

Town of New Paltz
Clean Water and Open Space Protection Commission (CWOSP)
Approved Minutes, Meeting of October 9, 2019, at the Community Center

Members Present: Lynn Bowdery, Richard Fiesel, John Gotto, Michael Knutson, and Tom Weiner

Town Officials: Marty Irwin, Town Board Liaison

Public present: None

Minutes taken by: Lynn Bowdery, CWOSP Commission member and Secretary

1. Meeting called to order at: 7:05 PM by Chairman John Gotto

2. Public comments: None

3. Review and approve minutes September meeting: The draft minutes of the September 11th meeting were presented. John Gotto moved that they be approved as presented. Tom Weiner seconded the motion. All voted in favor.

4. Update on ongoing projects: John Gotto reported that he tried to contact Amanda LaValle about the county's intentions for the parcels of land it owns east of North Ohioville road, but she has not responded. He also said that Cara Lee hasn't been able to contact the owner of a property of interest. He met with Supervisor Bettez to gauge his interest in open space projects. This will be discussed more under item 5. Regarding parcels for CWOSP attention, Richard Fiesel said that there are lots of properties that have been cut off by the big power line. Perhaps they could be combined for a wildlife corridor and environmental preservation.

5. Discussion of NY State Community Preservation Act: John reported that Supervisor Bettez is not discouraging about future open space protection. John thinks that he is anticipating the passage and implementation of the Community Preservation Act (CPA) legislation, which is currently waiting for Governor Cuomo's signature. At Bettez's request, John wrote a letter to Governor Cuomo stating that the Town of New Paltz CWOSP Commission was in favor of the CPA. A copy of it is attached. If the act is enacted, the town will have to come up with a plan, and he expects CWOSP to work actively to move it forward. No specific parcels were favored in the discussion. Bettez envisions a new CPA committee with CWOSP involved in the committee. This indicates a continuing active role for the CWOSP Commission. Mike Knutson asked if we know when it might get signed by the governor; is there a timeline? John said that Bettez hopes that it will be law in time for a referendum for the Town could be put up at the 2020 election. Tom Weiner asked if the CFA funds could be used to pay off the Open Space Bond. A discussion ensued, also touching on affordable housing issues.

We will strategize at our next meeting about what to do next, working proactively. John will investigate the Town Board's appetite for open space investments.

6. Questions regarding proposed Town Landfill solar Project: We discussed the materials provided by CWOSP Commission member Cara Lee, who was unable to attend tonight. She is on the ad-hoc committee for the town landfill solar project, and prepared a report, which is appended to these minutes. Marty Irwin filled us in on the development proposals. John stated that he was initially excited about the idea of using the landfill for a solar project but was unpleasantly surprised by the clearing of woods as part of it. He wondered what the Town sees as its mission here. Cara has provided a draft letter for the CWOSP Commission to use in support of the solar project under discussion. There followed a discussion of the issues involved, and the balance of the benefits of solar energy with the benefits of undisturbed woodlands. The calculations are attached. The carbon offset payback period varies between 2.78 and 2.25 years, depending on the quality of the forest. Tom wondered if there was a way to enhance the carbon capture capabilities of the forest that would remain on the town's landfill property to compensate for the loss of forest to solar development. Mike said that renewable energy must go forward and solar farms will go up, possibly in other sites not as good. He added that CWOSP had not looked at that parcel for open space protection and that the forested area proposed for the solar project would not have scored

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particularly high on the rating guidelines. Marty added that possibly the Town could dedicate part of the solar project income stream to pay the Open Space Bond debt service, and that how the income could be used is open to discussion. He brought up the problem of the limitations posed by the distribution lines on the electrical grid. John is bothered that economic constraints are driving the need to use the forest area and feels it is a tough call to make. He would be more favorable if the income stream would support environmental projects. Mike said that CWOSP could support it with the provision of spending on environmental benefits and that the decommissioning plan would require remediation of the forest land. That was the consensus of the meeting. John said that he would get back to Cara that CWOSP supports the text of the draft letter that she supplied, with some tweaks. Marty said there are time constraints, the letter of support is needed as soon as possible – he hopes that the topic can be discussed at the next Town Board meeting on October 17. John said he would work with Cara to make the tweaks to the letter and circulate it to the committee so we can see the changes before it is submitted. Michael Knutson moved that CWOSP sign a letter of support for the solar project with modifications to be devised. Tom Weiner seconded the motion. All voted in favor.

