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February 21, 2019

# VIA ELECTRONIC MAIL AND HAND DELIVERY

Mr. James J. Murphy, Vice-Chairman Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Re: Petition No. 1354 – Chatfield Solar Fund, LLC, petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 1.98-megawatt AC solar photovoltaic electric generating facility located in Killingworth, Connecticut

Dear Vice-Chairman Murphy:

Enclosed please find the original and fifteen (15) copies of Chatfield Solar Fund, LLC's Supplemental Pre-Hearing Submission in connection with the above-referenced petition.

Please feel free to contact me with any questions concerning this submittal at (203) 772-7787.

Very truly yours,

Bruce L. McDermott

**Enclosures** 

# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

Chatfield Solar Fund, LLC, petition for a declaratory ruling, pursuant to Connecticut General Statutes § 4-176 and §16-50k, for the proposed construction, maintenance and operation of a 1.98-megawatt AC solar photovoltaic electric generating facility on approximately 25 acres located generally south of Route 80 (North Branford Road) and east of Chestnut Hill Road in Killingworth, Connecticut, and associated electrical interconnection to Eversource Energy's Green Hill Substation located at 775 Green Hill Road, Madison, Connecticut.

Docket No. 1354

February 21, 2019

#### SUPPLEMENTAL PRE-HEARING SUBMISSION OF CHATFIELD SOLAR FUND, LLC

Chatfield Solar Fund, LLC ("Chatfield") hereby submits this supplemental response to the January 30, 2019, memorandum issued by the Connecticut Siting Council (the "Council") in preparation for the February 21, 2019, hearing before the Council in connection with the above-captioned Petition (the "Project"):

#### I. Witnesses

In addition to the witnesses identified in its February 14, 2019 Pre-Hearing Submission, Chatfield expects the following individual will appear before the Council as an available witness:

 Sigrun Gadwa, MS, PWS - REMA Ecological Services, LLC, 164 East Center Street, Suite 2, Manchester, CT 06040. Ms. Gadwa will provide information on listed species, botanical inventories, and habitat assessments. Ms. Gadwa's résumé is attached as Attachment 1.

Respectfully submitted,

Chatfield Solar Fund, LLC

By:

Bruce L. McDermott Samuel R. Volet Murtha Cullina LLP 265 Church Street New Haven, CT 06510

Tel: 203-772-7787

bmcdermott@murthalaw.com

### **CERTIFICATION**

This is to certify that on this 21<sup>st</sup> day of February, 2019, a copy of the foregoing has been electronically delivered to all other known parties and intervenors.

Bruce L. McDermott

## PROFESSIONAL RESUME

## Sigrun N. Gadwa, MS, PWS

Principal Ecologist/Wetland Scientist

**EDUCATION:** M.S., Plant Ecology, Natural Resources, University of Connecticut,

Storrs, CT, 1997.

B.A., Biology, Brown University, Providence, R.I., 1975.

**Continuing Education** 

16 credit hours in Soil Science and Geology, 1993 – 2001

University of Connecticut, Storrs

Graduate course in Phycology, Pan American University, Brownsville,

Texas, 1982

Arboriculture course, Quinnipiac College, Hamden, CT, 1984

Five Plant Pathology courses, Cook College, Rutgers University, New

Brunswick, N. J. 1978 - 1979

Series of CT DEEP training workshops: Rapid Bioassessment

Techniques, & Stream Ecology Training Workshops. Bethany

Laboratory & Field Sites. 1996 and 1997.

Freshwater Mussel Workshop. New Hampshire Department of

Environmental Conservation. August 2004.

**CERTIFICICATIONS:** Registered Soil Scientist,

Society of Soil Scientists of Southern New England

Certified Professional Wetland Scientist Society of Wetland Scientists

**EXPERIENCE:** 

Ms. Gadwa has over 30 years of experience in site plan reviews and wetland permitting, wetland functional assessment, and impact analyses. As an ecologist, Ms. Gadwa specializes in the assessment, monitoring, and delineation of wetlands and water resources, in botanical and habitat inventories of ecological communities, in assessment and control of invasive plant species, and searches and assessment of listed plant and turtle populations. Ms. Gadwa is experienced with water quality testing and data analysis, preparation of mitigation plans and habitat restoration/management plans, open space acquisition planning, highway alternatives analyses, and delineation of jurisdictional wetland boundaries (CT and U.S. Army Corps of Engineers). Mr. Gadwa specialties in stream bio-assessments, vernal pools studies, listed turtle surveys, wetland mitigation design, and sedges. Ms. Gadwa has participated in over 1,800 projects in Southern New England and in New York State.



