

nancy.freeman@dem,
ri.gov

**R.I. DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES PERMITTING SECTION
FRESHWATER WETLANDS PROGRAM
APPLICATION INSPECTION REPORT**

Application No.: 16-0202

Applicant Name: DSM Realty Corporation

Biologist: Nancy Freeman

Response to Deficiency: no

Inspection Dates: September 23 and 28th, 2016

3.05(B) Wetlands Gain/Loss (for reporting purposes only): N/A

FRESHWATER WETLANDS IDENTIFIED(at least):

Swamp and 50-foot Perimeter Wetland (D-Series)

Stream, 100-foot Riverbank Wetland and Floodplain (within D-Series)

Swamp and 50-foot Perimeter Wetland (G-I –J Series)

Forested Wetlands: A,C, E,F,H,

B Series-at least Forested Wetland-mostly offsite

River (Lippett Brook), 200-foot Riverbank Wetland and Floodplain

PROJECT PURPOSE AND PROPOSED ALTERATIONS:

The purpose of this project is to install a solar farm on a large 100-plus acres site, of which approximately 67 acres is proposed for its development. Clearing, grading, and soil disturbance is proposed in phases with stormwater management (infiltration trenches), gravel roads, perimeter fencing and landscaping. Alterations are proposed outside of freshwater wetlands as shown on the site plans.

III. REVIEW COMMENTS:

The site is over 100-acres containing overgrown agricultural fields, forested upland and freshwater wetlands. Within eastern portions of the site, Lippett Brook (classified as warm water) and an associated corridor of swamp bisect north to south across the entire site. The former site was approved for a 42-lot subdivision under cross-reference Application No. 05-0107 with approximately 40 acres of open space (outside the wetlands) that helped to further buffer the adjacent wetland resources from impacts. The majority of available upland is currently proposed for development of the solar farm. Large tracts of upland areas are proposed to be deforested to make the site suitable for a solar farm. The tree canopy present is comprised of at least Oaks, Hickory, Red Maple, Beech with some White Pine and patches of old Pitch Pine. These mast producing trees provide food for numerous wildlife species and nesting sites for birds and some mammals. Deer trails are abundant. The topography is hilly with numerous ledge outcropping and surface erratics. Previously disturbed portions of this site are well suited for a solar farm. However, forested upland habitat, outside of this Program's regulatory authority, would be detrimentally impacted.

Site inspection revealed the wetland flags have been re-established on-site and the limit of disturbance (LOD) flagged and labelled. Based on site inspection, coupled with aerial photograph review, prior review and cross-reference file review, the delineated wetland edges appear to be generally accurate, although not verified, with one minor exception (see-below). The wetlands shown on the site plan are the same extent and configuration as shown on the previous subdivision approval.

On-site, wetland was identified outside of the re-established wetland flags. This might be due to minor surveying errors in re-establishing the wetland edge. The area of concern was identified in the proximity

of Flag D31 and LOD flags 219 through 222. At least one remnant wetland flag was observed near this area (near LOD Flag 220). In addition, Flags D-32 and D-33 appear slightly interior of the actual wetland edge. Complicating review is that this portion of the wetland and adjacent LOD are only partially represented on the more detailed sheets at the scale of 1" = 40'. Field corrections should be made to the wetland edge and the LOD revised accordingly to further avoid and minimize impacts to freshwater wetlands, where applicable. The LOD and corresponding wetland edge should be depicted on revised site plans between approximately Flags D-14 through D-26 at the scale of 1" = 40'. Wetlands should be labelled on all pertinent site plan sheets. Engineering deficiencies have been identified.

RECOMMENDATION: Send comment letter.

Signed: Nancy Freeman

SITE INSPECTION REPORT

File Number: 16-0202

File Name: DSM Realty Corp (Gold Meadow Farms Solar Array Project)

Inspection Date: January 24, 2018 (9:00 am through ~12:15 pm)

Location: Approximately 1,500 feet east of Lippett Avenue and approximately 2,800 feet southeast of its intersection with Hope Road, Assessor's Plat 23, Lot Nos. 6,7,8,15,20 &36 and Assessor's Plat 30/3, Lot 240, near Utility Pole No. 11, Cranston, RI.

Purpose of Inspection: Compliance

Biologist: Nancy Freeman with Joe Camara, Engineer, RIPDES Program

Details of Inspection:

In response to complaints received, some of which were related to construction practices within upland areas, I requested that a staff engineer from the RIPDES Program accompany me. A joint inspection was conducted with Joe Camara. After checking in at the construction gate, we met Brian Palumbo, the Construction Site Supervisor from J.R. Vinagro Corporation out of Johnston, RI. After introductions, Joe Camara asked to see the required RIPDES paperwork. While the two discussed RIPDES requirements, I conducted an inspection of the wetlands and limit of disturbance (LOD) nearby. Per Weather Underground precipitation data for Cranston, RI, 1.45 inches of rain fell on January 23rd, the day before the inspection. A blow-out had occurred at the toe of slope at the terminus of the access road where the road enters interior portions of the site. This is a topographic low spot, exacerbated by recent clearing and grading activities. I followed the flow path into the swamp. A thin film of sediments was observed within perimeter wetland and turbidity was observed where standing water is present within the swamp. Another channel flowing from the northwest into the swamp was clear, indicating that the source of sediment-laden runoff entering the swamp was originating from the breached area noted above. Turbidity was noted in the swamp from approximately Flag D7 to D18. Approximately at Flag D18, a stream channel becomes defined and the associated swamp narrows as the stream flows downslope. The stream was flowing clear at the time of inspection from that point south. I continued to inspect the LOD beyond a large stone fill pile just north of the Z-series forested wetland where another breach occurred (see-photo 5) within the outer edges of the wetland. At this point I walked back to the truck to see if Joe Camara had finished discussing paperwork with Mr. Palumbo.

When the two had concluded their discussion, it was decided that Mr. Palumbo would drive us around the perimeter road to the extent possible (where constructed) to inspect. Prior to that Mr. Palumbo indicated that the recent rain event the day before was way worse than the rain event the week prior. The soils had thawed out after an extended deep freeze and numerous flow paths and erosive gullies had formed. They had tried to reinforce the erosion controls with a pea stone berm in the area that had breached (see-picture 1). They also tried to re-route drainage from the breached area into interior portions of the site via a stone berm, some of which had worked, but clearly was not sufficient (see-photo 2). Mr. Palumbo also indicated that Dave Russo, the owner's engineer from DiPrete Engineering, had been on-site that morning to discuss drainage issues and temporary measures to control water such as the possibility an additional sediment basin near the breached area.

We proceeded to drive the perimeter road. The entire site (where observed) has been cleared and grubbed with grading and blasting activities ongoing in southern portions of the site. Northern portions of the site have been levelled and are more stabilized. The temporary basins are no longer present (per Mr. Palumbo) in the areas where the permanent stone trenches are now present. We only observed one temporary basin in this general area. In order for me to conduct my inspection, I needed to get out of the vehicle and walk the LOD along the wetland edges. Joe Camara decided to join me. Mr. Palumbo left while we completed our inspection on foot. The recent thaw and disturbed soils made walking extremely prohibitive. We walked the LOD along the eastern boundary and found no problems with the LOD or erosion controls in that area, which is generally higher and drier. This is the LOD along the Lippett Brook riparian corridor (200-foot riverbank wetland). We did not inspect the southernmost portions of the site due to ongoing heavy equipment operations. I did inspect the LOD near all wetlands except along the southeast property corner.

