

TR202709 The Effects of Monarch CCAA Conservation Measures on Flowering Plant and Bumblebee Communities on ROW – Q&A

1. Existing monitoring data. MoDOT began establishing CCAA adopted acres in the Central District in 2025 and conducts annual monitoring at randomly selected points. Will existing 2025 and 2026 CCAA monitoring data, including completed pollinator habitat scorecards, plant observations, photographs, management information, and associated spatial data, be made available to the selected researcher? If so, may these data be incorporated into the project's longitudinal analyses?

Yes, we will provide the appropriate information as needed.

Yes, this data could be incorporated into the project's longitudinal analyses.

2. Adopted-acre GIS data. Can MoDOT provide prospective offerors with summary information about the adopted-acre dataset prior to proposal submission, such as the number and geographic distribution of adopted areas by year and district? If the underlying GIS files cannot be provided during the procurement period, could MoDOT provide maps or summary statistics sufficient to support development of a realistic sampling design and travel budget?

The focus will be on adopted acres in MoDOT's Central and Southeast Districts. We can share county-wide maps that show the general areas where CCAA adopted acres have been mapped in these districts.

3. Comparison plots. Does MoDOT envision that plots outside mapped adopted acres will function as formal comparison/control sites for evaluating the effects of CCAA conservation measures, or is the primary intent to characterize differences between adopted and non-adopted ROW without requiring a matched experimental design?

This could be discussed during the initial meeting with the selected proposer to better determine realistic outcomes.

4. Longitudinal sampling. For evaluating changes over time, does MoDOT prefer that the same core plots be surveyed repeatedly during all three years whenever feasible, rather than selecting new plots each year as additional adopted acres are established?

We prefer the same plots be surveyed during all years of the study.

5. Geographic representation. Because adopted acreage is expected to expand statewide during the project period, does MoDOT expect the research plots to provide statewide

representation, or would a stratified subset of adopted acres and comparison ROW be acceptable if the proposer demonstrates that it provides sufficient replication to address the research objectives within the available budget?

The latter. This will focus on the Central and Southeast Districts.

6. Conservation measures and management history. What records will be available regarding conservation measures and other vegetation management applied to individual adopted acres, including dates or approximate timing of mowing, seeding/plant establishment, herbicide application, invasive-species treatment, or other management activities? Are these data maintained at a spatial resolution that can be linked to individual monitoring plots?

Records prior to the start of this project will not likely be provided. However, the specific records of management practices during the course of the project will be discussed during project planning.

Vegetation management data at a spatial resolution for individual plots is something that MoDOT Environmental staff will have to review and provide information on.

7. Definition of conservation-measure effectiveness. Is MoDOT primarily interested in estimating the combined effect of CCAA enrollment/conservation management on plant and bumblebee communities, or does MoDOT also wish the study to distinguish among the effects of specific management practices where sufficient management replication exists?

If sharing the data from question #6, MoDOT wishes to see how management practices/conservation measures affect plant and bumblebee communities.

8. Bumble Bee Atlas protocol. Does MoDOT expect strict implementation of the existing Bumble Bee Atlas protocol at every selected plot, or may the researcher propose scientifically justified modifications or supplemental standardized observations that improve repeated-measures analysis while retaining compatibility with Bumble Bee Atlas/Bumble Watch reporting requirements?

No, we do not expect the survey protocols to be strictly followed due to plot size and safety constraints. However, protocol for collection, identification, data collection, etc. must be followed as closely as possible. No lethal capture of bees will be allowed.

9. Nonlethal identification. The RFP requires all pollinator identifications to be visual and/or photographic. For bumblebees that cannot be reliably identified to species from field observations or photographs, is reporting at the lowest defensible taxonomic level acceptable, with photographs retained as supporting documentation?

Yes.

10. Butterfly surveys. The RFP identifies incorporation of a brief butterfly visual-survey protocol in the survey plan. Does MoDOT envision butterfly data as a required project dataset and analytical component, or as a desirable supplemental component subordinate to the primary bumblebee and flowering-plant objectives?

Supplemental component.

11. Landscape analysis. Does MoDOT have specific spatial scales, landscape variables, or existing GIS datasets it would like incorporated into the required landscape analysis, or should offerors propose the spatial scales and variables they consider most biologically appropriate?

The latter.

12. CBA decision support. Because the RFP notes that MoDOT is evaluating participation in the Bumble Bee Conservation Benefit Agreement, are there specific information needs or decision criteria associated with that evaluation that MoDOT would like the research design and final recommendations to address?

The final report should include information about what additional work, if any, would be required for us to successfully meet the requirement for the CBA, should MoDOT decide to join.