

Virginia Department of Environmental Quality

**Solar Permit By Rule Regulatory Advisory Group
First Meeting Minutes**

August 15, 2019

Location: DEQ Central Office
3rd Floor Conference Room
DEQ, 1111 East Main St. Richmond, VA

Members Present:

David Krupp; Community Energy
Richard Gangle; Dominion Energy
Harry Godfrey; Advanced Energy Economy
William Reisinger; Maryland-DC-Delaware-Virginia Solar Energy Industries Ass.
John D. Hutchinson, V; Shenandoah Valley Battlefields Foundation
Dan Holmes; Piedmont Environmental Council
Lena Lewis for Judy Dunscomb; The Nature Conservancy
Joe Lerch, Virginia Association of Counties
Ken Jurman; Virginia Department of Mines, Minerals Energy
Cliona Mary Robb, Virginia Solar Energy Development and Energy Storage Authority
Roger W. Kirchen; Virginia Department of Historic Resources
Robbie Rhur for S. René Hypes; Virginia Department of Conservation and Recreation
Terrance Lasher; Virginia Department of Forestry

Members Absent:

Joe Lerch, Virginia Association of Counties
Ernie Aschenbach; Virginia Department of Game & Inland Fisheries
Hannah Coman; Southern Environmental Law Center
Jon Hillis; SolUnesco

DEQ Staff:

Trieste Lockwood, Policy
Mary E. Major, Air & Renewable Energy
Irina Calos, Communications
Tamera Thompson, Air & Renewable Energy
Michael Dowd, Air & Renewable Energy
Todd Alonzo, Air & Renewable Energy

Meeting purpose: This Regulatory Advisory Panel was established to advise and assist DEQ in developing proposed regulation amendments concerning 9VAC 15-60, the Solar Energy Permit by Rule (PBR). The regulation amendments are being proposed to clarify the regulatory requirements for applicants and permitted facilities, improve permitting procedures, and streamline the regulations for ease of use while still protecting the environment and health, safety, and welfare of citizens. An appropriate fee structure to support the program fully including compliance and enforcement activities will be evaluated during the regulatory development phase. The agenda (Attachment A) is attached.

The meeting convened at approximately 10:00 a.m.

DEQ Director David Paylor welcomed Regulatory Advisory Panel (RAP) members and the public attendants.

DEQ Senior Policy Advisor Trieste Lockwood provided the framework for the day by outlining the issues to be addressed. She also covered the membership responsibility with regard to the Freedom of Information Act (Attachment B) and cautioned members about replying to emails addressed to three or more members to ensure that public business is not conducted via email. RAP membership made introductions as well as the public attendees.

DEQ Renewable Energy Permitting Coordinator Mary Major provided a power-point presentation explaining the Permit by Rule (Attachment C).

Robbie Rhur provided a power point presentation explaining the role that Department of Conservation and Recreation (DCR) has in the permitting process (Attachment D). Solar projects are submitted to the Natural Heritage section of DCR – due to non-regulatory function there is close coordination with Department of Game and Inland Fisheries (DGIF). Ms. Rhur provided an overview of DCR's role in the PBR process. She discussed how DHR determines impacts to natural resources, and discussed how the agency manages potential impacts to Land and Water Conservation Fund properties, as well as scenic resources. She also discussed the solar pollinator initiative, and discussed planning expertise that the agency provides to potential permittees sometimes prior to their submitting a Notice of Intent.

Roger Kirchen provided a power point presentation explaining the role of the Department of Historic Resources (DHR) in the permitting process (Attachment E). DHR has a non-regulatory function. Determinations for avoidance or preservation of resources is a collaborative process with the DEQ cultural resource expert.

DGIF was not present, so Ms. Major provided a brief overview of their role in the PBR. A representative from DGIF will be invited to present information at the following meeting. DGIF provides comments to agencies regarding proposed mitigation plans, and looks at potential impacts on wildlife including, but not limited to, thoroughfares and corridors through large solar developments.

Questions were raised pertaining to local government interaction and coordination with the state agencies regarding the state identified conservation lands and the siting of solar facilities on those identified lands; appears to be a disconnect between local decisions and conservation lands including flood plain concerns. Discussion of private property owner timbering and clearing forests affecting state delineated resources as identified in the Conserve Virginia dataset, and Land and Water Conservation Fund.

Ms. Calos presented a demonstration of how to navigate the Town Hall web site. Ms. Major reviewed a flow chart of the PBR process.

Ms. Lockwood facilitated a discussion of key issues:

- Developers indicated the certainty of the PBR process is very valuable. It is a clear process and identifies what desktop analysis is required.
- **Fees:** The law requires that the program be self-sustaining through permit fees; that is currently not the case. Discussion on possible additional fees or changes to the fee structure, fee for Notice of Intent (NOI), incomplete determination, and modification were discussed. More information regarding current and projected program cost will be presented by DEQ at a future meeting.
- **Compliance & Enforcement:** DEQ Air Permitting Manager Todd discussed compliance and enforcement. The frequency of inspections to adequately protect cultural resources identified in the mitigation plan was discussed.

- **Timing of NOI:** The group discussed timing of NOI submission.
- **Application:** Tabled for future meeting.
- **Public Comment:** Timing and coordination of comments.
- **PBR Transfer:** More clarity is necessary for Implementation.
- **Public Comment:** Comment from the audience was taken at the end of the meeting. Section 106 projects and the integration of Best Management Practices for very large projects needs additional clarity. Definition of owner and operator require additional clarifying and parts of the process could benefit from standardized forms.

Next steps: RAP members agreed to test the idea of an open chair during future meetings to gather public comment during timely discussions. If the process becomes too disruptive it will be revisited.

Items that may be revisited include but are not limited to:

- Components of the NOI, including a fee, timing, and potential for the NOI to expire;
- The applicant-held 30 day public comment period;
- Agency communications with local governments;
- Consideration of scenic resources;
- Land use goals.

No formal decisions were made at this meeting.

The group will be asked to reconvene in mid-September.

**Solar Permit by Rule Work Group
August 15, 2019, 10 a.m.
1111 E. Main St., Richmond, VA
Agenda**

- 10 a.m. Welcome, introductions, and ground rules
- Permit by Rule (PBR) overview by Department of Environmental Quality
- State agency roles in PBR process
- Department of Conservation and Recreation
 - Department of Historic Resources
 - Department of Game and Inland Fisheries
- 12:30 p.m. Break for lunch (not provided)
- 1:30 p.m. PBR discussion
- What is working well in the PBR?
What improvements would enhance the PBR?
- Fees
 - Compliance & enforcement
 - Notice of Intent
 - Application
 - Public process
- Public comment period
- Next steps – future meetings
- Closing

The Virginia Freedom of Information Act (FOIA) ensures ready access to public records and free entry to meetings where the business of the people is being conducted. It is to be liberally construed to promote an increased awareness of governmental activities and afford every opportunity to citizens to witness the operations of government. It is largely a procedural act setting forth the procedures that a public body must follow in conducting an open meeting and convening in a closed meeting and guiding a user as to how to make or respond to a FOIA request for public records.

THINGS TO REMEMBER

The good news is that DEQ as the coordinator for the group will be the custodian of the records of the group and ensure that compliance with meeting notice requirements of FOIA.

When responding to an email, never hit reply to all.

One on one email, discussion and meetings are not a meeting under FOIA. More than 2 members of the body gathering to discuss the business of the group is a meeting under FOIA and must be noticed.

Any material you would like the group to receive should be sent to DEQ for distribution.

Questions on meetings contact Cindy M. Berndt; cindy.berndt@deq.virginia.gov; 804-698-4378
Questions on records contact DEQ FOIA Officer, Diana Adams, deqfoias@deq.virginia.gov, 540-574-7886, and/or review the DEQ FOIA Policy available on the web at
<http://www.deq.virginia.gov/ConnectWithDEQ/FreedomofInformationAct.aspx>

WHAT IS A MEETING UNDER FOIA? A "meeting" is defined as "meetings including work sessions, when sitting physically, or through telephonic or video equipment pursuant to § 2.2-3708 or 2.2-3708.1, as a body or entity, or as an informal assemblage of (i) as many as three members or (ii) a quorum, if less than three, of the constituent membership, wherever held, with or without minutes being taken, whether or not votes are cast, of any public body" where the business of the public body is being discussed or transacted.

