

Clayton, Michael

From: Walker, Peter <PWalker@VHB.com>
Sent: Thursday, November 03, 2011 3:40 PM
To: crennie@des.state.nh.us
Cc: Emmett, Doren; Clayton, Michael; Leo, Michael
Subject: Meeting Request - Groton Wind Farm

Hi Craig –

I just left you a voicemail.

We will be submitting some revised plans to the Department in the next couple days for the Groton Wind Farm. We'd like to come by to introduce you to a few of the construction personnel and look through the plans. Right now, folks are somewhat flexible, but Tuesday afternoon or anytime Thursday would work best for us. Let us know what works for you.

Thanks,
Pete

Peter J. Walker
Director, Environmental Services

VHB | Vanasse Hangen Brustlin, Inc.
Transportation | Land Development | Environmental Services

6 Bedford Farms Drive, Suite 607
Bedford, NH 03110-6532
Phone: 603.644.0888 x2542 | Fax: 603.644.2385
Mobile: 603.303.1038
pwalker@vhb.com

www.vhb.com

Clayton, Michael

From: Rennie, Craig <Craig.Rennie@des.nh.gov>
Sent: Monday, November 07, 2011 2:49 PM
To: Walker, Peter
Cc: Emmett, Doren; Clayton, Michael; Leo, Michael
Subject: RE: Meeting Request - Groton Wind Farm

Thursday works best for me. How about 9:00 am on the 10th in the DES lobby?
Thanks,
Craig

~~~~~  
Craig D. Rennie, CWS, CWB  
Land Resource Specialist  
NH Department of Environmental Services  
Water Division  
29 Hazen Drive, PO Box 95  
Concord, NH 03302-0095  
ph: (603) 271-0676 fax: (603) 271-6588  
email: [craig.rennie@des.nh.gov](mailto:craig.rennie@des.nh.gov)

-----Original Message-----

**From:** Walker, Peter [<mailto:PWalker@VHB.com>]  
**Sent:** Thursday, November 03, 2011 3:40 PM  
**To:** Rennie, Craig  
**Cc:** Emmett, Doren; 'Clayton, Michael'; Leo, Michael  
**Subject:** Meeting Request - Groton Wind Farm

Hi Craig –

I just left you a voicemail.

We will be submitting some revised plans to the Department in the next couple days for the Groton Wind Farm. We'd like to come by to introduce you to a few of the construction personnel and look through the plans. Right now, folks are somewhat flexible, but Tuesday afternoon or anytime Thursday would work best for us. Let us know what works for you.

Thanks,  
Pete

**Peter J. Walker**  
Director, Environmental Services  
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Transportation | Land Development | Environmental Services  
6 Bedford Farms Drive, Suite 607  
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Phone: 603.644.0888 x2542 | Fax: 603.644.2385  
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## Clayton, Michael

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**Subject:** Groton Wind - DES Meeting  
**Location:** DES Office

**Start:** Thu 11/10/2011 1:00 PM  
**End:** Thu 11/10/2011 2:00 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

**Meeting Status:** Not yet responded

**Organizer:** Emmett, Doren  
**Required Attendees:** Rennie, Craig [Craig.Rennie@des.nh.gov]; Clayton, Michael; Leo, Michael  
**Optional Attendees:** Cherian, Ed; Varughese, Jebby; Revell, Kelly

When: Thursday, November 10, 2011 1:00 PM-2:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: DES Office

Note: The GMT offset above does not reflect daylight saving time adjustments.

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

Meet with Craig Rennie in DES Lobby located at:

NH Department of Environmental Services  
Water Division  
29 Hazen Drive, PO Box 95  
Concord, NH 03302-0095  
ph: (603) 271-0676 fax: (603) 271-6588  
email: [craig.ennie@des.nh.gov](mailto:craig.ennie@des.nh.gov)

**Clayton, Michael**

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**Subject:** Groton Wind - Construction Plan Submittal  
**Location:** NHDES, 29 Hazen Drive, Concord, NH

**Start:** Thu 11/10/2011 10:00 AM  
**End:** Thu 11/10/2011 11:30 AM  
**Show Time As:** Tentative

**Recurrence:** (none)

**Meeting Status:** Not yet responded

**Organizer:** Walker, Peter

**When:** Thursday, November 10, 2011 10:00 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).  
**Where:** NHDES, 29 Hazen Drive, Concord, NH

**Note:** The GMT offset above does not reflect daylight saving time adjustments.

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

To confirm our meeting, Pete, Doren and Mike will meet with Craig this Thursday at 10 AM in Concord.

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## Clayton, Michael

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**From:** Rennie, Craig <Craig.Rennie@des.nh.gov>  
**Sent:** Monday, December 05, 2011 1:49 PM  
**To:** Walker, Peter  
**Cc:** Emmett, Doren; Cherian, Ed; Kelly.Revell@iberdrolaren.com; Wilkes, Kristopher; Clayton, Michael  
**Subject:** Revised Plans/Amended Permits for Groton Wind Farm, Wetland File #2010-00745, AoT File #100325-033  
**Attachments:** GROTON WIND POWER\_WETLAND AMENDMENT\_CDR.pdf; AoT\_GROTON WIND\_AMENDED\_CDR.pdf

Peter,

The Department of Environmental Services (DES) has reviewed the revised grading and wetland impact plans (showing minor roadway modifications, relocation of the O&M building, minor transmission line relocations, and a reduction in stone mattresses) that further reduce the overall disturbance by 12 acres, and increases the wetland impact by 280 square feet, and has determined that these minor modifications are acceptable as presented. Attached please find the amended approvals for the Wetland and Alteration of Terrain Permits. The attached amended permits shall serve as confirmation to proceed with the minor modifications as depicted on the revised plans by VHB dated October 28, 2011. Please call if you have any questions.

Thanks,

Craig

