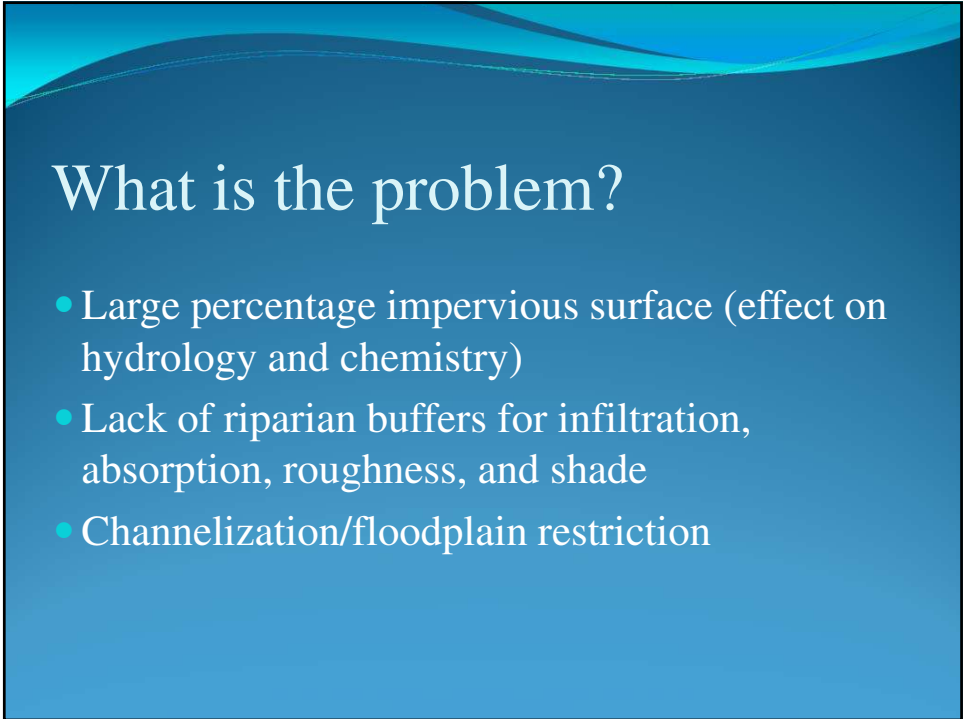




Urban Stream Restoration For Water Quality and Habitat Improvement



What is the problem?

- Large percentage impervious surface (effect on hydrology and chemistry)
- Lack of riparian buffers for infiltration, absorption, roughness, and shade
- Channelization/floodplain restriction

Tools to Address Problem:

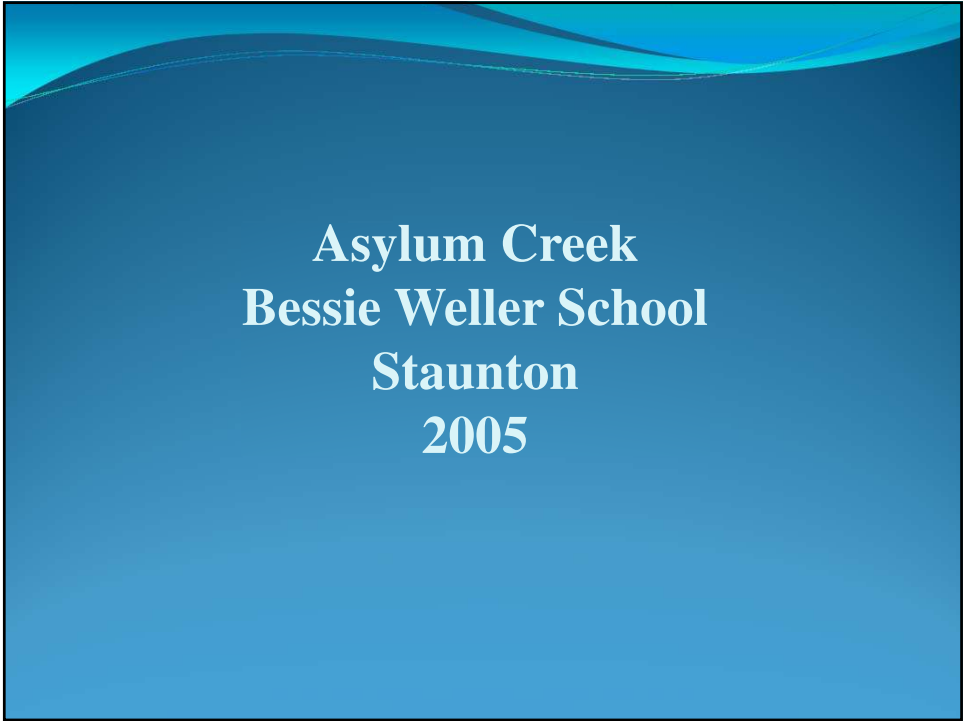
- Reduce and/or mitigate for impervious surface
- Restore/protect riparian vegetation
- Restore floodplain access
- Restore channel dimension, pattern, profile

