GODDARD CONSULTING LLC
Wetland Strategies

October 19, 2015

# Wildlife Habitat Evaluation & Wetland Replication Plan

Proposed Slaughtering & Processing Facility
291 State Road
Westport, MA

Submitted to:
Westport Conservation Commission
856 Main Road
Westport, MA 02790

Prepared for:
Southeastern Massachusetts Livestock Association
22 Jordan Road
South Dartmouth, MA

## Part A: Wildlife Habitat Evaluation

### 1. Introduction

Goddard Consulting, LLC conducted a Wildlife Habitat Evaluation (WHE) and Wetland Replication Plan at the site of the proposed slaughtering and processing facility, on behalf of Southeastern Massachusetts Livestock Association (SEMALA). The purpose of the WHE was to evaluate the potential impacts to wildlife habitat from the proposed project and demonstrate compliance with regulatory performance standard of "no adverse effect" on wildlife habitat pursuant to 310 CMR 10.60(2).

The project site contains Bordering Vegetated Wetlands (BVW), jurisdictional under the MA Wetlands Protection Act (WPA). The resource area boundaries were delineated by Goddard Consulting and confirmed in the Order of Resource Area Delineation (ORAD) issued by Westport Conservation Commission on January 8, 2015 (see attached copy). This WHE report will provide evidence the project's area impacts **will not** have an adverse effect on the site's existing wildlife habitat.

### 2. Resource Area Impact Summary

The site's resource areas are described in the document titled "Wetland Border Report" dated 5/30/14 by Goddard Consulting, LLC. During the ANRAD process it was determined that all resource areas are BVW. Portions of the proposed work, an access road, will require a wetland crossing through wetland resource area of BVW (4,098 s.f.). A 4,656± s.f. replication area is proposed adjacent to the access road. The restoration area is all currently upland forest.

There is no available access to the upland portion of the site without crossing through the BVW. Therefore, there is no alternative project design that would avoid wetland alteration. The proposed alteration location has been selected so as to have the least possible impact on the BVW given design constraints. There is no alternative to access upland forest.

### 3. WHE Methods

In accordance with the MA WPA, the habitat evaluation should be limited to the footprint of the proposed project within resource areas. The only resource areas proposed to be impacted are the BVW. The amount of alteration proposed in the BVW (4,098 s.f.) does not meet the threshold to trigger a Detailed Wildlife Habitat Evaluation, although it meets the threshold for a Simple Wildlife Habitat Evaluation (Appendix A).

This was done by performing transects throughout the impact area. During this inspection, no *important* habitat features were found to exist on the parcel.

**4. Existing Conditions within the Proposed Altered BVW Area**

The land cover within this impact area consists of primarily deciduous forested wetland habitat type and a shrubby border on its eastern perimeter (see photo 1). The vegetation of the forested wetland consists of swamp white oak (3), red maple (3) and red oak (1) trees with 75% coverage; red maple (4), tupelo (3), ironwood (3) saplings with 30% coverage; shrub cover dominated by sweet pepperbush with winterberry, highbush blueberry, arrowwood viburnum, and catbriar; poison ivy vine; shrubs with 75% coverage and an herbaceous ground cover consisting of cinnamon fern, and *Carex sp.* with approximately 20% coverage. A portion of the BVW has a dense cover of sweet pepperbush.

The shrubby border between flags #W44-45 (see photo 2) consists of a thick patch of shrubs and tree saplings. Sweet pepperbush spills from the forested wetland into the shrubby border, and also contains arrowwood viburum, winterberry, catbriar, red maple saplings and Japanese multiflora rose.

The wetland contains large rocks throughout, both on the surface and below the surface (see photo 3).

Photo 1- Impact Area, looking toward flag#W35

Photo 2 – Impact area, facing flags #W44-45

Photo 3 – Rocks seen throughout wetland

### 5. Results

An Appendix A form was completed, as required (see attached). No important wildlife habitat features were observed. Many of the plants present provide insects, berries and seeds for birds and small mammals. Potential nesting habitat is available to nest builders, especially within the shrubby border. None of the features on the site, as defined by Department of Environmental Protection (DEP) policy, are present.

## *Part B: Wetland Replication Plan*

### 1. Introduction

In order to mitigate for the project's proposed 4,098 s.f. of alteration of Bordering Vegetated Wetland (BVW), a total of 4,656± s.f. wetlands will be created in an area nearby to the BVW alteration area (see Figure 1, "Wetland Impact and Replication Area Detail", dated 10/9/15). Construction of the replication area will involve the conversion of upland deciduous forest to forested wetland.

