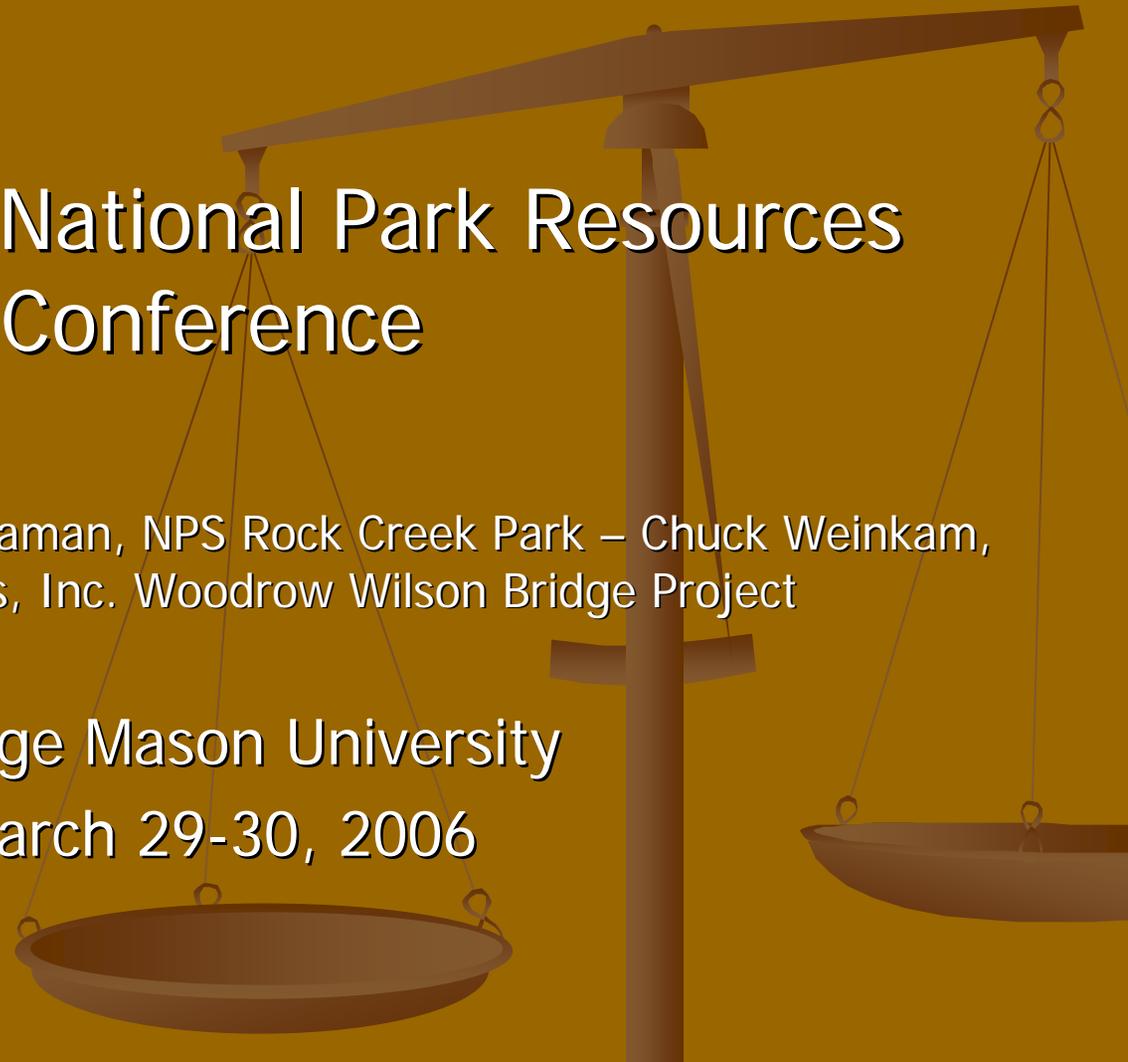


■ The Northwest Passage: Creating Fish Passage in Rock Creek

■ Spotlight on National Park Resources Conference

- Perry Wheelock and Bill Yeaman, NPS Rock Creek Park – Chuck Weinkam, Coastal Resources, Inc. Woodrow Wilson Bridge Project
 - George Mason University
 - March 29-30, 2006

