

Central Coast Water Quality Preservation, Inc.

PO Box 2227 • Watsonville, CA 95077 • 831-761-8644

June 22, 2021

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Via Email Only To: AgNOI@waterboards.ca.gov

RE: Response to Request For Proposals for Third Party Programs

Dear Ms. Richter and Ms. Pratt,

Central Coast Water Quality Preservation, Inc. (Preservation, Inc.) is pleased to submit our response to the Request For Proposals (RFP) for Third Party Programs in support of the Central Coast Irrigated Lands Regulatory Program.

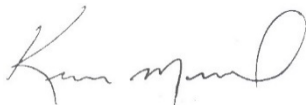
According to the preparation instructions in the RFP, the following document is accessible to persons with disabilities per Section 508 of the Rehabilitation Act. A memo certifying that accessibility standards have been met is attached separately.

We expect to perform substantial work in 2022 in support of the Third Party programs proposed herein, and therefore would need to budget and contract this summer and fall (2021) in order to be able to perform that work. Therefore we request a response at your earliest convenience.

Thank you for considering our proposals. We look forward to your response, and to continuing to support the Central Coast community in aligning clean water and healthy food production.

Sincerely,

Central Coast Water Quality Preservation, Inc.



Kevin Merrill
President, Board of Directors



Sarah Lopez
Executive Director

Board of Directors

Erin Amaral	Tom Amrhein	Richard Bianchi	Tim Frahm	Don Hordness
Dennis Lebow	April Mackie	Randy Sharer	Dennis Sites	

Dirk Gianinni (Ag Committee, Ex Officio)
George Adam (Ag Committee, Ex Officio)



Central Coast Water Quality Preservation, Inc.

PO Box 2227 • Watsonville, CA 95077 • 831-761-8644

Cc: Matt Keeling, RWQCB
Elaine Sahl, RWQCB
Diane Kukol, RWQCB
Dr. Jean-Pierre Wolfe, RWQCB Chair
Kris Beal, SIP-Certified
Ross Clark, CCWG
Don Chartrand, Creeklands
Ag Partners Organizations



RESPONSE TO REQUEST FOR PROPOSALS FOR THIRD PARTY PROGRAMS

June 22, 2021

PRESENTED TO

**Central Coast Regional Water Quality
Control Board**

895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

PRESENTED BY

**Central Coast Water Quality
Preservation, Inc.**

PO Box 2227
Watsonville, CA 95077

TABLE OF CONTENTS

1.0 PROGRAM OVERVIEW & APPROACH	4
1.1 Overview	4
1.2 General Approach to Surface Water Program	6
1.3 General Approach to Groundwater program.....	6
2.0 “GROUP” QUALIFICATION FOR COLLECTION OF SWRCB PERMIT FEES	8
3.0 MINIMUM CRITERIA	8
3.1 Capacity & Expertise	8
3.2 Clearly Stated Goals & Objectives.....	9
3.3 Continuing Education	9
3.4 Coordination.....	10
3.5 Data Management.....	10
3.6 Effectiveness of Scale & Scope	11
3.7 Management & Administration	11
3.8 Membership & Fee Accounting.....	11
3.9 Member Requirements.....	13
3.10 Physical Presence.....	13
3.11 Specific Project Plan Documents.....	13
3.12 Transparency & Accountability	14
4.0 RELATED EXPERIENCE & REFERENCES	14
4.1 Management & Administration	14
4.2 Key Staff and Contractors.....	15
4.3 Future Staff and Contractors.....	17
4.4 Partnerships	18
5.0 SCHEDULE/MASTER GANTT CHART	18
6.0 READINESS TO PROCEED.....	25
6.1 Planning	25
6.2 Pilots.....	25
6.3 Information Gaps.....	25
7.0 REFERENCES	26

LIST OF FIGURES

Figure 1-1 Conceptual Diagram of Third Party Program Structure	5
Figure 3-1 Central Coast Water Quality Preservation, Inc. Management Structure	12
Figure 5-1 Schedule for Third Party Program Administration.....	19
Figure 5-2 Schedule of Total Nitrogen Applied/Irrigation and Nutrient Management Plan Reporting	20
Figure 5-3 Surface Water Program Schedule	21
Figure 5-4 Surface Water Program Schedule, Continued.....	22
Figure 5-5 Groundwater Program Schedule	23
Figure 5-6 Groundwater Program Schedule, Continued.....	24

APPENDICES

APPENDIX A - APPROACH TO SURFACE WATER THIRD PARTY MONITORING, REPORTING, AND FOLLOW-UP PROGRAM

APPENDIX B - APPROACH TO GROUNDWATER THIRD PARTY PATHWAY & ALTERNATIVE COMPLIANCE PATHWAY

APPENDIX C - PARTNERSHIPS

ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
ACF	Annual Compliance Form
ACP	Alternative Compliance Program (for groundwater)
Ag	Agriculture or Agricultural
Ag Order, or Order	General Waste Discharge Requirements for Irrigated Lands, Order No. R3-2021-0040
CA	California
CEDEN	California Environmental Data Exchange Network
CMP	Cooperative Monitoring Program (surface water status and trend monitoring)
ED	Executive Director (of Preservation, Inc.)
EDD	Electronic Data Deliverable (used generally, or specific to CEDEN)
EDF	Electronic Data Form (specific to GeoTracker)
EO	Executive Officer (of the Regional Water Quality Control Board)
Follow-Up	Additional monitoring, testing, education/outreach, training, and/or management practice reporting performed in response to areas of high surface water impairment
GTMP	Groundwater Trend Monitoring Program
GWFP	Groundwater Follow-Up Program
INMP	Irrigation and Nutrient Management Program
MRP	Monitoring and Reporting Program (Attachment B to Order No. R3-2021-0040)
N	Nitrogen
PMP	Pesticide Management Plan
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
RFP	Request For Proposals
RWQCB	Regional Water Quality Control Board (refers to Central Coast)
SEMP	Sediment and Erosion Management Plan
SIP	Sustainability In Practice (certification program for sustainable vineyards)
SWAMP	Surface Water Ambient Monitoring Program (of the SWRCB)
SWFP	Surface Water Follow-Up Program
SWRCB	State Water Resources Control Board
Preservation, Inc.	Central Coast Water Quality Preservation, Inc.
TPM	Technical Program Manager

1.0 PROGRAM OVERVIEW & APPROACH

1.1 OVERVIEW

Preservation, Inc. is a 501(c)(3) non-profit corporation that was formed to provide water quality monitoring, education and outreach programs in support of water quality throughout agricultural areas of California's Central Coast. Preservation, Inc. is directed by the agriculture industry and approved by the RWQCB, and has also been approved by the SWRCB as a "group" for the purpose of permit fee collection, continuously since 2005. Our membership consistently encompasses approximately 98% of acres enrolled in the Central Coast ILRP. Preservation, Inc. maintains an inclusive cost-allocation process in which growers representing all major commodity groups convene as the Ag Committee to review a proposed budget for the subsequent year and set a fee structure to fund the program. Our staff and office are located on the Central Coast, and the members of Preservation, Inc's Board of Directors live and/or farm in all counties and major hydrologic units of the region.

The Third Party programs proposed in this RFP Response document are intended to serve the entirety of irrigated agricultural acres in the Central Coast region. The scope of existing and new programs that we propose in this document include the following components for surface water, groundwater, and irrigation/nutrient management:

- Monitoring
- Data management and reporting
- Education and outreach
- Management practice implementation
- Management practice effectiveness assessment and evaluation

Via partnerships such as those described in Section 4.4 and Appendix C of this document, we can also offer program options that are more specifically tailored to the needs of individual commodities, watersheds, and/or basins, while still providing basic uniformity of compliance for the entire industry.

A schedule of deliverables (narrative reports and electronic raw data) and submittal deadlines for each proposed Third Party program is provided in Figure 5-1 through Figure 5-6 of this document. These deliverables are intended to contain the information necessary to assess whether the programs are achieving the stated objectives, and to assess interim progress. In this document we propose regular reporting for all programs, including fully-granular electronic raw data submittals, narrative reports, and quarterly reporting of membership status.

To effectively improve water quality, the data from broad region-wide monitoring and reporting programs must be used to inform Follow-Up programs that support growers in making ranch-level management decisions that lead to reduced off-site movement of soils, applied nutrients, and pest control materials. This is why our proposed programs include Follow-Up elements that encompass surface water, groundwater, and irrigation/nutrient management. Outreach and collaborations are also important. It will "take a village" to address the broad arena of outreach needed to achieve compliance with the Order.

Preservation, Inc. has 16 years of experience managing a Third Party surface water trend monitoring program and performing related outreach, in the context of the Central Coast ILRP. We have the technical, managerial and financial capacity to successfully achieve the goals and objectives of the continued surface water program, as well as all new programs described in this RFP Response. Statements of qualification and roles for key staff and contractors are provided in Section 4.0 of this document. We will also partner with other entities when/if appropriate to better serve the needs of our membership in their efforts to protect water quality and comply with the Ag Order.

Preservation, Inc's general criteria for partnerships are that the partnering program/entity should enhance our members' ability to improve water quality and comply with the Ag Order in one or more of the following areas:

- Cost savings
- Labor and/or paperwork savings
- Risk reduction
- Faster or more certain path to water quality improvement
- Greater magnitude of water quality improvement

Since 2018, Preservation, Inc. has also spent hundreds of hours consulting with growers, partners, researchers, the RWQCB and other stakeholders in order to plan increased-scope Third Party programs towards the implementation of other aspects of Ag Order 4.0. To assist with feasibility assessments, cost projections, and general readiness, Preservation, Inc. has developed on-going Pilot versions of most proposed Third Party program elements. Programs generally fall into two categories – Surface Water Program and Groundwater Program – which are described in Appendices A and B of this document. A program structure diagram is also provided here as Figure 1-1.

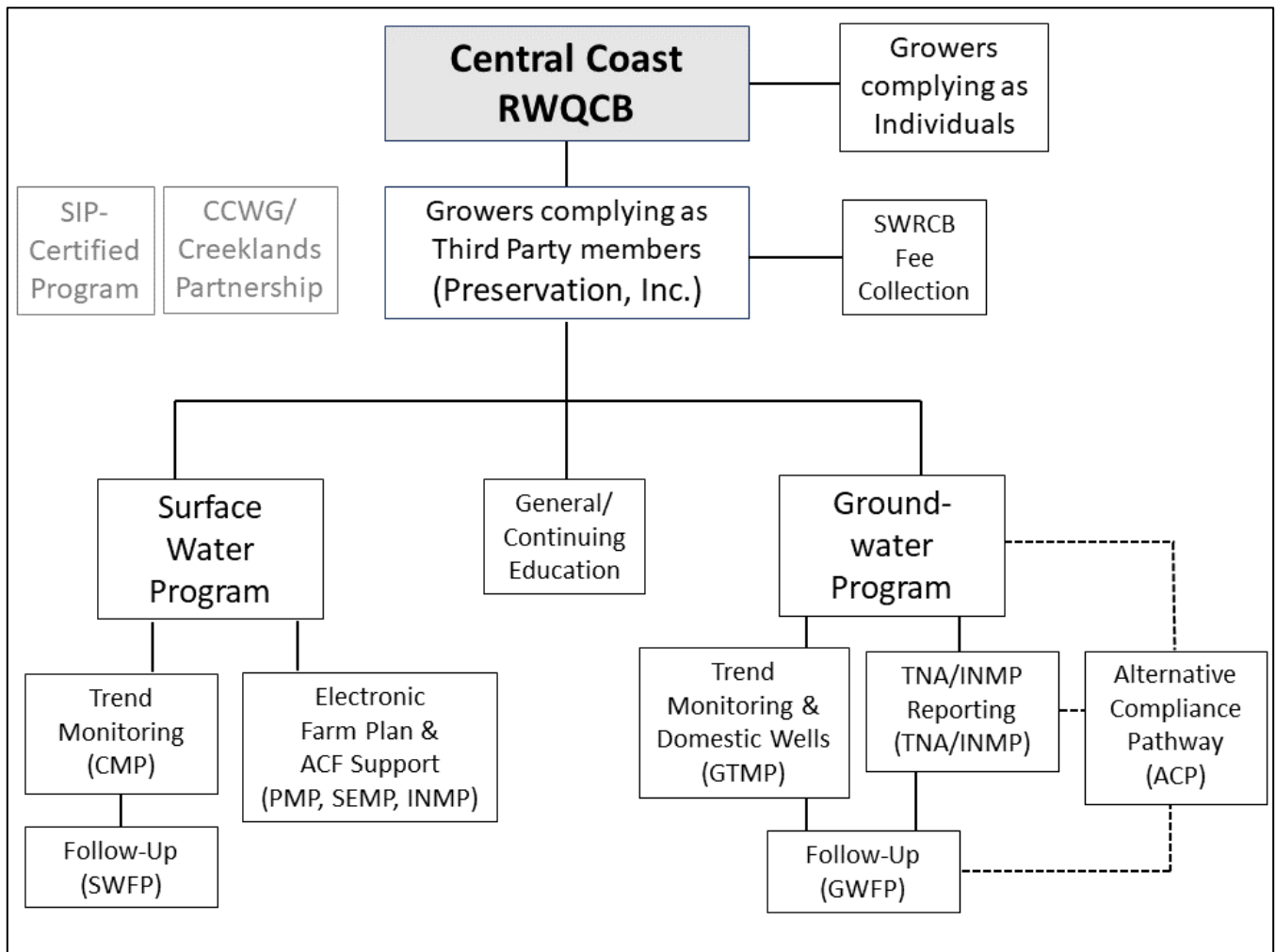


Figure 1-1 Conceptual Diagram of Third Party Program Structure

1.2 GENERAL APPROACH TO SURFACE WATER PROGRAM

A more complete description of Preservation, Inc's proposed approach to a Third Party Surface Water Program is contained in Appendix A of this document. The foundational elements of Preservation, Inc's proposed Surface Water Program are:

1. A region-wide surface water "status and trend" monitoring and reporting program (i.e. the CMP);
2. Management planning for irrigation and nutrients (INMP); pesticides (PMP); and sediment and erosion (SEMP) with additional SEMP elements for ranches with high percent impermeable surfaces;
3. A Surface Water Follow-Up Program (SWFP), including additional reported ("upstream") monitoring if necessary

In addition to continuing to run the CMP, Preservation, Inc. will form a qualified Technical Advisory Committee (TAC) to review and/or develop Farm Plan templates for the PMP, INMP, and SEMP, including an addendum to the SEMP for ranches with a high percentage of impermeable surface. Management practice data will be reported by growers in the individual ACF. All ACF data will be initially submitted to the Third Party to allow for data validation and automated checking, similar to the process described above that routinely takes place for CMP monitoring data. Following validation and checking, the ACF data will be submitted by the Third Party to the RWQCB in an EDD format specified by the Executive Officer (EO).

The SWFP will consist of:

- Watershed-level and ranch-specific outreach.
- General guidance in selecting new and increased management practices that are responsive to the grower's self-assessed root causes of discharge issues.
- Documentation of new and increased management practices in the ACF.
- Re-assessment of impacts to surface water, in light of new management practices.
- Follow-Up ("upstream") monitoring and reporting where applicable

Membership in Preservation, Inc's CMP (and SWFP, if applicable) is expected to be mandatory for growers who wish to be recognized as Third Party members by the SWRCB for the purpose of surface water compliance. In fairness to growers who join the program at inception, those who join later will likely need to back-pay program fees for prior years. The individual monitoring and reporting requirements that apply to growers who do not elect to participate in the CMP and SWFP must be diligently enforced by the RWQCB.

