

3225 MAIN STREET • P.O. BOX 226  
BARNSTABLE, MASSACHUSETTS 02630



CAPE COD  
COMMISSION

(508) 362-3828 • Fax (508) 362-3136 • [www.capecodcommission.org](http://www.capecodcommission.org)

**DECISION OF THE CAPE COD COMMISSION**

DATE: OCTOBER 16, 2014

TO: APPLICANT C/O  
BRIAN MADDEN, LEC ENVIRONMENTAL CONSULTANTS, INC.  
12 RESNICK ROAD, PLYMOUTH, MA 02360

FROM: CAPE COD COMMISSION

RE: LIMITED DEVELOPMENT OF REGIONAL IMPACT DECISION

PROJECT APPLICANT/  
PROPERTY OWNER: FIDDLER'S GREEN LIMITED PARTNERSHIP  
PO BOX 1129, SAGAMORE BEACH, MA 02562

PROJECT NUMBER: TR14013

PROJECT: BOURNE SOLAR PROJECT, BOURNE, MA

LOCATION: 53 MACARTHUR BOULEVARD, BOURNE, MA

REGISTRY BOOK/PAGE: BOOK 13680 PAGE 274

ASSESSOR'S ID: 25.0-6-0-R

**SUMMARY**

The Cape Cod Commission (Commission) hereby approves, with conditions, the application by Fiddler's Green Limited Partnership (Applicant) as a Limited Development of Regional Impact (DRI) pursuant to Sections 12 and 13 of the *Act Establishing the Cape Cod Commission, c. 716* of the Acts of 1989, as amended, (Act) and Sections 3, 5, and 7 of the Commission's *Enabling Regulations*, as amended, (*Enabling Regulations*) for construction of the proposed ground-mounted photovoltaic project located at MacArthur Boulevard in Bourne, MA. This project is also subject to a DRI scoping decision dated September 4, 2014 in which DRI review was limited in scope to the Regional Policy Plan (RPP) issue areas of Water Resources (Goals WR1, WR2,

and WR7), Wetlands, Wildlife and Plant Habitat, Open Space, and Waste Management. This decision is rendered pursuant to a vote of the Commission on October 16, 2014.

## **PROJECT DESCRIPTION**

The Applicant is proposing to develop a 25.14-acre site with a 7.85-acre, 2-MW solar field accessed via a 10-foot-wide, 2000-foot-long gravel drive extending from MacArthur Boulevard. Including re-grading associated with the project, total project disturbance will occupy 9.31 acres, and the total permanent site disturbance will occupy 8.38 acres. The area of the proposed solar field and associated disturbance contains forested upland. All undisturbed site area is proposed to be preserved as open space under a conservation restriction (16.79 ac. +/-). The proposed gravel drive will occupy 0.44 acre, which includes areas of disturbed, degraded conditions associated with the existing 0.8-acre dirt drive.

## **PROCEDURAL HISTORY**

The DRI Scoping application was received by the Commission on May 30, 2014. The Applicant submitted additional application materials in June and July 2014. The DRI Scoping application was deemed complete, sufficient to proceed to a public hearing, on July 24, 2014. The Limited DRI application was received by the Commission on July 25, 2014. The Applicant submitted additional application materials in July 2014. The Limited DRI application was deemed complete, sufficient to proceed to a public hearing, on July 28, 2014.

The DRI Scoping and Limited DRI hearing was opened and substantive testimony taken by a Subcommittee on August 13, 2014 at the Bourne Community Center located at 239 Main Street, Buzzard's Bay, Massachusetts. The Subcommittee consisted of Ernest Virgilio (Chair), John D. Harris, John McCormack, Jr., Harold Mitchell, Royden Richardson, and Michael Blanton (Alternate). The Subcommittee conducted a site visit prior to the hearing. At this hearing, the Subcommittee instructed Commission staff to draft a written DRI Scoping decision for its review, limiting DRI review to the issue areas of Water Resources (Goals WR1, WR2, WR7), Wetlands, Wildlife and Plant Habitat, Open Space, and Waste Management, consistent with the testimony and information received, and staff's recommendations from the staff report. The Subcommittee voted to continue the hearing to September 4, 2014 at the Commission offices located at 3225 Main Street in Barnstable, Massachusetts.

At the continued public hearing on September 4, 2014, the Subcommittee reviewed said draft Scoping decision. Substantive testimony was taken. The Subcommittee consisted of Harold Mitchell (Acting Chair), Michael Blanton, John D. Harris, John McCormack, Jr., and Royden Richardson. The Subcommittee voted to accept and adopt the Scoping decision, and limit DRI review to the applicable RPP issue areas set out therein. The Subcommittee further instructed Commission staff to draft a written Limited DRI decision for its review consistent with the testimony and information received, and staff's recommendations from the staff report. The Subcommittee voted to continue the hearing to October 2, 2014 at the Commission offices located at 3225 Main Street in Barnstable, Massachusetts.

