

# Virginia Pollinator-Smart Solar Industry Project Team



Virginia Pollinator-Smart Solar Industry Project Team

**Virginia Pollinator-Smart Solar Industry Project Team**

**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY**

- Sharon Baxter, Director, Division of Environmental Enhancement (Project Manager)
- Mary E. Major, Renewable Energy Permitting

**VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION**

- René Hypes, Project Review Coordinator, Division of Natural Heritage
- Kevin Heffernan, Stewardship Biologist, Division of Natural Heritage
- Jason Bulluck, Director, Division of Natural Heritage
- Chris Ludwig, Chief Biologist (retired), Division of Natural Heritage

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- Kris Dramby, Director of Energy and Natural Resources
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- Amanda Cross, Graphic Designer

**FRESH ENERGY**

- Rob Davis, Director, Center for Pollinators in Energy

**ERNST CONSERVATION SEEDS, INC.**

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- Andy Ernst, Vice President

**MEADVILLE LAND SERVICE, INC./ERNST POLLINATOR SERVICES**

- Robin Ernst, President

**DRAMBY ENVIRONMENTAL CONSULTING, INC.**

- Shearin Dramby, President
- Linda Warren, Facilitator

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- Dr. Lora Morandin, Senior Pollinator Specialist
- Kelly Rourke, Senior Program Manager

**PRAIRIE RESTORATIONS, INC.**

- Ron Bowen, President

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VIRGINIA'S POLLINATOR-SMART SOLAR INDUSTRY



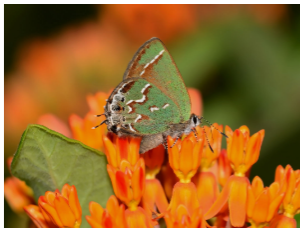
# Virginia Pollinator Smart Webpage

[Home](#) » [Natural Heritage](#) » [Solar Site Pollinator-Smart](#)

## Virginia Pollinator Smart

The emerging solar power industry holds in its hands an extraordinary opportunity as decision-makers, engineers and designers consider the impact of their facilities on the landscape. Expertly crafted mixes of native plants can transform a solar facility into a thriving ecosystem that supports pollinator species, birds, and other wildlife, while enhancing facility economic efficiencies.

[Learn more about the benefits of native plants on solar sites...](#)



© DCR-DNH, Gary P. Fleming.

## Guidance for Establishing and Maintaining a Pollinator-Smart/Bird Habitat Solar Site

Virginia's Pollinator-Smart program is designed to provide incentives and tools for solar industry to adopt a native plant strategy to meet soil and water control regulations, community needs, and the needs of our biosphere. Below are links to supporting documents for creating pollinator-friendly habitat on a solar facility and meeting the criteria of the Pollinator-Smart certification program.

Developed with input from many stakeholders, natural resource scientists, and environmental policy experts, the materials presented here provide detailed guidance for planning, designing, installing, and maintaining a Pollinator-Smart habitat at a solar facility.

- [Comprehensive Manual](#) (Coming Soon!)
- [Vegetation Monitoring Manual](#) (PDF)
- [Native Plants Seed Business Plan](#) (PDF)
- Pollinator-Smart Scorecards
  - [New site](#) (PDF)
  - [Established site](#) (PDF)

## Virginia Solar Site Native Plant Finder

The Virginia Solar Site Native Plant Finder assists users in identifying native plant species appropriate for the various vegetation requirements at a solar facility and match the needs of pollinators and birds. It also includes information on commercial availability.

The Native Plant Finder can also help plant industry with finding native species with potential to be developed into new market commodities. Native seed suppliers are invited to share their information for inclusion in the Native Plant Finder database by emailing [pollinator.smart@dcr.virginia.gov](mailto:pollinator.smart@dcr.virginia.gov).

- [Solar Site Native Plant Finder](#)
- Plant Finder guidance is found here. [document coming soon]

## Virginia Invasive Plant Species List

The DCR [Invasive Plant Species List](#) is the result of risk assessment conducted on hundreds of non-native plant species. The list currently identifies 90 species as invasive in Virginia. Invasive species are defined here as non-native species that cause harm to the ecosystem and native species, create economic damage and losses, or pose direct harm to humans.

Invasive plant species threaten Pollinator-Smart goals if they are not properly managed at a site.



© DCR-DNH, Gary P. Fleming.

## Establishing a Virginia Native Seed Industry

A goal of the Pollinator-Smart program is to kickstart a robust native seed industry that would be able to serve the coming demand for tens of thousands of acres of native plant materials. The [Native Plants Seed Business Plan](#) (PDF) builds on knowledge generously provided by established members of the native seed industry and outlines the steps toward a Virginia-based industry that could also serve other surrounding states.

## DEQ Solar Site web page

In Virginia, the Department of Environmental Quality has oversight of the establishment of solar facilities. To learn about the permit requirements and opportunities for the solar industry in Virginia, visit the [DEQ Solar Energy](#) page.

## Questions/Comments

If you have questions or comments on the Pollinator-smart program, please contact us at [pollinator.smart@dcr.virginia.gov](mailto:pollinator.smart@dcr.virginia.gov)

# Virginia Solar Site Pollinator/Bird Habitat Scorecard-Proposed or Retrofit

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**.

