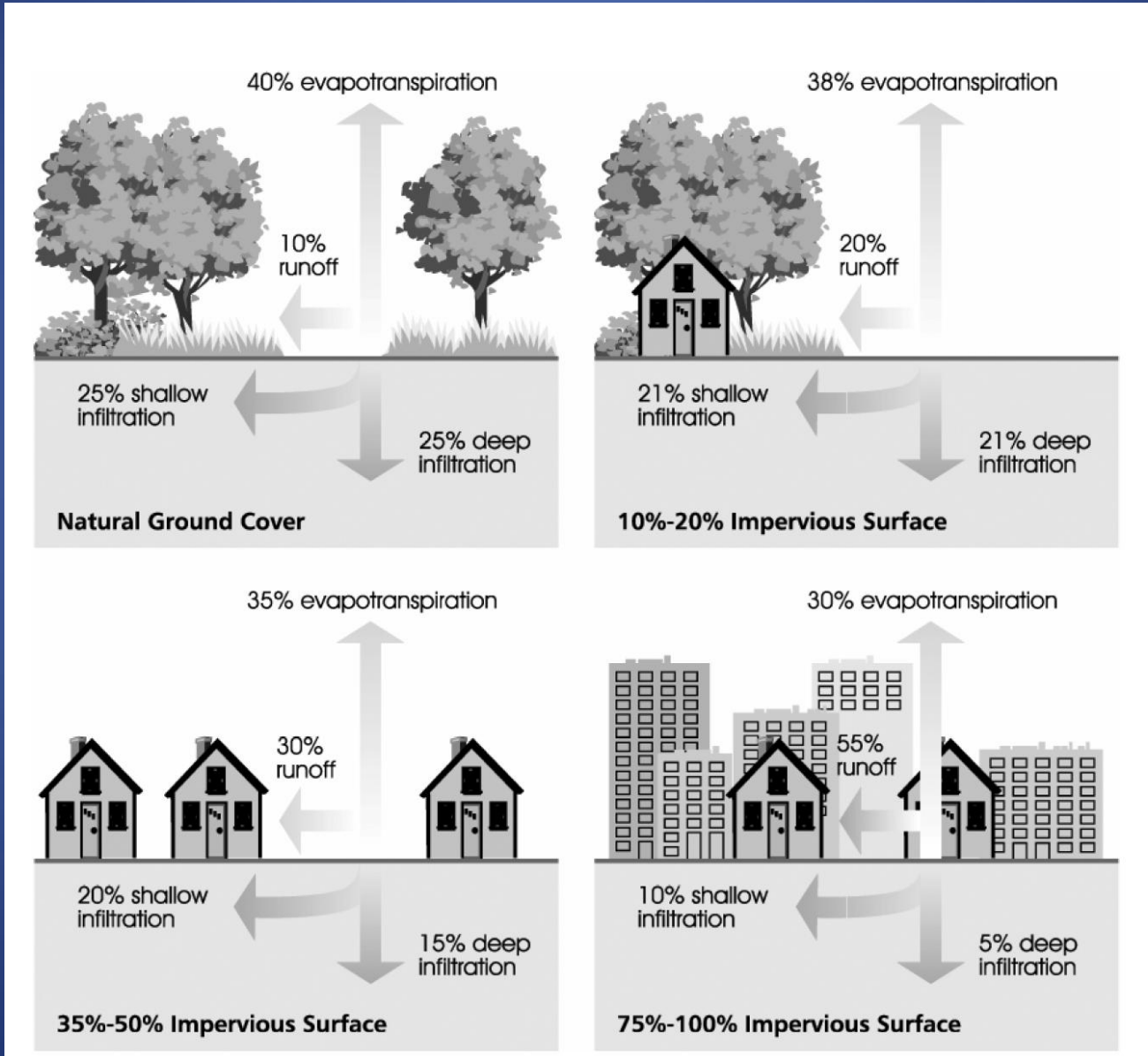
- Project Overview
- Scope & Schedule
- Consultant Interaction
- Teams – Capacity Building
- Overlap – Piper's and Broadview
- SharePoint Operations

Piper’s Creek Flow Control Plan



Project Overview and Scope

Development has significantly changed hydrology of watersheds and the streams that drain them….



