

**RIPARIAN BUFFER AND NUTRIENT MITIGATION  
UMBRELLA BANKING INSTRUMENT**

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**I. PREAMBLE**

This Riparian Buffer and Nutrient Mitigation Umbrella Banking Instrument, regarding the establishment, use, operation, and maintenance of the Restoration Systems' Neuse River Basin Riparian Buffer and Nutrient Mitigation Umbrella Bank (Bank) is made and entered into by and among Restoration Systems, L.L.C. (RS) and the North Carolina Department of Environment and Natural Resources – Division of Water Quality (DWQ).

The purpose of the Bank is to improve water quality through the restoration of riparian buffer habitat within the Neuse River Basin in the State of North Carolina, United States Geological Survey (USGS) Hydrologic Unit Code (HUC) 030202, to provide mitigation for buffer impacts and development requiring nutrient offset payments within the Neuse River Basin, and to sell any resulting credits to third parties.

**II. AUTHORITIES**

The Bank will be used to provide nitrogen offset and riparian buffer mitigation in accordance with the requirements of 15A NCAC 2B .0234 (Wastewater Discharge Requirements), 2B .0235 (Basinwide Stormwater Requirements), 2B .0240 (Nutrient Offset Payments), and 2B .0242 (Mitigation program for protection and maintenance of existing riparian buffers), under such authority as established in SL 2007-438. All activities will be consistent with rules adopted by the Environmental Management Commission and all other applicable authorities.

**III. ESTABLISHMENT OF BANK PARCEL(S)**

- A. Each tract of land subject to a conservation easement or restrictive covenants described in Section III-E ("Parcel") to be included in the Bank shall require a Bank Parcel Development Package (BPDP), including detailed information concerning site location, existing conditions, proposed restoration activities, monitoring and maintenance plans, financial assurances, and associated mitigation potential (to include credit generation, service area, and accounting as appropriate for each regulatory authority cited above). Additional Parcels may be added to the Bank at any time upon approval of the associated BPDP by the DWQ and prior to use of the parcel for mitigation purposes.
- B. RS agrees to perform all necessary work, in accordance with the provisions of this Banking Instrument, to establish and/or maintain riparian buffer until it is

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demonstrated to the satisfaction of the DWQ that the restored property complies with all conditions contained herein, or until all credits are sold, whichever is later.

- C. RS will obtain all appropriate environmental documentation, permits or other authorizations needed to establish and maintain the Bank. This Banking Instrument does not qualify or substitute for such authorization.
- D. Financial Assurance Requirements: Following approval of the BPDP, Restoration Systems, LLC shall provide a Performance Bond from a surety that is rated no less than an "A-" as rated by A.M. Best. The Performance Bond amount shall be two times the estimated cost for implementation of the restoration plan included in the BPDP, but no less than \$150,000.00 in amount. After completion of the construction, a Monitoring Bond will be substituted for the Performance Bond. The Penal Sum of said Monitoring Bond shall be for two times the estimated cost to implement the monitoring and maintenance plan but no less than \$150,000.00 in amount. The Monitoring Bond shall be in effect for a period of five years.
- E. Real Estate Provisions: Prior to the certification of any credits, RS shall acquire a permanent conservation easement(s) or record restrictive covenants to the deed(s) on all Bank Parcels to provide protection to the restored riparian buffer from activities that would impair its ability to provide nutrient abatement to waters of the Neuse River Basin. The form of the conservation easement or restrictive covenants shall be consistent with the standards employed by the State of North Carolina in the protection of restored riparian buffers and shall be approved by the DWQ prior to the certification of any credits. RS shall not grant additional easements, right of way, or any other property interest in or to the project areas without the written consent of the DWQ or its designee. In the case of a conservation easement, RS will hold the easement until all credits are released from the Bank Parcel. At the conclusion of Bank activities, the conservation easement(s) may be permanently transferred to a DWQ approved land trust or non-profit group to be held in perpetuity.
- F. As-Built Reports: RS agrees to submit an as-built report for each Parcel within 30 days after completing the establishment of the buffer. The as-built report will describe in detail any deviation from the BPDP. In addition, the as-built report will document finished grades, and surface and groundwater elevations, as appropriate.