7. New business: None.

8. Adjournment: John Gotto moved that the meeting be adjourned. Lynn Bowdery seconded the motion. All in favor. The meeting was adjourned at 8:30PM.

Our next meeting will be November 13, 2019. This is the **second** Wednesday.

Attachments:

Chairman's letter in support of Community Preservation Act to Governor Cuomo, email regarding letter
Clearwater Rd Field Visit Notes
DRAFT CWOSP ltr on Solar
Calculations to Compare Carbon Reduction Value of Trees VS Solar Panels

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The Honorable Andrew M. Cuomo
Governor, State of New York
New York State Capitol Building
Albany, NY 12224

Dear Governor Cuomo,

I am writing to urge that you sign into law the important Ulster County Community Preservation Act (A.00129/S.06235), to provide communities with additional tools with which to pursue projects to preserve open space resources. These preservation efforts are increasingly recognized as critical with respect to both ecologically significant environmental resources and the economically significant agriculture and tourism that are so valuable in the Hudson Valley. In addition to these benefits, the preservation of open space is recognized as a key contributor to the quality of life in our communities, making them both desirable places to live and attractive places to visit.

In the Town of New Paltz, the effort to preserve open space resources is the mission of our Clean Water and Open Space Protection Commission. We are proud of our work and continue to pursue it vigorously, but we would very much welcome having the additional opportunity to pursue projects through the mechanism of the Community Preservation Act. We have been encouraged to see some other New York State communities benefiting from similar legislation. We believe that this Act is completely consistent with the stated goals and proven success of your administration concerning open space preservation.

Thank you for your consideration. We look forward to seeing this Act signed into law.

Sincerely,

John Gotto
Chairman, Clean Water and Open Space Protection Commission
Town of New Paltz

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From: Andy Bicking <abicking@scenichudson.org>
Date: Friday, September 27, 2019
Subject: Re: Ulster County Community Preservation Act
To: John <jwmg51@aol.com>
John,

Great work on this letter! Thank you.

Yes, we will include this letter in our packet to the the Governor.

Best,
Andy

On Thu, Sep 26, 2019 at 7:38 PM John <jwmg51@aol.com> wrote:
Andy: Your email regarding this was forwarded to me by our Town Supervisor. I have attached a letter on behalf of the Town of New Paltz Clean Water and Open Space Protection Commission. If it is not too late, you may bundle this with other letters to be sent to Albany.

Should I put it in regular mail to Albany?

John Gotto

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Andy Bicking
Director of Public Policy and Special Projects
Scenic Hudson, Inc.
Tel: 845 473 4440 Ext 232
Mobile: 914 489 1568
Fax: 845 473 2648
abicking@scenichudson.org

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Notes on Visit to Clearwater Road Site – 9/25/19

Regarding questions raised at the September 19th New Paltz Town Board meeting about potential habitat impacts related to solar development at Clearwater Road, Joe Bridges, Lynn Bowdery, Cara Lee and Dan Porter made a field visit to the site. Joe and Lynn were among the members of the John Burroughs Association that conducted a BioBlitz in 2011 and Dan is a knowledgeable local naturalist. Cara is the volunteer chair of the ad-hoc committee that has been studying the feasibility of solar development at Clearwater Road. The purpose of the visit was to look at land adjacent to the landfill on Clearwater Road, to assess the potential impacts of solar development on approximately 20 acres of currently forested land. This memo summarizes our discussion and observations.