Prior to leaving, I spoke with Mr. Palumbo. I told him that there are concerns based on breaches in the erosion controls that have resulted in impacts to the wetlands. I told him that I will be discussing my findings with the Supervisor and that we would be in touch. I reiterated that the permit conditions state that you not only have to maintain erosion controls but you must add to them (supplement them) and modify them throughout the construction period to prevent sediments from entering the wetlands. He stated that they were trying and again mentioned that yesterday's rain event was the cause of the problems I noted. I asked that he reinforce erosion controls, especially at the breach near the top of the access road. He said that he would, but that they were attempting to keep flow completely away from that area through the temporarily created berm. On the way out, Joe Camara and I inspected the access road prior to the construction site based on complaints received that equipment had flattened out a natural channel that typically flows over the roadway into the woods, but that was now flowing down the road and undermining its integrity.

My findings are as follows:

- The LOD along the Lippett Brook riparian corridor appears in general conformance with the approved site plans.
- Western portions of the LOD near isolated wetland "C" and "H" have been exceeded in part through emergency mitigation measures implemented to combat erosion from grading activities and natural site topography-see Picture 6. Mulched wood chips and stone have been pushed down slope and into the outer portions of Wetland H (see-picture 6). A flow path (pushed leaves) extends downslope from Wetland H into a larger off-site wetland juxtaposed between topographic ridges and outcrops. A channel flows within portions of this off-site wetland, which is part of the "B"-Series. Wetland C is located at the base of a huge stone fill slope and is basically functioning like a detention basin. Standing water, which appears to exceed typical hydrologic conditions is turbid. Grading contours for the proposed perimeter road do not appear to match site conditions. However, work is ongoing. There is a steep stone fill slope along the entire edge of the wetland along the LOD. Sediments have also accumulated into the outer portion of Wetland "B," at least near Flags B4 through approximately B9.
- As previously stated, a breach in erosion controls has occurred near resulting in a release of sediments into perimeter wetland and the D-Series swamp. Past the immediate breach where sediments have accumulated, a thin film of sediments was observed within a flow path in the perimeter wetland and turbid water observed where present within the swamp. Turbidity was noted in the swamp from approximately Flag D7 to D18.

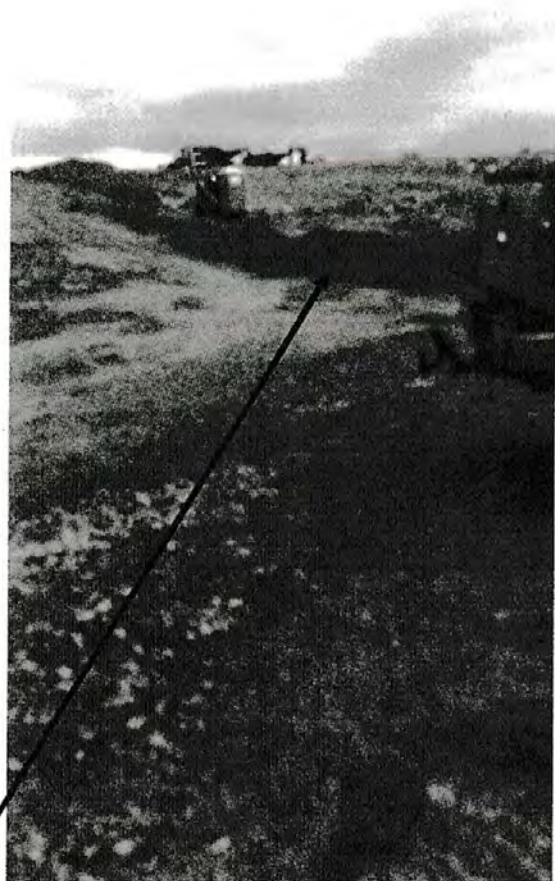
- Erosion controls have been breached resulting in some sedimentation into isolated forested wetland "Z" (see-picture 5). A review of the adjacent lobe of D-Series swamp (~Flags D-30 through D45) did not reveal the presence of any sedimentation.
- Erosion controls protecting isolated Forested Wetlands E and F are grossly inadequate based on fill slope bounding the F-series Wetland in particular (see picture 7, 8 and 9). Both wetlands appear to be functioning more as detention basins with hydrologic conditions appearing artificially high. There appears to be an increase in the quantities and flow rates of surface water entering these isolated wetlands.
- Drainage is flowing down the access road, rather than across it (see-picture 10). A channel flows from the woods to the north of the road down slope and into the road. There is a dry channel across the street that loses definition shortly thereafter. While the channel is likely an ASSF, there are no wetlands immediately along the road in this location. Drainage is flowing down the street towards Lippett Avenue. Filter socks are directing flow into the woods further west than the established flow path. The roadbed is being further undermined by a sump pump draining from a residence onto the road.

Recommendations: Coordinate with the RIPDES Program and issue a letter with restoration requirements. Re-inspection is needed once water levels infiltrate to determine the extent of any accumulated sediments in wetlands. If there is an amount that can be removed via hand-held implements (i.e. shovels), then this should be required with approval from any adjacent landowners if needed. Until the growing season arrives and soils can be permanently stabilized, immediate corrective measures must be implemented to prevent sediments from entering wetlands. Fill material must be removed from all wetlands and adjacent soils stabilized with at least an appropriate seed mix as soon as weather permits. In low areas near wetlands, erosion controls are inadequate and must be supplemented and maintained.

1/25/2018: Dave Russo from DiPrete Engineering left a message regarding my site visit and specifically regarding the access road. Additional rain is in the forecast and the property owner is requesting to install a culvert(s) at the ASSF crossing to prevent further washout. Per discussion with the Program Supervisor, the installation of a culvert (or a couple small culverts) is acceptable given the circumstances and provided that drainage is directed to its existing, established flow path. The installation of culverts will help to prevent roadway sediments from entering any downstream wetlands.

Nancy Freeman
Inspector

Picture 1 (facing approximately south/southeast at main breach near terminus of existing access drive.
Note huge stone fill piles in background.

