BSC GROUP

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Nature-Based Solutions Implementation Resource Guide

Nature-based Solution (NbS): Pollinator Hedgerow Buffer

Project Number per matrix: **8**

PREREQUISITES

- Obtain Town or City Conservation Commission, DPW, and/or landowner approval.

RECOMMENDED IMPLEMENTATION STEPS

- **Project Planning and Administration**
  - Assess baseline production objectives of selected site for comparison.
  - Consider providing an initial financial offset incentive for private abutters to plant and maintain their own buffer.
  - Ensure buffer strips at a minimum of 5’ wide, plus 1’ per percent slope. Adjust for soil type, field conditions, climate, and erosion potential.
  - Consider if crop strips or grass strips may be parallel. When crop strips are parallel, they’re easier to farm with no point rows, but this method results in less of the slope in row crops.
  - Plan for grass buffers to generally occupy 20 - 30 percent of the slope.
- **NbS Installation**
  - Conduct site preparation to include selective invasive vegetation removal, assessment of solar aspect, and threats.
  - Select and plant species for contour buffer strips dependent on soil type, climate, and planned use.
    - Top pollinator/bird hedge row species (in order) include linden, catalpa, locust, cherry walnut, willow, pussy willow, tupelo, chestnut, tulip tree, sweet birch, sugar maple, hickory, apple, hawthorn, and cherry.
- **Maintenance**
  - Delay mowing until July 15 to help ground-nesting birds.
    - Pollinator hedge rows and forest edges of select flowering trees are the primary fodder for pollinators. These provide up to 3,000 lbs. of nectar/sap and 100 lbs. of pollen annually and seed/baseline insects for predatory birds. Meadow buffers supplement this with pollen diversity for disease control. Mid-slope meadow buffers are for pollinators and erosion control.
  - Maintain taller vegetation in spring and early summer to help slow runoff flow.
  - Move buffer strips up or down the slope to help re-establish vegetation or for other maintenance needs.
  - Perpetual maintenance program as coordinated with managing stakeholders.

NATURE-BASED SOLUTION SPECS

- Typical project size: 6’ – 10’ wide X 100’ long (no minimum).

BUDGET ESTIMATE

- Typical project budget (order of magnitude): $2,000 - $5,000
- Use the BSC Group Nature-based Solutions budget tool to develop more detailed concept budgets

SCHEDULE ESTIMATE

- Twice-annual maintenance during 2-year establishment period
- Post-establishment: Annual assessment/maintenance.
- Annual fallow shift or five-year cycle.