~~~~~  
Craig D. Rennie, CWS, CWB
Land Resource Specialist
NH Department of Environmental Services
Water Division
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095
ph: (603) 271-0676 fax: (603) 271-6588
email: craig.ennie@des.nh.gov

WETLANDS BUREAU PERMIT AMENDMENT
December 5, 2011 (Original decision issued Oct. 8, 2010)

RECOMMEND APPROVAL WITH THE FOLLOWING PERMIT CONDITIONS:

PROPOSED AMENDMENT:

Amend permit to allow minor plan revisions that includes roadway modifications, relocation of the O&M building, minor transmission line relocations, and a reduction in stone mattresses. The revised plans show a 12 acre reduction in the total earth disturbance, and a minor increase of wetland impact by 280 square feet.

AMEND PROJECT DESCRIPTION:

Dredge and fill 1.65 acres (71,960 square feet) of wetlands and streams (impacting 4,302 linear feet) and temporarily impact .33 acres (14,130 square feet) of wetlands and 320 square feet within a stream, to construct a power generating wind park that will include the construction of 24 wind turbines (2.0 megawatts each), approximately 12 miles of gravel access drives, a 4,000 square foot operations/maintenance building, stockpile and lay down pad areas, and associated transmission lines. Mitigate impacts by making a in-lieu fee payment of \$150,000 into the DES Aquatic Resources Mitigation (ARM) Fund; by upgrading nine existing stream crossings along Groton Hollow Road to meet the new DES stream rules; and by providing technical assistance to the Society for the Protection of New Hampshire Forests (SPNHF) by donating survey data, title research, and environmental baseline data to assist SPNHF in their efforts to protect 6,578 acres of undeveloped land known as the Green Acre Woodlands Project.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with revised plans by Vanasse Hangen Brustlin, Inc. dated October 28, 2011, as received by the NH Department of Environmental Services (DES) on November 10, 2011.
2. Prior to construction, any plan revisions or changes in construction details or sequences shall be submitted to DES for review and approval.
3. Any further alteration of areas on this property that are within the jurisdiction of the DES Wetlands Bureau will require a new application and further permitting by the Bureau.
4. This permit is contingent on approval by the DES Alteration of Terrain Bureau.
5. No construction activities shall occur on the project after expiration of the approval unless the approval has been extended by the New Hampshire Energy Facility Site Evaluation Committee (SEC).
6. Appropriate siltation/erosion/turbidity controls shall be in place prior to construction, shall be maintained during construction, and remain in place until the area is stabilized. Silt fence(s) must be removed once the area is stabilized.
7. Discharge from dewatering of work areas shall be to sediment basins that are: a) located in uplands; b) lined with hay bales or other acceptable sediment trapping liners; c) set back as far as possible from wetlands and surface waters, in all cases with a minimum of 20 feet of undisturbed vegetated buffer.
8. Dredged material shall be placed outside of the jurisdiction of the DES Wetlands Bureau.
9. Stream work shall be done during low flow conditions.