Background: The Town of New Paltz has considered solar development on its landfill several times in the past and concluded it wasn't economically feasible. With New York State's policy to achieve 50% renewable power by 2030 there are new incentives for a project like this one, making it economically viable. The landfill was one of three landfills in Ulster County screened by EPA in 2014 for suitability for solar and it was deemed feasible. The site is desirable for solar development because it is an already disturbed area (a "brownfield" rather than a "greenfield") and it is municipally owned, which means the revenues accrue to the community rather than an individual private landowner. Finally, the landfill site is well screened visually from virtually every vantage.

In June an ad-hoc committee of volunteers tasked with exploring the possibility of such a project issued an RFP to see if solar developers would be interested in leasing the site for solar development. Based on initial feedback and repeated during the Pre-bid meeting/Site visit from several firms, the solar developers were also allowed the flexibility to propose using additional land areas near the landfill. Three firms responded with proposals to develop on the landfill and on additional acres near the landfill apart from one firm (who later stated they misunderstood the instructions but would be interested in utilizing the nearby areas if given the chance to reconsider). Due to the size and configuration of the landfill additional acres would be desirable to generate more energy and to help offset the cost of interconnection to the closest electrical distribution lines that extend up Horsenden Rd.

After evaluating the initial proposals, the committee asked two shortlisted companies to update their proposals and resubmit in response to siting constraints provided by the committee. The constraints eliminated portions of the property understood to have the more significant habitat value and limited the off-landfill development to no more than 20 acres. With the landfill and twenty acres, approximately five megawatts of production capacity, which is the upper limit of the existing distribution lines. This facility would be capable of providing electricity for the equivalent of approximately 1,300 households (almost 30% of New Paltz's 4,439 households)

Site Characterization: The Clearwater Road site is 189 acres overall, and is home to the landfill, the Ulster County Resource Recovery Agency waste transfer station, the recycling center, the Town transportation garage, the Town office trailers, the cell tower, several baseball fields and a BMX track. In addition, there is already a significant amount of paved and unpaved roadways, parking and other utilized areas. The 20-acre area being considered is directly behind the waste

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transfer station on the south side of Clearwater Road and is directly adjacent to relatively heavy industrial use, with tractor trailers of trash going in and out repeatedly throughout the day, as well as daily trucking to remove landfill leachate. This traffic is frequent, noisy, dusty and odorous.

The area being considered for solar development is the top of a shale knoll, across the access road from the landfill and bounded by the transmission line ROW on the eastern side. The lower edge of the knoll on the eastern side has been deeply trenched and seems to have drainage infrastructure related to the landfill. According to the NYSDEC Hudson Valley Natural Resource Mapper (a resource available online to help local decisionmakers make well-informed land use decisions - <http://www.dec.ny.gov/gis/hre/>), there are probable wetland areas on the southeastern edge of the slope. This was confirmed in the field.

Stone walls indicate that the area was farmed. The knoll itself was most likely only used for pasture, due to the shallow dry soils. A generally even-aged stand of mixed hardwoods (predominantly red and white oak, hickory, hop hornbeam and some white pine) also support this as likely past land use. Farmland in the Clearwater Road area was condemned by the town in 1960 to create “the dump” so the trees are second growth, probably of about 60 years. The canopy on the knoll is complete but quite open. There is a notable lack of understory or tree seedlings, probably as a result of deer herbivory. The herbaceous layer is sparse, dominated by sedges, with some patches of forbs, and occurrences of honeysuckle and Asian bittersweet.

Wildlife: Wildlife of note found at the Clearwater Road site during the 2011 BioBlitz conducted by the John Burroughs Society included 5 Eastern box turtles, spotted salamander and potential breeding habitat for Jefferson salamander hybrid complex was noted. It was observed on our recent fieldtrip that the shale knoll would not be likely to support these species due to the dry thin soils. While it is possible that box turtles could traverse the knoll periodically, their essential foraging, cover and wintering habitats are more likely to be in the area where they were found in 2011, i.e., in lower (more than 10 feet of elevational difference), moister sites east of the knoll. It was further noted that steps could be taken to successfully mitigate impacts to box turtles during construction activities on and around the solar site.

