

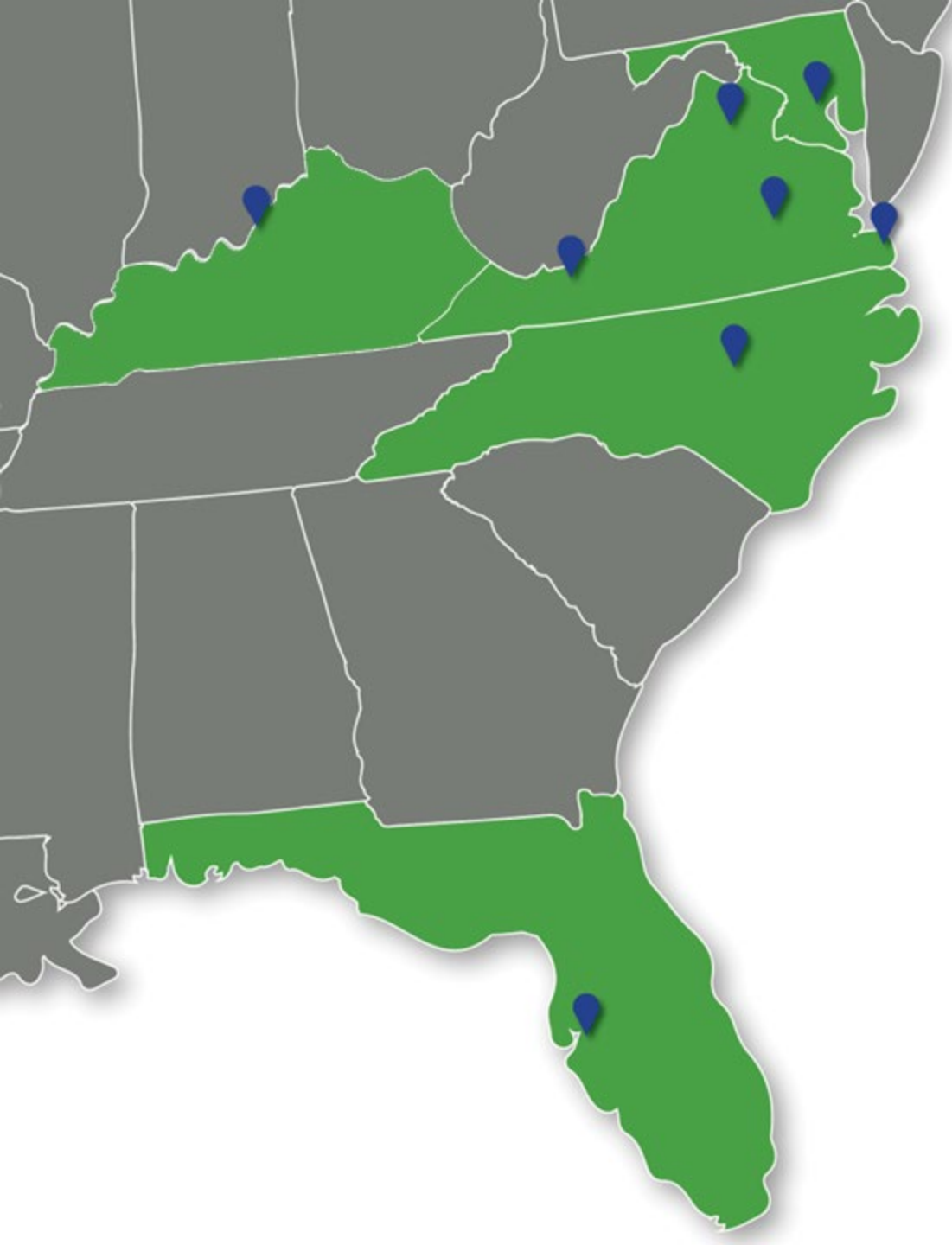


Environmental Due Diligence

Virginia Association of Assessing Officers
October 16, 2024

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Director – Hampton Roads Division





Office Locations

VIRGINIA

Gainesville

Richmond

Virginia Beach

Blacksburg

MARYLAND

Millersville

KENTUCKY

Louisville

NORTH CAROLINA

Raleigh

FLORIDA

Tampa

WSSI Services

- Environmental Science
- Natural Resources
- Water Resources Engineering
- Regulatory Services
- NEPA Studies and Documents
- Mitigation and Restoration
- Ecosystem Management
- Engineering and Landscape Architecture
- Survey
- GIS
- Cultural Resources
- Compliance
- Urban Forestry
- Reality Capture, LiDAR, and UAV Services
- ESAs and Hazardous Materials Investigations
- Multimedia Compliance
- MS4 Programmatic Support
- TMDL Studies and Development
- Assessment and Remediation
- Brownfield Redevelopment
- Resiliency and Sustainability

