



North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

June 25, 2010

DWQ Project # 10-0451
Orange County

Ms. Sharon Myers
The University of North Carolina at Chapel Hill - Department of Health and Safety
1120 Estes Drive Extension, CB#1650
Chapel Hill, NC 27599-1650

Received by EHS

JUL 01 2010

Subject Property: **UNC - Chapel Hill Bingham Facility**
Ut to Collins Creek [030604, 16-30-(1.5), WSIV, NSW]

Approval of 401 Water Quality Certification with Additional Conditions - AFTER-THE-FACT

Dear Ms. Myers:

You have our "After the Fact" approval, in accordance with the attached conditions and those listed below, to place fill within or otherwise impact 0.04 acres of 404/wetland and 3 linear feet of perennial stream, as described within your application dated May 27, 2010, and received by the N.C. Division of Water Quality (DWQ) on June 9, 2010, to construct the Bingham facility at the site. After reviewing your application, we have decided that the impacts are covered by General Water Quality Certification Number(s) 3821 (GC3821). The Certification(s) allows you to use Nationwide Permit(s) NW39, when issued by the US Army Corps of Engineers (USACE). In addition, you should obtain or otherwise comply with any other required federal, state or local permits before you go ahead with your project including (but not limited to) Erosion and Sediment Control, Non-discharge, and other regulations. **Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.**

This approval is for the purpose and design that you described in your application. If you change your project, you must notify us and you may be required to send us a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all conditions. If total fills for this project (now or in the future) exceed one acre of wetland or 150 linear feet of stream, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h). **This approval requires you to follow the conditions listed in the attached certification and any additional conditions listed below.**

The Additional Conditions of the Certification are:

Conditions of Certification:

I. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (or Isolated Wetland Permit) are met. No other impacts are approved including incidental impacts:

Type of Impact	Amount Approved (Units)	Plan Location or Reference
404?Wetland	0.04 (acres)	PCN application page 5 of 13
Stream - perennial	3 (linear feet)	PCN application page 5 of 13

Sediment and Erosion Control:

2. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
3. No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the 404/401 Permit Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur;
4. Sediment and erosion control measures shall not be placed in wetlands or waters without prior approval from the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project;
5. Protective Fencing - The outside buffer, wetland or water boundary and along the construction corridor within these boundaries approved under this authorization shall be clearly marked with orange warning fencing (or similar high visibility material) for the areas that have been approved to infringe within the buffer, wetland or water prior to any land disturbing activities to ensure compliance with 15 NCAC 2H, Section .0500;
6. Stormwater Management Plan

A final, written stormwater management plan for each phase of this project shall be submitted to the DWQ 401 Oversight/Express Permitting Unit (2321 Crabtree Boulevard, Suite 250, Raleigh, NC 27604) for review and approval. No land disturbance associated with any phase may be conducted until a stormwater management plan for that phase has been submitted to and approved by the DWQ. No buildings associated with any phase may be occupied until the stormwater management plan is constructed and operational for that phase.

In order to be approved by the DWQ, the stormwater management plan submittal must include a BMP Supplement Form with all required items. The BMPs must be designed to treat runoff from

all impervious surfaces, including the road, and must comply with the version of the NC DENR Stormwater BMP Manual that is in effect on the date of the submittal of the stormwater management plan (SMP). The SMP must meet the requirements in the version of SMP Regulations for non-DOT in effect at the time of submittal.

7. "Re-opener" Clause

Ms. Sharon Myers and The University of North Carolina at Chapel Hill - Department of Health and Safety and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with section 303(d) of the Clean Water Act) and any other appropriate requirements of State law and federal law. Ms. Sharon Myers and The University of North Carolina at Chapel Hill - Department of Health and Safety shall require its contractors (and/or agents) to comply with all of the terms of this Certification, and shall provide each of its contractors (and/or agents) a copy of this Certification. A copy of this Certification shall be included in the construction contract and available on the job site at all times. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the certification, DWQ shall notify Ms. Sharon Myers and The University of North Carolina at Chapel Hill - Department of Health and Safety and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to Ms. Sharon Myers and The University of North Carolina at Chapel Hill - Department of Health and Safety in writing, shall be provided to the United States Army Corps of Engineers for reference in any permit issued pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project.

Certificate of Completion:

8. Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. The authorization to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application and as authorized by this Certification shall expire upon expiration of the 404 or CAMA Permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the Office of Administrative Hearings. You must file the petition with the Office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the Office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

June 25, 2010

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission.