1.3 GENERAL APPROACH TO GROUNDWATER PROGRAM

A more complete description of Preservation, Inc's proposed approach to a Third Party Groundwater Program is contained in Appendix B of this document. The foundational elements of Preservation, Inc's Groundwater Program are:

1. A region-wide groundwater trend monitoring (and reporting) program (GTMP) for status and trends;
2. Irrigation and nutrient planning and reporting (INMP);
3. A Groundwater Follow-Up Program (GWFP);
4. A comprehensive approach to ag-related nitrogen cycling, to support groundwater protection areas, formulas, values, and targets for the ACP.

Elements 1, 2, and 3 above are responsive to the RFP description of "Groundwater Third Party Programs." These elements can also serve (with adaptations or enhancements as necessary) to meet several of the requirements for

the ACP. Element 4 above is specific to the ACP and provides a framework from which the groundwater protection (GWP) areas, formulas, values and targets can be developed.

Appendix B provides more details regarding the proposed approach to the GTMP, including an Initial Report, water quality sampling, well network development, and the roles of on-farm domestic wells and irrigation wells in the GTMP network.

Beginning in 2022 Preservation, Inc. will accept TNA data (and/or INMP data where applicable) submittals from growers in a spreadsheet format requiring all data specified by the MRP. Preservation, Inc's TNA/INMP data intake system and Checker are operational and available for educational use by growers and for inspection by the RWQCB as of today's date. We anticipate refinements as further review and testing by growers occurs. For this approach to proceed, the RWQCB will need to agree to receive TNA/INMP data as an EDD from Preservation, Inc. (most likely spreadsheet-based), and will ideally provide input as to formatting needs and a delivery endpoint for the EDD. We are hopeful that the RWQCB will be supportive of this endeavor.

The GWFP will consist of:

- Basin-level and ranch-specific education and training to assist growers in understanding and self-assessing their potential discharges to groundwater;
- General guidance, with more specific technical assistance if needed, in selecting new and increased management practices that are responsive to the self-identified root causes of discharges. Example: Leaky drip tape or fittings resulting in longer-than-needed fertigations.
- Documentation of new and increased management practices in the ACF.
- Re-assessment of potential discharges to groundwater, in light of new management practices.

Growers who elect to participate in the GTMP (instead of complying individually) *must* also participate in groundwater-related Follow-Up (if applicable) to retain Third Party membership for groundwater compliance purposes. The GWFP will apply to ranches in highly impaired groundwater basins and/or with high nitrate leaching risk, as indicated by GTMP and INMP summary reporting data, and as directed by phasing requirements in the Order.

Preservation, Inc. will also offer assistance to members, beginning in 2022, with domestic well monitoring, reporting, and user-notification requirements. Preservation, Inc. will also act in a technical and/or coordinating role on behalf of members-in-good-standing who request our support with Ranch-Level monitoring required by the EO. Preservation, Inc. will not provide legal counsel.

Generally speaking, participation in the ACP is expected to be a voluntary aspect of Third Party membership. Preservation, Inc's approach to developing Work Plans for the ACP will reflect the required content specified in MRP Section D, Items 3-5, which generally includes:

- Groundwater Protection (GWP) Areas;
- GWP Formulas;
- GWP Values;
- GWP Targets;
- Consequences for failure to achieve numeric targets;
- Assessment and evaluation program

Our proposed approach to ag-related nitrogen cycling and groundwater protection will consider soil, crop, and root-zone processes as well as key processes in the vadose zone (i.e. denitrification), regional hydrogeology (e.g. recharge, dilution, flow, and storage), and other regionally significant factors that affect the concentration of nitrate

reaching receiving waters. This approach also recognizes that it is the regional N loading – the combined effect of many unique management systems in the context of field-specific and broader hydrologic processes – that influences groundwater quality.

2.0 “GROUP” QUALIFICATION FOR COLLECTION OF SWRCB PERMIT FEES

Preservation, Inc. has qualified and been designated as a “group” by the Central Coast RWQCB, and been recognized as such by the State Water Board for the purpose of permit fee collection continuously since 2005. Our membership consistently encompasses approximately 98% of acres enrolled in the Central Coast ILRP. Our existing and proposed programs cover the entirety of the Central Coast region. The scope of existing and new programs that we propose in this document include the following components for surface water, groundwater, and irrigation/nutrient management:

- Monitoring
- Data management and reporting
- Education and outreach
- Management practice implementation
- Management practice effectiveness assessment and evaluation

The RFP (p. 6) states that, “A ‘group’ must include an implementation and effectiveness assessment component.” The final adopted Order, Attachment C provides definitions for “Assessment” as a standalone term, and for “Assessment and Evaluation.” The word “evaluation” is used in the definition of “assessment” and is not specifically defined in the Order. We acknowledge the importance of management practice implementation and effectiveness, and the Third Party programs we propose herein include an assessment and evaluation component as defined in Order Attachment C.

3.0 MINIMUM CRITERIA

3.1 CAPACITY & EXPERTISE

Preservation, Inc. has the technical, managerial and financial capacity to successfully achieve the goals and objectives of the programs described herein. Statements of qualification and role for key staff and contractors are provided in Section 4.0 below. Briefly, existing staff members Sarah Lopez and Leila Salas have provided technical and administrative program support for over a decade. Organizational, programmatic and financial oversight have been performed since Preservation, Inc’s founding in 2004 by a Board of Directors whose members farm and/or reside in all counties of the Central Coast region. Routine implementation of the existing surface water CMP has been carried out by contracted personnel from Pacific EcoRisk since 2005, and from Tetra Tech, Inc. since 2012.

Exploratory and/or Pilot-phase work on all new Third Party programs proposed herein has been performed by contracted personnel as described in Section 4.0, with agreements in place for the continued provision of services in the short-term as indicated in Section 4.0. For new programs confirmed by the Water Board after review of this RFP Response, we intend to hire new staff and/or conduct a public RFQ/RFP process to solicit competitive bids for long-term program work and the production of specific compliance deliverables. Questions about future staffing or contracting needs, or the RFQ/RFP process should be directed to Sarah Lopez via email at sarah@ccwqp.org.

3.2 CLEARLY STATED GOALS & OBJECTIVES

Each existing and new Third Party program proposed herein is referenced to specific requirements in the Ag Order and/or MRP. One or more objectives are stated for each existing or new program, and the stated objectives correspond to those adopted into the Order and MRP by the RWQCB on April 15, 2021.

Deliverable (narrative reports and electronic raw data) and submittal deadlines for each proposed Third Party program are specified in Figure 5-1 through Figure 5-6. These deliverables are intended to contain the information necessary to assess whether the programs are achieving the stated objectives, and to assess interim progress.

Since the proposed deliverables correspond to monitoring and reporting elements (and deadlines) dictated by the Order and MRP, timely submittal of complete deliverables should serve as a primary performance metric for the programs. Other important performance metrics will be the maintenance of a high percentage of member operations/acres in “good standing” status as indicated by quarterly membership reports; significant improvements in water quality concentrations for impaired water bodies, groundwater basins and parameters; and significant reductions in loading for parameters of concern to surface and groundwater.

While we are open to further discussion of additional performance metrics, we note that the Order imposes a dizzying number of numeric targets and limits (with interim and final compliance deadlines), coupled with an intense and on-going schedule of required deliverables. At this time we do not see a clear value in superimposing additional performance metrics beyond those described above, and are concerned that further complexity will disrupt our ability to run straightforward and effective programs.

3.3 CONTINUING EDUCATION

Preservation, Inc. has a long history of providing water quality outreach to growers at the county, watershed, and ranch levels. Much of our outreach has consisted of summarizing and interpreting CMP results in local and agricultural contexts, with respect to water quality objectives. We also provide summary and interpretation of CMP results to other mission-aligned entities that provide conservation opportunities, technical assistance, etc. to growers in the interest of water quality.

Our experience has been that while important, broad summaries of the CMP results have limited utility in providing growers the information they need to make ranch-level management decisions that lead to measurably improved water quality. We anticipate the same will prove true of the TNA/INMP data, and of the groundwater quality monitoring results. To effectively improve water quality, the data from these broad region-wide monitoring and reporting programs must be used to inform Follow-Up programs that support growers in making ranch-level management decisions that lead to reduced off-site movement of soils, applied nutrients, and pest control materials. This is why our proposed programs include Follow-Up elements that encompass surface water, groundwater, and irrigation/nutrient management.

Other types of outreach are also important. For example, pest control professionals and Agricultural Commissioners need to be informed of aquatic toxicity and related pesticide detections in their areas of service and oversight. Crop advisors, especially those involved in nutrient applications, need to be informed of local groundwater impairments, risk-indicators for N leaching, and irrigation water nitrate levels that can be used to partially offset additional applied fertilizer-N. Spray-rig operators need to have up-to-date and complete knowledge of calibration and drip/leak-prevention features, and methods of operation that minimize the potential for off-site movement of applied materials. Focused outreach efforts are also needed for minority language-speaking and limited-resource growers.

It will “take a village” to address the broad arena of needed outreach described above. In addition to our own staff and contractors, Preservation, Inc. will continue to collaborate with entities such as CAPCA, RCDs, NRCS, UCCE, ALBA, AWQA, PWG, CURES, and others (acronyms defined in Acronyms/Abbreviations table on p. iii of this document). We also look forward to potential new collaborations with FREP, CCAs, and others.

Previously, the first Ag Order (“1.0”) had a continuing education requirement that involved a Water Quality Short Course administered by the UCCE. A similar continuing education program tailored to the specific needs of the Central Coast may be useful in the early years of this Order (4.0) implementation; Or it may be sufficient to rely on the broad spectrum of professional licensing, conservation, and other educational programs that already exist. This is a topic that Preservation, Inc. will consider in more depth during the Work Plan process, in the context of needs specific to surface water and/or groundwater and irrigation/nutrient management. We also acknowledge Order Part 2, Section A, Item 42.k. which states that Third Party programs must provide continuing education which informs members, among other things, about numeric interim quantifiable milestones.

3.4 COORDINATION

The RFP, p. 6 indicates that the Third Party should coordinate with other programs or local entities in order to create consistency, leverage infrastructure and expertise, and streamline programs to maximize effectiveness. Preservation, Inc. has a long history of collaborations, including providing a CMP monitoring result module for the UCCE Water Quality Short Course program under Ag Order 1.0; working with field crews from the pre-existing UC Santa Cruz Pajaro watershed monitoring program to perform CMP monitoring for the Pajaro Hydrologic Unit sites; and working with the Ag Water Quality Alliance (AWQA) partners on a variety of projects. More recently, we have worked with the SIP-Certified sustainable wine grape program and with the Central Coast Wetlands Group (CCWG) to develop joint proposals in response to this RFP (see Section 4.4 – Partnerships, and Appendix C).

Because Preservation, Inc’s membership encompasses 98% of the irrigated agricultural acres on the Central Coast, we also have a high degree of membership (and rate-payer) overlap with the Groundwater Sustainability Agencies (GSAs) and other local water management entities, and also with commodity-specific trade associations such as the California Strawberry Commission and Western Growers Association. We have been directed by our membership to work with these and other entities to maximize alignment, minimize duplicative programs and fees, and coordinate efforts to assist our members in complying with the ILRP.

Initial discussions with several other entities suggest that the Central Coast ILRP compliance requirements exceed most (sometimes all) other programs in terms of specificity, QA requirements, spatial density, and frequency of monitoring. This makes it difficult to leverage other programs or infrastructure on behalf of growers for ILRP-compliance purposes. In some cases the reverse can be possible, however (i.e. ILRP compliance activities can be leveraged to support other programs).

3.5 DATA MANAGEMENT

Preservation, Inc. has submitted data to Water Board data management systems on a regular (generally, quarterly) basis since 2005. We have long-standing contractual relationships with two private consulting firms (Tetra Tech and Pacific EcoRisk) that are highly experienced in formatting and uploading data to Water Board systems such as CEDEN and GeoTracker, and with the Marine Pollution Studies Laboratory (MPSL) Data Center at Moss Landing Marine Laboratory (MLML) which assists with checking and exporting of data to CEDEN.

The Preservation, Inc. Executive Director (Sarah Lopez) was involved in CMP data deliveries to CCAMP and CEDEN as Preservation, Inc’s Technical Program Manager from 2007 through 2018. Michelle Burson (Tetra Tech, Inc.) currently manages Preservation, Inc’s data deliveries to CEDEN for the surface water CMP and also has many years of experience managing data deliveries and working with the SWRCB’s GeoTracker database on behalf of other programs that have groundwater quality monitoring requirements.

All Third Party programs discussed in this document include regular data deliveries to Water Board data management systems. We strongly prefer “batched” deliveries containing large (preferably complete) record sets for all monitoring sites/events within a reporting period, and all of our proposed deliveries of raw data are intended to be fully “granular” (i.e. no aggregation of raw data in a way that obscures individual records).

3.6 EFFECTIVENESS OF SCALE & SCOPE

All Third Party programs discussed in this document are scaled to encompass, for growers who choose to participate, all Central Coast irrigated agricultural acres. Via partnerships such as those described in Section 4.4 of this document, we can also offer program options that are more specifically tailored to the needs of individual commodities, watersheds, and/or basins, while still providing basic uniformity of compliance for the entire industry.

In some cases, Follow-Up programs may apply only to ranches in watersheds and/or basins that were prioritized in the Order or that meet other prioritization criteria. In these cases, our proposed programs apply only to the applicable acres/ranches. To maintain membership in the general Third Party, operations or ranches (whichever is the applicable entity) to which Follow-Up programs apply *must* participate in the Follow-Up. Members who do not wish to participate in Preservation, Inc's Follow-Up programs (if applicable) will not be eligible to participate in the corresponding regional monitoring program. For example, if surface water Follow-Up applies, the grower must participate in order to maintain membership in the surface water CMP.

This is not to say there will be no flexibility for growers in meeting program requirements. For example, Preservation, Inc. strongly supports growers in continuing to work with trusted compliance consultants; and we intend to streamline, wherever possible, administrative compliance and monitoring/reporting activities that growers already perform for other regulatory, conservation, or certification programs.

3.7 MANAGEMENT & ADMINISTRATION

Preservation, Inc. is a 501(c)(3) non-profit corporation that was formed to provide water quality monitoring, education and outreach programs in support of water quality throughout agricultural areas of California's Central Coast. Preservation, Inc. is directed by the agriculture industry and approved by the RWQCB and SWRCB. The organization is governed by a Board of Directors representing all major commodities and hydrologic units of the Central Coast. The Agricultural ("Ag") Committee, a standing committee of Preservation, Inc., provides grower input to the Executive Director (ED), including focused oversight of membership costs and fee structures. The Preservation, Inc. ED is responsible to the Board of Directors, and oversees all program and administrative activities of the organization, and all directly-hired and contracted staff. Other key roles include Program Quality Assurance (QA) Officer, Project Manager, Sampling Coordinators, Data Management, etc. These roles and relationships are depicted in Figure 3-1 and have been approved by the RWQCB in Preservation, Inc's Quality Assurance Project Plan (QAPP; CCWQP, 2013).