MAY A PUBLIC BODY CONDUCT A MEETING BY CONFERENCE CALL OR OTHER ELECTRONIC METHOD? State public bodies may conduct such meetings under specified circumstances. Special conditions and requirements apply before electronic methods may be utilized.

IF IT IS A MEETING, WHAT DOES FOIA REQUIRE?

1. Notice of the meeting must be given at least three working days prior to the meeting; must contain the date, time, and location of the meeting; and if a state public body includes at least one member appointed by the Governor, the notice must also indicate whether or not public comment will be received at the meeting and, if so, the approximate point during the meeting when public comment will be received.
2. The meeting must be open to the public; and
3. Minutes of the meeting must be taken and preserved.

WHERE TO POST THE NOTICE? FOIA requires that all public bodies post notice of the meeting on their own websites and on the Commonwealth Calendar website.

MAY THE PUBLIC OR MEDIA RECORD THE MEETING? Yes. Any person may photograph, film, record, or otherwise reproduce any portion of a meeting required to be open, but may not interfere with the proceedings.

WHEN MUST AGENDA MATERIALS BE AVAILABLE TO THE PUBLIC/MEDIA? At least one copy of all agenda packets and, unless exempt, all materials furnished to members of a public body for a meeting must be made available for public inspection at the same time the packets or materials are furnished to the members of the public body.

MUST ALL VOTES OF A PUBLIC BODY TAKE PLACE IN AN OPEN MEETING? Yes. Any and all votes taken to authorize the transaction of any public business must be taken and recorded in an open meeting. A public body may not vote by secret or written ballot.

IS IT A FOIA VIOLATION TO POLL MEMBERS OF A PUBLIC BODY? No, nothing in FOIA prohibits separately contacting the membership, or any part thereof, of any public body for the purpose of ascertaining a member's position with respect to the transaction of public business. Such contact may be done in person, by telephone, or by electronic communication, provided the contact is done on a one-on-one basis.

EMAIL & MEETINGS: The use of email can blur the line between correspondence and a meeting under FOIA. Email is similar to traditional paper correspondence in many ways and is a written form of communication that is by definition a record under FOIA. However, from a practical perspective, email is often used as a substitute for a phone call and can be used to communicate quickly with multiple people at once, making it more akin to a meeting.

The use of email by public officials is clearly allowed by FOIA. One member of a public body may individually email other members, even if the email relates to public business. Questions arise based on the manner in which a recipient responds to an email addressed to three or more members of a public body. If a recipient chooses "reply to all," then three or more members of a public body will see not only the initial email, but also another member's response. Other members could then, in turn, respond to the email or the ensuing responses. In the end, three or more members of a public body could have used the chain of email to discuss, and possibly reach a conclusion about, a matter relating to the transaction of public business.

Based on the possibility of email being more akin to a meeting and on recent court decisions, keep in mind the following tips:

1. Remember the underlying principle of the open meeting provisions of FOIA: the public has the right to witness the operations of government. If you question whether your email communication might lead to the deliberation of public business by three or more members of a public body in real time (i.e., has an element of simultaneity), then you may be better served by saving that communication for a public meeting.
2. If you receive an email sent to three or more recipients who are members of the same public body, and you wish to respond, choose "respond to sender" instead of "respond to all." One-on-one communications are clearly allowed under FOIA, and this will avoid an email discussion among three or more members.

WHAT IS A PUBLIC RECORD UNDER FOIA? A "public record" is any writing or recording, in any format, prepared or owned by, or in the possession of a public body or its officers, employees or agents in the transaction of public business. For example, public records may be in the form of handwritten notes, typewritten documents, electronic files, audio or video recordings, photographs, or any other written or recorded media.

WHO MAY REQUEST RECORDS UNDER FOIA? Citizens of the Commonwealth; Representatives of newspapers and magazines with circulation in the Commonwealth; and Representatives of radio and television stations broadcasting in or into the Commonwealth.

HOW LONG DOES A PUBLIC BODY HAVE TO RESPOND TO A REQUEST? A public body must respond to a request within five working days of receipt of the request, with some exceptions.



Renewable Energy Solar Permit by Rule Regulatory Advisory Panel Meeting 1

August 15, 2019

1

Welcome

- Goals
- Freedom of Information Act
 - Principles to remember: open meetings, public notice, public has right to witness government operations, discussion between three or more members of a public body constitutes a “meeting,” emails (blind copy)
- Today’s agenda + future meetings
- Introductions

DEQ

Permit By Rule Development

- 2009 Legislation
- 2010 Wind Regulation
- 2012 Solar Regulation
- 2013 Combustion Regulation

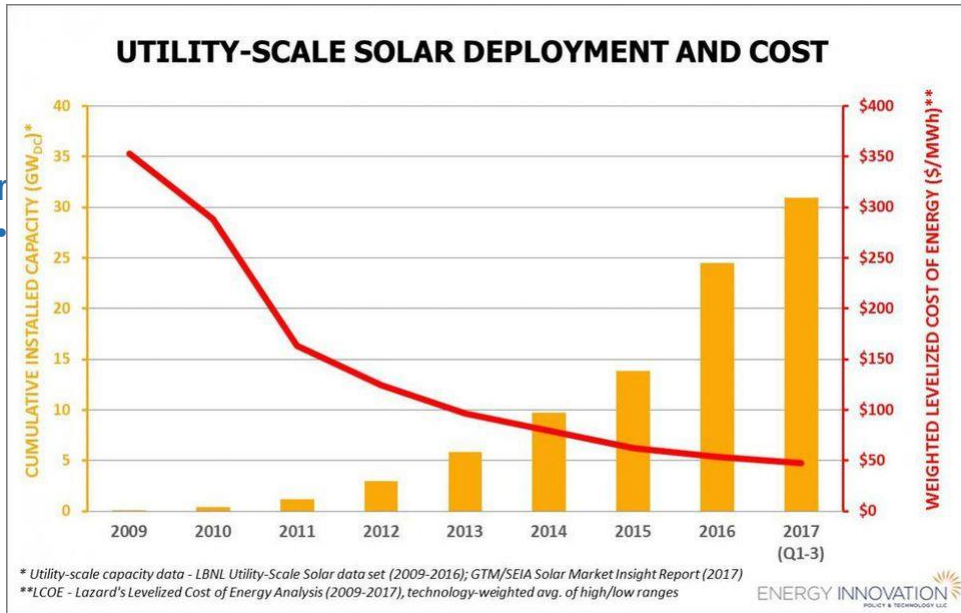
DEQ³

Why Sudden Development in VA?

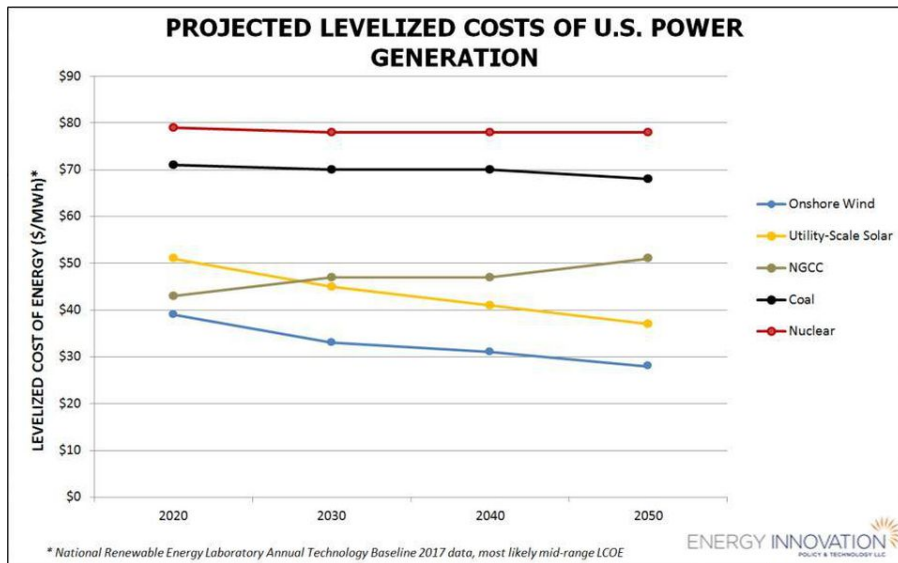
- Low cost of solar relative to fossil fuel
- High demand for renewable energy by fortune 500 companies
- Virginia is now “world’s largest market” for data centers*
 - 2016, the industry brought 43,275 jobs
 - \$3.2 billion in labor income
 - \$10.2 billion in economic output
- *Northern Virginia Technology Council

