

BP Solar Project

*Timothy M Green
Environmental Protection Division
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BROOKHAVEN
NATIONAL LABORATORY

a passion for discovery

 **Office of
Science**
U.S. DEPARTMENT OF ENERGY



LIPA - Goals of the RFP

- Diversify its energy resources
- Reduce dependency on fossil fuels
- Improve the environment; reducing carbon footprint
- Strengthen the local economy
- Encourage economic development
- Transform the solar photovoltaic marketplace

LIPA - Benefits

- Helps LIPA meet its commitment to provide green energy to its Long Island customers
- Avoids greenhouse gas emissions / other air pollutants
- Creates local, clean energy jobs
- Contributes to U.S. energy diversity and security
- Advances solar photovoltaic technologies
- Increases awareness about solar power and its benefits

BP Solar – The Project

- Size: ~37MW
- Location: Brookhaven National Laboratory
- Technology: Crystalline solar photovoltaic modules
- Land use: ~200 acres
- Construction schedule: Spring 2010 – May 2011
- Workforce: 200+ full-time employees during peak














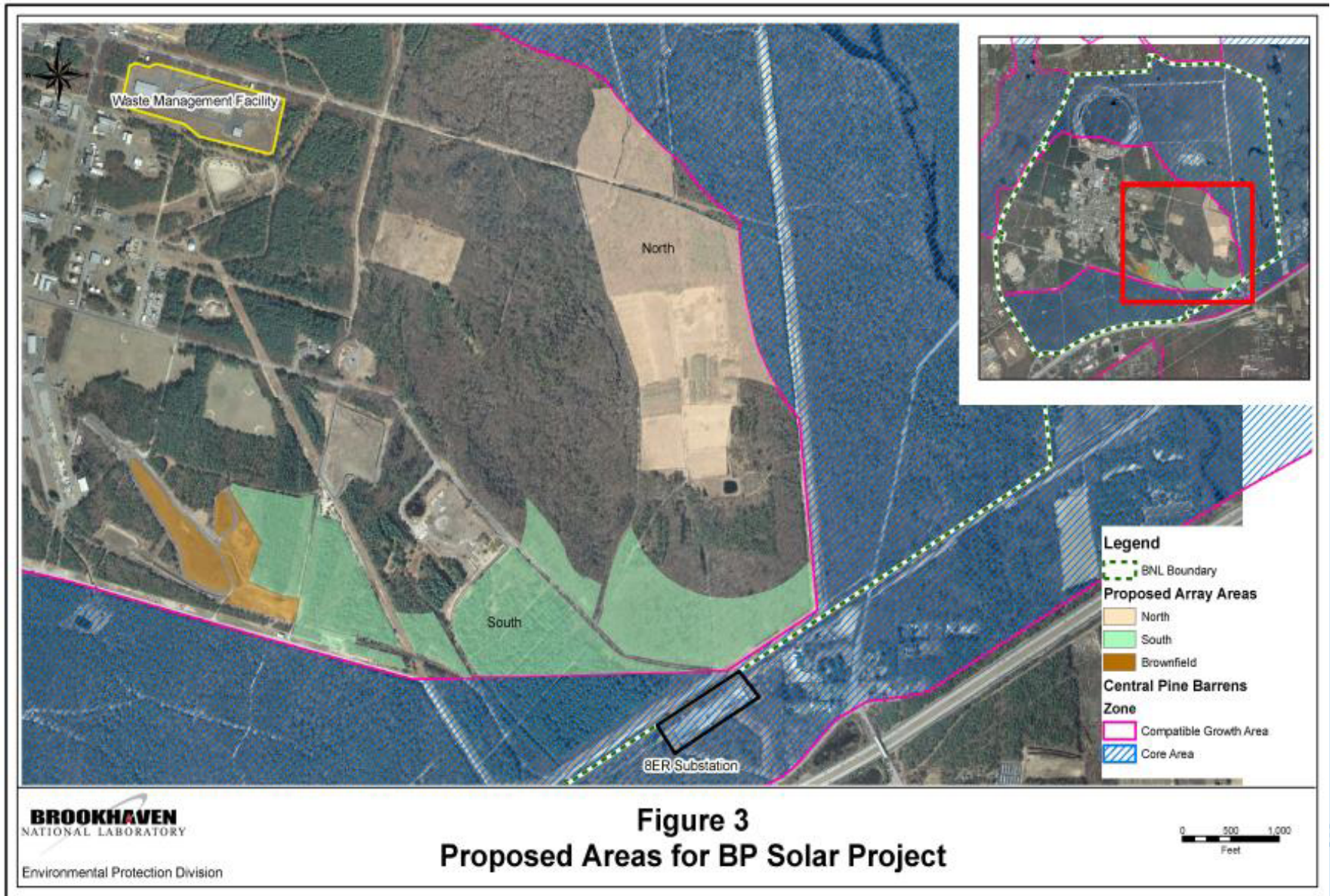
Legend

-  BNL Boundary
-  Compatible Growth Area/Core Pine Barrens
-  Laboratory Southern
-  Laboratory West
-  Dispersed Open Areas

0 1,000 2,000
Feet

Figure 4: Alternatives Considered But Not Assessed

Proposed Action



Environmental Assessment

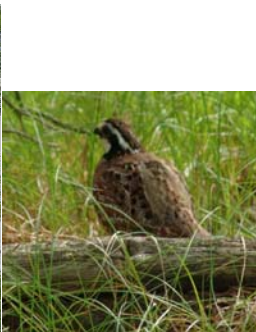
Topics Addressed in EA

- Ecology
 - Vegetation
 - Invasive Species
 - Threatened and Endangered Species
 - Migratory Birds
 - Mammals
 - Reptiles & Amphibians
- Water
- Land Use, Demography, Social Justice
- Socioeconomic
- Transportation
- Cultural Resources
- Air Quality
- Climate
- Visual Quality
- Noise
- Industrial Safety & Occupational Health
- Natural Hazards
- Destructive Acts
- Utilities
- Waste Management/Pollution Prevention
- Commitment of Resources
- Decommissioning & Restoration



Reducing Potential Impacts

- Requires minimal grading resulting in less disturbance of understory vegetation
- Tree removal – timing and process
- Wildlife friendly fencing
- Native vegetation planted under arrays
- Invasive species management



Relationship with Pine Barrens

- Long Island Central Pine Barrens established by NYS ECL Article 57
 - Land Use Plan sets standards for development
 - 65% clearing allowed within CGA, but applied to entire property
 - Compliance with NYSDEC regulations
- Project entirely within Compatible Growth Area
 - Clearing for construction would increase cleared area at BNL from 26% to 29%.
 - When applied to CGA only cleared area increases from 40% to 47%.
 - Project would require construction stormwater, wetland and scenic river permits from NYSDEC.

Decommissioning & Restoration

- Array life estimated at 40 yrs., energy contract envisioned for 20 yrs.
 - End of life – likely would result in newer technology being deployed for energy production.
 - Decommissioning – would require removal and disposal of all arrays, inverters, and transformers
 - Restoration – a restoration plan would be required prior to decommissioning
 - Natural restoration since understory would be present
 - Tree planting within understory
 - Invasive species management