#### **IV. MAINTENANCE AND MONITORING OF BANK PARCEL(S)**

- A. Maintenance Provisions: RS agrees to perform all necessary work to maintain the Parcel(s) consistent with the maintenance criteria established in this instrument. RS shall continue with such maintenance activities until all credits are sold or the

Parcel is closed. Deviation from the approved BPDP is subject to review and written approval by DWQ or its designee.

- B. Monitoring Provisions: RS agrees to perform all necessary work to monitor the Bank to demonstrate compliance with the Success Criteria established in this Banking Instrument and site-specific conditions of the BPDP.
- C. Vegetative Success Criteria: Vegetative Success Criteria will be based upon the density and growth of character tree species. "Character Trees" are defined as planted or volunteer species identified from a survey of local vegetation on less degraded sections of the specified stream and from reference literature that details native species. A list of Character Tree species for each Parcel will be detailed in that Parcel's BPDP. Vegetative Success Criteria will be based upon guidelines set forth in the Guidelines for Riparian Buffer Restoration prepared by the North Carolina Ecosystem Enhancement Program (or subsequent updated versions of this Guidance in place at the date of acceptance of a BPDP). Success is defined as the survival of an average density of 320 Character Trees per acre. Planted species must account for a minimum of 30 percent of the above densities. If vegetative success criteria are not achieved based on acreage density calculations from combined monitoring plots over the entire restoration area, supplemental planting may be performed with tree species approved by DWQ. Supplemental planting may be performed as needed until vegetative success criteria are met. No quantitative measurements of herb assemblages will be required to meet the vegetative success criteria. The quantity of monitoring plots will be determined in accordance with *The Carolina Vegetative Sampling Protocol* (Levels I & II), such that no more than 2 percent of any one Parcel is encompassed in monitoring plots. Visual estimates of the percent cover of herbaceous species and photographic evidence will be reported for informational purposes. Visual observation of streambank stability will also be made. Areas of significant bank erosion will be repaired through matting and/or vegetative planting.
- D. Monitoring Reports: RS shall submit to the DWQ an annual monitoring report, no later than December 31 each year for five years after the first full growing season, describing the conditions of each Bank Parcel and relating those conditions to the success criteria. Reports will be submitted annually and shall contain the following:
1. A U.S. Geological Survey map showing location of the Bank;
  2. A detailed narrative summarizing the condition of the Bank and all regular maintenance activities;
  3. Appropriate topographic maps showing location of sampling plots, permanent photo points, location of transects, etc.;
  4. Monitoring data, including specific vegetative counts and photographs;  
and
  5. A copy of the Bank credit/debit ledger.
- E. Contingency Plans/Remedial Actions: In the event the Bank fails to achieve the success criteria described in this instrument, RS shall develop necessary

contingency plans and implement appropriate remedial actions for the Bank in coordination with the DWQ or designee.

If the DWQ determines that the Bank is operating at a deficit (i.e., RS is selling or transferring credits not yet available), the sale/transfer of credits will immediately cease, and the DWQ, in consultation with RS, will determine what remedial actions are necessary to correct the situation.

## V. OPERATION OF BANK

- A. Nitrogen Abatement of Restored Riparian Buffer: RS and DWQ agree that the pounds of nitrogen offset per acre of restored riparian buffer shall be two thousand two hundred and seventy three (2273 lbs/acre) as established by the DWQ and applied to existing riparian buffer-based nitrogen abatement sites across the State of North Carolina.
- B. Establishment and Release of Credits: Upon submittal of all appropriate documentation by RS, and subsequent approval by DWQ or its designee, it is agreed that the mitigation credits associated with this Bank will become available for sale to a third party in accordance with the following schedule.

