

**EAST LYME INLAND WETLANDS AGENCY  
REGULAR MEETING  
Monday, JUNE 8th, 2015  
MINUTES**

**PRESENT:** Cheryl Lozanov, Chairperson, Chuck Reluga, Vice-Chair, Keith Hall, Secretary, Norm Bender, Phyllis Berger, Harry Clarke, Joe Mingo

**ALSO PRESENT:** Jason Dismukes, PE, representing the Applicant  
Holly Cheeseman, Ex-Officio, Board of Selectmen  
Mark Nickerson, First Selectman  
Attorney Edward O'Connell, Town Counsel  
Gary Goeschel, Inland Wetlands Agent  
Karen Zmitruk, Recording Secretary

**ABSENT:** No One

FILED IN EAST LYME  
CONNECTICUT  
June 8, 2015 AT 2:55 AM PM  
*Walter Bialowans, Jr.*  
EAST LYME TOWN CLERK

**Call to Order**

Ms. Lozanov called the June 8, 2015 Regular Meeting of the East Lyme Inland Wetlands Agency to order at 7:28 PM after the previously scheduled Public Hearing.

**Pledge of Allegiance**

The Pledge was previously observed.

**I. Additions to the Agenda**

Ms. Lozanov asked if there were any additions to the agenda.

Mr. Goeschel said that he did not have any additions to the agenda, noting the amended agenda.

**\*\*MOTION (1)**

**Mr. Mingo moved to add item A. under New Business the Petition of Timothy Hollister for Landmark.**

**Mr. Clarke seconded the motion.**

Mr. Goeschel said that item is already on the amended agenda.

Mr. Mingo said that he did not receive it in the mail.

Mr. Goeschel said that it was amended on Friday, June 5, 2015 and filed with the Town Clerk and posted on the Town website.

**Ms. Lozanov called for a vote on the motion.**

**Vote: 7 – 0 – 0. Motion passed.**

**II. Public Delegations**

Ms. Lozanov called for Public Delegations.

John Bialowans, 61 Walnut Hill Road said that he would like to talk about his pond

Ms. Lozanov said that he should give any information that he has to Mr. Goeschel as he cannot discuss anything on the agenda. She said that this protects him legally as well.

Mr. Bialowans said that he and Attorney Brooks object to Mr. Goeschel being the mediator at the meeting that was held as he was biased

Mr. Mingo said to Mr. Bialowans that there is a legal way to do what he wants to do and that is intervener status and that he has suggested this to him before.

Mr. Bialowans said that the Town did not do its job in enforcement –

Mr. Goeschel said that under Old Business Item A. that he would be able to speak.

### **III. Acceptance of Minutes**

#### **▪ Public Hearing Minutes of May 4, 2015**

Ms. Lozanov called for any discussion or corrections to the Public Hearing Minutes of May 4, 2015.

Ms. Lozanov asked that Chairman be changed to Chair woman or person.

Mr. Hall said that on page 2 in the 7<sup>th</sup> paragraph down that 4 parcels should be changed to read 4 acres.

#### **\*\*MOTION (2)**

**Mr. Bender moved to accept the IWA Public Hearing Minutes of May 4, 2015 as amended.**

**Ms. Berger seconded the motion.**

**Vote: 6 – 0 – 1. Motion passed.**

**Abstained: Mr. Reluga**

#### **▪ Regular Meeting Minutes of May 4, 2015**

Ms. Lozanov called for any discussion or corrections to the Regular Meeting Minutes of May 4, 2015.

Mr. Reluga said that he was not present and asked that the second to the motion to adjourn be changed.

Mr. Clarke said that he had seconded the motion to adjourn.