### DEFINITIONS

**Open Area:** Any area beyond the panel zone, within the property boundary.

**Panel Zone:** The area underneath the solar arrays, including inter-row spacing.

**Project Area:** Open Area + Panel Zone + Screening Zone.

**Screening Zone:** A vegetated visual barrier.

**Solar Native Plant Finder:** The Virginia Solar Site Native Plant Finder ([link](#)), an online resource tool developed by the DCR Natural Heritage Program.

**Virginia Pollinator-Smart Seed Mix:** A seed mix that includes native local ecotypes and conforms with the Solar Native Plant Finder.

### RESOURCES

[Virginia Solar Site Native Plant Finder](#)

[Virginia's Pollinator-Smart Solar Portal](#)

[Comprehensive Manual](#)

[Monitoring Plan](#)

### INSTRUCTIONS

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

1. All questions and fields must be filled out.
2. Submit your scorecard and associated documents via email to [pollinator.smart@dcr.virginia.gov](mailto:pollinator.smart@dcr.virginia.gov).
3. A Proposed or Retrofit Solar Site Scorecard should be submitted during the initial planning year. To remain certified, an Established Site Scorecard should be submitted in years 2, 4, 6, 8, and 10. A long-term management plan should also be submitted with the Established Sites Scorecard during year 10. If all criteria are met during year 10, the site will be considered pollinator-friendly for the life of the project.

### ATTACHMENTS PROVIDED

- ☐ Project Vicinity Map/Planting Plan
- ☐ Seed Mix and Seeding Rates
- ☐ Vegetation Management Plan
- ☐ Vegetation Monitoring Plan
- ☐ Invasive Species Mapping
- ☐ Research Collaboration Documentation
- ☐ Site Photos

### PROJECT DETAILS & CONTACT INFORMATION

DATE:

SITE OWNER OR DESIGNER:

PROJECT ADDRESS:

PROJECT SIZE (ACS AND MW):

POINT OF CONTACT:

EMAIL/PHONE:

VEGETATION CONSULTANT:

SEED SUPPLIER (IF KNOWN):

TARGET SEEDING DATE:

### FINAL SCORE

0

Certified VA Pollinator-Smart: 80-99 pts

Gold Certified VA Pollinator-Smart: 100+ pts

[CLEAR FORM](#)

For questions, comments, and feedback, please contact [pollinator.smart@dcr.virginia.gov](mailto:pollinator.smart@dcr.virginia.gov).

VERSION 2.0a

# VIRGINIA POLLINATOR-SMART/ BIRD HABITAT SCORECARD

## Proposed or Retrofit Solar Sites\*

### VEGETATION PANEL ZONE

- Percent of panel zone to be planted with a seed mix of native species developed using the Solar Native Plant Finder **(max 15 pts)**
  - ☐ 0-5 percent (0)
  - ☐ 5-25 percent (5)
  - ☐ 26-50 percent (6)
  - ☐ 51-75 percent (10)
  - ☐ greater than 75 percent (15)
- Planned native grass diversity in panel zone **(max 5 pts)**
  - ☐ 1 or fewer species (0)
  - ☐ 2 species (2)
  - ☐ 3 or more species (5)

### OPEN AREA

- Percent of open area to be planted with Virginia Pollinator-Smart Seed Mix developed using the Solar Native Plant Finder **(max 15 pts)**
  - ☐ 0-5 percent (0)
  - ☐ 5-25 percent (5)
  - ☐ 26-50 percent (6)
  - ☐ 51-75 percent (10)
  - ☐ greater than 75 percent (15)
- Total number of Solar Native Plant Finder species in the seed mix to be used within the open area **(max 15 pts)**
  - ☐ 4 or fewer species (0)
  - ☐ 5-9 species (5)
  - ☐ 10-14 species (6)
  - ☐ 15-19 species (10)
  - ☐ 20 or greater species (15)
- For the seed mix to be used within the open area, seasons with at least three (3) Solar Native Plant Finder species in flower **(max 10 pts) [CHECK ALL THAT APPLY]**
  - ☐ Spring (March-May) (2)
  - ☐ Early Summer (June-July) (2)
  - ☐ Late Summer (July 25-August) (4)
  - ☐ Fall (September-November) (2)

### SCREENING ZONE

- Within the screening zone, percent to be planted with Solar Native Plant Finder species **(max 15 pts)**
  - ☐ 0-5 percent (0)
  - ☐ 5-25 percent (5)
  - ☐ 26-50 percent (6)
  - ☐ 51-75 percent (10)
  - ☐ greater than 75 percent (15)

### SITE MANAGEMENT

#### PLANNING AND MAINTENANCE PRACTICES

##### 7. [CHECK ALL THAT APPLY] (max 25 pts)

- ☐ Site has an Approved Vegetation Management Plan (25)
- ☐ Vegetation monitoring is proposed annually (5)
- ☐ Invasive species mapping and control proposed annually (5)
- ☐ Planned on-site use of insecticide or pre-planting seed/plant insecticide treatment (including buildings/electrical boxes, etc.) (40)

#### INVASIVE SPECIES RISK

##### 8. [CHECK ALL THAT APPLY] (-20 pts possible)

- ☐ Combined cover of tall fescue across all three zones planned to be <+10 percent (-10)
- ☐ Combined cover of species on DNR Virginia Invasive Plant Species List across all three zones planned to be <+10 percent (-10)

#### PUBLIC ENGAGEMENT AND RESEARCH

##### 9. [CHECK ALL THAT APPLY] (max 10 pts)

- ☐ 2 or more legible and accessible signs identifying pollinator and bird habitat proposed on-site (2.5)
- ☐ Accessible bench and educational display proposed on-site (2.5)
- ☐ Research collaboration with college, university, school, or research institute (5)