Urban streams …

Receive too much water…

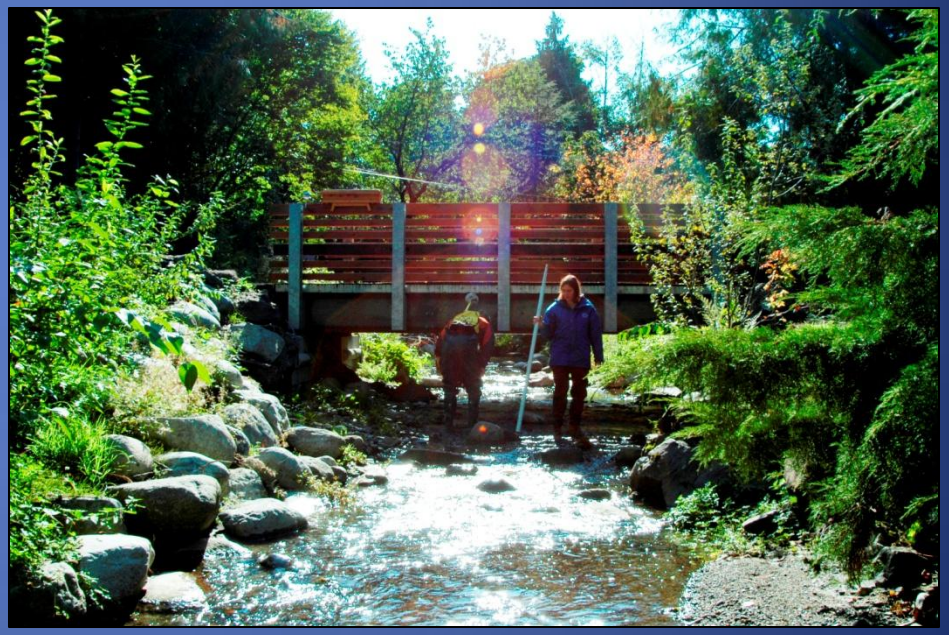
and are encroached upon by development.

This results in flooding of infrastructure and homes, bank and stream bed erosion, and unproductive habitat.

Two major approaches to urban streams :

Reduce runoff…

and increase stream system capacity.



These improvements can help keep people, homes, and infrastructure safe, and restore productive habitat.