10. Culvert outlets shall be protected in accordance with the DES Best Management Practices for Urban Stormwater Runoff Manual (January 1996) and the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire (August 1992).
11. Proper headwalls shall be constructed within seven days of culvert installation.
12. Within three days of final grading, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tack or netting and pinning on slopes steeper than 3:1.
13. Where construction activities have been temporarily suspended within the growing season, all exposed soil areas shall be stabilized within 14 days by seeding and mulching.
14. Where construction activities have been temporarily suspended outside the growing season, all exposed areas shall be stabilized within 14 days by mulching and tack. Slopes steeper than 3:1 shall be stabilized by matting and pinning.
15. The contractor responsible for completion of the work shall utilize techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).

Restoration Conditions:

16. This permit is contingent upon the restoration of 14,450 square feet of wetlands and streams that are being temporarily impacted in accordance with the plans received by DES on March 29, 2010.
17. All temporary wetland and stream impact areas shall be properly restored, and shall be monitored to ensure that functioning wetland areas similar to those destroyed by the project are replicated. Remedial measures may be necessary for successful restoration, which can include replanting, relocating plantings, removal of invasive species, changing soil composition and depth, changing the elevation of the wetland surface, and changing the hydrologic regime.
18. The permittee shall designate a qualified professional who will be responsible for monitoring and ensuring that the restoration areas are completed in accordance with the plans. Monitoring shall be accomplished in a timely fashion and remedial measures taken if necessary. The Wetlands Bureau shall be notified in writing of the designated professional prior to the start of work and if there is a change of status during the project.
19. The permittee or a designee shall conduct a follow-up inspection after the first growing season, to review the success of the restoration areas and schedule remedial actions if necessary. A report outlining these follow-up measures and a schedule for completing the remedial work shall be submitted by December 1 of that year. Similar inspections, reports and remedial actions shall be undertaken in at least the second (2nd) year following the completion of each restoration area.
20. Wetland restoration areas shall have at least 75% successful establishment of wetlands vegetation after a full growing season, or shall be replanted and re-established until a functional wetland is replicated in a manner satisfactory to the DES Wetlands Bureau.
21. The permittee shall attempt to control invasive, weedy species such as purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*) by measures agreed upon by the Wetlands Bureau if the species is found in the restoration areas during construction and during the early stages of vegetative establishment.
22. A post-construction report documenting the status of the completed project with photographs shall be submitted to the Wetlands Bureau within 60 days of the completion of construction.

Mitigation Conditions:

23. This approval is contingent on receipt by DES of a one time payment of \$150,000 to the DES Aquatic Resource Mitigation (ARM) Fund. If the project is approved by the New Hampshire Energy Facility Site Evaluation Committee (SEC), then the payment shall be received by DES within 120 days of the date of their approval.
24. This permit is contingent upon the upgrade of nine existing stream crossings along Groton Hollow Road in order to meet the standards of the DES stream rules (Env-Wt 900).
25. This permit is contingent upon Groton Wind, LLC donating to SPNHF the property survey data and mapping, title research, and environmental baseline data to support their efforts in preserving 6,578 acres of undeveloped land known as the Green Acre Woodlands Project.

FINDINGS:

1. This project is classified as a Major Impact Project per NH Administrative Rule Env-Wt 303.02(c), as wetland impacts are greater than 20,000 square feet.
2. The need for the proposed impacts has been demonstrated by the applicant per Rule Env-Wt 302.01.
3. The applicant has provided evidence which demonstrates that this proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction per Rule Env-Wt 302.03.
4. The applicant has demonstrated by plan and example that each factor listed in Rule Env-Wt 302.04(a), Requirements for Application Evaluation, has been considered in the design of the project.
5. DES Staff conducted a field inspection of the proposed project on June 29, 2010. Field inspection determined that the majority of the site has been historically and actively logged and that the upgrades to culverts along Groton Hollow Road were necessary in order to meet the stream rules.
6. Public hearing is not required with the finding that the project will not impact wetland areas that are considered to be of special value from a local, regional, or state perspective pursuant to Rule Env-Wt 101.90
7. The applicant has reviewed on-site options for mitigation and the department has determined that this project is acceptable for payment to the Aquatic Resource Mitigation (ARM) Fund.
8. The payment calculated for the proposed wetland loss equals \$150,000.
9. The Department decision is issued in letter form and upon receipt of the ARM fund payment, the Department shall issue a posting permit in accordance with Env-Wt 803.08(f).
10. The payment into the ARM fund shall be deposited in the DES fund for the Pemigewasset River Watershed per RSA 482-A:29.

