Restoration of Geomorphic Function Will Improve Vegetation Community and Habitat

- Linkage of geomorphic processes to habitat health
- Restoration of the bed elevation and sinuosity of the stream will restore access to the meadow floodplain, raising groundwater elevations, increasing sediment deposition and nutrient removal, and improving meadow health & habitat
- Function=Self-Maintaining











B reach

Fill and Sod Sewer Channel





Monitoring

- Stream Geomorphology and Stability
 - cross-sections
 - longitudinal profile
 - planform / pattern
- Groundwater Elevation Monitoring Wells
- Flow Data
 - peak stage recorder
 - datalogger (duration, frequency)
 - pin flag flows
 - flow/V measurements
- Vegetation communities and vigor
 -root depth to bank height
- Photo Monitoring
- Aquatic Invertebrates



Planform



Decoupled from sewer

Captured Channel Length: 2694' Sinuosity: 1.29 Slope: .40%

Restored Channel Length: 3470' Sinuosity: 1.65 Slope: .29%



Channel Stability: compare over time



Pre- vs. Post- Profile

Increase: length, pool-riffle Decrease: slope knick-points, bank height (& capacity)