## Sigrun N. Gadwa, MS, PWS

#### **EMPLOYMENT HISTORY:**

1999 to present Carya Ecological Services, LLC, Principal, subcontractor to

**Rema Ecological Services**, LLC, Manchester, CT, an environmental science collaborative; Ecological fieldwork, planning, and reporting, as

described above

2013 to 2018 K & W Construction, Southbury, CT, subcontractor

Erosion & Sediment Control Inspections, Turbidity testing for CTDEEP

2014 to present South Central CT Regional Water Authority, New Haven, CT

Responsible for long term vegetation monitoring each fall, and reporting

for compliance with CTDEEP Wellfield Diversion Permit.

2015 to present **Post University, Waterbury Campus** 

Adjunct Botany Professor. Teach a four credit class every other fall.

2001 to 2004 **CTDEEP Wildlife Division**, subcontractor

Vegetation and wetland inventories & mapping of large Wildlife

Management Areas (WMAs).

2003 to May 2016 Ships' Hole Farm Partnership, Smithtown, Long Island, NY

Responsible for vegetation management & invasive control; growing

seed and nursery stock of native species on family farm.

1995 to 2000 Quinnipiac River Watershed Association Meriden, CT

Executive Director/Staff Scientist

Led a volunteer monitoring program, including stream bio-assessments, turbidity testing, and bird/wildlife surveys; site plan reviews of projects impacting the watershed; wrote testimony, grants, publicity, and educational materials; liaison with officials. Chair of Habitat Work Group of the **Watershed Partnership**, which identified and documented Quinnipiac watershed habitats in need of protection or restoration until 2003. Continue as advisor/coordinator for turtle monitoring program.

1991 to 1995 **De Leuw-Cather, Inc.,** East Haven, CT

Environmental Planner/Field Ecologist

Field data collection, analysis, and report preparation, primarily for large highway projects; specialties included listed plant searches, wetland functional assessments, mitigation design, vegetation monitoring, &

wetland delineation (ACOE method).

## Sigrun N. Gadwa, MS, PWS

#### **EMPLOYMENT HISTORY:**

(continued)

1987 to 1991 Univ. of Connecticut Department of Civil Engineering, Storrs, CT

Wetlands Researcher

Part of an interdisciplinary team, studying man-made replication wetlands and natural reference wetlands. Took part in research design; collected vegetation, soils, & hydrologic data; literature searches; data analysis. Research used for wetlands mitigation-related manual for the Connecticut Department of Transportation and for master's thesis.

1974 to 1975 **Brown University,** Providence, RI

Teaching Assistant, Plant Systematics

1968 to 1975 Long Island Nature Conservancy, Stewardship Volunteer

Nature trail development & maintenance, botanical inventories, wrote

preserve descriptions & self-guided nature trail brochures.

Other clients have included Groton Open Space Association, Cardinal Engineering, Berlin Land Trust, Joshua's Trust, and Catherine Pratt.

PROFESSIONAL AFFILIATIONS:

Connecticut Botanical Society (Board of Directors)
Connecticut Invasive Plant Working Group (CIPWG)

Connecticut Association of Wetland Scientists Society of Soil Scientists of Southern New England

Connecticut Ornithological Society Ecological Society of America

New England Wildflower Society (PCV Program)

**PUBLICATIONS:** 

Lefor, M.W. Barklay, J.S. Cooke, R.S. Craig, S.N. Gadwa, T.S. Murray, April 1990. *Annotated Bibliography for Wetland Mitigation*.

August 1990. *Patterns of Herb Layer Species Association*. In Lefor, M.W. et al *Wetland Mitigation: Interim Report* No. CT-RD-JHR-90-8, TheTransportation Institute, Storrs, Conn. 97 pp.

1994. *Forests*. In Chesanow et al. *Trails*. The Cheshire Land Trust and the Cheshire Environment Commission, Cheshire, CT 96 pp.

May 1995. *Wetland Mitigation: Botany*. Volume 1 of 6. Lefor, M.W. and S.N. Gadwa. Report No. JR95-241. Dept. Civil Engineering, Joint Highway Research Council, Transportation Institute, Storrs, Conn. 259 pp.

