



DWR WATER RESOURCES DEVELOPMENT GRANT



**FUNDING FOR AQUATIC BARRIER REMOVALS
CAPE FEAR RIVER PARTNERSHIP**

**Amin Davis
May 22, 2018**



Presentation Outline

- ❑ Who, What, When, Where, Why & How?
- ❑ Funded Dam Removal Projects
- ❑ Aquatic Passage Lost Opportunity
- ❑ Questions & Answers (Hopefully☺)



ELIGIBLE APPLICANTS

❑ Units of Local Government

- ✓ County Agencies
- ✓ Municipal Agencies
- ✓ State Agencies

❑ Non-Governmental Entities (NGO's)

- ❖ Co-Applicant NRCS-EQIP Stream Restorations

❑ NGO's Can Serve As Project Administrator

ELIGIBLE PROJECTS

Up To 50% Cost-Share Funding For:

☐ **Stream Restoration**

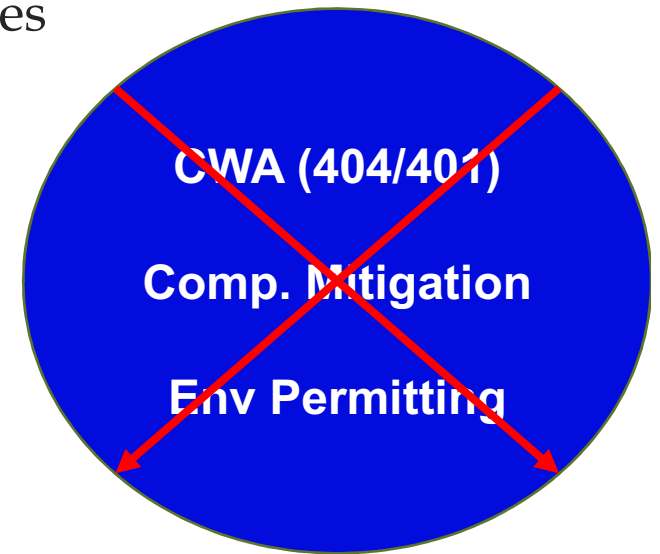
- ✓ **Aquatic Barrier Removals > Dams, Culverts, etc.**
- ✓ Stream Restoration/Stabilization
- ✓ Shoreline Stabilization/Living Shorelines

☐ **Water Management**

- ✓ **Aquatic Barrier Removals**
- ✓ Stormwater Control Measures/BMPs
- ✓ Drainage/Flood Control

☐ **Feasibility/Engineering Studies**

- ✓ **Aquatic Barrier Removals**
- ✓ Implementation of Eligible Projects
- ✓ Small Watershed Assessments, Water Management Studies



ELIGIBLE PROJECTS

*Variable Cost-Share Funding For Navigation Projects:

☐ **NRCS EQIP Stream Restoration**

- ✓ Projects approved for NRCS-EQIP funding by the USDA.

☐ **Water-Based Recreation**

- ✓ Greenways/ Boardwalks, Paddle Access, Fishing Docks/Piers
- ✓ Land Acquisition for Water-Based Recreation Projects

☐ **General Navigation***

- ✓ Waterway used by commercial vessels (charter boat, trawler, etc.) & private water craft.
- ✓ Dredging of Shallow Draft Navigation Channels (SL 2013-360)
- ✓ Other waterbodies fall under WRDGP or various MOAs

☐ **Recreational Navigation***

- ✓ Waterway only used by private recreational vessels.
- ✓ Rarely used category (lower cost share, commercial tie-in)

\$MATCH\$ REQUIREMENTS



❑ Non-Federal Funding

- ✓ Municipal
- ✓ Private/Donations
- ✓ Non-Federal Grants

❑ Federal Funding

- ✓ Can't Be Used To Meet Match Requirement But...
- ✓ Can Deduct From Total Project Cost
- ✓ Indirectly Lowers Match Requirement

❑ In-Kind Contributions

- ✓ Allowable But Must Be Documented in Application
- ✓ Complete In-Kind Forms For Reimbursement Requests
- ✓ Land/Easements: Credit Claimed As Match If:
 - 1) Donated For Project
 - 2) Property/Easements Not Currently Owned By LG Prior To Grant Award