ALTERATION OF TERRAIN (AOT) BUREAU PERMIT AMENDMENT
December 5, 2011 (Original decision issued Oct. 8, 2010)

PROPOSED AMENDMENT:

Amend permit to allow minor plan revisions that includes roadway modifications, relocation of the O&M building, minor transmission line relocations, and a reduction in stone mattresses. The revised plans show a 12 acre reduction in the total disturbance, and a minor increase of wetland impact by 280 square feet.

RECOMMEND APPROVAL WITH THE FOLLOWING PERMIT CONDITIONS:

(Approval includes permit conditions from the Watershed Management Bureau (WMB) to satisfy 401 Water Quality Certification concerns, and from the Drinking Water and Groundwater Bureau (DWGB) to satisfy concerns regarding ledge blasting and monitoring Best Management Practices)

AMENDED PROJECT DESCRIPTION:

Construct a power generating wind park that will include the construction of 24 wind turbines (2.0 megawatts each), approximately 12 miles of gravel access drives, a 4,000 square foot operations and maintenance building, stockpile and lay down pad areas, and associated transmission lines. The total area of contiguous disturbance has been calculated to be 103.6 acres (4,512,834 square feet).

PROJECT SPECIFIC CONDITIONS:

1. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700.
2. Revised plans shall be submitted for an amendment approval prior to any changes in construction details or sequences. The Department must be notified in writing within ten days of a change in ownership.
3. The Department must be notified in writing prior to the start of construction and upon completion of construction. Forms are available at:
<http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm>.
4. The revised plans dated October 28, 2011 and supporting documentation in the file are a part of this approval.
5. No construction activities shall occur on the project after expiration of the approval unless the approval has been extended by the New Hampshire Energy Facility Site Evaluation Committee (SEC).
6. This permit does not relieve the Applicant from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at:
<http://des.nh.gov/organization/divisions/water/stormwater/construction.htm>.
7. The smallest practical area shall be disturbed during construction activities.
8. The Applicant shall employ the services of an environmental monitor ("Monitor"). The Monitor shall be a Certified Professional in Erosion and Sediment Control or a Professional Engineer licensed in the State of New Hampshire and shall be employed to inspect the site from the start of alteration of terrain activities until the alteration of terrain activities are completed.

