



TOWN OF SOUTHOLD

Opportunities for Low-Impact Solar Siting

The Town of Southold has the potential to host as much as 1,685 MW of solar capacity, enough to power more than 422,300 New York homes. The town is home to 7.6 square miles of low-impact sites, which consist of parking lots, rooftops, and areas previously altered or impacted by human activities (Table 1).¹ Southold has the fourth highest total installation potential in Suffolk County, with 11% of the total countywide potential. Most of the low-impact siting potential in Southold is for ground-mounted installations (97% or 1,628 MW on 7.3 square miles); this is the third highest ground-mounted siting potential in Suffolk County, with 16% of the countywide ground-mounted total.

Table 1. Low-Impact Siting Potential for Each Solar Installation Type

Solar Type	Low-Impact Area (mi ²)	Potential Installation Capacity (MW)	Portion of Total Capacity
Ground-mounted	7.3	1,628	97%
Parking lot	0.1	23	1%
Rooftop	0.2	34	2%
Total	7.6	1,685	100%

¹ These results are meant to illustrate low-impact siting potential only. Technical, policy, economic, and social constraints may limit the feasibility of solar development on these sites. Therefore, these results likely overestimate the total area available for low-impact solar siting. Capacity of solar installations is reported in MW of direct current (DC), and all reports of estimated capacity have been rounded to the nearest whole number, except when the estimate is less than one. Due to rounding, numbers presented in tables and figures may not add up to the totals listed.

Land-Use Characteristics of Low-Impact Sites

The Long Island Solar Roadmap overlaid land-use data² on low-impact sites to examine the amount of potential installation capacity within each land-use class.³ In the Town of Southold, agricultural lands offer the greatest opportunity for low-impact solar development (1,239 MW or 74% of the total), with ground-mounted solar on areas that have been previously impacted by human activities making up the majority of this potential (1,230 MW) (Figure 1, Table 2). Ground-mounted capacity is also most common in county-described recreational lands and open space (172 MW) and other land-use types in Southold (167 MW).

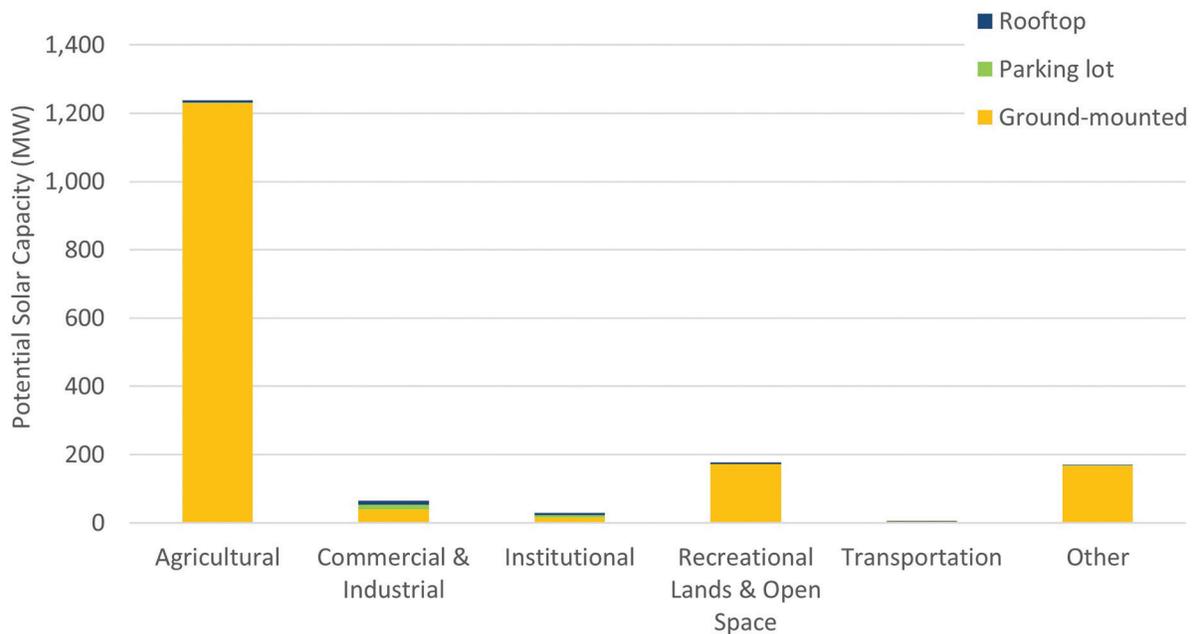


Figure 1. Potential installation capacity of low-impact ground-mounted, parking lot, and rooftop solar across land-use types in the Town of Southold. Land uses included in the “Other” category are utilities, vacant, waste management, and parcels that did not have an assigned land-use type.

