MP3 Metrics Workgroup Report for SFIREG Meeting

June 27, 2017
MP3 Metrics PPDC Workgroup Update

- MP3 Metrics PPDC Workgroup Objectives
- Process - Evaluation of State & Tribal MP3s
  - Problem Definition of Plans
  - MP3 Review
  - National Level Metrics Guidance
  - Implementation
- Next Steps
- Discussion and feedback from SFIREG
MP3 Metrics PPDC Workgroup - Objectives

- MP3 Metrics PPDC Workgroup is charged with developing:
  - Recommendations for how to evaluate/measure the effectiveness of state- and tribal-recognized pollinator protection plans at the national level
  - A strategy to communicate that effectiveness to the public.

- Considerations
  - Common themes across the plans
  - Recognize differences across the plans
  - Need to include a number of different options for measure

- The workgroup’s goal is to make final recommendations to the full PPDC by November, 2017.
Process - Evaluation of State & Tribal MP3s

Problem Definition of Plans
- States & Tribal Nations - Working with stakeholders to promote pollinator health.
- Plans: Reduce exposure of bees to pesticides & develop local mitigation measures.
- EPA develops metrics for evaluating the efficacy of these plans on a national basis.

MP3 Review
- What is the scope of each MP3?
- What are the areas of commonality across MP3s for national-level metrics?
- Do the MP3s identify metrics for evaluating success?

National-Level Metrics Guidance
- Identify metrics that can be used for a national-level evaluation of MP3s.
- Identify specific metrics to recommend to the PPDC.
- Identify processes for gathering information for national-level evaluation.

Implementation
- Identify process for providing states/tribes feedback on metric process.
- Develop strategy to communicate national-level metrics to the broader public.
- Identify possible time line for evaluating metrics.
MP3 Review Summary

Common Themes
- Focus on enhancing communication between stakeholders
- Focus on enhancing education & knowledge
  - Pollinators, Pesticide Stewardship, Pollinator Forage & Habitat
- Best management practices

Differences
- Recognized great diversity among plans
- Recognized differences in local stakeholders

Other Themes
- Some MP3 are very comprehensive, some focus more on beekeepers and pesticide applicators/users
- State plans are voluntary and rely heavily on local cooperation between and across stakeholders
Wisconsin Example

- Behavioral surveys - measure plan use and behavioral change pre/post plan
- Track the number of organizations, agencies, residents and others are using plan recommendations.
- Survey readers on how the plan content improves their knowledge of pollinator health issues.
- Develop and record an annual survey that organizations can distribute at growers’ conferences.
National-Level Metrics Guidance
National-Level Metrics Guidance

1. Considerations
2. Assessment Categories
3. Measures - Qualitative & Quantitative
4. Points System for Evaluation
5. Data Collection & Results
6. Public Communication
National-Level Metrics Guidance Considerations

- Need to have defined national measures
- Need to have comparable measures between states
- How do you look at diverse, voluntary state plans without creating an unfunded mandate?
- Are we trying to create a measurement for each state plan or are we accepting the plans as provided and seeking a way to glean measurable information from them?
  - i.e. bottom looking up or top looking down
- Low expectation of new funds for broad survey of MP3s
Other Considerations for Metrics

- Workgroup discussed a number of metrics that were considered but not included
  - Honey Production
    - Varies by state by year depending on season and number of hives.
  - Bee Kill Incidents
    - Not always reported. May be a larger factor in some states versus another.
  - Hive Locations
    - States have different requirements for registering apiary locations.
    - Some states do not require registration of apiaries.
  - General Bee Metrics
    - Pollinator health metrics
    - Increases in bee populations - honey bees and native bees
Assessment Categories

These categories were common across majority of MP3s

- Stakeholders
- Education
- Communication
- Best Management Practices
- Progress Measures or Behavior Changes
National-Level Metrics Guidance
Measures - Qualitative & Quantitative

Qualitative Measures - Examples

- Behavior change measurements
  - Communication & Cooperation
    - Measure the success of efforts between stakeholders to communicate with each other.
  - Outreach Plans - Education & Knowledge
    - Usage of education resources
    - Adoption of MP3 risk reduction measures.
    - Measure increase in use of best management practices
National-Level Metrics Guidance
Measures - Qualitative & Quantitative

Quantitative Measures - Examples

- Number of people reached via visits to pollinator plan website pages or interactions on social media.
- Distribution of printed materials.
- Number of training sessions.
- Number of people who attend trainings on pollinator-related issues.
National-Level Metrics Guidance
Points System for Evaluation

- Provides an outline of actions within a individual plan (i.e. also provides guidance for those thinking about a survey).
- **Points can vary** and more critical parts can be weighted more heavily.
- The scoring provides for a national summary number.
- Formal way to get engagement from stakeholders and start the metrics measurements.
- The plan provides flexibility between individual plans allowing plans to meet local needs, so some plans would score much higher, **but it is not a grade across plans!**
Summary for Point System Proposal

- This is not a grading system.
  - There is no “approval,” so there is no pass/fail score.
- Provides ability to give credit where credit is due.
- Provides a individual plan measurement that can be monitored over time for improvement.
- Provides a way to sum MP3s for a National Metric to evaluate over time for improvement.
- Provides the flexibility for local groups to identify their needs and encourages local participation.
- Tool to understand how the plans improving, encourage continued involvement, make improvements and potentially seek funding.
## National-Level Metrics Guidance