## Sigrun N. Gadwa, MS, PWS

#### **PUBLICATIONS:**

December 1997. Plant Colonization Processes and Patterns along Shorelines of Man-made Mitigation Basins in Relation to Reproductive and Life History Traits. MS Thesis. Dept. Ecology & Evolutionary Biology. Univ. of Connecticut, Storrs, CT. 181 pp.

River Resources Education Series, Quinnipiac River Watershed Association, Meriden, CT. May 1995 New Haven Oysters; June 1996 What Good are Streamside Woods; August 1996 Taking a Close Look at Streamside Woods; June 1997 Foraging in the Quinnipiac Estuary; March 1998 Stream Biosurveys (G.T. Logan & S. Gadwa); Sept. 2000 Muddy Waters

1999. Logan, G.T. & S.N. Gadwa. *Quinnipiac River Watershed Association Stream Study*. Water Quality in the Quinnipiac River. Proceedings of a Symposium on the Impact of Nonpoint Source Pollution in the Quinnipiac River Watershed, pp. 66-70.

October 2000. A Report on the Water Quality of the Quinnipiac River. M. Tyrell, C. Cappannari, D. Galt, S. Gadwa, L. MacMillan, R. Walters. Report to the Steering Committee of the Quinnipiac River Watershed Partnership. Q.R.W.P. Water Quality Workgroup, New Haven, CT. 19 pp.

Winter 2003. *Management of Invasive Plants: On-Site Open Space Management*. The Habitat 15(2):3-4 Connecticut Association of Conservation and Inland Wetland Commissions, Inc.

Spring 2003. *Management of Invasive Plants: Protecting Open Space and Wetlands, Tools for Land Use Boards and Town Staff.* The Habitat 15(3):4-5. Connecticut Association of Conservation and Inland Wetland Commissions, Inc.

July 2003. Interpreting Quinnipiac Songbird Surveys: Effects of Landscape Setting on Avian Community Composition. *The Connecticut Warbler*. 23(3):81-114.

June 2004. *Connecticut Turtles of Special Concern*. Quinnipiac River Watershed Association. 4pp. (with Tony Ianello)

Fall 2005. S. N. Gadwa. *Preliminary Assessment of the Habitat & Historic Resources in North Cheshire, West of Route 10 & Recommended Protection Measures.* The Cheshire Land Trust & Habitat Workgroup of the Watershed Partnership.

October 2011 S. N. Gadwa & G.T. Logan. *The Scientific Basis for Wetland & Watercourse Buffer Zones*. 23 pp. White Paper. Rema Ecological Services, LLC.

## Sigrun N. Gadwa, MS, PWS

WORKSHOPS & CONFERENCES (selected):

ESA Mid-Atlantic Chapter Symposium, Blacksburg Virginia Lessons for Mitigation Design from Shoreline Seedling Colonization Patterns April 12-14. 2012. (*Poster Presentation*)

New England Invasive Plant Summit, Framingham Massachusetts: Wetlands permitting – a potentially powerful tool to control invasive plants. September 19-20. 2003. (*Poster Presentation*).

Sedimentation and Erosion Control Review Session. USDA Natural Resource Conservation Service and CPESC (Certified Professionals in Erosion Control), Concord, NH, September, 2001.

Riparian Buffer Function, Performance & Limitations. Urban Riparian Buffers Conference & Technical Training Session. April 1999.

Environmentally Sensitive Development along the Ten Mile River. Riverside Landscaping Conference. The Rivers Alliance of Connecticut. June 1998. (*Guest Lecturer*)

Water Quality in the Quinnipiac River: A Symposium on the Impact of Non Point Source Pollution in the Quinnipiac River Watershed. November 1998. (*Presenter*)

April 13, 2012 ESA Mid-Atlantic Chapter Symposium, Blacksburg, Virginia. Lessons for Mitigation Design from Shoreline Seedling Colonization Patterns (Poster presentation)

CTDEEP Quinnipiac River Watershed Association Workshop Series. September 1997, May 1998, June 1999, January 2000. River Ecology. *Instructor*.

October, 2014. Documenting and Conserving Eastern Box Turtles in Central Connecticut: 19 years of Citizen Monitoring. Berlin Land Trust and Nature Center. Evening Membership Program. (Guest Lecturer)

2011 to 2116. For CT Botanical Society, have led two guided botany field trips and/or field botany workshops each year. On CBS Board of Directors, & on Education Committee and Ecology & Conservation Committee (*chair*).

2013 – 2016 Connecticut Invasive Plant Working Group (CIPWG); 1-2 power point programs or posters pertaining to invasive plants each year.