DEQ⁴

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DEQ 5



DEQ 6

Applicability

- Small renewable energy project: less than or equal to 150MW*; single interconnection agreement.
- Full PBR Projects: Greater than 5 MW AND a disturbance zone greater than 10 acres
- Section 130 Projects: Require notification to DEQ and certification of local government - meets at least one of the following:
 - Rated capacity > 500 Kw ≤ 5MW OR
 - Disturbance zone > 2 acres and less than or equal to 10 acres

DEQ⁷

Solar PBR Components

- Notice of Intent
- Local government Certification
- Interconnection Studies
- Interconnection Agreement
- Certification project doesn't exceed 150MW
- Analysis of NAAQS
- Analysis on impacts to natural resources/DGIF, DCR, DHR
 - Likely significant adverse impacts
 - Mitigation plan required

DEQ⁸

Solar PBR Components (Cont.)

- Coastal Avian Protection Zone Review
 - \$1000/MW
- Operating Plan
- Site Plan and Context Map
- Certification that project has applied for or received all necessary environmental permits
- Certification of either Utility or non-utility
- 30-day Public comment/with public meeting
- Appropriate permit fee

DEQ⁹

PBR Fee structure

- > 5MW up to and including 25MW: \$8,000
- > 25MW up to and including 50MW: \$10,000
- > 50MW up to and including 75MW: \$12,000
- > 75MW up to and including 150MW: \$14,000
- PBR modification: \$4,000

DEQ¹⁰

Program Status: 08/08/19

- Number of PBRs Issued: 38
 - Solar 37
 - Wind 1
- MW Permitted 1,296
 - 2015: 1 PBR 80
 - 2016: 6 PBRs 120
 - 2017: 11 PBRs 441
 - 2018: 14 PBRs 360
 - 2019: 4 PBRs 294
- Projects Operational: 11
- MW in operation: 357
- Projects Under Construction: 1
- Notices of Intent (NOI): 68
- Total MW Based on NOIs: 4,706
- Permitted Acreage 14,014
- Total Acreage Based on NOIs: 50,096

DEQ₁₁

DCR Mission:

To provide opportunities that encourage and enable people to enjoy, protect and restore Virginia's natural and cultural treasures.

- Recreation Planning, Trails, Grants and Scenic Resources (rivers and byways)
- Dam Safety, Floodplain Management
- Soil and Water
- State Parks
- Land Conservation
- Natural Heritage



DCR Project Review of Solar Projects

- Per the Current Solar Permit By Rule Regulation

C. Other Natural Resources

Analyses of other natural resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct a preconstruction desktop survey of natural heritage resources within the disturbance zone.

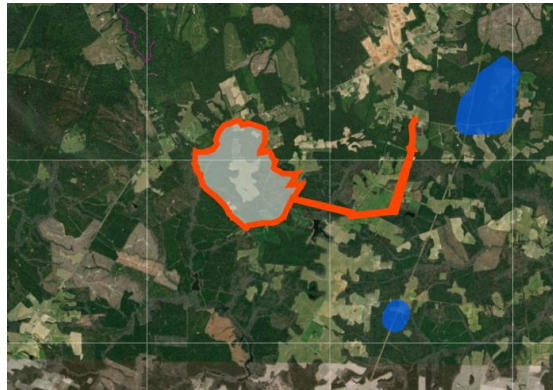
D. Summary report.

The applicant shall provide to the department a report presenting the findings of the studies and analyses conducted pursuant to subsections A, B, and C of this section, along with all data and supporting documents. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife and historic resources identified by these studies and analyses.

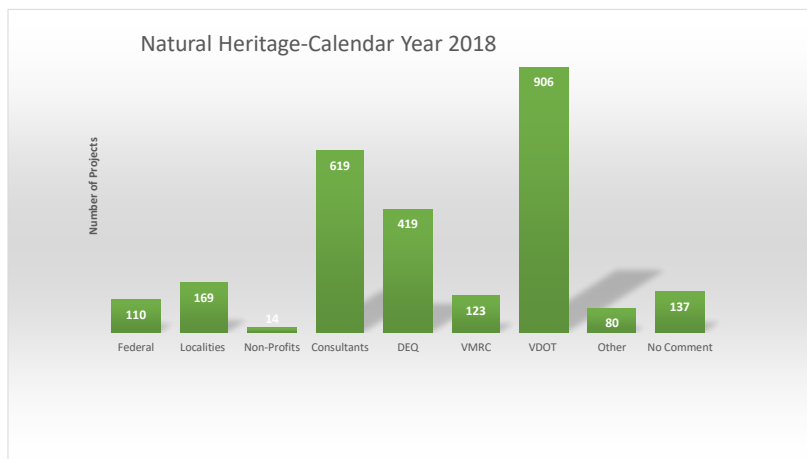


Desktop Surveys of Natural Heritage Resources

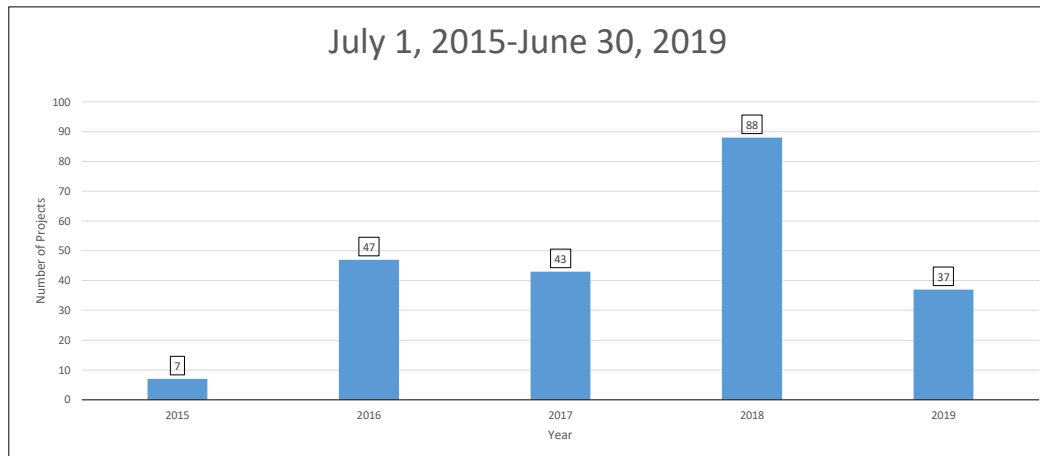
A project description with accompanying project footprint map submitted to DCR-Natural Heritage at the beginning of the planning process for review of natural heritage resource database for documented NH occurrences, potential resource surveys and avoidance of sensitive areas.



Projects Reviewed by DCR-Natural Heritage in 2018



Solar Projects Reviewed by DCR-Natural Heritage



222 solar projects out of 9331 total projects reviewed 2015-2019



What will the Natural Heritage letter say?

- “No Comment” no documented natural heritage resources or suitable habitat for resources
- “No Impact” or identify species that have potential to be adversely impacted
- Provide recommendations to avoid adverse impact to documented natural heritage resources or recommend surveys
- For state and federal listed species, we will recommend coordination with the appropriate agency or agencies –USFWS- Federal, VDGIF-state listed animals, VDACS state listed plants and insects
- MOA with VDACS statement in reference to initial screening for stated listed plants and insects
- Disclaimer that the absence of any natural heritage resources may indicate the site has not been surveyed
- Recommend updating information project changes or and/or 6 months has passed





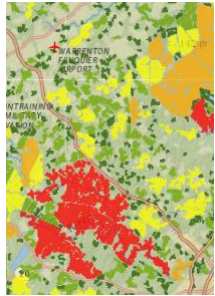
What will the Natural Heritage letter say? (continued)

- Standard native habitat pollinator/invasive species management plan language

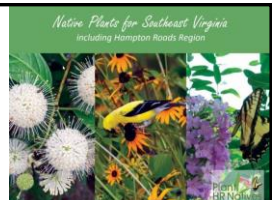
DCR recommends the development of an invasive species management plan for the project and the planting of Virginia native pollinator plant species that bloom throughout the spring and summer, to maximize benefits to native pollinators. DCR recommends planting these species in at least the buffer areas of the planned facility, and optimally including other areas within the project site. Guidance on plant species can be found here: <http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder>.

