

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)
HB 206 Small Renewable Energy Projects: 2023 Regulatory Advisory Panel (RAP)

2023 RAP Meeting #3

Friday, September 8, 2023 | 10 am – 3 pm

Meeting Location: DEQ Piedmont Regional Office | 4949-A Cox Road | Glen Allen, VA 23060

Facilitated by: Tanya Denckla Cobb | Michelle Montserrat Oliva
Institute for Engagement & Negotiation (IEN), University of Virginia

Note re Public Attendance: While the 2023 RAP meetings are open to the public, there will not be an opportunity for public comment during the meetings. As required, there will be a public comment period later in the regulations drafting process, which will be announced on [Virginia Regulatory Town Hall](#). For more information, please refer to the Virginia Register of Regulations website that explains the [Regulatory Development Process](#).

AGENDA

DRAFT as of 8/29/23

9:30 Sign-in

- *Please aim to arrive during the 9:30-10:00 am window for sign-in/access.*
- Participants will need to be buzzed in and receive a Visitor Badge.
- There is no guest wi-fi. Please plan to download or print materials in advance and/or use your own mobile hotspot. Only a limited number of copies will be printed for reference.

10:00 Welcome & Today's Agenda

Co-Facilitators for the RAP Process:
Tanya Denckla Cobb, Director, IEN
Michelle Montserrat Oliva, Associate Consultant, IEN

Our Goal as Facilitators and DEQ/lead convener:

Participation by all stakeholders to help make the **best possible** set of regulations and process.
“Best possible” meaning that in implementation:

- Balances the interests of protecting of prime ag/forest land with renewable energy generation
- Feasible, not overly complicated, understandable
- Addresses the interests of as many of the stakeholders as possible
- Grounded in science and expertise

10:15 DEQ Draft Proposals: Forest Lands

Session will be continued after lunch.

Jonathan Rak, Regulatory Analyst, DEQ
With Tanya Denckla Cobb and Michelle Oliva

SESSION FORMAT

1. DEQ presents 1 proposal or a group of related proposals
2. RAP Discussion
 - a. Questions for Clarification
 - b. Elements of support or concern
 - c. Recommendations to improve/modify? Any potential implementation challenges?

Draft as of 8/29/23

OUTLINE of DEQ Proposals by Category

A. Mapping

DEQ Proposal A.1-A.3

B. OFF-SITE/Baseline Mitigation Requirement

DEQ Proposals B.1-B.6

C. ON-SITE Mitigation Options

DEQ Proposal C.1

D. Fee in Lieu

DEQ Proposal D.1

12:00* LUNCH BREAK (on your own) – Please be back before 1:30 pm – [Nearby Restaurants](#)

*Time TBC

1:30 DEQ Draft Proposals: Forest Land CONTINUED

Jonathan Rak, Regulatory Analyst, DEQ

With Tanya Denckla Cobb and Michelle Oliva

2:45 Wrap-Up/Next Steps - *Adjourn at 3 pm*

2023 RAP MEETINGS: 10 am-3 pm at the DEQ Piedmont Regional Office	Dates
1: Overview of the Current Situation (Informational)	Fri Jun 23
2: Issues focusing on Soil	Tue Jul 25
3: Issues focusing on Forestry	Fri Sep 8
4: Issues focusing on Local Control	Thu Sep 28
5: Wrap-up meeting	Tue Oct 31

2023 RAP Meeting Guidance: Participation Guidelines (includes changes from 2022 RAP)

Role of DEQ Representatives

- DEQ is serving in multiple roles: as lead convener, as a decision maker, and as a stakeholder
- DEQ representatives will prepare materials, present, and actively participate in the process, including gathering and synthesizing technical information for the stakeholders
- DEQ will draft the regulations

Role of RAP Members: Review DEQ draft language/rationale and provide input for DEQ to consider that will:

- Help improve the outcome (to benefit from brain trust of this group)
- Identify potential implementation challenges
- When possible, propose draft alternative language/approach
- At minimum provide comments to flag/document any serious concerns
- To do in between meetings: Review materials, bring your organization/constituency up-to-speed and consult them on what to discuss/offer input at following meeting

Primary & Alternate RAP Members

- 1 Primary representative per organization. Represents their organization/constituency. Consults within their organization for input as needed per above (Role of RAP Members)
- Alternate may be designated by the Primary to attend/participate in Primary's absence. Primary to inform DEQ who the alternate will be in advance
- If Primary is present, alternates may attend in-person meetings, but observing only
- **FOIA Reminder:** Outside of RAP in-person public meetings, RAP members may have no virtual or in-person meetings, or email threads with more than 2 people, and may only consult each other 1:1.

