

Introduction to the Virginia Aquatic Resources Trust Fund

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- Overview of the Virginia Aquatic Resources Trust Fund (Trust Fund)
- Trust Fund Basic Process
- Identification and Review of Potential Projects
- Funded Project Examples

Virginia Aquatic Resources Trust Fund

- Cooperative program between TNC, Corps, and VA DEQ which establishes a mechanism to provide compensatory mitigation for wetland and stream impacts through an in-lieu-fee agreement, while maximizing the mitigation benefit to aquatic resources
- Dedicated to providing the greatest compensatory mitigation value in terms of acreage and function, while providing a specific emphasis upon the protection of Virginia's rare plants, animals and natural communities
- Provides compensation for impacts to aquatic resources authorized by the Clean Water Act (Corps) or the Virginia Water Protection Permit Program (DEQ)

Wetland and Stream Impact Permitting

- Applicant proposing wetland and/or stream impacts must submit a Joint Permit Application through the standard permitting process for the appropriate regulatory permits
- For proposed impacts, applicant must:
 - Demonstrate avoidance and minimization
 - Propose compensation for unavoidable impacts
- Compensation may be met through:
 - Restoration / Enhancement / Preservation
 - Purchase of bank credits
 - Payment to in-lieu fee fund

Summary of Impacts and Revenues

- Over 16 years, the Trust Fund has accrued over \$55M for non-tidal wetland, tidal wetland and stream impacts
- Impacts and funds are tracked by resource type and within each major river basin

Resource Type	Impacts	Mitigation Payments (\$)
Non-tidal Wetland	246.7 acres	20,999,100
Tidal Wetland	2.63 acres	635,800
Stream	187,800	33,457,100
	Total	55,092,000

Summary of Approved Projects

- Over 16 years, the Trust Fund has allocated \$39,666,500 on 112 projects. Currently, 94 of those projects are being pursued as compensation.
- More than 55 stream projects
- More than 75 wetland projects

Resource Type	Authorized Funds (\$)
Non-tidal Wetland	15,530,900
Tidal Wetland	693,000
Stream	23,442,600
	39,666,500