### Point System

#### Category - Stakeholders (Evidence Sought)

**Plan Participants/Endorsed By:**

- State/Tribe Regulatory Authority/Agency/ Dept. of Agriculture (1 pt. for each)
- Crop Consultants Associations (1 pt. for each)
- University Extension Apiary or State Apiarist
- University Extension Crop or IPM Advisors
- One or more Beekeeper Associations (1 pt. for each)
- One or more Crop Producer Associations (1 pt. for each)
- Agricultural Aviation Association (includes pesticide applicators)
- Pest Control Operators Association
- State/Tribe Vector Representative/Public Health/Mosquito Control etc.
- Local NGO (1 pt. for each)
- Federal Agency (NRCS, FWS, etc.) Branch offices (0.1 pt. each)
- Lawn/Garden Associations
- Other
# National-Level Metrics Guidance Point System

## Category - Education (Evidence Sought)

<table>
<thead>
<tr>
<th>Description</th>
<th>Points Per Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Materials Developed</td>
<td>1 pt./each</td>
</tr>
<tr>
<td>Educational Materials Presented</td>
<td>1 pt./each</td>
</tr>
<tr>
<td>Educational Materials Distributed</td>
<td>1 pt./each</td>
</tr>
<tr>
<td>Educational Materials Accessed</td>
<td></td>
</tr>
<tr>
<td>Educational Material includes Action for each stakeholder above</td>
<td></td>
</tr>
<tr>
<td>Number of Pollinator Specific Trainings</td>
<td>1 pt./each</td>
</tr>
<tr>
<td>Outreach materials for stakeholders</td>
<td>1 pt./each</td>
</tr>
<tr>
<td>National participation in MP3 processes/developments</td>
<td></td>
</tr>
<tr>
<td>Includes a Website with compiled outreach material</td>
<td></td>
</tr>
<tr>
<td>CEU courses developed</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
# National-Level Metrics Guidance Point System

## Category - Communication (Evidence Sought)

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies Avenue(s) for exchange of contact information</td>
</tr>
<tr>
<td>Identifies Topics/Need for Contacting other participants</td>
</tr>
<tr>
<td>Provides Yearly Stakeholder Review Meeting</td>
</tr>
<tr>
<td>Includes a Symbol/Reminder mechanism (e.g. bee flag)</td>
</tr>
<tr>
<td>Includes a Website with compiled outreach material</td>
</tr>
<tr>
<td>Includes a Voluntary Mapping System for crops</td>
</tr>
<tr>
<td>Includes a Voluntary Mapping System for apiaries</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
# National-Level Metrics Guidance

## Point System

### Category - Best Management Plans - BMPs (Evidence Sought)

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMP developed for beekeepers near crops</td>
</tr>
<tr>
<td>BMPS developed for producer with apiary nearby</td>
</tr>
<tr>
<td>BMPs for ag producers to promote pollinators (generally)</td>
</tr>
<tr>
<td>BMPs developed for pesticide applicators (crop and/or bee pests)</td>
</tr>
<tr>
<td>BMPs for other stakeholders engagement</td>
</tr>
<tr>
<td>BMPs for Beekeepers</td>
</tr>
<tr>
<td>BMPs for honey bee husbandry</td>
</tr>
<tr>
<td>BMPs for nursery and landscaping industry</td>
</tr>
<tr>
<td>BMP's for urban and residential areas</td>
</tr>
<tr>
<td>BMP's for homeowners/the public</td>
</tr>
<tr>
<td>BMP's for forage/habitat</td>
</tr>
<tr>
<td>BMP's for pesticide risk to pollinators</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
## National-Level Metrics Guidance Point System

**Category - Progress Measures (Evidence Sought)**

<table>
<thead>
<tr>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides Stakeholder Annual Survey</td>
</tr>
<tr>
<td>Provides Mechanism for Stakeholder Revisions if needed on Annual Basis</td>
</tr>
<tr>
<td>Survey Evidence of Stakeholder Improved Awareness</td>
</tr>
<tr>
<td>Survey Evidence of Stakeholder Improved Participation</td>
</tr>
<tr>
<td>Survey Evidence of Stakeholder level of Satisfaction</td>
</tr>
<tr>
<td>Evidence of Plan Expansion/Inclusion of new Stakeholders</td>
</tr>
<tr>
<td>Survey Evidence (Stakeholder input) implying behavior change</td>
</tr>
<tr>
<td>Habitat Improvements Indicated</td>
</tr>
<tr>
<td>Nectar/pollen producing plants implements into Ag. Elements (buffers, etc.)</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
National-Level Metrics Guidance
Data Collection & Results

- **State/Tribe Considerations**
  - States/Tribes conducts self-assessment using point system.
  - States/Tribes could utilize point system to develop and conduct internal independent surveys and provide results to participants and EPA.
  - Helps individual plans to consider additional elements or changes to the MP3.

- **EPA Considerations**
  - The Agency could then use the point system to quantify the basic strength of the MP3 and improvement over time.
  - National measure comparison over time by summing individual results.
  - EPA could provide guidance on survey areas & questions
National-Level Metrics Guidance
Next Steps

- Need to develop grading system or rubric in order to interpret points
  - i.e. - Not Started, Progressing, Finalized, Exemplary, Resources

- Develop guidance document for measurements of the elements.
  - Guidance Document should explain intent of evidence lines.
  - Guidance Document could also assist states in survey questions, participant acknowledgement, and outreach ideas.

- EPA & States/Tribes could create a review board to determine needed modifications or address future clarity.
National-Level Metrics Guidance

Public Communication

- Utilize a rubric approach to tally scores within and across states and communicate to public about progress.

- Rubric Example

<table>
<thead>
<tr>
<th>Stakeholder Engagement</th>
<th>Not Started</th>
<th>Progressing</th>
<th>Finalized</th>
<th>Exemplary</th>
<th>Additional Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best Management Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion with SFIREG

- Metrics Group believes it is time to check with states for input before further development or time is invested in the concept.
- Pros and Cons
- Suggestions for Improvement