Sixty-one species of birds were observed during the 2011 BioBlitz. The patch of forest on the knoll likely supports numerous generally common birds but is its proximity to edge habitat and industrial land use makes it unlikely breeding habitat for interior forest birds, since there is deeper, quieter forest in the vicinity.

Mammalian wildlife on the site included: Beaver, Eastern chipmunk, Eastern cottontail, coyote, white-tailed deer, white-footed mouse, muskrat, Virginia opossum, raccoon, striped skunk, gray squirrel, meadow vole and Eastern woodchuck, and feral cats and domestic dogs. These are common and adaptable species whose movements are not expected to be significantly impacted by the proposed 20-acre solar installation. Fencing is required at solar installations but can be designed for passage of small wildlife.

Plant Diversity: While the BioBlitz revealed that the overall 189-acre property supported a large variety of plant species, the diversity of plant species on the shale knoll is not particularly high. It is potential habitat for Reflexed sedge, a state-listed endangered species. It was noted that there is a substantial population of this sedge elsewhere on the 189-acre Town site. If a survey

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were conducted and reflexed sedge were found on the knoll, impacts could be successfully mitigated by transplanting it elsewhere on the property.

Forest Connectivity: The NYSDEC Hudson Valley Natural Resource Mapper shows that The Clearwater Road site is within a 1,086-acre “Stepping-Stone” forest (a class of forests between 200 and 2,000 acres). The site is also within a regional forest linkage zone, an area providing connectivity between the Shawangunk Ridge and Shaupeneak matrix forest blocks (statewide-significant forests). The site is at the very edge of the forest and within about ¼ mile of the Thruway, which is a boundary. At 20 acres, the site is small in relation to the scale of the surrounding forest and its location at the very edge next to an industrial site also makes it less significant. Taking these factors into account, it is reasonable to conclude that the proposal to utilize up to 20 acres within the 1,086-acre Stepping-Stone area designation (1.8 % of the acreage) for solar development adjacent to the landfill does not represent a significant threat to regional forest connectivity.

Carbon Analysis: The ad-hoc committee has also considered the carbon balance between loss of the trees on the 20-acre parcel and the solar installation. Calculations are attached which show that the loss of the trees (standing carbon and sequestration over 25 years) is offset by solar production within the first 3 years of the 25-year life of the installation. Please see the attached maps.