At the continued public hearing on October 2, 2014, the Subcommittee reviewed said draft Limited DRI decision. Substantive testimony was taken. The Subcommittee consisted of Ernest Virgilio (Chair), Michael Blanton, John D. Harris, John McCormack, Jr., Harold Mitchell, and Royden Richardson (Alternate). The Subcommittee voted to recommend to the full Commission that it adopt the Limited DRI decision and approve the project with the conditions set out therein. The Subcommittee voted to continue the hearing to the next meeting of the full Commission on October 16, 2014 at the Barnstable County Assembly of Delegates Chambers located at the First District Courthouse on Main Street in Barnstable, Massachusetts.

**RECORD MATERIALS**

TABLE 1: MATERIALS SUBMITTED FOR THE RECORD

<b><i>Materials from Cape Cod Commission</i></b>
Letter to Brian Madden (BM) requesting additional materials, dated 6/17/14
Email Jeffrey Ribeiro (JR) to BM re: scoping application complete, dated 7/24/14
Letter to BM re: public hearing on 8/13/14, dated 7/24/14
Email JR to BM re: DRI application complete, dated 7/28/14
Scoping staff report, dated 7/31/14
Minutes from 8/13/14 public hearing
DRI staff report, dated 9/2/14
Limited DRI Scoping Decision, dated 9/4/14
Minutes from 9/4/14 public hearing
Minutes from 10/2/14 public hearing
Minutes from 10/16/14 public meeting/hearing of Cape Cod Commission
<b><i>Materials from Applicant</i></b>
Application Materials from the Applicant, dated 5/30/14
Scoping checklist, dated 6/3/14
Solar Operation and Maintenance Plan, dated 6/19/14
Plan Set for <i>Bourne Solar Project</i> , prepared by Beaumont Solar Co., dated 6/25/14
DRI application, dated 7/25/14
Email BM to JR re: panel details, dated 7/28/14
Letter RECOM Corp to BM re: panel details, dated 7/28/14
Memorandum re: additional materials requested, dated 8/11/14
Letter from Coreen Moore (CM) to MassDOT re: curb cut, dated 1/29/14
MassWildlife Conservation and Management Permit, dated 7/3/14
<i>PV Installation and Tree Clearing on Cape Cod...</i> , dated 8/11/12
Letter of Intent between IGS Generation LLC and Bourne Recreation Authority, dated 9/30/14
<b><i>Materials from Public Agencies/Towns/State/Federal</i></b>
Town referral from Christopher Farrell, Town of Bourne Planning Board, dated 6/25/14
Letter from Bourne Recreation Authority to JR re: power purchase agreement, dated 7/11/14
Letter from CM re: consistency with local laws/plans, dated 8/13/14
<b><i>Materials to/from Members of the Public</i></b>

## JURISDICTION

The project qualifies as a Development of Regional Impact (DRI) pursuant to Section 3(e)(iii) of the Commission's *Enabling Regulations* (revised March 2013) as "new construction or development that has a Total Project Area greater than 40,000 square feet."

## FINDINGS

The Commission hereby finds as follows:

### GENERAL FINDINGS

GF1. A mandatory referral from the Town of Bourne Planning Board was received on June 25, 2014.

GF2. The Applicant submitted a DRI application on July 25, 2014; the DRI application was deemed complete on July 28, 2014.

GF3. As the date of the first public hearing on the proposed project was August 13, 2014, this project was reviewed subject to the 2009 Regional Policy Plan (RPP), as amended in August 2012.

GF4. Pursuant to a Limited DRI Scoping Decision, dated September 4, 2014, DRI review is limited to the RPP issue areas of Water Resources (Goals WR1, WR2, and WR7), Wetlands, Wildlife and Plant Habitat, Open Space, and Waste Management.

GF5. The project ("Project") consists of: a proposed solar field which will occupy approximately 7.85 acres of the 25.14-acre project site and require the disturbance of an additional .48 acre for re-grading; the proposed gravel drive which will occupy 0.44 acre and require the temporary disturbance of an additional 1.34 acres for re-grading; resulting in a total project disturbance of 9.31 acres and total permanent site disturbance of 8.38 acres (some of the re-grading associated with the Project is located in previously disturbed site areas; additionally some previously disturbed site area within the 100-foot wetlands buffer is proposed to be restored to natural conditions).