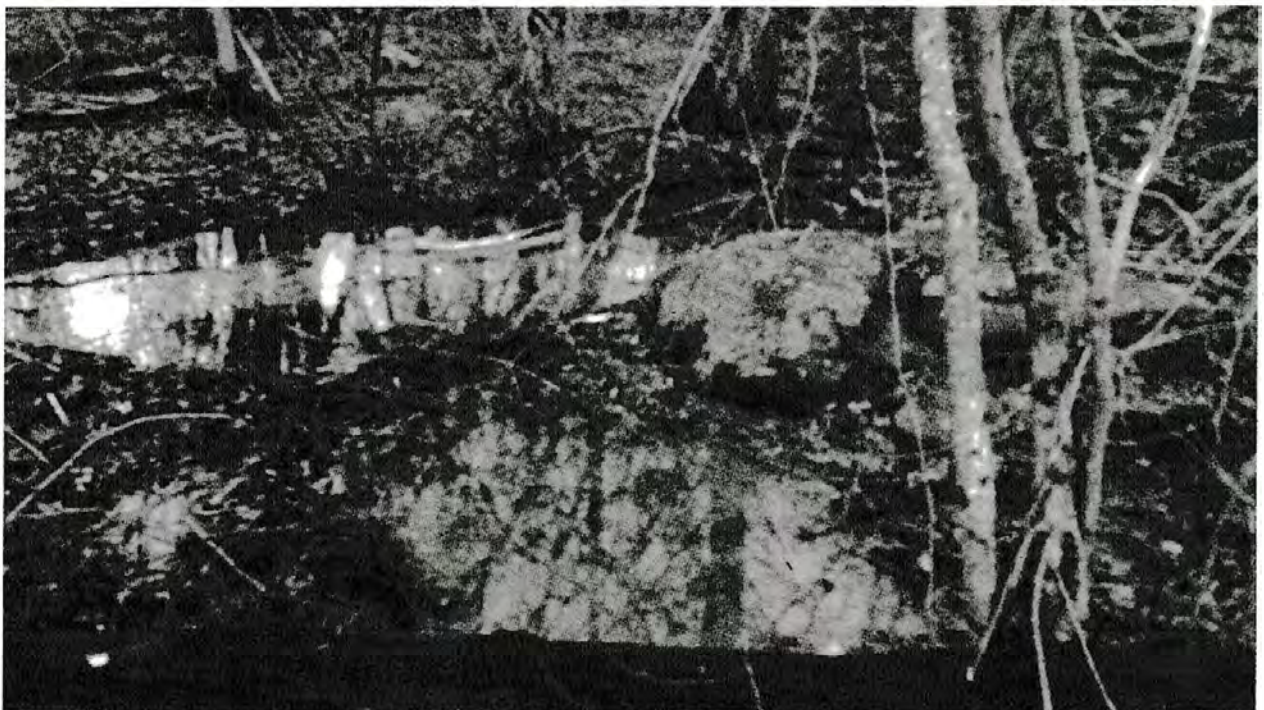


Picture 2-Berm created as an attempt to re-route site drainage from main breach point

Picture 3-facing west towards the D-Series swamp from near the large fill piles.



Picture 4-typical turbid conditions observed in freshwater wetlands throughout the site.



Picture 5-sediments accumulated into Wetland Z (Forested Wetland)



Picture 6-Breach near up to and within outer portions of isolated forested wetland H. Mulched chips and stone placed to prevent erosion.



Picture 7: Wetland F (Forested Wetland)



Picture 8: Wetland E (Forested Wetland-an existing cartpath separates these tow wetlands)



Picture 9: Pre-construction cartpath between Wetlands E and F during growing season



Picture 10-access road



SITE INSPECTION REPORT

File Number: 16-0202

File Name: DSM Realty Corp (Gold Meadow Farms Solar Array Project)

Inspection Date: February 14, 2018 (~9:30 am-11:00am)

Location: Approximately 1,500 feet east of Lippett Avenue and approximately 2,800 feet southeast of its intersection with Hope Road, Assessor's Plat 23, Lot Nos. 6,7,8,15,20 &36 and Assessor's Plat 30/3, Lot 240, near Utility Pole No. 11, Cranston, RI.

Purpose of Inspection: Compliance

Biologist: Nancy Freeman

Details of Inspection: A re-inspection was conducted to check current site conditions, specifically targeting wetland areas of concern previously inspected on January 24, 2018. My findings are as follows:

- **C-Series isolated Forested Wetland:** Same condition as previous inspection. Turbid, standing surface water, steep stone slope bounding eastern edge. Filter sock along eastern edge under water. However, another filter sock has been placed further upslope. Based on high water levels, difficult to determine if any sediments on substrate. Need to reinspect during the dry season.
- **B-Series Forested Wetland:** New Limit of Disturbance (LOD) stakes have been recently placed and new survey flagging that appears to indicate the property line. Clearing has not been completed. A fringe of forest remains in this area that is proposed to be cleared. LOD 7 is on the outer edge of the wetland just outside of Flag B2. LOD 7 connecting to LOD 6 would result in an impact to the outer edge of the B-Series wetland. These stakes need to be revised slightly to avoid impacts. Some shallow standing water is present within this portion of the B-Series. Leaves on the substrate have a coating or film of sediments. Further north, accumulated sediments varying from approximately 2-inches through 5-inches were observed within the wetland along the immediate edge near Flags B8 and B9. Sediments need to be shoveled out by hand. Most of the B-Series wetland is offsite and meanders around and is sometimes bounded by topographic features. The channel within the B-Series closest to the project limits was not flowing at the time of this inspection.
- **H-Series Forested Wetland:** Sediments have accumulated in western portions of the wetland beyond the LOD. Many of the flags are missing. The sediment accumulations extend approximately from LOD Flag 10a to approximately 10 feet south of Wetland Flag H2. Although sediments are shallow, they must be removed and preferably prior to the growing season. Sediments should be removed by hand or by a piece of equipment with a small shovel operating from the adjacent upland. There is a drainage flow path (pushed leaves, slight scouring, no defined channel) that outlets from the H-Series wetland (north of Flag H10) that flows into the B-Series downslope. At least until the site is stabilized, a section or two of filter soxx should be placed like a check dam across the flow path to slow the velocity of any high rain events to prevent sedimentation.

- **D-Series Swamp:** Some infiltration has occurred since the last inspection after a heavy rain. Where surface inundation remains, there is a coating of sediments on the underlying leaf layer up to approximately Flag D-18 as previously noted. In areas where water is no longer present, a thin film on the leaf layer is present. Under current conditions, sediments are only deep enough to remove near the erosion control/pea stone berm at the aforementioned breach (See SIR dated 1/24/18). The swamp should be re-inspected during the dry season to determine if any sediments remain that require removal.
- Based on ongoing heavy equipment operations, **Wetlands E, F and Z were not re-inspected.** As previously noted during the January 24, 2018 inspection, erosion controls were breached resulting in some sedimentation into isolated forested wetland "Z, which should be removed by shovel and erosion controls protecting isolated Forested Wetlands E and F need reinforcement. Wetlands E and F should be reinspected for sedimentation once water levels have dropped. Additional restoration measures (perhaps incorporation of low growth native shrubs plantings) might be suggested for installation along steep slopes adjacent to wetlands pending final grading and stabilization.
- Heavy equipment was operating within interior portions of the site with crushed stones and gravel continuously being loaded onto trucks and trucked off-site. Large trucks were observed coming and going regularly while I was on-site. A culvert has not yet been installed on the access road as previously requested to address localized flooding problems. Drainage from the natural channel continues to flow down the roadbed and mostly into the woods further west than its original channel. The channel was not flowing to the same extent it was during the last inspection, which was after a major rain event. Some drainage flow continues further down the road into Lippett Avenue and into the woods near the Lippett Avenue Road frontage. Lippett Avenue has been recently repaved. Drainage flows southerly along the street and into paved swales that enter adjacent wetlands.