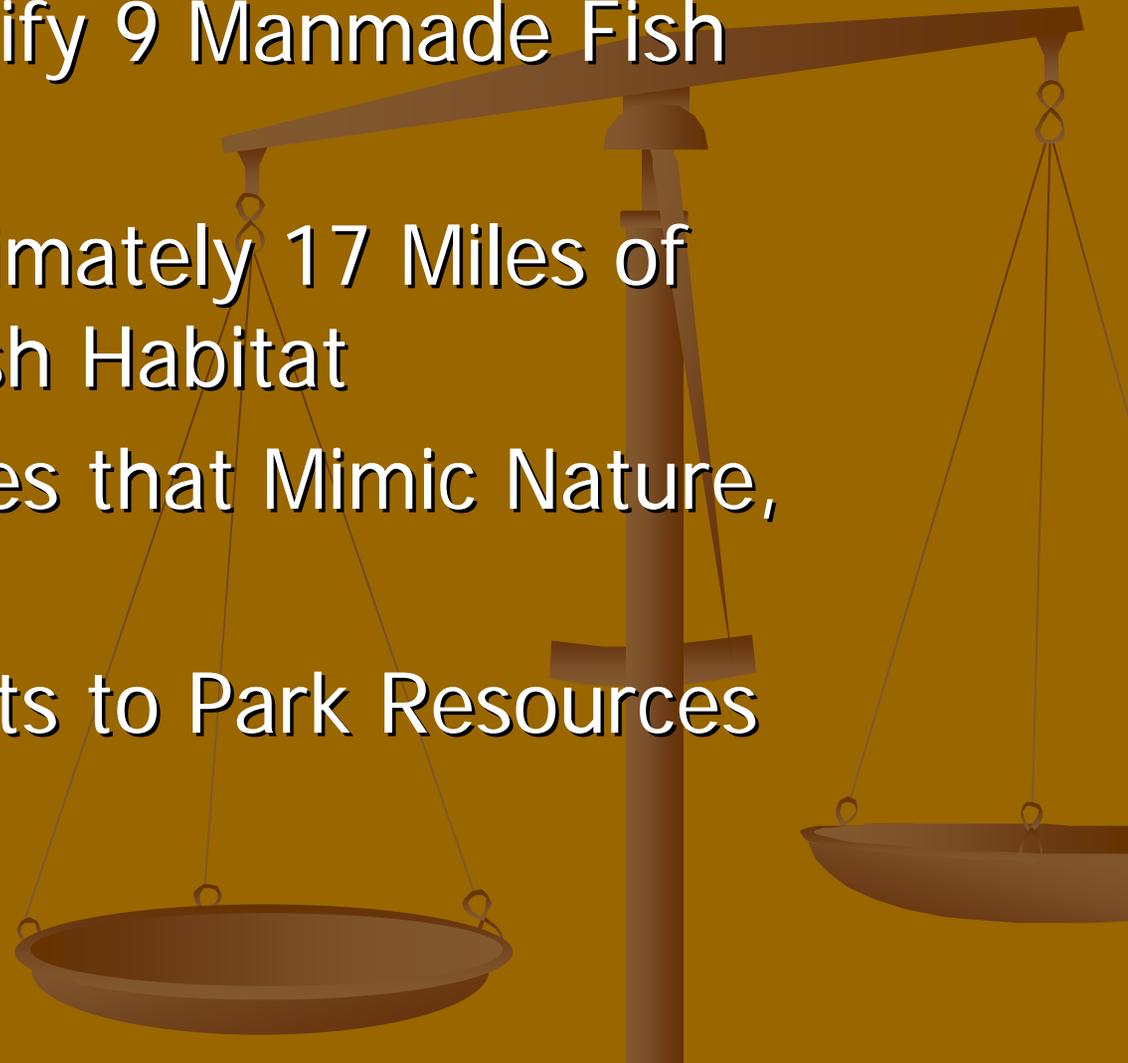


Rock Creek Stream Mitigation Project

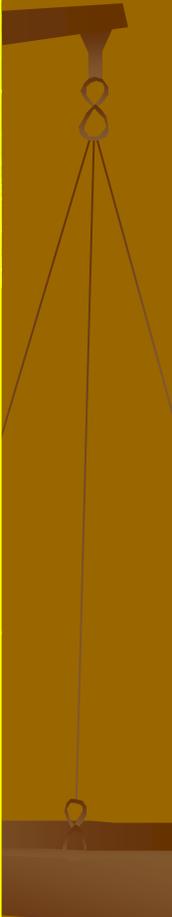
- Mitigation for Natural Resource Impacts from the Woodrow Wilson Bridge Project
- Project Brought to the Attention of the Woodrow Wilson Bridge Project by DC Fisheries, ICPRB and the National Park Service
- Interagency Coordination (NPS, USFWS, EPA, Corps of Engineers, DC Government, NMF, SHA, FHWA)
- A Special Use Permit between NPS and the Project was Developed to Ensure the Protection of Park Resources