3.8 MEMBERSHIP & FEE ACCOUNTING

Since 2005, Preservation, Inc. has performed invoicing, maintained member account records, issued annual statements, and performed twice-annual record alignment with the RWQCB's electronic Notice of Intent (eNOI) enrollment database. We have also invoiced for, collected, and paid SWRCB discharger fees annually on behalf of all of our enrolled growers. The Preservation, Inc. ED participates regularly in SWRCB Fee Branch stakeholder meetings on behalf of growers enrolled in the Central Coast ILRP.

Preservation, Inc. maintains an inclusive cost-allocation process in which growers representing all major commodity groups convene as the Ag Committee in the early fall of each year to review a proposed budget for the subsequent year and set a fee structure to fund the program. This cost-allocation process seeks to avoid disproportionately high per-acre cost impacts to very small operations, and disproportionately high per-operation cost impacts to very large (i.e. high number of acres) operations. The cost-allocation process also allocates higher fees to acreage with substantially higher risk of water quality impacts.

This grower-directed budgeting and cost-allocation process has been fundamental to industry buy-in to being assessed an annual fee for Preservation, Inc's programs. Buy-in is also increased by the fact that Preservation, Inc. is a limited-scope non-profit entity that has no profit motive nor ulterior motives related to other missions, that

would create a conflict of interest when making decisions that bear on the scope and cost of Third Party programs. We note with some concern that with this RFP, the RWQCB is also soliciting proposals from for-profit entities (RFP p. 2) and sets no corresponding criteria for grower involvement in program governance or cost-allocation. We respectfully disagree with this approach.

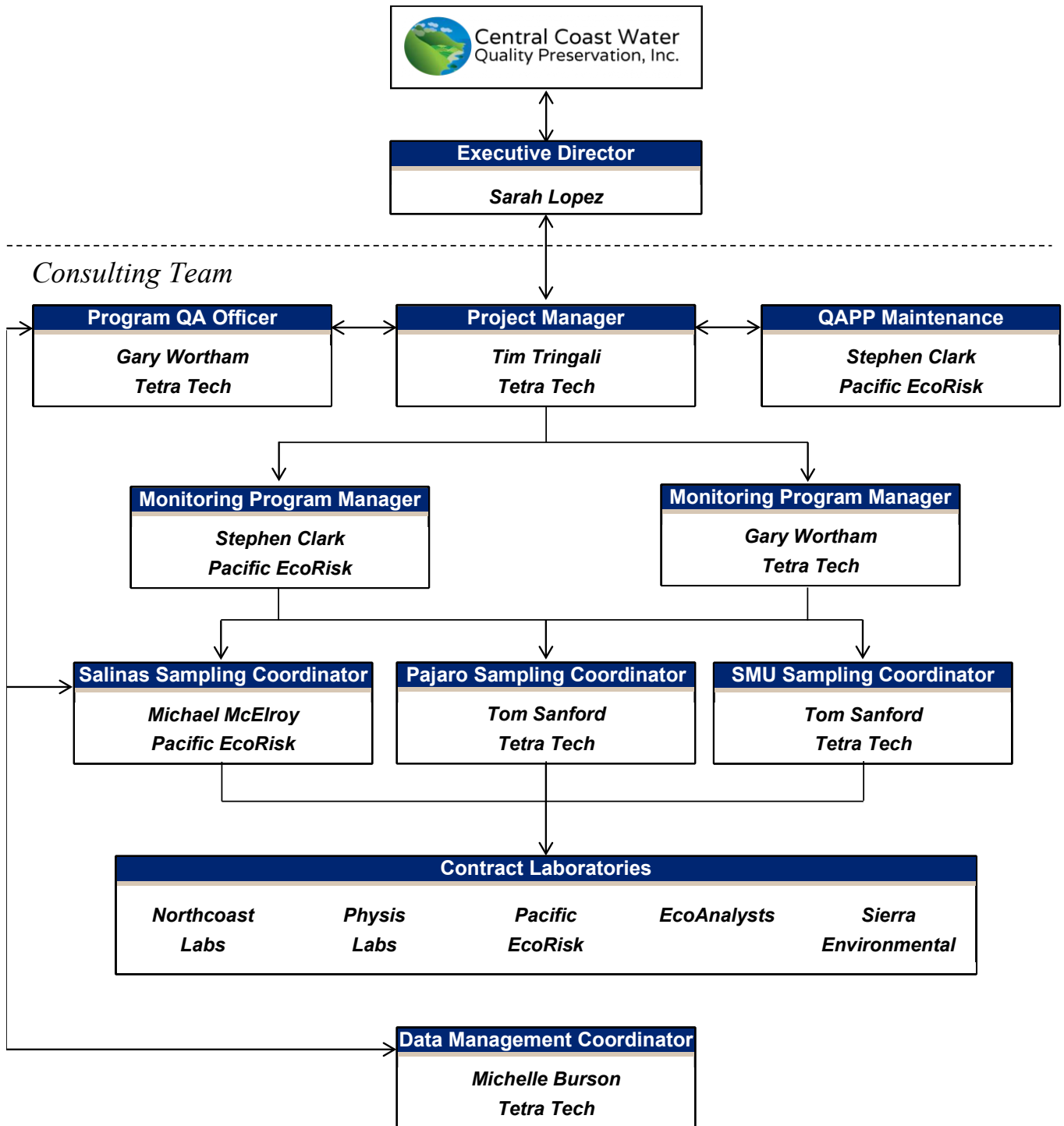


Figure 3-1 Central Coast Water Quality Preservation, Inc. Management Structure

3.9 MEMBER REQUIREMENTS

In the past, membership eligibility requirements for the CMP have been simple (related to annual monitoring invoice and SWRCB discharger fee payment), and have been jointly administered by Preservation, Inc. and RWQCB staff. Preservation, Inc. reports twice-annually, to both the RWQCB and the SWRCB, a list of members in-good-standing and members not-in-good-standing, with respect to payment of CMP fees and the SWRCB discharger fees. Prior to each of these reports, RWQCB staff provide updates to Preservation, Inc. regarding the eligibility of prior members (who have fallen out of good standing) to be brought back into the program.

The Ag Order 4.0 includes a requirement for *quarterly* reporting by the Third Party regarding the eligibility and standing of its membership. Typically, when a member fails to complete a requirement for membership, their account is moved onto the RWQCB's individual enforcement list. At that point, Preservation, Inc. cannot reinstate a grower's membership without confirmation of eligibility from the RWQCB staff. Therefore, every membership reporting deadline for Preservation, Inc. creates a corresponding, preceding task for the RWQCB staff. Between the increase to quarterly reporting, and the increase in Third Party program requirements and "backstops" imposed by the Order, we anticipate the need for a nearly continuous exchange of information between the Third Party and RWQCB staff regarding membership and eligibility.

Preservation, Inc. will establish specific membership requirements for each of its programs during the corresponding Work Plan process. We will abide by any specific eligibility criteria imposed by the Order, as well as some of the preliminary requirements discussed in the Appendices to this document (Appendix A – Surface Water Approach; Appendix B – Groundwater Approach).

3.10 PHYSICAL PRESENCE

Preservation, Inc. has always been located in the Central Coast region. We maintain a physical office space in Watsonville, and travel to other parts of the region regularly to meet program and member needs requiring in-person interactions and familiarity with local landscapes. The members of Preservation, Inc.'s Board of Directors live and/or farm in all counties and major hydrologic regions of the Central Coast. Preservation, Inc.'s directly-hired staff are residents of the Central Coast, and our contractors generally have local offices and/or a decade or more of field experience working on the Central Coast.

3.11 SPECIFIC PROJECT PLAN DOCUMENTS

Developing and maintaining a SWAMP-compliant QAPP was an early program task for Preservation, Inc. We have updated the QAPP several times over the history of the CMP and will continue to do so as-needed in future. The initial QAPP and all updates were developed according to direction from the RWQCB, and approved by the RWQCB upon completion.

We look forward to developing similarly rigorous QAPPs for the groundwater and TNA/INMP monitoring and reporting programs proposed herein. We anticipate that a QAPP for a groundwater program would contain many of the same elements as the CMP QAPP, with certain or additional elements tailored to the specific needs of groundwater quality monitoring, similar to the QAPP used by the RWQCB's Domestic Well Project (Tetra Tech, Inc., 2021).

We also acknowledge here the requirement for the Third Party to produce Sampling and Analysis Plans (SAPs), as indicated by the Order and MRP. Preservation, Inc.'s existing staff and contractors are experienced in SAP preparation for a variety of monitoring program types, and do not anticipate any difficulties in preparing the required SAPs.

3.12 TRANSPARENCY & ACCOUNTABILITY

Preservation, Inc. has a long history of reporting raw water quality data and producing narrative reports to fulfill CMP requirements, as well as twice-annual reporting to the RWQCB and SWRCB of membership status for all participating growers. In this document we propose regular reporting for all programs, including fully-granular electronic raw data submittals, narrative reports, and quarterly reporting of membership status.

While we expect that all compliance deliverables submitted to the RWQCB become public record, our experience has been that a certain level of privacy needs to be maintained around education and outreach program elements in order for the education and outreach to be effective. We sincerely believe that growers' ability to work with technical assistance providers in confidence is in the interest of, and critical to improving water quality, and we hope that the RWQCB and other stakeholders will be supportive in this regard.

Preservation, Inc. is also accountable to our grower membership. Our programs are funded by fees collected from participating growers, and a punitive SWRCB discharger fee applies to growers who choose not to participate. As such, any Third Party has a duty to act as a responsible fiduciary manager of compliance programs and their budgets. As described above in Section 3.8 (Membership & Fee Accounting), the Ag Committee provides budget and cost-allocation oversight on behalf of enrolled growers, beyond the Preservation, Inc. board of directors.

4.0 RELATED EXPERIENCE & REFERENCES

No person or contractor affiliated with Preservation, Inc. is listed on the SWRCB's List of Business and Persons Disqualified (List). Preservation, Inc. will not, in future, hire or contract with individuals or businesses included on this List.

4.1 MANAGEMENT & ADMINISTRATION

4.1.1 CCWQP Board of Directors

Kevin Merrill (President) has been the president of the CCWQP board of directors since 2005 and is a vineyard manager for Mesa Vineyard Management Company, overseeing 2,000 acres of premium wine grapes in Santa Barbara County. Kevin serves as president of the San Antonio Water Basin Water District and is a board member of the San Antonio Water Basin GSA. In addition, he represents both Ventura and Santa Barbara Counties on the California Farm Bureau State Board of Directors, as well as serving on the Santa Barbara County Farm Bureau Board of directors since 2004.

Tom AmRhein (Treasurer) is Vice President of Naturipe Berry Growers and a longtime grower in the Monterey Bay area. Tom has many years of experience in managing farming operations within or bordering the Elkhorn Slough Sanctuary, including wetland and grassland restoration projects. Tom has also served on a number of industry and government boards dealing with water issues in the Pajaro and Salinas Valley basins.

Dennis Sites (Executive Committee) is an agronomist and the president of Agriculture Business Management, LLC. Dennis also serves on the boards of directors for the Salinas Basin Agricultural Stewardship Group and the Salinas Basin Ag Water Association, and on the boards of Steinbeck Produce and Huntington Farms. He is currently Executive Director of the Sustainable Ag Water Corporation and is a past president and CEO of Soilserv, Inc.

Tim Frahm (Executive Committee) is currently the Central Coast Steelhead Coordinator for Trout Unlimited, and was previously director of the conservation and water quality program for the San Mateo County Farm Bureau.

Erin Amaral is a vineyard manager and a partner in Pacific Coast Farming. She is also a recent graduate of the California Ag Leadership Program and is a SIP-Certified sustainable wine grape grower.

Richard Bianchi is a vegetable grower with Sabor Farms and the District 8 Director of the California Farm Bureau Federation. Richard is also a past director of the Central Coast Groundwater Coalition and a Co-Chair of the Ag Committee that performs annual fee allocations on behalf of Preservation, Inc's membership.

Don Hordness is a senior mushroom grower at Del Fresh Produce and is also a Board Member of the Santa Clara County Farm Bureau. Don is also a past director of the Central Coast Groundwater Coalition.

Dennis Lebow is the director of land and water resources for Reiter Affiliated Companies and was formerly a caneberry production manager for Driscoll's and a hydrologist with the Monterey County Water Resources Agency. Dennis is also a past director of the Central Coast Groundwater Coalition.

April England Mackie is President of AM Ag Consulting, LLC and a former director of food safety and regulatory compliance at RAMCO. April also serves on the Executive Board for the Monterey County Farm Bureau; is a past president of the Ag Against Hunger organization; and is treasurer for the Central Coast Young Farmers and Ranchers.

Randy Sharer is an owner of Satellite Farms (formerly Sharer Brothers Farming) and is also the president of the San Antonio Basin GSA. Randy is also a past board member of the Central Coast Groundwater Coalition, and is the Stipulating Landowners Representative & Chair of the Twitchell Management Authority.

Dirk Giannini (Ex Officio) is a manager at Christensen & Giannini, LLC, a Salinas Valley produce grower, and a past president of the Monterey County Farm Bureau. As an Ag Committee Co-Chair, Dirk participates on the Preservation, Inc. Board as a non-voting member.

George Adam (Ex Officio) is the president and owner of Innovative Produce in Santa Maria. George also serves on the boards of Western Growers Association and the Marian Medical Foundation, and is a member of the Agriculture Future of America organization. As an Ag Committee Co-Chair representing growers from southern counties of the Central Coast, George participates on the Preservation, Inc. Board as a non-voting member.

4.1.2 Executive Director

Sarah (Greene) Lopez was the Technical Program Manager (TPM) for Preservation, Inc. from 2007 through early 2018, before becoming Executive Director (ED) following the retirement of former ED, Kirk Schmidt. Sarah's role as TPM involved authoring and/or overseeing monitoring report production, reviewing and assisting with quarterly electronic data deliveries, performing and/or overseeing water quality data analysis, providing water quality outreach to growers and partners, and interfacing with RWQCB staff on technical aspects of the CMP.

Sarah holds a B.S. in Resource Ecology and Management from the University of Michigan and an M.S. in Marine Science from the University of Maryland. Her graduate training and research focused on nitrogen and phosphorus biogeochemistry in the root zones of tidal marshes across an estuarine salinity gradient. Sarah has authored and/or co-authored peer reviewed publications on regional nutrient mass balances for the Chesapeake Bay, and on aquatic toxicity and pesticide monitoring in Central Coast (CA) agricultural watersheds. Sarah also raises and markets small livestock, and serves as an agricultural representative on the Sanctuary Advisory Council for the Monterey Bay National Marine Sanctuary and the board of directors of Watsonville Wetlands Watch.

4.2 KEY STAFF AND CONTRACTORS

4.2.1 Existing & On-Going Program Roles (surface water monitoring & outreach)

Bookkeeper/Office Manager – Leila Salas (Preservation, Inc. Staff) has performed bookkeeping, office management, and enrolled grower account management for Preservation, Inc. since 2005. Leila was born and

raised in Watsonville, and performs bookkeeping and other services for a number of other local non-profits and youth sports programs.