#### POLLINATOR/BIRD NESTING HABITAT ON-SITE

##### 10. [CHECK ALL FEATURES THAT ARE PRESENT ON-SITE] (20+ pts)

- ☐ Existing bare ground patches one square foot or larger, with undisturbed and well-drained soil (2)
- ☐ Preserved upland forested communities or forest edge habitat that includes native flowering shrubs and young trees (8)
- ☐ Cavity nesting sites (e.g. dead trees, snags, fallen logs, shrubs, plants with pitfy-terminated twigs such as native sumacs, rose, blackberries) (2)
- ☐ Created bee/bird nesting habitat features (e.g., boxes, tunnels, etc.) (0.2 pts per feature)\* # features:  $\times 0.2 = 0$  pts.
- ☐ Preserved wetland communities/prevalence of clean water source (8) (6)

\* See guidelines for development of a Vegetation Management Plan [here](#). Vegetation Management Plans for solar sites are approved by the Virginia Pollinator-Smart Solar Industry Review Board. Vegetation Management Plans may be submitted [here](#).

\* Vegetation monitoring should be conducted in accordance with the methods described [here](#). For the purposes of compliance, monitoring is only required every two years; therefore, annual monitoring is incentivized with additional points in the Scorecard.

\* Up to a maximum of 10 points (50 features)

# Virginia Solar Site Pollinator/Bird Habitat Scorecard-Monitoring Established Sites

VERSION 2.0b

VIRGINIA POLLINATOR-SMART/  
BIRD HABITAT SCORECARD  
Established 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.

**DEFINITIONS**

**Open Area:** Any area beyond the panel zone, within the property boundary.

**Panel Zone:** The area underneath the solar arrays, including inter-row spacing.

**Screening Zone:** A vegetated visual barrier.

**Solar Native Plant Finder:** The Virginia Solar Site Native Plant Finder ([link](#)), an online research tool developed by the DCR Natural Heritage Program.

**Used by Pollinators:** Plant species with a "pollinator" designation on the Virginia Solar Site Native Plant Finder.

**RESOURCES**

[Virginia Solar Site Native Plant Finder](#)

[Virginia's Pollinator-Smart Solar Portal](#)

[Comprehensive Manual](#)

[Monitoring Plan](#)

**INSTRUCTIONS**

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

1. All questions and fields must be filled out.
2. Submit your scorecard and associated documents via email to: [pollinator\\_smart@dcr.virginia.gov](mailto:pollinator_smart@dcr.virginia.gov)
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, 8, and 10. A long-term management plan should also be submitted with the Established Sites Scorecard during year 10. If all criteria are met during year 10, the site will be considered pollinator-friendly for the life of the project.

**ATTACHMENTS PROVIDED**

- ☐ Project Vicinity Map
- ☐ Vegetation Management Plan
- ☐ Vegetation Monitoring Report
- ☐ Invasive Species Mapping
- ☐ Research Collaboration Documentation
- ☐ Site Photos
- ☐ Long-term management plan (Year 10 only)

OPEN AREA

SCREENING ZONE

FENCELINE

PANEL ZONE

SCREENING ZONE

OPEN AREA

**PROJECT DETAILS & CONTACT INFORMATION**

DATE: \_\_\_\_\_

SITE OWNER OR DESIGNEE: \_\_\_\_\_

PROJECT ADDRESS: \_\_\_\_\_

PROJECT SIZE (ACS AND MW): \_\_\_\_\_

POINT OF CONTACT: \_\_\_\_\_

EMAIL/PHONE: \_\_\_\_\_

VEGETATION CONSULTANT: \_\_\_\_\_

**FINAL SCORE**

0

Certified VA Pollinator-Smart: 80-99 pts

Gold Certified VA Pollinator-Smart: 100+ pts

CLEAR FORM

For questions, comments, and feedback, please contact [pollinator\\_smart@dcr.virginia.gov](mailto:pollinator_smart@dcr.virginia.gov)

VERSION 2.0b

VIRGINIA POLLINATOR-SMART/  
BIRD HABITAT SCORECARD  
Established Solar Sites



**VEGETATION**

**PANEL ZONE**

1. Percent of overall existing cover in the panel zone vegetated with Solar Native Plant Finder species (max 15 pts)
  - ☐ <5 percent (0)
  - ☐ 5-25 percent (5)
  - ☐ 26-50 percent (8)
  - ☐ 51-75 percent (10)
  - ☐ greater than 75 percent (15)
2. Native grass diversity in panel zone (max 5 pts)
  - ☐ 1 or fewer species (0)
  - ☐ 2 species (2)
  - ☐ 3 or more species (5)

**OPEN AREA**

3. Percent of overall existing cover within the open area vegetated with Solar Native Plant Finder species used by pollinators (max 15 pts)
  - ☐ <5 percent (0)
  - ☐ 5-25 percent (5)
  - ☐ 26-50 percent (8)
  - ☐ 51-75 percent (10)
  - ☐ greater than 75 percent (15)
4. Total number of Solar Native Plant Finder species found within the open area (max 15 pts)
  - ☐ 9 or fewer species (0)
  - ☐ 10-19 species (5)
  - ☐ 20-29 species (8)
  - ☐ 30-39 species (10)
  - ☐ 40 or greater species (15)
5. Within the open area, seasons with at least three (3) Solar Native Plant Finder species in flower (max 10 pts)  
[CHECK ALL THAT APPLY]
  - ☐ Spring (March-May) (2)
  - ☐ Early Summer (June-July) (2)
  - ☐ Late Summer (July-15-August) (4)
  - ☐ Fall (September-November) (2)