### 2. Existing Conditions in BVW Alteration Area & Proposed Work

Wetlands are located along State Road and extend across the eastern portion of the property. The BVW forested wetland alteration area has a canopy of swamp white oak, red maple, and tupelo trees. The understory contains ironwood, sweet pepperbush, winterberry, highbush blueberry, arrowwood viburnum, catbriar, poison ivy and wetland ferns (see photo 1).

Soils in the BVW consist of organic loams underlain by 12YR 3/3 hydric soils. Free water within test pits were 8-10 inches from soil surface. Refer to the Goddard Consulting, LLC Wetland Border Report, dated May 30, 2014.

According to the Mass GIS data layers for NHESP, the site is not located within Estimated and/or Priority Habitat of Rare Wildlife identified and does not contain any certified or potential vernal pools. Furthermore, no Zone II, FEMA Flood Zones and/or Areas of Critical Environmental Concern (ACEC) are located or associated with the site.

The majority of the property is located within upland forest. However, to gain access to it, and where the proposed project will be located, BVW will need to be crossed. Work within the BVW will include filling, grading, and removal of vegetation and will impact 4,098 s.f. of BVW. Prior to work, erosion controls will be installed at the limit of work. Hydric soil excavated from the impact area will be stockpiled for use, if needed, within the proposed Replication Area.

*Photo 1 – View of BVW to be impacted, facing flag #35*

**3. Replication Area and Proposed Work**

The area for the proposed BVW replication is within upland forest that has a canopy of white and red oaks, red maple, tupelo and hop hornbeam. The understory has saplings of American beech, red maple and white pine. The shrub layer is composed of witch hazel, highbush blueberry, sweet pepperbush and a sparse herbaceous layer consisting of New York fern, woodland aster, starflower, and tree-clubmoss (see photo 2).

This area contains hydric freetown mucks with 10 YR 2/1 soils and is underlain by 10 YR 6/1 gleyed sands. Free water was observed at 8-10 inches from soil surface (see photos 3 & 4 and pit locations on Figure 1).

Construction of the access road will impact 4,098 s.f. of wetland; this will be mitigated by the creation of 4,656± s.f. of wetland between flag numbers GC W26-31 (see Figure 2, "Replication Planting Plan"). This area was determined to be the best practical location for the proposed replication area for the following reasons:

1. Proximity to the access road, thereby minimizing disturbance to the surrounding upland forest.
2. Adjacent to existing BVW that is similar in character to impacted BVW.
3. Relatively level topography.
4. Existing hydric soils.
5. Existing wetland plants (approximately 25% of existing wetland vegetation).

We propose to not move or disturb existing wetland vegetation (red maple, tupelo, highbush blueberry, sweet pepperbush). Upland trees and shrubs will be removed, and

replaced with native wetland plants. Existing leaf litter will be removed and stockpiled, and subsequently returned to area after planting. Since grading will not be necessary due to the existing presence of hydric soil, excessive disturbance will not be required. The only ground disturbance will be in preparing the planting holes.

The vegetation selected for the replication area includes species present within the impacted BVW. The following plants are proposed: red maple, tupelo, swamp white oak, musclewood, winterberry, highbush blueberry, sweet pepperbush, and cinnamon fern. Shrub plantings will be thicker along the edge closest to the road; this will replicate the area within the impacted wetland that presently has a dense thicket along its edge (see attached "Replication Planting Plan").

*Photo 2 – Proposed Replication Area, view from flag #29*

*Photo 3-Hydric Soil*

*Photo 4-Hydric Soil*

**4. General Installation Procedures**

Supervision: All work within the replication area shall be supervised by a qualified wetland scientist. The supervisor shall submit monitoring reports to the Conservation Commission as described below. Reports shall contain details of all work performed and photographs of completed conditions.

Timing: Activities including steps 3 and 4 may be performed at any time of year, provided that all necessary erosion controls are properly installed and all activity is monitored by a wetland scientist. Upon completion of final grading, initial conditional approval of the Replication Area will be requested from the Conservation Department staff. If this initial conditional approval is granted, such approval shall be sufficient to allow for the construction of structures for the project, with the understanding that plants will be installed during the next growing season (see Step 5 below).

Installation of plantings (Step 5) shall take place during the early or late portions of the local growing season: between April 16 and May 31 or between September 16 and October 30.

Step 1: Survey. Field stake limits of the restoration area.

Step 2: Erosion Control Barriers. Erosion Control Barriers are not needed since site work will be limited to plantings.

Step 3: Soils in Replication Area. Existing hydric soils will remain.

Step 4: Planting. Precise siting of plants may be determined by the wetland scientist in the field prior to installation. All plants shall be distributed randomly throughout the area, with trees spaced approximately 15' on center and shrubs 8' on center.