Field Services, Data Management, & Technical Program Support – Tim Tringali is a senior environmental scientist and project manager with Tetra Tech, Inc. and has led the consultant team for the CMP since 2012. Tim has over 18 years of experience managing multi-disciplined teams and the execution of compliance-based projects pertaining to California National Pollutant Discharge Elimination System Permits (NPDES) and Waste Discharge Requirements (WDRs).

Other Tetra Tech staff filling key roles for the CMP include Michelle Burson, who has over 17 year of experience as a data manager working with the SWRCB's CEDEN and GeoTracker databases as well as EnDAR; and Tom Sanford, who has served as a CMP field lead for 4 years and is experienced in surface water quality sampling, riparian and instream habitat assessments, benthic macroinvertebrate sampling, GIS analysis, stream gaging, and hydrologic modeling. Additionally, Mark Fernandez is a statistician who is proficient in the statistical languages of R and SAS and has assisted Preservation, Inc. with numerous water quality data analyses. Mark also has experience developing empirical models, with a focus on assessing nutrients, benthic macroinvertebrates, and algal blooms for both state and federal agencies.

Quality Assurance Officer – Gary Wortham (Tetra Tech, Inc.) has more than 30 years of experience, with expertise in QA/QC; QAPP development; stormwater, surface water and sediment quality analytical and field sampling methodologies and project design; sampling plan development and implementation and data interpretation; analytical chemical laboratory management; federal and state water quality regulations; field monitoring (including ultra-clean sampling methods), and marine and freshwater systems aquatic toxicity methods development. Gary has been the QA Officer for the CMP since 2012.

Field Services & Toxicology – Stephen Clark, PhD (Pacific EcoRisk, or PER) has over 30 years of experience directing and participating in aquatic ecotoxicology and environmental chemistry research and testing. He has served as PER's toxicology laboratory director and QA Officer, and is currently PER's vice president and a principal of the firm. Dr. Clark has also served on several technical committees with Regional Water Quality Control Boards, including the Technical Advisory Committee that participated in the design of the Central Valley Regional Board's ILRP.

Mike McElroy (Pacific EcoRisk) has over 20 years of experience directing and participating in aquatic ecotoxicology and environmental chemistry research and testing. Mike is a senior project manager with PER whose tasks related to the CMP include preparation of QAPPs and SAPS, subcontract laboratory data management, field log design and generation, field team oversight, event-based compliance summary generation, and electronic data deliverables.

Outreach – Parry Klassen is a long-time peach and nectarine grower who also has 17 years of experience developing Third Party organizations for ILRP implementation. Parry is currently assisting the Coachella Valley Irrigated Lands Coalition as it transitions from a surface water-only program to implementing a nitrate control program, including nitrogen fertilizer reporting. Parry is also executive director for the Coalition for Urban Rural Environmental Stewardship (CURES), managing pesticide and nutrient stewardship educational and research programs.

Courtney Jallo (CURES) received her MS degree from UC Davis and has four years of experience providing direct water quality outreach to growers, program support, and member enrollment management for a variety of organizations related to ILRP compliance. She previously managed the Central Coast Groundwater Coalition, assisting grower members to meet groundwater compliance needs under Ag Order 3.0, and currently manages the SBASG Drinking Water Program, helping to ensure users of wells that have been impacted by nitrate in the Salinas basin are provided interim replacement water. Along with Parry Klassen, Courtney has been assisting Preservation, Inc. since early 2021 with outreach to growers in the Salinas and Santa Maria Valleys.

Heather Golden (Golden Ag Consulting) has been assisting Preservation, Inc. since early 2021 with outreach to growers in the lower Salinas Valley. Heather is a resident of Chualar, and has been assisting local growers with

ILRP compliance since 2010. Outside of her work with Preservation, Inc. Heather provides food safety inspection services and is an accredited inspector for the California Sustainable Wine Growers Alliance and for Agricultural Services Certified Organic, LLC.

4.2.2 Pilot and Exploratory Program Roles

Advising Hydrogeologists during Ag Order 4.0 adoption

- Linda Sloan, PG, CHG, is a Vice President and Senior Hydrogeologist with Provost & Pritchard Consulting Group.
- Vladimir Prilepin, PhD, PG is a Senior Hydrogeologist with Tetra Tech, Inc. with over 30 years of experience in hydrogeologic investigations and environmental consulting. Dr. Prilepin has specialized in groundwater and vadose zone modeling, aquifer tests, and groundwater monitoring and remediation.

Groundwater Professional (Hydrogeologist / Geologist / Engineer) – Blaine Reely is a Principal Water Resources Engineer with GSI Water Solutions, Inc. based in Atascadero. Blaine and other GSI groundwater staff specialize in groundwater management and planning, groundwater modeling, Sustainable Groundwater Management Act (SGMA) support, and other groundwater services.

Agronomist / Soil Scientist - Lowell Zelinski, Ph.D. owns Precision Ag Consulting, located in Paso Robles, and has nearly 40 years of experience in the agriculture industry in California and abroad, including nearly 20 years of experience in Central Coast agriculture. Dr. Zelinski received his Ph.D. in Soil Science from UC Davis and an M.S. in Ag Science from Cal Poly, and has been supporting growers with ILRP compliance since 2004.

Irrigation & Nutrient Management Data Intake & Checking – Marco Sigala is the Project Director of the Marine Pollution Studies Lab at Moss Landing Marine Labs (MPSL-MLML). Among other roles, Marco helped to design, implement and manage the SWAMP database and tools (data entry forms, checkers, loaders, queries), as well as the MPSL-MLML online data management system. Stacey Swenson is a Project Manager for the MPSL-MLML Data Center, with many years of experience assisting data providers with data uploads into CEDEN.

Preservation, Inc. has been working with MPSL-MLML to develop electronic data validation and management tools for the TNA and INMP monitoring and reporting programs for the Central Coast ILRP.

4.3 FUTURE STAFF AND CONTRACTORS

Preservation, Inc. has the staff and/or contractual arrangements with qualified consultants necessary to conduct all program activities proposed herein. However, we anticipate that specialized needs related to groundwater monitoring, modeling, irrigation/nutrient management, and outreach/training will continue to evolve in the short-term as new programs take shape. We also maintain a fiduciary duty to our grower membership and fee base, to ensure that contractor services are bid at competitive rates and rendered with a continuing high level of quality.

As program needs are more concretely defined, and especially as specific deliverables need to be produced (e.g. Work Plans), Preservation, Inc. will issue a Request for Quote (RFQ) to qualified prospective contractors. Questions about the forthcoming RFQ should be directed to Sarah Lopez, however specific information such as timing and exact content of the RFQ will not be known unless and until the RWQCB designates Preservation, Inc. as the Third Party administrator of the programs described herein. A timeline and further process for RWQCB decision-making in this regard has not been disclosed as of today's date.

4.4 PARTNERSHIPS

4.4.1 Sustainability in Practice (SIP) Certification Program

Preservation, Inc. will recognize SIP Certified ranches as meeting most Third Party membership requirements by virtue of their SIP certification. Preservation, Inc. will collaborate with SIP staff to ensure that all monitoring and reporting required of Third Party members is performed for the SIP Certified ranches. It is anticipated that SIP Certified growers will have very few Third Party membership obligations, due to high alignment of these activities with the SIP Certification requirements and the highly protective nature (with respect to water quality) of the SIP program management practices. Further details of this partnership are provided in Appendix C.1. The information contained in Appendix C is intended to also serve as the SIP program's response to the RFP for Sustainability Certification Programs (RFP p. 2, bullet #4). We request that SIP's Executive Director, Kris Beal be included in any communications regarding this element of the RFP.

4.4.2 Central Coast Wetlands Group / Creeklands Partnership

Preservation, Inc. will work with the CCWG/Creeklands Partnership to provide voluntary, collaborative watershed-scale opportunities for growers and/or landowners in priority watersheds to achieve additional load reductions in water quality constituents of concern. Projects will be specific to individual watersheds, project sites, and grower/landowner needs. Further details of this partnership and the intended nexus with Preservation, Inc's Third Party programs are provided in Appendix C.2. We request that the CCWG and Creeklands Directors, Ross Clark and Don Chartrand, respectively, be included in any communications regarding this element of the RFP.

4.4.3 Non-Exclusivity in Partnerships

Preservation, Inc. will partner with other entities when/if appropriate to better serve the needs of our membership in their efforts to protect water quality and comply with the Ag Order. Preservation, Inc's general criteria for partnerships are that the partnering program/entity should enhance our members' ability to improve water quality and comply with the Ag Order in one or more of the following areas:

- Cost savings
- Labor and/or paperwork savings
- Risk reduction
- Faster or more certain path to water quality improvement
- Greater magnitude of water quality improvement

Partnerships are not exclusive. For example, besides SIP, we are open to partnerships with other sustainability certification programs, provided their program requirements have a high degree of overlap with monitoring and reporting requirements of the Ag Order and Preservation, Inc's Third Party programs. Similarly, we are open to partnering with other conservation entities (besides CCWG/Creeklands), provided they can offer project opportunities that enhance growers' and/or landowners' ability to improve water quality in a manner that is cost-effective, biologically relevant, and cognizant of property rights and food safety concerns. We are also open to other types of partnerships that provide one or more of the benefits listed above. All partnerships are severable.

5.0 SCHEDULE/MASTER GANTT CHART

Important time points and deliverable dates for Preservation, Inc's proposed Third Party programs are shown in the following Figure 5-1 through Figure 5-6 (GANTT charts). Upon request, Preservation, Inc. can provide an (electronic) MS Excel spreadsheet containing the supporting line-item data for the GANTT charts. Additional details are expected to be incorporated during the Work Plan process for each program area. Acknowledgement: Preservation, Inc. would like to thank Kay Mercer of Provost & Pritchard Consulting Group for contributing to the development of these GANTT charts.

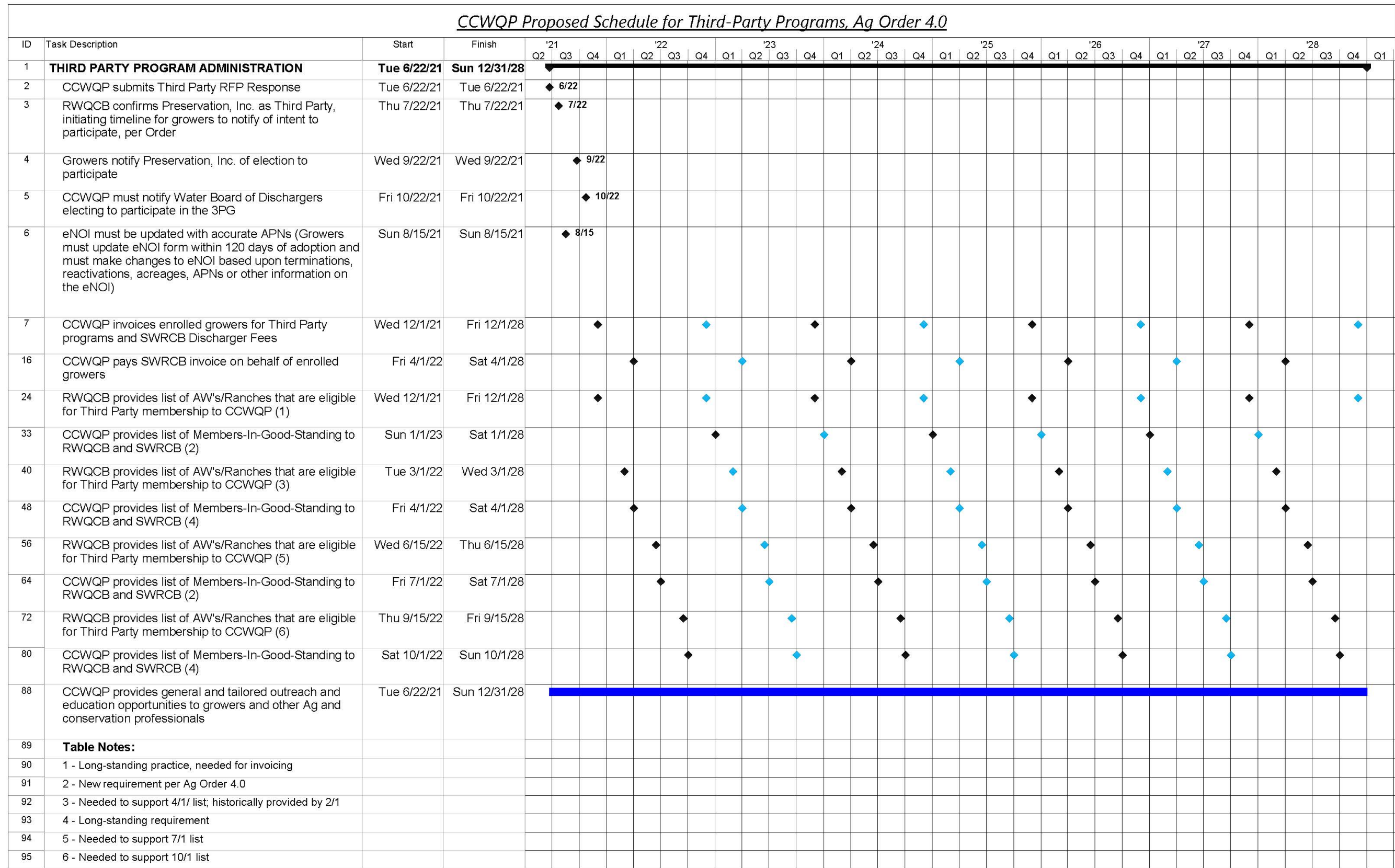


Figure 5-1 Schedule for Third Party Program Administration

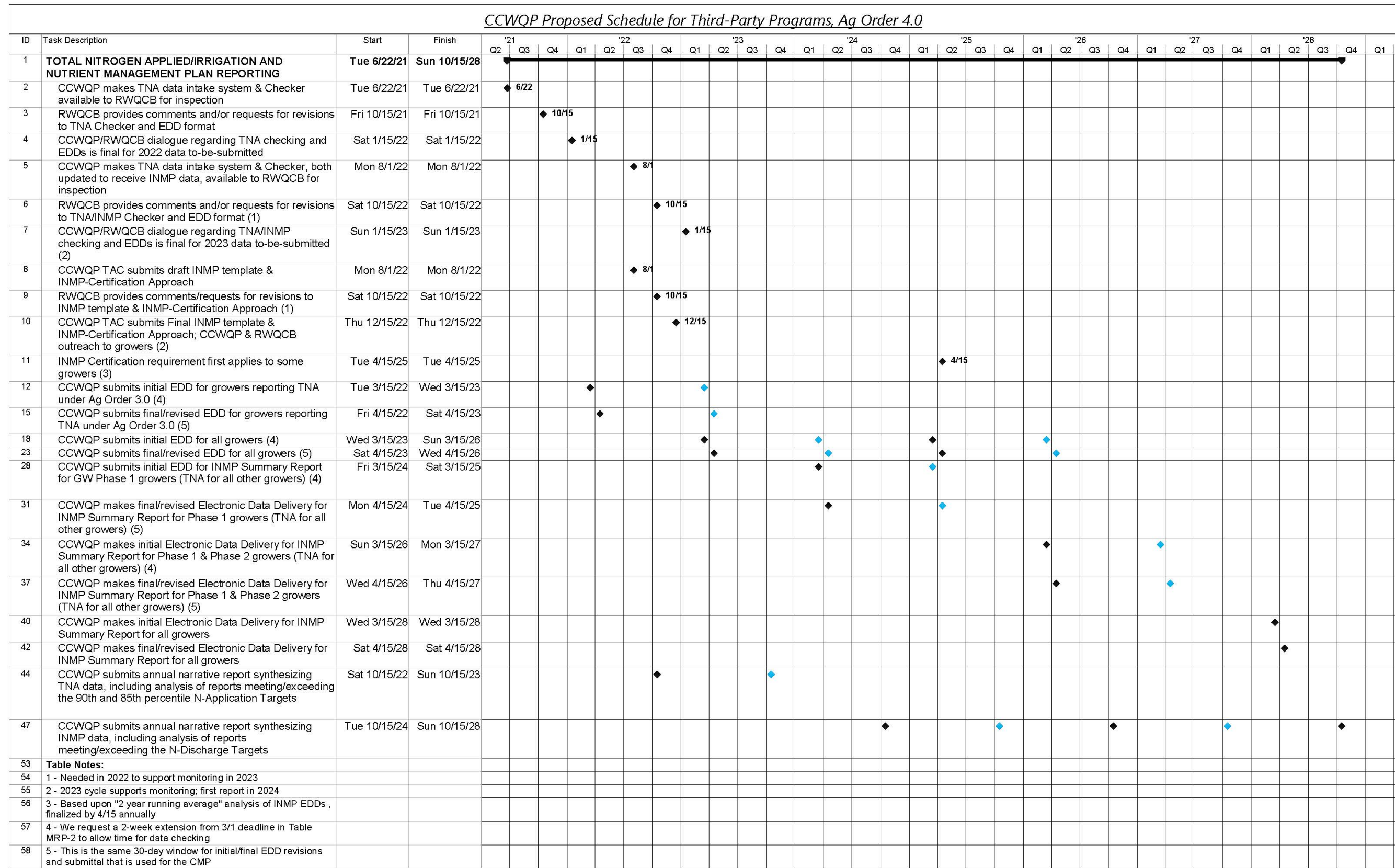


Figure 5-2 Schedule of Total Nitrogen Applied/Irrigation and Nutrient Management Plan Reporting