**SCREENING ZONE**

6. Percent of overall existing cover in the screening area vegetated with Solar Native Plant Finder species (max 15 pts)
  - ☐ <5 percent (0)
  - ☐ 5-25 percent (5)
  - ☐ 26-50 percent (8)
  - ☐ 51-75 percent (10)
  - ☐ greater than 75 percent (15)

**SITE MANAGEMENT**

**PLANNING AND MAINTENANCE PRACTICES**

7. [CHECK ALL THAT APPLY] (max 25 pts)
  - ☐ Site has an Approved Vegetation Management Plan (15)
  - ☐ Vegetation monitoring conducted annually (5)
  - ☐ Invasive species mapping and control conducted annually (5)
  - ☐ On-site use of insecticide (excluding safety/hazard spot treatment around buildings/electrical boxes, etc.) (40)

**INVASIVE SPECIES RISK**

  8. [CHECK ALL THAT APPLY] (-20 pts possible)
    - ☐ Combined cover of tall fescue across all three zones >10 percent (10)
    - ☐ Combined cover of species on DNH Virginia Invasive Plant Species List across all three zones >10 percent (10)

**PUBLIC ENGAGEMENT AND RESEARCH**

    9. [CHECK ALL THAT APPLY] (max 10 pts)
      - ☐ 2 or more legible and accessible signs identifying pollinator and bird habitat present on-site (2.5)
      - ☐ Accessible bench and educational display present on-site (2.5)
      - ☐ Research collaboration with college, university, school, or research institute (5)

**POLLINATOR/BIRD NESTING HABITAT ON-SITE**

      10. [CHECK ALL FEATURES THAT ARE PRESENT ON-SITE] (20+ pts)
        - ☐ Existing bare ground patches one square foot or larger, with undisturbed and well-drained soil (2)
        - ☐ Preserved upland forested communities or forest edge habitat that includes native flowering shrubs and young trees (8)
        - ☐ Cavity nesting sites (e.g. dead trees, snags, fallen logs, shrubs, plants with pithy-stemmed twigs such as native sumacs, roses, or blackberries) (2)
        - ☐ Created bee/bird nesting habitat features (e.g., boxes, tunnels, etc.) (0.2 pts per feature) \* 8 feature:  $0.2 \times 8 = 1.6$  pts.
        - ☐ Preserved wetlands communities/presence of clean water source(s) (8)

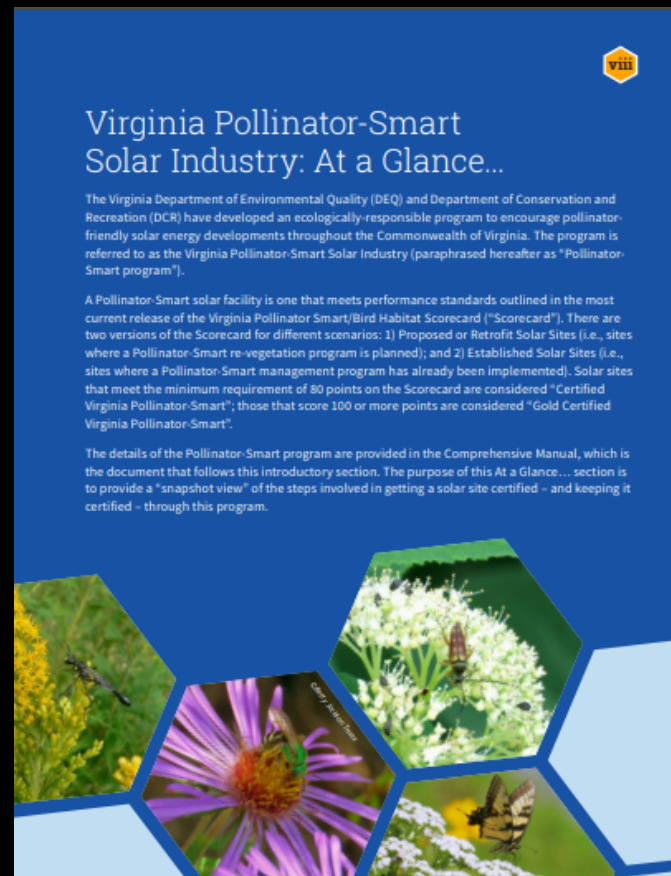
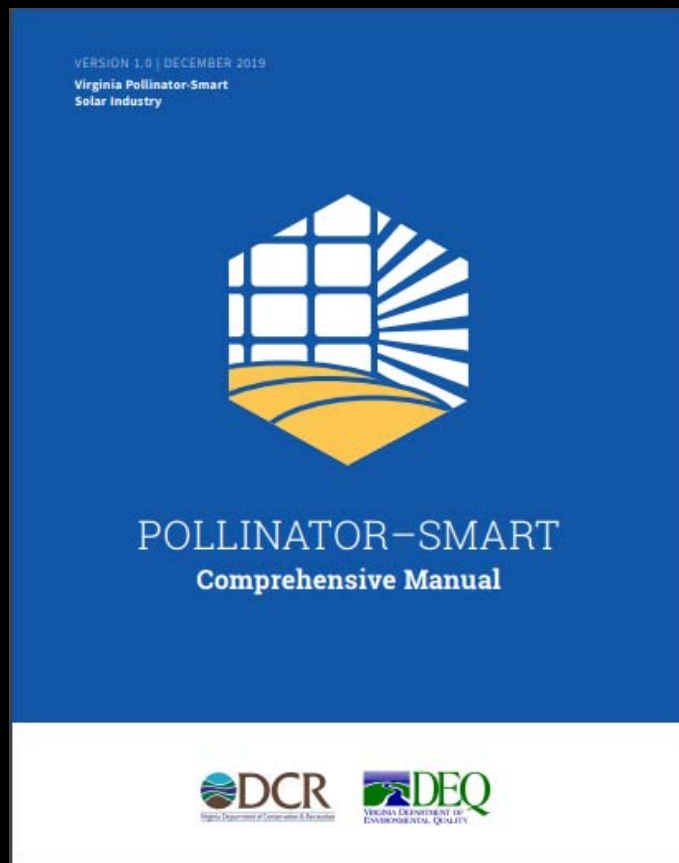
\* See guidelines for development of a Vegetation Management Plan [here](#). Vegetation Management Plans for solar sites are approved by the Virginia Pollinator-Smart Solar Industry Review Board. Vegetation Management Plans may be submitted [here](#).

