

ECR

Environmental Consulting & Restoration, LLC



RESTORATION MEMO

TO: Borrego Solar Systems, Inc.
FROM: Brad Holmes @ ECR, LLC
DATE: March 27, 2017
RE: Woodland Restoration Proposal, Water Department Land, Barnstable

Pursuant to our site meeting on March 23, 2017, Environmental Consulting & Restoration, LLC (ECR) has prepared this Woodland Restoration Proposal to restore disturbed areas associated with soil testing on and near the proposed solar facility at the Water Department Land off Santuit Newton Road in Barnstable (the Site). The intent of this proposal is to remediate, stabilize, and revegetate the areas of disturbance to mitigate impacts. ECR recommends the following restoration tasks:

Proposed Restoration Task List:

1. Remove uprooted trees, fallen logs, etc. along either side of the access pathways and test pit areas. This will involve laborers working with a small excavator to collect debris, transport to dump trucks, and disposal off site.
2. Upon the removal of the debris, excavated soils and soil piles pushed into the wooded areas along the pathways and test pits should be graded over the disturbed surfaces to the extent possible and raked to restore the surface to an even grade. All excess soils should be collected, transport to dump trucks, and disposal off site.
3. Next all disturbed surfaces should be covered with 2 to 3 inches of clean loam.
4. Restore the disturbed areas with native upland forest plants. The proposed plants consist of native seedlings (saplings and shrubs) species that are commonly found within this area. In order to quickly stabilize the area with vegetation, smaller sized plants with closer spacing is proposed. The plant size shall consist of tubeling or whip sized seedlings (4" deep x 2.25" diameter container) consisting of the following species and numbers:

Common Name	Scientific Name	Size
White Oak	<i>Quercus alba</i>	Tubeling
Black Oak	<i>Quercus velutina</i>	Tubeling
White Pine	<i>Pinus strobus</i>	Tubeling
Pitch Pine	<i>Pinus rigida</i>	Tubeling
Black Huckleberry	<i>Gaylussacia baccata</i>	Tubeling
Sweet Fern	<i>Comptonia peregrina</i>	Tubeling
Witch Hazel	<i>Hamamelis virginiana</i>	Tubeling
Bayberry	<i>Morella pennsylvanica</i>	Tubeling

Note, plant spacing is approximately 6 to 8 feet on center. Total number of plants is to be determined by the landscape contractor.

5. Upon planting, the areas should be hand seeded with a native seed mixture of 50% Native Upland Wildlife Forage & Cover Meadow Mix (ERNMX-123) and 50% Quick Erosion Control Cover Mix (ERNMX-104) available from Ernst Conservation Seeds, Inc. (see attached seed mix profiles).

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6. Natural wood chips may also be used to stabilize bare soil areas in addition loaming and seeding areas as noted above.
7. Prepare and submit a Restoration Completion Report to the overseeing agency.

Upon review of this memo, please contact me at (617) 529 – 3792 or brad@ecrholmes.com with any questions or requests for additional information.

Thank you,
Brad Holmes, Professional Wetland Scientist #1464, Massachusetts Certified Arborist #2130
Manager

Enclosure – Seed Mix profiles