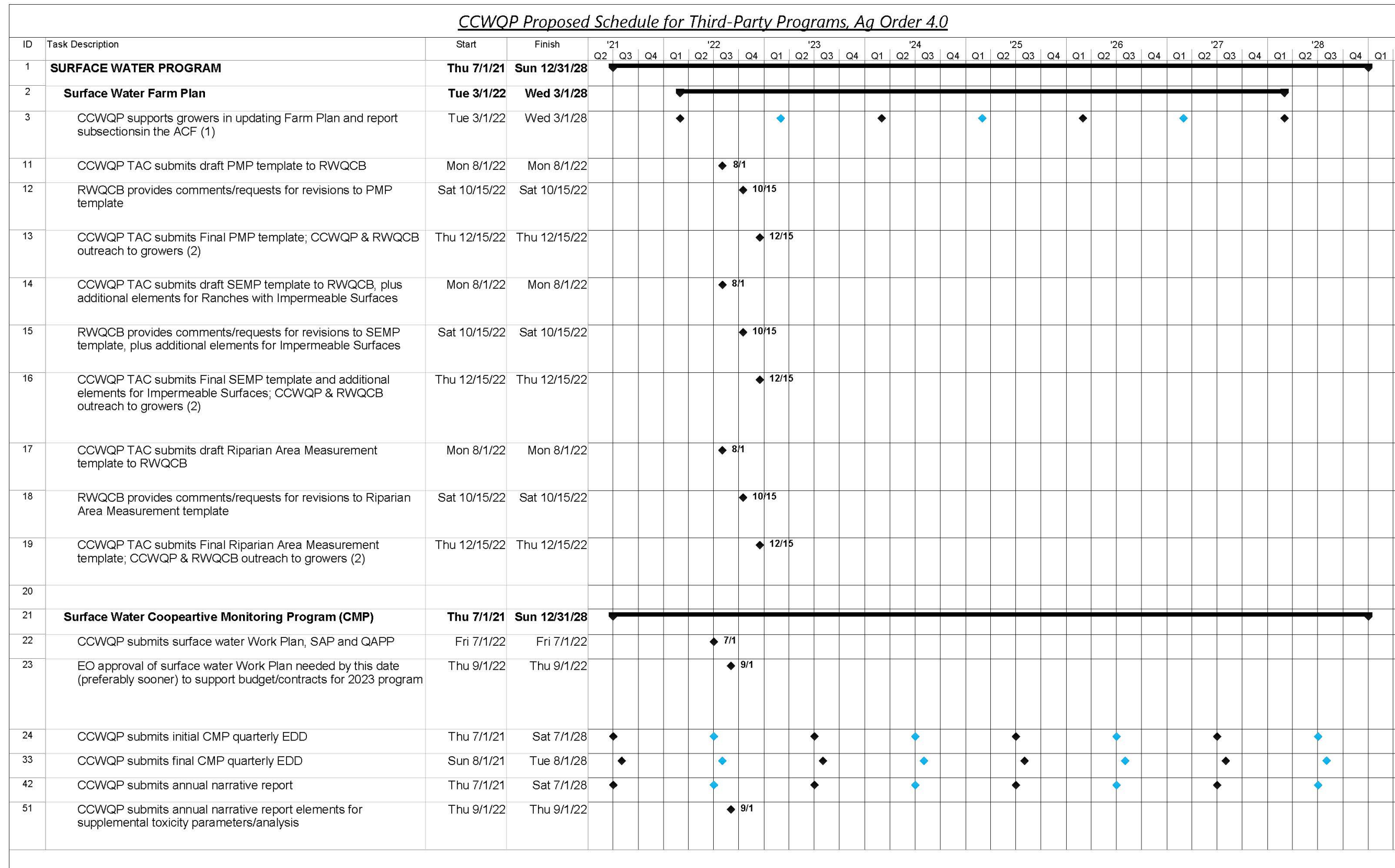


Figure 5-3 Surface Water Program Schedule

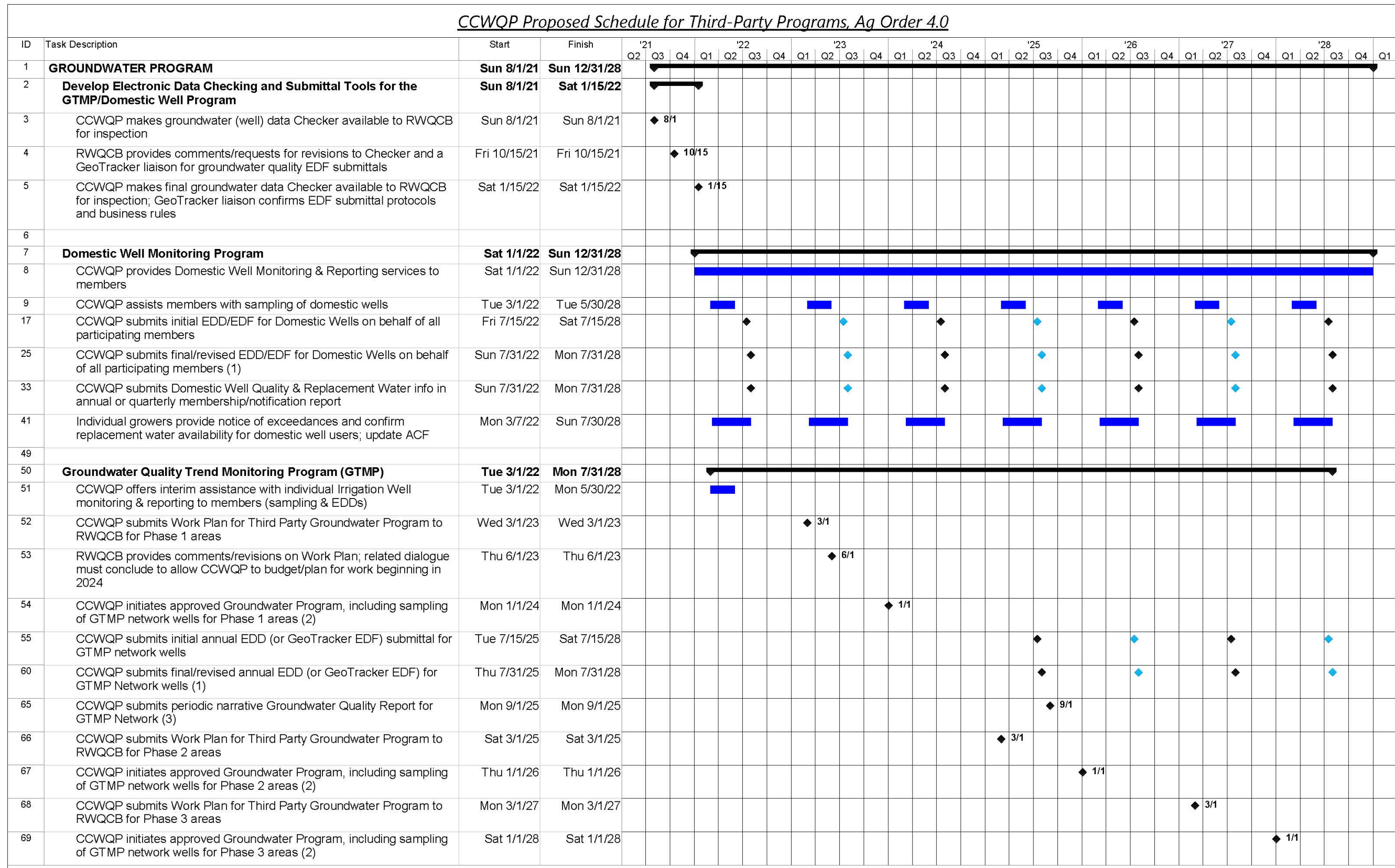


Figure 5-5 Groundwater Program Schedule

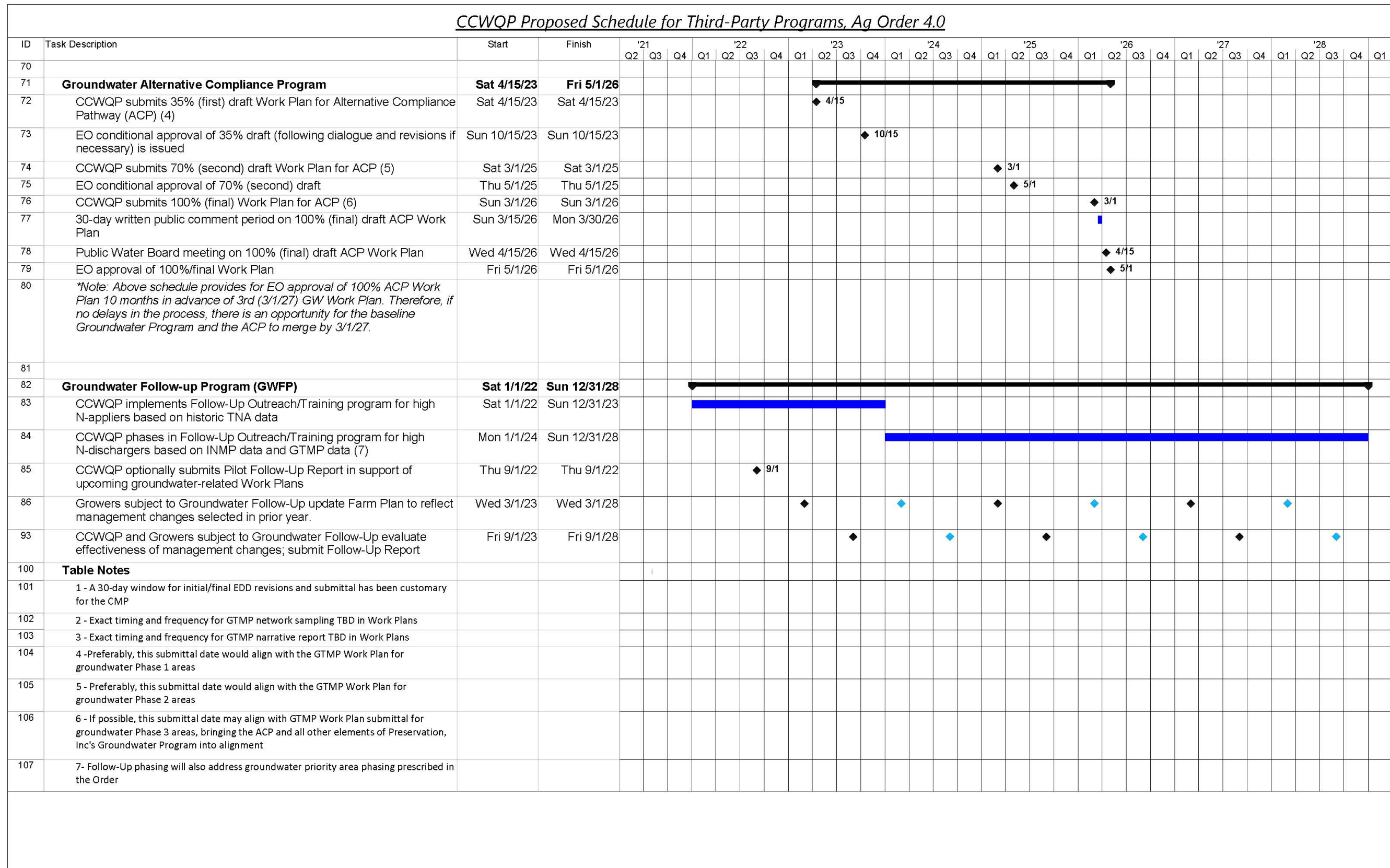


Figure 5-6 Groundwater Program Schedule, Continued

6.0 READINESS TO PROCEED

6.1 PLANNING

Preservation, Inc. has 16 years of experience managing a Third Party surface water trend monitoring program and performing related outreach, in the context of the Central Coast ILRP. We are immediately prepared to continue these activities, with adaptations as needed to comply with the new Order and MRP.

Since 2018, Preservation, Inc. has also spent hundreds of hours consulting with growers, partners, researchers, the RWQCB and other stakeholders in order to plan increased-scope Third Party programs towards the implementation of other aspects of Ag Order 4.0. This planning is reflected in multiple public comment letters and slideshow presentations submitted during the Ag Order 4.0 adoption process, including Concept Proposal submittals for a surface water Follow-Up program and a Groundwater Trend Monitoring Program (GTMP), and several comment letter and presentation segments related to electronic data management for TNA/INMP reporting and other aspects of the Farm Plan and ACF.

6.2 PILOTS

To assist with feasibility assessments, cost projections, and general readiness, Preservation, Inc. has developed on-going Pilot versions of most proposed Third Party program elements. The Pilots include:

- Surface Water Follow-Up: Watershed delineations, ranch-level outreach and management practice evaluation
- Groundwater Trend Monitoring: Concept Proposal and preliminary evaluations of well (and log) availability, and opportunities for alignment with SGMA-GSAs
- TNA/INMP Reporting: Creation of electronic Data Checker, data intake and management system, and preliminary EDDs
- TNA/INMP Monitoring and Compliance: Months-long grower-TAC process and trial INMP (Applied – Removed) calculations to assess ability of different cropping scenarios to comply
- Alternative Compliance Pathway: Review of Groundwater Protection Formula Workplan for Region 5 ILRP and development of “Comprehensive Groundwater Protection Framework” tech memo

In support of the Pilots and in the interest of being ready to proceed with Third Party implementation of Ag Order 4.0, Preservation, Inc. has also developed our staff/contractor base to include additional roles (e.g. Hydrogeologist, Agronomist/Soil Scientist, etc.). Additional Pilot work in the latter half of 2021 and throughout 2022 will help to inform the Work Plan submittals that are due in 2022 and 2023.