Potential Implementation Challenges:

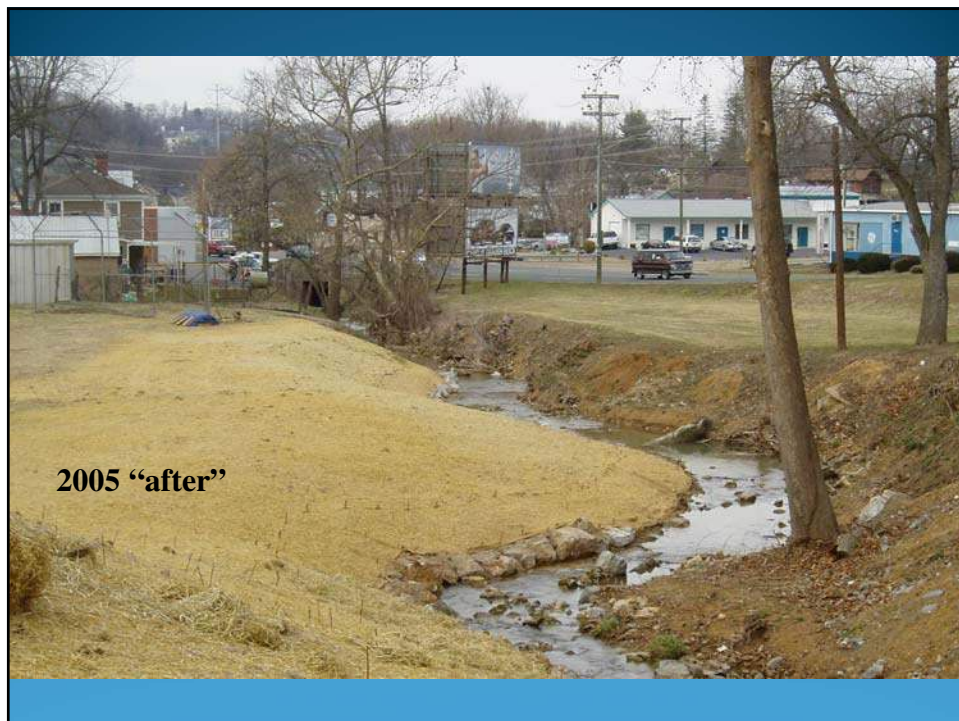
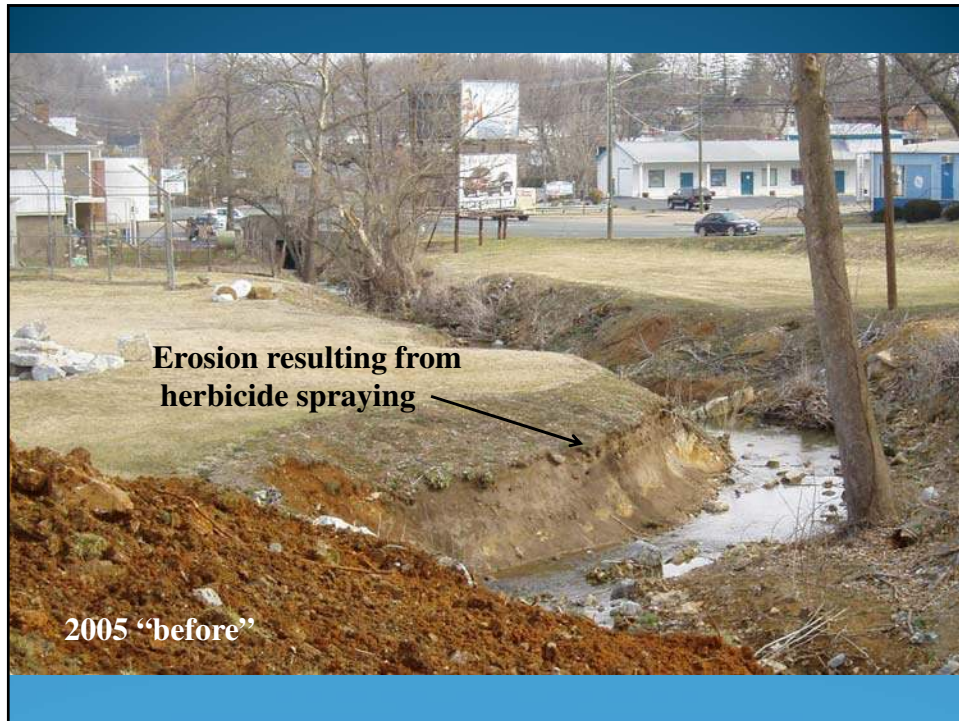
- Infrastructure/Other Physical Constraints (utilities, roads, bridges, culverts, etc.)
- Altered Hydrology! (increased frequency and magnitude; decreased duration)
- Weather (during and immediately after construction)
- Land Management (mowing, spraying, etc.)