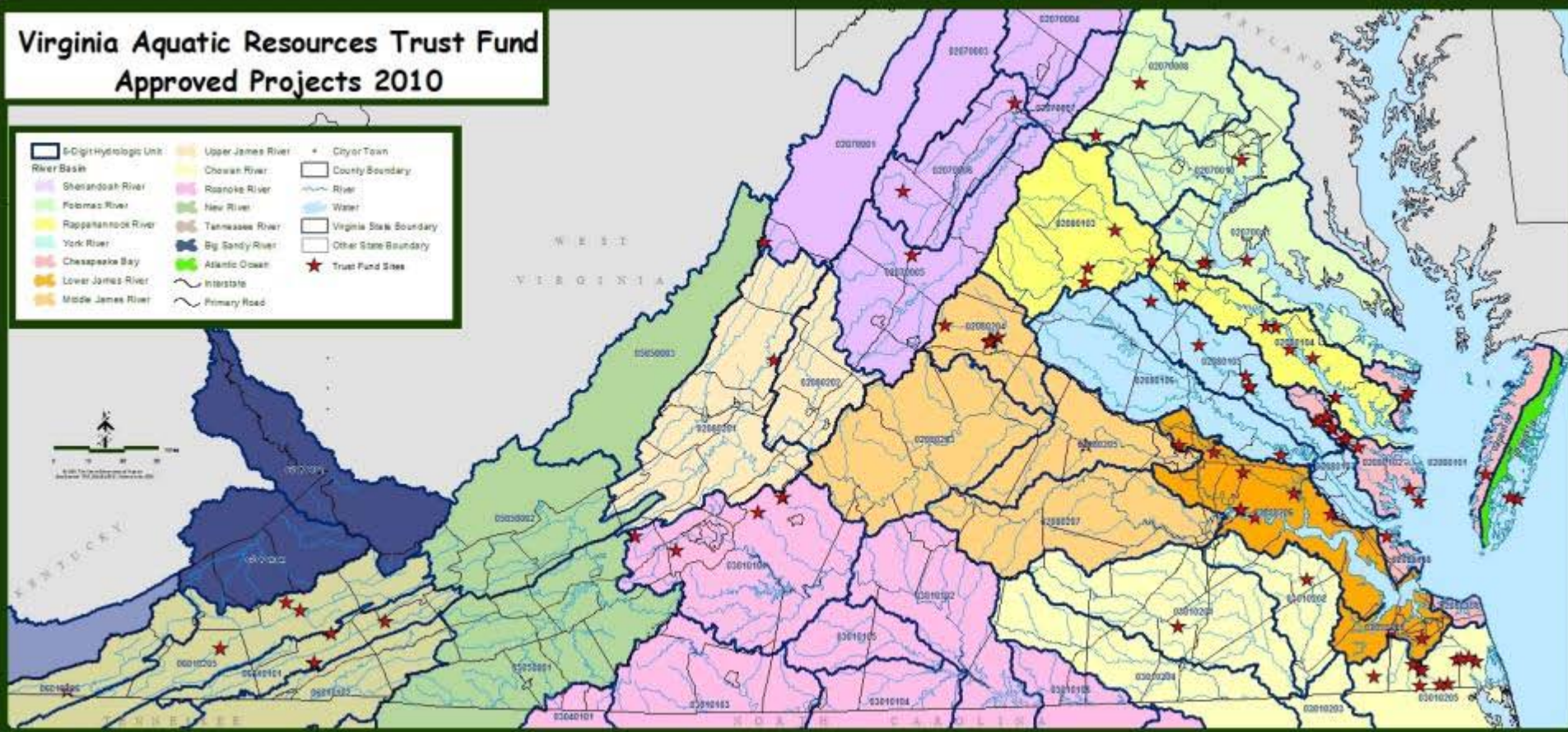
VARTF Program-wide Leverage

Program-wide Leverage through 2010

Resource Type	Impacts	Restored	Preserved	Total Protected
Non-tidal Wetland (ac)	246.7	485	4027	4512
Tidal Wetland (ac)	2.63	28.8	536	565
Stream (l.f.)	187,772	49,355	688,512	737,867
Upland/Riparian Buffer (ac)	N/A	336	5,581	5,917
Additional				

Trust Fund Sites Across the State

– Over 94 active projects



- Preservation Projects
 - Land acquisition or conservation easements and associated expenses
- Restoration/enhancement Projects
 - Land acquisition or conservation easements and associated expenses
 - Feasibility assessments, design, construction, livestock fencing, alternate water sources, tree and shrub planting
 - Monitoring and corrective action to ensure success

Candidates for Preservation

- High quality/stable system
- Healthy riparian buffer
- Access to floodplain



Candidates for Restoration/Enhancement



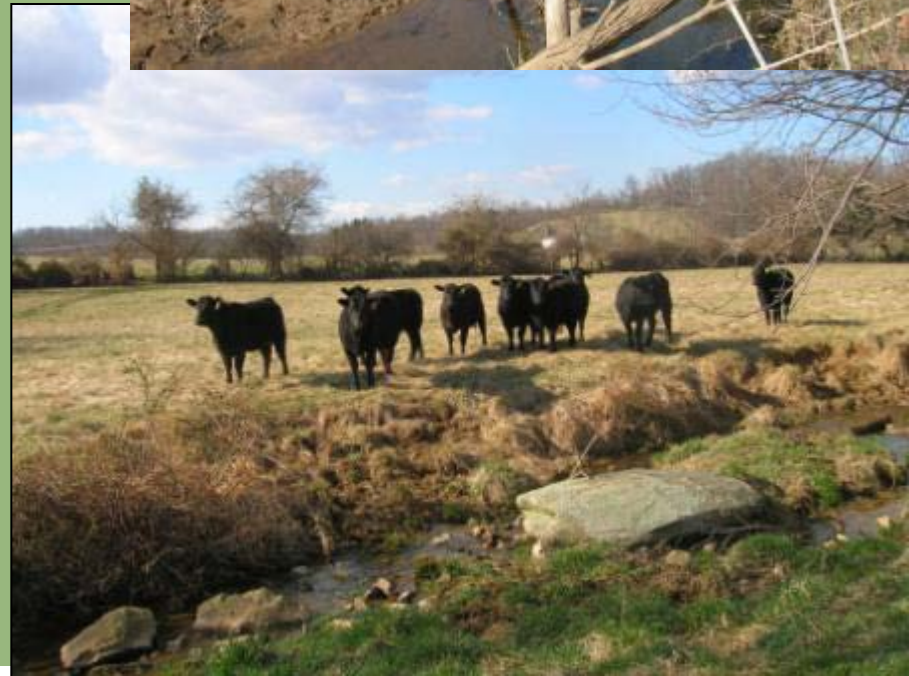
- Mechanically straightened channel
- Irregular or unusually sharp meanders