Project Goals

- Remove or Modify 9 Manmade Fish Blockages
- Restore Approximately 17 Miles of Anadromous Fish Habitat
- Create Structures that Mimic Nature, where Possible
- Minimize Impacts to Park Resources



Blockages





Woodrow Wilson Bridge Project



Maryland State Highway Administration

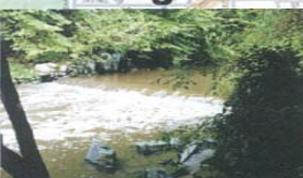
Blockage RC 7



Blockage RC 8

USGS Gauging Station
01648000

Blockage RC 5



Blockage RC 6 & 6A



Blockage RC 3



Blockage RC 4

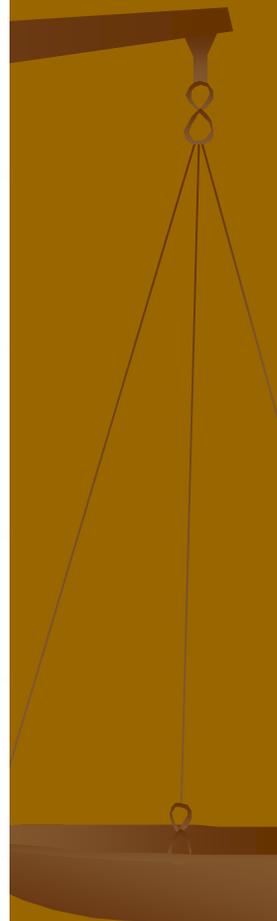
