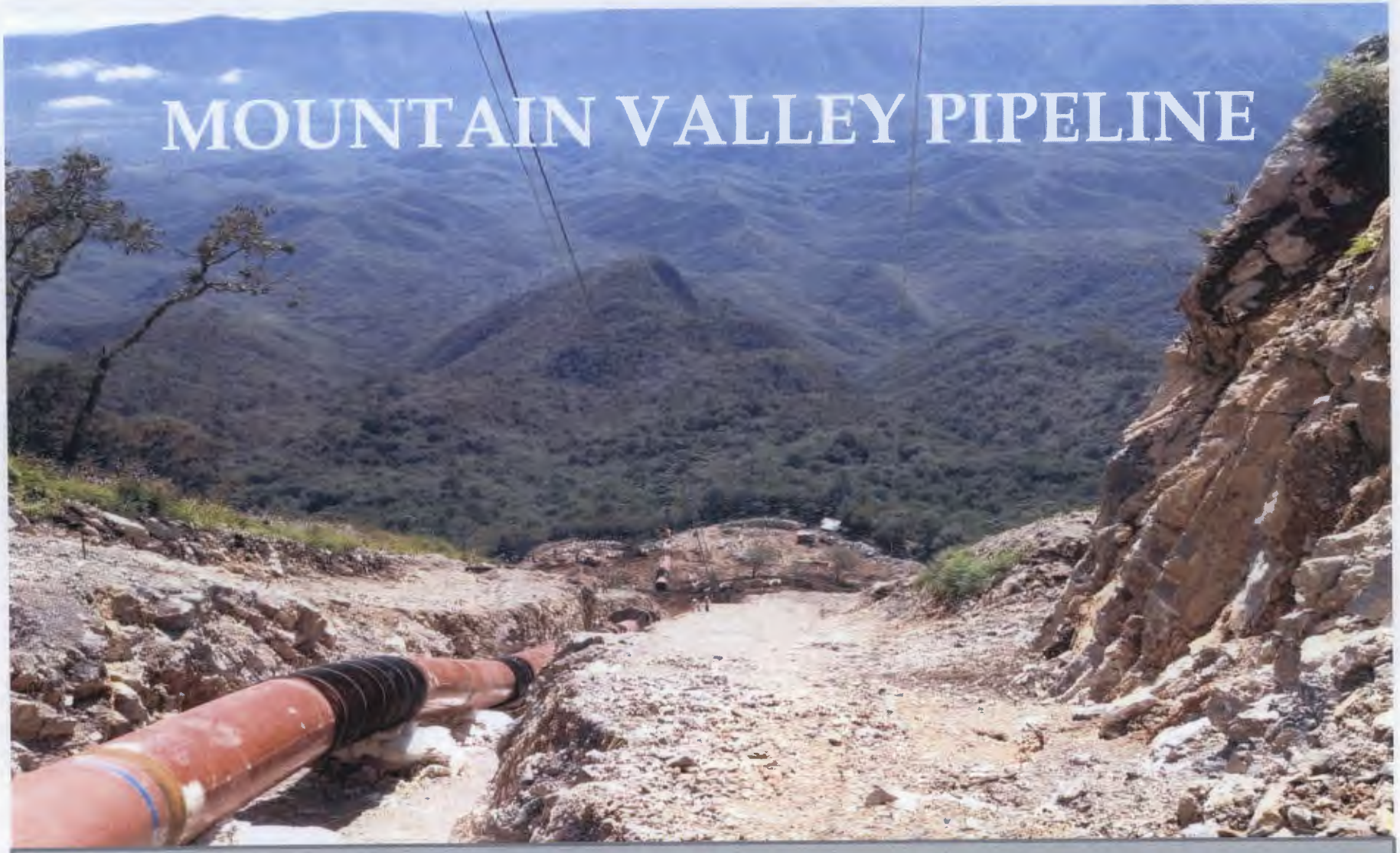
Briefing No. 2



Risks for the City of Roanoke

PRIMARY CONCERNS

- Soil erosion and sediment downstream
- Impact to City achieving Total Maximum Daily Load (TMDL) requirements
  - Sediment
  - Bacteria
  - PolyChlorinated Biphenols (PCBs)
- Roanoke Logperch population