The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919)-431-3000, Facsimile: (919)-431-3100

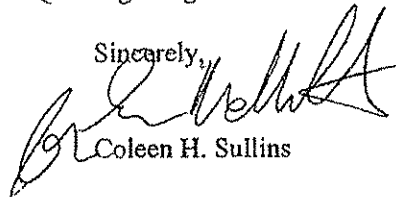
A copy of the petition must also be served on DENR as follows:

Ms. Mary Penny Thompson, General Counsel
Department of Environment and Natural Resources
1601 Mail Service Center
Raleigh, NC 27699-1601

Unless such a petition is filed, this Certification shall be final and binding.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please telephone Ian McMillan or Amy Chapman in the Central Office in Raleigh at 919-733-1786 or Lauren Witherspoon in the DWQ Raleigh Regional Office at 919-791-4200.

Sincerely,



Coleen H. Sullins

CHS/ijm

Enclosures: GC3821
Certificate of Completion

cc: Lauren Witherspoon, DWQ Raleigh Regional Office
USACE Raleigh Regulatory Field Office
DLR Raleigh Regional Office
File Copy
Kevin Nunnery and Lee Mallonee, Biohabitats, Inc., 8218 Creedmoor Road, Suite 200, Raleigh, NC 27613

Filename: 100451UNCChapelHillBunghamFacility(Orange)401

Water Quality Certification N^o. 3821

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE
FOR U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT
NUMBERS 18 (MINOR DISCHARGES), 29 (RESIDENTIAL DEVELOPMENT),
39 (COMMERCIAL AND INSTITUTIONAL DEVELOPMENTS),
41 (RESHAPING EXISTING DRAINAGE DITCHES), 42 (RECREATIONAL FACILITIES),
44 (MINING ACTIVITIES), AND 46 (DISCHARGES IN DITCHES),
AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

Water Quality Certification Number 3821 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and adjacent wetland areas or to wetland areas that are not a part of the surface tributary system to interstate waters or navigable waters of the United States () as described in 33 CFR 330 Appendix A (B) (18, 29, 39, 41, 42, 43, 44, and 46) of the Corps of Engineers regulations (i.e., Nationwide Permit No. 39) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Activities meeting any one (1) of the following criteria require *written approval* from the Division of Water Quality (the "Division"):

- I. Stream and/or buffer impacts:
 - a. Any impacts to perennial waters (as depicted on the most recent USGS 1:24000 topographic map or as otherwise determined by the local government,) and their associated riparian buffers in Water Supply (WS), High Quality Water (HQW), or Outstanding Resource Water (ORW) watersheds. Only water-dependent activities, public projects, and structures with de minimus increases in impervious surfaces will be allowed as outlined in those rules [15A NCAC 2B .0212 through .0215]. All other activities require a variance from the delegated local government and/or the NC Environmental Management Commission before the application for the 401 Water Quality Certification can be processed.
 - b. Any impacts to streams and buffers in the Neuse, Tar-Pamlico, Randleman, Catawba, and Jordan basins (or any other basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application [in accordance with 15A NCAC 2B .0200]), *unless* the activities are listed as "EXEMPT" from these Rules.
 - c. Any impacts to streams involving excavation or dredging.
 - d. Total stream impacts equal to or greater than 150 linear feet of intermittent and/or perennial stream to be filled, culverted, rip rapped, or relocated, including temporary and/or permanent impacts.
- II. Impacts (temporary and/or permanent) to waters:
 - a. Equal to or greater than one-third (1/3) of an acre East of Interstate 95 (I-95).
 - b. Equal to or greater than one-tenth (1/10) acre West of Interstate 95 (I-95).
- III. Wetland impacts (temporary and/or permanent):
 - a. Equal to or greater than one-third (1/3) acre East of Interstate-95.
 - b. Equal to or greater than one-tenth (1/10) acre West of Interstate-95.
 - c. Any impacts to wetlands adjacent to waters designated as: ORW, SA, WS-I, WS-II, or Trout, or wetlands contiguous to waters designated as a North Carolina or National Wild and Scenic River.
 - d. Any impacts to coastal wetlands [15A NCAC 7H .0205], or Unique Wetlands (UWL) [15A NCAC 2H .0506].

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- IV. If the activity is associated with or in response to a Notice of Violation or an enforcement action initiated by the Division and/or the Division of Land Resources.

In accordance with North Carolina General Statute Section 143-215.3D(e), written approval for a 401 Water Quality General Certification must include the appropriate fee. If a project also requires a CAMA Permit, then one payment to both agencies shall be submitted and will be the higher of the two fees.