Nancy Freeman

Inspector

Telephone Memo

Application No. 16-0202

Date: February 14, 2018

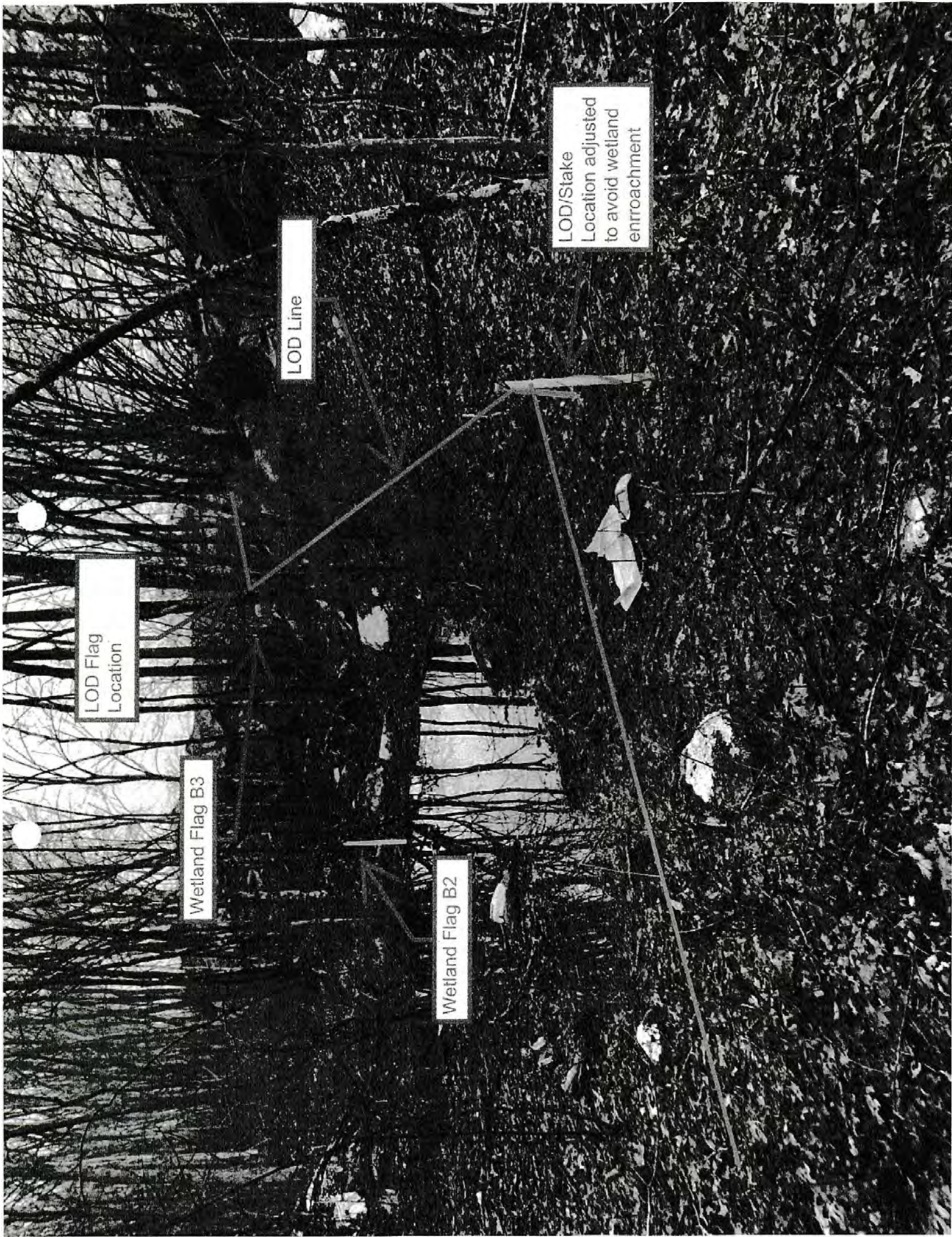
To: Dave Russo, DiPrete Engineering

From: Nancy Freeman

Subject: Site inspection 2/14/18

I called Dave Russo of DiPrete Engineering prior to inspection to inquire about whether the culvert had been installed on the access road, since I received a new complaint. He indicated that it has not been installed yet that there were issues pending availability, design, pricing etc. I also called Dave back after the inspection. I asked that if possible LOD stakes 6 and 7 be relocated prior to work out there to ensure that no physical encroachment into Wetland B would occur. He said that they have a surveyor out there tomorrow (2/15) that they would take care of it and make sure that no work occurred there until they could revise the stakes accordingly. I asked about why they even needed to do any further clearing there, that nothing was proposed in this location. He explained that it has to do with the effect of shading on solar panels. Provided they slightly tweak the stake locations to avoid impacts to Wetland B, clearing is outside of wetlands.

Signed, Nancy Freeman



LOD Flag
Location

Wetland Flag B3

Wetland Flag B2

LOD Line

LOD/Stake
Location adjusted
to avoid wetland
encroachment



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street
Providence, Rhode Island 02908

CERTIFIED MAIL

February 22, 2018

DSM Realty Corporation &
CWW, LLC, Ron Rossi
c/o DSM Realty, David Malkin, President
150 Chestnut Street
Providence, RI 02903

RE: SSRE RI Gold Meadow Farms
Freshwater Wetland Permit No. 16-0202
RIPDES Construction General Permit Authorization No. RIR101456
Letter of Non-Conformance

For the property and project located approximately 1,500 feet east of Lippett Avenue and approximately 2,800 feet southeast of its intersection with Hope Road, Assessor's Plat 23, Lot Nos. 6,7,8,15,20 &36 and Assessor's Plat 30/3, Lot 240, near Utility Pole No. 11, Cranston, R

Dear Mr. Malkin and Mr. Rossi

This letter is being written in response to permit compliance evaluation inspections that the Rhode Island Department of Environmental Management (RIDEM) conducted at the above-mentioned construction site on January 24, 2018 and February 14, 2018. Based on these inspections, the RIDEM is notifying DSM Realty Corporation and CWW, LLC that it is in Significant Non-Compliance (SNC) for failure to properly install and implement proper Best Management Practices ("BMPs"). This failure of proper installation, implementation and maintenance of BMP's has resulted in the unauthorized alteration of freshwater wetlands on the project site.

The following paragraphs provide more detail regarding the specific conditions that were identified as being deficient during the inspection, as well as required corrective actions to take place to address deficiencies in the soil erosion and sediment control practices on site:

1. A properly executed Soil Erosion and Sediment Control (SESC) plan was not available on site. Please complete and submit to the RIDEM copies of the following: a signed version of Section-7 (Party Certification) of the Plan and an authorized Stormwater Facility Maintenance Agreement.
2. Page 13 of the Soil Erosion and Sediment Control Plan (SESC Plan) indicates that for all the project phases the exposed area will be 5 acres or less. However, the RIDEM estimates that over 40 acres was cleared and graded and the operator did not provide any temporary vegetative or structural stabilization. Please be aware that section 3.3.7.5 of the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM) requires that all disturbed soils which do not have adequate vegetative stabilization by November 15th must be stabilized through the use of non-vegetative erosion control measures. If work continues within any of the disturbed areas during the period from October 15th through April 15th care must be taken to ensure that only the area required for that day's work is exposed, and all erodible soil must be restabilized within 5 working days. Therefore, please clearly identify what steps will be taken to correct these deficiencies.