<b>Task</b>	<b>Project Milestone</b>	<b>% Credit Available for Sale</b>
1	Bank Parcel Development Package Approved by DWQ, Conservation Easement or Restrictive Covenants Recorded and Performance Bond Purchased	20
2	Mitigation Site Earthwork, Planting and Installation of Monitoring Devices Completed	20
3	Approval of As-Built Report and Monitoring Bond Purchased	10
4	Submit Monitoring Report #1 to DWQ (meets success criteria)	10
5	Submit Monitoring Report #2 to DWQ (meets success criteria)	10
6	Submit Monitoring Report #3 to DWQ (meets success criteria)	10
7	Submit Monitoring Report #4 to DWQ (meets success criteria)	10
8	Submit Monitoring Report #5 to DWQ (meets success criteria)	10
	Total	<b>100%</b>

- C. Projects Eligible to Use the Bank. Projects eligible for utilization of the credits are those requiring authorization under the requirements of 15A NCAC 2B .0234 (Wastewater Discharge Requirements), 2B .0235 (Basinwide Stormwater Requirements), and 02B .0242 (Mitigation Program for Protection and Maintenance of Existing Riparian Buffer) provided such use has met all applicable requirements and is authorized by the appropriate authority.
- D. Procedure for Debiting or Crediting the Bank: RS shall maintain two credit ledgers: one accounting for buffer mitigation credits (in square feet), which are

generated by buffer areas of  $\leq 50$  feet in width; and one accounting for nitrogen offset credits, which are generated from buffer areas  $\geq 51$  feet in width. The ledgers shall record the area of available buffer for each Parcel and all associated debits and credits. Credits can be converted and transferred from buffer mitigation to nitrogen offsets, but the opposite shall not occur. No debits or credits to the ledger shall be made without the written concurrence of the DWQ or its designee, and RS. All written concurrences shall be kept in the ledger.

## VI. OTHER PROVISIONS

- A. RS will allow, or otherwise provide for, access to the Parcel(s) by the DWQ or other parties authorized by the DWQ, as necessary, for the purpose of inspection and compliance with the terms and conditions of this Banking Instrument and the conservation easement or restrictive covenants. Inspecting parties shall provide reasonable notice, of not less than 24 hours, to RS, prior to inspection of Bank.
- B. Force Majeure: RS will not be responsible for Bank failure that is attributed to natural catastrophes such as flood, drought, disease, regional pest infestation, etc. that are beyond the control of RS. DWQ must concur in writing that a *force majeure* event has occurred.
- C. Validity, Modification, and Termination of the Banking Instrument: This Banking Instrument will become valid on the date of the last party's signature. This Banking Instrument may be amended or modified only with the written approval of all signatory parties.
- D. Specific Language of Banking Instrument Shall Be Controlling: To the extent that specific language in this document changes, modifies, or deletes terms and conditions contained in those documents that are incorporated into the Banking Instrument by reference, and that are not legally binding, the specific language within the Banking Instrument shall be controlling.
- E. Dispute Resolution. Any disputes between the Bank Sponsor and the DWQ regarding the attainment of success criteria and release of credits from a specific site and appropriate monitoring, maintenance and/or remedial onsite activities shall first be addressed among the field staff of DWQ and RS field personnel and then, if not settled, raised to the level of the individual signatories to the Banking Instrument or their designees.
- F. Notices: Unless otherwise provided herein, all notices and other communications which may be or are required to be given or made by any party to the other in connection herewith shall be in writing and shall be deemed to have been properly given and received on the date delivered in person or deposited in the United States mail, registered or certified, return receipt requested, to the addresses set

out below, or at such other addresses as specified by written notice delivered in accordance herewith.

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If to RS: ~~1100~~ Haynes Street, Suite 211  
Raleigh, North Carolina 27604

If to DWQ: \_\_\_\_\_  
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\_\_\_\_\_

- G. Entire Agreement: This Agreement constitutes the sole and entire agreement among the parties hereto and no modification of this Agreement shall be binding unless in writing and signed by all parties hereto.
- H. Applicable Law: This Agreement shall be construed under the laws of the State of North Carolina.

**RESTORATION SYSTEMS, LLC**

By: GA Howard  
Name: George A. Howard  
Title: Exec VP, RS

**NORTH CAROLINA DEPARTMENT  
OF ENVIRONMENT AND NATURAL  
RESOURCES DIVISION OF WATER  
QUALITY**

By: [Signature]  
Name: Coleen H. Sullins  
Title: Director