Wetland Buffer Monitoring & Maintenance Plan
for
FWL GROUP, LLC
200 & 280 Fields Lane
Brewster, NY 10509
April 2, 2018

1. **Wetland Buffer Monitoring & Maintenance Plan**
   The purpose of the Wetland Buffer Monitoring & Maintenance Plan is to ensure that development in the wetland buffer does not compromise the functional integrity of the wetland buffer and the resulting mitigation meets its stated goals as described in the final resolution adopted by the Town of "Town" Planning/Town Board for the FWL Group, LLC c/o Dr. Sunil Gupta (the "Permitee").

2. **Protocol for Commencement of Wetlands Buffer Monitoring & Maintenance Plan**
   a. Permittee shall implement the mitigation plan approved by the Town Planning/Town Board.

   b. Following the installation of all wetland buffer mitigation in accordance with the final resolution and plans adopted by the Planning/Town Board, the Permittee shall submit two (2) copies of the following:

      i. Certification from a Licensed Landscape Architect verifying the proper installation of all plants and materials in accordance with the approved Planning/Town Board resolution. The Landscape Architect shall note any deficiencies in the installation of the plant materials or deviations from the approved resolution so that these can be corrected before final approval.

      ii. As-built plan prepared by a Licensed Landscape Architect/Engineer or Licensed Surveyor detailing the (1) specific locations of plantings and (2) number and species of individual plants.

   c. The monitoring period shall begin with the review of all required submitted information/materials and final written approval by the Town's Wetlands Consultant.

3. **Assurances**
   a. All plantings and seed mixture applications in conjunction with the mitigation work shall be accomplished in accordance with the approved drawings and completed within the first growing season after site clean up is complete and topsoil is re-spread on the disturbed areas to be re-vegetated.

   b. The Permittee shall ensure that all woody plants in conjunction with the wetlands buffer restoration mitigation plan shall have a minimum 85% survival of installed plants, which must be met or exceeded at the end of the 2nd (second) growing

season following the initial planting/seeding. If the 85% survival rate is not met at the end of the second growing season, the Permittee shall take all necessary measures to ensure the level of survival by the end of the next growing season, including replanting and re-grading with topsoil, if necessary.

4. **Monitoring Reports**
   a. The purpose of the mitigation monitoring and maintenance reports shall be to: (1) evaluate the progress of the establishment of the mitigation areas, (2) assess compliance with plant survival and plant condition requirements, and (3) identify those aspects of the mitigation areas that may require remediation by the Permittee in order to achieve the mitigation objectives.

   b. Permittee shall submit the mitigation monitoring and maintenance reports prepared by a licensed landscape architect or environmental professional annually no later than November 1st to the Town's Wetlands Consultant for review.

   c. Information for said reports shall be collected a minimum of five times: (1) once prior to construction, (2) once immediately post construction, and (3) annually for three years post construction between the months of June 1st and September 1st.

   d. Minimum Requirements of the Monitoring Reports:
      i. Identification of the number of surviving approved woody plants and area coverage at the time of the observation. The report should detail the condition, vigor, size (dbh) of all planted material and compliance with approved Planning/Town Board resolution.

      ii. Color photographs from established stations approved by the Town's Wetlands Consultant showing representative areas of the mitigation sites taken annually during the designated period defined above.

      iii. An estimate of the vegetative cover at the mitigation sites, noting, in particular, areas which are bare of vegetation and/or locations where erosion and sedimentation are occurring; or where invasive plant species have become established. Aerial coverage of invasive plant species must be less than 15% of wetland buffer mitigation area.

      iv. Detailed description of the overflow outlets noting any soil instability and/or erosion.

      v. A qualitative analysis of the extent to which the mitigation has been successful. Said reports shall note areas of deficiencies and/or non-compliance and provide recommendations/measures to be taken to ensure continued success of the mitigation efforts and soil stabilization.

vi. Additional observations should be noted (e.g., observation of wildlife) and/or information as recommended by the Town's Wetlands Consultant

5. **Completion of Monitoring Period**
   a. Final report submitted by Permittee and certified by landscape architect and/or engineer.

   b. The Town's Wetlands Consultant will review the submittal material and perform an inspection of the site for conformance with the approved Planning/Town Board resolution and as-built plans. Upon review and inspection, Town's Wetlands Consultant shall submit written approval to the Planning/Town Board.

   c. A Monitoring Data Form (see attached) shall be filled out that includes above information and the following information if applicable:

   - The vegetative cover shall be comprised of native species (not invasive species), whether planted or resulting from natural colonization. If vegetative cover is less that 85%, replanting shall occur with native species which have survived and show good vigor within the wetland buffer mitigation planting areas.

   - Elimination of invasive plant species. Invasive species, including but not limited to, common reed *(Phragmites australis)*, Japanese honeysuckle (*Lonicera japonica*), Tartarian honeysuckle (*Lonicera tatarica*), bittersweet (*Celastrus orbiculatus*), and multiflora rose (*Rosa multiflora*). It is incumbent on the Permittee to remove such invasive species during the appropriate season in which removal is optimal. Hand removal of any deformed, diseased or otherwise unhealthy plantings and replacement "in kind" as necessary to meet the 85% survival threshold.

MONITORING DATA FORM

Project : _____ **Date:**_____

Town/City:_____ **County:**_____

Field Investigators:_____

_____

Plot #: _____

Plant Survival Calculations

	# at start	# year 1	#year 2	#year 3
Number of trees				
Percent surviving at observation				
Number of shrubs				
Percent surviving at observation				

Notes: _____
_____
_____
_____
_____
_____
_____

6. Site Monitor

Name: _____

Date of Site Visit: _____

Weather Conditions: _____