

# Mountain View Drive Stream Stabilization Study | 2017



Presentation to  
City Council  
September 2017

Department of Public Works



# Hydrology

- Confined flow will lead to continued accelerated channel erosion.
- Unstable, actively degrading, exposed utilities

**Table 4-2 Mountain View Drive Basin Statistics**

<b>Study Point</b>	<b>Drainage Area (sq. mi.)</b>	<b>Runoff Curve Number (RCN)</b>	<b>Impervious Area (%)</b>	<b>Physiographic Region</b>
<b>Outfall@ Mt. View Stream</b>	360.1	89	37.2	Valley and Ridge

# Two Options Reviewed:

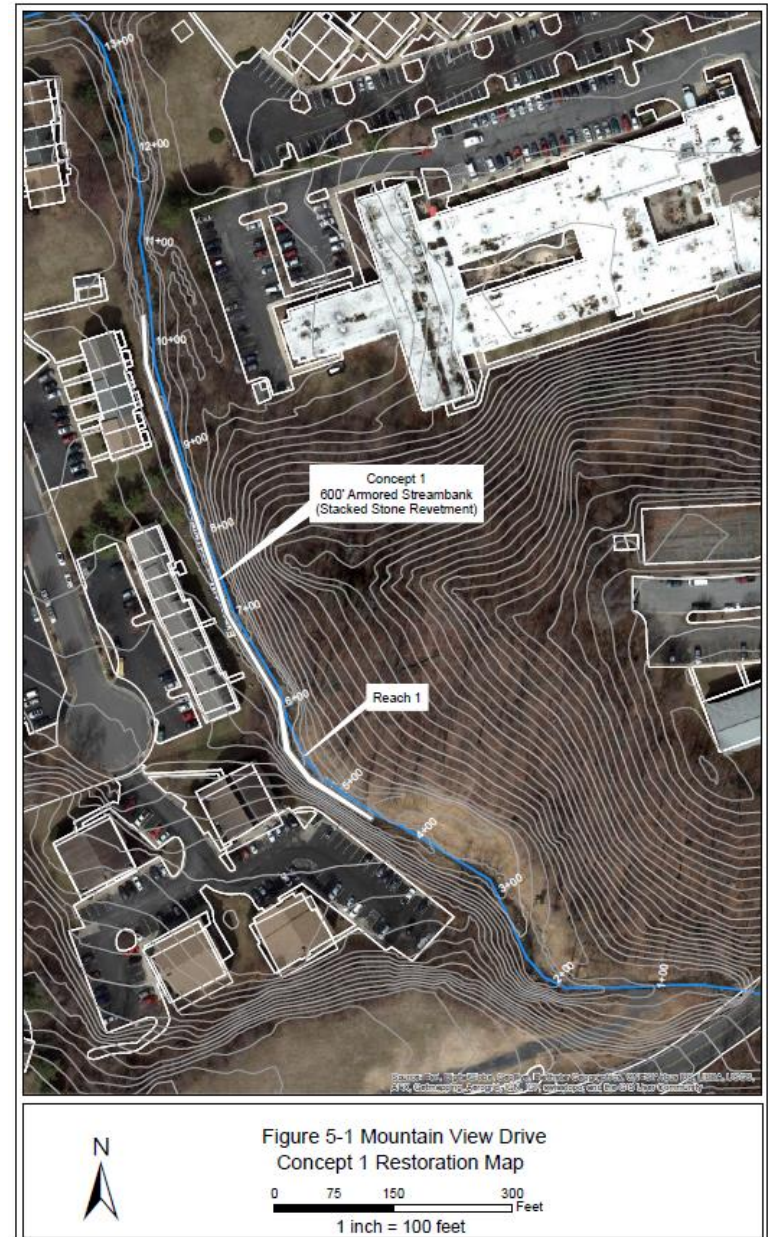
1. Stream Stabilization
2. Stream Restoration