Agricultural lands in Suffolk County were described as either protected or unprotected, based on the Suffolk County Agriculture & Farmland Protection Plan.⁴ In the spatial analysis, only rooftop and parking lot solar were considered suitable for protected agricultural lands, and ground-mounted solar was considered unsuitable. All three types of installations were considered suitable for unprotected farmland.

Southold has the second greatest potential of all Suffolk County towns and cities for low-impact solar on agricultural lands (1,239 MW). In Southold, 1 MW of parking lot solar potential, 8 MW of rooftop solar potential, and 1,230 MW of ground-mount solar potential were identified on non-protected agricultural lands (Table 3). It is important to note that some of this farmland may not be appropriate for ground-mounted solar even if it is not protected by farmland preservation programs, particularly if it is comprised of prime soils — our nationally significant productive fertile land.

² Suffolk County parcel data (2016) from the Suffolk County Real Property Tax Services Agency included land-use classifications. Each parcel is assigned one land-use designation, regardless of mixed or multiple uses.

³ The Roadmap condensed county-defined land-use designations into broader categories to make it easier to interpret results. Residential parcels were removed from the Roadmap analysis and thus excluded from this land-use overlay. For more information on how land-use categories were condensed, and for full spatial analysis methodology, visit solarroadmap.org/research.

⁴ The Suffolk County Agriculture & Farmland Protection Plan (2015) was developed by the Suffolk County Department of Economic Development & Planning.

These results are not intended to imply that solar energy production should replace active farming. Rather, they are meant to highlight areas where solar and farming may be compatible. Recommendations on siting low-impact solar to complement existing farms can be found in the Long Island Solar Roadmap.

Table 2. Distribution of Low-Impact Sites Across Land-Use Types

Land Use	Rooftop Capacity (MW)	Parking Lot Capacity (MW)	Ground-Mounted Capacity (MW)	Total Capacity (MW)	Portion of Total
Agricultural	8	1	1,230	1,239	74%
Commercial & Industrial	13	13	40	66	4%
Institutional	7	7	16	30	2%
Recreational Lands & Open Space	4	1	172	177	11%
Transportation	0.3	0.4	3	4	0%
Other	1	1	167	169	10%

Land uses included in the “Other” category are utilities, vacant, waste management, and parcels that did not have an assigned land-use type.

Table 3. Potential Low-Impact Solar Installation Capacity on Agricultural Lands

Protection Status of Agricultural Lands	Ground-mounted (MW)	Parking Lot (MW)	Rooftop (MW)	Total Capacity (MW)
Protected ⁵	0	0	0	0
Unprotected	1,230	1	8	1,239
Total	1,230	1	8	1,239



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⁵ Potential opportunities for ground-mounted solar installations on protected farmlands were excluded from the analysis.



Rooftop solar on the barns at Stratford Ecological Center, a nonprofit educational organic farm and nature preserve.
© Above the Light Photography