\* Vegetation monitoring should be conducted in accordance with the methods described [here](#). For the purposes of compliance, monitoring is only required every two years; therefore, annual monitoring is incentivized with additional points in the Scorecard.

\* Up to a maximum of 10 points (50 features)

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# Virginia Pollinator-Smart Comprehensive Manual

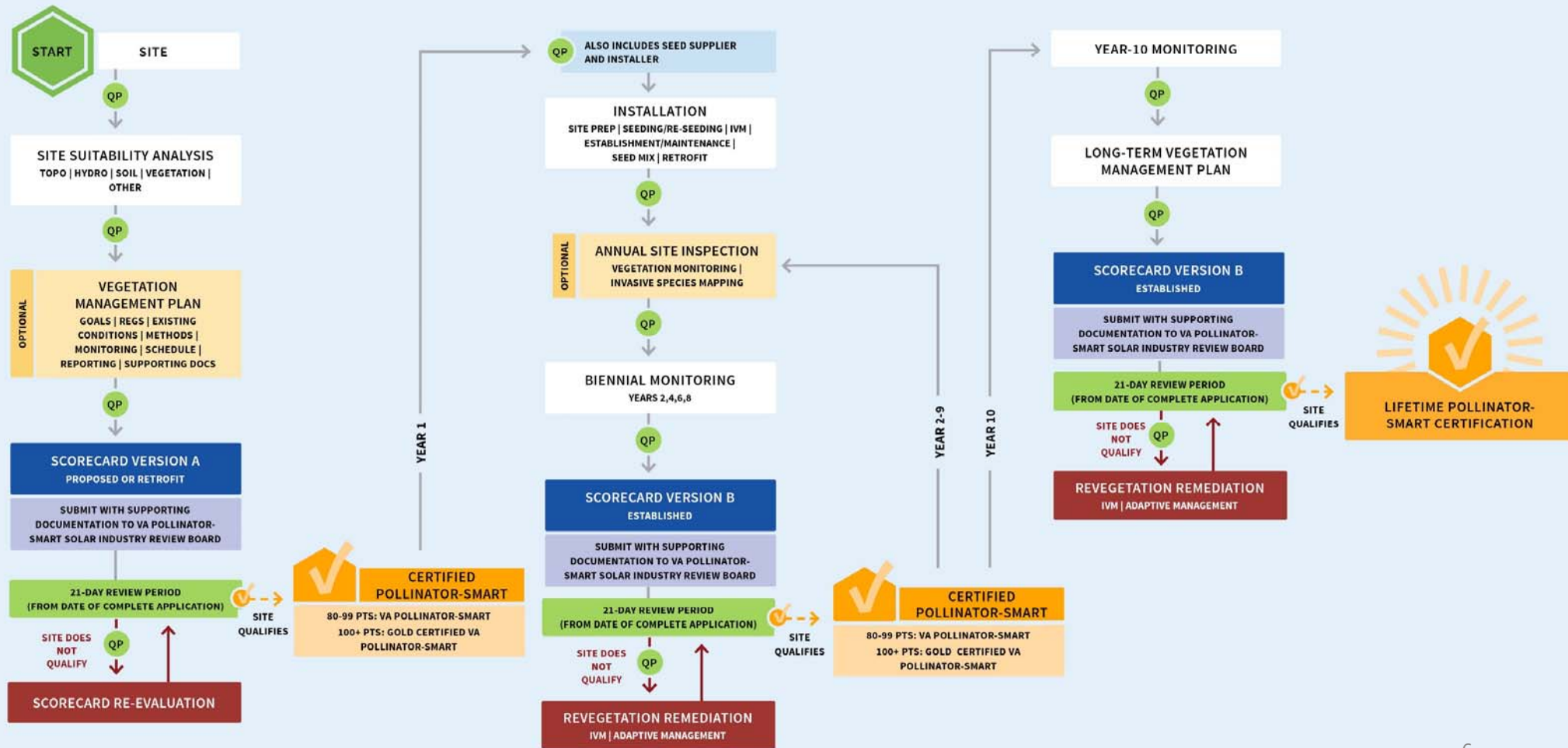




FLOWCHART

LEGEND: QP QUALIFIED PROFESSIONAL