Activities that are below the thresholds, or otherwise do not meet the criteria listed above in this General Certification do not require written approval from the Division of Water Quality as long as they comply with the Conditions of Certification listed below, including the Stormwater Management Plan condition. If the project requires a Stormwater Management Plan, but is otherwise below the written approval thresholds, the applicant may provide a courtesy copy of the Pre-Construction Notification along with a copy of the Stormwater Management Plan (and approval letter from the appropriate locally delegated state program where applicable). If any of these Conditions cannot be met, then written approval from the Division is required.

Conditions of Certification:

1. No Impacts Beyond those Authorized in the Written Approval or Beyond the Threshold of Use of this Certification

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Pre-Construction Notification and authorized in the written approval from the Division, including incidental impacts. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

2. Standard Erosion and Sediment Control Practices

Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation, operation, and maintenance of such Best Management Practices:

- a. Design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- b. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- c. Reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
- d. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
- e. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), Trout (Tr), SA, WS-I, WS-II, High Quality (HQW), or Outstanding Resource (ORW) waters, then the sediment and erosion control requirements contained within *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) supercede all other sediment and erosion control requirements.

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3. No Sediment and Erosion Control Measures in Wetlands or Waters

Sediment and erosion control measures should not be placed in wetlands or waters without prior approval by the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, then design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.

4. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by the Division is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at http://h2o.enr.state.nc.us/su/Forms_Documents.htm.

5. Construction Moratoriums and Coordination

If activities must occur during periods of high biological activity (i.e. sea turtle or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities. This condition can be waived through written concurrence on a case by case basis upon reasonable justification.

All moratoriums on construction activities established by the NC Wildlife Resources Commission (WRC), US Fish and Wildlife Service (USFWS), NC Division of Marine Fisheries (DMF), or National Marine Fisheries Service (NMFS) to lessen impacts on trout, anadromous fish, larval/post-larval fishes and crustaceans, or other aquatic species of concern shall be implemented. This condition can be waived through written concurrence on a case by case basis upon reasonable justification.

Work within the twenty-five (25) designated trout counties or identified state or federal endangered or threatened species habitat shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.

6. Work in the Dry

All work in or adjacent to stream waters shall be conducted in a dry work area. Approved best management practices from the most current version of the NC Sediment and Erosion Control Manual, or the NC DOT Construction and Maintenance Activities Manual, such as sandbags, rock berms, cofferdams, and other diversion structures shall be used to minimize excavation in flowing water. Exceptions to this condition require submittal to, and approval by, the Division of Water Quality.

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7. Riparian Area Protection (Buffer) Rules

Activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not), within the Neuse, Tar-Pamlico, Catawba, Randleman, and Jordan (or any other basin with buffer rules), shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0233, .0259, .0250, .0243, and .0267, and shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices. All buffer rule requirements, including diffuse flow requirements, must be met.

8. Water Supply Watershed Buffers

The 30-foot wide vegetative buffer (low-density development) or the 100-foot wide vegetative buffer (high-density development) shall be maintained adjacent to all perennial waters except for allowances as provided in the Water Supply Watershed Protection Rules [15A NCAC 2B .0212 through .0215].

9. If concrete is used during the construction, then a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life/fish kills.

10. Compensatory Mitigation

In accordance with 15A NCAC 2H .0506 (h), compensatory mitigation may be required for losses of 150 linear feet or more of streams (intermittent and perennial) and/or one (1) acre or more of wetlands. For linear, public transportation projects, impacts equal to or exceeding 150 linear feet per stream shall require mitigation.

Buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "Allowable with Mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules.

A determination of buffer, wetland and stream mitigation requirements shall be made for any General Water Quality Certification for this Nationwide Permit. Design and monitoring protocols shall follow the US Army Corps of Engineers Wilmington District *Stream Mitigation Guidelines* (April 2003), or its subsequent updates. Compensatory mitigation plans shall be submitted for written Division approval as required in those protocols. Alternatively, the Division will accept payment into an in-lieu fee program or credit purchase from a mitigation bank.

Finally, the mitigation plan must be implemented and/or constructed before any permanent building or structure on site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the public. Proof of payment to an in-lieu fee program or mitigation bank must be provided to the Division to satisfy this requirement.

11. For all activities requiring re-alignment of streams, a stream relocation plan must be included for written Division approval. Relocated stream designs should include the same dimensions, patterns and profiles as the existing channel (or a stable reference reach if the existing channel is unstable), to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30-foot wide wooded and an adjacent 20-foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A

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transitional phase incorporating appropriate erosion control matting materials and seedling establishment is allowable. Rip-rap, A-Jacks, concrete, gabions or other hard structures may be allowed if it is necessary to maintain the physical integrity of the stream; however, the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage. Please note that if the stream relocation is conducted as a stream restoration as defined in the US Army Corps of Engineers Wilmington District, April 2003 *Stream Mitigation Guidelines* (or its subsequent updates), the restored length can be used as compensatory mitigation for the impacts resulting from the relocation.