Components of Pre-Acquisition Due Diligence

- Similar to EPA/Legal Standard of “All Appropriate Inquiry”
- Phase I Environmental Site Assessment (ASTM E-1527-21)
 - References “All Appropriate Inquiry” EPA Terminology for Hazardous Materials
- Business Environmental Risk
 - Environmental Liens (title company)
 - Items outside the scope of a Phase I ESA
- Assessment of relationship of Purchase Price to Fair Market Value (appraiser)

Environmental Due Diligence

1. Environmental Contamination
2. Wetlands & Waters
3. Chesapeake Bay Preservation Act Buffers
4. Protected Species (State & Federal)
5. Historic Resources (Archeological, incl. Native American, Architectural)





What is an “Environmental Contaminant”?

- Informal catch-all term
- ASTM Standard (ASTM E-1527-21)
“Recognized Environmental Conditions”
- Only Includes:
 - Hazardous Materials
 - Hazardous Waste
 - Petroleum Products

What is Outside the ASTM Scope for a Phase I ESA?

- Asbestos
- Radon
- Lead-based paint
- Lead in drinking water
- Regulatory compliance
 - Air, water, waste permits
- Industrial hygiene
- Health and safety
- Indoor air quality
- Mold
- Biological agents
- Wetlands
- Endangered species
- Cultural and historic resources
- And ... OTHERS!

New issues keep coming up:
vapor intrusion, PFAs

Start with the ASTM Phase I ESA
and ask the professional what
they think should also be
investigated given site history,
location, transaction size

Wetland Permitting - Time Adds Up Fast



What you think of...



What you actually deal with...



Wetlands & Waters Regulated By:

Virginia Department of Environmental Quality

- Regulates all surface waters and wetlands, certain exemptions for ditches

US Army Corps of Engineers

- Does not regulate isolated wetlands, ephemeral ditches & certain ponds

Virginia Marine Resources Commission

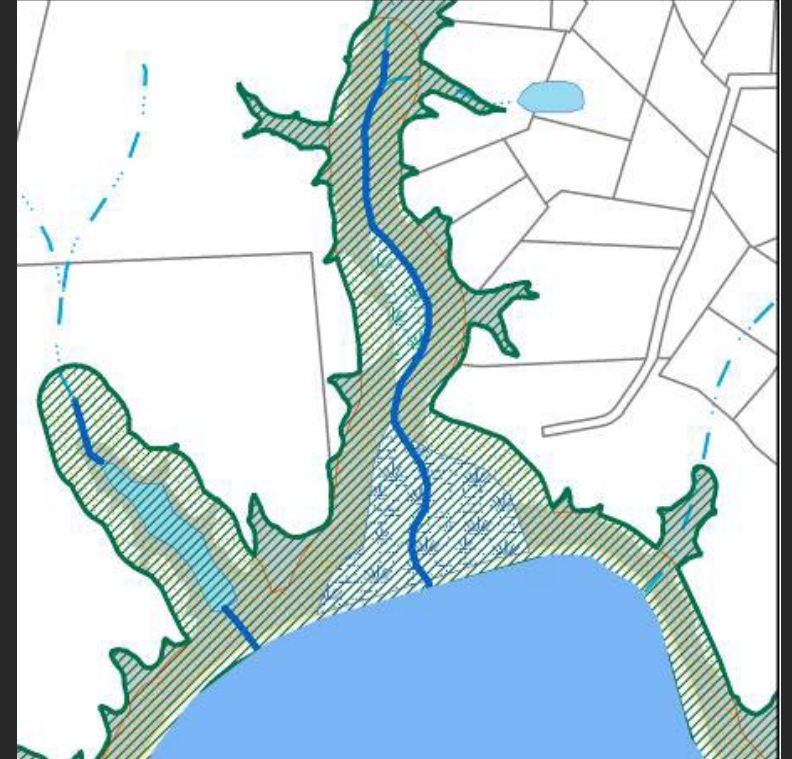
- Tidal areas below MLW*

Local Wetland Boards

- mean low water up to edge of tidal wetlands
- Note*: Unless municipality does not institute LWB program, reverts to VMRC

Chesapeake Bay Act Buffers (via localities)

- Perennial streams and wetlands “contiguous and connected by surface flow” to a perennial water



Wetland Permitting - Time Adds Up Fast

Below 1.0 Acres of Non-tidal Wetland/Water Impact (97%)