#### **\*\*MOTION (3)**

**Ms. Berger moved to accept the IWA Regular Meeting Minutes of May 4, 2015 as amended.**

**Mr. Hall seconded the motion.**

**Vote: 6 – 0 – 1. Motion passed.**

**Abstained: Mr. Reluga**

### **IV. Ex-Officio Report**

Ms. Cheeseman said that she was covering for Mr. Salerno who could not attend this evening. She reported that the Board of Selectmen at their meeting on June 3, 2015 had approved many special appropriations that would go before the Board of Finance this week and then to Town Meeting for approval by the people on Monday June 22, 2015. Among the items approved are a new ladder fire truck for the Flanders Fire Department, dugouts for the fields, lights for the tennis courts, a new salt shed and pumps for public works and various acquisition items for the school and Town.

### **V. Pending Applications**

- 21 Upper Walnut Hill Road – Application of Roger Dawson, Applicant/Owner for the construction of a single family dwelling and installation of a subsurface septic system at property identified as 21 Upper Walnut Hill Road, East Lyme associated with a one lot re-subdivision; Assessor's Map 54.0, Lot 13.**

Ms. Lozanov said that they had just closed this public hearing and called for comments.

Mr. Clarke said that he was ready to make a motion on this item.

#### **\*\*MOTION (4)**

**Based on the Findings in a memorandum from Gary A. Goeschel II, Director of Planning/ Inland Wetlands Agent, to the East Lyme Inland Wetlands Agency dated June 8, 2015, the Agency moves to APPROVE the application known as Application of Roger Dawson, Applicant/Owner; Application for the construction of a single family dwelling and installation of a subsurface septic system at property located at 21 Upper Walnut Hill Road, East Lyme, associated with a one lot re-subdivision, East Lyme Assessor's Map 54.0 Lot 13, and plans entitled "Re-subdivision Plan-Lot ID, 54/13, Prepared for Quick Time, LLC, 21 Upper Walnut Hill Road, East Lyme, Connecticut, by Jason Dismukes, P.E. of Jason Dismukes, LLC, dated December 2, 2014 revised through May 28, 2015, scale 1"=30' ", which is further subject to the following administrative requirements and required modifications to the site plan and other materials submitted in support of this application:**

- 1. Both the Subdivision Plan-Lot Layout by James Bernardo, L.S. and the Re-subdivision Plan by Jason Dismukes, P.E. shall be signed by Joseph Theroux, Certified Soil Scientist.**
- 2. A vegetative buffer, approximately 25-feet in width, comprised of wetland tolerant native plantings such as Winterberry, High bush Blueberry, Red-osier Dogwood, Northern Arrow-wood, Pin Oaks, etc...and seeded with a New England Conservation mix shall be established along the upland/wetland boundary to mitigate potential impacts from the creation of new impervious**

surfaces and lawned areas on the site and to protect the wetlands and watercourses prior to the issuance of a certificate of occupancy by the building official.

3. A performance bond in a form satisfactory to the Town of East Lyme and in an amount acceptable to the Inland Wetlands Agency or its Agent shall be posted with the Town of East Lyme for the purpose of ensuring the vegetative buffer achieves no less than an 80% survival rate after 5-years.
4. In areas proposed to be loamed and seeded, a low maintenance lawn such as fescue, which requires minimal application of fertilizers and pesticides, shall be planted.
5. Forested cover within the upland review areas shall be maintained to the extent practicable. The proposed Limits of Disturbance (LOD) shall be strictly adhered to throughout all phases of lot build out and construction.
6. An Erosion and Sedimentation Control Bond in a form satisfactory to the Town of East Lyme and in an amount of \$5,000.00 shall be posted with the Town of East Lyme.
7. An as-built survey shall be submitted upon completion of construction and landscaping activities, which shall include the plantings within the vegetative buffer.
8. Notify conservation officer at least 2 days prior to construction to inspect erosion controls.
9. Silt fence and other erosion control methods should be installed prior to any land clearing or other associated construction activities.
10. Any proposed Additional work beyond this permit in the wetlands or watercourse or its 100-foot regulated area will require approval from the Inland Wetlands Agency or its certified Agent.
11. Any changes to the site plan listed on this permit require notification to the Inland Wetlands Agent and may require commission approval- a new plan will be given to agent before work begins.
12. Inland Wetlands Conservation Tags provided by the Wetlands Agency, available in the Land Use Office, Department of Planning & Inland Wetlands, shall be posted along the inland wetlands boundary at 40-50-foot intervals satisfactory to the Inland Wetlands Agent.
13. The proposed site plans shall be revised to incorporate the above conditions and the site specific construction sequence for the installation of the septic system.
14. A complex application fee in the amount of \$220.00 shall be submitted to the town prior to the issuance of the wetlands permit.
15. No site work shall commence until all applicable conditions are satisfied.
16. Notify Inland Wetlands Agent upon completion of all regulated activities for final inspection and sign off.