# Virginia Pollinator-Smart Solar Industry *At a Glance...*



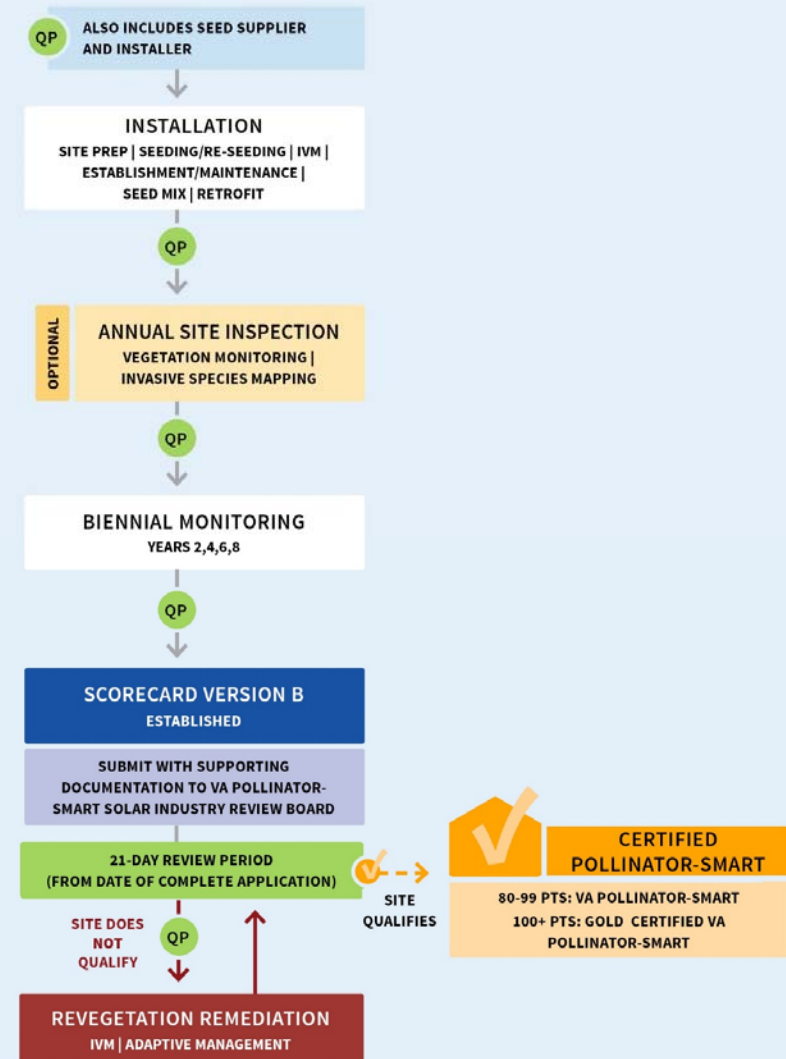
# Year 1

- Site Suitability Analysis
- Designing the Pollinator-Smart Planting
  - Vegetation Management Plan
- Scorecard Version A
  - 21-Day Review Period
  - Introducing the Review Board
- Certification!
- Installation



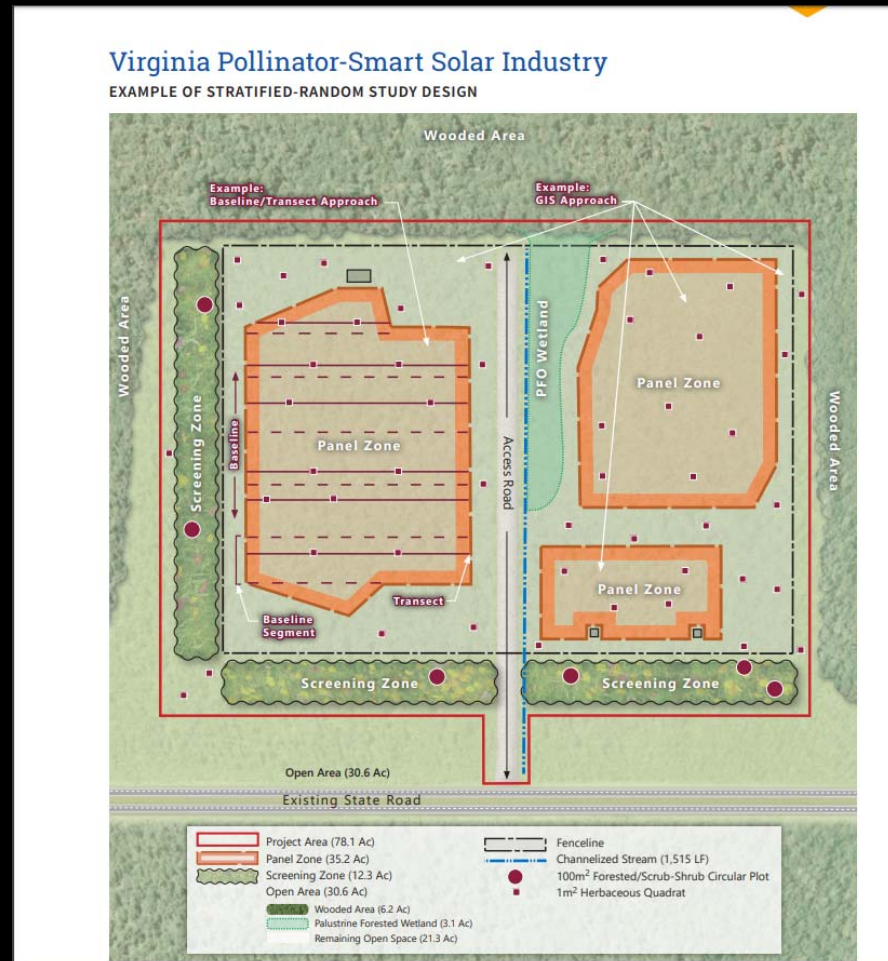
# Years 2-9

- Annual Site Inspection
- Biennial Monitoring
  - 21-Day Review Period
- Remediation
- Certification!