- Standard ecological core intersect language

In addition, the proposed project will fragment an Ecological Core(s) (include rank[s] here) as identified in the Virginia Natural Landscape Assessment (<https://www.dcr.virginia.gov/natural-heritage/vaconvisvnl>), one of a suite of tools in Virginia ConservationVision that identify and prioritize lands for conservation and protection. Ecological Cores are areas of unfragmented natural cover with at least 100 acres of interior forest that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats.....



Native Plant Benefits



- Hardy and well adapted to local environmental conditions
- Maintain or improve soil fertility
- Reduce erosion and run-off
- Habitat for pollinator species including bees, butterflies, other insects
- Excellent sources of food and shelter for wildlife
- Contributes to the overall health of natural communities
- Require less fertilizers and pesticides (lower maintenance costs)



Turfgrass
Maximum root depth 3-6 inches

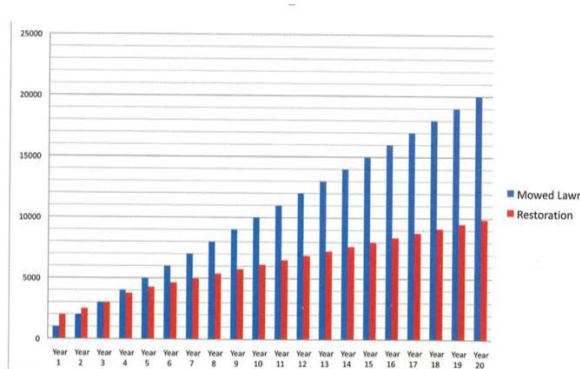
Native Grasses & Forbs
Common root depth 4-8 feet

Solar Site Management for Soil, Storm Water, and Pollinator Benefits

Rob Davis, Fresh Energy

DCR
Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Maintenance Cost of Turf vs. Natives



Using a medium-cost, medium-diversity native seed mix, the break-even point for installing and maintaining native plantings vs. turf grass occurs in Year 3. If a higher diversity mix is used at a higher cost, the break-even point occurs in Year 7 or 8. (Analysis and graph by Troy Anderson, Applied Ecological Services)

Virginia Solar Site Native Plant Finder

<http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder>

The screenshot shows the DCR Virginia Department of Conservation and Recreation website. The navigation menu includes: About DCR, State Parks, Natural Heritage, Soil and Water Conservation, Recreation Planning, Dam Safety and Floodplains, and Land Conservation. The 'Natural Heritage' section is active, with a sub-menu listing: About Natural Heritage, Natural Area Preserves, Rare Species and Natural Communities, Information Services, Local Assistance, NH Data Explorer, Species and Community Search, Virginia Solar Site Native Plant Finder (highlighted), Virginia Solar Site Pollinator/Bird Habitat Scorecard (PDF), Conservation/Nature and Green Infrastructure, Telecommunication Towers (PDF), Conservation Lands Database, Wetlands Catalog, and Species Distribution Modeling. The main content area is titled 'Virginia Solar Site Native Plant Finder' and contains the following text:

This site is designed to aid solar site developers by providing a database with all of Virginia's native plant species. Many of these plants can be used in designing high-quality habitat with native plants and suitable habitat for pollinators, birds, and other wildlife.

For details about a particular native plant species, enter a common or scientific name in the top form.

For a list of plants that could suit your specific needs, fill in any field in the second form and a list will be generated. You may get quite specific as more than one field can be filled in for your query – for example, you might want a list of native plants that can be used in Halifax County on a solar site that are less than 4 feet tall and occur in sunny, dry habitat. Consult the Virginia Native Plant Society's list of native-plant nurseries to determine what plant material may be available for purchase, but note that a larger list of nurseries is under development and will be provided on this page soon.

The interface includes two forms: the top one for searching by name, and the bottom one for filtering by requirements. The 'Clear All Fields' and 'Submit' buttons are visible on both forms.



For a list of plants that could suit your specific needs, fill in any field in the second form and a list will be generated. You may get quite specific as more than one field can be filled in for your query – for example, you might want a list of native plants that can be used in Halifax County on a solar site that are less than 4 feet tall and occur in sunny, dry habitat. Consult the Virginia Native Plant Society's list of native-plant nurseries to determine what plant material may be available for purchase, but note that a larger list of nurseries is under development and will be provided on this page soon.

COMMON NAME

SCIENTIFIC NAME

PLANT REQUIREMENTS

POLLINATOR?

MAXIMUM EXPECTED HEIGHT (IN FEET)

LOCALITY

COMMERCIALY AVAILABLE



Virginia Solar Site Pollinator/Bird Habitat Scorecard

<http://www.dcr.virginia.gov/natural-heritage/document/va-solar-site-pollinator-bird-habitat-scorecard.pdf>

Virginia Solar Site Pollinator/Bird Habitat Scorecard
Version 1.0 March 2018

As envisioned, a solar site with excellent habitat is vegetated with native species including a mix of warm season grasses and a diversity of pollinator plants around and surrounding the solar panels (here called the "panel zone"). In this case, the herbaceous vegetation is mowed only during the dormant season. Invasive species and trees are eliminated from this zone.

Native plants including woody species where appropriate are used on "buffer land" surrounding the "panel zone". Added features such as nest boxes and interpretive signage are used.

Insecticides are not applied in any area of the installation. Invasive and non-native plant species are controlled through integrated management approaches with limited usage of herbicides when required.

The site has implemented a detailed establishment, monitoring, and maintenance plan. When employed at a solar facility, these measures will provide benefits to the environment in a number of key areas including: 1) storm water retention, 2) biodiversity/habitat/bird habitat enhancement, 3) carbon sequestration, and 4) pollinator services.

Scoring criteria:

1. Within the panel zone, percent of covered site cover with native plant species listed in the Virginia Solar Site Native Plant Forest (max. 40 points)

a. 0-15 percent cover	2 points
b. 16-30 percent cover	15 points
c. 31-50 percent cover	30 points
d. 51-75 percent cover	45 points
e. 75 percent cover or greater	60 points
2. Within the panel zone, percent of cover in native species used by pollinators as listed in the Virginia Solar Site Native Plant Forest (max. 20 points)

a. 0-15 percent cover	2 points
b. 16-30 percent cover	15 points
c. 31-50 percent cover	30 points
d. 50 percent cover or greater	50 points

Current Scorecard (Version 1.0)

VERSION 2.0a

**VIRGINIA POLLINATOR-SMART/
BIRD HABITAT SCORECARD**
Proposed or Retrofit Solar Sites

A successful Pollinator-Smart habitat will provide benefits to the environment and the solar site owner/operator in a number of key areas, including:

1. Pollinator services,
2. Biodiversity and habitat enhancement,
3. Carbon sequestration,
4. Erosion and sediment control, and;
5. Reduced vegetation maintenance over time.

The Virginia Solar Site Pollinator/Bird Habitat Scorecard is used to establish target conditions and/or evaluate the effectiveness of Pollinator-Smart measures once implemented. If the score thresholds are met, a site is deemed Pollinator-Smart provided the activities described herein are implemented over at least 10% of the project area.

INSTRUCTIONS

For detailed instructions on how to implement the scorecard, please refer to the [Comprehensive Manual under development](#).