6.3 INFORMATION GAPS

As a Third Party program administrator, Preservation, Inc. intends to diligently document information and technology gaps that affect our members’ ability to comply with the Order and/or maintain Third Party membership. Where possible, we will work with the research and grant-coordination communities to get solutions into the pipeline to fill these gaps. We will also work to differentiate between true information/technology gaps versus lack of implementation/adoption of existing information, technology, and management practices.

Where information gaps become evident in ways that affect the function or success of Third Party programs, we will comment further during the Work Plan and program implementation process. Generally speaking, we are aware of several constraints that growers may face in meeting numeric limits on the timeline prescribed by the

Order. We will address these by providing advance notice and documentation to the RWQCB, in hopes of maintaining a robust Third Party membership that advances education, research and innovation to fill these gaps.

7.0 REFERENCES

Boynton, W., Testa, J., and Kemp, M. 2009. *An Ecological Assessment of the Corsica River Estuary and Watershed*. Technical Report Series No. TS-587-09 of the University of Maryland Center for Environmental Science. Solomons, MD.

Central Coast Regional Water Quality Control Board. 2021a. *General Waste Discharge Requirements for Discharges from Irrigated Lands. Order No. R3-2021-0040*. Central Coast Regional Water Quality Control Board (CCRWQCB). San Luis Obispo, California. April 2021.

Central Coast Regional Water Quality Control Board. 2021b. *Attachment B - Monitoring and Reporting Program for General Waste Discharge Requirements for Discharges from Irrigated Lands. Order No. R3-2021-0040*. Central Coast Regional Water Quality Control Board (CCRWQCB). San Luis Obispo, California. April 2021.

Central Coast Water Quality Preservation, Inc. 2013. *Region 3 Conditional Waiver Cooperative Monitoring Program: Quality Assurance Project Plan for Monitoring Designed for the Agricultural Waiver Monitoring Program in the Central Coast Region. Revision 9*. Prepared for Central Coast Water Quality Preservation, Inc. (CCWQP) by Pacific EcoRisk, Fairfield, California.

Dickey, J., Schmid, B., Miller, K., and Hartz, T. 2021. *Benefits of a Comprehensive Groundwater Protection Framework*. Technical Memorandum prepared for Central Coast Water Quality Preservation, Inc. by PlanTierra and Formation Environmental, Davis, California.

Formation Environmental, LLC. 2020. *Workplan: Groundwater Protection Formula – Management Practices Evaluation Program*. Prepared for Buena Vista Coalition et al. July, 2020. Davis, CA.

Salinas Valley Basin Groundwater Sustainability Area. 2021. *Salinas Valley Groundwater Basin 180/400-Foot Aquifer Subbasin Groundwater Sustainability Plan*. Prepared by Montgomery & Associates, Monterey, CA. January 2020.

Tetra Tech, Inc., 2021. *Quality Assurance Project Plan, Central Coast Domestic Well Sampling for the Central Coast Regional Water Quality Control Board*. Version 1.2. May.

APPENDIX A - APPROACH TO SURFACE WATER THIRD PARTY MONITORING, REPORTING, AND FOLLOW-UP PROGRAM

A.1 INTRODUCTION & GENERAL CONSIDERATIONS

Part 2, Section C.3 of the Order requires Surface Water Monitoring and Reporting, as well as Management Plans for the following categories:

- Irrigation and nutrient management
- Pesticide management
- Sediment and erosion management, with additional provisions for ranches with high percent impermeable surfaces

Part 2, Section C.3 of the Order also requires Follow-Up actions related to surface water. We use the term Follow-Up herein to indicate additional monitoring, testing, education/outreach, training, and/or management practice reporting performed in response to areas of high water quality impairment or pollutant loading.

The foundational elements of Preservation, Inc's proposed Surface Water Program are:

1. A region-wide surface water "status and trend" monitoring and reporting program (i.e. the CMP);
2. Management planning for irrigation and nutrients (INMP); pesticides (PMP); and sediment and erosion (SEMP) with additional SEMP elements for ranches with high percent impermeable surfaces;
3. A Surface Water Follow-Up Program (SWFP), including additional reported ("upstream") monitoring if necessary

Collectively, the elements 1, 2, and 3 above are responsive to the RFP description of "Surface Water Third Party Programs" (RFP p. 9) and we refer to them for general purposes herein as Preservation, Inc's proposed "Surface Water Program." Per MRP requirement, Preservation, Inc. will submit a compliant Work Plan for surface receiving water quality trend monitoring and reporting by July 1, 2022 and as depicted in Figure 5-3 and Figure 5-4 of this document. Preservation, Inc. will also submit a Work Plan, meeting the requirements in MRP Section E, Item 15 for a Follow-Up surface receiving water implementation program.

The purpose of surface receiving water monitoring and reporting and Follow-Up, as written in the RFP (p. 9) for use in the Third Party Work Plan, is expressed differently than the objectives for surface water quality trend monitoring stated in Section E, Items 2 and 13 of the MRP. The Work Plans that Preservation, Inc. will submit will be responsive to the objectives adopted via official public process in the MRP, and to the Work Plan requirements specified in Section E, Items 2 and 13 of the MRP.

Membership in Preservation, Inc's new proposed Third Party Surface Water Program for Ag Order 4.0 will begin in 2022, in support of the first required Work Plan submittal (due July 1, 2022). As has been the case since 2005, growers enrolled in the Central Coast ILRP must elect to either participate in the CMP or perform individual surface water trend monitoring and reporting. Growers who elect to participate in the CMP *must* also participate in surface water Follow-Up (i.e. the SWFP), if applicable, to retain Third Party membership for surface water compliance purposes. The SWFP will apply to ranches in prioritized areas in a phased manner, as described in Order Table C.3-1.3P. If a grower operating a ranch to which Follow-Up applies chooses not to participate in the SWFP, that ranch will no longer be eligible for membership in Preservation, Inc's Surface Water Program.

A.2 SURFACE WATER STATUS & TREND MONITORING (CMP)

The surface water status & trend monitoring element of Preservation, Inc's proposed Third Party Surface Water Program is analogous to the existing Cooperative Monitoring Program (CMP).

Water Quality Sampling & Quality Assurance These will be performed by qualified and trained staff or contractors following approved field SOPs, as documented in an approved QAPP (CCWQP, 2013). Samples will be submitted to one or more accredited laboratories under chain of custody, and analyzed using methods sufficient to meet reporting limits specified in MRP Table 10. The sampling frequency will follow Table MRP-10 requirements.

Reporting Surface water data and trends reporting will be performed according to the content requirements and schedules in MRP Section E, Item 12. Electronic reports generated by the laboratory will be initially submitted to the Preservation, Inc. QA Officer for review and validation, followed by delivery to a data management system designated by the RWQCB (e.g. CEDEN, etc). While this approach results in a recurring "batch" delivery of data from a large number of monitoring sites, records within the batch for individual monitoring sites will be displayed in a fully granular manner. The protocols described above are consistent with the way Preservation, Inc. has operated the CMP since 2005.

An annual narrative report will be prepared and submitted by July 1 annually, in accordance with MRP Section E, Item 12. Report elements detailing focused toxicant monitoring (i.e. for pesticides, herbicides, metals, etc. in water and sediment, per Table MRP-10) and any relationship between detected toxicants and measured aquatic toxicity will be submitted by September 1, annually.

A.3 ELECTRONIC FARM PLAN AND ANNUAL COMPLIANCE FORM ELEMENTS (INMP, PMP, SEMP)

Preservation, Inc. will form a qualified Technical Advisory Committee (TAC) to review and/or develop Farm Plan templates for the PMP, INMP, and SEMP, including an addendum to the SEMP for ranches with a high percentage of impermeable surface.

Electronic Annual Compliance Form (ACF) Management Management practice data will be reported by growers in the individual ACF. All ACF data will be initially submitted to the Third Party to allow for data validation and automated checking, similar to the process described above for CMP monitoring data. Following validation and checking, the ACF data will be submitted by the Third Party to the RWQCB in an EDD format specified by the Executive Officer (EO). The ACF data will also be included in the SWFP's Initial and Annual Watershed Reports, which will include data evaluations and tabular/graphical presentation.

Need for RWQCB Support For this approach to succeed, the RWQCB will ideally support a process for review and likely updates to the ACF, to improve its utility as a tool for documenting new and increased management practices in response to Preservation, Inc's Follow-Up programs. We are hopeful that the RWQCB will be supportive of this endeavor, and of our proposal to create electronic Farm Plan and ACF reports to improve the efficiency of data management and use.

It is our recent understanding that constraints related to GeoTracker necessitate that any revisions to the ACF as it now stands must be limited to text revisions, and that GeoTracker cannot support more complex tasks like adding or removing sections or questions from the ACF. Preservation, Inc. intends to be as collaborative as possible, and we will develop alternative strategies as necessary (pending Water Board approval) to work around any technical constraints with GeoTracker. That said, it is concerning that for such an important aspect of ILRP implementation, and one which can be time-consuming for growers to comply with, the Water Board has chosen to rely on a data intake and management system that has such limited adaptability. We anticipate several iterations of adaptation in reporting needs in the early years of Ag Order 4.0 implementation, especially related to Follow-Up. It would be unfortunate if GeoTracker's lack of adaptability results in the need for duplicative reporting (and associated added

costs to growers) via an alternate/additional data intake and management system. Ideally data and reporting needs should drive the selection of Information Technology (IT) systems, not the other way around.

A.4 SURFACE WATER FOLLOW-UP PROGRAM (SWFP)

Preservation, Inc. will follow the priority phasing indicated in Order Table C.3-1.3P to address surface water areas in need of Follow-Up activities. The phasing prescribed by the Order is consistent with Preservation, Inc's analysis of recent CMP results for water bodies showing frequent and/or high-concentration impairments for nitrate, turbidity, and/or toxicity to aquatic organisms. Members who elect to participate in the CMP must also participate in the SWFP if applicable, to maintain membership for surface water compliance purposes.

The SWFP will consist of:

- Watershed-level and ranch-specific education and training to assist growers in self-assessing their discharges to surface water.
- General guidance, with more specific technical assistance if needed, in selecting new and increased management practices that are responsive to the self-assessed root causes of discharge issues. Example: Elevated nitrate in irrigation runoff on some ranches may come from spilt fertilizer granules, whereas on other ranches the elevated nitrate may come from an irrigation well.
- Documentation of new and increased management practices in the ACF.
- Re-assessment of impacts to surface water, in light of new management practices.
- Follow-Up ("upstream") monitoring and reporting where applicable

A.4.1 Watershed Outreach & Reporting

Example of Outreach During individual outreach on a hypothetical ranch, elevated nitrate concentrations are identified in sprinkler or furrow runoff. Further assessment indicates that the high N concentrations are not present in the irrigation water, nor in the furrows of the field during irrigation. The assessment indicates that the N concentrations increase rapidly when the runoff collects in and flows along a tail-ditch after exiting the furrows, due to prior deposition of fertilizer granules as the application equipment (tractor) turned at the end of each row. As a result of this guided self-assessment, the grower makes changes to their fertilizer application equipment (this could be achieved with a variety of specific equipment changes). The changes are first reported by the grower in the ACF (using an updated/improved ACF template designed to clearly reflect this type of management change). If relevant, the changes are also reflected in Preservation, Inc's annual report on the watershed. If necessary, Preservation, Inc. may assist in the coordination of further support by other technical assistance providers to aid in the selection of appropriate management practices.

Watershed Reporting The Third Party will prepare an Initial Watershed Report for each watershed identified for prioritization in a given year, followed by Annual Reports in subsequent years. Important components of Annual Reports for the SWFP may include:

- Documentation of outreach/education efforts and grower participation in activities required for Third Party membership;
- Current status and any identified trends in water quality at the core CMP site;
- Analysis of any Upstream Monitoring that was deemed necessary for the watershed;
- Summary and evaluation of changes in management practices reported in the ACF for ranches within the delineated watershed (i.e. "new and increased practices");

- Discussion of any linkages that can be identified between substantial changes in water quality at the core CMP site and management changes reported by watershed growers in the ACF.

Similar to the way enforcement is currently conducted for the existing CMP, Preservation, Inc. will annually report participating operations that are in good standing with regard to SWFP participation obligations, and the RWQCB will follow up with enforcement for non-participating operations.

A.4.2 Watershed Reviews

It is understood that some prioritized watersheds will not meet the numeric limits for all water quality parameters on the timelines specified in the Order. In particular, stormwater discharges will most likely require more time and resources to address than irrigation-related discharges. High nitrate concentrations in tile drain discharges will require extended timelines to resolve due to interactions with high water tables that have historic nitrate contamination in some parts of the Central Coast region.

Preservation, Inc. proposes a Watershed Review process for watersheds nearing a numeric (water quality) compliance deadline without the foreseeable ability to meet it. Specifically, the Third Party will prepare an expanded Annual Report and/or presentation for the watershed in question. The ensuing Watershed Review will assist the RWQCB and growers in determining if ranch-level reported monitoring is indeed warranted at that time. In many cases, the outcome of a Watershed Review will be to highlight hard-to-solve problems that require additional time, resources, and/or research to resolve. In such cases the most efficient approach for all parties will be to continue the SWFP's iterative management and reporting approach for an additional period of time.

A.5 RANCH LEVEL DISCHARGE MONITORING AND REPORTING

Order Part 2, Section C.3 states that ranch-level surface discharge monitoring and reporting may be required by the EO based on water quality data or significant exceedance of water quality limits. On p. 9 in bullet #4, the RFP states that a Third Party may assist growers in complying with ranch-level monitoring and reporting requirements. Preservation, Inc. will act in a technical and/or coordinating role on behalf of members-in-good-standing who request our support with ranch-level monitoring required by the EO. Preservation, Inc. will not provide legal counsel. Cost-allocation for services related to ranch-level monitoring and reporting will be determined by the Ag Committee and the Preservation, Inc. Board.

A.6 MEMBERSHIP

Membership in Preservation, Inc's CMP (and SWFP, if applicable) program is expected to be mandatory for growers who wish to be recognized as Third Party members by the SWRCB for the purpose of surface water compliance. In fairness to growers who join the program at inception, those who join later will likely need to back-pay program fees for prior years. This is a cost allocation decision that falls to the Ag Committee in Preservation, Inc's organizational structure. Growers who elect to participate in the CMP *must* also participate in SWFP for applicable ranches. Whereas fee assessment for the routine CMP has historically been (and may continue to be) performed on a "per Operation" basis (indexed by AW number), fee assessment for the SWFP may need to be performed on a "Ranch" basis (indexed by Assessor Parcel Number, or APN). In this case successful implementation of a Third Party fee structure for the SWFP will depend on the quality of APN data stored in the RWQCB's enrollment database. Also, the individual monitoring and reporting requirements that apply to growers who do not elect to participate in the CMP and SWFP must be diligently enforced by the RWQCB.