GF6. The proposed Project is to be implemented and constructed in accordance with the following plan sets, and other information and documents referenced herein:

Prepared by Bracken Engineering, Inc.:

*Proposed Site Plan Set for Bourne Solar Project*

Sheet 1 of 7: *Title Sheet*, dated 5/12/14

Sheet 2 of 7: *Site Plan*, dated 5/12/14

Sheet 3 of 7: *Grading & Erosion Control*, dated 5/12/14

Sheet 4 of 7: *Plan & Profile*, dated 5/12/14

Sheet 5 of 7: *Plan & Profile*, dated 5/12/14

Sheet 6 of 7: *Details Sheet*, dated 5/12/14

Sheet 7 of 7: *Details Sheet*, dated 5/12/14

Bourne Solar Project, Bourne, MA

Limited DRI Decision

Page 4 of 15

Sheet 1 of 1: *Curb Cut and Traffic Management Plan*, dated 12/5/12  
*Stormwater Pollution Prevention Plan*, dated 5/1/14  
*Open Space Plan*, dated 5/12/14

Prepared by LEC Environmental Consultants, Inc.:

*Limited Development of Regional Impact (DRI) Application*, dated 5/30/14  
*Long-Term Habitat Management Plan*, dated 5/12/14  
*Invasive Species Management Plan*, dated 5/12/14  
*Operation and Maintenance Plan for Stormwater Facilities and Solar Field Turf/Landscape Management*, dated 5/12/14  
*Solar Operation and Maintenance Plan*, dated 6/19/14

Prepared by Beaumont Solar Co.:

Sheet E1: *Electrical One Line Drawing*, dated 5/12/14  
Sheet E2: *Racking Details*, dated 5/12/14  
Sheet E3: *Equipment and Inverter Pad Details*, dated 5/12/14  
Sheet PV1: *PV Ground Array*, dated 5/12/14  
Sheet PV2: *Racking Elevation and Plan Views*, dated 5/12/14  
Sheet PV3: *Racking Details*, dated 5/12/14

Other:

MassDOT letter, dated 12/24/13  
MA Endangered Species Act Conservation and Management Permit, dated 7/3/14

GF7. IGS Generation LLC (“IGS”), on behalf of the Applicant, and the Bourne Recreation Authority (“Authority”), a public entity, have executed a Letter of Intent (“LOI”), dated September 30, 2014, to negotiate a Power Purchase Agreement, which will provide the Authority power produced from the Project. Under the LOI, IGS, an energy company, will own and operate the energy facility, and its agent Beaumont Solar will provide engineering, procurement and construction services to implement and develop the Project under the PPA, in return for the Authority purchasing the power produced by the Project through net metering credits and otherwise consistent with the preliminary terms and pricing set forth in the LOI. Under the LOI, all power generated by the Project will be offered to the Authority for purchase; power from any future, additional Project phases will first be offered to the Authority for purchase; the term of the PPA will be ten years from commencement of Project operation with a ten year option to extend; the initial rate will be \$.11/kW with an annual escalator of 2%/ kW; the Project will have a 650 kW DC nameplate generating capacity, with an anticipated initial 803,000 kW/ year production, decreasing .8% annually; IGS will provide to the Authority a performance guarantee of minimum 85% of anticipated yearly kW Project production; estimated net metering credit of \$.1467/kW, assuming G-1 tariff rate.

GF8. The probable project benefits include:

- a. Permanent EEA-DCS Conservation Restriction over 16.79± acres which will protect high quality, state-listed rare species habitat and areas within 300 feet of Great Pond, while expanding conservation lands with abutting parcels.

- b. Implementation of a Long-Term Habitat Management Plan to maintain and enhance important habitat conditions for the Eastern Box Turtle (*Terrapene carolina*) and six (6) state-listed rare moth species.
- c. Implementation of an Invasive Species Management Plan that has been designed utilizing Best Management Practices (BMPs) to control glossy buckthorn (*Frangula alnus*), well known to form dense thickets and crowd-out native species, and promote natural vegetation/habitat cover types functioning as rare species habitat.
- d. Restoration of 3,200 square feet of degraded areas in the Isolated Vegetated Wetland's (IVW) Buffer Zone with a native seed mix and transplanted woody shrub cover to attenuate ongoing scour and erosion within the 100-foot Buffer Zone.
- e. The project will not result in any wastewater generation or water withdrawal.
- f. The Bourne Recreation Authority ("Authority"), a public entity which owns and operates, among other facilities, the John Gallo Ice Arena facility at 231 Sandwich Road, Bourne, MA 02532 ("Gallo"), will be served with power produced by the Project pursuant to a Power Purchase Agreement (PPA), providing the Authority with a source of renewable energy for Gallo at a predictable and fair cost, generating public financial benefits in addition to environmental benefits.
- g. The project furthers the goals of Bourne's Local Comprehensive Plan and the Commonwealth of Massachusetts Green Communities Act, which strongly encourage exploration and development of renewable energy sources.
- h. Environmental benefits of clean, renewable energy as alternative to use of fossil fuels.