9. The Monitor shall provide technical assistance and recommendations to the Contractor on the appropriate Best Management Practices for Erosion and Sediment Controls required to meet the requirements of RSA 485-A:17 and all applicable DES permit conditions.
10. Prior to beginning construction, the contractor's name, address, and phone number shall be submitted to DES via email (to Denise Frappier at denise.frappier@des.nh.gov and to Craig Rennie at: craig.rennie@des.nh.gov).
11. Unless otherwise authorized by DES, the Applicant shall keep a sufficient quantity of erosion control supplies on the site at all times during construction to facilitate an expeditious (i.e., within 24 hour) response to any construction related erosion issues on the site.
12. The Applicant shall develop and submit a Construction BMP Inspection and Maintenance Plan to DES for approval at least 90 days prior to construction. Unless otherwise authorized by DES, the plan shall incorporate all elements described in **Appendix A** (items A through J). The Applicant shall then implement the approved plan.
13. The Applicant shall prepare a turbidity sampling plan as specified in **Appendix A** of this permit. The plan shall be submitted to DES for approval at least 90 days prior to construction. The Applicant shall then implement the approved plan. Unless otherwise authorized by DES, the turbidity sampling results along with station ID, date, time, other field notes, and a description of corrective actions taken when violations of state surface water quality criteria for turbidity are found, shall be submitted to DES via electronic mail within 48 hours of collection.
14. The Applicant shall prepare and submit a Spill Prevention, Control, and Countermeasures plan (SPCC) for the Activity in accordance with federal regulations (40 CFR part 112). The plan shall include a certification by a Professional Engineer licensed in the State of New Hampshire. The Applicant shall submit the plan to DES Watershed Management Bureau for review and approval at least 90 days prior to the installation of the first turbine. The SPCC Plan shall include, but not be limited to, operating procedures to prevent oil spills, control measures installed to prevent oil from entering surface waters, countermeasures to contain, clean-up and mitigate the effects of an oil spill, and facility inspections. The Applicant shall then implement the approved plan and maintain records demonstrating compliance with the plan. Such records shall be made available to DES within 30 days of receiving a written request by DES.
15. The Applicant shall submit a plan to prevent water quality violations due to discharges of concrete wash water during construction. The Applicant shall submit the plan to DES Watershed Management Bureau for review and approval at least 90 days prior to placement of any concrete within the Activity area. The Applicant shall then implement the approved plan.
16. As proposed by the Applicant, unless otherwise authorized by DES, herbicides and pesticides shall not be used on the site for the construction or operation of the Activity.
17. Unless otherwise authorized by DES, fertilizers shall only be applied once on soils disturbed during construction to support the initial establishment of vegetation. Prior to fertilizer application, soils shall be tested to determine the minimum amounts of lime, nitrogen (N), phosphorus (P) and potassium (K) needed to support vegetation. Lime application rates, fertilizer selection (in terms of N, P and K content) and fertilizer application rates shall be consistent with the soil test results. Fertilizers shall not contain any pesticides. Where possible, fertilizer with slow release nitrogen shall be used. Soil test results, the name, brand and nutrient content (N, P and K) of fertilizer and application rates for lime and fertilizer shall be provided to DES within 30 days of receiving a request from DES. As proposed by the Applicant, unless otherwise authorized by DES, no fertilizers shall be used for the Activity following construction.

18. As proposed by the Applicant, unless otherwise authorized by DES, no de-icing agents (including use of sands containing chloride) shall be used on the Activity either during construction or once the Activity is in operation.
19. Unless otherwise authorized by DES, the Applicant shall limit forest clearing within a 50-foot buffer of Clark Brook to 0.2 acres (<1% change from pre-Activity conditions) and within a 50-foot buffer of all perennial streams to 3.6 acres (5% change from pre-Activity conditions).
20. Unless otherwise authorized by DES, the Applicant shall develop and submit a monitoring plan to DES for approval at least 90 days prior to construction. The purpose of the plan is to confirm that operation of the Activity is not causing or contributing to violations of state surface water quality standards. The plan shall include the parameters to be sampled, the location, timing and frequency of sampling, sampling and laboratory protocols, quality assurance/quality control provisions as well as when data will be submitted to DES. The Applicant shall consult with DES and submit the monitoring data in a format that can be automatically uploaded into the DES Environmental Database. Once approved by DES, the Applicant shall implement the sampling plan.
21. The Applicant shall identify drinking water wells located within 2000 feet of the proposed blasting activities. Develop and implement a groundwater quality sampling program to monitor for nitrate and nitrite either in the drinking water supply wells or in other wells that are representative of the drinking water supply wells in the area. The program must be approved by the DES DWGB.
22. The following Best Management Procedures for blasting shall be complied with:
 - (1) Loading practices. The following blasthole loading practices to minimize environmental effects shall be followed:
 - a) Drilling logs shall be maintained by the driller and communicated directly to the blaster. The logs shall indicate depths and lengths of voids, cavities, and fault zones or other weak zones encountered as well as groundwater conditions.
 - b) Explosive products shall be managed on-site so that they are either used in the borehole, returned to the delivery vehicle, or placed in secure containers for off-site disposal.
 - c) Spillage around the borehole shall either be placed in the borehole or cleaned up and returned to an appropriate vehicle for handling or placement in secured containers for off-site disposal.
 - d) Loaded explosives shall be detonated as soon as possible and shall not be left in the blastholes overnight, unless weather or other safety concerns reasonably dictate that detonation should be postponed.
 - e) Loading equipment shall be cleaned in an area where wastewater can be properly contained and handled in a manner that prevents release of contaminants to the environment.
 - f) Explosives shall be loaded to maintain good continuity in the column load to promote complete detonation. Industry accepted loading practices for priming, stemming, decking and column rise need to be attended to.
 - (2) Explosive Selection. The following BMPs shall be followed to reduce the potential for groundwater contamination when explosives are used:
 - a) Explosive products shall be selected that are appropriate for site conditions and safe blast execution.
 - b) Explosive products shall be selected that have the appropriate water resistance for the site conditions present to minimize the potential for hazardous effect of the product upon groundwater.