This approval is specific to the site development plan submitted as the application of Application of Roger Dawson, Applicant/Owner; Application for the construction of a single family dwelling and installation of a subsurface septic system at property located at 21 Upper Walnut Hill Road, East Lyme, associated with a one lot re-subdivision, East Lyme Assessor's Map 54.0 Lot 13, and plans entitled "Re-subdivision Plan-Lot ID, 54/13, Prepared for Quick Time, LLC, 21 Upper Walnut Hill Road, East Lyme, Connecticut, by Jason Dismukes, P.E. of Jason Dismukes, LLC, dated December 2, 2014 revised through May 28, 2015, scale 1"=30'." The above applicable items shall be completed prior to the start of construction including the posting of any applicable bonds. Any change or modification in the plan or development plan layout other than those identified herein shall constitute a new application unless prior approval from the Agency or its Agent is granted.

The applicant/owner shall be bound by the provisions of this Application and Approval.

Ms. Berger seconded the motion.

Vote: 7 – 0 – 0. Motion passed.

#### VI. Old Business

- Cease, Desist & Correct Order – 20 Farm Meadow Road, East Lyme, CT – Centerplan Construction Company and GRE 314 East Lyme, LLC, Owner; Antares Solar Field on property located at 20 Farm Meadow Road, East Lyme, CT, Assessor's Map 52.0, Lot 126, East Lyme, CT

Mr. Goeschel explained that the information presented addresses and makes recommendations on the work that is to be done on the downstream properties. This was the result of a site walk of these off-site properties that was conducted with Mr. Klein and Mr. Fortunato and that he was present at. He noted that Attorney Harris, Centerplan's Attorney is also present this evening and that Mr. Bialowans also would like to speak at this time. He asked if Town Counsel had any comments.

Attorney O'Connell said that it is up to the Commission whom they would want to hear from so that they can feel comfortable with making a decision here.

Attorney Harris, place of business 351 Main Street said that there were two functions this evening – first that they want to wrap up the Cease & Correct order of Mr. Bialowans property even though they do not feel that some of the work is warranted as outlined in the memo. The entire process should be completed by September 15, 2015. They also recently took a three hour hike through the on-site property and found that it was apparent that there was no recent movement of soils. Mr. Cowan will go over those areas as outlined in his memo dated June 5, 2015.

James Cowan, Registered Soil Scientist and Certified Professional Wetland Scientist with Environmental Planning Services, LLC 138 Mystic Road, N. Stonington, CT, recapped what they had done on-site at the solar field noting that it was a dry fall. (See attached) He said that they concluded that all of the sediment areas are stable in the wetlands. Above the wetlands there are some areas that need some touch-up, repair and maintenance work. Within the fenced area there are some sparse areas that they will re-seed; they will put down mulch to hold the moisture in and will also clean out areas behind the silt fence and also within the detention basin areas so that they work more efficiently. They are confident that they are closing the gap on these areas. He further said that they would like to handle the on-site work separate from the off-site work and that they would like to get started on this as soon as possible.