GF9. A probable project detriment is the loss of 8.38 acres of forested upland.

#### WATER RESOURCES (GOALS WR1, WR2, WR7)

WRF1. Nitrogen loading for the proposed Project results in a loading concentration of less than 1 ppm-N, below the 5 ppm-N loading limit. As such, the project meets both Minimum Performance Standard (MPS) WR1.1 and MPS WR2.1 (Five-ppm Nitrogen Loading Standard).

WRF2. As there are no proposed or existing drinking water wells within 400 feet of the project site, the Applicant meets standard MPS WR1.2 (Identification of Drinking Water Wells).

WRF3. As no groundwater withdrawals are proposed, MPS WR1.3 (Groundwater Study Requirement) for groundwater withdrawals of greater than 20,000 GPD does not apply to the proposed Project.

WRF4. As the Project proposes no subdivision of land, MPS WR1.4 (Cluster Development) does not apply.

WRF5. The proposed Project meets MPS WR1.5 (Turf and Landscape Management Plan) as the Applicant's *Operation and Maintenance Plan for Stormwater Facilities & Solar Field Turf/Landscape Management* adequately addresses the requirements for water conservation measures and minimized use of pesticides and fertilizers.

WRF6. As the proposed Project is not located in a Wellhead Protection Area (WHPA), MPS WR2.2 (Prohibition on Hazardous Materials/Wastes) does not apply.

WRF7. MPS WR2.3 (Restrictions on Public and Private Wastewater Treatment Facilities) does not apply as no private or public wastewater treatment facility is proposed.

WRF8. A letter provided by the Applicant dated 3/14/14 from the Bourne Water District states "We have investigated areas to the North East and East of [the proposed] site and do not feel they are viable as water sources now or in the future." As such, based on this supporting information, the site will not be considered Potential Public Water Supply Area (PPWSA), and MPS WR2.5 (Future Well Site Restrictions) and MPS WR2.6 (One-ppm Nitrogen Loading Standard) do not apply.

WRF9. The Project meets the requirements for MPS WR7.1 (No New Direct Discharge of Untreated Stormwater) and MPS WR7.2 (On-Site Infiltration) and MPS WR7.5 (Structured Infiltration Devices) through the use of structural best management practices such as vegetated swales, infiltration areas and Commission suggested bioretention areas as outlined by the Proposed Stormwater Management System Hydrological Analysis

WRF10. As there are no buildings proposed, MPS WR7.3 (Roof Runoff) does not apply.

WRF11. Bioretention systems and a vegetated swale have been sized to capture and treat the first inch of runoff from roadway areas for a 25-yr 24-hr event. As such, the Project meets the requirements for both MPS WR7.4 (Biofiltration Practices) and MPS WR7.6 (Impervious Surfaces).

WRF12. As there is no adopted Land Use Vision Map for the area of Bourne in which the project site is located, MPS WR7.7 (Structured Infiltration Devices in Designated Mapped Areas) does not apply because redevelopment in Impaired Areas is not proposed.

WRF13. Upon review of boring logs provided by the Applicant, the proposed infiltration areas for the project meet MPS WR7.8 (Minimum Two-foot Separation to Groundwater).

WRF14. The Erosion Control Plan shown in the site plans and provided in the DRI application is in compliance with MPS WR7.9 (Best Management Practices during Construction).

WRF15. The Preliminary Stormwater Pollution Prevention Plan submitted with the Professional Engineer-certified Proposed Stormwater Management System Hydrological Analysis is in compliance with MPS WR7.10 (Stormwater Maintenance and Operation Plan). The Commission will require certification by a Professional Engineer that the stormwater system is operating as designed one year after construction has been completed to ensure continued compliance with MPS WR7.10 (Stormwater Maintenance and Operation Plan).

WRF16. The proposed Project is not within a WHPA and as such, MPS WR7.11 (Shut-off Valve in Wellhead Protection Areas) does not apply.

