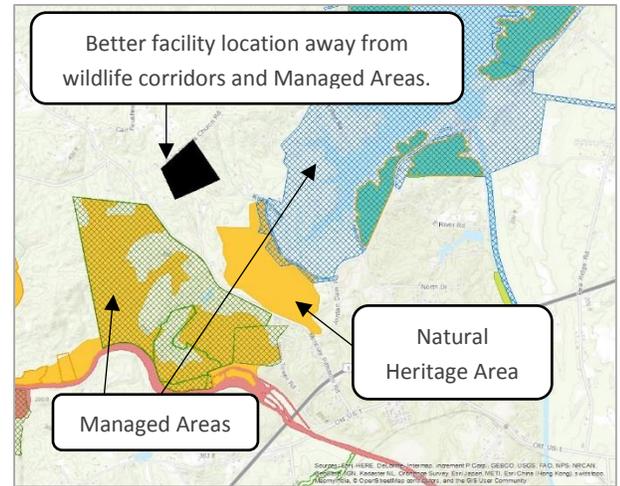


## FACILITY LOCATION

- Incentivize and encourage roof-top solar facilities.
- Select an appropriate site for ground solar facilities. Optimal green sites are on areas that are already impacted or in open areas, not in forests, and:
  1. Located as far as possible from Managed Areas (conserved lands) and not between Managed Areas.
  2. Not in Natural Heritage Areas.
  3. Set-back from riparian forests and wetlands.
  4. Outside of mapped wildlife corridors.

For detailed information see  
[www.ncwildlife.org/greengrowth](http://www.ncwildlife.org/greengrowth)



## DESIGN

### 1. Managed Areas Stewardship

Most Managed Areas are permanently protected critical wildlife habitats on private or public land. It is important that development not occur near or between Managed Areas so that habitats and habitat connectivity are not impacted. Often Managed Areas are managed with controlled burning. Development directly adjacent to Managed Areas impedes controlled burning which is vital for habitat quality and protecting communities from uncontrolled wildfires.

### 2. Avoid Natural Heritage Areas

Natural Heritage Areas are the highest quality natural areas and habitats known to remain in our state. They are the 'best of the best' sites protecting rare plant and animal species from further declines. Avoid placing any part of the solar facility in Natural Heritage Areas.

### 3. Set panels back from riparian forest and wetlands

Streams and wetlands need surrounding forests to maintain the food chain and temperature requirements of aquatic species, in addition to water quality. The N.C. Wildlife Resources Commission recommends maintaining:

- 100 feet on each side of perennial streams and 50 feet on intermittent streams.
- In watersheds that support federally listed aquatic species double these distances.

*Set-back solar facilities from Managed Areas, streams, and wetlands. Avoid Natural Heritage Areas. Design appropriate stream crossings, and maintain wildlife corridors. Plant native grasses and flowers.*

We recommend at least a 50-foot buffer on jurisdictional wetlands. Small wetlands are seasonally flooded, are often not jurisdictional, and provide the only breeding habitat for many amphibians, which also need the surrounding forest. We recommend a set-back of undisturbed forest, at least 150 feet wide on small wetlands. Ideally an area of undisturbed vegetation a total of 750 feet wide, would be set aside.

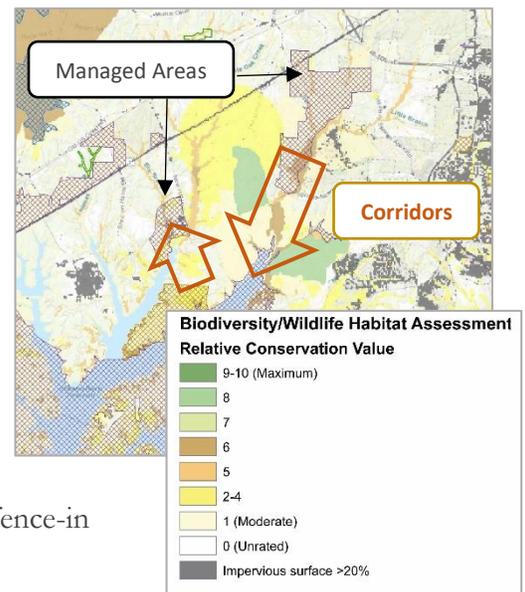
To prevent entangling and killing small wildlife, install biodegradable, natural fiber, non-plastic, wildlife-friendly sediment and erosion control devices prior to any land clearing.

## Stream Crossings

Culverts and bridges interrupt the natural stream bed and cause sedimentation. We recommend using bridges for all permanent stream or wetland crossings. If culverts must be used, design them to allow aquatic life passage by burying them in the stream bed. Fords may be appropriate for crossings used only once or twice a year.

## 4. Maintain Wildlife Corridors

Wildlife need forested areas at least 150 feet wide and ideally more than 300 feet wide to travel between habitat areas. Any area that is included in the Biodiversity & Wildlife Habitat Assessment map represents a wildlife corridor, a stream or wetland buffer, or a Natural Heritage Area. Do not fence-in corridors of natural vegetation.



## MANAGEMENT: UTILIZE NATIVE PLANTS



### Provide Pollinator Habitat, Achieve Low Maintenance Costs, & Improve Aesthetics by Using Native Grasses and Plants

The N.C. Wildlife Commission coordinates the [NC Pollinator Conservation Alliance](#). The Alliance has developed detailed guidance on how to establish native plants on solar farms, making them more visually pleasing and creating much needed pollinator habitat. These recommendations are based on field testing and expert opinion as well as

results from other state's pollinator-friendly solar farms. Matching the correct native plants to soil, sun, and precipitation levels, makes pollinator-friendly solar farms cheaper to manage. <http://ncpollinatoralliance.org/wp-content/uploads/2018/10/NC-Solar-Technical-Guidance-Oct-2018.pdf>

*Compared to turf grass, native plants need little fertilizer or herbicides, less mowing and maintenance, are often more drought resistant and control erosion more due to their deep root systems and adaptation to local conditions.*

### Fencing

Fencing needs to exclude large mammals, such as deer and bear while allowing small wildlife, such as turtles, to exit.

Use security wildlife fencing 75 inches in height, (17/75/6) fixed-knot woven wire, with no barbed wire. Install it upside-down such that the bottom three sections of fence should have vertical wire spaced at least 7 inches apart.

### Wires

If additional overhead transmission lines will be installed, then measures to minimize impacts to birds should be implemented. These can include increasing line visibility, insulating wires to cover exposed connections, and increasing the distance between wires so no contact with ground or other energized wire can be made. For more information see <http://www.fws.gov/birds/documents/powerlines.pdf>.