- (3) Prevention of Misfires. Appropriate practices shall be developed and implemented to prevent misfires.
- (4) Muck Pile Management. Muck piles (the blasted pieces of rock) and rock piles shall be managed in a manner to reduce the potential for contamination by implementing the following measures:
 - a) Remove the muck pile from the blast area as soon as reasonably possible.
 - b) Manage the interaction of blasted rock piles and stormwater to prevent contamination of water supply wells or surface water.
- (5) Spill Prevention Measures and Spill Mitigation. Spill prevention and spill mitigation measures shall be implemented to prevent the release of fuel and other related substances to the environment. The measures shall include at a minimum:
 - a) The fuel storage requirements shall include:
 - i. Storage of regulated substances on an impervious surface;
 - ii. Secure storage areas against unauthorized entry;
 - iii. Label regulated containers clearly and visibly;
 - iv. Inspect storage areas weekly;
 - v. Cover regulated containers in outside storage areas;
 - vi. Wherever possible, keep regulated containers that are stored outside more than 50 feet from surface water and storm drains, 75 feet from private wells, and 400 feet from public wells; and
 - vii. Secondary containment is required for containers containing regulated substances stored outside, except for on premise use heating fuel tanks, or aboveground or underground storage tanks otherwise regulated.
 - b) The fuel handling requirements shall include:
 - i. Except when in use, keep containers containing regulated substances closed and sealed;
 - ii. Place drip pans under spigots, valves, and pumps;
 - iii. Have spill control and containment equipment readily available in all work areas;
 - iv. Use funnels and drip pans when transferring regulated substances; and
 - v. Perform transfers of regulated substances over an impervious surface.
 - c) The training of on-site employees and the on-site posting of release response information describing what to do in the event of a spill of regulated substances.
 - d) Fueling and maintenance of excavation, earthmoving and other construction related equipment will comply with the regulations of the DES. Note these requirements are summarized in "WD-DWGB-22-6 Best Management Practices for Fueling and Maintenance of Excavation and Earthmoving Equipment" or its successor document (see <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-6.pdf>).

Appendix A:

Details of construction BMP inspection, reporting requirements, and turbidity monitoring

(In light of the sensitive resources within the project area and scale of the proposed activity, the following additional construction BMP inspection and reporting requirements and turbidity monitoring are considered necessary to prevent construction related surface water quality violations)

- A. Weekly Erosion Control Meeting: The Applicant's prime Contractor for the Activity (prime Contractor) shall hold weekly erosion control meetings with the Monitor. Minutes of the meeting shall be kept on file and made available to DES upon request.
- B. Inspection Frequency: Regular inspections shall be conducted as specified below for the purposes of determining compliance with the permit.
 - (1) Daily Inspections: The prime Contractor shall inspect all erosion control measures every day that work is conducted from the time construction commences and earth is disturbed until construction is complete.
 - (2) Weekly Inspections: After construction has commenced and earth has been disturbed, the Monitor shall conduct weekly erosion control site inspections to verify all erosion control measures are maintained properly to protect surface waters and wetlands. The Monitor shall document and report its findings, including recommendations for maintenance of BMPs or the addition of new control measures to the prime Contractor.
 - (3) Pre-storm inspections: The Monitor shall print the 5-day forecast once daily (7-9 am) for the duration of the project. All forecasts shall be clearly marked with the date and time, kept on file, provided to the prime Contractor. In addition, the 5-day forecast on the day of the weekly meeting shall be attached to the weekly meeting minutes distributed by the Monitor. Inspection shall occur within 24 hours prior to the start of any rain event of 0.5 inches or more in a 24-hour period that is predicted to occur during the workweek. A normal workweek is Monday through Friday. Holidays and weekends are included as part of the normal workweek when work is anticipated to occur on those days. If the predicted event occurs outside of the normal workweek, the inspection shall occur on the normal workday just before any scheduled days off, such as holidays and weekends. Unless otherwise approved by DES, the Accuweather website (<http://home.accuweather.com/index.asp?partner=accuweather>) shall be used for the purpose of predicting future precipitation amounts. Future precipitation amounts on the Accuweather web site may be determined by typing in the location of the project (city, state and/or zip code), clicking on the link for Days 1-5 forecasts and then clicking on the day(s) of interest.
- C. Emergency Inspections During Storm Events: Inspections shall occur during the daylight hours (Monday through Sunday, including holidays) during storm events whenever plumes are visible or if turbidity sampling indicates water quality standards are exceeded due to turbid stormwater from the construction site. Inspections and corrective action shall be implemented during the daylight hours (Monday through Sunday, including holidays) until turbidity water quality standards are met.
- D. Post Storm Inspections: Inspections shall occur on the first workday following storms of greater than 0.5 inches in a 24-hour period. Precipitation amounts shall be based on precipitation recorded at a rain gauge installed at the construction site or other approved method. Inspections and corrective action shall be implemented during the daylight hours (Monday through Sunday, including holidays) until turbidity water quality standards are met.