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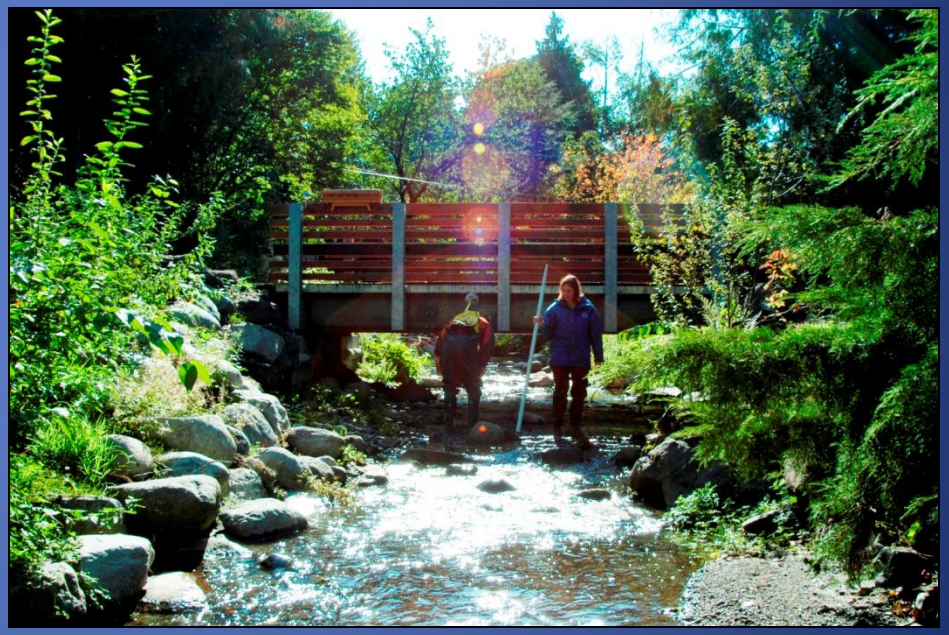
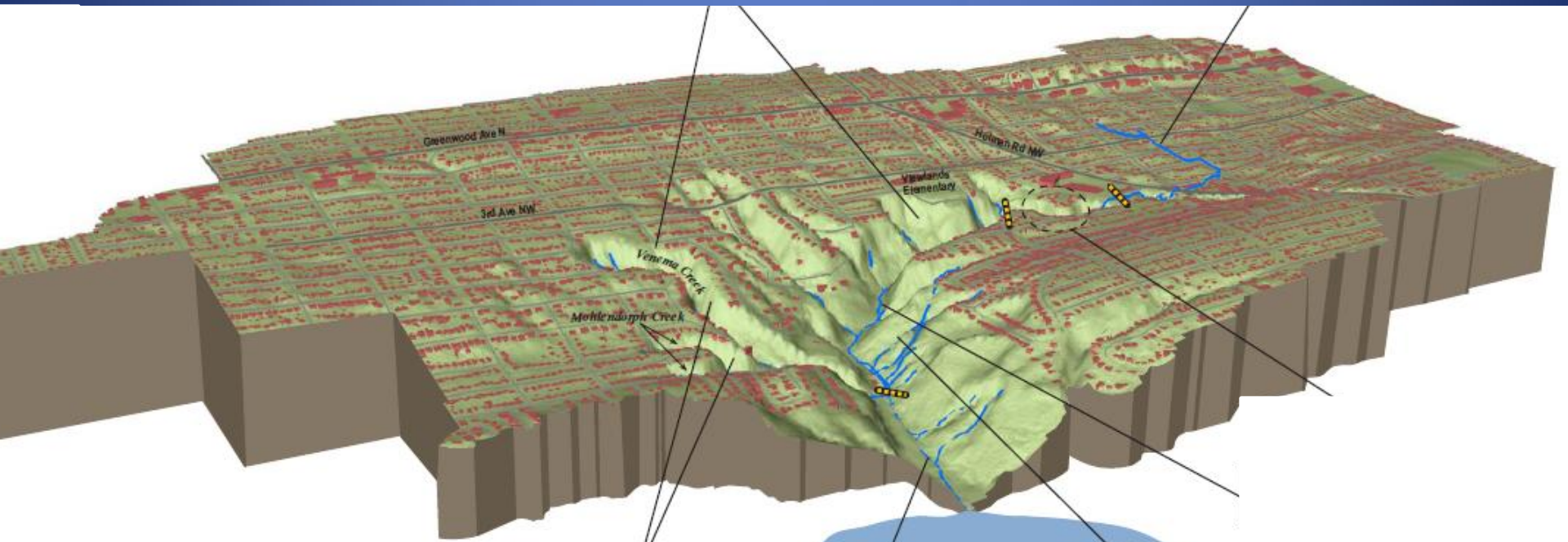


These improvements can help keep people, homes, and infrastructure safe, and restore productive habitat.

Piper's Creek

- Watershed covers 2.5 sq miles, 57% "paved"
- Land uses are 57% Res, 19% Trans, 11% Com/Ind.
- Stream home to salmon, trout, sculpin
- Stream flows increased 5x forested condition
- Water quality concerns
- Also some flooding and sewer backup concerns



Project Intent

- Develop a flow control plan for the Piper's Creek watershed that will improve instream flow conditions
  - Using hydrologic and hydraulic modeling
  - Focusing on Green Stormwater Infrastructure techniques in priority sub-basins
  - Planning for implementation and adaptive management
  - Engaging the community
  - Preparing for applying methods to other urban watersheds

Questions we hope to address:

- What is the volume of stormwater we need to control to measurably improve stream flows?
- Can we provide adequate control through GSI on parcels and in the public right-of-way?
- Do GSI projects result in observable difference in stream conditions?
- What kind of water quality benefits can be achieved with flow control? – via proxy metrics

Project Scope
$850k from EPA

1. Identify desired stream metrics and targets as a basis for evaluation
   - Expert workshop – June 1st
2. Assess available data
3. Monitoring - Augment existing data if needed
   - Data Quality Objectives/Quality Assurance Project Plan (QAPP)
4. Model selection
   - Presentation to SPU, Modeling QAPP

Project Scope

5. Develop hydrologic/hydraulic model(s)
   - Calibration and validation
   - Identify subbasin runoff amounts/control needs
6. Evaluate stormwater management techniques
   - Parcel, ROW, business/residential land uses, green/gray infrastructure
   - Design charrette/workshop
   - “Best mix” scenario modeling runs