12. Stormwater Management Plan Requirements

- A. Linear public transportation projects will be required to treat stormwater runoff to the Maximum Extent Practicable in accordance with the practices described in the NCDOT Best Management Practices (BMP) Manual.
- B. All other projects shall comply with the requirements set forth below. In addition, the applicants shall follow the procedures explained in the version of *Protocol for Stormwater Management Plan (SMP) Approval and Implementation* that is in place on the date of the submittal of the SMP.
 - i. **Project Density:** Projects with SMPs that require 401 Oversight/ Express Unit approval shall be classified as either Low or High Density according to the criteria described below.
 - a. **Low Density:** A development shall be considered Low Density if ALL of the following criteria are shown to have been met.
 - 1. The overall site plan, excluding ponds, lakes, rivers (as specified in North Carolina's Schedule of Classifications) and saltwater wetlands (SWL), must contain less than 24% impervious surface area considering both current and future development.
 - 2. All stormwater from the entire site must be transported primarily via vegetated conveyances designed in accordance with the most recent version of the NC DWQ Stormwater BMP Manual.
 - 3. The project must not include a stormwater collection system (such as piped conveyances) as defined in 15A NCAC 2B .0202(60).
 - 4. If a portion of project has a density equal to or greater than 24%, then the higher density area must be located in an upland area and away from surface waters and drainageways to the maximum extent practicable.
 - b. **High Density:** Projects that do not meet all of the Low Density criteria described above are considered to be High Density, requiring the installation of appropriate BMPs as described below.
 - 1. All stormwater runoff from the site must be treated by BMPs that are designed, at a *minimum*, to remove 85 percent of Total Suspended Solids (TSS).
 - 2. Projects located in watersheds that drain directly to waters containing the following supplemental classifications shall meet these additional requirements:

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<i>Water Quality Supplemental Classification</i>	<i>Stormwater BMP Requirement</i>
§303(d)	Project-specific conditions may be added by the Division to target the cause of the water quality impairment.
NSW	A minimum of 30 percent total phosphorus and 30 percent total nitrogen removal, or other applicable nutrient reduction goal for the watershed as codified in the 15A NCAC 2B .0200 rules.
Trout (Tr)	A minimum of 30 percent total phosphorus and 30 percent total nitrogen removal; BMPs should also be designed to minimize thermal pollution.

3. All BMPs must be designed in accordance with the version of the *NC Division of Water Quality Stormwater Best Management Practices Manual* that is in place on the date of the submittal of the SMP. Use of stormwater BMPs other than those listed in the *Manual* may be approved on a case-by-case basis if the applicant can demonstrate that these BMPs provide equivalent or higher pollutant removal and water quality protection.
- ii. **Vegetated Setback:** In areas that are not subject to a state Riparian Area Protection Rule, a 30-foot wide vegetated setback must be maintained adjacent to streams, rivers and tidal waters as specified below.
 - a. The width of the setback shall be measured horizontally from:
 1. The normal pool elevation of impounded structures,
 2. The streambank of streams and rivers, and
 3. The mean high waterline of tidal waters, perpendicular to shoreline.
 - b. The vegetated setback may be cleared or graded, but must be planted with and maintained in grass or other appropriate plant cover.
 - c. The DWQ may, on a case-by-case basis, grant a minor variance from the vegetated setback requirements pursuant to the procedures set forth in 15A NCAC 02B .0233(9)(b).
 - d. Vegetated setbacks and filters required by state rules or local governments may be met concurrently with this requirement and may contain coastal, isolated or 404 jurisdictional wetlands.
 - iii. **Stormwater Flowing to Streams and Wetlands:** Stormwater conveyances that discharge to streams and wetlands must discharge at a non-erosive velocity prior to entering the stream or wetland during the peak flow from the ten-year storm.
 - iv. **Projects Below Written Authorization Thresholds:** Projects that are below written authorization thresholds must comply with the version of *Protocol for*

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Stormwater Management Plan (SMP) Review and Approval that is in place on the date of the certification for the project.

- v. **Phased Projects:** The DWQ will allow SMPs to be phased on a case-by-case basis, with a final SMP required for the current phase and a conceptual SMP for the future phase(s). If the current phase meets the Low Density criteria, but future phase(s) do not meet the Low Density criteria, then the entire project shall be considered to be High Density.