Blockage RC 1



Blockage RC 2

Rock Creek Fish Passage Restoration

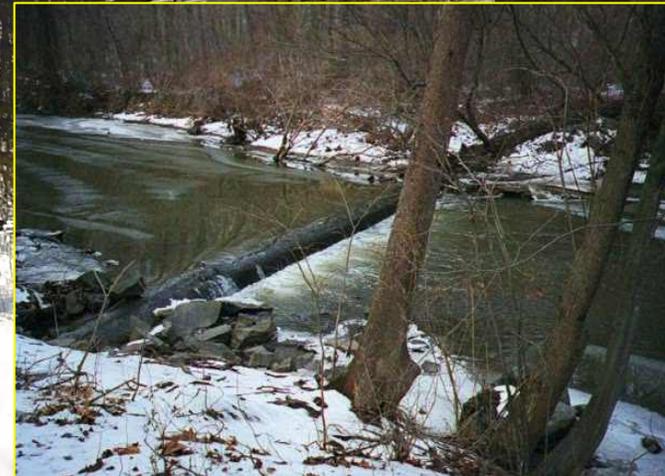
04/05/2001





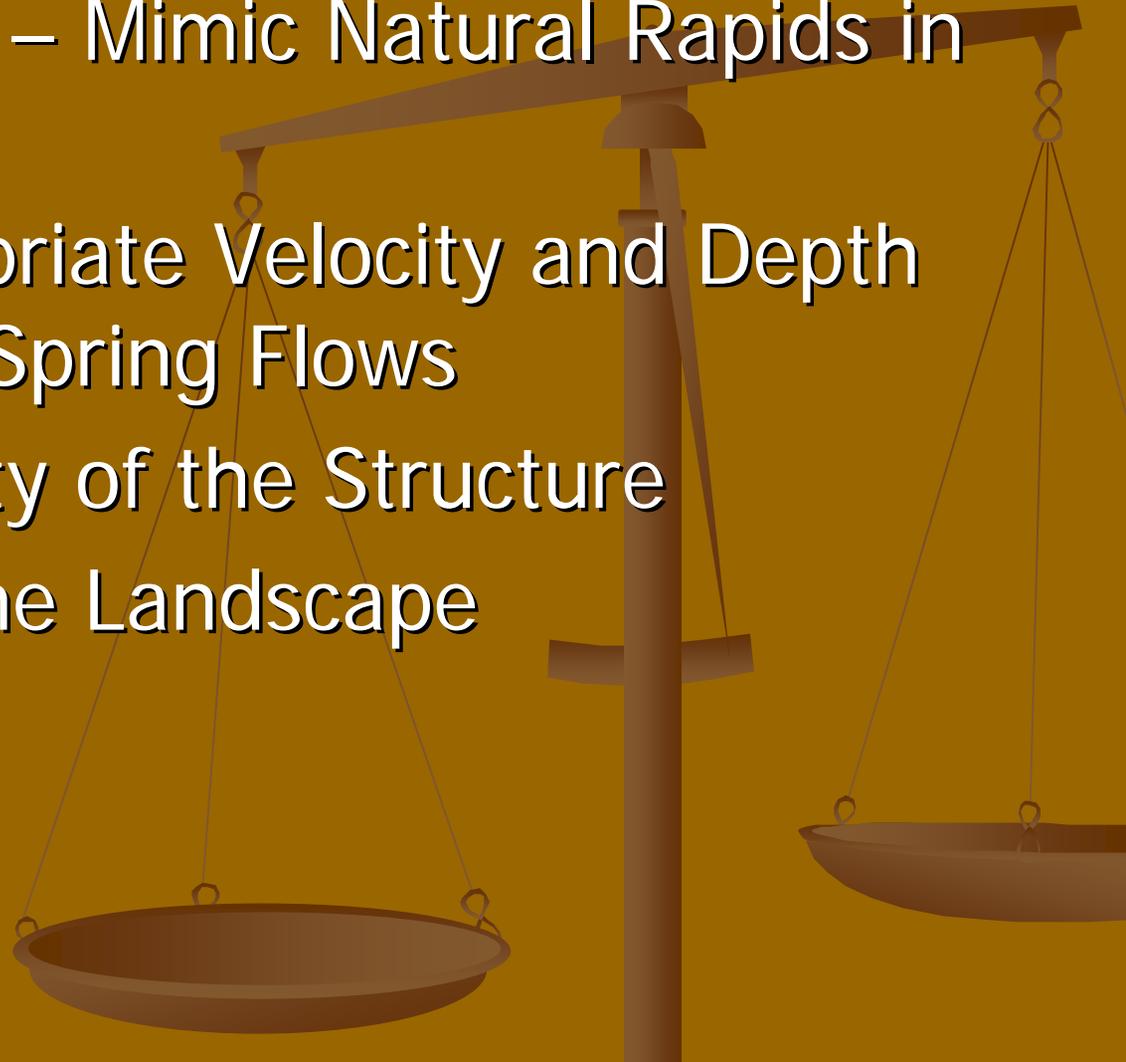


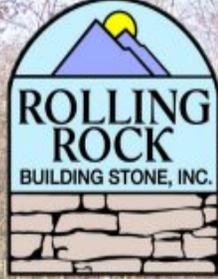
Typical View of Boulder Step Pool Structure



Boulder Step Pool Design Considerations

- Stone Selection – Mimic Natural Rapids in Rock Creek
- Maintain Appropriate Velocity and Depth of Flow During Spring Flows
- Ensure Longevity of the Structure
- Conform with the Landscape
- Storm Proof