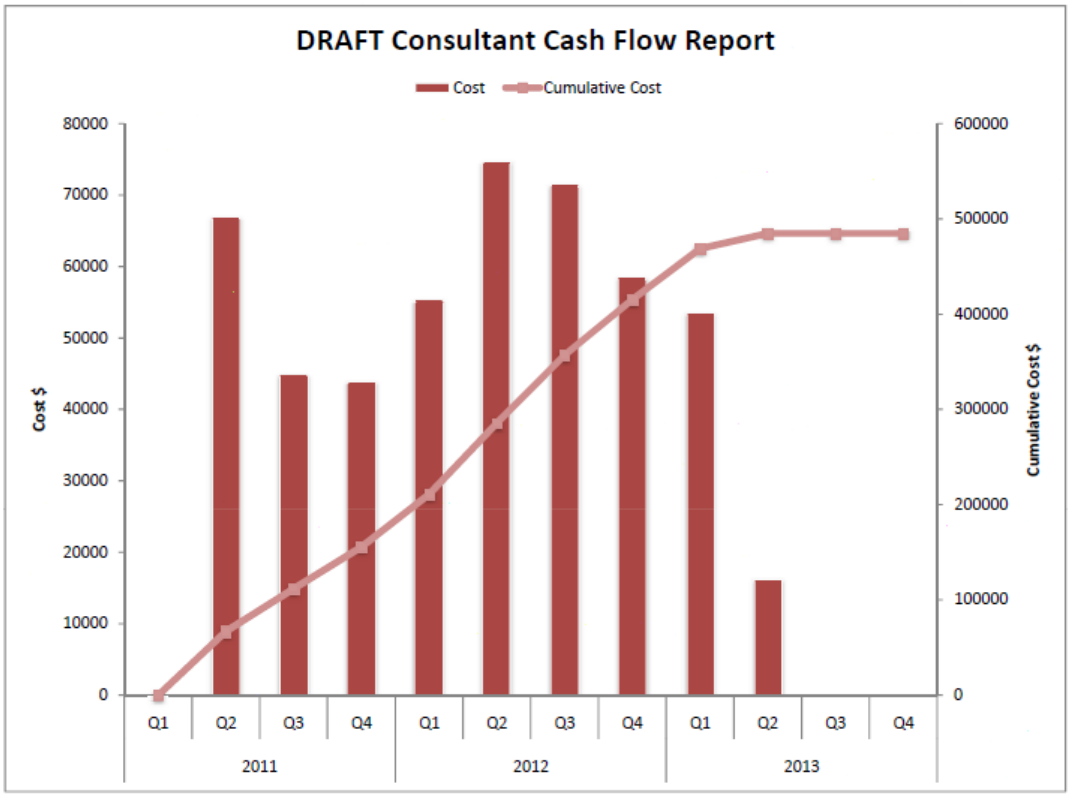
Project Scope

7. Develop flow control plan
   - Identify best mix of actions to reduce runoff and improve stream flow
   - Organize community workshops
   - Develop document and graphics
8. Implementation and monitoring plan
   - Phased implementation and monitoring to gauge performance
9. Community Collaboration – early engagement via umbrella
10. Project management

Project Timeline

Project tasks	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Identify metrics/targets												
2. Assess available data												
3. Augment existing data												
4. Modeling QAPP/selection												
5. Model development												
6. BMP evaluation												
7. Develop a flow control plan												
8. Implem/monitoring plan												
9. Project Management												