- Eroded banks – no vegetation, vertical, slumping, exposed roots
- Channel too wide, shallow, narrow, or deep

Candidates for Restoration/Enhancement

- In-stream sediment bars / islands
- Lack of habitat features
- Significant debris and blockages
- Lack of healthy forested riparian buffer
- Livestock access



1. Determine mitigation needs within basin

- Amount of impacts to date
- Available funds

2. Determine compensation potential

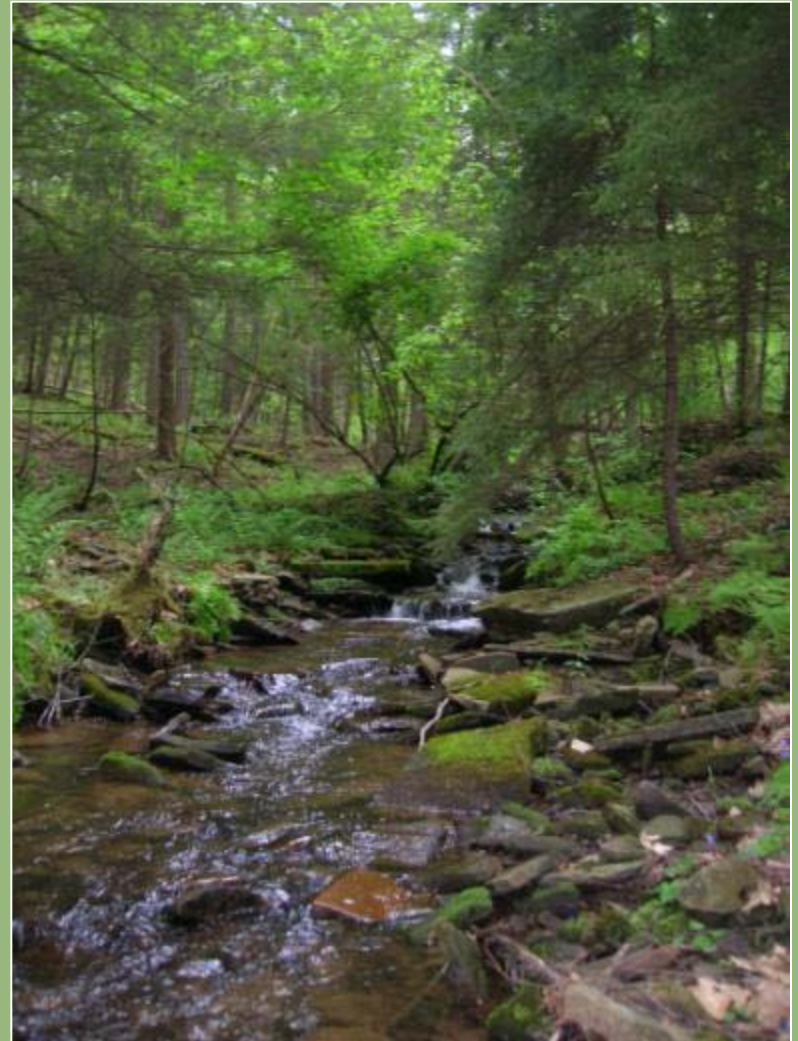
- Off-site analysis: Aerials, topo maps, soils mapping, available environmental surveys, NWI, etc. are used to estimate presence and extent of wetland and / or stream resources at the site and current land use
- Site visit: Staff attends site visit to determine the compensation potential and collect data for proposal.