## WETLANDS

WETF1. The Project does not propose alterations to wetlands. However, the project will result in 13,180 square feet of new disturbance to wetland buffers due to the road construction and its associated grading. MPS WET 1.2 (Wetland Buffers) does not generally permit alterations to wetland buffers. The proposed disturbance occurs within the 100-foot buffer but outside the 50-foot buffer. However, the DRI application details the Applicant's efforts to find an alternate means of access to avoid the proposed route between the wetlands. Based on the materials provided and discussions with the Applicant over the last 2+ years, that under the present scenario of abutting land uses and ownership, the Applicant has no other feasible alternative to access this site than routing the access drive between the two wetlands, disturbing 13,180 square feet, as proposed, and that the proposed alteration, as mitigated, will not increase adverse impacts on the buffer zone and wetlands. Impacts have been minimized with a single lane access road. The Applicant proposes to mitigate the impacts to the buffer area with restoration of approximately 3,200 square feet of existing, degraded (eroded) trail on the project site. This degraded area is immediately adjacent to one of the wetlands, and its restoration will reduce runoff and other adverse impacts to the wetlands.

WETF2. The Commission encourages the Applicant to make efforts to prevent the continued use of this restored section of trail, such as fencing at the property line. The successful restoration of this area will have positive effects on the wetland.

WETF3. The permanent protection of the remaining buffer areas through a conservation restriction will also serve to mitigate the proposed impacts to the wetland buffers. Approximately 47,520 square feet of undisturbed wetland buffer area would be permanently protected through the proposed 16+ acre conservation restriction.

WETF4. MPS WET1.3 (Wetlands, Buffers, and Utility Line Installation) allows for utility line installation through wetland buffers where there is no feasible alternative. Utility poles are proposed along the access drive and will not introduce greater disturbance than already proposed with the installation of the drive.

WETF5. MPS WET1.4 (Stormwater) prohibits new discharge of stormwater within the 100-foot buffer to wetlands. The Applicant proposes a rain garden within the 100-foot buffer to accommodate stormwater from the proposed access drive. There is no other feasible alternative to accommodate the stormwater given the topography at this site; the proposed rain garden will minimize stormwater impacts to the wetland.

## WILDLIFE AND PLANT HABITAT

WPHF1. The Applicant has provided a Natural Resources Inventory (NRI) consistent with the requirements of MPS WPH1.1 (Natural Resources Inventory). In addition to preparing the NRI, the Applicant has been working with the Massachusetts Natural Heritage and Endangered Species Program (NHESP) to minimize and mitigate impacts to seven state listed species on this property including the Eastern Box Turtle and six species of rare moths.

WPHF2. The Project design and layout reflect consideration of minimized clearing and grading on the site. The proposed access drive is a single lane drive, and utilizes existing sections of trail on the site where possible. In addition, the location of the proposed solar field is in the portion of the property with less varied topography, as well as having lower habitat value for the species

of concern on this site. The Applicant has addressed the interests of MPS WPH1.2 (Clearing and Grading) in minimizing clearing and grading.

WPHF3. MPS WPH1.3 (Wildlife and Plant Habitat) deals with potential project impacts to habitat connectivity. The 8.35 acre solar field, which is located in the eastern portion of the project site, and access drive will fragment a large patch of woodland running from MacArthur Boulevard east through the Upper Cape Water Supply Reserve on Joint Base Cape Cod; there are conserved parcels located immediately to the south of the site as well. However, given the size and location of the proposed conservation restriction on the site, as well as the very low activity occurring within the solar field and its potential to provide some habitat value over time, the fragmentation issues with respect to habitat connectivity will be minimal. Additionally, with regard to rare species habitat, the project site will operate under a NHESP-approved Conservation and Management Permit as well as a Long-Term Habitat Management Plan to enhance habitat and connectivity on the site.

WPHF4. MPS WPH1.4 (Rare Species) prohibits adverse impacts to rare species or their habitat. The site is host to box turtles and six rare moth species which rely on the Pitch Pine – Scrub Oak Barrens habitat found on the site. The Applicant has worked with the NHESP to develop a Conservation and Management Permit (CMP) that will mitigate the impacts of the proposed development and avoid a “take” of these state listed species. Components of the permit include permanent protection of 16.79 acres on the site; habitat management for the moth species; a turtle protection plan; funding for ongoing management needs and funding for box turtle research, land protection, and/or conservation planning. The details of these requirements are provided in the final CMP, dated July 3, 2014. Based on this permit and associated management plans by the Applicant in consultation with the species specialists at NHESP, the Applicant has met the requirements of MPS WPH1.4.

WPHF5. According to the NRI the site does not contain certified or potential vernal pools (MPS WPH1.5 [Vernal Pools]).

WPHF6. The Applicant has provided an invasive species management plan consistent with the requirements of MPS WPH1.6 (Invasive Species); in addition, the NHESP Conservation and Management Permit contains provisions for the management of invasive species. The Commission encourages the Applicant to take precautions to prevent the introduction of invasive species to the site during construction.

