** Habitat Friendly Solar Site Assessment Form for**

 **Project Planning**

**For Solar Companies, Local Governments and Other Partners to Meet Habitat**

 **Friendly Solar Standards**

 **Updated 12-22-23**

**Note: The use of state developed** [**solar seed mixes**](https://bwsr.state.mn.us/seed-mixes?title=solar&field_seed_mix_category_target_id=All&field_seed_mix_purpose_target_id=All&field_seed_mix_region_target_id=All) **over 70% of the plantable area of a site will**

**result in automatically meeting the standard.**

1. **PLANNED PERCENT OF PLANTABLE AREAS WITHIN PROJCT FOOTPRINT DOMINATED BY NATIVE SPECIES COVER (forbs, grasses, sedges, rushes, ferns). PROJECTS MUST HAVE A GOAL OF AT LEAST 70% COVER OF NATIVE VEGETATION TO MEET HABITAT FRIENDLY SOLAR STANDARDS**

 **70-84% +15 points**

 **85% and above +20 points Total Points**

1. **PERCENT OF PROPOSED SITE VEGETATION COVER TO BE DOMINATED BY FORBS (not grasses, sedges and rushes)**

 **10-19% +5 points**

 **20-29% +10 points**

 **30-39% +15 points**

 **40 and above +15 points Total Points**

**Note: Projects may have “array” mixes and diverse border mixes; forb dominance should be averaged across the entire site. The dominance should be calculated from total numbers of forb seeds vs. grass seeds based on seeds per square foot (from all seed mixes to be planted).**

1. **PLANNED COVER DIVERSITY (# of species in seed mixes; numbers from upland and moist soil**

**mixes can be combined**

 **10-19 species +5 points**

 **20-25 species +10 points**

**26-39 species +15 points**

 **40 and above +20 Total Points**

1. **PLANNED SEASONS WITH AT LEAST THREE BLOOMING SPECIES (check all that apply)**

 **Spring (April-May) +4 points**

 **Summer (June-August) +3 points**

 **Fall (September-October) +3 points Total Points See BWSR** [**pollinator toolbox**](https://bwsr.state.mn.us/pollinator-toolbox) **about bloom season**

1. **SITE PLANNING**

 **Detailed establishment and management plan (see notes) +20 points**

 **Seed Mixes are composed of at least 40 seeds per square foot +5 points**

 **All seed genetic origin is within 200 miles of site (see notes) +5 points**

**At least .5% milkweed cover within each seed mix** **+5 points**

**Plant species with more than 3 flower colors in mixes (see notes) +5 points Total Points**

1. **INSECTICIDE RISK**

 **Planned on-site insecticide use (excluding buildings/electrical boxes, etc.) -30 points**

 **Communication with local chemical applicators/neighbors about need +10 points**

 **to prevent drift from adjacent areas. Total Points**

 **GRAND TOTAL**

**Gold Standard 85+ points Project Name:**

**Meets Standard 70 points Project County:**

 **Project Size:**

 **Evaluation Date:**

**See notes related to the questions on the back side of this form**

***Notes:***

Estimates of percent “cover” should be based on “absolute cover” (the percent of the ground surface that is covered by a vertical projection of foliage as viewed from above).

All project plans must include detailed vegetation establishment and management specifications to ensure the success of projects (see sample specifications on [*BWSR’s Habitat Friendly Solar Webpage*](https://bwsr.state.mn.us/bwsr-habitat-friendly-solar-program)).

Seed mixes provided for projects need to show seeds per square foot for each species in the mix.

**Question 1 -** *Native plant species provide benefits to a wide range of pollinators and other wildlife species. The* [*Minnesota DNR List*](http://files.dnr.state.mn.us/publications/ewr/prairie_solar_tech_guidance.pdf) *should be used to determine if a species is native. Native species include wildflowers, graminoids (grasses, sedges rushes), shrubs and trees. The percent areal cover of native vs. non-native species should be estimated based on the seeds per square foot of all species to be used across all seed mixes. As non-native fescues tend to have a high seeding rate, but also small seeds with a lower germination success the number of fescue seeds per square foot in mixes can be decreased by half when calculating native species dominance of mixes. This should result in a more accurate representation of native dominance.*

***Question 2 -*** *There is a focus on native forbs on this assessment form to maximize benefits to the approximately 500 species of native bees in Minnesota, honeybees and other pollinators. Forbs are (flowering plants that are not woody or graminoids such as grasses and sedges) and can include introduced clovers and other non-native species beneficial to pollinators. No noxious weeds or invasive plants can be included in the total.*

***Question 3 -*** *Plant diversity adds to wildlife benefits, as well as the resiliency of projects. For this question, planned native and non-native species from all seed mixes can be combined for the total.*

***Question 4 -*** *Having blooming species throughout the season helps support pollinator species. See BWSR’s Pollinator Toolbox for a listing of bloom seasons for species.*

***Question 5 -*** *To meet requirements for a long-term management plan projects must provide information about:*

*-Timing of yearly inspections,*

*-A detailed native vegetation establishment plan with detailed instructions for contractors.*

*-A detailed maintenance schedule for the first three years of the project (establishment period) listing timing of establishment mowing/ trimming, spot herbicide application, prescribed grazing or other management actions.*

*-Proposed maintenance schedule for year four and beyond.*

*-List of weed species that may become problematic at the site and how they will be managed if needed.*

*All mixes being used for the project must include at least 40 seeds per square foot to receive* [*points for the first category. Using seed with a genetic origin within 200 miles helps ensure that species will be adapted to site conditions and decrease the risk of introducing invasive species in seed mixes. Please refer to pages 7-8 of BWSR’s Native Vegetation Establishment and*](https://bwsr.state.mn.us/sites/default/files/2019-07/Updated%20guidelines%20Final%2007-01-19.pdf)[*Enhancement Guidlines for more information about appropriate seed sources. To obtain points for*](https://bwsr.state.mn.us/sites/default/files/2019-07/Updated%20guidelines%20Final%2007-01-19.pdf) *including milkweed in projects mixes must contain at least .5% milkweed seed based on seeds per square foot, or a combination of seed and containerized plugs could be used with a plan to cover .5% of the ground surface with milkweed. Flower colors can include blue, pink, purple, yellow, white, orange, red, green and brown. The Minnesota Wildflowers website allows for searching species based on flower color* [Minnesota Wildflowers Categorized by Color](https://www.minnesotawildflowers.info/page/flowers-by-color).

***Question 6 -*** *It is important that seeds treated with insecticides are not used at project sites and that insecticides are not being sprayed at the site. To meet requirements for communication/registration with local landowners/applicators about the need to prevent drift from adjacent areas, information provided can be in the form of email communication or copies of letters. Communication must be provided to all landowners adjacent to the property including municipalities.*

**Send completed forms, project plans, seed mixes (showing seeds per square foot for each species) and any communications** with pesticide applicators to BWSR at Dan.Shaw@state.mn.us as well as any local government staff involved in reviewing the project.