Project Implementation Monitoring Plan

Purpose & Scope

This Project Implementation Monitoring Plan describes the minimum monitoring and reporting needed to: (a) document that funded implementation work was done in accordance with applicable Implementation Standards and project scope as defined by the Project Incentive Agreement; and (b) show that stated project benefits are achieved and maintained. This Plan applies to all implementation projects funded under the East Turlock Subbasin Groundwater Sustainability Agency's (ETSGSA) Multibenefit Land Repurposing Program (MLRP). It covers monitoring conducted during the following project phases:

- **Baseline** (pre-project)
- **During construction/installation** (implementation documentation)
- **Post-construction snapshot** (as-built confirmation)
- **Ongoing performance monitoring** (at least annually; optionally more frequent)

The Project-Specific Monitoring Checklist (**Appendix A**), which is incorporated by attachment into all Project Incentive Agreements, identifies all of the monitoring requirements by phase for a specific project.

Roles and Responsibilities for MLRP Project Monitoring & Reporting

- **Landowner / Project Operator (Project Lead Monitor):**
    - Conducts on-site monitoring through collection of photos and completion of short forms at each required monitoring event
    - Installs, maintains, and operates any monitoring equipment needed to conduct required monitoring
    - Submits monitoring data and information to ETSGSA in the format prescribed in this Monitoring Plan, and in any other way prescribed in the Project Incentive Agreement
    - Keeps copies of monitoring data

- **ETSGSA (Subbasin Monitoring Coordinator):**
    - Coordinates with Landowner to develop photo-point locations and monitoring event schedule
    - Receives landowner submissions
    - Performs data checks
    - Aggregates results for DOC reporting
    - Prepares any monitoring deliverables to Department of Conservation (DOC) required under the MLRP grant
- **Department of Conservation (MLRP Program Oversight):**
    - Receives rolled-up monitoring reports from ETSGSA

Monitoring Activities and Schedule by Project Phase

Phase	Required Monitoring Activities	Minimum Frequency	Who does it	Project Dates
Baseline	1) Establish photo points 2) Photo Log 3) Conditions Description	Once before any ground disturbance	Landowner (+ optional GSA walk through)	[date]
During Construction	1) Photo Log 2) Conditions Description whenever key milestones occur (site prep, grading/ earthwork, planting/ installation, irrigation/ power install, etc.)	At least quarterly while work is active	Landowner	[dates]
Post-Construction Snapshot	1) Photo Log 2) Conditions Description (as-built)	Once, upon completion of construction/ implementation	Landowner	[date]

Phase	Required Monitoring Activities	Minimum Frequency	Who does it	Project Dates
	3) Upload as-built map(s) if any			
Ongoing Performance	1) Photo Log 2) Conditions Description 3) Any project-specific add-ons (flow, water level, vegetation/ habitat)	Annually (Years 1–10); Optionally quarterly in Years 1–3 if requested by ETSGSA; If any trigger occurs (see Note 1); Project-specific add-ons may have additional frequency requirements	Landowner	[dates]

Notes:

1. Examples of triggers to perform an extra monitoring event include but are not limited to:
    - Major storm event
    - Major repairs
    - Vandalism/damage
    - Notable wildlife/habitat change
    - Notable system events (e.g., start-up/shut-down)

    In the event of a trigger, the landowner is responsible for performing a site inspection and providing to documentation to ETSGSA within two weeks of any changed conditions related to infrastructure, damage, vandalism, or other notable changes.

Monitoring Data Collection During Each Monitoring Event

The Project-Specific Monitoring Checklist (**Appendix A**), which is incorporated by attachment into all Project Incentive Agreements, identifies all of the monitoring requirements by phase for a specific project.

A. Photo Log

Complete the Photo Log Form (**Appendix B**) at every event.

Take photos from the same, pre-marked locations and same cardinal directions (N/E/S/W as relevant). Include at least one wide shot of the treated area.

During pre-project (baseline) documentation, establish photo-points (ETSGSA and Landowner) and prepare a project map that shows: property boundary, land repurposing practice areas, project infrastructure, and photo-point IDs. See **Appendix G** for further information on photo point set-up.

Tips: hold phone level; include a stable landmark; avoid strong backlight; if helpful, use a simple phone app that stamps date, GPS, and compass on photos.

B. Conditions Description

Complete the Conditions Description Form (**Appendix C**) at every event.

Briefly describe: what changed since last visit; what work was done; what is functioning/not; obvious issues (erosion, invasive weeds, infrastructure damage, etc.); any maintenance performed or needed.

C. Project-Specific Add-ons (as applicable)

Conduct monitoring and reporting based on project-specific add-ons, as applicable, using the additional forms (**Appendices D, E, and F**).

Project-Specific Add-Ons

MLRP Projects may have additional project-specific add-on monitoring requirements. Applicable project-specific add-ons will be identified in the Project Incentive Agreement, and details on those add-ons are discussed below. Add-ons applicable to this project are indicated in **Appendix A**.

