



Mitigation for Solar Impacts



HB206

HB 206 (2022)

- Amended the Permit By Rule (PBR) law (150MW or less)
 - Mitigation plan requirements expanded:
 - Currently required if there are significant adverse impacts to wildlife, and historic resources
 - New requirement for **prime agricultural soils and forest lands**
 - A project **deemed to have a significant adverse impact** if it would disturb more than **10 acres of prime agricultural soils** or **50 acres of contiguous forest lands**, or if it would disturb forest lands enrolled in a program for forestry preservation pursuant to subdivision 2 of § 58.1-3233;

HB 206 Timing provisions

- Applicability to forest land cleared prior to application
 - “Forest land” has the same meaning as provided in § 10.1-1178, except that any parcel shall be considered forest lands if it **was forested at least two years prior** to the Department's receipt of a permit application.
- Delayed effective date
 - Any small renewable energy project for which **an initial interconnection request application** has been received and **accepted by the regional transmission organization or electric utility by December 31, 2024**, shall not be subject to the provisions of this act.

Amendments to PBR Regulation

- HB 206 Directed DEQ to
 - Convene stakeholders to assist with development of regulation
 - Determine criteria for an applicant of a solar project to address in a plan to mitigate any significant adverse impacts to soils and lands
 - Include reasonable actions to be taken by the applicant to avoid, minimize, or otherwise mitigate any such impacts to prime agricultural soils or forest lands
 - Include a process by which an applicant may satisfy its mitigation obligations by agreement with a locality
 - if such mitigation requirements conform to the regulations established by DEQ
 - Adopt final regulations no later than December 31, 2024



Impacts to Farmland and Forest Land



Impacts to Agricultural Soils & Forests

HB206 directs state agencies to account for environmental and natural resources impacts of converting 50 or more acres of contiguous forest, and 10 or more acres of prime agricultural land.

- What does that look like?
 - 2019-April 22, 2024 66,947 acres (estimated in PBR)
 - 40,622 of forest
 - 26,325 of open
 - 188 applications

61% of the applications for large scale solar facilities have been in Southside or Central Virginia (*Virginia Solar Survey 2021*).



Mapping

■ Agriculture

- ◆ A1. Can be desktop evaluation – GIS sources (NRCS Web Soil Survey preferred, VaLEN)
- ◆ A2. On site evaluation by a qualified private consultant

■ Forest

- ◆ A1. Can be a desktop evaluation – delineation and calculation do not need to be prepared by a forester; however, the results shall be certified by applicant. The DOF will review delineation and calculations.
- ◆ A2. Use Virginia Natural Landscape Assessment (NaNLA) to map C1 and C2 Forest Cores.
- ◆ A3. Definition of “forestland” is based on VA. Code 10.1-1178, (not limited to commercial timber trees).



Mitigation

- Agriculture Off-Site
 - ◆ B1. Conserving off-site soils. Matches other DEQ requirements.
 - ◆ B2. Establish RFB. Improve WQ, offers benefits greater than conservation of prime soils and improve existing lands.
 - ◆ B3. Mitigation required for total acreage disturbed, including those below the threshold for mitigation.
 - ◆ B4, 5 & 6. Mitigation documented through a conservation easement located in the same watershed as impacted site and must be perpetual.



Mitigation

■ Agriculture On-Site

- ◆ C1. Credit given for WQ mitigation required by 206 which avoids or minimizes impacts to soils.
- ◆ C2. Preserving soils on site, receives partial mitigation credit.
- ◆ C3. Implementation of a plan to maintain management alternatives in combination with On-Site soil mitigation from C2 will decrease required acreage from C2 by 25%.
- ◆ D1. In-Lieu Fee. Assure timely implementation of mitigation generally consistent with ratios for off-site easements AND will not impose uncompensated administrative cost on DEQ or other state agencies. (VLCF, SFMF, Forest Core, FSF other).
- ◆ D2. In-lieu fee will be determined annually for impacts by adding administrative cost to the predicted cost to protect.