- General Permits from COE and DEQ
- Was 3-4 months, now 4-6 months

Above 1.0 Acres of Non-tidal Wetland/Water Impact

- General Permit DEQ: 4-6 months
- Individual Permit COE: 10-12 months

Above 2.0 Acres of Non-tidal Wetland/Water Impact

- Individual Permits COE and DEQ: 10-12+ months



Mitigation and Restoration





Mitigation

- Avoidance and Minimization First
 - Least Damaging Practicable Alternative
- Compensatory Mitigation
 - Buying Credits
 - Rattlesnake
 - Tidal Mud/Sand Flat
 - Tidal Wetland
 - Non-tidal Wetland
 - Stream
- Does not include “nutrient credits” (DEQ Stormwater program)



Mitigation Banks

- Agencies do want wetland banks to use ditched farmland (old converted wetlands) restored back to new wetlands.
- Agencies will not approve existing large forested wetlands to be banks.
- Agencies will not approve large forested tracks being cut down and significantly graded.
- Agencies have detailed protocol they must follow (Federal Mitigation Rule).

Compensatory Mitigation “Prices Will Vary”

Northern Virginia

Non-tidal wetlands:	\$300,000 - \$400,00/credit
Streams:	\$400-\$700/lf, as much as \$1,000/credit

James River

Wetlands:	
2 years ago:	\$ 40,000/credit;
now	\$150,000 /credit
and no credits in some sub-watersheds	

Streams

2 years ago	\$300-\$400/lf
Now	\$625/lf

Southern Watershed

1.5 years ago	~\$15,000/Credit
12 months ago	~\$40,000/credit
6 months ago	~\$75,000/credit

Wetlands

- 1 Credit ~ 1 Ac
- Mitigation Ratio
 - Forested Wetlands 2:1
 - Herbaceous Wetlands 1:1

Streams

- 1 Credit ~ 1 linear foot
- Mitigation Ration
- 1 lf impact : <1 to 1.4 credits
- Depends on stream type

Protected Species Animals, Plants & Insects

- Federal Procedures
- State Procedures
- Consultant Process
 - Database reviews
 - Species-specific surveys
 - Limited to time of year
 - Qualified surveyors
- Implications
 - Modify plans
 - Time of year restrictions



Bats

Northern Long-Eared Bat

- TOYR:
 - South of James River TOYR:
Dec. 15 – Feb. 15 and Apr. 15 – Jul. 3
 - North of James River:
Apr. 1 – Nov. 14
- Survey window:
May 15 – Aug. 15

Tri-Colored Bat

- TOYR: TBD
- Survey window:
May 15 – Aug. 15



BAT TIME OF YEAR RESTRICTIONS

VIRGINIA & MARYLAND

Species	 Indiana Bat	 Northern Long-Eared Bat	 Little Brown Bat	 Tri-Colored Bat
Status	Federally Endangered	Federally Endangered	State Endangered in VA	State Endangered in VA
Tree-Clearing Prohibited	April 1 - November 14 Within 5.5 miles of known hibernacula	April 1 - November 14	Any time of year Within 0.25 miles from known hibernacula	
	April 15 - September 15 Further than 5.5 miles from known hibernacula	December 15 - February 15 and April 15 - July 30 in the Coastal Plain of VA south of the James River	June 1 - July 31 Within 150 feet of known occupied maternity roosts	
Tree-Clearing Allowed	November 15 - March 31 Within 5.5 miles of known hibernacula	November 15 - March 31	Any time of year Further than 0.25 miles from known hibernacula	
	September 16 - April 14 Further than 5.5 miles from known hibernacula	February 16 - April 14 and July 31 - December 14 in the Coastal Plain of VA south of the James River	Any time of year Further than 150 feet of known occupied maternity roosts August 1 - May 31 Within 150 feet of known occupied maternity roosts	

Cultural Resources

Architectural Resources

- above ground Structures

Archaeological Resources

- below ground

Native American Sites

- places, areas





Cultural Resources

Need for Evaluations

- Local government vs. Section 106 review (Corps of Engineers with Virginia Department of Historic Resources)

Phased Investigations

- Phase IA – Identification/Walkover
- Phase IB – Identification/Testing (LOD)
- Phase II – Evaluation of Eligibility & Boundary
- Phase III – Mitigation/Data Recovery

Survey boundary of resources for avoidance

How Does Environmental Due Diligence Apply to Assessments and Appraisals

- Regulations are much more complex than “last millennium”
- Constraints on raw land are more than just wetlands
- Mitigation has become more expensive and harder to secure
- Benefits of Pre-acquisition Evaluation
 - “Go / No-Go” decisions based on all relevant information
 - Identifies resources and areas to avoid if possible
 - Allows for planning to reduce permitting complexity & mitigation costs
 - Increases predictability of outcome, schedule and development costs



Questions?

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