1. All questions and fields must be filled out.
2. Submit your scorecard and upload associated documents at [Virginia's Pollinator-Smart Solar Portal under development](#).
3. A Proposed or Retrofit Solar Site Scorecard should be submitted during the initial planting year. To remain certified, an Established Sites Scorecard should be submitted in years 2, 4, 6, and 10. A long-term management plan should also be submitted with the Established Sites Scorecard during year 10. If all

PROJECT DETAILS & CONTACT INFORMATION

DATE: _____

SITE OWNER OR DESIGNEE: _____

PROJECT ADDRESS: _____

PROJECT SIZE (ACS AND MW): _____

POINT OF CONTACT: _____

Draft of Updated Scorecards (Version 2.0) to be released by Oct 2019



Review of the Permit by Application Review

- According to our files, 42 solar PBR applications submitted by DEQ and reviewed by DCR over 5 year period (July 1, 2015-June 30, 2019)
- Based on preliminary review of the project during planning stage, applicant includes summary of benefits and adverse impacts to DCR resources in permit by rule application
- DCR provides final coordinated comments during this review stage from all appropriate DCR divisions



Division of Planning and Recreation Resources (PRR)

- Coordination of environmental review for all of the DCR
- scenic resources
- Regional trails
- Grant management for the Land and Water Conservation Fund (LWCF)
 - The Land and Water Conservation Fund Program was established in 1965 for the purpose of the acquisition and development of outdoor recreation areas to be maintained in perpetuity in accordance with Section 6 (f) (3) of the Land and Water Conservation Fund Act of 1965, as amended. Section 6 (f) (3) states that No property acquired or developed with assistance under this section shall, without the approval of the Secretary [of Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide comprehensive outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

What Recommendations will Planning and Recreation have?

- Retain any existing forested buffers that face scenic resources or restore a buffer with native species if none exists (width not determined)
 - Scenic Rivers
 - Byways
- If there is potential impacts to an LWCF property, coordination with the local government is strongly recommended

Planning and Recreation project coordination for the DCR

My office typically coordinates 600 projects annually for DCR

PBR solar project review numbers

- In 2018 PRR reviewed 14 solar projects
- 2019 to-date we have reviewed nine solar projects

For more information please contact

Robbie Rhur
DCR Environmental Review Coordinator

Robbie.Rhur@dcr.virginia.gov
or

Rene' Hypes
DCR-Natural Heritage Project Review Coordinator

rene.hypes@dcr.virginia.gov



DCR Mission:

To provide opportunities that encourage and enable people to enjoy, protect and restore Virginia's natural and cultural treasures.

- Recreation Planning, Trails, Grants and Scenic Resources (rivers and byways)
- Dam Safety, Floodplain Management
- Soil and Water
- State Parks
- Land Conservation
- Natural Heritage



DCR Project Review of Solar Projects

- Per the Current Solar Permit By Rule Regulation

C. Other Natural Resources

Analyses of other natural resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct a preconstruction desktop survey of natural heritage resources within the disturbance zone.

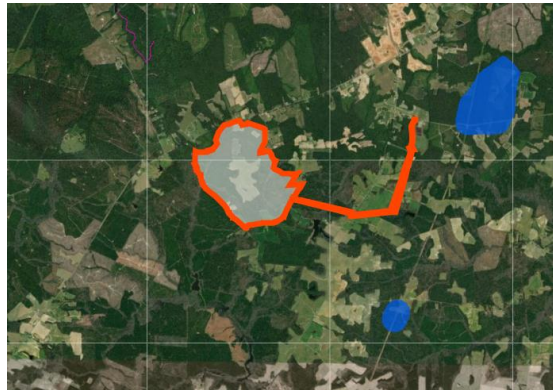
D. Summary report.

The applicant shall provide to the department a report presenting the findings of the studies and analyses conducted pursuant to subsections A, B, and C of this section, along with all data and supporting documents. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife and historic resources identified by these studies and analyses.

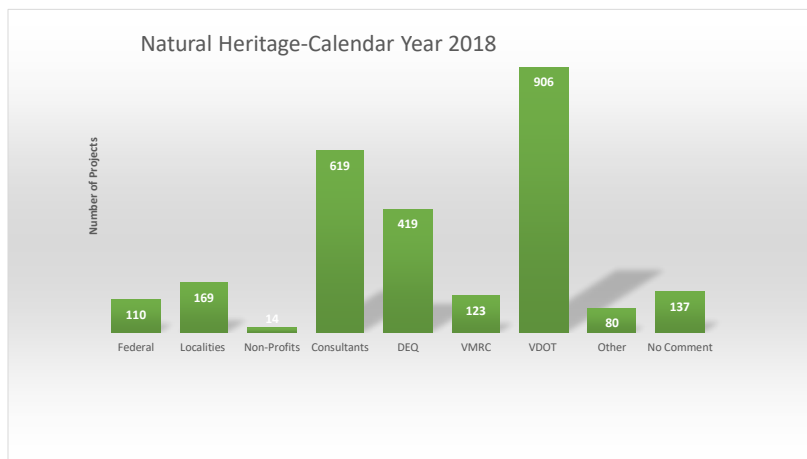


Desktop Surveys of Natural Heritage Resources

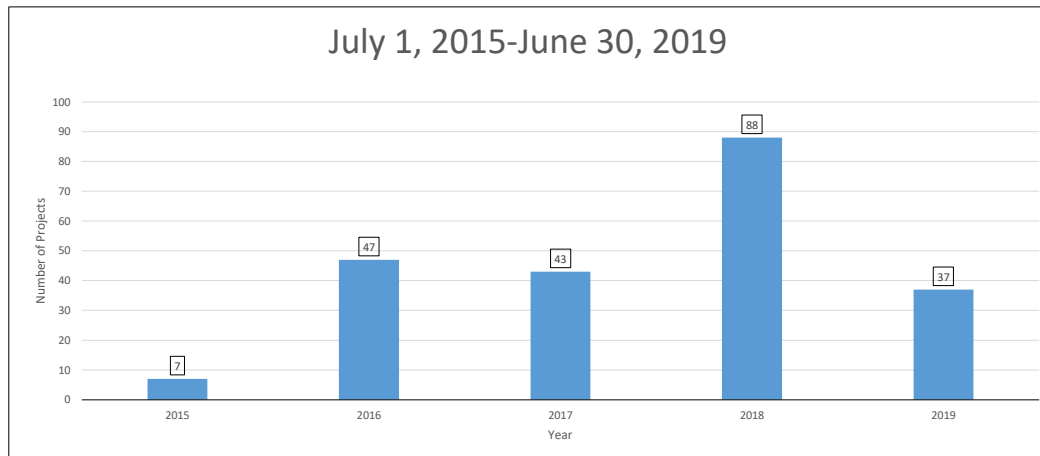
A project description with accompanying project footprint map submitted to DCR-Natural Heritage at the beginning of the planning process for review of natural heritage resource database for documented NH occurrences, potential resource surveys and avoidance of sensitive areas.



Projects Reviewed by DCR-Natural Heritage in 2018



Solar Projects Reviewed by DCR-Natural Heritage



222 solar projects out of 9331 total projects reviewed 2015-2019



What will the Natural Heritage letter say?

- “No Comment” no documented natural heritage resources or suitable habitat for resources
- “No Impact” or identify species that have potential to be adversely impacted
- Provide recommendations to avoid adverse impact to documented natural heritage resources or recommend surveys
- For state and federal listed species, we will recommend coordination with the appropriate agency or agencies –USFWS- Federal, VDGIF-state listed animals, VDACS state listed plants and insects
- MOA with VDACS statement in reference to initial screening for stated listed plants and insects
- Disclaimer that the absence of any natural heritage resources may indicate the site has not been surveyed
- Recommend updating information project changes or and/or 6 months has passed





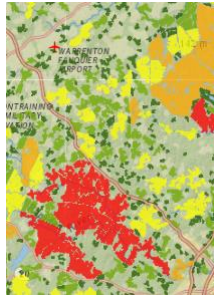
What will the Natural Heritage letter say? (continued)

- Standard native habitat pollinator/invasive species management plan language

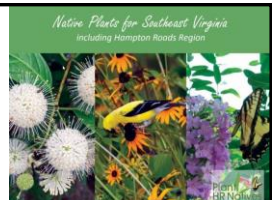
DCR recommends the development of an invasive species management plan for the project and the planting of Virginia native pollinator plant species that bloom throughout the spring and summer, to maximize benefits to native pollinators. DCR recommends planting these species in at least the buffer areas of the planned facility, and optimally including other areas within the project site. Guidance on plant species can be found here: <http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder>.