Flow from Pipelines/Pumps (if applicable)

Purpose: Verify system operation and site water management/recharge inputs.

What to record (Flow Meter Log – Appendix D):

- Date/time

- Meter ID/location
- Meter reading (totalizer)
- Pump status (on/off)
- Run hours if available
- Short note on use (e.g., “test run,” “diversion for recharge”).

Frequency: During construction testing; at post-construction; then **monthly during the season of use** (or quarterly if rarely used). If automated data are available, upload monthly CSV/screenshot instead of manual reads.

How-to: photograph the meter’s dial and serial/ID; record the flow meter readings/numbers exactly as shown; note any leaks, unusual noise, or other potential issues.

Pond/Basin Water Level (Stage) (if applicable)

Purpose: Confirm ponding/retention performance and storage use.

What to record (Water Level Log – Appendix E):

- Date/time
- gauge/staff plate reading (ft or inches)
- photo of gauge
- whether basin is dry/shallow/full
- notes on inflow/outflow or seepage.

Frequency: During construction (after excavation); post-construction; after first inflow event each season and after any major storm/use event, or as otherwise specified in Agreement. Optional camera trap photos can substitute for some visual checks (include time stamps).

Setup: Install a simple staff gauge at a stable, visible point; mark zero at the basin/pond bottom. note level of maximum water surface elevation (overflow spillway); if using a game camera, aim at the gauge and set daily or event-based photo capture frequency.

Vegetation/Habitat Quick Assessment (if applicable)

Purpose: Track basic vegetation establishment and habitat function.

What to record (Vegetation/Habitat Quick Assessment Form – Appendix F):

- **Cover estimate** for treated area (visual: <25%, 25–50%, 50–75%, >75%).
- **Dominant species** present (up to 5 common names ok); note target natives vs. invasives.
- **Survival** estimate for installed plants (visual percent).
- **Habitat notes:** wildlife sign/sightings (tracks, birds, pollinators), bare soil/erosion, thatch, mulch condition, irrigation functioning.

Frequency: Post-construction; then annually in the same month each year, or as otherwise specified in Agreement.

Tip: Use photos to back up each checkbox/estimate.

Other (if applicable)

For project monitoring activities not covered by the above, ETSGSA may include additional monitoring requirements and instructions in Project Incentive Agreements on a case-by-case basis.

Implementation Standards

Projects must be implemented and maintained in accordance with the requirements of the applicable Implementation Standards for the selected land repurposing practice(s) (e.g., Extended Multibenefit Fallowing, Rewilding, Recharge or Retention Basins, Stormwater Ponds, Floodplain Reconnection, Floodflow Spreading). The During Construction events are used to confirm work is completed to standard. If standards are updated, ETSGSA will provide the current version and clearly mark any items for the landowner to verify via photos/notes.

Data Management, Quality Assurance (QA), and DOC Reporting

For Landowner:

- **File naming:**
  - For Photos: `[ProjectID]_[PointID]_[YYYYMMDD]_[N/E/S/W]`
  - For Forms: `[ProjectID]_[FormName]_[YYYYMM]`
  - ETSGSA will provide Landowner with the ProjectID, PointIDs, and FormNames to use, as applicable.
- **How and when to submit monitoring information:**
  - Email monitoring data and information submittals in digital format to etsgsa-support@formationenv.com within 10 days of each event.
  - Acceptable file types include .jpg, .tif, .png, and .pdf.

For ETSGSA:

- **QA checks:** ETSGSA will verify completeness of the monitoring information submitted (i.e., forms photos), and confirm GPS/time stamps and consistency with photo-points. ETSGSA will follow up with landowner within 10 business days if corrections are needed.
- **Reporting to DOC:** ETSGSA will perform the following:
  - Compile landowner Project-level monitoring data submissions into annual summary tables and maps for submittal to DOC
  - Prepare any required shapefiles (project polygons, treatment areas, photo-points)
  - Submit compiled information to DOC per the MLRP grant terms
  - Respond to any further information requests from DOC
- **Record retention:** Both ETSGSA and Landowner retain original files for 3 years after grant close or for any other period specified by the Project Incentive Agreement.