Stone Selection





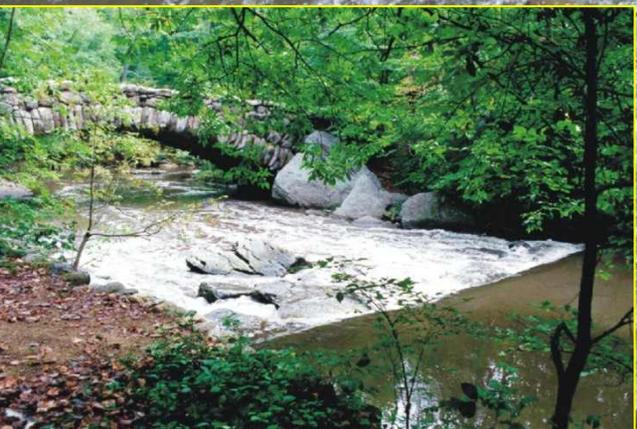
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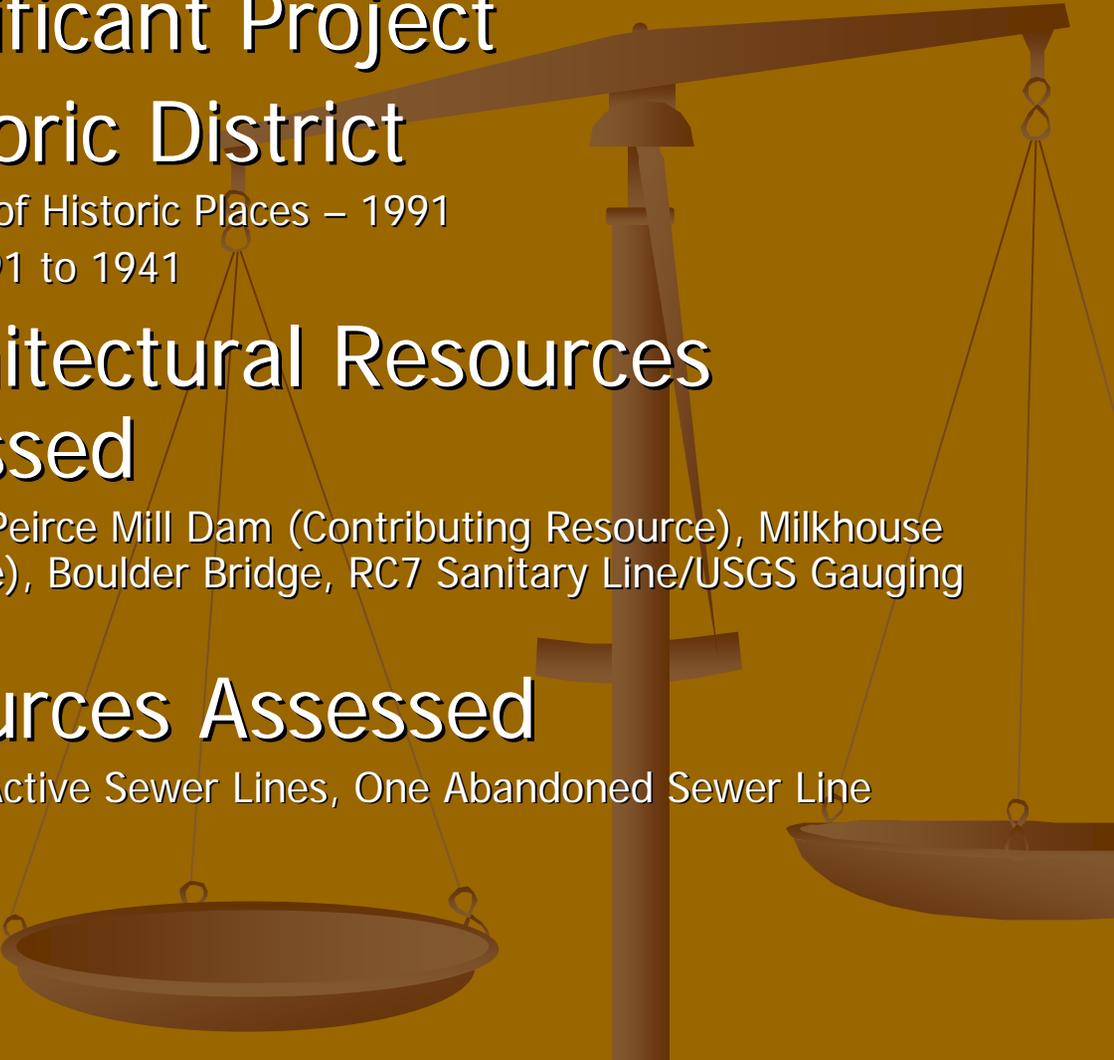




RC4 Post Construction



Rock Creek Stream Mitigation

- Historically Significant Project
 - Rock Creek Historic District
 - Listed on National Register of Historic Places – 1991
 - Period of Significance - 1791 to 1941
 - Six Historic Architectural Resources Previously Assessed
 - Peirce Mill (NRHP – 1969), Peirce Mill Dam (Contributing Resource), Milkhouse Ford (Contributing Resource), Boulder Bridge, RC7 Sanitary Line/USGS Gauging Station.
 - Additional Resources Assessed
 - Zoo Ford A, Zoo Ford B, 4 Active Sewer Lines, One Abandoned Sewer Line
- 





Milkhouse Ford





Peirce Mill Dam





VENEER

CAP STONES

TINTED CONCRETE

DRY STACK STONE

INLET

WOODROW WILSON BRIDGE PROJECT

**PEIRCE MILL DAM
DRY STACK STONE OPTION**

16SEP02 JSM

