#### OPEN SPACE

OSF1. The Project has been sited to avoid impacts to the most sensitive resources on and in the vicinity of the site, including the wetlands, Pine Barrens Scrub Oak habitat, and the pond located offsite to the south. While the location of the development is not clustered adjacent to other development (MPS OS1.1 [Clustering of Development]), given the constraints in doing so associated with the nature of the development and surrounding areas, it avoids impacts to the most sensitive portions of the site consistent with this MPS.

OSF2. The preservation of the 16.79 acres through a statutory conservation restriction (CR) will preserve open space connections to the south and east in this area, consistent with MPS OS1.2 (Open Space Connections).

OSF3. MPS OS1.3 (Open Space Requirements) addresses the quantity of open space required for a project. On sites such as this located within Significant Natural Resources Areas, the open space requirement is twice the total development area. The Applicant has indicated that the total new disturbed area equals 9.31 acres. (This area does not include the removal of trees associated with the habitat management requirements of the Conservation and Management Permit, which staff recommends may be considered habitat management and not development.) Therefore, twice the total development area is 18.62 acres. The Applicant is proposing to permanently restrict 16.79 acres, a shortfall of 1.83 acres. The Commission may reduce the open space requirement under Best Development Practice (BDP) OS1.10 by up to 20% where the land protected is sensitive or significant. The land being protected as part of this proposal includes rare species habitat and BioMap2 Core Habitat (a NHESP designation for habitat areas in the Commonwealth critical for the survival of the State's rare species), as well as buffers to the wetlands, pond, and conservation land to the south. The open space proposal meets multiple criteria under this BDP, and the reduction in the open space requirement through BDP OS1.10 is appropriate and warranted. In addition, the 16.79 acres proposed for conservation restriction exceeds the possible maximum 20% reduction allowed by 1.89 acres.

OSF4. The Town, through its Conservation Commission, has expressed willingness to hold the CR on the project site.

OSF5. As discussed above, the project is consistent with the requirements of MPS OS1.4, (Sensitive Natural Resources) which requires the protection of the most sensitive resources on a site. For similar reasons, the project is consistent with MPS OS1.6 (Sensitive Open Space Resources) which prohibits adverse impacts to conservation lands and requires maximizing contiguous open space.

OSF6. MPS' OS1.5 (Residential Cluster), OS1.7 (Open Space in GIZ/Economic Centers), and OS1.8 (Open Space Requirements and Parking Garages) do not apply to this project.

## WASTE MANAGEMENT

WMF1. The proposed transformers for the PV arrays will contain a non-toxic, vegetable oil-based fluid (Envirotemp FR3 fluid) as a coolant. Envirotemp FR3 fluid is formulated from vegetable oils (>98.5% vegetable oil) and performance enhancing additives and colorant. Envirotemp FR3 contains 1.5% "hazardous materials" as that term is defined in the RPP. The DRI states that the three transformers on site will contain a total of 1,200 gallons of Envirotemp FR3, resulting in 18 gallons of hazardous material on site. This amount is below "household quantities" as that term is defined in the RPP, and thus in compliance with MPS WM1.1 (Hazardous Materials/Waste Restrictions). Additionally, the other standards under Goal WM1 (Hazardous Materials and Waste) which deal with hazardous materials similarly do not apply. The Project will not use, generate, or store hazardous wastes.

WMF2. The proposed project will create significant amounts of solid waste during the construction phase, particular from tree cutting and grading activities. The Applicant has provided a written narrative (as follows) outlining the handling of wastes, which complies with MPS WM2.1 (Construction Waste). The Project is conditioned on compliance with this protocol.

*"Wood debris will be generated on-site associated with initial tree clearing. Vegetative clearing will occur over 9.31± acres within habitat cover types at varying levels of succession and plant composition/density. Larger trees will be cut and removed off-site*

*by the tree clearer for reuse. Smaller trees, saplings, and shrubs will be chipped on-site. Following screening, remaining chipped woody debris will either be used on-site to stabilize slopes or properly disposed off-site at an appropriate recycling facility. Panel components will arrive on-site within prefabricated units for assembly. Solid construction waste will come in the form of cardboard boxes, wooden pallets, shrink/saran wrap, Styrofoam and scrap insulated copper wires. All construction solid waste, particularly shipping and package materials, will be placed in separate containers for off-site recycling or proper disposal. Prior to the start of work, a formal Construction & Demolition Solid Waste Management Plan will be submitted to the CCC. Post-solar installation, the project will not generate further waste.”*

WMF3. Given the limited nature of wastes for this Project, and its operational aspects, a formal plan pursuant to MPS WM2.2 (C&D Waste Plan) is not required in addition to materials provided in the application.