3. During the site inspection the RIDEM noticed that only one sediment trap was installed within the limits of disturbance. The RIDEM estimates that over 40 acres of the project area was cleared and graded which exceeds the design criteria for a temporary sediment trap. Therefore, please immediately implement steps to provide temporary sediment traps in the locations that are shown on the approved site plans.
4. According to sheet 8 of the site plans the contractor was to install silt fence around all earth stockpiles. However, during the January 24th site inspection the RIDEM noticed that the stockpiles were not surrounded with staked haybales or filter rolls. Therefore, the operator must take immediate actions to institute the required erosion controls along the perimeter of all material and earth stockpiles.
5. During the site inspection the designated construction entrance was identified as being in need of maintenance. Part II.B of the RIPDES Construction General Permit (CGP) requires the maintenance of all Best Management Practices to prevent the uncontrolled release of measurable amounts of sediment or sediment laden water from traveling beyond the limits of disturbance. Section D of the Rhode Island Soil Erosion and Sediment Control Handbook directly addresses the procedures required to adequately maintain construction entrances. Therefore, the operator must immediately correct the current condition of the construction entrance.
6. As depicted on the approved site plans, silt fence or straw wattles were to be installed on the up-gradient side of the infiltration trenches. However, during the inspection the RIDEM noticed that sediment controls were not installed up-gradient of the infiltration trenches. Please note that many site areas around the infiltration trenches were not stabilized. Therefore, the operator must take immediate steps to correct this deficiency and the engineer must determine whether or not sediment build-up has limited the infiltration capabilities of the infiltration trenches to less than the design infiltration rate.
7. Per section 2.7 of the SESC Plan, the operator must stake out the site locations where the long-term stormwater practices will be installed to prevent compaction or clogging of the soils by construction equipment. During the inspection the locations for the proposed long-term stormwater practices were not clearly marked with stakes or flagging. Therefore, the operator must correct this deficiency.
8. During the site inspection the RIDEM was unable to locate the temporary grass swales that were shown on the site plans. However, the RIDEM did notice a shallow depression located along the western property line that was full of sediment and water. Therefore, temporary grass swales must be installed in the locations shown on the approved site plans.
9. Section of 2.9 of the SESC Plan indicates that the operator must create and adopt a spill control plan that includes measures to contain and clean up a spill. During the inspection the operator indicated that there was a spill containment kit at the site. Please provide a description of the spill containment kit, and ensure that the spill control plan/spill kit are stored in a prominent location at the site.
10. During the site inspection the inspection reports were not available to be shown to the inspector upon request. According to section III.J.3.b.III of general permit, all records of inspections including records of maintenance and corrective actions must be maintained with the SESC Plan. Therefore, please ensure that copies of the inspection reports are maintained with the SESC Plan.
11. According to Section 4.3 of the SESC Plan the site must be inspected by the operator at least once every seven days and within twenty-four hours after any storm event which generates at least 0.25 inches of rainfall per twenty-four hours. However, upon review of the inspection reports the RIDEM

noticed that only weekly inspections were checked. Since, none of the boxes for post-storm-event inspections were checked it appears that the operator did not do site inspections after any storm events that generated at least 0.25 inches of rainfall. The operator must provide the corrective action date on the inspection form. Therefore, please clearly identify what steps have been taken to correct this deficiency.

12. During the inspection the operator informed RIDEM inspectors that the project's commencement date was September 16, 2017. However, on January 3, 2018, the RIDEM received copies of the inspection reports from October 20, 2017 to January 23, 2018. Therefore, please provide copies of the inspection reports from September 16, 2017 to October 20, 2017.
13. Upon review of the inspection reports the RIDEM noticed that some of the sections within the weather information section were not completed. The operator must provide the date of the last rain event, duration, approximate rainfall, rain gauge location and source, weather at the time of the inspection on all future inspection reports.

The above-detailed instances of failure to properly implement your SESC and maintain a stable construction site while adhering to the approved site plans has resulted in the project proceeding in non-conformance with the terms and conditions of the permit issued by this Program on November 30, 2016 for Application No. 16-0202; RIPDES File RIR101456 (copy of letter enclosed).

Specifically, you are in non-conformance with the terms and conditions of the permit in *at least* the following instances:

1. In non-conformance with Condition No. 2, site alterations have occurred beyond the approved limit of disturbance ("LOD"). Specifically, sediment laden runoff and fill material in the form of accumulated sediments has been deposited in freshwater wetlands outside the approved limit of disturbance within at least Wetlands D, E, F, C, H and Z.
2. In non-conformance with Condition No. 10, erosion and sediment controls were not properly maintained, replaced, supplemented or modified as necessary throughout the life of this project to minimize soil erosion and to prevent sediments from being deposited in any wetlands not subject to disturbance under this permit.
3. In non-conformance with Condition Nos. 12 and 13, all best management practices detailed and described on the approved plans were not installed and/or were not maintained to prevent harm to adjacent freshwater wetlands. Specifically, erosion controls and temporary sediment basins (traps) were not installed in accordance with the approved site plans.

In order for the project to return into conformance with the terms and conditions of the permit and the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act ("Rules"), the following actions are required *in addition to* all items noted above:

1. Replace, maintain, reinforce and otherwise supplement erosion controls along the approved LOD adjacent to Freshwater Wetlands D, E, F, C, H and Z and as needed elsewhere on-site for the duration of the project until all disturbed soils are properly stabilized.

2. Remove accumulated sediments from the following wetlands to a suitable upland location as indicated below:
 - a. Wetland B: Remove accumulated sediments via hand held implements and using buckets or wheelbarrows as appropriate, specifically near Flags B8 and B9 where sediments have accumulated to a depth that can be removed.
 - b. Wetland H: Remove accumulated sediments via hand held implements and using buckets or wheelbarrows as appropriate approximately between LOD Flag No. 10a to approximately 10 feet south of Flag H2 where sediments have accumulated to a depth that can be removed. There is a drainage flow path (pushed leaves, slight scouring) that outlets from the H-Series wetland (near Flag H10) that flows into the B-Series downslope. A section or two of filter soxx or straw bales could be placed as a check dam across the flow path to slow the velocity of any high rain events to prevent sedimentation from entering downstream wetlands and/or better reinforce erosion controls along the LOD.
 - c. D-Series: remove accumulated sediments from between the stone berm and the line of filter soxx from the perimeter wetland (opposite approximately Flags D7) by hand or from a piece of equipment operating from the adjacent upland. Please note that sediments laden runoff has been released into Swamp D and further action might be required at a later date (see paragraph below).
 - d. Wetland Z: remove accumulated sediments along the outer edge by hand or from a piece of equipment operating from the adjacent upland.