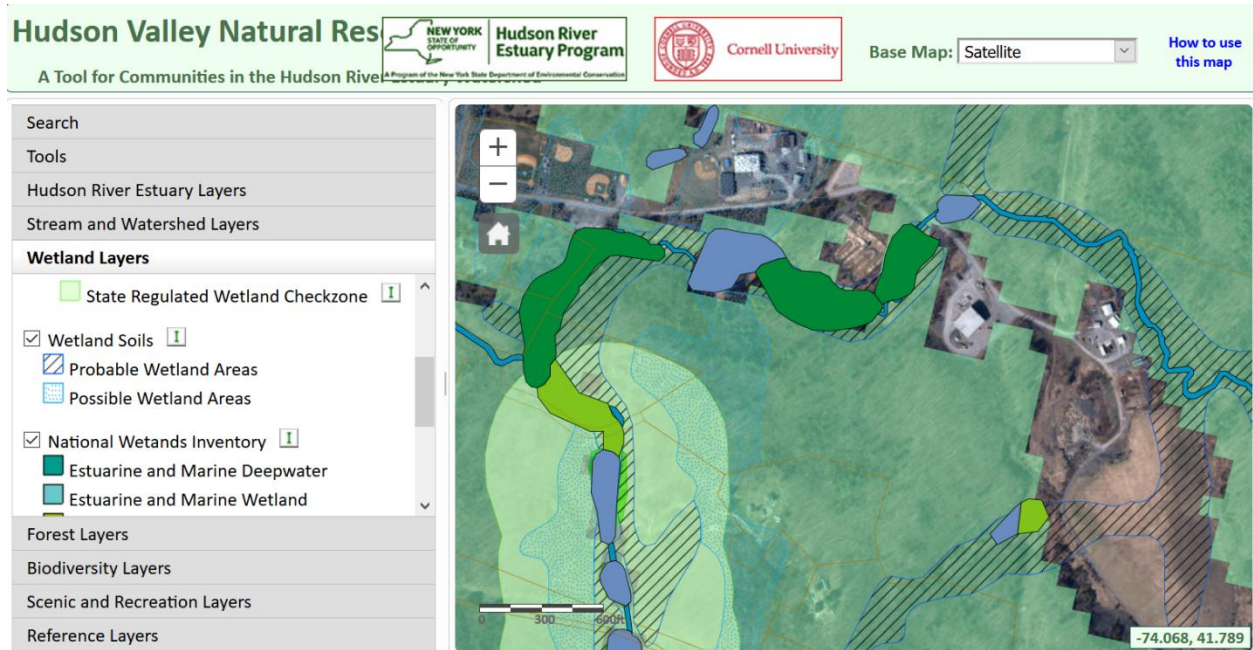
Maps

1. Clearwater Road Property Showing Location of Landfill



2. Forest and Wetlands Adjacent to Landfill

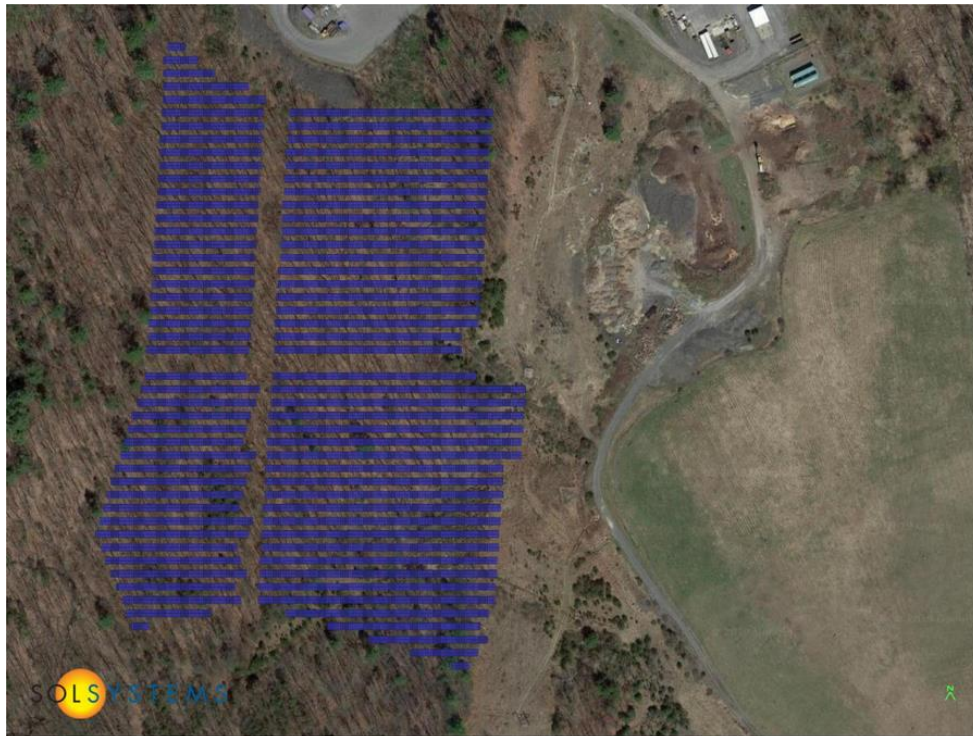
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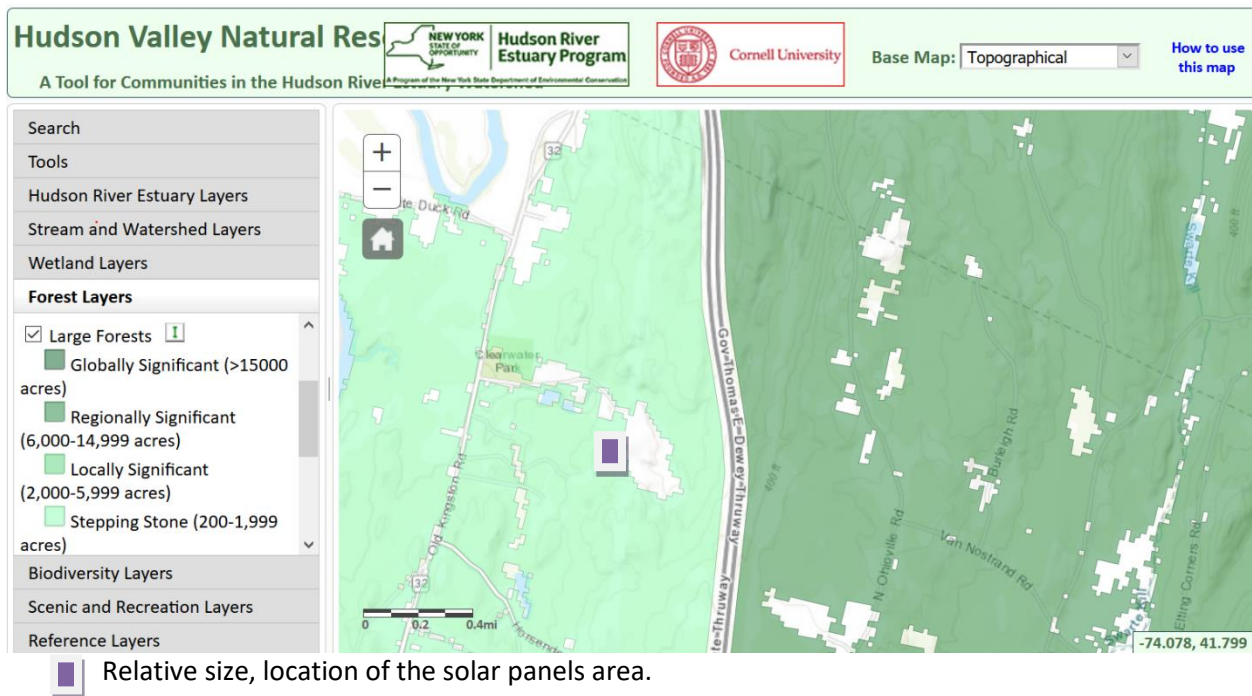
3. Proposed Location for Solar Installation