Role of Subject Matter Experts (SMEs)

- SMEs from State Agencies/Universities may actively participate to inform the process and provide relevant context/expertise. This may include:
 - Answering questions
 - Stepping in with information/expertise to add, clarify, or otherwise support the discussion
 - Provide expert opinions
 - If called on to do so by DEQ: May draft, advise or review draft language

Seating Protocols: Primary RAP members at the main tables; Additional SME resources, agency staff, alternates, and public in chairs along the walls.

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RAP Meeting #3: Friday, September 8, 2023

DRAFT MATERIALS FOR PRE-MEETING REVIEW

DEQ HB206 Draft Proposals: Forest Land

OUTLINE: DEQ Proposals by Category

A. Mapping

Page 2

DEQ Proposal A.1-A.3 + PRESENTATION

B. OFF-SITE/Baseline Mitigation Requirement

Pages 3-8

DEQ Proposals B.1-B.6 + PRESENTATION

C. ON-SITE Mitigation Options

Pages 9

DEQ Proposals C.1

D. Fee in Lieu

Page 10

DEQ Proposal D.1

A. Mapping

DEQ Proposal A.1

Informed by RAP 2022 Proposal

Each applicant will submit a delineation of contiguous forest lands within the project area (using the definition in [Va. Code § 10.1-1178](#)) and forest lands within the project area enrolled in a program for forestry preservation pursuant to subdivision 2 of [Va. Code § 58.1-3233](#). The application shall include a calculation of these areas to be disturbed by the project. The delineation and calculation need not be prepared by a forester, but shall be certified by the applicant. The Department of Forestry will review the delineation and calculations for accuracy.

Rationale: Existing mapping resources are not sufficient to reliably map the area of contiguous forest or lands in forest land use assessment programs. Applicants are already required to delineate forest cover in their stormwater management plans, so this will not add a regulatory burden. Stormwater management plans may be prepared before or after the PBR application is submitted and may be revised during the review process, but the delineation of existing forest cover only needs to be done once. The limits of disturbance may change during the review process, but the delineation of pre-development forest cover will not.

DEQ Proposal A.2

Informed by RAP 2022 Proposal

Applicants shall use the [Virginia Natural Landscape Assessment \(VaNLA\)](#) to map C1 and C2 Forest Cores (see proposal B.2 for use of this information).

Rationale: C1 and C2 forest cores are defined by the mapping in the Virginia Natural Landscape Assessment (VaNLA). Although forest cores can be a sub-set of the lands mapped under Proposal A.1, applicants should rely on the VaNLA map to identify this category of lands.

DEQ Proposal A.3

For the purpose of defining forest land pursuant to [Va. Code § 10.1-1178](#), forest trees will not be limited to commercial lumber tree species.

Rationale: Va. Code § 10.1-1178 defines forest trees as “commercial timber trees.” However, this section provides definitions to be used in Article 10.1 Conservation “unless the context requires a different meaning.” The context of HB 206 includes multiple forest functions and values including but not limited to consideration of ecosystem benefits, water quality, and impact on the local economy when forests are displaced. A wide variety of species can have commercial value for purposes other than lumber, such as firewood, crafts, fruit, habitat for game species, etc. These factors provide a context that requires a broader interpretation of forest trees.

B. OFF-SITE/Baseline Mitigation Required

PRESENTATION: DEQ Update on Valuation of Conservation Easements

DEQ Proposal B.1

Mitigation for disturbing forest land shall require conserving OFF-SITE forest land at a ratio of 1 : 1.

- This ratio may be revised before final regulation if data indicates that the cost of forest easements is substantially greater or less than the cost of agricultural easements.
- Forest easements will require maintenance of streamside management zones if they are not otherwise required by law or regulation.
- Conservation easements on land leased or owned by the solar developer but outside the disturbance area will count as OFF-SITE mitigation.

Rationale: The goal of this ratio is to require forest mitigation in a manner that does not cost the developer substantially more or less than agricultural mitigation. DEQ does not want mitigation requirements to incentivize the development of forest or prime agricultural land over the other.