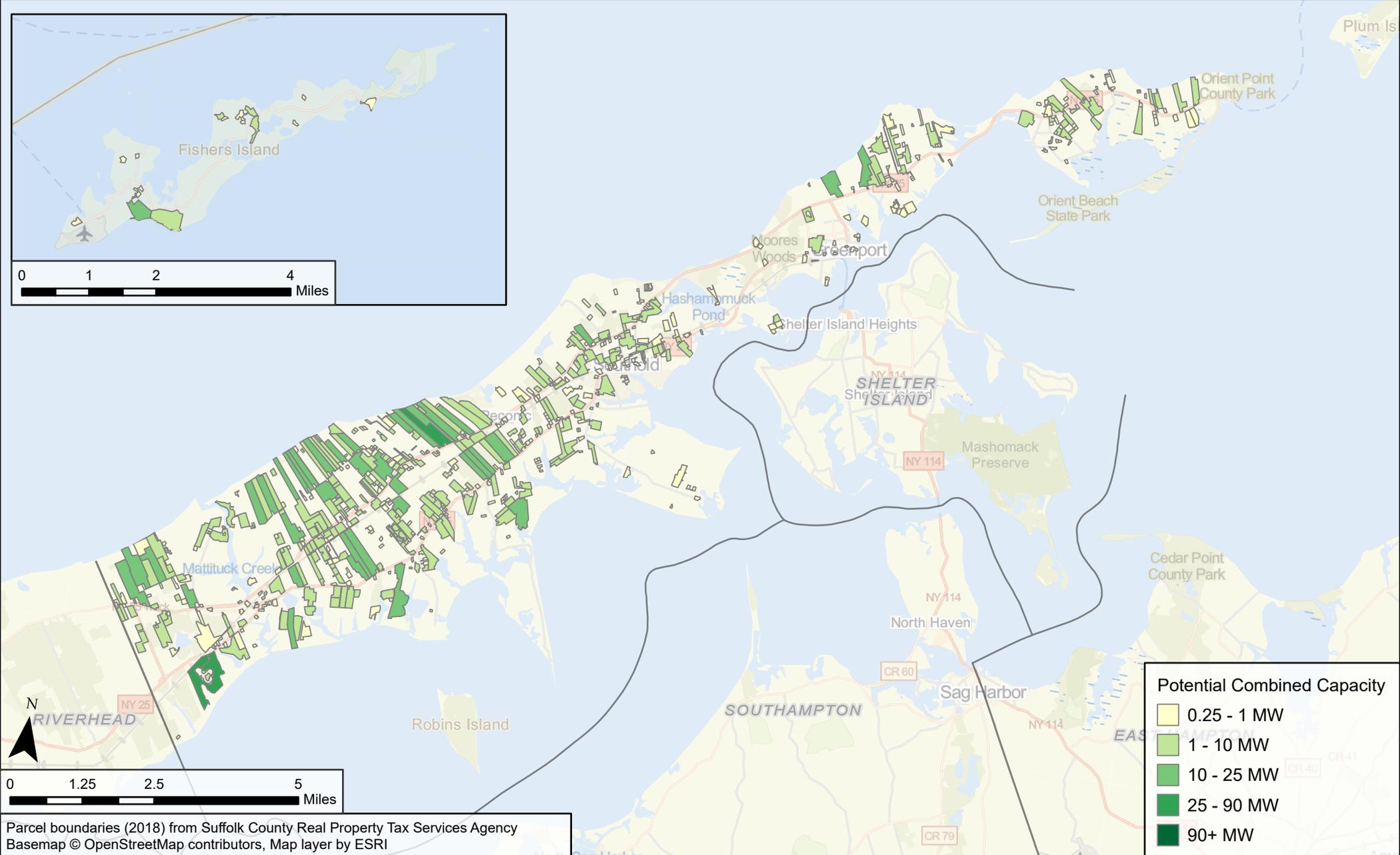
Long Island Solar Roadmap

The Long Island Solar Roadmap, a partnership between The Nature Conservancy and Defenders of Wildlife, aims to advance deployment of mid- to large-scale solar power on Long Island that minimizes environmental impacts, maximizes benefits to the region, and expands access to solar energy, including access by traditionally underserved communities. The Roadmap identified and mapped low-impact areas of opportunity for siting mid- to large-scale solar installations (250 kW DC and larger) on rooftops, parking lots, and other land already impacted by development. The analysis indicates that there is potential on Long Island to host enough solar capacity to power more than 4.8 million homes. The Roadmap includes strategies and actions for accelerating low-impact solar development.

To access the full report and interactive web map, visit solarroadmap.org.