Protection of Aquatic Resources to Fulfill Compensation Requirements

- Project complies with the goal to protect aquatic resources through the preservation, restoration, enhancement, and creation of wetlands, streams, and buffers
- Project considered appropriate compensation (substitute) for aquatic resource impacts

Site Selection Factors

- Extent and quality of aquatic resources on the site
- Probability of compensation success
 - Location in watershed
 - Surrounding land use
 - Site constraints
- Landscape setting
- Costs
- Potential credits to be generated
- Time commitment
- Permitting issues (e.g., historic resources)

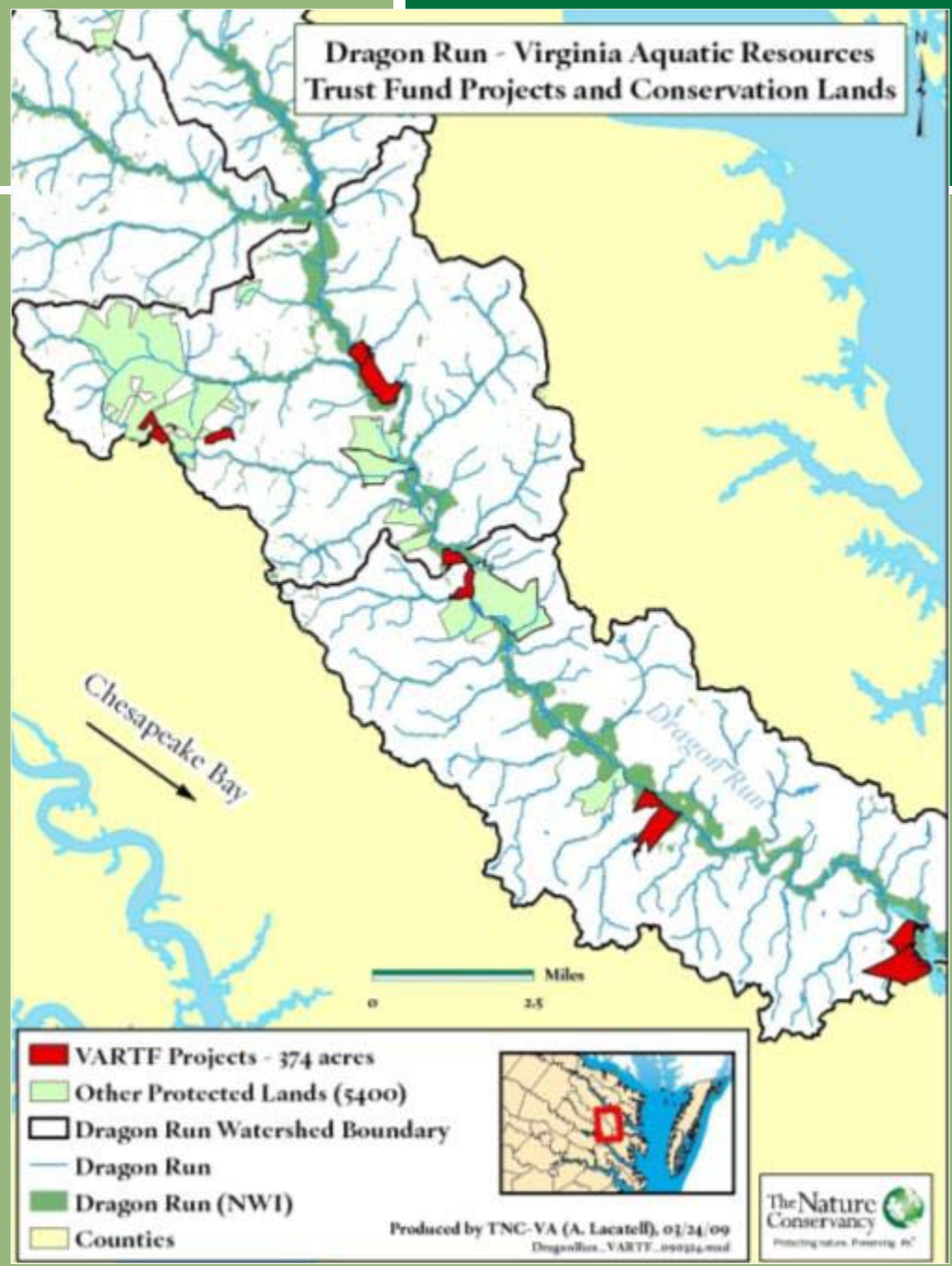


Laurel Fork – Shenandoah River Basin

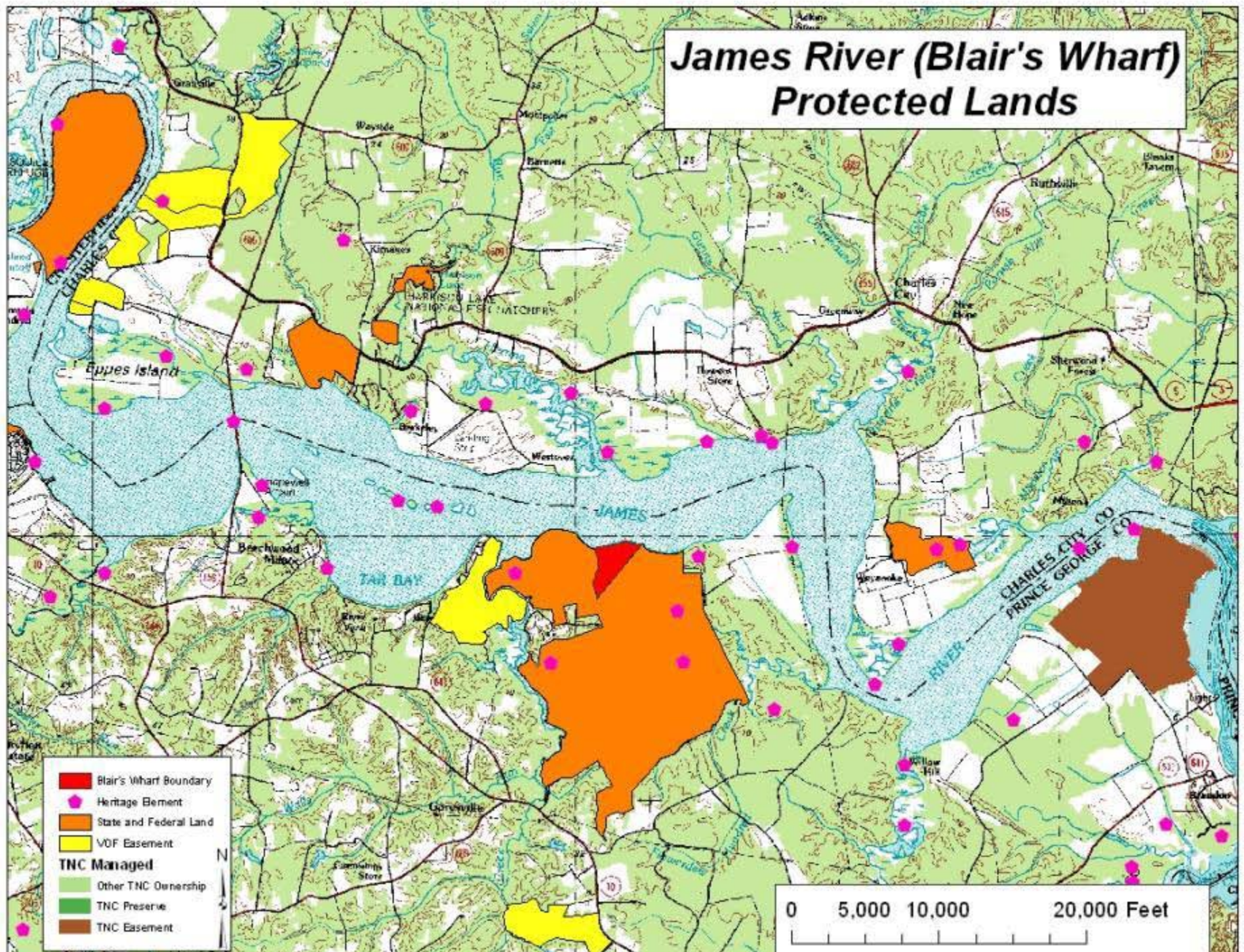
Landscape Setting

- Site is located within or near an identified area of concern or environmentally sensitive site
 - TNC portfolio sites
 - DCR rare or imperiled natural communities, Natural Heritage elements, habitat for State or Federally listed species
 - TMDL listed streams
 - Large aquatic resource systems (including establishing corridors)
- Location of the proposed site in proximity to other protected parcels
- Increase overall ecological benefits (e.g., establishing corridors) and long term success and protection of site