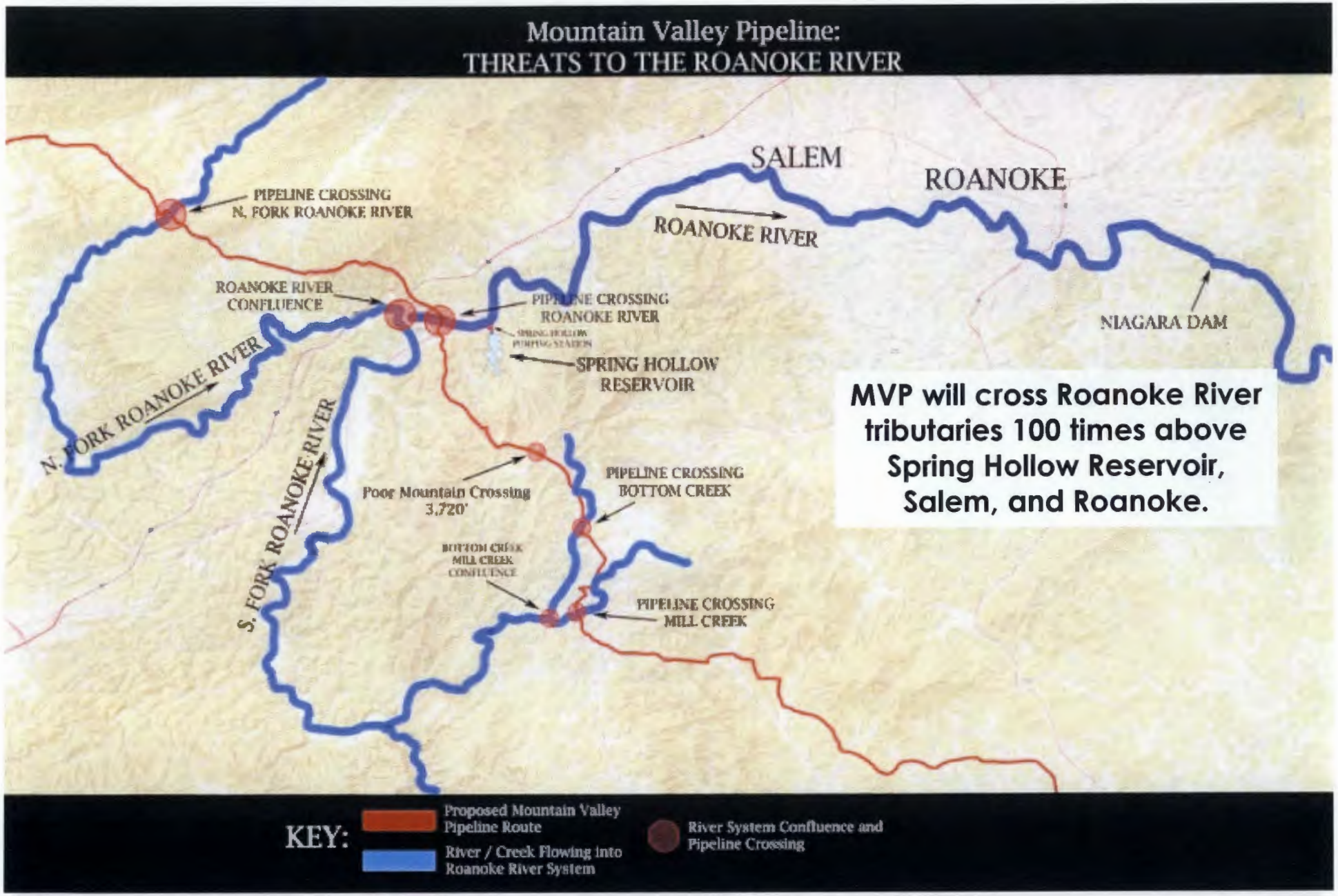
CONSTRUCTION DOCUMENTS

QUANTIFYING PROJECT RISK

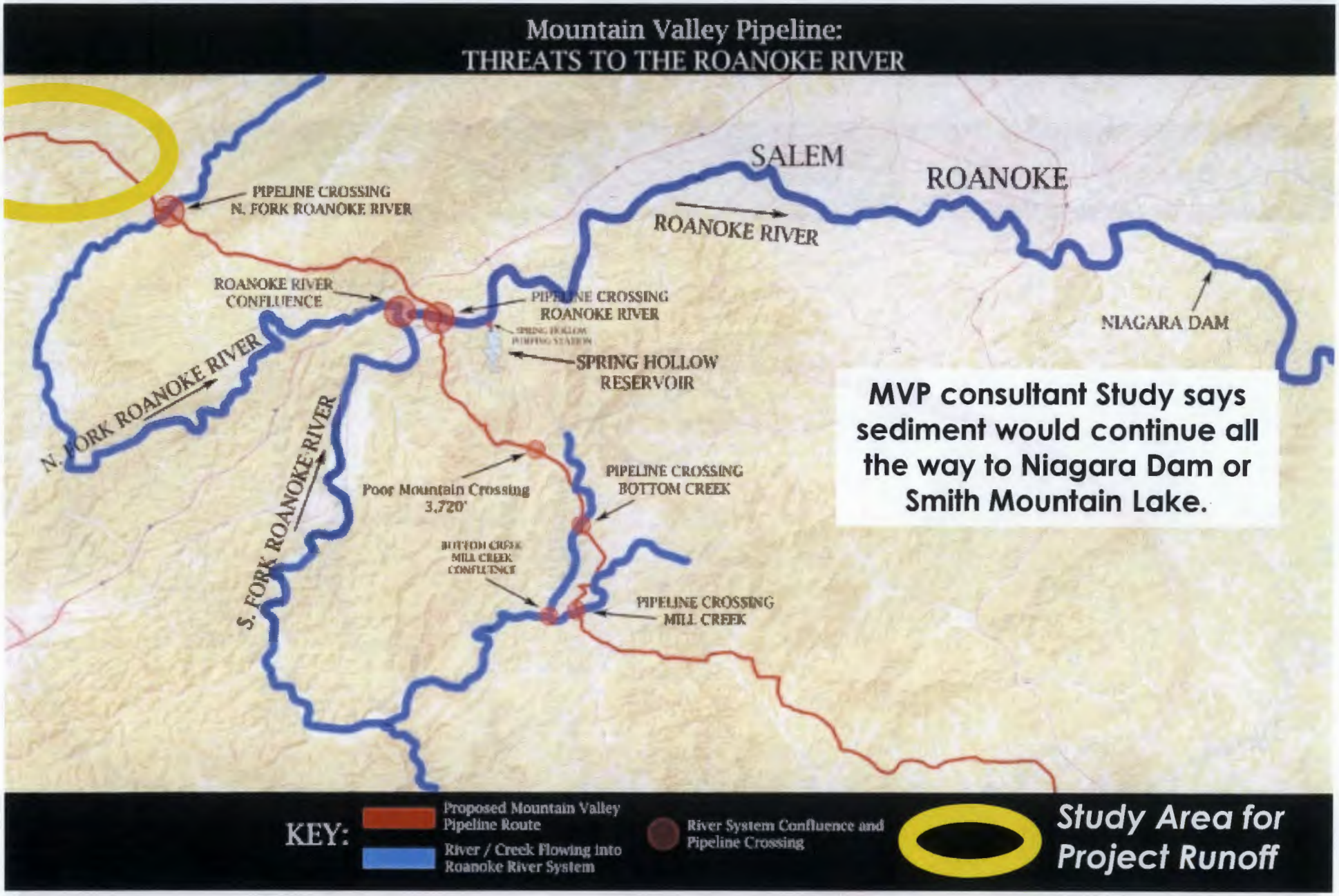
- City needs:
  - Construction Plans for Upper Roanoke River Watershed portion of project
  - Drainage Area Delineations
  - Engineering Calculations
  - Erosion & Sediment Controls
  - Stormwater Management BMPs

- Request 60 days after public release to review and make comment

SEDIMENTATION



Map by Matthew Pickett.
Sources: USGS (Roanoke River), Mountain Valley Pipeline (pipeline route)