Mr. Goeschel said that it is a work in progress and suggested a monthly report/update on this.  
Ms. Lozanov asked that some photos of the progress also be submitted.  
Mr. Cowen said that they could set up some areas for photos.

Mr. Cowen said that he would now address the off-site areas. They walked the site last year and reached an agreement on where the work would be reachable and reasonable to do with most of it being shovel work that would be done by hand and accessed by an existing wood road.

Mr. Goeschel said that 57 & 63 Walnut Hill Road – Site #4 references the former woods road crossing.  
Mr. Cowen explained that in looking at the mapping that from Site #1 they are working north to Site #7. The higher numbers would utilize a shovel to do the work. It is a fairly simple plan and they are proposing that the work be done in August.

Don Fortunato, Soil Scientist representing Mr. Bialowans said that on March 25, 2015 they all met and decided that they would walk the area in April. This is the result of that walk. There are some six to seven areas of work that will probably take a few days to complete. Site #4 is the undercut but there are some fish present there now. He said that they would like to get going on this work.

Ms. Lozanov asked if they would need a motion.  
Attorney O'Connell said that they should work with Mr. Goeschel's memo and a motion.

Mr. Fortunato said that everyone is on-board with the memo dated April 30, 2015 from Mr. Klein outlining the work to be done in the seven site areas. The rest of the information from Mr. Bialowans is not part of this and is separate from it.

Upon review of the correspondence from Michael S. Klein, PWS of Environmental Planning Services, LLC to Don Fortunato and Gary Goeschel dated April 30, 2015 regarding the Antares Solar Field (attached), the correspondence from Don Fortunato, CSS of Soil & Environmental Services, Inc. dated May 19, 2015, a site inspection on Monday, April 13, 2015 of property located at 57 & 63 Walnut Hill Road, East Lyme, Connecticut, and based on the concurrence of the technical professionals Michael Klein, PWS, Jim Cowen, PWS, Don Fortunato, CSS and Mr. Goeschel in regards to the remediation proposed for 57 & 61 Walnut Hill

Road, East Lyme, Connecticut as outlined in the correspondence, the Commission made the following motion:

**\*\*MOTION (5)**

**Mr. Mingo moved to Continue the Cease, Desist and Restore Order for the above referenced project and the work as more particularly described in the correspondence from Michael S. Klein, PWS of Environmental Planning Services, LLC to Don Fortunato and Gary Goeschel dated April 30, 2015 regarding the Antares Solar Field be completed with the following additional conditions:**

- 1. The work shall begin no later than August 1, 2015 and shall be completed no later than September 15, 2015.**
- 2. The work shall be supervised in the field by a professional wetland scientist or certified soil scientist, acceptable to the Inland Wetlands Agency, with special consideration in accessing any of the areas with machinery so as not to create greater disturbance and unnecessary impact.**
- 3. Following sediment removal and the restoration of any vegetation as proposed, a report documenting the completed work shall be submitted to the Agency no later than the October 5, 2015 regularly scheduled meeting of the Inland Wetlands Agency.**

**Mr. Reluga seconded the motion.**

Ms. Lozanov noted that it stated that a certified soil scientist be present for the work and that a monthly report be submitted on the progress with photos. She noted that Mr. Bialowans wanted to speak.

Attorney O'Connell noted that Mr. Fortunato represents Mr. Bialowans and has agreed to this work and that in allowing Mr. Bialowans to speak that he is getting 'two bites of the apple', so to speak.

John Bialowans, 61 Walnut Hill Road said that he had a few things to say. The road crossing that they are saying is abandoned is not as they walk it and use it for snowmobiles. Regarding the roadway, they never gave permission to them to use it even though everyone says that they did. He said that he wants a bond posted for them to be able to use it. No one has addressed the erosion at site #3 to #5 or #6 or the tributary temperature. Further Mr. Mingo wrote a Letter to the Editor about this so everyone knows where all of this came from. He wants a guarantee on the retention ponds and nobody mentioned Latimer Brook or Cranberry Brook. He spoke with someone from the Fisheries Dept. to do testing but they do not have the dollars to do another study of that area. He said that nobody is addressing the area from the beginning of Cranberry Brook.