Step 5: Restoration Monitoring.

a. **Seasonal monitoring reports** shall be prepared for the restoration area by a qualified wetland scientist for a period of 2 additional years after installation. This monitoring program will consist of summer and early fall inspections, and will include photographs and details about the vitality of the restoration area. Monitoring reports shall be submitted to the Commission by November 30th of each year. Monitoring reports shall describe, using narratives, plans, and color photographs, the physical characteristics of the restoration area with respect to stability, soil characteristics, survival of vegetation and plant mortality, aerial extent and distribution, species diversity and vertical stratification (i.e. herb, shrub and tree layers).

b. At least 75% **of the surface area** of the restoration shall be re- established with indigenous wetland plant species within two growing seasons. If the restoration area does not meet the 75% re-vegetation requirement by the end of the second growing season after installation, the Applicant shall submit a remediation plan to the Commission for approval that will achieve, under the supervision of a wetland specialist, restoration goals. The plan must include an analysis of why the areas have not successfully re-vegetated and how the Applicant intends to resolve the problem. Upon meeting the criteria for 75% cover of indigenous species after two growing seasons, a request of Certificate of Compliance will be submitted to the Commission.

## 5. Regulatory Compliance

MA WPA BVW Compliance Evaluation

The project falls within the jurisdiction of the regulation 310 CMR 10.55(4)(b), which regulates work within Bordering Vegetated Wetlands and their buffer zones:

> *Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:*
>
> 1. *The surface of the replacement area to be created ("the replacement area") shall be equal to that of the area that will be lost ("the lost area");*

**The area lost will be approximately 4,100 s.f. and is proposed to be replaced by replicating approximately 4,656± sf of wetland**.

2. *the ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area;*

**The replication area proposed is at approximately the same elevation as the existing/adjacent wetland area.**

3. *The overall horizontal configuration and location of the replacement area with respect to the bank shall be similar to that of the lost area;*

**The proposed location of the wetland replication area will be similar in horizontal configuration and location.**

4. *The replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;*

**The proposed replication area is along the same stretch of wetland.**

5. *The replacement area shall be located within the same general area of the water body or reach of the waterway as the lost area;*

**The replacement area is located approximately 80-feet to the west of the impact area.**

6. *At least 75% of the surface of the replacement area shall be reestablished within indigenous wetland plant species within two growing seasons, and prior to said vegetative reestablishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard U.S. Soil Conservation Service methods; and*

**The wetland replacement area shall be planted with indigenous wetland species and will be monitored for two growing seasons. If after the first growing season it appears the vegetation within the replacement area needs additional plantings to meet the 75% establishment standard it will be done so that the area will meet the standard after two growing seasons. A final report will be submitted to the Commission after the second growing season.**

7. *The replacement area shall be provided in a manner which is consistent with all other general performance standards for each resource area in Part III of 310 CMR 10.00. In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration and the significant of the project site to the interests identified in M.G. L. c. 131, 40, the extent to which adverse impacts can be avoided, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration are provided to contribute to the protection of the interests identified in M.G.L.c.131,40.*
*(c) Notwithstanding the provisions of 310 CMR 10.55 (4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of Bordering Vegetated Wetland when:*

*1. said portion has a surface are less than 500 square feet*

*2. said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands, and*

*3. in the judgement of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.*

**Wetland impacts are un-avoidable in order to access central upland area. Mitigation includes a greater than 1:1 wetland replacement area that will meet all general performance standards. Impacts have been minimized to the greatest extent practical.**

(d) Notwithstanding the provisions of 310 CMR 10.55(4)(a),(b)and (c), no project may be permitted which will have any adverse effect on specified habitat site of rare vertebrate or invertebrate species, as identified by procedures established under 310CMR10.59.

**The site does not have rare wildlife mapped habitat.**

(e) Any proposed work shall not destroy or otherwise impair any portion of a Bordering Vegetated Wetland that is within an Area of Critical Environmental Concern designated by the Secretary of Energy and Environmental Affairs under M.G.L. c.21A 2(7) and 301 CMR 12.00: Areas of Critical Environmental Concern. 310 CMR 10.55(4)(e).

**The site is not located in an ACEC**

Conclusion

This proposed slaughtering and processing facility project has minimized impacts to wetland resource area and buffer zone to the greatest extent practicable. The unavoidable wetland crossing will be mitigated in excess of 1:1 and all local, state and federal statutory interests and performance standards have been protected and will be met by this project.

*Since 310 CMR 10.55(4)(a), states that the issuing authority (Westport Conservation Commission) may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland as long as the general performance standards are met and statutory interests are satisfied as demonstrated in this analysis.*