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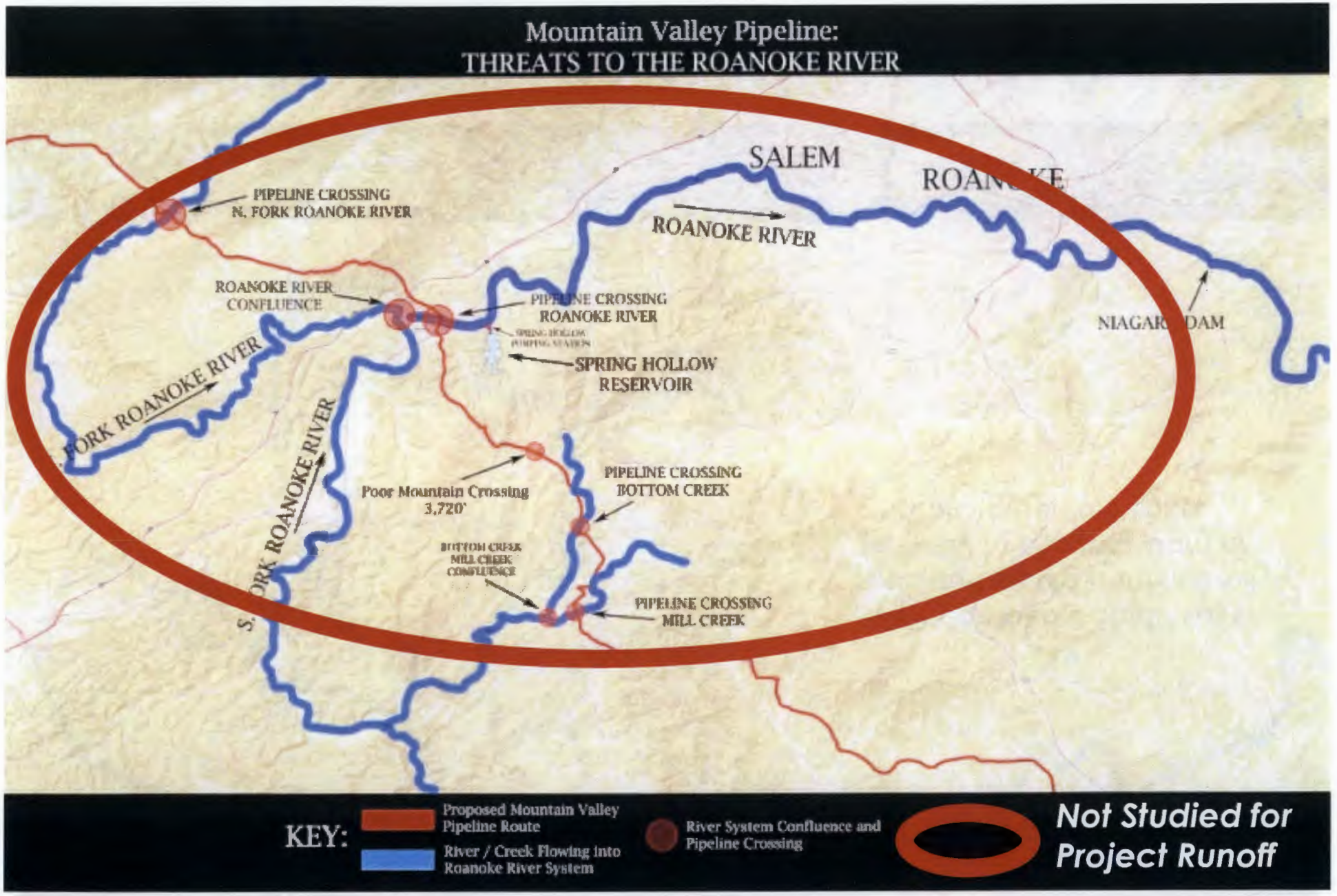

Map by Matthew Pickett.
Sources: USGS (Roanoke River), Mountain Valley Pipeline (pipeline route)

QUANTIFYING SEDIMENTATION

- Sediment #1 Risk to achieving TMDL
  - City Sediment Reduction 2,883 Tons/Year
  - DEQ Cost Est Apx $100M to achieve
  - Cost apx $34,500 per Ton/Year
  - MVP Consultant (Small Study Area): Additional 1,039 Tons Sediment/Year
  - At $34,500 per Ton/Year = $36M

- Requests:
  - Comprehensive Modeling for Sediment
  - To allow City VSMP Comment/Review

WATER QUALITY

MONITORING FOR SEDIMENT

- Sediment Monitoring Before, During, & After
  - MVP agrees to Pre-Construction Monitoring
  - FERC recommends Post-Construction Monitoring
  - DEQ may conduct before, during, & after monitoring, but details not clear

- Requests:
  - Comprehensive Monitoring for Sediment
  - Clarity of how sediment will be tracked before, during and after project

STREAM INCISION & RIPARIAN BUFFERS

QUANTIFYING OTHER RISKS

- Pipeline could be exposed in stream over time
  - Additional Runoff = Stream Incision
  - 2-4 ft of cover may not be sufficient
  - Exposed pipelines problematic
- Riparian Buffers critical to Stream Health
  - Riprap ≠ Riparian Buffer
  - Native Vegetation vs Invasives
- Requests:
  - Rosgen classification for erosion potential
  - Detail each Stream crossing to ensure long-term riparian vegetation restored

ROANOKE LOGPERCH

ENDANGERED SPECIES RISK

- Negative Impacts Acknowledged
  - Physical Stream Crossings
  - Habitat Sedimentation
- Habitat Restoration
  - General recommendations vs Detailed specifics
- Requests:
  - Detail and implement solution to mitigate negative Roanoke Logperch impacts