He asked why it has taken so long to restore as it should have been done by now. It is not his fault and he is surprised that the Town has not done anything to get this done sooner. He wants the area restored back to what it was when his grandfather had it. His Attorney Janet Brooks was not able to attend the meeting this evening as she is busy doing a marathon up north. He said that he hopes that they give this more thought as he wants everything else addressed.

Ms. Lozanov asked what was not addressed and explained that when there was a breach of the inland wetlands that they became involved as otherwise it was the Siting Council who was in charge. She said that they have not ignored anyone and that they have acted once they were notified by him and his representatives. The crossing will be just that, a crossing and regarding the road – the understanding is that he had previously agreed that they could utilize it.

Attorney Harris noted that they would provide a certificate of liability insurance as any contractor does.

Ms. Lozanov continued that the motion represents a compromise agreement to get the work done and that his representative also agreed to the work as listed. They are trying to move this forward.

Attorney Harris added that they had two professionals/experts go out (one – Mr. Fortunato was Mr. Bialowans expert) and their expert (Mr. Klein) and they both agreed on what needed to be done.

Mr. Bialowans said that he wants the woody debris from a beaver dam removed.

Attorney O'Connell noted that the Commission has to keep in mind that orders are based on experts and their opinions. It would be difficult to enforce over and above the two experts recommendations.

Mr. Bialowans said that it is his property and he thinks that he should be considered an expert.

Ms. Lozanov said that while she understands what he is saying, that there are also changes that have happened to the land over time. They are trying to the best of their ability to get this work done.

Carol Murko, 61 Walnut Hill Road said at the March 27, 2015 meeting that it was decided with the mediator and experts – it was her understanding (as she was not taking part in it) that there was room for discussion on the matter afterwards.

Attorney Harris said that at that meeting that it was agreed that both experts would go into the field and if they did not agree then yes – they would go back and have further discussion. However, they agreed on the remediation.

Attorney O'Connell said that he would agree with that and that it would be only if the experts disagreed and they did not so they would go forward with the findings of the experts.

Mr. Bialowans said that he was not conferred with on this.

Mr. Mingo said that the clock is running and that he would like to call the motion.

Mr. Clarke said that the two experts are present here and asked them if they feel that there are any unaddressed items.

Mr. Fortunato said that there are none and that he feels that they addressed the significant areas. There are some areas where it is impossible to say exactly when things happened. The sediment is going to be cleaned up.

Ms. Lozanov said that their charge this evening is the motion that was presented and which is on the floor.

Mr. Mingo asked again to call the motion.

Mr. Goeschel noted that Judy Rondeau did say that the stream will work back to where it was. He also reiterated that he did not feel that anything had to be done but was over ruled by Mr. Fortunato and Mr. Klein.

Mr. Bialowans said that he wants the other items addressed and a bond posted for the Town to do work there.

Mr. Clarke said that he could pursue that however he likes but it is not the Town who is liable.

Attorney Harris explained that the Town of East Lyme is not sending anyone out to do any work and that a certificate of liability will be provided by the contractor.

Ms. Lozanov called for a vote on the motion on the floor.

**Vote: 7 – 0 – 0. Motion passed.**

- **Cease, Desist & Correct Order – 286 Flanders Road, East Lyme, CT – Gateway Development, East Lyme LLC Owner, Assessor's Map 26.0, Lot 2, East Lyme, CT and –**
- **Cease, Desist & Correct Order – Flanders Road – Gateway Development East Lyme LLC Owner, Assessor's Map 31.0, Lot 1, East Lyme, CT**

Mr. Goeschel said that Edward Avizinis was present to provide an update.