Note: This is a rough approximation of panel locations which will need to be refined by ground-truthing to avoid wetland areas.

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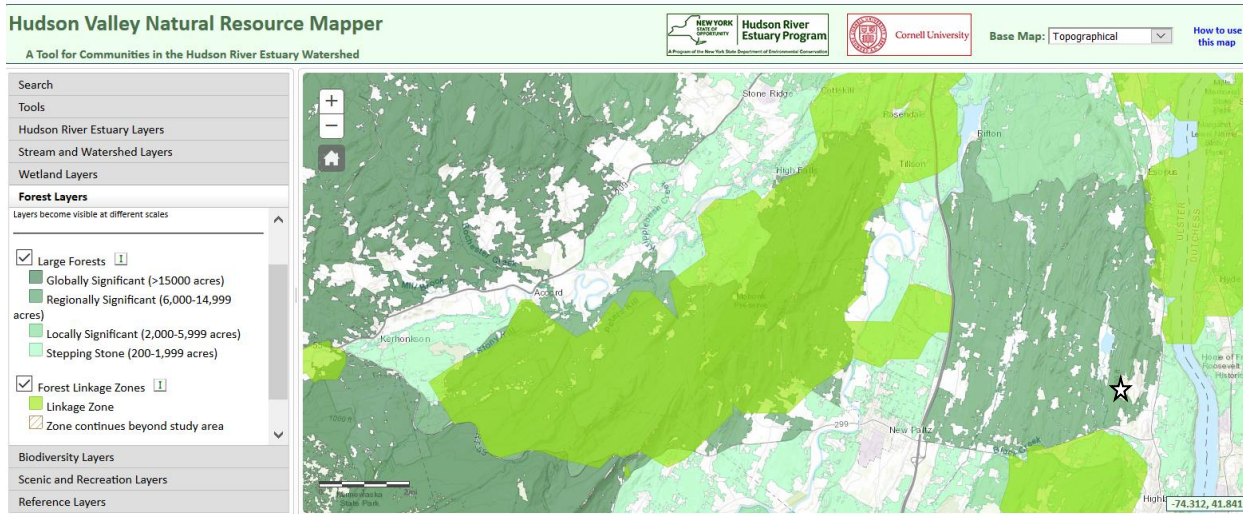