Mitigation

■ Forest Off-Site

- ◆ B1. Mitigation for disturbed forest shall require 1:1. Require maintenance of SMZ. Easements on land leased, or owned by the solar developer but outside of the disturbance area will count as “off-site”.
- ◆ B2. Disturbing C1 cores require conserving off-site C1 forest land (1:7). Disturbing C2 (1:2), disturbance of less than 50 acres of contiguous C1 or C2 will require mitigation.
- ◆ B3. Forest disturbance located on Prime Ag soils, mitigation must conserve forest land whether located on prim ag or not.
- ◆ B4. Establishment of RFB on ag land shall mitigate 2 acres of buffer for each acre disturbed (1:0.5). Minimum of 35’, max 300’.
- ◆ B5. Mitigation through a conservation easement. Third party enforcement.
- ◆ B6. Conservation easements must be located in same watershed



Mitigation

■ Forest On-Site

- ◆ C1. Preservation of planting of RFB adjacent to disturbed areas of the project AND protected by easements shall mitigate ratio 1:0.5. 35' min, 300' max. Preserved forest land within the project area that is more than 300" will not count as mitigation.
- ◆ D1. In-Lieu Fee – Same as Prime Ag soils in-lieu fee (VLCF, SFMF, Forest Core, FSF, other).
- ◆ D2. Mitigation fee determined annually for impacts by adding the projected administrative costs.

A stylized sun graphic on the left side of the slide. It consists of a solid yellow circle at the bottom left, with several yellow dashed lines of varying lengths curving upwards and to the right from its top edge, suggesting rays of light. The background is a solid orange color, and a large white semi-circle is positioned on the right side of the slide.

Mitigation Fundamentals

Presentation Overview

Mitigation Hierarchy

Details of proposed regulation

- In-lieu fee
- Service Areas
- Mitigation Ratios

In-lieu fee

Preferred alternative among most stakeholders.

State Agencies and Accredited Land Trusts will be able to purchase easements.

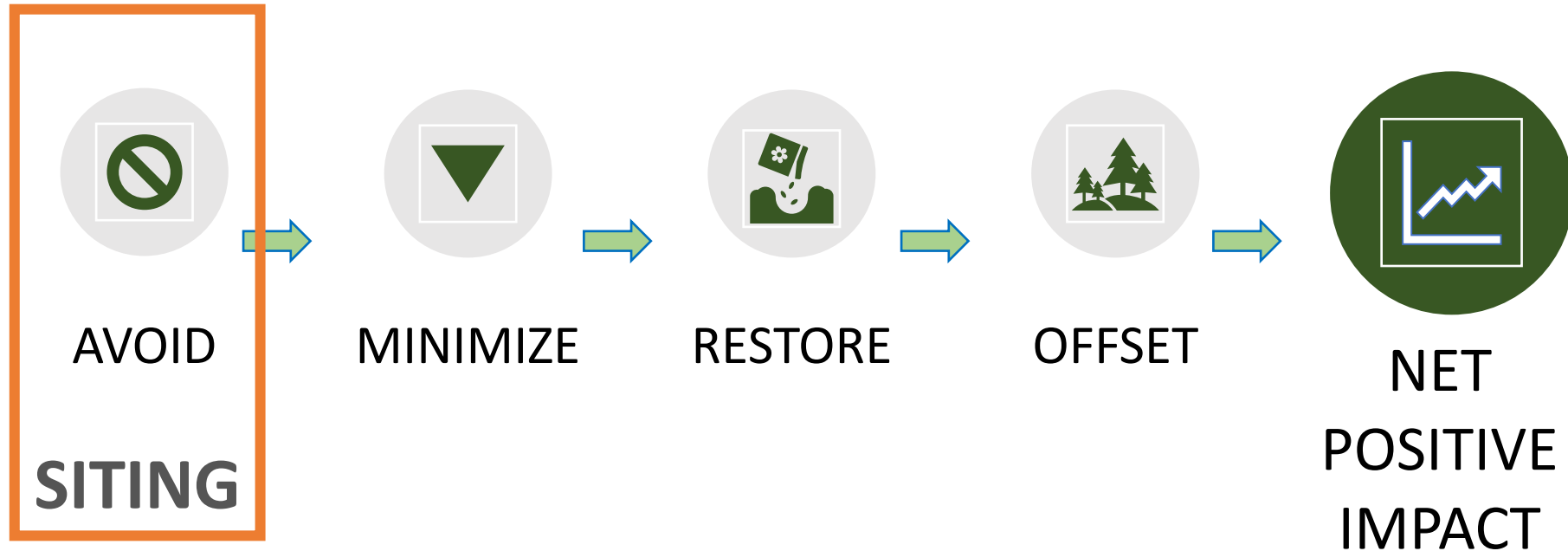
Must assure timely implementation.