- Standard ecological core intersect language

In addition, the proposed project will fragment an Ecological Core(s) (include rank[s] here) as identified in the Virginia Natural Landscape Assessment (<https://www.dcr.virginia.gov/natural-heritage/vaconvisvnl>), one of a suite of tools in Virginia ConservationVision that identify and prioritize lands for conservation and protection. Ecological Cores are areas of unfragmented natural cover with at least 100 acres of interior forest that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats.....

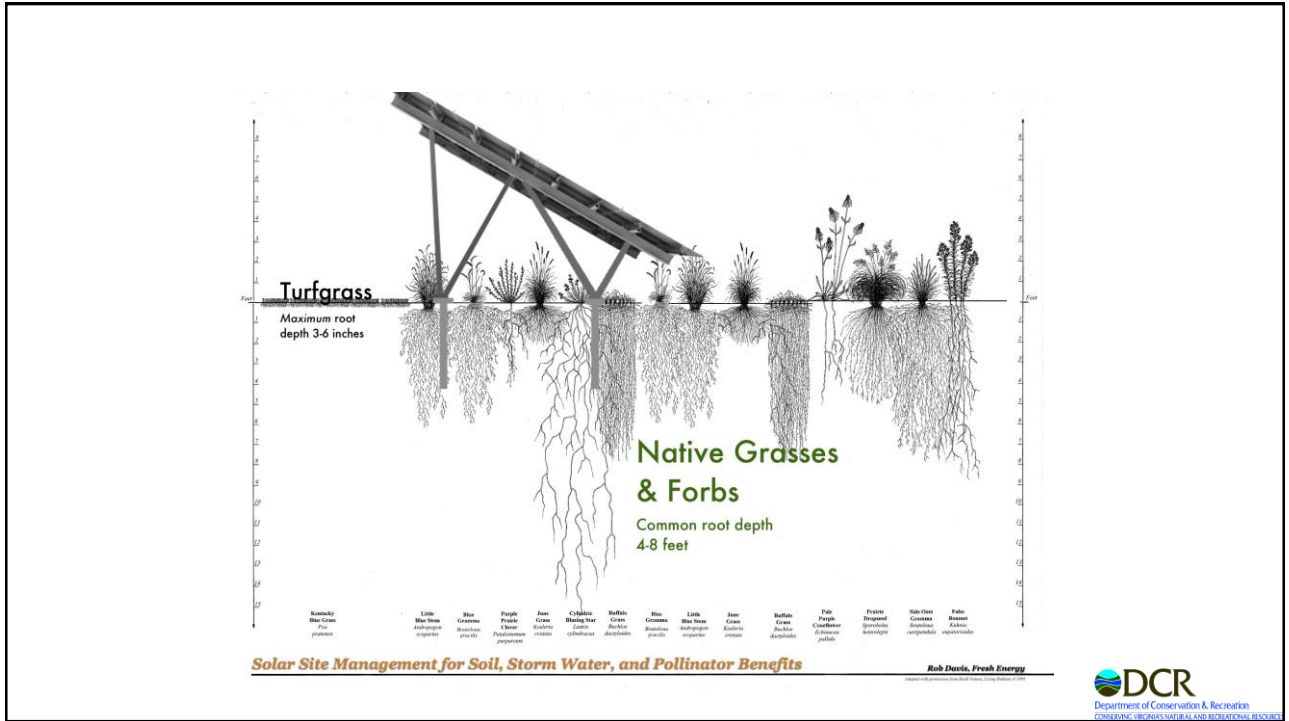


Native Plant Benefits

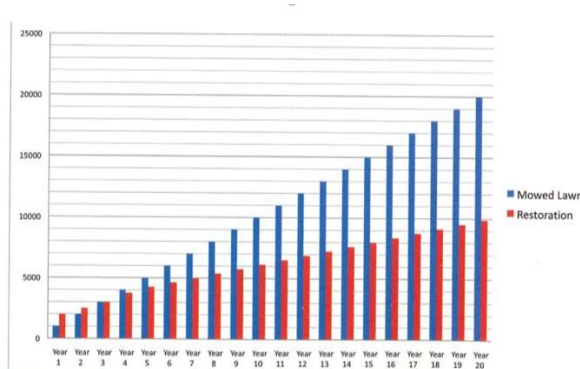


- Hardy and well adapted to local environmental conditions
- Maintain or improve soil fertility
- Reduce erosion and run-off
- Habitat for pollinator species including bees, butterflies, other insects
- Excellent sources of food and shelter for wildlife
- Contributes to the overall health of natural communities
- Require less fertilizers and pesticides (lower maintenance costs)





Maintenance Cost of Turf vs. Natives



Using a medium-cost, medium-diversity native seed mix, the break-even point for installing and maintaining native plantings vs. turf grass occurs in Year 3. If a higher diversity mix is used at a higher cost, the break-even point occurs in Year 7 or 8. (Analysis and graph by Troy Anderson, Applied Ecological Services)

Virginia Solar Site Native Plant Finder

<http://www.dcr.virginia.gov/natural-heritage/solar-site-native-plants-finder>

The screenshot shows the DCR Virginia Department of Conservation and Recreation website. The navigation bar includes links for About DCR, State Parks, Natural Heritage, Soil and Water Conservation, Recreation Planning, Dam Safety and Floodplains, and Land Conservation. The 'Natural Heritage' section is active, showing a sidebar with various services and a main content area. The main content area features a search form with fields for 'COMMON NAME' and 'SCIENTIFIC NAME', and buttons for 'Clear All Fields' and 'Submit'. A background image of a green plant is visible behind the text.



For a list of plants that could suit your specific needs, fill in any field in the second form and a list will be generated. You may get quite specific as more than one field can be filled in for your query – for example, you might want a list of native plants that can be used in Halifax County on a solar site that are less than 4 feet tall and occur in sunny, dry habitat. Consult the [Virginia Native Plant Society's list of native-plant nurseries](#) to determine what plant material may be available for purchase, but note that a larger list of nurseries is under development and will be provided on this page soon.

COMMON NAME

SCIENTIFIC NAME

PLANT REQUIREMENTS

POLLINATOR?

MAXIMUM EXPECTED HEIGHT (IN FEET)

LOCALITY

COMMERCIALY AVAILABLE



Virginia Solar Site Pollinator/Bird Habitat Scorecard

<http://www.dcr.virginia.gov/natural-heritage/document/va-solar-site-pollinator-bird-habitat-scorecard.pdf>

Virginia Solar Site Pollinator/Bird Habitat Scorecard
Version 1.0 March 2018

As envisioned, a solar site with excellent habitat is vegetated with native species including a mix of warm season grasses and a diversity of pollinator plants around and surrounding the solar panels (here called the "panel zone"). In this zone, the herbaceous vegetation is mowed only during the dormant season. Invasive species and trees are eliminated from this zone.

Native plants including woody species where appropriate are used on "buffer land" surrounding the "panel zone". Added features such as nest boxes and interpretive signage are used.

Insecticides are not applied in any area of the installation. Invasive and non-native plant species are controlled through integrated management approaches with limited usage of herbicides when required.

The site has implemented a detailed establishment, monitoring, and maintenance plan. When employed at a solar facility, these measures will provide benefits to the environment in a number of key areas including: 1) storm water retention, 2) biodiversity/habitat/bird habitat enhancement, 3) carbon sequestration, and 4) pollinator services.

Scoring criteria:

1. Within the panel zone, percent of covered site cover with native plant species listed in the Virginia Solar Site Native Plant Forest (max. 40 points)

a. 0-15 percent cover	2 points
b. 16-30 percent cover	15 points
c. 31-50 percent cover	30 points
d. 51-75 percent cover	45 points
e. 75 percent cover or greater	60 points
2. Within the panel zone, percent of cover in native species used by pollinators as listed in the Virginia Solar Site Native Plant Forest (max. 30 points)

a. 0-15 percent cover	2 points
b. 16-30 percent cover	15 points
c. 31-50 percent cover	30 points
d. 50 percent cover or greater	30 points

Current Scorecard (Version 1.0)

VERSION 2.0a

**VIRGINIA POLLINATOR-SMART/
BIRD HABITAT SCORECARD**
Proposed or Retrofit Solar Sites

A successful Pollinator-Smart habitat will provide benefits to the environment and the solar site owner/operator in a number of key areas, including:

1. Pollinator services,
2. Biodiversity and habitat enhancement,
3. Carbon sequestration,
4. Erosion and sediment control, and;
5. Reduced vegetation maintenance over time.