Streamside management zones are required for timber harvesting in the areas regulated by the Chesapeake Bay Preservation Act. This helps preserve the water quality benefits of forests when harvesting occurs. Because loss of these water quality benefits is an impact requiring mitigation, streamside management zones should be required for all conservation easements provided for mitigation of solar development.

Allowing conservation easements on land leased or owned by the solar developer but outside the disturbance area accomplishes the same purpose of “off-site” easements and should count as mitigation.

DEQ Proposal B.2

Informed by RAP 2022 Proposal

DOF and DCR recommend:

- Mitigation for disturbing C1 Forest Cores require conserving OFF-SITE **C1 forest land** at a ratio of 1 : 7.
- Mitigation for disturbing C2 Forest Cores require conserving OFF-SITE **C2 forest land** at a ratio of 1 : 2.
- Disturbance of less than 50 acres of contiguous C1 or C2 forest land will require mitigation.

Rationale: The 2017 [Virginia Natural Landscape Assessment \(VaNLA\)](#) identified large patches of natural land with at least one hundred acres of interior cover. This interior cover, known as core area, begins one hundred meters from patch edges. Ecological cores were mapped for the entire state. Ecological cores do not include all forests. Over fifty attributes were assigned to the ecological cores providing information about rare species and habitats, environmental diversity, species diversity, patch characteristics, patch context, and water quality benefits. To assist in identifying highly significant ecological cores, VNHP selected nine ecological attributes and used them in a principal components analysis to develop a prioritization by ecological integrity. The resulting scores were classified into five categories of ecological integrity: C1 - Outstanding; C2 - Very High; C3 - High; C4 - Moderate; and C5 - General. C1 and C2 forest land combined comprise roughly 2.33% of Virginia land.. DEQ sister agencies recommend that C1 and C2 forest cores be avoided for solar development and, if necessary, receive the highest level of mitigation.

Forest Cores are a category of forest land, but also require mitigation for wildlife impacts. The statutory authority for DEQ to require mitigation of forest cores derives from both the impact to wildlife and forest lands in [Va. Code § 10.1-1197.6 B 8](#).

This proposal compares with the 2019 proposed amendments which would have required a mitigation plan that demonstrates why impacts to C1 and C2 cores cannot practicably be avoided and why additional proposed actions are reasonable.

PRESENTATION: Joe Weber, Chief of Biodiversity Information and Conservation Tools, Department of Conservation and Recreation

Table 1: OFF-SITE Mitigation Requirements

TYPE of Forestlands to be Mitigated	Acreage of OFF-SITE Conservation Required <i>For 1 Acre of Forest Disturbed</i>	100-Acre Disturbance EXAMPLE
<p><u>TYPE 1*: Contiguous Forest (HB206)</u> Includes disturbance of more than 50 acres of contiguous forest land and any disturbance of land included in a forest use value assessment program.</p>	<p>1.0</p>	<p>100 * 1.0 = 100 acres</p>
<p><u>TYPE 2*: C1 Forest Core (2019 RAP)</u> C1 forest cores possess “outstanding” ecological integrity. It is highly unlikely that these same ecological services can be recovered after development. Disturbance of less than 50 acres of contiguous C1 forestland will require mitigation.</p>	<p>7.0</p>	<p>100 * 7.0 = 700 acres</p>
<p><u>TYPE 3*: C2 Forest Core (2019 RAP)</u> C2 forest cores possess “very high” ecological integrity. It is very unlikely that these same ecological services can be recovered after development. Disturbance of less than 50 acres of contiguous C2 forestland will require mitigation.</p>	<p>2.0</p>	<p>100* 2.0 = 200 acres</p>

DEQ Proposal B.3

When a solar project disturbs forest land that is located on prime agricultural soils, the offsite mitigation must conserve forest land that is also located on prime agricultural soils.

- An easement conserving OFF-SITE forest land that is *not* located on prime agricultural soils will *not* qualify for mitigation.
- The only exception to this requirement is if the developer commits to preserving prime agricultural soils on-site (per RAP #2 Agriculture Proposal C.2), in which case off-site forest land not located on prime agricultural soils will qualify for mitigation.