Concurrent Workload Projections



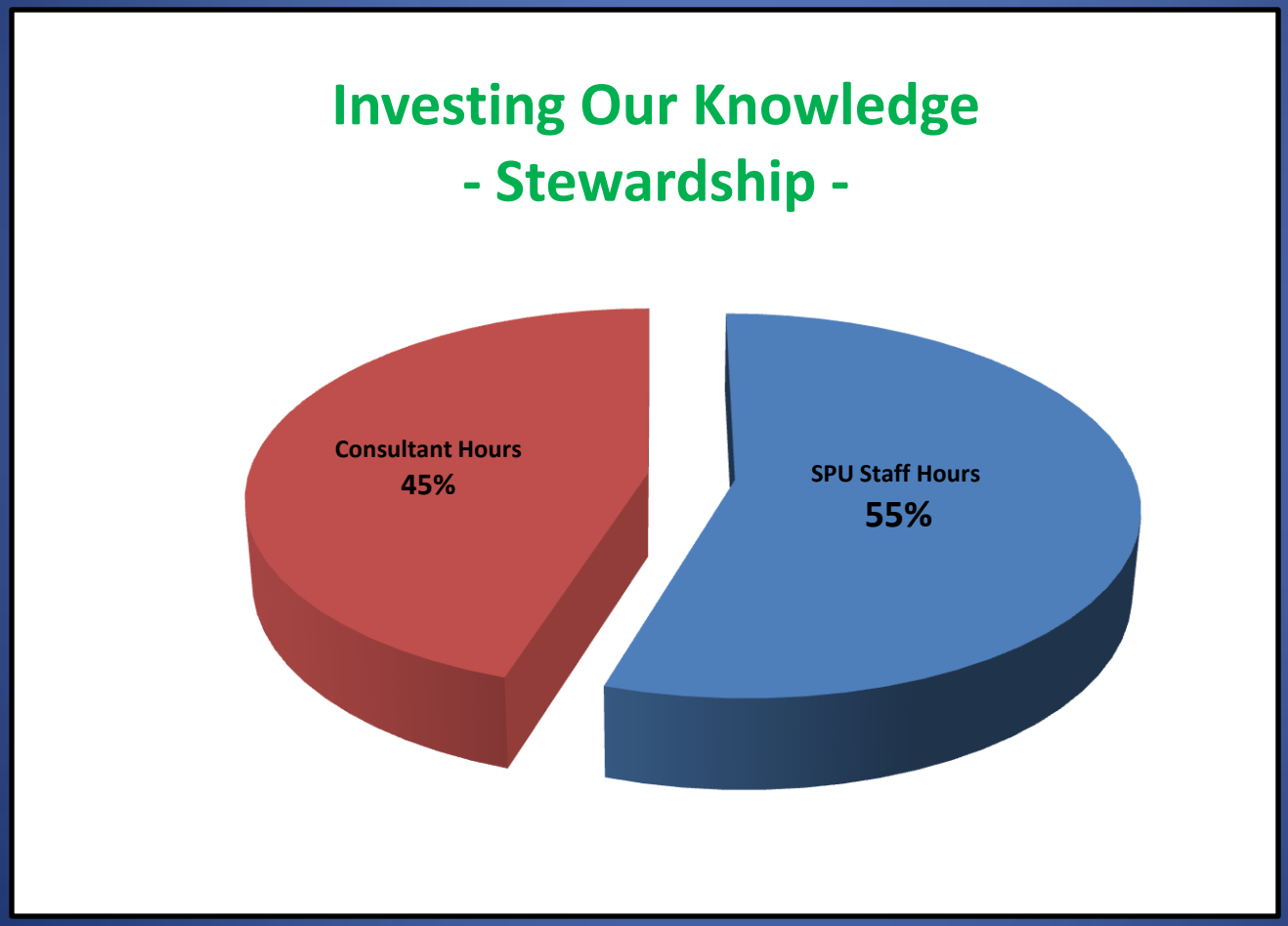
Consultant Selection

- Contract w/ Tetra Tech
  - SVR Design – Land Use & GSI BMP
  - Triangle Associates – Communications
  - R2 Consultants – Stream Metrics
  - Shannon & Wilson - Geotech

SPU Capacity Building

- SPU/Tetra Tech Collaboration
  - Hours at 55%/45%
  - SPU to lead monitoring
  - Overlap with Broadview
    - Modeling
    - Community Collaboration

Ratio Defines the Project



SPU Project Staffing

Core Team

- Active project team
- 4-24 hours/mo.

"Special Teams"

- Task specific work
- Product reviews
- 80 hours/yr.

Advisory Team

- Advisors, facilitate coordination
- Review major products
- 8-10 hours/yr.

Project Manager: Timothy Lowry
Grant manager /Deputy PM: Julie Crittenden
Consultant Team: Tetra Tech

Special Teams

- Metrics Team
- Data Inventory Team
- Monitoring Team
- Modeling Team
- BMP Implementation Team
- Community Collaboration Team

SharePoint

- Central Data Repository
- Team Collaboration
- Project Empowerment

http://spu-sharepoint/DWWQ/Plans/PipersFC/Documents%20for%20Pipers%20Creek/Forms/Pipers%20Creek%20Doc%20Views%20TPL.aspx