Town of Southold: Potential Combined Capacity

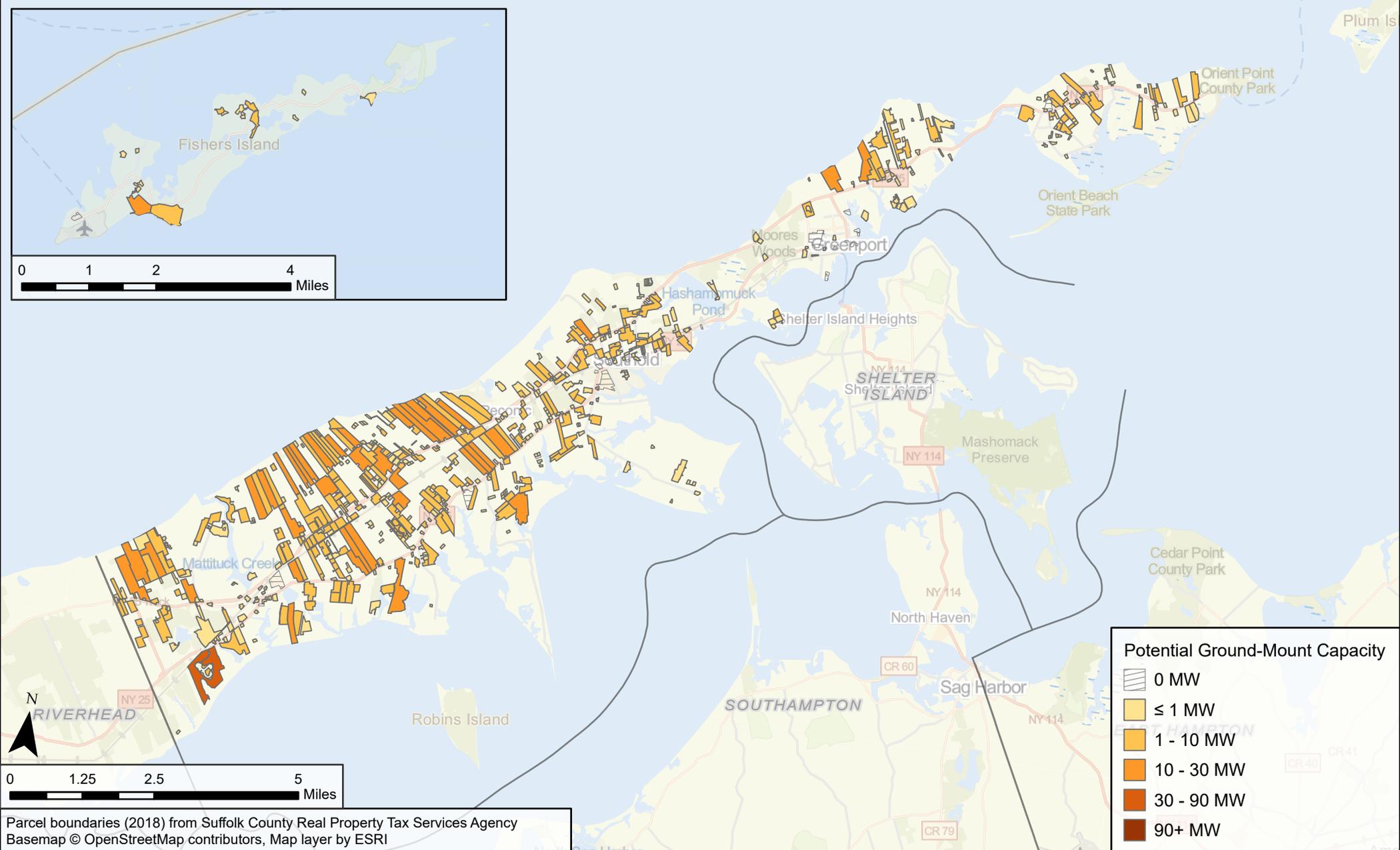


Parcel boundaries (2018) from Suffolk County Real Property Tax Services Agency
Basemap © OpenStreetMap contributors, Map layer by ESRI

This map shows areas of opportunity for low-impact solar development in the Town of Southold identified as part of the Long Island Solar Roadmap. Parcels shown here could each host a total solar installation capacity of 250 kW or larger on rooftops, parking lots, and land areas previously impacted by human activities. Parcels are symbolized based on estimated installation capacity as shown in the legend. Some capacity ranges in the legend may not appear in this town. Solar development may not be suitable on all areas within a parcel.

