

## Monarch Conservation Database Fields - 04/02/20

### User Information Fields

QID	Attribute	Format	Required	Personally Identifiable Information	Definition
UI1	User ID	Auto	N/A	N	Unique ID given to all database users
UI2	User Last Name	Text	Y (Accountability)	Y	Last name of database user
UI3	User Name	Text	Y (Accountability)	Y	First name of database user
UI4	User Organization	Text	Y (Accountability)	N	Organization/affiliation of database user
UI5	User Email	Text	Y (Accountability)	Y	Email address of database user

Plan Fields

QID	Attribute	Format	Required	PII	Definition
PL1	ID	Auto	N/A	N	Unique ID automatically generated for the plan
PL2	Name	Text	Y (Accountability)	N	Name of the plan
PL3	Author	Dropdown Menu	Y (Accountability)	N	The organization or the organization of the individual who authored the plan; will default to organization of record owner
PL4	Start Date	Date/Time	N	N	Date on which the plan became/will become effective
PL5	End Date	Date/Time	N	N	Date on which the plan expires/will expire
PL6	Type	Dropdown Menu	N	N	Type of plan (e.g. Candidate Conservation Agreement with Assurances, State Plan, Federal Plan, etc.)
PL7	Has this plan been finalized	Y/N	Y (PECE)	N	indicate if the plan has been finalized by a federal agency, state or local government, tribal government, business, organization or individual
PL8	Have the efforts associated	Y/N	Y (PECE)	N	indicate if the efforts associated with the plan have been completed or at least implemented
PL9	State	Dropdown Menu	N	N	States to which the plan applies
PL10	County	Dropdown Menu	N	N	Counties to which the plan applies
PL11	Notes	Text	N	N	Any other information regarding plan
PL12	Plan Resources	Y/N	Y* (PECE)	N	The conservation effort, the party(ies) to the agreement or plan that will implement the effort, and the staffing, funding level, funding source and other resources necessary to implement the effort are identified.
PL13	Plan Authority	Y/N	Y* (PECE)	N	The legal authority of the party(ies) to the agreement or plan to implement the formalized conservation effort, and the commitment to proceed with the conservation effort, are described.
PL14	Plan Procedure	Y/N	Y* (PECE)	N	The legal procedural requirements (e.g. environmental review) necessary to implement the effort are described, and information is provided indicating that fulfillment of these requirements does not preclude commitment to the effort.
PL15	Plan Authorizations	Y/N	Y* (PECE)	N	Authorizations (e.g. permits, landowner permission) necessary to implement the conservation effort are identified, and a high level of certainty is provided that the party(ies) to the agreement or plan that will implement the effort will obtain these authorizations.
PL16	Plan Participation	Y/N	Y* (PECE)	N	The type and level of voluntary participation (e.g. the number of landowners allowing entry to their land, or number of participants agreeing to change timber management practices and acreage involved) necessary to implement the conservation effort is identified, and a high level of certainty is provided that the party(ies) to the agreement or plan that will implement the conservation effort will obtain that level of voluntary participation (e.g., an explanation of how incentives to be provided will result in the necessary level of voluntary participation).
PL17	Plan Regulatory	Y/N	Y* (PECE)	N	Regulatory mechanisms (e.g. laws, regulations, ordinances) necessary to implement the conservation effort are in place.
PL18	Plan Funding	Y/N	Y* (PECE)	N	A high level of certainty is provided that the party(ies) to the agreement or plan that will implement the conservation effort will obtain the necessary funding.
PL19	Plan Implementation	Y/N	Y* (PECE)	N	An implementation schedule (including incremental completion dates) for the conservation effort is provided.
PL20	Plan Agreements	Y/N	Y* (PECE)	N	The conservation agreement or plan that includes the conservation effort is approved by all parties to the agreement or plan.

\*Only required ***IF*** not all efforts associated with the plan have been implemented or completed

**Site Fields**

QID	Attribute	Format	Required	PII	Definition
S11	Name	Text	Y (Accountability)	N	Name of the site upon which the activity(ies) is/are being implemented
S12	Organization leading the conservation effort	Dropdown Menu	Y (Accountability)	N	Organization primarily responsible for implementing the effort; will default to organization of record editor
S13	Collaborators	Dropdown Menu	N	N	Organizations of any collaborators on the effort
S14	IMMP Site Label	Number	N	N	What is the Monarch Conservation Science Partnership Integrated Monitoring Site number (if applicable/known)
S15	Plans	Dropdown Menu	N	N	Select or search for plans under which the effort is being implemented
S16	Land Use Baseline	Dropdown Menu	Y (Gain calculation)	N	What is the land use classification of the site upon which the activity(ies) is/are being implemented; will be auto-filled if providing a shapefile
S17	Land Use After Effort	Dropdown Menu	Y* (Gain calculation)	N	What is the land use classification of the site upon which the activity(ies) is/are being implemented after implementation is complete; only required if the activity will change the land use type
S18	Acres	Number	Y (Gain calculation)	N	How many acres is the site; will be auto-filled if providing a shapefile
S19	Land Ownership	Dropdown Menu	N	N	If the site under private or public ownership
S110	State	Dropdown Menu	Y (Accountability)	N	The State(s) in which the site is located; will be auto-filled if providing a shapefile
S111	County	Dropdown Menu	Y (Accountability)	N	The County(ies) in which the site is located; will be auto-filled if providing a shapefile