Edward Avizinis, Wetland Biologist/Soil Scientist with Natural resource Services Inc., provided an update noting that he and Scott Rabideau have been monitoring the area and have been able to maintain the site in good condition. He said that it was a dry May and that they may need to re-seed some of the areas and if so – they will do so.

(Note: 9:40 PM – Ms. Berger left the meeting)

Mr. Avizinis continued that there are some woody debris deposits in the river and noted vernal pool findings. He said that the roads need to be brought back down to grade and that they will continue to monitor and report on this project.

## **VII. New Business**

✦ **Petition of Timothy S. Hollister for Landmark Development Group, LLC and Jarvis of Cheshire, LLC under Connecticut General Statutes §8-30g to rezone 123.02 acres from RU-120, its existing zoning designation to Affordable Housing District (Section 32 of the East Lyme Zoning Regulations) and for approval of a Preliminary Site Plan (Section 32.9 of the East Lyme Zoning Regulations) which proposes open space of 87 acres for property identified in the application as Calkins Road, East Lyme, and further identified in Section 9 of said Petition as Boston Post Road, East Lyme Assessor's Map 31.0, Lot 4; 23 Calkins Road, East Lyme Assessor's Map 32.0, Lot 1 and Quarry Dock Road, East Lyme Assessor's Map 27.0, Lot 14.**

Mr. Goeschel explained that this is a referral from the Zoning Commission for a report on any inland wetland impacts. He said that he would be getting the information to them and that it includes the 2005 Judge Frazini decision that they will need to review.

Attorney O'Connell said that it is a large amount of material just to get on the record for an evening. Their job is only to address environmental aspects. Affordable Housing applications are not required to follow zoning. To be clear, he reiterated that their job is to respond to the zoning referral only and he advised that they not pre-judge anything as it is a narrow area which they will see when they receive the information from zoning.

Ms. Lozanov noted that building in a small area there would be a lot of impervious surface.

Mr. Mingo said that they have to make a decision based only on the information that they receive.

Attorney O'Connell stated that this is a referral and not a pre-application process. There is a difference, which they will see when they receive the information.

Mr. Goeschel said that it may require a special meeting however he was in the process of getting the information together for them to review.

## **VIII. Reports**

### **◆ Chairperson's Report**

Ms. Lozanov asked that she be called if a site walk was going to be cancelled.

### **◆ Inland Wetlands Agent Report**

Mr. Goeschel reported that he issued a Cease & Desist order for 57 Walnut Hill Road for failure to comply with the issued permit. Mr. Bialowans posted the bond but still needed to file a lot-line revision prior to any work being done. He has not filed the lot-line revision however he was working out there with no silt-fencing. He also failed to notify the Inland Wetlands Agent two days prior to commencing work. He passed out copies of the Cease & Desist to the members.

He said that he has scheduled a Cease & Desist Hearing on this for Monday June 15, 2015 at 6 PM.

Ms. Lozanov said that she was surprised at the amount of clear cutting and soil that was being moved up there as the work was clearly visible.

Mr. Goeschel asked that they also bring their calendars with them on Monday evening so they could set a date for a special meeting for the referral.

### **◆ Correspondence**

Mr. Goeschel passed out copies of information that Mr. Bialowans had submitted earlier this evening as advised to by the Chair under Public Delegations. (submitted)

**ADJOURNMENT**

**\*\*MOTION (6)**

**Mr. Clarke moved to adjourn this Regular Meeting of the East Lyme Inland Wetland Agency at 10:35 PM.**

**Mr. Reluga seconded the motion.**

**Vote: 6 – 0 – 0. Motion passed.**

Respectfully submitted,

Karen Zmitruk,  
Recording Secretary



June 5, 2015

Ryan C. McNamara  
Project Manager  
CENTERPLAN Construction Company  
10 Main Street, Suite D  
Middletown, CT 06457