Questions / Support

For questions or support related to MLRP Project Implementation Monitoring, contact:

etsgsa-support@formationenv.com

East Turlock Subbasin Groundwater Sustainability Agency
Multibenefit Land Repurposing Program

Appendices

Appendix A - Project-Specific Monitoring Checklist

Project Name: _____			
Phase	**Element**	**Responsible Party**	**Required**
Baseline	Photo Log Point Identification	Landowner & ETSGSA	**Yes**
	Photo Point Map	ETSGSA	**Yes**
	Conditions Description	Landowner	**Yes**
	Add-on Monitoring Set-up • Flow meter(s) • Stage Gauge(s) • Camera Trap(s) • Other: _____	Landowner	 Yes / No Yes / No Yes / No Yes / No
During Construction	Photo Log(s)	Landowner	**Yes**
	Conditions Description(s)	Landowner	**Yes**
	Add-On Monitoring: • Flow meter readings • Water level measurements • Vegetation / Habitat • Other: _____	Landowner	 Yes / No Yes / No Yes / No Yes / No
Post Construction	Photo Log(s)	Landowner	**Yes**
	Conditions Description(s)	Landowner	**Yes**
	As-Built Documentation	Landowner	Yes / **No**
	Add-On Monitoring: • Flow meter readings • Water level measurements • Vegetation / Habitat Other: _____	Landowner	 Yes / No Yes / No Yes / No Yes / No
Ongoing Implementation Period	Photo Log(s)	Landowner	**Yes**
	Conditions Description(s)	Landowner	**Yes**
	Add-On Monitoring: • Flow meter readings • Water level measurements • Vegetation / Habitat Other: _____	Landowner	 Yes / No Yes / No Yes / No Yes / No

Appendix B – Photo Log Form

Project Name: _____

Recorder: _____

Date: _____

Photos taken:

Point ID	Photo Direction(s)	Notes (e.g., notable changes since last event)
	☐N ☐E ☐S ☐W	
	☐N ☐E ☐S ☐W	
	☐N ☐E ☐S ☐W	

Any additional relevant details from photo monitoring event:

_____

_____

_____

Tips: Stand on the point marker; face the same direction each time; include the same landmark if possible; If using a phone app with stamps (date/GPS/compass), keep it on for consistency.

Attach/Upload: Image files named per Section 7.

Appendix C – Conditions Description

Project Name: _____

Recorder: _____

Date/Time: _____

Event Type: ☐ Baseline ☐ During Construction ☐ Post-Construction ☐ Annual/Quarterly

Work status since last event:

☐ Site prep ☐ Grading ☐ Planting/installation ☐ Irrigation/power ☐ Other

Details: _____

_____

_____

What's working well? _____

_____

_____

Issues observed (check any):

☐ Erosion ☐ Weeds/invasives ☐ Equipment damage ☐ Access problems ☐ Other

Details: _____

_____

_____

Maintenance done/needed: _____

_____

_____

Notes on benefits (optional):

☐ Wildlife seen ☐ Pollinators ☐ Soil health ☐ Recharge/ponding observed ☐ Other

Details: _____

_____

_____

Appendix D – Flow Meter Log

Project Name: _____

Recorder: _____

Date: _____

Device/Location ID: ____

Meter type: ☐ Propeller ☐ Mag ☐ Other _____

Units: ☐ AF ☐ Gallons ☐ ft^3 ☐ m^3 ☐ Other _____

Date	Time	Reading (totalizer)	Pump on? (Y/N)	Run hours (if shown)	Photo taken (Y/N)	Notes

Frequency: Monthly in season (or quarterly if rarely used); also at testing and at post-construction snapshot.

How-to: Photograph the dial/screen and the device ID each time. Enter the exact number; don't reset.

Appendix E – Water Level (Stage) Log

Project Name: _____

Recorder: _____

Date: _____

Basin/Pond ID: ____

Gauge reference: ____

Gauge units: ☐ inches ☐ feet ☐ other ____

Date	Time	Stage (reading)	Basin condition (dry/ partial/ full)	Photo of gauge (Y/N)	Recent inflow/outflow?	Notes

Frequency: After first inflow each season; after major storms/use events; at post-construction.

How-to: Read at the same gauge each time. If using a camera trap, ensure date/time stamps are visible; upload a representative image with this log.

Appendix F – Vegetation/Habitat Quick Assessment

Project Name: _____

Recorder: _____

Date: _____

Treatment/Plot ID: _____

Method: ☐ Seeding ☐ Planting ☐ Passive fallow/native recruitment ☐ Other ____

Metric	Entry
Overall live veg cover: <25% 25–50% 50–75% >75%	_____
Dominant species (up to 5, common names ok)	_____
Target native species present? (Y/N, and which)	_____
Invasive/problem species present? (Y/N, and which)	_____
Estimated survival of installed plants (%)	_____
Habitat notes (wildlife seen, pollinators, nesting, etc.)	_____
Erosion/bare soil present? (Y/N, and where)	_____

Additional Notes: _____

_____

_____

Frequency: Post-construction and annually (same month each year); optionally quarterly in Year 1.

Photo reminder: Take at least one photo per metric area from the nearest photo-point.

Appendix G – Photo-Point Setup

- ETSGSA will provide a simple **Photo-Point Map** with Point IDs and compass heading(s).
- Landowner marks points in the field (stake or T-post) and can paint/engrave the Point ID on the marker.
- Keep points in place for the life of the project. If a point must move, note the new GPS and explain why in the next Photo Log.