\*Only required ***IF*** land use will change as a result of activity

## Activity Fields

QID	Attribute	Format	Required	PII	Definition
AC1	Habitat Management Goal	Dropdown	Y (Accountability; Gain Calculation; PECE)	N	Activity implemented/Overarching objective
AC2	Sub-activity	Dropdown	Y (Accountability; Gain Calculation; PECE)	N	Additional detail about activity Implemented
AC3	Affected acres	Number	N	N	Number of acres over which effort is implemented (if different from overall site acreage)
AC4	Implementing Organization	Dropdown	N	N	organization implementing the effort; defaults to organization of record editor
AC5	Status	Dropdown	Y (PECE)	N	What is the implementation status of the effort
AC6	Start Date	Date/Time	Y (Accountability)	N	Date on which effort implementation was initiated
AC7	End Date	Date/Time	N	N	Date on which effort implementation is expected to cease
AC8	Target Species	Dropdown	N	N	Is the effort being specifically implemented to benefit monarch, pollinators, or other
AC9	Threats Described	Y/N	N (PECE)	N	The nature and extent of the threats being addressed by the conservation effort are described, and how the conservation effort reduces the threats is described.
AC10	Effort Objectives	Y/N	N (PECE)	N	Explicit incremental objectives for the conservation effort and dates for achieving them are stated.
AC11	Effort Steps	Y/N	N (PECE)	N	The steps necessary to implement the conservation effort are identified in detail.
AC12	Effort Measures	Y/N	N (PECE)	N	Quantifiable, scientifically valid parameters that will demonstrate achievement of objectives, and standards by which progress will be measured, are identified.
AC13	Effort Monitoring	Y/N	N (PECE)	N	Provisions for monitoring and reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided.
AC14	Effort Adaptive	Y/N	N (PECE)	N	Principles of adaptive management are incorporated.

**Gain Fields**

QID	Attribute	Format	Required	PII	Definition
GN1	Milkweed Protocol	Dropdown Menu	N	N	Protocol used to measure for milkweed
GN2	Milkweed Baseline Survey Date	Date	N	N	Date baseline milkweed survey conducted (if applicable)
GN3	Post Effort Milkweed Survey Date	Date	N	N	Date post-effort milkweed survey conducted (if applicable)
GN4	Milkweed Baseline Density	Number	Y*(Gain)	N	If known/applicable; milkweed density (stems/acre) before effort
GN5	Milkweed Post Effort Density	Number	Y*(Gain)	N	If known/applicable; milkweed density (stems/acre) after effort
GN6	Milkweed Baseline Diversity	Number	N	N	If known/applicable; milkweed diversity (species observed) before effort
GN7	Milkweed Post Effort Diversity	Number	N	N	If known/applicable; milkweed diversity (species observed) after effort
GN8	Baseline Milkweed Proportional Abundance	Y/N	N	N	If known/applicable; does one species of milkweed dominate (>80%) before effort
GN9	Post Effort Milkweed Proportional Abundance	Y/N	N	N	If known/applicable; does one species of milkweed dominate (>80%) after effort
GN10	Blooming Nectar Plan Protocol	Dropdown Menu	N	N	Protocol used to measure for nectar resources
GN11	Blooming Nectar Plan Baseline Date	Date	N	N	Date baseline nectar resources survey conducted (if applicable)
GN12	Blooming Nectar Plant Post Effort Date	Date	N	N	Date post-effort nectar resources survey conducted (if applicable)
GN13	Blooming Nectar Plant Basline Frequency (0.25m <sup>2</sup> plot)	Number	N	N	If known/applicable; blooming nectar plant frequency (%) before effort in a sampled 0.25m <sup>2</sup> plot
GN14	Blooming Nectar Plant Post Effort Frequency (0.25m <sup>2</sup> plot)	Number	N	N	If known/applicable; blooming nectar plant frequency (%) after effort in a sampled 0.25m <sup>2</sup> plot
GN15	Blooming Nectar Plant Baseline Frequency (0.5m <sup>2</sup> plot)	Number	N	N	If known/applicable; blooming nectar plant frequency (%) before effort in a sampled 0.5m <sup>2</sup> plot
GN16	Blooming Nectar Plant Post Effort Frequency (0.5m <sup>2</sup> plot)	Number	N	N	If known/applicable; blooming nectar plant frequency (%) after effort in a sampled 0.5m <sup>2</sup> plot
GN17	Blooming Nectar Plant Baseline Frequency (1.0m <sup>2</sup> plot)	Number	N	N	If known/applicable; blooming nectar plant frequency (%) before effort in a sampled 1.0m <sup>2</sup> plot
GN18	Blooming Nectar Plant Post Effort Frequency (1.0m <sup>2</sup> plot)	Number	N	N	If known/applicable; blooming nectar plant frequency (%) after effort in a sampled 1.0m <sup>2</sup> plot
GN19	Blooming Nectar Plan Baseline Density	Number	N	N	If known/applicable; blooming nectar plant density before effort (plants per m <sup>2</sup> )
GN20	Blooming Nectar Plant Post Effort Density	Number	N	N	If known/applicable; blooming nectar plant density after effort (plants per m <sup>2</sup> )
GN21	Blooming Nectar Plant Baseline Richness	Number	N	N	If known/applicable; blooming nectar plant richness (species observed) before effort
GN22	Blooming Nectar Plant Post Effort Richness	Number	N	N	If known/applicable; blooming nectar plant richness (species observed) after effort

\*Required but can refer to Thogmartin et al., 2017 estimates if not measured