WMF4. The proposed Project will not create significant post-construction waste, thus other MPS' under Goal WM2 (Solid Waste) do not apply.

## **CONCLUSION**

Based on the foregoing, the Commission further finds that:

1. Subject to the Conditions, below, the Project complies with the applicable MPS' under the scoped issue areas of Water Resources (Goals WR1, WR2, WR7), Wetlands, Wildlife and Plant Habitat, Open Space, and Waste Management. Additionally, the Project must remain consistent with the DRI Scoping decision, dated September 4, 2014, and all of its conditions.
2. Based on testimony by and letter dated 8/13/14 from Coreen Moore, Bourne Town Planner; review of Bourne's Business 3 and SPS Overlay zoning classification; review of Bourne's Wetlands Protection Bylaw; and narrative provided by the Applicant regarding consistency with Bourne's Local Comprehensive Plan (LCP), the project is consistent with Bourne's local development by-laws and its LCP.
3. No local DCPCs apply to the project site. Consistency with the Cape-wide Fertilizer Management DCPC is not applicable to the project because no local implementing regulations have been adopted pursuant to that DCPC.
4. With specific emphasis on findings GF8 and GF9 herein, the probable project benefit is greater than the probable project detriment.
5. The Commission hereby approves, with conditions, the Limited DRI application of Fiddler's Green Limited Partnership for construction and operation of the proposed ground-mounted photovoltaic project located at MacArthur Boulevard in Bourne, MA subject to the following conditions:

## CONDITIONS

### GENERAL CONDITIONS

GC1. This decision is valid for a period of 7 years and local development permits may be issued pursuant hereto for a period of 7 years from the date of this written decision.

GC2. This decision shall be appurtenant to and run with the property which is the subject project site. The decision shall bind and be enforceable against, and inure to the benefit of, the Applicant, its heirs, successors, and assigns.

GC4. Failure to comply, and remain in compliance, with all findings and conditions stated herein, and with all related Commission laws and regulations, shall be deemed cause to revoke or modify this decision.

GC5. The September 4, 2014 DRI Scoping Decision for the Project, and its terms and conditions, are hereby incorporated herein. Any Project changes may require modification to said Scoping Decision and also, accordingly, to this decision. In the event that there are inconsistencies in terms between this decision and the Scoping Decision, this decision shall control.

GC6. The Applicant shall obtain all necessary federal, state, and local permits for the proposed project. Specifically, prior to the issuance of a Preliminary Certificate of Compliance, the Applicant shall obtain all necessary municipal permits, licenses and approvals for the project, including but not limited to a Wetlands Order of Conditions and Site Plan Review.

GC6(a). The project's consistency with municipal development by-laws or ordinances shall be evidenced and confirmed by the Applicant obtaining all said necessary municipal permits, licenses and approvals.

GC7. No local permitting, review, or application for local permits, licenses, or approvals authorizing development work, as the term "*development*" is defined or referred to in the Cape Cod Commission Act (Act), Regulations, and as approved herein, including but not limited to vegetation removal, site work, and installation of foundations or footings, shall be undertaken until this decision is final and the Commission Clerk certifies in writing that the decision appeal period has elapsed or if such an appeal has been filed, until the appeal has been finally dismissed, adjudicated, or otherwise disposed of.

GC8. Prior to issuance of any Preliminary Certificate of Compliance by the Cape Cod Commission for development as the term "*development*" is defined in the Cape Cod Commission Act, and as approved herein, the Applicant shall submit final project plans as approved by state, federal, and local authorities for review by Commission staff who shall determine their consistency with this decision. If Commission staff determines that the final plans are not consistent with those project plans approved, referenced and incorporated herein, the Commissions shall require that the Applicant seek a modification to this decision for further

review and approval of the project plans changes in accordance with the "*Modification*" section of the Commission's *Enabling Regulations* in effect at the time the modification is sought.

GC9. All development shall be undertaken and constructed in accordance with the plan sets and other information and documents referenced herein under Finding GF6. All other plans and documents required to be submitted as conditions of this decision shall hereby be incorporated into this condition as and when received, reviewed, and approved by Commission staff.

GC10. Prior to issuance of a Building Permit and undertaking any development as the term "*development*" is defined or referred to in the Commission Act, Regulations, and as approved herein, including but not limited to vegetation removal, site work, and installation of foundations or footings, the Applicant shall obtain a Preliminary Certificate of Compliance from the Commission that evidences that all conditions in this decision required to have been satisfied prior to the issuance of a Preliminary Certificate of Compliance have been satisfied, and that the project is in compliance with this decision.

