

# Metrics and Targets Task Force

# Pollinator Habitat Definition

Pollinator habitat contains native flowering plants, host plants, and nesting sites, throughout the growing season.

Additional information could be added, depending on the company/organization using the definition and their communication goals and target audiences, such as:

- Pollinator habitat may be remnant natural habitat, habitat enhanced through management, or newly created habitat.
- Flowering plants provide floral resources: nectar and pollen.
- A greater diversity of (or dominance by) native plants provides a greater diversity of floral resources and host plants (such as for butterflies) and nesting sites (such as for native bees).
- While non-native plants may provide some resources for pollinators, we manage for native plants because they provide other ecosystem services including soil stabilization improving water quality, habitat for birds and other wildlife, and are persistent and typically less costly to maintain for long term sustainability.
- A common goal is to provide three or more native plant species to be blooming in each of spring, summer, and fall periods (or throughout the period of time when natural habitats provide floral resources).

# Scorecards Reviewed

- We collated factors from 18 pollinator habitat evaluation/scoring programs, lined up by categories such as nectar resources, management practices, landscape context, etc.
- We identified the most commonly repeated elements
- Additional programs were added
- We proposed a set of factors for field scoring for 2018

The screenshot shows a detailed comparison of 18 different habitat assessment tools. The spreadsheet is organized into several columns, each representing a category of factors: Nectar Resources, Management Practices, Landscape Context, and Water Availability. The rows list various assessment tools, such as 'Pollinator Habitat Evaluation', 'Pollinator Habitat Assessment', and 'Pollinator Habitat Scoring'. Each cell in the grid contains a brief description of a factor and its relevance to the corresponding assessment tool. The spreadsheet is currently displaying the 'Comparisons' section, which is a grid of cells containing text descriptions of factors and their relevance to different assessment tools. The status bar at the bottom indicates 'Ready' and 'Count: 168'.