APPENDIX B - APPROACH TO GROUNDWATER THIRD PARTY PATHWAY & ALTERNATIVE COMPLIANCE PATHWAY

B.1 INTRODUCTION & GENERAL CONSIDERATIONS

Part 2, Section C.1 of the Order requires Groundwater Monitoring and Reporting and an Irrigation and Nutrient Management Plan (INMP). Part 2, Section C.2 of the Order provides an alternative compliance pathway (ACP) to meet groundwater protection requirements. Our proposed approach is a hybrid of the “Groundwater Third Party Pathway” described on p. 7 of the RFP and the “Third Party Alternative Compliance Programs for Groundwater Protection” (referred to hereafter as the “ACP”) described on p. 8 of the RFP. Collectively and for general purposes, these are referred to hereafter as Preservation, Inc’s “Groundwater Program.”

One aspect of our Groundwater Program approach that does not reference a specific item in the RFP is a focus on groundwater-related Follow-Up, even in the absence of an approved ACP Work Plan. (We use the term Follow-Up herein to indicate additional monitoring, testing, education/outreach, training, and/or management practice reporting performed in response to areas of high groundwater impairment and/or high N loading.) Per bullet #4 on p. 8 of the RFP Attachment 1, we acknowledge the requirement for the ACP to include consequences. While we concur with the need for consequences for members who fall short of requirements, we also anticipate a subset of growers who will face verifiable agronomic challenges despite making good faith efforts to comply. In these cases, the imposition of punitive “consequences” may stifle innovation and be counterproductive to improving water quality. Instead, a strong Follow-Up program is needed to document challenges, management efforts by growers, education/outreach and technical assistance efforts, and incremental improvements in water quality or load reductions. A strong Follow-Up program will also help promote increased adoption and implementation of existing practices. This Follow-Up is needed in *any* Groundwater Program scenario, regardless of an individual’s participation in the ACP or Preservation, Inc’s success in obtaining EO approval for it.

The foundational elements of Preservation, Inc’s Groundwater Program are:

1. A region-wide groundwater trend monitoring (and reporting) program (GTMP) for status and trends;
2. Irrigation and nutrient planning and reporting (INMP);
3. A Groundwater Follow-Up Program (GWFP);
4. A comprehensive approach to ag-related nitrogen cycling, to support groundwater protection areas, formulas, values, and targets for the ACP.

Elements 1, 2, and 3 above are responsive to the RFP description of “Groundwater Third Party Programs.” These elements can also serve (with adaptations or enhancements as necessary) to meet several of the requirements for the ACP. Element 4 above is specific to the ACP and provides a framework from which the groundwater protection (GWP) areas, formulas, values and targets can be developed. A simple example of an enhancement that could be necessary to obtain EO approval of an ACP Work Plan might be providing a denser monitoring well network for an ACP sub-basin than is needed for the same area to meet GTMP needs.

Per MRP requirement, Preservation, Inc. will work with a licensed hydrogeologist (or similar licensed groundwater professional) to submit compliant groundwater trend monitoring and reporting Work Plans by the dates specified in the MRP for the Groundwater Third Party Pathway and as depicted in Figure 5-5 and Figure 5-6 of this document. Preservation, Inc. will also work with a licensed hydrogeologist (or similar groundwater professional), alongside one or more soil science and/or agronomy professionals to submit Work Plans for the Alternative Compliance Pathway by the dates specified in the MRP and as depicted in Figure 5-6 of this document.

The purpose of groundwater monitoring and reporting, as written in the RFP for use in the Third Party Work Plan, is stated differently than the objectives for groundwater quality trend monitoring stated in Section C, Item 17 of the MRP. The Work Plan that Preservation, Inc. will submit by September 1, 2023 will be responsive to the objectives

adopted via official public process in the MRP, and to the Work Plan requirements specified in Section C, Item 20 of the MRP.

Membership in Preservation, Inc's Groundwater Program will begin in 2022, in support of the first required Work Plan Submittal (due September 1, 2023). Growers must elect to either participate in the GTMP or perform individual groundwater trend monitoring. Membership considerations for the ACP are discussed below in Section B.5 of this document. Generally speaking, participation in the ACP is expected to be a voluntary aspect of Third Party membership. Preservation, Inc. will also offer assistance to members, beginning in 2022, with domestic well monitoring, reporting, and user-notification requirements per MRP Section C, Items 4-13.

Growers who elect to participate in the GTMP *must* also participate in groundwater-related Follow-Up (if applicable) to retain Third Party membership for groundwater compliance purposes. The GWFP will apply to ranches in highly impaired groundwater basins and/or with high nitrate leaching risk, as indicated by GTMP and INMP summary reporting data, and as directed by phasing requirements in the Order. If a grower operating a ranch to which the GWFP applies chooses not to participate in Follow-Up, that ranch will no longer be eligible for membership in Preservation, Inc's Groundwater Program.

B.2 GROUNDWATER TREND MONITORING PROGRAM (GTMP)

Per the MRP Section C, Items 14-16, all growers must conduct annual sampling of the primary irrigation well between March 1 and May 31, prior to the initiation of the groundwater quality trend monitoring program. Beginning in 2022, Preservation, Inc. will offer members assistance with irrigation and domestic well monitoring and reporting. Also, in 2022, Preservation, Inc. will begin work on behalf of members to prepare for the 2023 submittal deadline for the GTMP Work Plan.

B.2.1 Initial Characterization Report

An initial task of the GTMP will be to name and describe the groundwater basins of interest which underlie irrigated agricultural areas of the Central Coast region. This Initial Characterization should draw from prior characterizations developed by the Department of Water Resources (DWR), Central Coast Groundwater Coalition (CCGC), local water management agencies and other state agencies where available. An example of existing groundwater basins would be the DWR Bulletin 118 basins. The Initial Characterization Report will include an inventory of existing monitoring programs and a summary of publicly available data from major groundwater monitoring or data management efforts that have generated datasets for Central Coast basins.

B.2.2 Water Quality Sampling

Water quality sampling from wells selected for the GTMP network will be performed by qualified and trained staff or contractors following approved field SOPs, as documented in an approved QAPP. A new QAPP will be developed for this program, however certain elements and the general standard of rigor are anticipated to be similar to the QAPP for the surface water CMP (CCWQP, 2013) and the RWQCB's domestic well monitoring program QAPP (Tetra Tech Inc., 2021). Samples will be submitted to an accredited laboratory under chain of custody and analyzed using methods sufficient to meet reporting limits specified in Table MRP-7. Electronic reports generated by the laboratory will be initially submitted to the Preservation, Inc. QA Officer for review and validation, followed by delivery to a data management system designated by the RWQCB (e.g. GeoTracker, etc). While this approach results in a recurring "batch" delivery of data from a large number of wells, records within the batch for individual samples/wells will be displayed at a fully granular level.

B.2.3 Well Network Development & Membership Implications

While balancing network density with economic considerations, the GTMP will aim to characterize water quality in hydrogeologically-defined groundwater basins or sub-areas where a substantial portion of the overlying land surface

is in irrigated agricultural land use. Among other objectives, well network coverage will include representation of drinking water supply areas located down-gradient of agricultural activity, particularly in the vicinity of disadvantaged communities. Lower-density coverage may be warranted in areas deemed to be of low vulnerability. The initial well network will be spatially assessed based on density/distribution over distinct areas based on hydrogeologic characteristics and overlying land use (for X,Y axes); and also based on depth (Z axis) in relation to water bearing zones of interest.

For inclusion in the GTMP well network, preferred wells will have known information such as Location, Total Depth, Perforation Depths, Construction Date, Well Seal Information, and Well-Completion Report (location-specific lithology). Wells without these characteristics may be included if the density of preferred wells is insufficient for a desired area of coverage. Wells from three general categories will be considered for inclusion in the GTMP well network: On-farm domestic wells, Irrigation wells, and Other wells.

Domestic Wells

Per Part 2, Section C.1 of the Order and Section C, Items 4-9 of the MRP, growers are required to monitor and report on all on-farm domestic drinking water supply wells. Because this requirement applies to individual growers, there is very little economy of scale that can be provided by a Third Party, however Preservation, Inc. will offer domestic well monitoring and reporting services to its members beginning in 2022 in accordance with MRP Section C, Item 6 and Table MRP-5. This monitoring will be performed as described above with regard to qualified staff/contractors, QA measures, and laboratory accreditation. Electronic reports generated by the laboratory will be initially submitted to the Preservation, Inc. QA Officer for review and validation, followed by delivery to a data management system designated by the RWQCB (e.g. GeoTracker, etc.). While this approach results in a recurring “batch” delivery of data from a large number of wells, records within the batch for individual samples/wells will be displayed at a fully granular level.

We anticipate that a subset of on-farm domestic wells will be selected for the GTMP well network, particularly for the characterization of nitrate concentrations in shallow aquifers. For on-farm domestic wells associated with growers who are *not* members of Preservation, Inc., the individual monitoring data for those wells will be queried from GeoTracker to complete the GTMP dataset. To support the Third Party in meeting QAPP completeness requirements for the GTMP, and in fairness to participating growers, we expect the RWQCB to perform timely and diligent enforcement of individual monitoring requirements for non-participating growers. Members who do not elect to have Preservation, Inc. perform domestic well monitoring on their behalf *must* remain compliant with this requirement on an individual basis to retain membership eligibility for any other Preservation, Inc. program, including the Surface Water Program.

Finally, while not related to objectives of the GTMP, the MRP Section C, Items 10-13 require timely health risk notifications and verification that well users have alternative replacement water as may be appropriate. Beginning in 2022, Preservation, Inc. will provide limited support to our members in fulfilling these requirements. Examples of “limited support” may include:

- Providing a universal template (including professional translation for non-English speakers) which can be used by members to inform well users of laboratory analytical results, per MRP Section C, Items 10-12;
- Providing a return letter/form for members to send back to Preservation, Inc. documenting that the member has a) notified the well user(s) and land owner where appropriate of any exceedances, and b) verified that well users have an alternative source of water for domestic purposes if the nitrate and/or 1,2,3-TCP levels in the well sample exceeded the MCLs;
- Providing a list of members-in-good-standing to the RWQCB;
- Maintaining a “living” list of replacement water resources.

All responsibility/liability for compliance with notification requirements (including eNOI updates per MRP Section C, Item 13) will remain with individual growers and landowners, and domestic well monitoring and/or notification support will remain a severable component of Preservation, Inc's program. Activities related to drinking water notification and replacement are unrelated to stated objectives the GTMP, and are discussed in this section of our RFP response only for the purpose of document organization.

Irrigation Wells

Per Part 2, Section C.1 of the Order and Section C, Items 14-16 of the MRP, growers are required to monitor irrigation wells annually prior to the initiation of an EO-approved GTMP Work Plan. Irrigation well monitoring requirements were also a part of prior Ag Orders (2.0 and 3.0). We anticipate that a subset of these irrigation wells will be selected for the GTMP well network, particularly for the characterization of nitrate concentrations within areas of intense agricultural land use. As described above, preferred wells will have associated known perforation depths, well seal information, local lithology, etc. or the ability to develop this information.

Prior to EO approval of a Work Plan for the GTMP, Preservation, Inc. will offer irrigation well monitoring and reporting services on a voluntary basis to its members beginning in 2022 in accordance with MRP Section C, Items 14-16 and Table MRP-6. This monitoring will be performed as described above with regard to qualified staff/contractors, QA measures, and laboratory accreditation. Electronic reports generated by the laboratory will be initially submitted to the Preservation, Inc. QA Officer for review and validation, followed by delivery to a data management system designated by the RWQCB (e.g. GeoTracker, etc). While this approach results in a recurring "batch" delivery of data from a large number of wells, records within the batch for individual samples/wells will be displayed at a fully granular level.

Following election of Third Party membership for groundwater compliance, participating growers will be assessed an annual fee for the GTMP. Budget review and cost allocation for the GTMP will be performed annually by the Ag Committee and Preservation, Inc. board of directors, as has been customary for the surface water CMP. Because not all irrigation wells are anticipated to be needed for the GTMP well network, it is our desire and intention that participating growers will realize a cost savings over the individual groundwater trend monitoring pathway (i.e. a large number of growers will collectively fund the monitoring of fewer wells). Ultimately however, the monitoring design will dictate program costs and this will be subject to EO discretion during Work Plan approval. We are hopeful that the RWQCB will remain supportive of Preservation, Inc's efforts to provide efficiencies and economies of scale to our members, as has been the case with the surface water CMP since 2005.

If any irrigation wells are needed for the GTMP network that are not operated by Preservation, Inc's members, the individual monitoring data for those wells will be queried from GeoTracker to complete the GTMP dataset. To support Preservation, Inc. in meeting QAPP completeness requirements for the GTMP, and in fairness to participating growers, we expect the RWQCB to perform timely and diligent enforcement of individual monitoring requirements for non-participating growers. Members who only elect to participate in the Surface Water Program (and not the GTMP) *must* remain compliant with irrigation well monitoring and reporting requirements on an individual basis to remain eligible for membership in the Surface Water Program. Surface water members who do not also elect to participate in the GTMP are not eligible for any other aspect of Preservation, Inc's Groundwater Program.

Other Wells

Community water system wells may be of special interest to the program as these tend to have longer historical monitoring records to support retrospective trend analysis. However, since these wells must continue to produce potable water, they may become subject to modification or discontinuation in areas of impaired water quality. These and other changes to well construction or operation must be tracked over time in addition to water quality and depth monitoring results. Other categories of non-agricultural wells may also prove of interest, such as

municipal supply wells, private domestic wells, purpose-built monitoring wells from permitted facilities, etc. In the event well monitoring data from a program of comparable quality and design are available for use by the GTMP, documentation and reporting of such data will be performed in accordance with the Order and MRP, and as detailed in an approved Work Plan.

B.3 IRRIGATION & NUTRIENT MANAGEMENT REPORTING (INMP)

Part 2, Section C.1 of the Order and Section B of the MRP require annual INMP summary reporting (or in some cases and for a limited time, TNA reporting), in compliance with the schedule in Table MRP-2. Additionally, Part 2, Section B of the Order requires a discrete section of the Farm Plan be maintained related to INMP. Because this requirement applies to individual growers, there is very little economy of scale that can be provided by a Third Party, however, beginning in 2022 and pending RWQCB willingness to accept Electronic Data Deliverables (EDDs) containing TNA/INMP data, Preservation, Inc. will offer TNA/INMP reporting services to its members in accordance with MRP Section B and Table MRP-2.

Historically, growers have submitted TNA reports by manually entering information into web forms hosted by the RWQCB, which transmit the data to the GeoTracker database for storage. While the web forms force some uniformities in data entry, to our knowledge no formal QA review or data validation protocols have ever been applied this dataset. Beginning in 2022 Preservation, Inc. will accept TNA data (and/or INMP data where applicable) submittals from growers in a spreadsheet format requiring all data specified by the MRP. Assistance with data entry will be provided to participating English and Spanish-speaking growers on-demand, and on an as-needed basis to growers in other minority language or special-needs groups.