Rationale: Mitigation for overlapping forest land and prime agricultural soils requires enhanced mitigation recognizing the combined value of these lands. This proposal requires combined mitigation for both land use types, i.e. conservation of off-site forest land on prime agricultural soils. Such land combinations may not always be available for preservation in the eligible geographic area. ON-SITE mitigation of prime agricultural soils will provide an alternative.

DEQ Proposal B.4

Establishment of riparian forest buffers on agricultural lands OFF-SITE shall mitigate 2 acres of forest disturbance for each acre of buffer. Such buffers shall be a minimum of 35 feet and a maximum of 300 feet.

- In other words, this would reduce the mitigation ratio to 1 : 0.50.
- So, for example, if there were 100 acres of disturbance, establishing 50 acres of riparian forest buffer would meet the forest mitigation requirement.

Rationale: This proposal replicates Proposal B.2 of RAP Meeting #2. Although riparian forest buffers would be established on agricultural land, the beneficial creation of new forest land can mitigate the impact of forest clearing. DOF has raised concerns whether establishment of riparian forest buffers on agricultural land should mitigate the loss of forest land.

DEQ Proposal B.5

This proposal revises Proposal B.4 of RAP Meeting #2

The OFF-SITE mitigation will be documented through a conservation easement.

- The conservation easement must be held by a third party in accordance with the Virginia Conservation Easement Act ([Va. Code § 10.1-1009 et seq.](#)) or the Virginia Open-Space Land Act.
- The conservation easement must include a "third party right of enforcement" (as defined in [Va. Code § 10.1-1009](#)) granted to DEQ.
- Eligible holders of the easement include state agencies and charitable entities described as "Holders" in the Virginia Conservation Easement Act.

Rationale: Easements held by a third party in accordance with the Virginia Conservation Easement Act and Open-Space Land Act are deemed adequate protective mechanisms under the Virginia Water Protection (VWP) regulations for wetland and stream mitigation. A DEQ third party right of enforcement will provide additional protection for these resources. The Conservation Easement Act provides whenever a holder ceases to exist, the easement shall vest in the Virginia Outdoors Foundation.

DEQ Proposal B.6

This proposal revises Proposal B.5 of RAP Meeting #2

DEQ seeks feedback on the following alternative proposals:

- A. OFF-SITE conservation easements for mitigation **must be located in the same River Watershed as the impacted site.** River Watersheds are generally defined in [Virginia Code § 62.1-44.15:23. Wetland and stream mitigation banks](#), and shown on the map below.
- B. OFF-SITE conservation easements for mitigation **must be located in the same physiographic province as the impacted site.** Physiographic provinces are shown on the map below.
- C. OFF-SITE conservation easements for mitigation **must be located in the same River Watershed and the same physiographic province as the impacted site.**

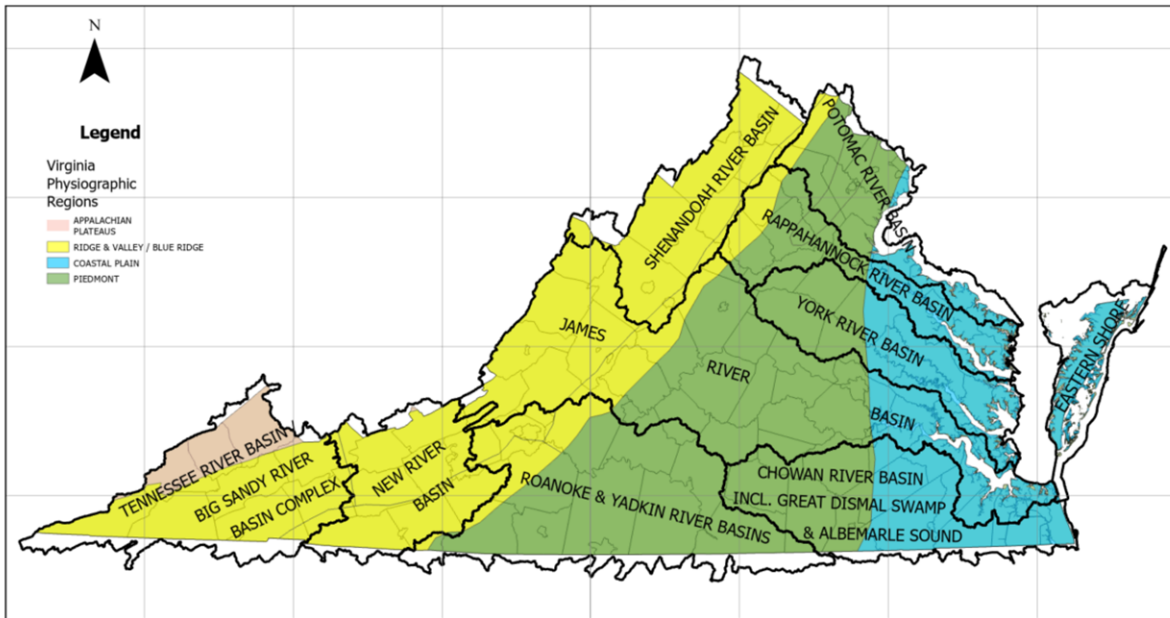
Rationale: The July 25, 2023, RAP meeting supported the concept that mitigation should be geographically proximate to or have some meaningful nexus with the agricultural lands being impacted by solar development. However, concerns were raised about the use of hydrologic units, political boundaries, or physiographic provinces. Requiring mitigation in the same River Watershed aligns with other DEQ regulatory programs and allows for consistent calculations of nutrient loads under the Chesapeake Bay Watershed Implementation Plan. The ten River Watersheds compare with approximately 54 8-digit HUC codes proposed at RAP Meeting #2.