**RE: Sediment Deposit Stabilization  
Antares Solar Farm  
Grassy Hill Road, East Lyme**

Dear Mr. McNamara:

At your request, Environmental Planning Services (EPS) Wetland Scientist James Cowen inspected the previously identified sediment deposition areas (see Figure 1) on May 29, 2015. Also present on the site walk were Gary Goeschel and Ted Harris. Overall, no new sediment was observed entering the wetland in any of the deposits nor was any new sediment observed in the streambed. More specifically:

**Sediment Deposition Area 1:** No additional measures are necessary.

*far north of site*

**Sediment Deposition Area 2:** This area is well vegetated; mostly with the existing vegetation that has grown through the shallow sediment. The area is deemed stable.

*relatively flat*

*well vegetated*

**Sediment Deposition Area 3:** This area is well vegetated; mostly with the existing vegetation that has grown through the shallow sediment. The area is deemed stable.

**Sediment Deposition Area 4:** The area is well vegetated. The existing vegetation that has grown through the shallow sediment; the seed has germination; and the installed herbs were growing in. Several species were in flower. such as Blue Flag Iris, Golden Alexanders, Cardinal Flower, Stout Wood Reedgrass, , White Wood Aster, and sedges. The sediment area is stabilized by vegetation, leaf litter, and extensive surficial tree and shrub roots. The area, including shallow flow paths and the streambank, is stable.

**Sediment Deposition Area 5:** The area is well vegetated with the existing vegetation that has grown through the shallow sediment. The seed has germinated and installed herbs were growing in. Some have already flowered. Blue Flag Iris, Golden Alexanders, Cardinal Flower, Stout Wood Reedgrass, , White Wood Aster, and sedges. The sediment area is also stabilized by vegetation leaf litter and extensive surficial tree and shrub roots. The area, including shallow flow paths and the streambank is deemed stable.

*robust vegetation*

*On-site (solar field) work*

89 Belknap Road  
West Hartford, CT 06117  
Phone 860-236-1578 Fax  
michael.klein@epsct.com

10 Maple Street  
Chester, CT 06412  
Phone 860-322-4524 Fax  
eric.davison@epsct.com

138 Mystic Road  
North Stonington, CT 06359  
Phone 860-535-0625 Fax  
james.cowen@epsct.com

[www.epsct.com](http://www.epsct.com)

*submitted*

*IWA*

*6/8/15*

Southernmost

**Sediment Area 6:** This narrow drainage feature had no new sediment and there was no new sediment at its outlet to the stream. There was a small sediment bar just upstream of the outlet. It consists of coarse sand, unlike the fine sediments seen in the depositions from the solar farm last year.

The conditions in these areas are illustrated in the attached photographs. In our judgment, the Sediment Deposition Areas in the wetland are vegetated and stable and do not require any additional measures. Final stabilization of the remaining areas upgradient will prevent further releases.

Please feel free to contact us if we can provide further assistance in this matter.

Yours truly,



submitted electronically

James R. Cowen  
Registered Soil Scientist  
Certified Professional Wetland Scientist

**MEMO**

**TO:** Don Fortunato, Gary Goeschel  
**FROM:** Michael Klein  
**DATE:** 4/30/15  
**RE:** Antares Solar Field, E. Lyme, CT

As we agreed in the field, I have prepared the following summary of our observations during site walk we conducted at the Bialowans property on Monday, April 13, 2015, from 10 a.m. to 12:30 p.m. The weather was sunny and warm,  $\pm 60-65^{\circ}\text{F}$ . The purpose of the investigation was to review the conditions along wetlands and watercourses, where Mr. Bialowans believed that sediment and stormwater discharged from the Antares site had damaged his property and the wetlands and watercourses thereon.