GC11. Prior to the issuance of a Preliminary Certificate of Compliance, the Applicant shall provide written proof to the Commission that a copy of this decision has been provided to the Project general contractor(s).

GC12. Prior to issuance of a Certificate of Occupancy/Building Permit sign-off the Applicant shall obtain a Final Certificate of Compliance from the Commission that evidences that all conditions in this decision required to have been satisfied prior to the issuance of a Final Certificate of Compliance have been satisfied and that the Project is in compliance with this decision. The Commission may issue Partial Final Certificates of Compliance if the Applicant proceeds to develop the Project in phases, and in this event, Commission staff will establish a schedule in which outstanding Conditions must be satisfied prior to issuance of any such Final Certificate of Compliance.

GC13. Commission staff will undertake a review of the Project's compliance with this decision, including the applicable conditions hereof, upon the Applicant's request to the Commission for issuance of a Preliminary or Final Certificate of Compliance. At the time the Applicant requests such a Certificate, it shall provide Commission staff a list of key project contact(s), along with their telephone numbers, mailing addresses, and email addresses, in the event questions arise during the Commission's compliance review. As part of its compliance review, Commission staff may make, and the Applicant hereby authorizes, a site inspection, as needed. Upon review, the Commission shall either prepare and issue the requested Certificate, or inform the Applicant in writing of any compliance deficiencies and the remedial action required for the issuance of the requested Certificate.

GC14. Prior to the issuance of a Preliminary Certificate of Compliance, but not until the appeal period for this decision has elapsed, or if such an appeal has been filed, until the appeal has been finally dismissed, adjudicated or otherwise disposed of, the Applicant shall record a copy of this decision with the Barnstable Registry of Deeds, or as the case may be, register the same with the Barnstable Registry District of the Land Court, and provide a copy of the same to Commission

staff of such recording or registration. This decision shall not be effective until a copy of the same has been so recorded or, as the case may be, so registered.

GC15. In order to comply with Condition GC3 of the September 4, 2014 DRI Scoping Decision, the Applicant shall provide to Commission staff for review a Power Purchase Agreement (PPA) which is consistent with the Letter of Intent, dated September 30, 2014 and referenced herein under Finding GF7, and the parties thereto shall execute said Commission approved PPA, prior to issuance of a Preliminary Certificate of Compliance.

#### WATER RESOURCES

WRC1. In order to comply with MPS WR7.10, one year from completion of the stormwater system a Professional Engineer shall inspect the system and submit a letter to Commission staff certifying that the system was installed and functions as designed, including certification to the system's compliance with the design standards contained in MPS WR7.2 and 7.8.

#### OPEN SPACE

OSC1. The Applicant shall provide a draft conservation restriction (which identifies a grantee) and corresponding conservation restriction plan on 16.79 ac. +/- of the site consistent with this decision to Commission staff for review and approval prior to issuance of a Preliminary Certificate of Compliance. The Applicant shall record or register, as the case may be, a permanent statutory conservation restriction and plan pursuant to MGL Chapter 184 ss. 31-33 as reviewed and approved by Commission staff on the proposed open space and provide to Commission staff a recorded/registered copy of the same prior to issuance of a Final Certificate of Compliance.

#### WASTE MANAGEMENT

WMC1. All development activities shall comply with the waste management protocol outlined by the Applicant and referenced herein under Finding WMF2.

***SEE NEXT PAGE FOR SIGNATURES***

**SIGNATURES**

Executed this 16th day of October 2014.

Richard E Roy

Signature

Richard E. Roy, Chairman

Print Name and Title

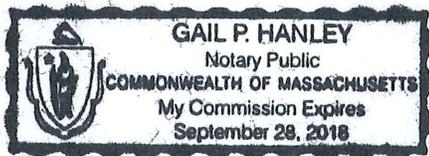
**COMMONWEALTH OF MASSACHUSETTS**

Barnstable, ss

October 16, 2014

Before me, the undersigned notary public, personally appeared Richard E. Roy,

in his/her capacity as Chairman of the Cape Cod Commission, whose name is signed on the preceding document, and such person acknowledged to me that he/she signed such document voluntarily for its stated purpose. The identity of such person was proved to me through satisfactory evidence of identification, which was [ ] photographic identification with signature issued by a federal or state governmental agency, [ ] oath or affirmation of a credible witness, or [] personal knowledge of the undersigned.



SEAL

Gail P. Hanley  
Notary Public

My Commission Expires: 9-28-18