- E. Winter Shutdown Inspections: Inspections during winter shut down shall occur as specified in the NPDES General Permit for Stormwater Discharges from Construction Activities (commonly known as the Construction General Permit)]
- F. Provisions for Handling Emergencies: Contact information shall be provided to DES for at least two people that DES can contact at any time regarding construction related stormwater concerns. The Applicant shall prepare an Emergency Procedures Plan describing procedures to address and correct emergency, construction related stormwater issues in an expeditious manner. The plan shall include the responsibilities of key individuals, the availability of equipment, and the availability of erosion control and BMP supplies. All emergency erosion control and BMP supplies must be kept on-site.
- G. Inspection and Maintenance Plans and Reports: Written inspection and maintenance reports shall include the items stipulated in the EPA NPDES General Permit for Stormwater Discharges from Construction Activities, as well as the predicted 24-hour rainfall for pre-storm inspection reports, measured rainfall amounts for post-inspection reports. The reports shall also indicate if erosion control measures “pass” or “fail” , if the project is being constructed in accordance with the approved sequence, identify any deviation from the conditions of this permit and the approved plans, and identify any other noted deficiencies and include photographic documentation. Unless otherwise authorized by DES, within 24 hours of each inspection, the Monitor shall submit a report with photographic documentation to DES via email (to Denise Frappier at denise.frappier@des.nh.gov and to Craig Rennie at: craig.rennie@des.nh.gov).
- H. Weather Station Specifications: Unless otherwise authorized by DES, the Applicant shall be responsible for maintaining a weather station that can measure rainfall to an accuracy of 0.01 inches, monitor temperature to an accuracy of 1 degree Fahrenheit or Celsius, and has hourly data storage and download capabilities.
- I. Precipitation Notification Plan: The Applicant shall specify how the Monitor, and others, will be notified when precipitation has occurred that will trigger the need for inspections and/or turbidity sampling. Automatic notification is preferred. If considered necessary and feasible by DES, the weather station shall be equipped to send automatic email notifications to notify the Monitor when construction BMP inspections and/or turbidity sampling is necessary. Should automated email notification be considered necessary, it shall be capable of the following: Start of rain event: Once 0.25 inches of rain or rain-mix precipitation has been measured an automated email notification will be sent to the prime Contractor, the Monitor, and any other interested parties. The email shall provide hourly rainfall, and time of rainfall for the previous 24 hours. End of rain event: Once six hours without rain or rain-mix precipitation has passed an automated email notification will be sent to the prime Contractor, the Monitor and DES. The email shall provide hourly rainfall and time of rainfall from the start of the rain event to the end of the rain event, including the six hour “dry” period.
- J. Turbidity Monitoring: To confirm that construction best management practices (BMPs) for controlling erosion are performing as intended, turbidity monitoring is needed. Unless otherwise authorized by DES, the Applicant shall submit a Turbidity Sampling Plan that includes the turbidity monitoring elements specified in the February 2, 2009 DES Inter-Department Communication entitled “Amendment of the November 16, 2006 Guidance for BMP Inspection and Maintenance and Turbidity Sampling and Analysis Plans for I-93 Expansion Project Water Quality Certification”. This document includes guidance regarding sampling station number and locations, sampling frequency, sampling duration, size of storms that need to be sampled, how soon after the start of precipitation sampling should begin, quality assurance quality control provisions, and turbidity meter specifications.