Please be advised that due to seasonally high water levels within the wetlands, the Department was unable to confirm in some instances whether sediment has accumulated at depths that would impact the functions and values of the receiving wetlands, and will be re-inspecting the site on at a future date to determine if any further restoration requirements are needed. Once water levels have suitably dropped, if unacceptable levels of accumulated sediments remain, follow-up measures will be required at that time. For example, at least Swamp D as noted above and Forested Wetlands B, C, E and F have surface inundation with turbid water conditions and are targeted for reinspection.

Additionally, OWR Inspectors noted that, as a result of disturbance from heavy truck traffic and snow plowing along the roadway leading into the site, the pathway of stormwater flow has been modified. Whereas pre-existing conditions allowed stormwater to flow across the road in a shallow ditch, it is now flowing west along the road and both entering the woods to the south in a different location as well as flowing into Lippitt Avenue, and thence south to finally flow into downstream wetlands. While the Department did not observe any actionable violations at this time, you are advised to address this flow diversion in a timely manner so as to return stormwater flow along its pre-existing pathway before erosion along the current flow path results in significant impacts to downstream wetland areas.

Please note that the Office of Water Resources is considering referral of this construction project to the DEM's Office of Compliance and Inspection for appropriate enforcement for failure to properly install, operate, and maintain BMPs. Failure to satisfactorily address the above stated deficiencies and required actions and respond within fourteen (14) calendar days may result in additional enforcement actions. The written response must include photographic documentation of the corrective actions taken to address the comments.


Mr. Malkin and Mr. Rossi
February 15, 2018
Page 5 of 5

If there are any questions regarding this letter's requirements, you may contact Joseph Camara with respect to SESC deficiencies at 401-222-4700, extension 7640, or Nancy Freeman with respect to wetland restoration items at 401-222-4700, ext. 7408.

Sincerely,

Joseph Camara, Senior Engineer
RIDEM Office of Water Resources
Construction Stormwater Engineering, Floodplain and 401 Permitting Program

and


Charles A. Horbert, Program Supervisor
RIDEM Office of Water Resources
Freshwater Wetlands Program

Enclosure: Letter dated November 30, 2016

ec: Eric Beck, Chief of Groundwater & Wetlands Protection
Sam Kaplan, RIDEM RIPDES Program
David Russo, DiPrete Engineering
Ralph Palumbo, Southern Sky Renewable Energy, RI. LLC

xc: Kevin Burke, Cranston Building Official
Kenneth Mason, Cranston Public Works Di
Brian Palombo, Vinagro



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF LEGAL SERVICES

235 Promenade Street
Providence, Rhode Island 02908

November 20, 2018

Mr. Kenneth Mason, PE
Director of Public Works
Cranston City Hall
869 Park Avenue, Room 109
Cranston, RI 02910

Robert D. Murray, Esquire
Taft & McSally, LLP
21 Garden City Drive
Cranston, RI 02920-5703

Mr. Peter Espinal
National Grid
280 Melrose Street
Providence, RI 02907

RE: Narragansett Electric Company Easements – Southern Sky Renewable Energy RI, LLC

Dear Sirs,

I would like to thank the representatives of National Grid, Southern Sky Renewable Energy RI, LLC ("SSRE") and the City of Cranston for meeting with staff from the Department of Environmental Management ("DEM"), the Attorney General, and the Office of Energy Resources and providing information relating to the interconnection for the Gold Meadow Farm Solar Project in Cranston (the "Project"). At the meeting DEM was presented with survey and site information regarding the Narragansett Electric Company easement requests over land owned in fee by DEM, known as John L. Curran State Park ("Curran Park"), and over land owned in fee by the City of Cranston known as the Knight Farm which is restricted by a Conservation Easement held by DEM. While it was helpful to receive a map of the project, we were anticipating and require a greater level of detail regarding the Project and the requested easements. DEM has reviewed the materials submitted and provides the following comments in response to the submissions.

In correspondence dated September 13, 2018 to Cranston Public Works Director Kenneth Mason, we requested information regarding alternative routes and options for the interconnection. While this was briefly discussed at the meeting, DEM would like to have a written summary of the alternative interconnection routes considered by SSRE, such as the existing National Grid right-of-way, a route

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along Hope Road, or any other alternatives, and the reasons those routes were not selected. In regard to alternatives, DEM requests a detailed explanation regarding why burying the power lines or other mitigation efforts to offset the impacts are not acceptable alternatives. DEM also requests that a plan and picture of the type of poles planned for the Project be submitted.

DEM staff have reviewed the site with the plans presented at the meeting. It would be very helpful if the tree numbers could be noted on the site plan and the trees for ease of review. As you are aware, there are some trees marked for removal that are outside of the existing right-of-way. There also appear to be poles that potentially may not be in the right-of-way. DEM will need to get clarification of exact locations.

Mr. Mason mentioned that the City of Cranston Tree Warden has completed a process regarding the tree removal and trimming. DEM was not notified of this process and would like to receive copies of the written record and the decisions rendered. While some of the trees are in poor condition, trees provide aesthetic, air and water quality benefits. Some type of restoration for the effects of the proposed removal will need to be evaluated as discussions move forward.

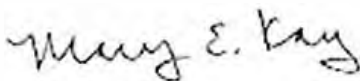
The Knight Farm property is encumbered by a Conservation Easement held by DEM. The Easement provides that any "removal, destruction or cutting of trees or plants" and the "placement or construction of... utility poles, conduits, or lines" must be consistent with the management plan for the property. The City has already been put on notice that DEM has never received a management plan for the Knight Farm and that one needs to be submitted to DEM for review and approval.

Curran Park is a two hundred sixty-three (263) acre state park that is restricted by R.I. Gen. Laws § 32-1-5.1. The 1999 statute restricts the use of the park to passive outdoor recreation purposes and designates the land as open space.

A review of the proposed interconnection route also reveals portions of the route will cross through wetland areas that will not meet the exemption criteria for utilities covered by DEM's Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act Rule 6.10. According to the plans submitted at our recent meeting, alterations will be occurring outside existing or approved cleared shoulders. DEM has been working closely with the DiPrete Engineering on SSRE application # 18-0162 on the portion of the interconnection for the Project located on Lippitt Avenue. Permit applications or additional supplemental information relating to all nonexempt alterations within wetland areas will need to be submitted to DEM's Office of Water Resources in either the form of new permit(s) or a supplement to the permit currently under review.

We look forward to receipt of this additional information. In general, the earlier discussions regarding land use restrictions, permitting, goals and alternatives can occur in the trajectory of a project, the better the process. If you have any questions, please feel free to contact me. DEM will continue to work with you towards a successful resolution of this issue.