APPLICATION PROCESS

- 1) Review WRDG Website
<https://deq.nc.gov/about/divisions/water-resources/water-resources-grants/financial-assistance>
- 2) Prepare A Conceptual Narrative & Map/Plan
- 3) Call To Schedule A Pre-Application Site Visit
 - a) Address Applicant's Questions
 - b) Ask Applicant Questions
 - c) Photo-Document Project Area
- 4) Submit Application
- 5) Await Award Decision: Range \$10,000 ~ \$200,000



APPLICATION CYCLES



❑ Spring Application Cycle: Jan 1 – June 30

▪ Review Decisions: ~ October

❑ Fall Application Cycle: July 1 – Dec 31

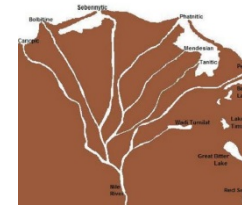
▪ Review Decisions: ~ Next April

❑ No Application Cycle for Navigation Projects

❑ Enter Into DEQ Grant Contract

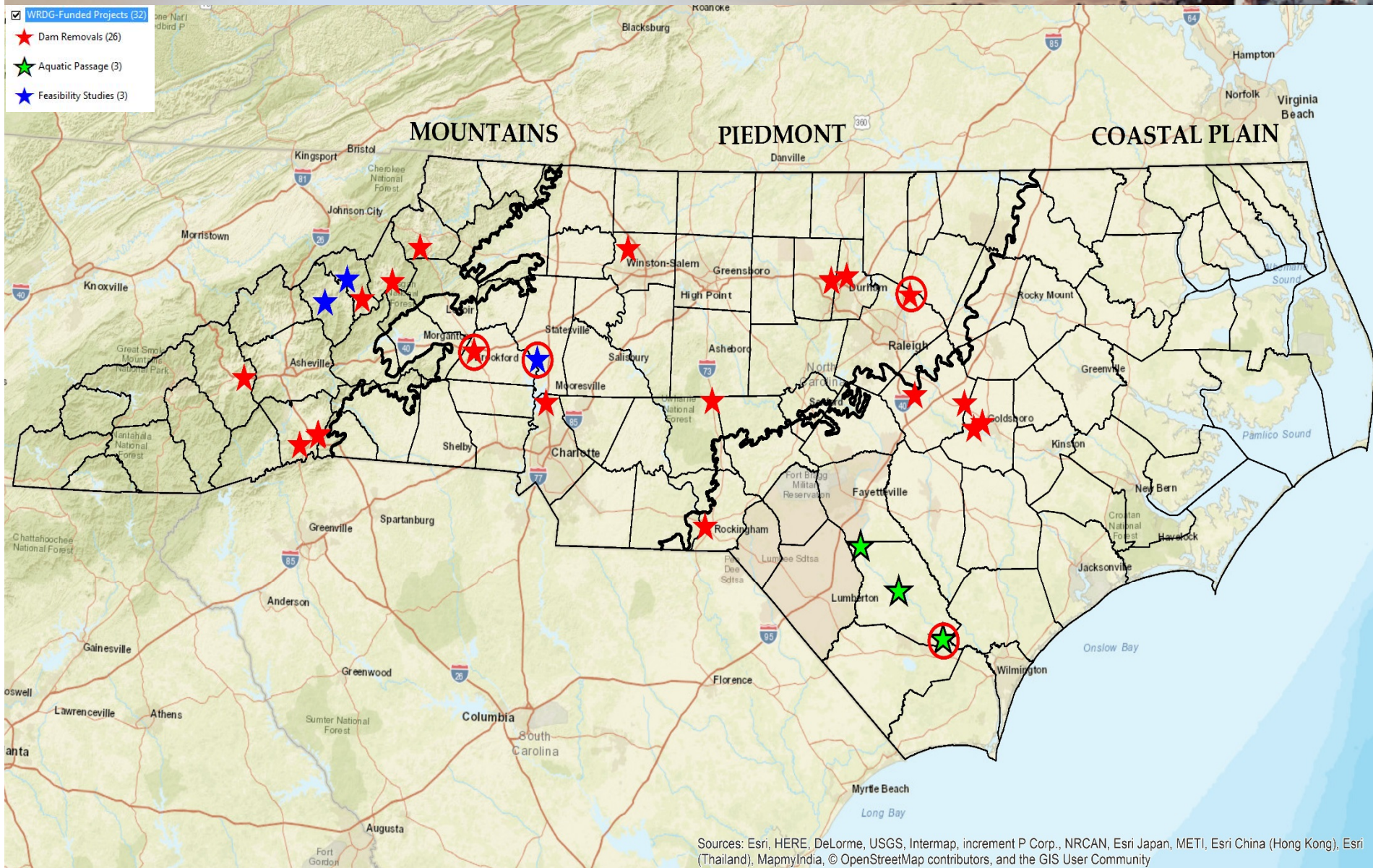
BENEFITS & EVALUATION CRITERIA

- ☐ Economic Benefits
 - ☐ Environmental Benefits
 - ☐ Environmental Impacts
 - ☐ Financial Resources
 - ☐ Regional Benefits
 - ☐ Social Benefits
 - ☐ Benefits to State-Owned Properties



DAM REMOVALS 1997-2017

- ✓ WRDG-Funded Projects (32)
- ★ Dam Removals (26)
- ★ Aquatic Passage (3)
- ★ Feasibility Studies (3)



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

FEATURED PROJECTS

Lake Norman SP Dam Feasibility Study (Iredell Co)

- Awarded \$4,581 towards \$8,200 project (2011)
- DPR's Natural Resource's Program identified potential removal of dam impounding 33 acres of water



FEATURED PROJECTS

Lake Norman SP Dam Feasibility Study (Iredell Co)

- Study's engineer recommended lake drawdown
- Channel of Norwood Creek, extent of inundation revealed
- Project not implemented



FEATURED PROJECTS

Ailey Young Dam Removal & SR – Wake Forest (Wake Co)

- Awarded \$123,000 towards \$693,105 project (2016)
- Remove failing 3.41 ac dam/pond; restore 781lf stream