There are two drainage features that cross the property from north to south and Mr. Bialowans maintained that each has been damaged. After a brief discussion Fortunato, Klein, and Goeschel agreed that since the solar field did not drain to the western system, that it could not have been damaged by events traced to the development of the Antares site. Accordingly, the balance of the observations relate to the eastern drainage system, which flows southerly across the Bialowans property to a confluence with Cranberry Meadow Brook, a perennial watercourse that drains a substantial area west and north of the Bialowans property. We began our detailed assessment at the confluence and moved upstream. The approximate locations of the various sites are shown on the attached topographic map derived from the Town of East Lyme Geographic Information System. The actual locations were marked in the field with blue plastic flagging tape. The attached photographs were taken by Fortunato; each group is preceded by the numbered flag corresponding to the numbering below. Where operative, co-ordinates were obtained from a global positioning receiver operated by Goeschel, which information is available directly from the town.

**SITE 1**

This site is located at the confluence of the eastern tributary and Cranberry Meadow Brook. The tributary is 1-3' wide, 3-6" deep, with 6" high undercut banks. Cranberry Meadow Brook is 8-10' wide and 1-2' deep, with 1-3' high undercut banks. Both streams were running clear with sandy to gravelly bottoms and some cobbles and boulders. The tributary had a steeper gradient, riffle and pool morphology, and a correspondingly higher velocity but the flow volume

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89 Belknap Road  
West Hartford, CT 06117  
Phone 860-236-1578 Fax  
msklein52@comcast.net

116 Smith Road  
East Haddam, CT 06423  
Phone 860-873-9119 Fax  
edavison@comcast.net

138 Mystic Road  
North Stonington, CT 06359  
Phone 860-535-0625 Fax  
jrcowen@comcast.net

*Bialowans*  
*off-site work*

*IWA 6/8/15*

*3 pg.*

was much less. Cranberry Meadow Brook was lower gradient and in this area it exhibited predominately a riffle and run morphology. There is a 5-8' wide, 20-30' long area outside of the streams where several inches of sediment had been deposited. We agreed that any areas with more than 2-3" of sandy sediment should be stabilized; either by direct plugging and seeding as I suggested, or by raking up the sand and then plugging and seeding as Don Fortunato suggested. Either approach is acceptable to Centerplan Construction.

#### SITES 2 & 3

These are located a short distance upstream of the confluence, where either a debris dam or a small failed beaver dam had allowed three or 4 small sediment bars to accumulate in the stream channel. The sediment can be removed by hand shovel work. The total area of sediment to be removed is less than 25 s.f.

#### SITE 4

This is a former woods road crossing or stone ford of the tributary. A 5' x 5' by 3' deep pool at the lower end of the apparent crossing provides good fish habitat. The bank on the east side has been undercut and eroded away. We agreed that it should be stabilized with small boulders and large cobbles that are present in the streambed in the immediate area, and that if a crossing were to be re-built, it should be shifted slightly upstream to preserve the pool.

#### SITE 5

This site is located near the southerly end of what appears to be a channel (old mill race?) on the west side of the tributary. There are several small sand and silt deposits that should be removed by hand shovel work; the total area is about 25-35 s.f.

#### SITE 6

There is a small deposit of fine sediment at and just below the waterline at this location (<5 s.f.) which can be removed by hand with a shovel and bucket.

#### SITE 7

There is a small deposit of fine sediment at and just below the waterline at this location (<5 s.f.) which can be removed by hand with a shovel and bucket.

The existing wood road will allow a small loader/backhoe or bobcat access direct to Site 4 to assist in armoring the bank at the crossing as noted above. Sites 1, 2, 3, and 5 are close enough that the sand and sediment can be transported by wheelbarrow or bucket to the machine for removal. Sites 6 and 7 are smaller, and steeper, without good access. The small sediment deposits at those two locations can be broadcast onto the well-drained forested areas away from the brook without any adverse effect.

**APPROXIMATE LOCATIONS OF  
SEDIMENT REMEDIATION AREAS  
BIALOWANS PROPERTY, EAST LYME**