Sincerely,



Mary E. Kay
Executive Counsel

cc: Gregory Schultz, Esquire
George W. Watson III, Esquire
Christopher Kearns

SITE INSPECTION REPORT

File Number: 16-0202

File Name: DSM Realty Corporation

Inspection Date: January 17, 2019

Location: Gold Meadow Solar Array, Lippett Ave., Cranston

Purpose of Inspection: Compliance

Details of Inspection:

- I first inspected the southeast corner of the solar array adjacent to the off-site forested wetland with access from Newlight Street in West Warwick. Erosion controls could be bolstered in this area (see Photos 1 and 2). There is some evidence of overflow, although no sedimentation was observed in the offsite wetland. Braided flow paths are present in this wetland that extend down slope to another pocket of forested wetland. These wetlands are separated from Lippett Brook and associated swamp by landforms. Lippett Brook is flowing clear (Photo 3).
- I drove to the entrance of the solar array. Two new poles have been recently installed on either side of the road (Photo 4), both of which are in close proximity to wetlands and appear to be outside (isolated wetland and perimeter wetland), although measurements were not taken to confirm. It appears that wires are going underground in this area.
- The south side of the access road has been cleared (Photo 5). It should be noted that a vegetated wetland is present further down slope in the adjacent interior woodland south of road. It was also noted that the ASSF culverted underneath the access road was not flowing at the time of inspection.
- I checked into the construction trailer to identify myself and signed in as requested. I walked to Wetlands C, E and F accompanied by Ray Gatto of Condi Corporation. Additional rip rap has been extended up slope from Wetland F to stabilize soils. Wetland F remains flooded, now well beyond its natural banks. Additional erosion controls measures (straw bales) have been installed, but still they are inadequate based on the site's topography and lack of vegetative cover. See-Photo Nos. 7, 8, 9 and 10. Although the wetland was frozen, you could see orange sediments at the very northern tip of wetland F.
- Wetland E also remains flooded, but not to the extent of Wetland F. Perimeter fencing adjacent to the gravel travel way between Wetlands E and F has been installed. The bottom approximately 6-8 inches has been removed as suggested in the permit letter. Portions of the wattles along the road should be reinforced where no longer functioning.
- Wetland C also remains flooded. Erosion controls appear to be adequate given the site conditions and possibly more recently reinforced as requested some time back in response to a complaint.
- Erosion controls are generally OK where inspected, except along portions of Wetlands E and F and in the southeast corner where they need to be reinforced.
- After signing out at the construction trailer, I parked along the access road and walked through the woods to the stream channel within Wetland D. The stream prior to its confluence with the tributary channel is generally flowing clear. The tributary stream bed closest to the solar array LOD remains orange with iron bacteria (Photo 12).

- I drove up Lippett Avenue. Several mature canopy trees have been recently taken down along the west side of the road with stumps remaining (Photo 6). Near the intersection with Hope Road, Blue Wetland Flags were observed within the woods west of the road. Clearing so far appears to be within upland based on windshield observations, but this was not confirmed by a site inspection on the ground.

Nancy Freeman

Inspector

Photos taken 1/17/19 by Nancy Freeman

Photo 1: Condition of erosion controls in southeast corner of the solar array:



Photo 2: Southeast corner:



Photo 3: Lippett Brook running clear on-site 200+feet east of solar array:



Photo 4: Entrance to solar array from Lippett Road access road-two new poles recently installed:

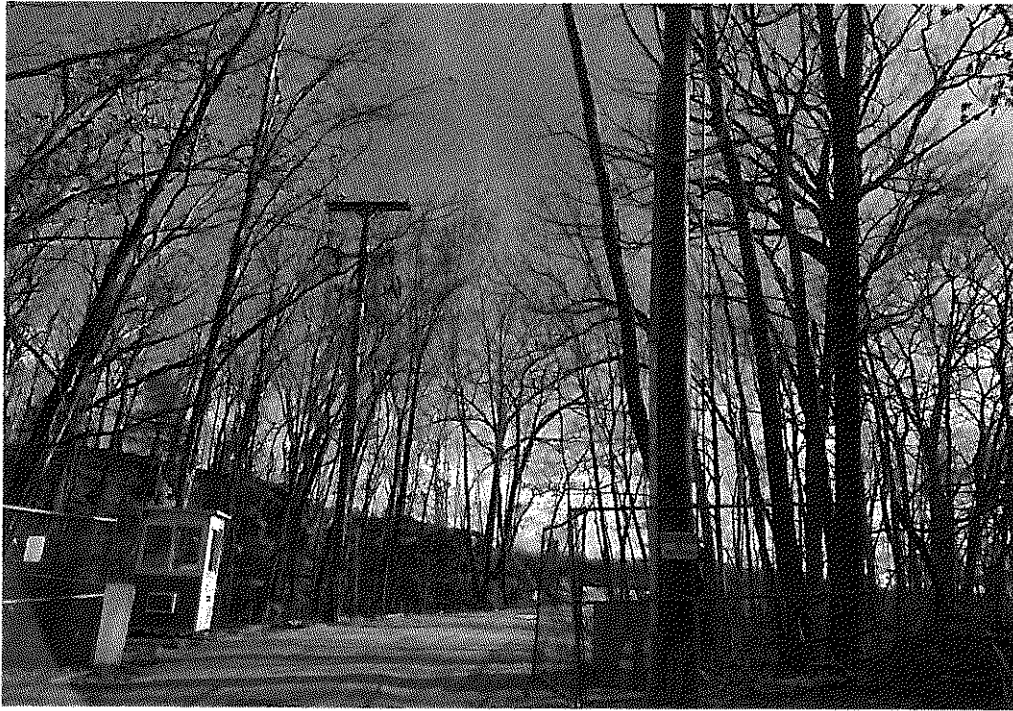


Photo 5: recent clearing on south side of access road to solar array:

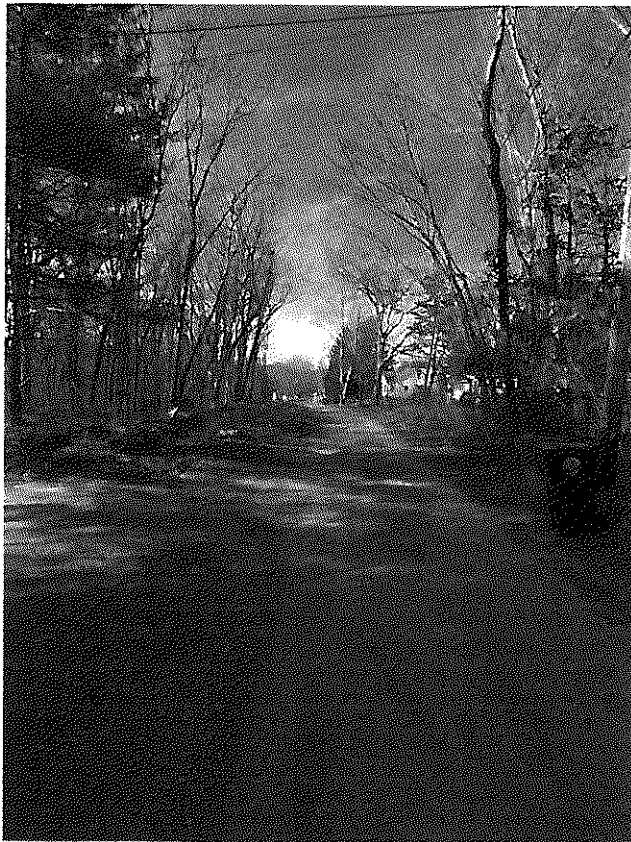


Photo 6: Mature trees recently cleared on west side of Lippett Avenue:



Photo 7: Facing south over extended riprap towards flooded Forested Wetland F:



Photo 8: Top of riprap slope north of Wetland F with additional erosion control measures:



Photo 9: Eastern side of Wetland F, some new erosion control reinforcements:

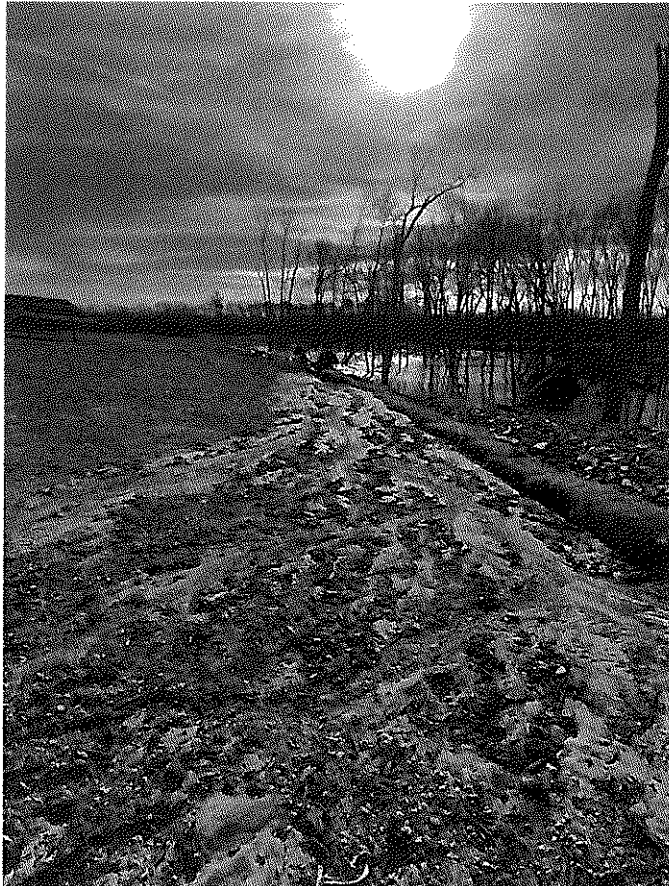


Photo 10: Wetland F eastern edge



Photo 11: Facing North at Wetland E (fence between E and F is open on the bottom as suggested):



Photo 12: Swamp D stream channel downstream of Wetlands E and F remains orange from iron bacteria:



Freeman, Nancy (DEM)

From: Freeman, Nancy (DEM)
Sent: Monday, February 04, 2019 12:10 PM
To: 'drusso@diprete-eng.com'
Subject: Gold Meadow Solar

Hi Dave,

I did a site inspection at the Gold Meadow Solar Array on January 17th. I checked into the construction trailer and was accompanied by a Condi Corp employee. After discussing it with Chuck this past Friday, he asked that I email you with the areas of concern noted below:

- In the southeast corner of the solar array adjacent to the off-site forested wetland near Newlight Street in West Warwick, erosion controls could be bolstered in this area (see photo on left below where they are breached).
- Please check erosion controls along Wetland F. Additional erosion controls measures have been installed, but still they are inadequate based on the site's topography and lack of vegetative cover (see photo on right below).
- Portions of the wattles along the road between Wetlands E and F should be reinforced where no longer functioning.
- Please ensure that erosion controls remain functioning along Wetland C. They appeared to be OK at the time of my inspection
- Please also check the southwest corner. I received a complaint that they were not functioning in this area.

Thanks,
Nancy (222-6820, ext. 7408)



SITE INSPECTION REPORT

File Number: 16-0202 **File Name:** DSM Realty Corporation (Gold Meadow Solar Project)

Inspection Date: August 28, 2019 (10:00 am)

Location: Lippitt Avenue, Cranston, RI

Purpose of Inspection: Compliance

Details of Inspection:

Per my request, a site meeting was arranged. I met Dave Russo from DiPrete Engineering, Brian McGovern of Southern Sky Renewable and Matt Singly, Field Tech. of **Captona Partners, the new property owner**. We walked the entire perimeter road. Following are my findings and comments:

- Per discussion with Matt Singly of Captona Partners, the solar array has been functioning and in use since May 2019.
- Only approximately one-third of the site has some grass established. This area is within northern portions of the site, which are more level and were apparently the first to be seeded.
- The remaining approximately two-thirds of the site is not stabilized. Piles of mulch from winter stabilization measures remain present and there is little vegetation that has taken hold. This area is generally where ledge was blasted and there is not adequate topsoil and continues down slope to the south where topography is more conducive to runoff impacts. Per Brian McGovern, this area of the solar array is targeted to be re-seeded starting mid-September. These areas were previously hydroseeded, but grass burned out during a summer heat and dry spell. Dave Russo suggested that the mulch be raked prior to seeding.
- High water levels remain present in Forested Wetland F, which has been essentially functioning as a detention basin. With the site denuded and no evapotranspiration taking place, both surface (and groundwater levels) have been consistently high. Crushed stone from previous blasting activities surround portions of the wetland. There is evidence that the water has dropped since the previous inspection, exposing iron coated stones. Trees have been flooded throughout the growing season with lower portions of the trunk continuously inundated. Consequently, the wetland is converting from a Forested Wetland to a Pond/Emergent Plant community. Trees are dead. Windthrows are prevalent.
- Water levels in Wetland E are not as high. Some trees show signs of stress and are dying. Runoff from E has overtopped its natural banks, flooding upland and perimeter wetland associated with Swamp D and likely converting this general area to wetland over time.
- Iron-bacteria is still present in Wetlands E and F, portions of Swamp D and the stream channel that discharges into Swamp D downslope of Wetlands E and F. Other small pockets of wetland (e.g. C and H) are also flooded with some turbidity but were not distinctly orange in color.

- Erosion controls looked generally intact. No breaches were observed. The site condition was conducted during dry conditions. Additional erosion controls were observed on the southeast corner as previously requested. This is an area of runoff that is in the watershed of Lippett Brook. We also looked at erosion controls along the access road and where appropriate, I asked that they be removed, since they are an eyesore to neighbors. I asked them to keep them where appropriate for example, the check dam south of the road where drainage crosses the road.

This reviewer recommends follow-up from the RIPDES Program or OC & I to enforce the site stabilization measures that were permitted. I also recommend follow-up with Water Quality specialists at DEM and others to discuss the water quality and wetland impacts enumerated above.

Nancy Freeman

Inspector

Photos taken by Nancy Freeman on August 28, 2019

Northern portion of the site with some grass established



Typical ground conditions observed on the southern 2/3rds of the site



Soils barren, just east of terminus of Wetland F



Wetland F facing southeast, trees dead during height of growing season



Wetland F Water Quality facing northwest, note stained rocks



Wetland F facing northwest



Wetland F



Wetland E to the left and Wetland F to the right facing north. Note: trees starting to die in Wetland E



Wetland E facing westerly, water levels receding