Must not impose uncompensated administrative costs on state agencies.



Conservation Excellence

Mitigation Hierarchy

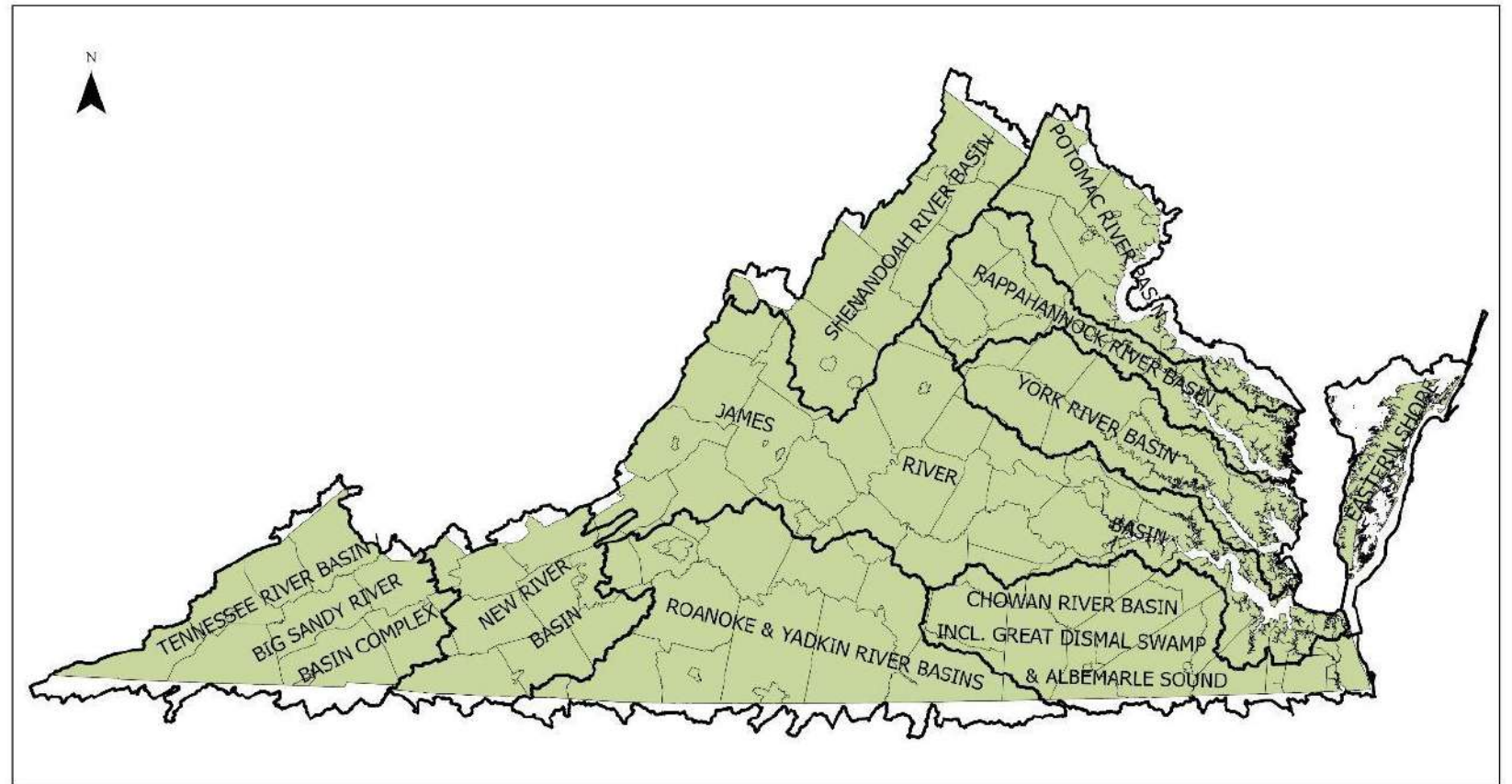


Service Areas

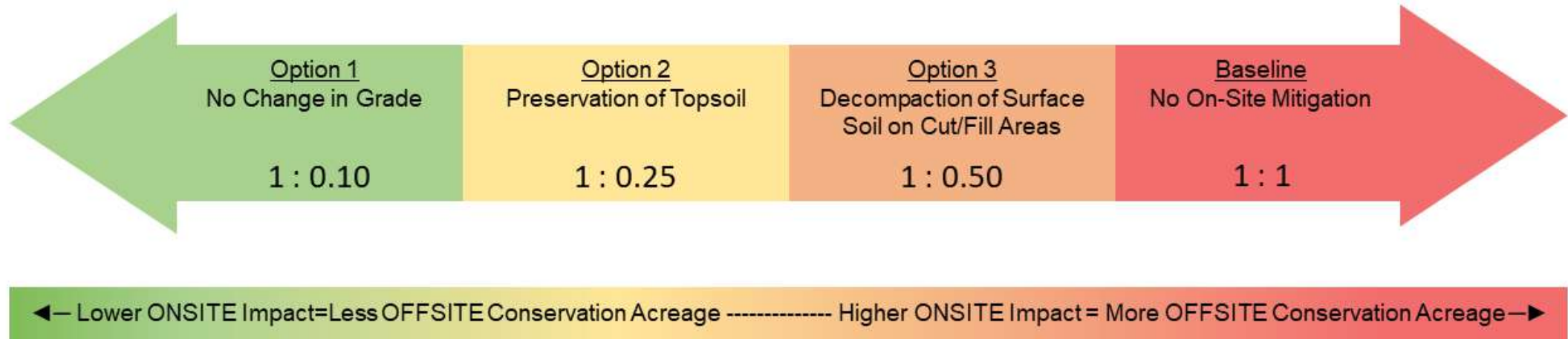
Key Mitigation Principles:

- Equivalence
- Location

River Watersheds



Mitigation Ratios: Soils



Mitigation Ratios: Forests

Type of Forest	Ratio
TYPE 1: Contiguous Forest	1:1
TYPE 2: C1 Forest Core “Outstanding” ecological integrity	7:1
TYPE 3: C2 Forest Core “Very High” ecological integrity.	2:1

Mitigation Ratios: Riparian Buffers

Establishment of riparian forest buffers on agricultural lands OFF-SITE shall mitigate **2 acres of forest disturbance for each acre of buffer.**





Role of Conservation Easements

Conservation Easement Proposed Requirements

Who Can Hold these easements

Third party right of Enforcement

Geographic constraints

Easements must be perpetual

Conservation Easement proposed terms

- No Divisions
- Grading, blasting, filling, or earth removal limitations;
- Building and Structure limitations;
- Comprehensive Plan Compliance;
- Right of Inspection;
- Enforcement provisions;
- Procedure for Notice and Approval of changes in use;
- Requirements for conversion, diversion, and extinguishment;
- Subordination of deeds of trust.


Specific Rules for Agriculture and Forest Easements

Agricultural easements:

- Buildings for the processing and sale of farm or forest products or for certain animal-related uses;
- Solar facilities scaled to provide on-site power;
- Wind turbines;
- Small-scale miscellaneous buildings or structures;
- Impervious surface limitations.

Forest Easements:

- Easements for forest mitigation shall generally be consistent with the Easement Term Guidelines adopted by the Virginia Department of Forestry (VDOF).
- Restrictions on forest conversion as defined by DOF

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