DEQ proposes to combine the “Chesapeake Bay and its Small Coastal Basins” on the west coast of the Bay with the larger river watersheds, e.g., Rappahannock River, and to combine the “Chesapeake Bay and its Small Coastal Basins” on the east side of the Bay with the “Atlantic Ocean” to form a new “Eastern Shore” river watershed. Strict application of the Virginia Code definitions would result in areas too restrictive for obtaining mitigation. These combinations are reflected on the map below.

Physiographic provinces are based on USGS mapping of the Physiographic Divisions in the conterminous United States. It was automated from Fenneman's 1:7,000,000-scale map, "Physical Divisions of the United States," which is based on eight major 1946 divisions, 25 provinces, and 86 sections representing distinctive areas having common topography, rock types and structure, and geologic and geomorphic history.

Figure 1: River Watersheds and Physiographic Provinces

River Watersheds & Physiographic Provinces



C. ON-SITE Mitigation Options

DEQ Proposal C.1

Preservation or planting of riparian forest buffers adjacent to disturbed areas of the solar project shall mitigate 1 acre of disturbance for each acre of buffer (1 : 1). Such buffers shall be a minimum width of 35 feet and a maximum width of 300 feet. Preserved forest land within the project area that is more than 300 feet from the disturbed areas *will not* count as mitigation (but will not require mitigation as disturbed area).

Rationale: The preservation of riparian forest buffers improves water quality flowing off the solar facility. Preservation of forest land on the project site reduces the area of disturbance requiring mitigation but will not count as mitigation except for these riparian buffers.

D. Fee in Lieu

DEQ Proposal D.1

Informed by RAP 2022 Proposal

This proposal revises Proposal D.1 of RAP Meeting #2

DEQ will consider proposals for a fee in lieu program provided the program:

- a) will assure timely implementation of actual mitigation consistent with the ratios adopted for off-site easements; and
- b) will not impose uncompensated administrative costs on DEQ.

Rationale: DEQ is not proposing a specific fee in lieu program but has received suggestions for such programs including:

- A trust fund similar to [The Virginia Aquatic Resources Trust Fund Program](#) (Trust Fund Program). The Trust Fund Program charges different amounts per acre based on which watershed the development impacts. This accounts for the different costs of obtaining land and constructing wetlands based on their location. The per acre fee is calculated to cover the cost of the mitigation.
- Others have suggested a fee in lieu paid to the [Virginia Department of Forestry Forest Sustainability Fund for Local Government](#). This fund is used to support localities adopting forest use value assessment. The Department of Forestry might propose another type of fee in lieu.

Some fee in lieu programs, such as payment for emissions of a pollutant, are equivalent to a tax with the purpose of providing an economic incentive to avoid the harmful impact. It appears that conversion of forest lands and prime agricultural soils cannot largely be avoided because of solar siting requirements, so the cost of a fee in lieu would not provide an effective incentive to avoid these impacts. A fee in lieu program for solar PBRs could provide mitigation equivalent to the proposed requirements for off-site easements that help prevent conversion of other forest and agricultural lands.