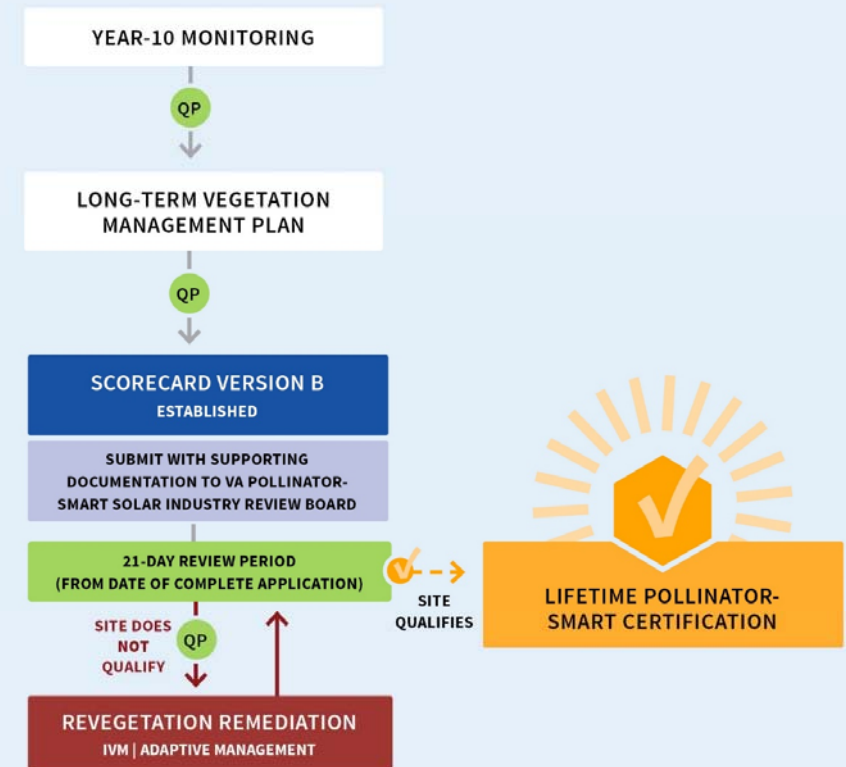


# Virginia Pollinator-Smart Monitoring Plan



# Year 10

- Monitoring
- Long-Term Vegetation Management Plan
- Scorecard Version B (Green)
  - 21-Day Review Period
- Remediation
- LIFETIME CERTIFICATION!



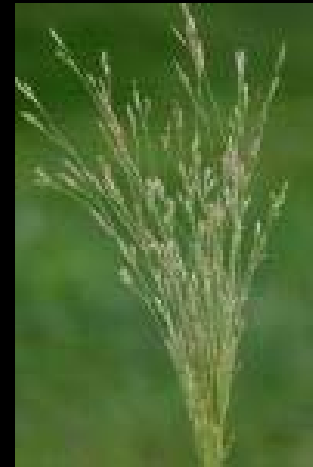
# Current Supply

- Virginia Solar Site Native Plant Finder



## Virginia Solar Site Native Plant Finder

- Solar Plant Finder currently has **278** native species commercially available including pollinator species
- Queries conducted by counties/cities using various species characteristics including water and light requirements, flowering seasons and maximum height requirement
- Results returned give details of plant species including habitat, locality, VA digital atlas link with photos and hyperlinks to commercial vendors

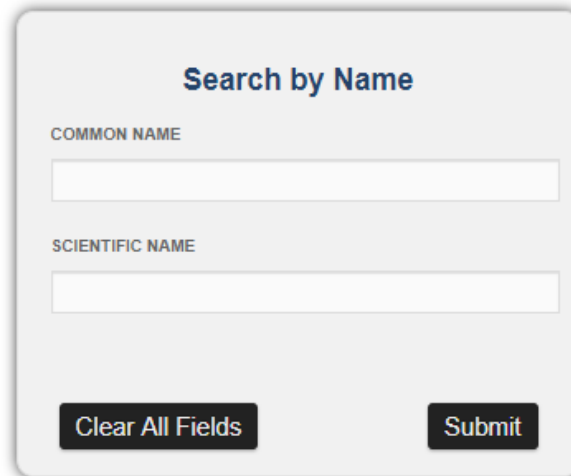


The database contains 1600 native plant species. By default, the finder form is set to search for commercially available species. You can change the setting to see all species in the database selecting the blank option. Selecting 'No' will display those species for which we do not currently have identified as available. For each species in the finder, names of providers and links to their websites appear in the query results under "More details."

Query results are printable from your browser's Print menu. To create a spreadsheet of the results, copy and paste the results table into a spreadsheet program, such as Excel or Sheets.