The Virginia Solar Site Pollinator/Bird Habitat Scorecard is used to establish target conditions and/or evaluate the effectiveness of Pollinator-Smart measures once implemented. If the score thresholds are met, a site is deemed Pollinator-Smart provided the activities described herein are implemented over at least 10% of the project area.

INSTRUCTIONS

For detailed instructions on how to implement the scorecard, please refer to the [Comprehensive Manual under development](#).

1. All questions and fields must be filled out.
2. Submit your scorecard and upload associated documents at [Virginia's Pollinator-Smart Solar Portal under development](#).
3. A Proposed or Retrofit Solar Site Scorecard should be submitted during the initial planting year. To remain certified, an Established Sites Scorecard should be submitted in years 2, 4, 6, and 10. A long-term management plan should also be submitted with the Established Sites Scorecard during year 10. If all

PROJECT DETAILS & CONTACT INFORMATION

DATE: _____

SITE OWNER OR DESIGNER: _____

PROJECT ADDRESS: _____

PROJECT SIZE (ACS AND MW): _____

POINT OF CONTACT: _____

Draft of Updated Scorecards (Version 2.0) to be released by Oct 2019



Review of the Permit by Application Review

- According to our files, 42 solar PBR applications submitted by DEQ and reviewed by DCR over 5 year period (July 1, 2015-June 30, 2019)
- Based on preliminary review of the project during planning stage, applicant includes summary of benefits and adverse impacts to DCR resources in permit by rule application
- DCR provides final coordinated comments during this review stage from all appropriate DCR divisions



Division of Planning and Recreation Resources (PRR)

- Coordination of environmental review for all of the DCR
- scenic resources
- Regional trails
- Grant management for the Land and Water Conservation Fund (LWCF)
 - The Land and Water Conservation Fund Program was established in 1965 for the purpose of the acquisition and development of outdoor recreation areas to be maintained in perpetuity in accordance with Section 6 (f) (3) of the Land and Water Conservation Fund Act of 1965, as amended. Section 6 (f) (3) states that No property acquired or developed with assistance under this section shall, without the approval of the Secretary [of Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide comprehensive outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

What Recommendations will Planning and Recreation have?

- Retain any existing forested buffers that face scenic resources or restore a buffer with native species if none exists (width not determined)
 - Scenic Rivers
 - Byways
- If there is potential impacts to an LWCF property, coordination with the local government is strongly recommended

Planning and Recreation project coordination for the DCR

My office typically coordinates 600 projects annually for DCR

PBR solar project review numbers

- In 2018 PRR reviewed 14 solar projects
- 2019 to-date we have reviewed nine solar projects

For more information please contact

Robbie Rhur
DCR Environmental Review Coordinator

Robbie.Rhur@dcr.virginia.gov
or

Rene' Hypes
DCR-Natural Heritage Project Review Coordinator

rene.hypes@dcr.virginia.gov



Regulatory Advisory Panel Solar Permit by Rule

- Historic Resources -

August 15, 2019

DHR – Mission

Our mission is to foster, encourage, and support the stewardship of Virginia's significant historic architectural, archaeological, and cultural resources.

DHR – Organization

- Established in 1969 as Virginia’s State Historic Preservation Office
- Richmond Headquarters & 3 Regional Offices
- 46 Full Time Staff
- 6 Divisions
 - Review and Compliance
 - Survey and Register
 - Preservation Incentives
 - State Archaeology
 - Community Services
 - Administrative Services

DHR – Organization

State Repository for Historic Properties Information

- Archaeological Collections
- Historic Architectural Resources
- Archaeological Resources

DHR – Authorities (Federal)

- National Historic Preservation Act (Section 106)
- National Environmental Policy Act (NEPA)

DHR – Authorities (State)

- Virginia Antiquities Act
- Sale, Lease, or Demolition of State-Owned Property
- Biennial Budget Bill
- Art and Architecture Review Board
- Virginia Environmental Impacts Report Act
- DEQ-SCC Memorandum of Agreement
- Small Renewable Energy Projects

Small Renewable Energy Projects

Section 10.1-1197.6.A - Code of Virginia

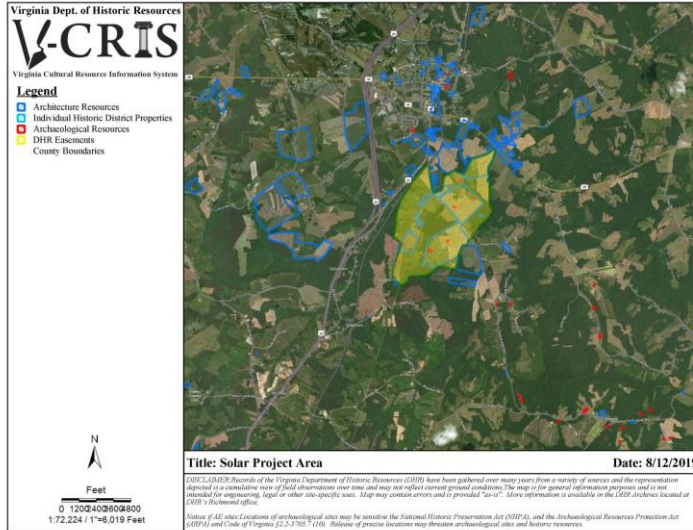
“...the Department shall develop...a permit by rule...for the construction and operation of small renewable energy projects, including such conditions and standards necessary to protect the Commonwealth’s natural resources.”

9VAC15-60-40.B.1-3

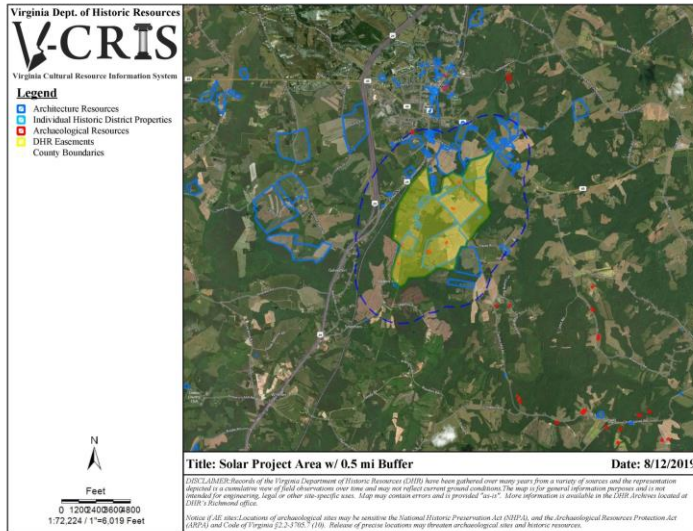
Analyses of historic resources:

- Compilation of known historic resources
- Architectural survey
- Archaeological survey

9VAC15-60-40.B.1



9VAC15-60-40.B.1



9VAC15-60-40.B.2

Architectural Survey:

- 0.5-mile radial buffer survey area
- Properties 50 years old or older
- May exclude areas with no view to project
- May assume VLR/NRHP eligibility for properties with no access
- Physical and visual effects considered for VLR/NRHP eligible properties
- Consult with DHR on the results of the survey and impacts assessment prior to PBR submission

9VAC15-60-40.B.3

Archaeological Survey:

- Disturbance zone
- May refine survey area and methodology based on archaeological probability
- Alternative survey strategies should be pre-approved by DEQ/DHR
- Avoid potentially VLR/NRHP eligible sites or evaluate through Phase II testing
- Consult with DHR and DEQ on the results of the survey and impacts assessment prior to PBR submission

9VAC15-60-50.B

Adverse Impacts:

- Physical impacts to VLR/NRHP eligible architectural or archaeological resources
- Visual impacts to VLR/NRHP eligible architectural resources
- Impacts to historic landscapes
- Cemeteries should be avoided with a minimum buffer of 50 feet