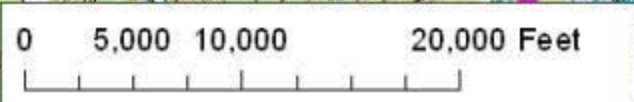
Dragon Run - Virginia Aquatic Resources Trust Fund Projects and Conservation Lands



James River (Blair's Wharf) Protected Lands



- Blair's Wharf Boundary
- Heritage Element
- State and Federal Land
- VOF Easement
- TNC Managed**
- Other TNC Ownership
- TNC Preserve
- TNC Easement



3. TNC internal approval

- Protection Committee/Board approval
- Higher levels/special approvals may be necessary

4. Trust Fund Interagency Review Team (IRT) approval

- Proposal is developed and project is presented and discussed at monthly coordination meeting, chaired by Corps and DEQ and attended by FWS, EPA, DGIF, NOAA and TNC

5. Project public noticed for 30-day comment period

6. TNC incorporates comments from IRT and/or responses to public comments in final project proposal. Submits to IRT for funding approval.

7. Corps and DEQ issue project approval

8. Complete acquisition process
 - Finalize protection documents, including review and approval by IRT in advance of closing
 - Develop baseline report
 - Closing

9. Conduct compensation activities
 - Permitting, delineation, design, construction
 - 10 year success monitoring period
 - Corrective action

10. Project closure for compensation activities

- Once all protection and monitoring and success criteria are met, Corps and DEQ will determine project is closed and any unspent funds are returned to general Trust Fund balance
- Trust Fund involvement ends
- Long-term Stewardship (e.g., conservation easement monitoring) will be more active at this point

Stream Preservation

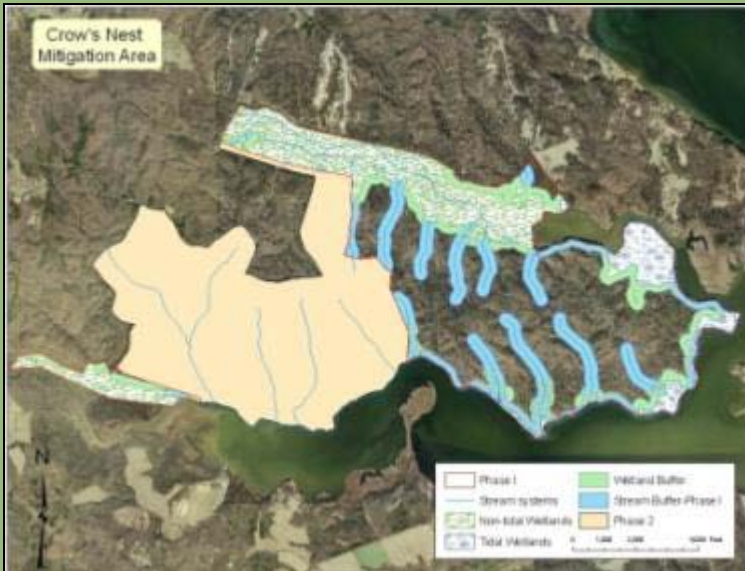


Peaks of Otter



City of Fredericksburg – over 300,000 lb

Stream and Wetland Preservation Crow's Nest



- 3,000 acres
- 700 ac. wetlands
- 100,000 lf streams

Stream Enhancement Ogden's Cave



Enhancement Activities

- Removal of livestock
- Tree and shrub planting

Restoration Activities

- Remove livestock
- Reshape banks, add meanders
- Reconnect stream to floodplain
- Tree and shrub planting



Old Channel

Pre-restoration

- Steep eroding banks
- Low habitat diversity
- Unstable pattern
- No buffer (pasture) along stream



Restored Channel



Stream Restoration

Barns Chapel

Pre-restoration

- Steep eroding banks
- Channelized, unstable pattern
- Low habitat diversity
- Livestock in stream



Stream Restoration

Barns Chapel



During Construction

- New channel created
- Old channel filled
- Livestock exclusion, AWS
- Tree and shrub planting

Post-restoration



Wetland Preservation



Wetland Restoration



Questions ?

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