This map illustrates low-impact siting potential only and do not take into account technical or policy constraints. These results are not intended to express where solar development should occur or to replace site-level evaluations. For more information about the Long Island Solar Roadmap, visit solarroadmap.org.

Town of Southold: Potential Ground-Mount Capacity

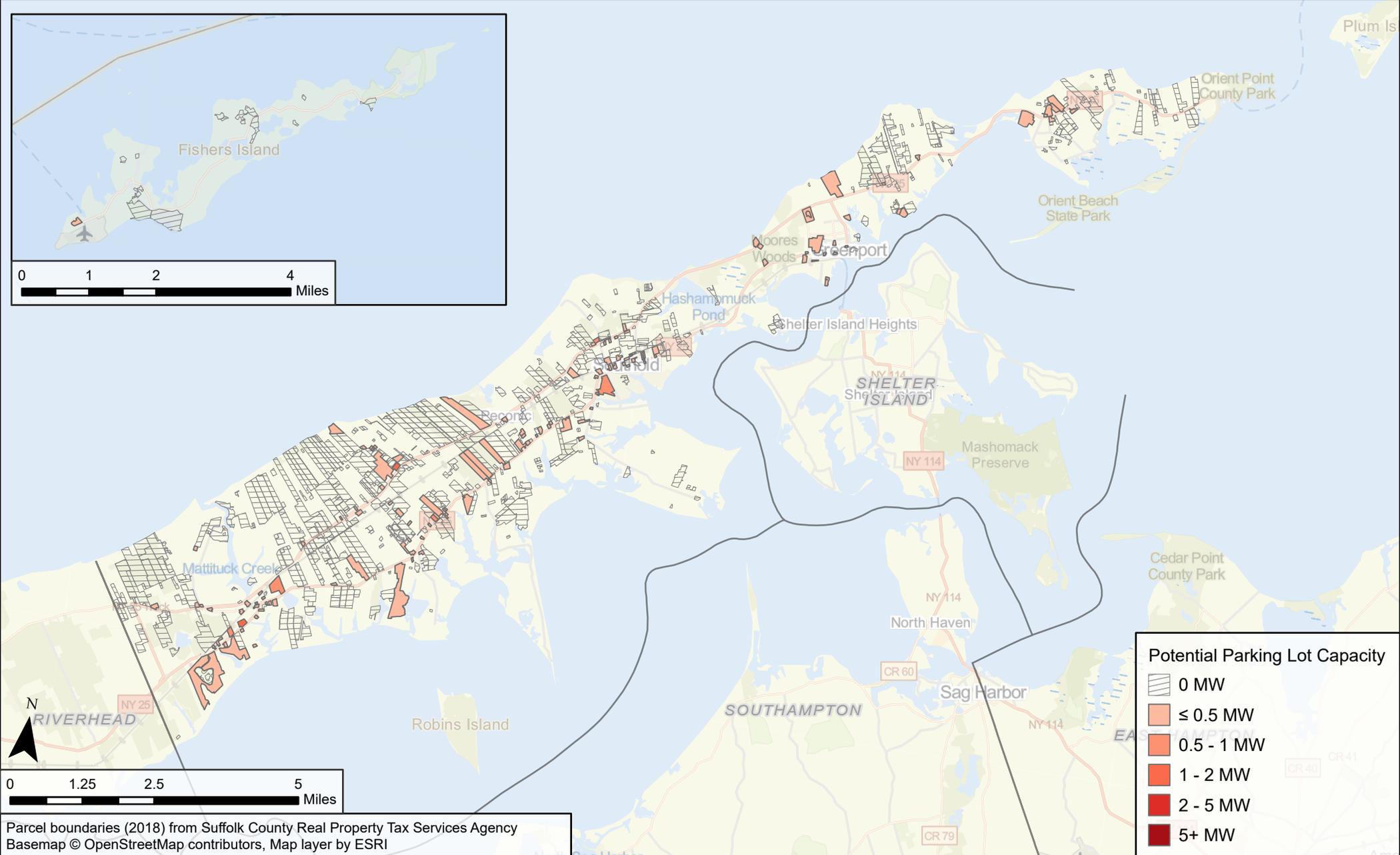


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Town of Southold: Potential Parking Lot Capacity