9VAC15-60-60.C

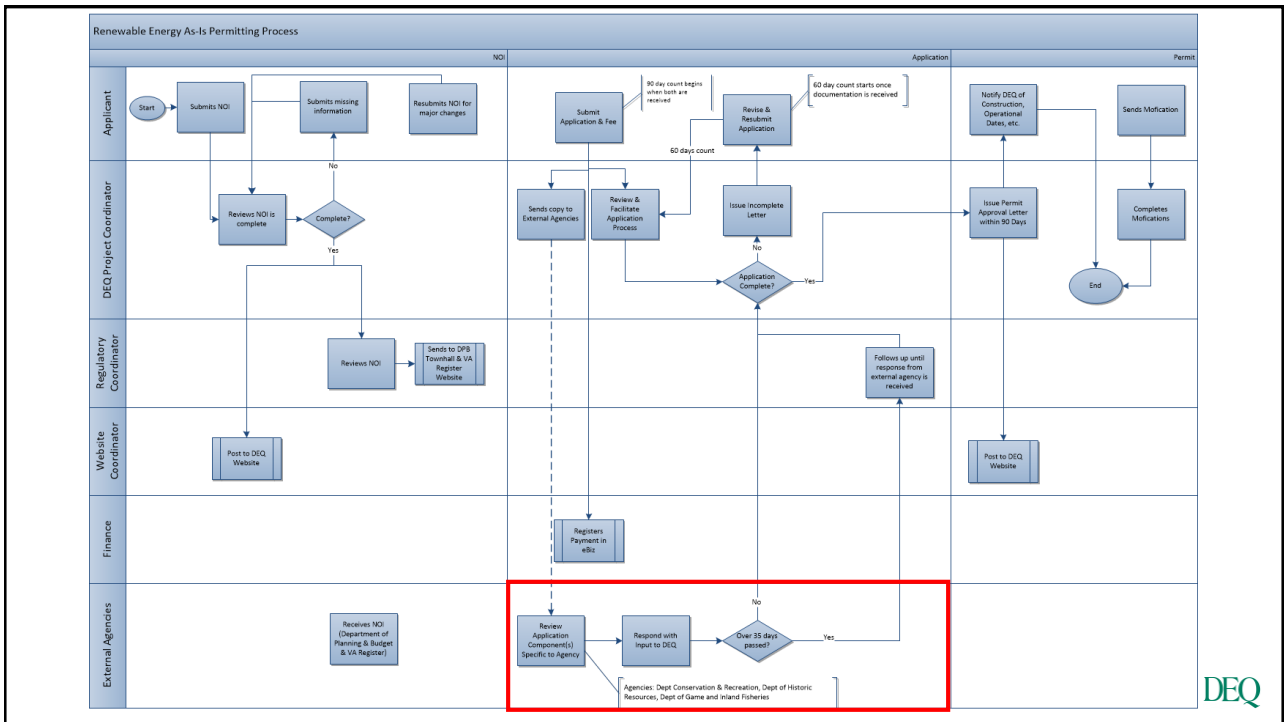
Mitigation Plan:

- Minimization through avoidance, screening, or other measures
- Archaeological data recovery
- Preservation positive measures on impacted property
- Alternative mitigation
- Public benefit

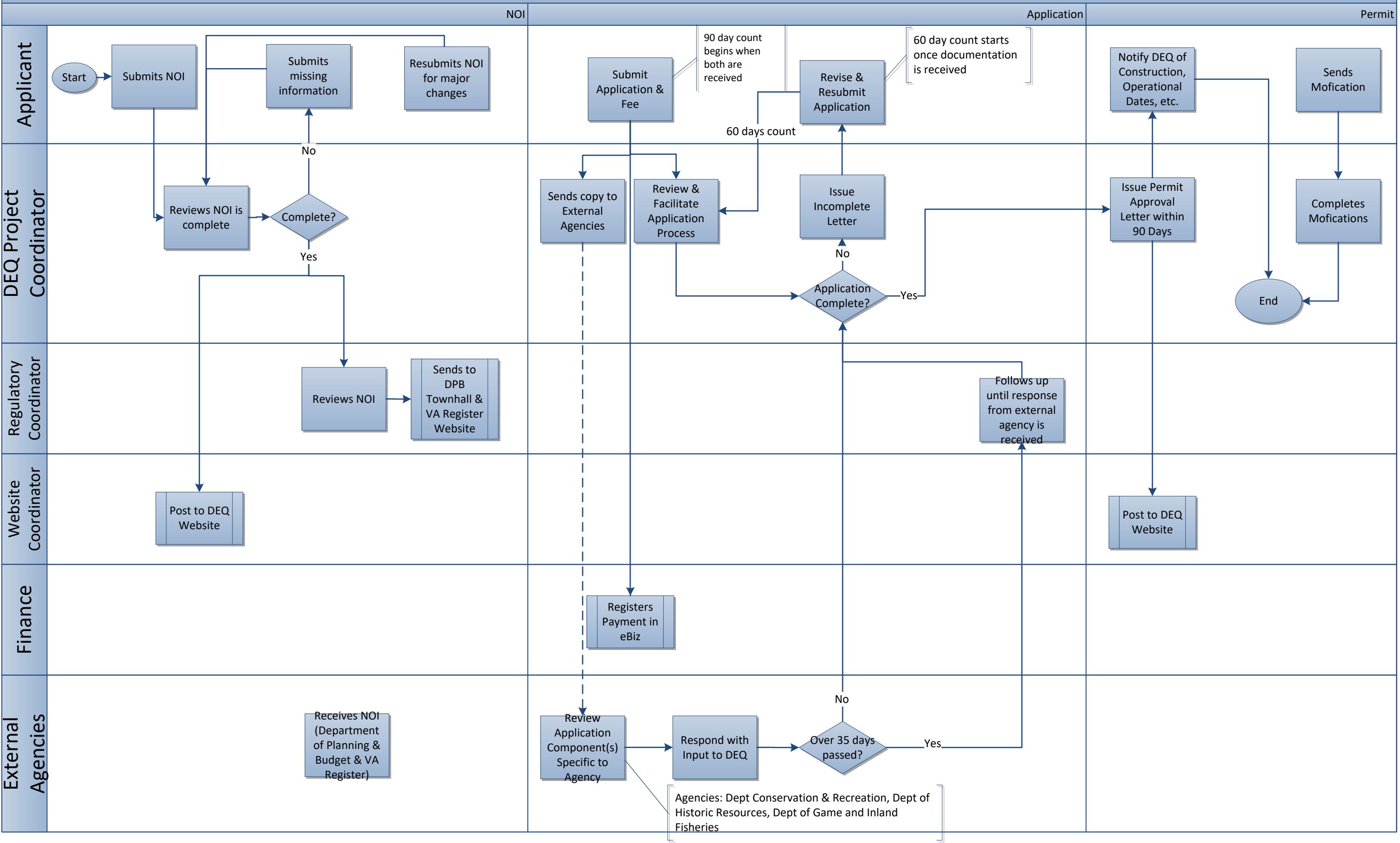
Department of Historic Resources

Questions?

Contact:
 Roger W. Kirchen, Director
 Review and Compliance Division
 Department of Historic Resources
 2801 Kensington Avenue
 Richmond, VA 23221
roger.kirchen@dhr.virginia.gov
www.dhr.virginia.gov



Renewable Energy As-Is Permitting Process



Fees

- A goal is to establish a fee structure that will ensure all aspects of the program are self-sustaining as required by law.

DEQ

Compliance & Enforcement

- A goal is to determine compliance and enforcement needs, and evaluate the potential for reasonable and risk-based ongoing reviews of the projects.

DEQ

Compliance and Enforcement

- Compliance activities may include review of notifications and reports as well as onsite inspections during each phase of facility operations including the following:
 - Permit application process
 - During construction
 - Post construction
 - For the life of facility
 - During modification
 - During closure
 - Compliance needs will vary based on size of facility and number/size of resources identified requiring mitigation.
- Enforcement needs will vary based on compliance findings.

DEQ

Notice of Intent

- A goal is to have a clear process for DEQ to manage workflow and establish a procedure that ensures early public notification that a project is under consideration.

DEQ

Application

- A goal is to ensure that there are clear requirements and timelines for all information submittals.

DEQ

Public Process

- A goal is to clarify process requirements and timelines to enhance transparency and ensure that the public is on notice about these PBR projects.

DEQ