For questions or issues related to the finder, email [pollinator.smart@dcr.virginia.gov](mailto:pollinator.smart@dcr.virginia.gov).

**How to Use the Solar Site Native Plant Finder (PDF).**



**Search by Name**

COMMON NAME

SCIENTIFIC NAME

Clear All Fields Submit



### Search by Characteristics

LIGHT REQUIREMENTS

MOISTURE REQUIREMENTS

POLLINATOR?

MAXIMUM EXPECTED HEIGHT (IN FEET)

LOCALITY

FLOWERING SEASONS

PLANT TYPE

COMMERCIALLY AVAILABLE

Clear All Fields

Submit

Scientific Name	Common Name	Light Regime	Moisture Regime	Plant_Type	Maximum expected height (in feet)	Pollinator?	Flowering Seasons	Grassland Species	Riparian Buffer	Riparian Zone
Achillea millefolium	Common Yarrow	Sun, Part	Moist, Dry	Herb	4	Yes	Spring, Early Summer, Late Summer, Fall	No	No	

#### Less Detail

**Digital Atlas of the Virginia Flora:** <http://vaplantatlas.org/index.php?do=plant&plant=510>

**Commercially Available:** Agrecol Native Seed and Plant Nursery, Applewood Seed Co., Buffalo Brand Sharps Bros Seed Co., Ernst Conservation Seed Co., Ohio Prairie Nursery, Prairie Restorations Inc., Roundstone Native Seed, Toadshade Wildflower Farm

**Habitat from Flora:** Ubiquitous in fields, meadows, roadsides, clearings, mesic to dry upland forests, and other habitats.

**Synonyms:** [= A. millefolium – FNA, Pa., R, SE, W.Va.; = A. millefolium ssp. millefolium – C, G; = A. millefolium – F, Y, Z; = A. millefolium var. millefolium – K]

**Locality:** Accomack, Albemarle, Alexandria, Alleghany, Amelia, Amherst, Appomattox, Arlington, Augusta, Bath, Bedford, Bland,

# Virginia Pollinator-Smart Business Plan



11. Pollinator-Smart Market Summary

25

**11. Pollinator-Smart Market Summary**

Currently there are 11,398 acres of land in existing solar sites, including those that have permits but are not yet constructed. Over the next 25 years, 46,122 acres of land for solar sites are projected by DEQ. The solar industry has not shown a broad acceptance for raising the height of the panels to accommodate the use of native plants in the Panel Zone. This will limit the potential market for natives. Assuming that 10% of the area of the solar facilities is planted to natives, this market will be too small to sustain a native plant industry by itself. This makes the Market Development Group one of the most important elements for this plan's success. There are many potential markets that, when combined with solar, can create a market that will sustain a native seed industry in the Commonwealth. The Iowa model has shown, for example, that a native seed industry can be sustained with a DOT market.

Currently there are 11,398 acres of land in existing solar sites, including those that have permits but are not yet constructed. Over the next 25 years, 46,122 acres of land for solar sites are projected by DEQ.



11,398 ACRES

25 YEARS

46,122 ACRES

VIRGINIA'S POLLINATOR-SMART SOLAR INDUSTRY

- **Overall Business Model for VA- “Build out the minimum infrastructure needed to deliver a rough conditioned product to a facility capable of conditioning the seed to a marketable state.”**
  - Virginia Native Seed Growers’ Business Advisory Committee
  - Development of a Growers/Producers Network
  - Ernst Conservation Seeds for processing and distribution of the seed
  - Development of a regional ecotype seed supply (currently only 7 VA Ecotypes commercially available)
    - Collection Group
    - Nursery Group
    - Foundation Seed Increase Group
    - Certified Seed Producer



# Arkansas Native Seed Program

- Arkansas Natural Heritage Commission
  - AR Game and Fish Commission
    - US Fish & Wildlife Service
      - AR DOT
  - Audubon Arkansas NATIVE Project
    - USDA NRCS
      - The Nature Conservancy
  - Ozark Ecological Restoration, Inc.
  - Illinois River Watershed Partnership
    - Beaver Watershed Alliance







# Arkansas Native Seed Program

- Full-time seed coordinator hired
  - Building on a six-year old Audubon program
- Small farmers growing 2 or 3 species each on 2 to 9 acres
- Roundstone Native Seed LLC conducts cleaning and distribution





# Iowa Ecotype Project

- Produce and increase regionally adapted Iowa Source Identified Foundation seed for commercial producers
- Promote commercial availability and affordability of Source Identified seed
- Increasing seed of 50 species from 3,000 populations from three provenance zones in Iowa
- 81 ecotypes of 33 species released for commercial production
  - 60,000 of Source Identified seed produced annually

# Potential Markets for a Virginia Native Seed Program

- Solar Energy Sites
- Reclaimed Mine Sites
  - Pipeline ROWs
- Transmission ROWs
- Roadside ROWs
  - Farms
  - Parks
  - Schools
  - Landowners





Cople Elementary School in Westmoreland County designed by Sun Tribe is the first facility in Virginia to be gold certified under a new program that encourages pollinator-friendly solar development. Gold certification is the highest pollinator-smart designation available through the voluntary program.





*VA Pollinator-Smart Resources located at*

**[www.pollinatorsmartva.org](http://www.pollinatorsmartva.org)**



*If you have questions, comments, or feedback, please reach out to us!*

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