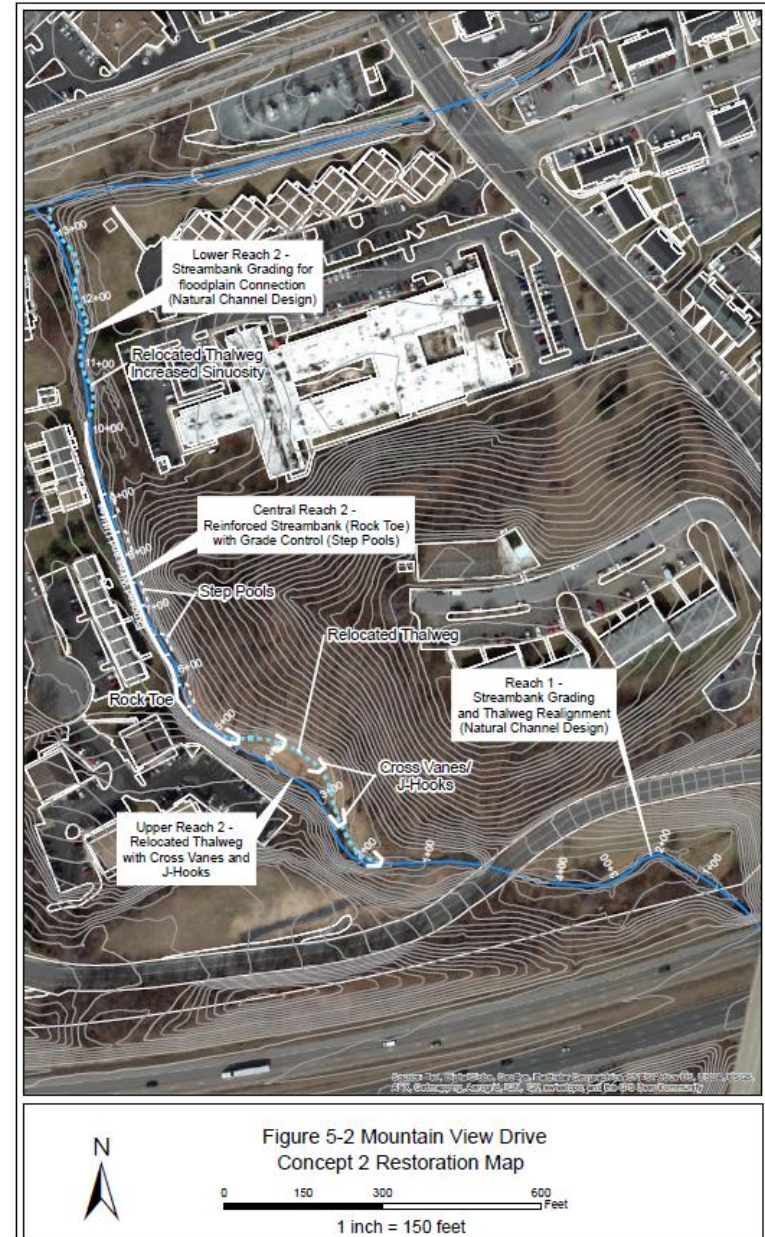
# Option 1

- Streambank Stabilization only
- 600 LF
- No pollutant reduction credits
- Minimal improvements as necessary to stabilize and protect
- Estimated Construction \$350,000



# Option 2

- Full Corridor Stream Restoration
- 1730 LF
- Stabilize, beautify, and improve
- Est Construction \$1,032,500
- Est Pollutant Credits
  - 129.75 lb/Nitrogen
  - 117.64 lb/Phosphorus
  - 769,642.4 lb/Sediment





# Two Options Summarized:

- Option 1: Stabilize & Protect
  - \$350,000
  - No pollution reduction credits
- Option 2: Stabilize & Improve
  - \$1,032,500
  - ~129.75 lb/Nitrogen



# Consultant Recommendation



- Option 2
- “...recommended approach to stabilizing and protecting infrastructure and private property along the reach”
- Cost Efficient:
  - \$8,777/lb of Phosphorus



# Staff Recommendation

- Option 2
- Apply for DuPont-Waynesboro Natural Resource Damage Assessment and Restoration Settlement Grant – Fall 2017
- University Core Townhouse Association Participation
  - Provide all needed Right of Way and Easements with facilitation provided by Public Works.

# Mountain View Stream Study

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**KEEP IT CLEAN,  
HARRISONBURG**  
**STOP POLLUTED RUNOFF**