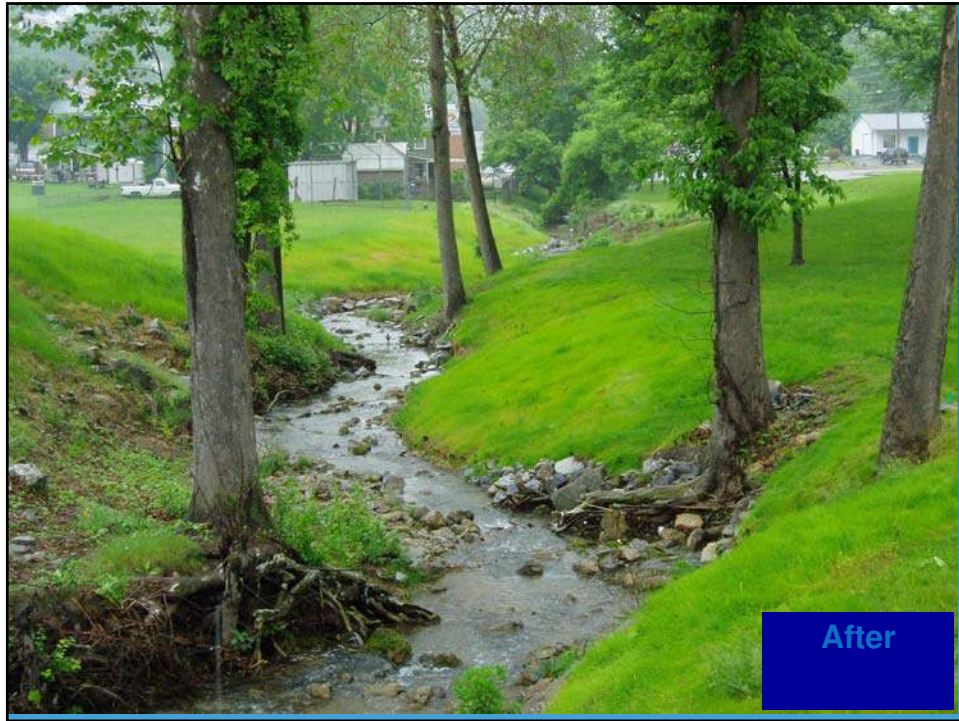


Sample Projects

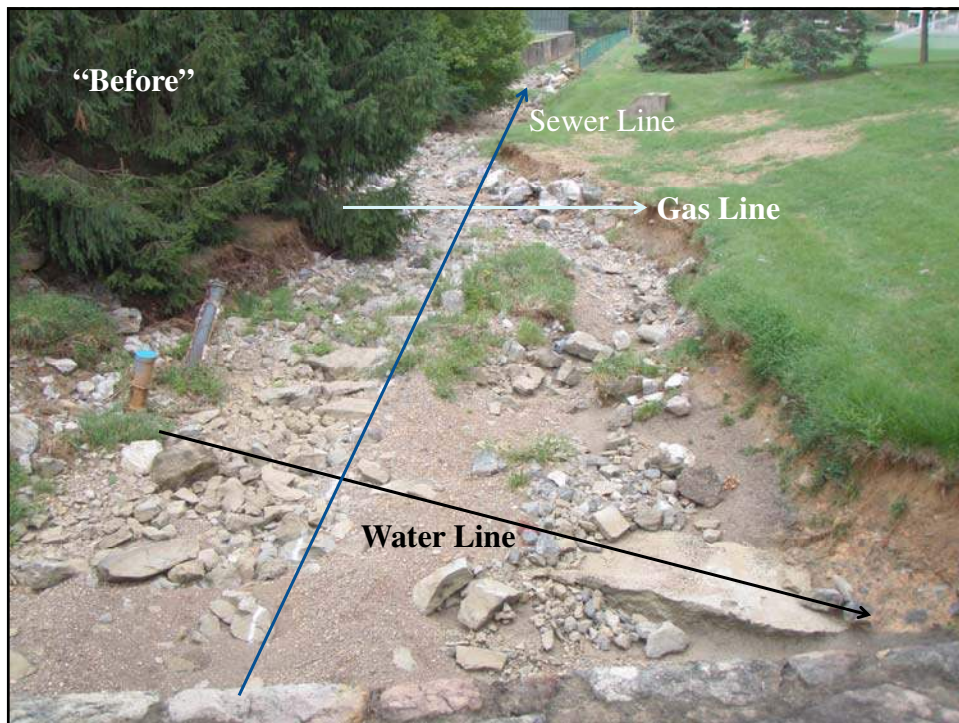


Asylum Creek
Bessie Weller School