4. Forest Block Map



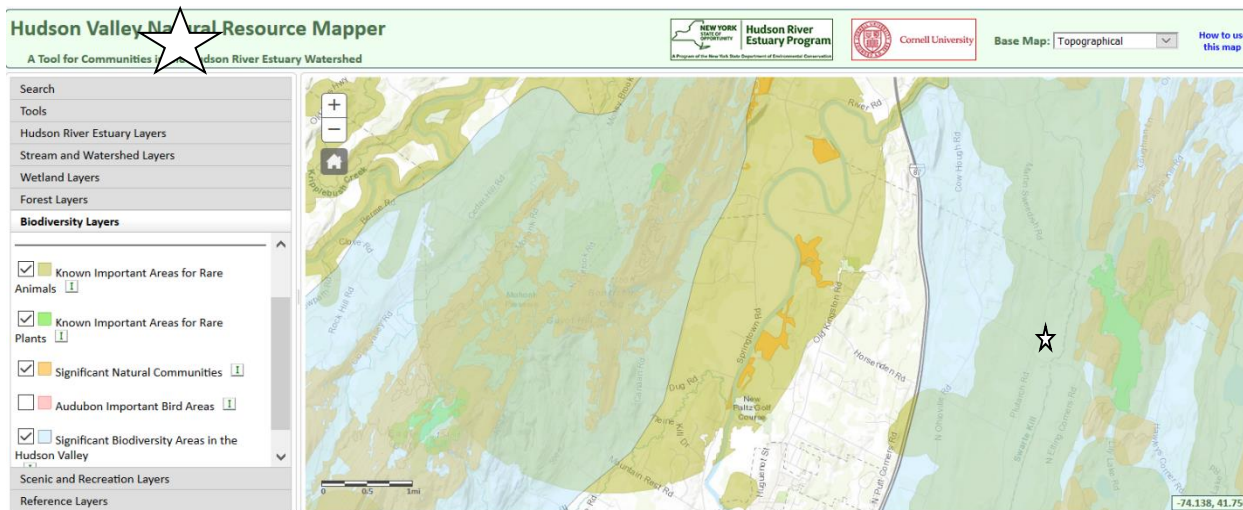
5. Connectivity – Forest Blocks, Linkage Zones and Location of Project

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Site =

6. Significant Biodiversity Areas and Location of the Project



Site =



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DRAFT CWOSP LETTER on Clearwater Road Solar Project

Dear Supervisor Bettez and Members of the Town Board,

The New Paltz Clean Water Open Space Commission was created to help New Paltz use its resources wisely to protect our community's clean water and open space resources, including farmland, habitats, scenic vistas and recreational areas.

We have reviewed initial information on the solar project that is currently being considered by the Town Board. The ad-hoc volunteer committee that was tasked with examining the feasibility of solar on our landfill has worked for over a year to examine all the issues associated with leasing space at the Clearwater Drive location for solar development, including potential impacts on habitat.

The CWOSP Committee supports the concept of developing solar in an already disturbed area such as the landfill and adjacent land at Clearwater Drive as a means of reducing our community's reliance on fossil fuel and the impacts of climate change, while being mindful of protecting our community's valuable natural resources.