- Currently 60% Design as of 5/21/18



FEATURED PROJECTS

Shuford Mill Dam Removal – Catawba Co SWCD

- Awarded \$88,000 towards \$1.2M project (2011)
- Remove 35'H x 275'W historic textile mill dam constructed in late 1800's



Photo Source: M. Patton, Carolina Land & Lakes RC&D

FEATURED PROJECTS

Shuford Mill Dam Removal – Catawba Co SWCD

- Completed in 2016
- Restored 10 miles upstream passage along Henry Fork



Photo Source: M. Patton, Carolina Land & Lakes RC&D

FEATURED PROJECTS

Cape Fear River Fish Passage L&D #1 – Bladen Co

- Funded \$4M towards project (2010)
- Construction of Rock Ramp Fishway completed in 2012
- 2013 Annual Report (NCSU, NCDMF): All three target species (American shad, striped bass & flathead catfish) passed upstream through rock arch rapids
- DWR providing funding for similar structures upstream at L&D Nos. 2&3.



LOST OPPORTUNITY



Stone Mountain State Park – Perched Culvert (Alleghany Co)

- Big Sandy Creek: Wild Trout stream
- Perched culvert had aquatic passage enhancement designed in 2009
- Construction bid for project came in significantly higher than cost estimate
- DPR cancelled contract to construct in 2011.



LOST OPPORTUNITY

Stone Mountain State Park – Dislodged Culvert (Allegheny Co)

- Culvert along primary Park access road dislodged from rain event in August 2013
- Park's primary access road closed
- NCDOT conducted emergency repair



LOST OPPORTUNITY

Stone Mountain State Park – Culvert Repair (Allegheny Co)

- Culvert inlet buried, stabilized



LOST OPPORTUNITY

Stone Mountain State Park – Culvert Repair (Allegheny Co)

- Culvert outlet still perched





MAKE SENSE \$\$\$\$???

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10/26/2017