13. Placement of Culverts and Other Structures in Waters and Wetlands

Culverts required for this project shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert. Placement of culverts and other structures in waters and streams must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than or equal to 48 inches, to allow low flow passage of water and aquatic life.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

If site-specific topographic constraints preclude the ability to bury the culverts as described above and/or the applicant can demonstrate that burying the culvert would result in destabilization of the channel and head-cutting upstream, the Division will consider alternative design proposals.

Any riprap required for normal pipe burial and stabilization shall be buried such that the original stream elevation is restored and maintained.

The establishment of native, woody vegetation and other soft stream bank stabilization techniques must be used where practicable instead of riprap or other bank hardening methods.

- 14. Additional site-specific conditions may be added to the written approval letter for projects proposed under this Water Quality Certification in order to ensure compliance with all applicable water quality and effluent standards.
- 15. If an environmental document is required under the National or State Environmental Policy Act (NEPA or SEPA), then this General Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse.
- 16. If this Water Quality Certification is used to access building sites, then all lots owned by the applicant must be buildable without additional impacts to streams or wetlands. The applicant is required to provide evidence that the lots are buildable without requiring additional impacts to wetlands, waters or buffers if required to do so in writing by the Division. For road construction purposes, this Certification shall only be utilized from natural high ground to natural high ground.

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17. Deed notifications or similar mechanisms shall be placed on all retained jurisdictional wetlands, waters and protective buffers in order to assure compliance for future wetland, water and buffer impact. These mechanisms shall be put in place at the time of recording of the property, or of individual lots, whichever is appropriate. A sample deed notification can be downloaded from the 401/Wetlands Unit web site at <http://portal.ncdenr.org/web/wq/swp/ws/401/certsandpermits/apply/forms>. The text of the sample deed notification may be modified as appropriate to suit to a specific project.
18. When written authorization is required for use of this certification, upon completion of all permitted impacts included within the approval and any subsequent modifications, the applicant shall be required to return the certificate of completion attached to the approval. One copy of the certificate shall be sent to the DWQ Central Office in Raleigh at 1650 Mail Service Center, Raleigh, NC, 27699-1650.
19. This General Certification shall expire three (3) years from the date of issuance of the written letter from the Division or on the same day as the expiration date of the corresponding Nationwide Permit. The conditions in effect on the date of issuance of Certification for a specific project shall remain in effect for the life of the project, regardless of the expiration date of this Certification. If the construction process for approved activities will overlap the expiration and renewal date of the corresponding 404 Permit and the Corps allows for continued use of the 404 Permit, then the General Certification shall also remain in effect without requiring re-application and re-approval to use this Certification for the specific impacts already approved.
20. The applicant/permittee and their authorized agents shall conduct all activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act), and any other appropriate requirements of State and Federal Law. If the Division determines that such standards or laws are not being met, including failure to sustain a designated or achieved use, or that State or Federal law is being violated, or that further conditions are necessary to assure compliance, then the Division may reevaluate and modify this General Water Quality Certification.

Non-compliance with or violation of the conditions herein set forth by a specific fill project may result in revocation of this General Certification for the project and may also result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for Individual Certification for any project in this category of activity, if it is determined that the project is likely to have a significant adverse effect upon water quality including state or federally listed endangered or threatened aquatic species or degrade the waters so that existing uses of the wetland or downstream waters are precluded.


Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Water Quality Certification N°. 3821

Effective date: April 6, 2010

DIVISION OF WATER QUALITY

By

A handwritten signature in black ink, appearing to read 'Coleen H. Sullins', with a long horizontal flourish extending to the right.

Coleen H. Sullins

Director

History Note: Water Quality Certification (WQC) Number 3821 issued April 6, 2010 replaces WQC Number 3705 issued November 1, 2007, WQC Number 3631 issued March 19, 2007, WQC Number 3402 issued March 2003, WQC Number 3362 issued March 18, 2002, WQC Number 3287 issued June 1, 2000, and WQC Numbers 3106 and 3108 issued on February 11, 1997. This Water Quality Certification is rescinded when the Corps of Engineers re-authorizes Nationwide Permits 18, 29, 39, 41, 42, 43 or 44 or when deemed appropriate by the Director of the Division of Water Quality.



North Carolina Department of Environment and Natural Resources

Division of Water Quality

Beverly Eaves Perdue
Governor

Coleen H. Sullins
Director

Dee Freeman
Secretary

DWQ Project No.: 10-0451 County: Orange

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: 10/25/10

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

If this project was designed by a Certified Professional

I, _____, as a duly registered Professional _____ (i.e., Engineer, Landscape Architect, Surveyor, etc.) in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Registration No. _____

Date _____