Sincerely,

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Calculations to Compare Carbon Reduction Value of Trees VS Solar Panels Prepared by Gabe Chapin, The Nature Conservancy, at the request of the solar committee, Town of New Paltz

SOURCES of FIGURES

0.000707	metric tons CO2e/KWh	Marginal Emissions Factor (Avg CO2 emissions for electricity generation in US)	(per EPA calculator website https://www.epa.gov/calculator-calculation more accurate (per Jessica Price, this is what is reported for NY from US Energy Information Admin.) (per developer's proposal to Town of New Paltz)
0.000232	metric tons CO2e/KWh	A better emissions factor for NY	
5,743,361	KWh/year	Solar generation on 20ac. of forested land	
1332.459752	metric tons CO2e/year	Annual emission reduction from solar array over traditional electric generation	(5,743,361 * .000232)
140	metric tons/acre	Carbon stored in one acre of standing trees in good to high quality forest	Based on carbon offset project evaluations by TNC in NY
120	metric tons/acre	Carbon stored in one acre of standing trees in "average" low to medium quality forest	Based on carbon offset project evaluations by TNC in NY
1.4 - 1.6	metric tons CO2e/ac./yr	Annual carbon sequestration of poor to average quality forest in NY	Based on carbon offset project evaluations by TNC in NY
2.0 - 2.2	metric tons CO2e/ac./yr	Annual carbon sequestration of high to very high quality forest in NY	Based on carbon offset project evaluations by TNC in NY

CALCULATION to COMPARE CARBON REDUCTION VALUE OF SOLAR PANELS VS TREES, using figures for New Paltz Landfill Proposal

Solar Panel Calculation

- Carbon emissions from traditional fossil fuel sources x Project KWh/yr = annual emissions reduction from solar array over traditional generation
 $0.000232 \times 5,743,361 = 1332.45$ metric tons CO2e/yr reduction

Tree Carbon Calculation

- Carbon Value in standing trees, 6"-9" dbh x # acres, High quality, NE Forest Type
 $140 \text{ metric tons per acre} \times 20 \text{ acres} = 2820 \text{ metric tons}$
 Carbon Value in standing trees, 6"-9" dbh x # acres, low quality, NE Forest Type
 $120 \text{ metric tons per acre} \times 20 \text{ acres} = 2400 \text{ metric tons}$
- Carbon sequestration by trees over lifetime of solar project
 - low quality forest $1.4 \text{ metric tons CO2e/ac/yr} \times 20 \text{ acres} = 30 \text{ metric tons year} \times 20 \text{ years} = 600 \text{ tons over 20 years}$
 - high quality forest $2.2 \text{ metric tons CO2e/ac/yr} \times 20 \text{ acres} = 44 \text{ metric tons year} \times 20 \text{ years} = 880 \text{ tons over 20 years}$
- Total of standing carbon plus sequestration over 20 years
 - low quality forest $2400 \text{ metric tons} + 600 \text{ metric tons} = 3000 \text{ metric tons}$
 - high quality forest $2820 \text{ metric tons} + 880 \text{ metric tons} = 3,700 \text{ metric tons}$
- Loss of carbon reduction capacity over 20 years by removing 20 acres of trees
 - low quality forest (3000 metric tons)
 - high quality forest (3,700 metric tons)

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carbon reduction by solar panels PER YEAR

1332 metric tons (PER YEAR)

- | | | |
|---|-----------------------|---|
| 6 | Carbon payback period | 3,700 metric tons CO ₂ e/1332 metric tons CO ₂ e/yr = 2.78 years (high quality forest) |
| | | 3,000 metric tons CO ₂ e/1332 metric tons CO ₂ e/yr = 2.25 years (lower quality forest) |

This calculation only addresses carbon and does not reflect the other values provided by trees and forest, such as habitat, water quality, cooling and air quality.

This information is from an spreadsheet which was sent with several emails to members.