# Potential Tiered Approach of Scorecard

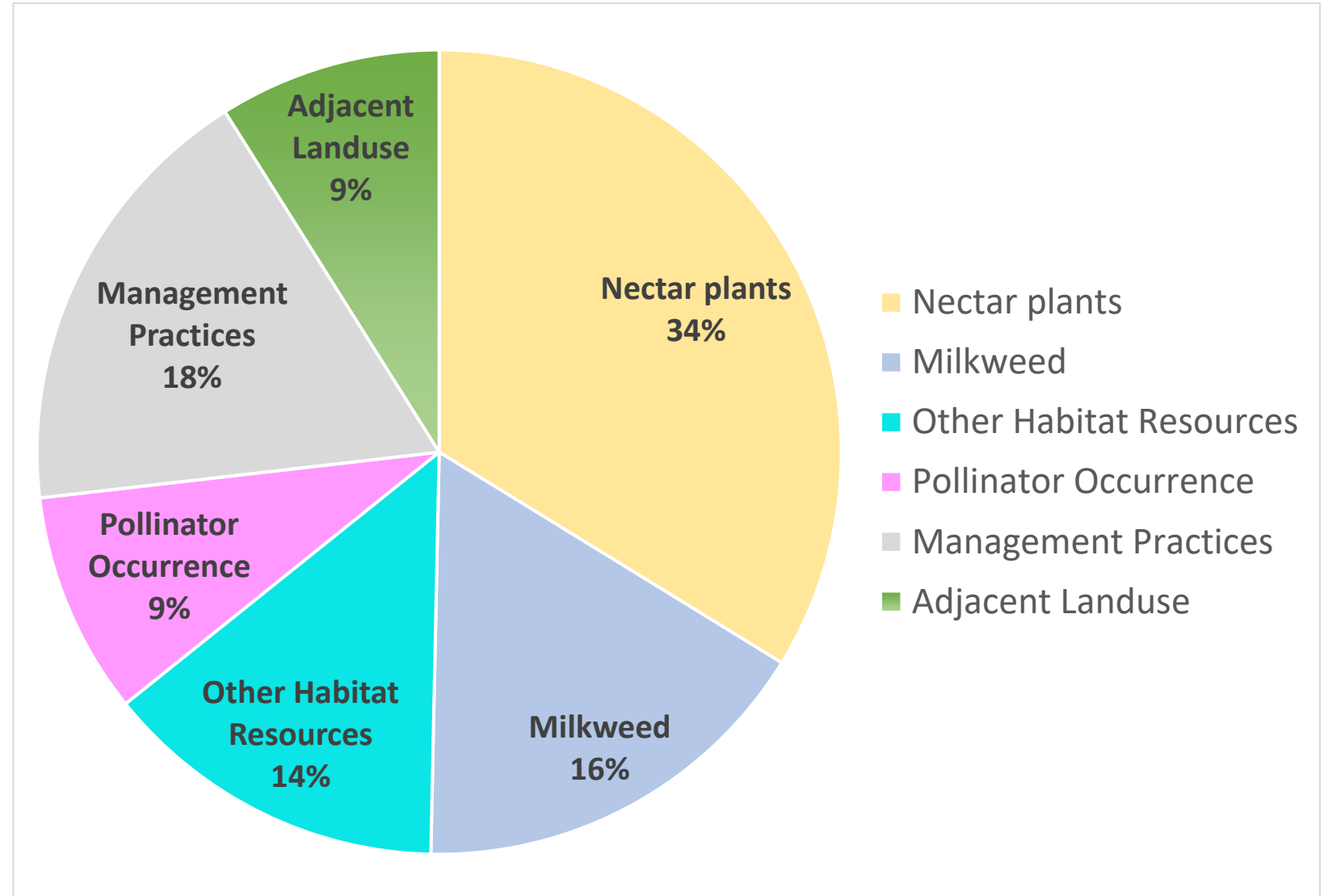
	TIER 1	TIER 2	TIER 3
Objective	To generally determine if habitat is present at a site	To generally determine the quality of the habitat at a site	To gather more detailed data to determine the impacts of management actions, where improvements can be made, and/or how the habitat compares to other sites
Survey Methods	<ul style="list-style-type: none"> <li>➤ Most basic</li> <li>➤ Least effort, time, cost, and expertise</li> <li>➤ Easily implemented across many sites</li> <li>➤ 5 – 10 minutes to complete</li> </ul>	<ul style="list-style-type: none"> <li>➤ Simple to implement by non-technical staff</li> <li>➤ Mid-level effort</li> <li>➤ Implemented across a cross-section of sites</li> <li>➤ 10 – 20 minutes to complete</li> </ul>	<ul style="list-style-type: none"> <li>➤ Performed by somewhat knowledgeable staff</li> <li>➤ More intense effort</li> <li>➤ Implemented across a sample of sites</li> <li>➤ 20+ minutes to complete</li> </ul>
Outcome	“Yes / No” habitat determination	Qualitative score: Low / Medium / High Quality Habitat	Quantitative score: 0 - 100

# Scorecard Tiers – Components

Tier 1	Tier 2	Tier 3
<p>Milkweed presence</p> <p>More than 10% nectar plant cover</p>	<p>Adjacent land use</p> <p>Number of Potentially Blooming Nectar (PBN) plant species</p> <p>Percent cover of PBN plant species</p> <p>Number of milkweed plants</p> <p>Other habitat resources</p> <p>Types of pollinators observed</p> <p>Management practices</p>	<p>Adjacent land use</p> <p>Number of Potentially Blooming Nectar (PBN) plant species</p> <p>Number of native PBN species</p> <p>Percent cover of PBN plant species</p> <p>Percent cover of noxious/invasive species</p> <p>Number of milkweed plants</p> <p>Number of milkweed stems by species</p> <p>Other habitat resources</p> <p>Types of pollinators observed</p> <p>Number of monarchs, butterflies/moths, native bees and honey bees</p> <p>Management practices</p>