Staunton
2005



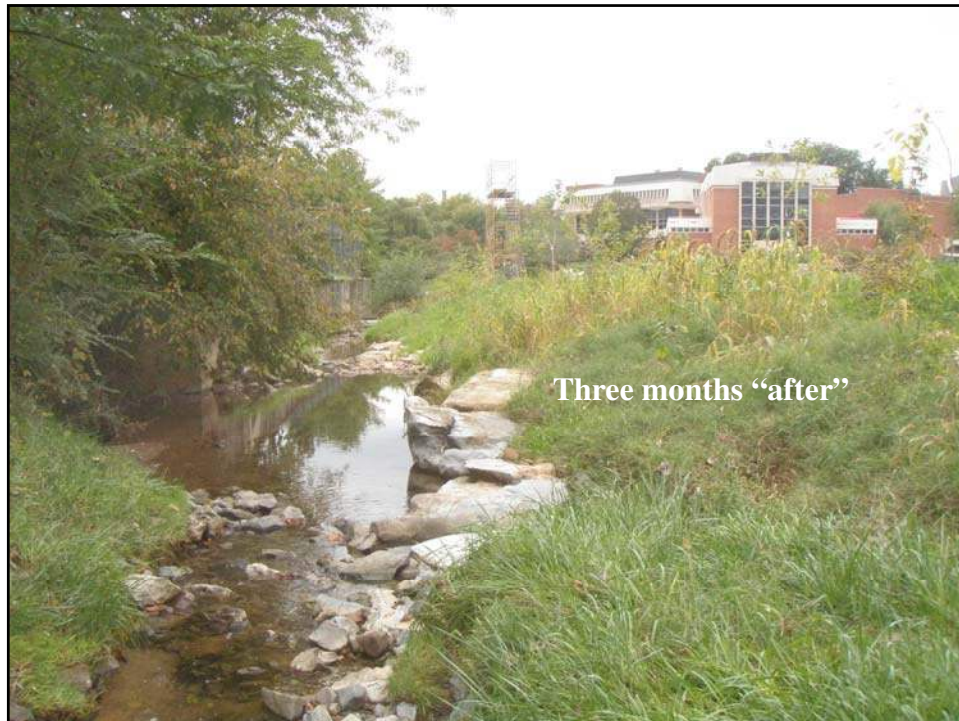


Sibert Creek
JMU Campus
City of Harrisonburg
2011



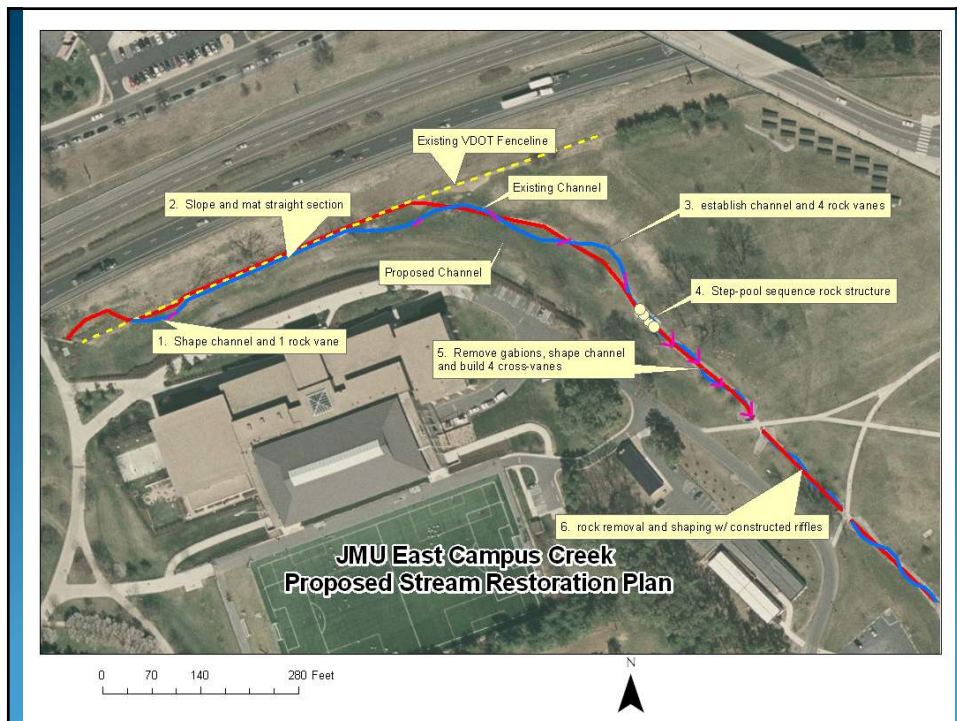








JMU East Campus Creek Spring 2012



Before and After Construction







**Blacks Run
City of Harrisonburg
2006-2012**