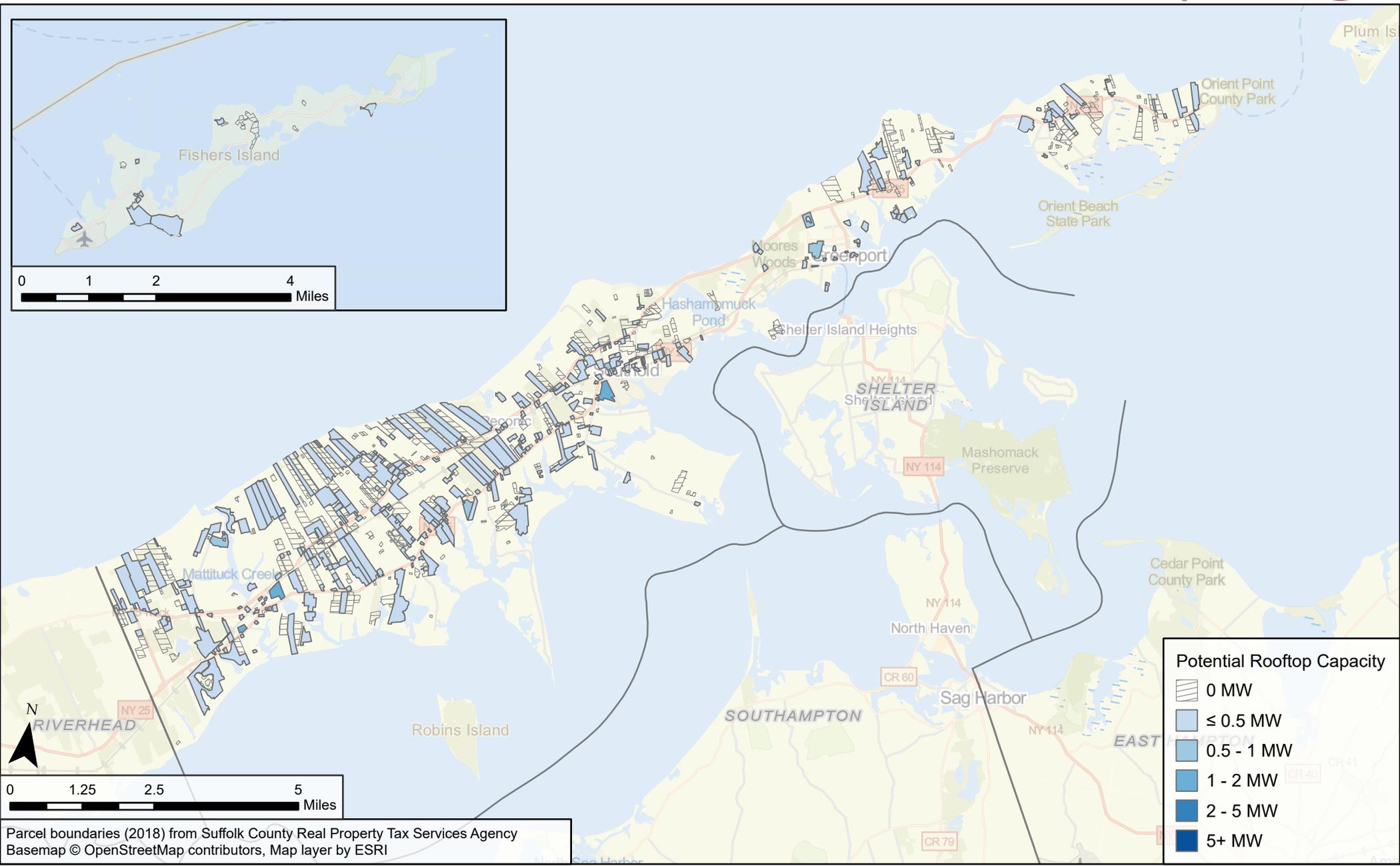


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Town of Southold: Potential Rooftop Capacity



Parcel boundaries (2018) from Suffolk County Real Property Tax Services Agency
Basemap © OpenStreetMap contributors, Map layer by ESRI

Potential Rooftop Capacity

- 0 MW
- ≤ 0.5 MW
- 0.5 - 1 MW
- 1 - 2 MW
- 2 - 5 MW
- 5+ MW

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