# Scorecard Components Weights (Tiers 2 & 3)

- ***Preliminary weights***
- ***Do they differ across tiers or by program objectives?***
- ***Does management stay in the score?***



# Moving Forward...

## Scope of Work

# Objectives: Pollinator Habitat Scorecard

- Serve as a **universal standard** for monitoring and reporting pollinator habitat metrics on energy and transportation lands
- Provide a **multi-tiered approach** that is flexible based on an organization's monitoring goals and available resources, and can encourage more advanced monitoring over time;
- Align with **existing habitat assessments**, including monitoring requirements for the monarch butterfly CCAA
- Support **shared reporting** of habitat metrics to the ROW Working Group's geospatial habitat database.



# Who are the intended users?

- Vegetation managers
- Maintenance staff
- Contractors
- Student interns

# Scope of Work

- Task 1: User Feedback and Research
- Task 2: Final Tier Design
- Task 3: Scoring Methodology
- Task 4: Final Scorecard Design
- Future tasks

→ Late Spring 2019

# Scope of Work

- Task 1: User Feedback and Research
  - Analyze feedback to date from Task Force working sessions, scorecard subgroup meetings, and initial field testing of the draft scorecard as well as comparisons of existing habitat assessment tools to inform the final scorecard design. Identify outstanding questions and conduct user interviews if necessary. Organize feedback and recommendations for the scorecard subgroup to review.
- Timeline: 2 – 3 weeks
- Deliverables
  - Two web-meetings with the scorecard subgroup (i.e., kick-off meeting and subsequent meeting to review findings)
  - Memo compiling feedback and recommendations
  - Interviews with end users as necessary

# Scope of Work

- Task 2: Final Tier Design
  - Utilize the analyzed feedback and research to finalize the three-tier design that provides monitoring versatility and aligns with existing pollinator habitat assessments where possible. Work closely with the scorecard subgroup to refine the tiers, attributes, and scorecard design.
- Timeline: 2 weeks
- Deliverables
  - One facilitated web working session with scorecard subgroup
  - Updated protocol with fully developed tiers

# Scope of Work

- Task 3: Scoring Methodology
  - Develop appropriate scoring methodology for each tier to produce the desired type of outcome (qualitative or quantitative). Develop test cases to evaluate different scenarios. Work closely with the scorecard subgroup to refine the scoring rationale and methodology.
- Timeline: 2 weeks
- Deliverables
  - One facilitated web working session with scorecard subgroup
  - Basic Microsoft Excel calculator for testing

# Scope of Work

- Task 4: Final Scorecard Design
  - Incorporate feedback from scorecard subgroup from Tasks 2 and 3 into a final scorecard design. The final scorecard should be in either Microsoft Word or Excel and also compatible as a paper form. Update the draft protocol to reflect the final scorecard design. The protocol should be clearly written and user-friendly. At a minimum the protocol should include: (1) guidance for selecting the appropriate tier, (2) clearly written instructions for performing the monitoring in each tier, (3) an explanation for calculating the score, and (4) general guidance for interpreting the results and finding additional resources. Engage and/or consult the Task Force as necessary. Work closely with the scorecard subgroup to perform final review and comment period for final scorecard and protocol.
- Timeline: 3 – 4 weeks
- Deliverables
  - One facilitated web meeting with scorecard subgroup to review final design and protocol
  - Memo compiling feedback from the review period
  - Final scorecard and protocol that incorporates feedback during review and comment period (to be made available on the Rights-of-Way as Habitat Working Group's website)

# Future Tasks

- Develop an electronic or web app version of the scorecard and protocol.
- Perform scorecard calibration and quality assurance based on initial field testing.
- Develop training and other materials to support end users.
- Assist the scorecard subgroup in performing annual adaptive management.
- Facilitate a collective target-setting process for the Working Group using the scorecard as a basis.