Data intake and automated checking using a RWQCB-approved data Checker will be performed by Moss Landing Marine Laboratories (or similarly qualified staff/contractors). Data validation and QA review will also be overseen by the Preservation, Inc. QA Officer, according to a QAPP specific to the INMP monitoring and reporting process (to be developed by Preservation, Inc. and approved by the RWQCB). The TNA/INMP reports which pass the Checker will be compiled into a comprehensive Electronic Data Deliverable (EDD) for delivery to a data management system designated by the RWQCB (e.g. GeoTracker, etc). While this approach results in a recurring “batch” delivery of data from a large number of ranches, records within the batch will be displayed at a fully granular level. Preservation, Inc’s TNA/INMP data intake system and Checker are operational and available for educational use by growers and for inspection by the RWQCB as of today’s date. We anticipate refinements as further review and testing by growers occurs. Checker requirements for submitted data can be adjusted over time according to program needs.

For this approach to proceed, the RWQCB will need to agree to receive TNA/INMP data as an EDD from Preservation, Inc. (most likely spreadsheet-based), and will ideally provide input as to formatting needs and a delivery endpoint for the EDD. We are hopeful that the RWQCB will be supportive of this endeavor, as the ability to manage TNA/INMP data electronically is an important efficiency and QA measure that has been missing from prior versions of the Order. This is also fundamental to our ability to partner with and realize the full value of a variety of other entities and programs that assist their members/clients with the management of irrigation and nutrients. This “village” of partners and technical assistance providers is key to our region’s capacity to assist growers in achieving water quality objectives. To the extent that they already do, or will in future, offer programs that encourage growers to monitor their irrigation and nutrient management in a way that meets Ag Order TNA/INMP reporting requirements, there is no reason for participating growers to record and report this information twice. Individuals or entities who wish to collaborate with Preservation, Inc. on electronic TNA/INMP data management and reporting for their members/clients should contact Sarah Lopez using the information on the title page of this document.

An additional element of Preservation, Inc’s approach to assisting participating growers with TNA/INMP monitoring and reporting is the streamlining of compliance activities for an assortment of Order and MRP requirements. For example, redundancies can be eliminated from similar activities required for the Farm Plan, ACF, and INMP

Summary Reporting with the use of standardized electronic record-keeping tools that can be developed by a Third Party and its partners on behalf of a large number of growers.

B.4 GROUNDWATER FOLLOW-UP PROGRAM (GWFP)

The Order, MRP, and RFP do not discuss Follow-Up related to groundwater, except for a brief (single-phrase) mention in the context of the ACP. However, Follow-Up activities are essential to improving groundwater quality, hence it is an important component of our overall Groundwater Program, regardless of the status of the ACP. In particular, it will not be possible for any Third Party to be responsive to the 4th bullet on RFP p. 8 (determine effectiveness) without a GWFP.

In order to identify groundwater basins with high levels of impairment and ranches with high risk of N leaching for Follow-Up, Preservation, inc. will use the priority phasing for geographic areas in the Order. Preservation, Inc. will also use the GTMP and INMP datasets (including queried data submitted by non-participating growers, per individual reporting requirements) for this purpose. Members who elect to participate in the GTMP must also participate in the GWFP if applicable.

The GWFP will consist of:

- Basin-level and ranch-specific education and training to assist growers in understanding and self-assessing their potential discharges to groundwater;
- General guidance, with more specific technical assistance if needed, in selecting new and increased management practices that are responsive to the self-identified root causes of discharges. Example: Leaky drip tape or fittings resulting in longer-than-needed fertigations.
- Documentation of new and increased management practices in the ACF.
- Re-assessment of potential discharges to groundwater, in light of new management practices.

Example

During ranch-level outreach on a hypothetical ranch, significant drip tape leaks are identified. Further discussion and informal calculations indicate that the leaks are resulting in poor distribution uniformity (DU), which results in the irrigation running much longer than would be necessary with high DU. Because fertilizer may be applied throughout much or all of the irrigation, the extended application time results in more than the necessary amount of fertilizer being applied. As a result of this guided self-assessment, the grower makes changes to their irrigation system, both equipment-related and schedule-related, to improve DU (this could be achieved with a variety of specific management changes). The changes are first reported by the grower in the ACF (using an updated/improved ACF template designed to clearly reflect this type of management change). If relevant, the changes are also reflected in Preservation, Inc's annual report on the basin.

Need for Water Board support

For this approach to succeed, the RWQCB will need to support a process for review and likely updates to the ACF, to improve its utility as a tool for documenting "new and increased management practices" in response to Preservation, Inc's Follow-Up programs. We are hopeful that the RWQCB will be supportive of this endeavor.

B.5 RANCH LEVEL DISCHARGE MONITORING & REPORTING

Order Part 2, Section C.3 states that ranch-level surface discharge monitoring and reporting may be required by the EO based on water quality data or significant exceedance of water quality limits. On p. 9 in bullet #4, the RFP states that a Third Party may assist growers in complying with ranch-level monitoring and reporting requirements. Preservation, Inc. will act in a technical and/or coordinating role on behalf of members-in-good-standing who request

our support with ranch-level monitoring required by the EO. Preservation, Inc. will not provide legal counsel. Cost-allocation for services related to ranch-level monitoring and reporting will be determined by the Ag Committee and the Preservation, Inc. Board.

B.6 ALTERNATIVE COMPLIANCE PATHWAY

Order Part 2, Section C.2 and MRP Section D provide for a Third Party Alternative Compliance Pathway (ACP) for Groundwater Protection. Per the MRP Section D, Items 6 and 7, growers participating in the ACP must submit ACF, TNA, and INMP Summary information, as well as perform groundwater monitoring and reporting. Therefore Preservation, Inc's GTMP and INMP programs will be as relevant for growers who pursue the ACP as for those who do not. The MRP Section D also mentions a requirement for Follow-Up if targets are not achieved. Therefore Preservation, Inc's GWFP will also be relevant for growers who pursue the ACP. The GTMP, INMP, and GWFP can all be updated or enhanced as necessary to support additional needs of the ACP that prove to be above and beyond needs of Preservation, Inc's routine Groundwater Program.

As appropriate, Preservation, Inc. will work with a licensed hydrogeologist (or similar), as well as one or more soil science and/or agronomy professionals, to develop the draft ACP Work Plans. The Work Plans will reflect the required content specified in MRP Section D, Items 3-5, which generally includes:

- Groundwater Protection (GWP) Areas;
- GWP Formulas;
- GWP Values;
- GWP Targets;
- Consequences for failure to achieve numeric targets;
- Assessment and evaluation program

B.6.1 Comprehensive Approach to Ag-related Nitrogen Cycling

Preservation, Inc's comprehensive approach to ag-related nitrogen cycling and groundwater protection will consider soil, crop, and root-zone processes as well as key processes in the vadose zone (i.e. denitrification), regional hydrogeology (e.g. recharge, dilution, flow, and storage), and other regionally significant factors that affect the concentration of nitrate reaching receiving waters. This approach also recognizes that it is the regional N loading – the combined effect of many unique management systems in the context of field-specific and broader hydrologic processes – that influences groundwater quality (Dickey et al., 2021).

Underpinning any conclusions about the impacts of agriculture on groundwater should be an accurate characterization of 1) water and nitrate movement through root-zones of agricultural lands; 2) how this movement is affected by management in each field; and 3) how hydrology mediates receiving water quality and usability. In particular, it is important to develop a robust understanding of where nitrogen unused by crops moves or resides. It is also important to develop a robust understanding of interactions between surface and groundwaters, both naturally-occurring and as affected by human activities such as pumping.

Hydrologic modeling is required by the Sustainable Groundwater Management Act (SGMA) for many Central Coast groundwater basins. For example, the USGS recently released its Salinas Valley Integrated Hydrologic Model (SVIHM). Even without such models, historic and current water budgets use best-available data and tools to determine important groundwater components such as annual inflows, outflows, and storage within basins (SVBGSA, 2020). These hydrologic models and simpler water budgets provide a credible starting point for understanding, at a coarse scale, the advective transport of nitrate throughout Central Coast groundwater basins

in both space and time. Before evaluating “start-from-scratch” modeling approaches, Preservation, Inc.’s ACP Pilot program will evaluate the possibility of linking solute transport models to the SGMA hydrologic models.

Both at broad scales and at the field/ranch level, a number of mechanistic models are available to simulate nitrate movement, some of which are being explored in the Central Valley for use in the ILRP (Formation Environmental, 2020). While these efforts may prove useful, sophisticated models can involve the need for assumptions that extend beyond our current understanding of a system. A straightforward mass balance (or “nitrogen budget”) approach involves fewer assumptions; can be refined over time based on monitoring data; and is an approach with proven effectiveness for managing nitrogen in dynamic, 3-dimensional systems (Boynton et al., 2009).

B.6.2 General Approach to GWP Areas, Formulas, Values & Targets

For the ACP we will need to determine the combined (from many sources) amount of N that can be loaded across a GWP Area, and not cause or contribute to impairment of groundwater quality. This amount gives the GWP Target.

As part of Pilot work on this topic, Preservation, Inc. will explore the SGMA hydrologic models (and/or water budgets) and any existing nitrogen budgets (mass balances, not necessarily SGMA-related) for computational needs involving regional hydrology. More sophisticated modeling approaches can be introduced if/when models are identified and vetted for accuracy in the Central Coast region.

We will rely on the INMP data and a simple model of the root zone N-cycle to calculate the GWP Value for a defined Area. These calculations will be performed and reported annually, on the basis of a 3-year rolling average. In addition to considering root zone N-cycling, these calculations may also consider post-root zone processes.

Further details on GWP areas, formulas, values, and targets will be developed during subsequent Pilot work and the Work Plan process.

B.6.3 Membership

Membership in Preservation, Inc.’s ACP program is expected to be voluntary. However, in fairness to growers who join the program at inception (or at least well in-advance of compliance deadlines), those who join later will likely need to back-pay program fees for prior years. This is a cost allocation decision that falls to the Ag Committee in Preservation, Inc.’s organizational structure. Growers who elect to participate in the ACP *must* also participate in the GTMP, INMP, and GWFP, including any program elements that require adjustment or enhancement beyond routine Groundwater Program (i.e. “Third Party Pathway” per the RFP) elements in order to obtain EO approval of the ACP Work Plans.

APPENDIX C - PARTNERSHIPS

C.1 SIP CERTIFIED PARTNERSHIP WITH PRESERVATION, INC

C.1.1 Program Overview & Approach

Over several meetings, Water Board members directed staff to create a framework that avoids duplicative effort and leverages existing programs. Creating a system to allow Sustainability in Practice (SIP) Certified staff to submit information to Preservation, Inc meets this guidance. The SIP Certified program is administered by the Central Coast Vineyard Team.

With a Central Coast presence and local expertise/capacity, SIP has a long history of working with Central Coast growers and Regional Board staff and looks forward to crafting a framework for recognizing and incentivizing SIP Certified growers through reduced regulatory burden, while providing benefits to the Water Board and Preservation, Inc. staff through reduced management time.

Over 30,000 acres on the Central Coast are currently SIP Certified which requires growers to implement practices that protect water quality, document these practices, and have an independent, arms-length inspection of the farm and documentation.

While it's important to realize that many common vineyard management practices are protective of water quality, SIP Certified provides additional assurance because the implementation of these practices is verified through an onsite and records inspection.

C.1.2 Background of SIP Certified Content and Process

1. SIP Certified standards and rules contain 10 chapters relating to farming operations. Of these, several relate to water quality: conservation and enhancement of biological diversity; vineyard acquisition, establishment and management; soil conservation and water quality; water resources and conservation; pest management.
2. The standards include both Requirements and Management Enhancements that cover a broad range of farming practice implementation, planning, and record keeping.
3. SIP Certified REQUIRES that certified vineyards meet ALL of the Requirements. If a grower cannot implement, or is not able to prove implementation of a single Requirement, they are not eligible for certification.
4. SIP Certified growers are also required to implement and document a number of "Management Enhancement" practices to achieve an overall point value of 75%. Practices are weighted by importance and impacts on resources.
5. SIP Certified growers must complete a records and site inspection of each response to a standard question.
6. The applicant's audit report is blinded, reviewed, and eventually approved by the Certification Advisory Committee (comprised of regulatory, academic and industry experts, where the regulatory and academic representatives comprise the majority of the committee). One seat is occupied by Water Board staff.
7. Only after all of the above are completed, applicants pay licensing fees to finalize their certification.

C.1.3 Conceptual Framework of SIP Certified and Preservation, Inc Cooperation

- Growers complete documentation and inspections to become SIP Certified.

- SIP Certified program modifies existing database to include ILRP AW Numbers and property APN to synchronize with Preservation, Inc. database. SIP also assigns unique Certification ID's that can be used in the Preservation Inc or Regional Board Ag NOI forms. In addition, SIP staff can modify database to allow members to "opt in" to other services that support Ag Order compliance that could require additional permissions (ex. access to well for cooperative GW monitoring). SIP Certified also has the ability modify the Certification standards to address potential water quality concerns identified by Preservation, Inc.
- SIP Certified staff delivers raw data needed for compliance reporting directly to Preservation, Inc. (farming practices, irrigation/nutrient use, acreage). For example, the INMP data needed to complete the INMP summary report. And for any SIP-certified ranch to which Follow-up requirements are applicable, management practice and/or other data needed to complete the requirements.
- SIP Certified notifies Preservation, Inc quarterly of any operators that lose or terminate SIP Certified status.
- In the event a ranch is partially SIP certified, INMP data will still be reported for the entire ranch. The SIP program and Preservation, Inc. will ensure a system in which recently non-certified acres verifiably continue to meet all Order/Third Party requirements. Common reasons for partial removal of a ranch from SIP include vine redevelopment and grafting on a subset of rows, or application of a non-approved pesticide.
- Ag NOI is modified to allow operators to enter their SIP Certification ID, which could direct them to an alternative response form if recordkeeping needs dictate.
- SIP Certified documentation includes all required components of the ILRP Farm Plan and an annual farming practices survey.
- SIP Certified and Preservation, Inc staff will regularly review water quality data (nature and location) to confirm that no vineyard-related water quality impairments are present at monitoring sites in the vicinity of SIP Certified ranches.
- If a SIP Certified ranch is located in a watershed to which Follow-up requirements apply, the SIP Certified program documentation and practices will generally serve to fulfill required Follow-up actions. However, Preservation, Inc and SIP staff will also review finer-scale water quality data to confirm that SIP Certified ranches are not causing or contributing to impairments.

C.1.4 Minimum Criteria

Capacity & Expertise. The Vineyard Team has worked for 25 years with Central Coast growers and has administered the SIP Certified program for 14 years. SIP licensing fees pay for staff resources. SIP is not reliant on outside funding sources and has capacity to proceed.

Continuing Education. The Vineyard Team offers in person and online water quality education programs. SIP Certified requires continuing education to be certified.

Data Management. SIP Certified has an existing database which collects information on SIP Certified operators relating to farm practices, irrigation/nutrient use, acreage, location. Staff will submit data and summary reports to Preservation, Inc. (to be batched with data from non-SIP members) in a sufficiently detailed format to meet all Order/MRP requirements. Preservation, Inc. will be responsible for final data validation and submittal.

Management & Administration The Vineyard Team has professional staff with technical expertise and is qualified to manage this cooperative agreement, provide data analysis, and troubleshoot with Preservation Inc to deliver value to all stakeholders.

Membership & Fee Accounting. SIP Certified collects licensing fees as a requirement of certification. SIP Certified has requested an adjustment to Third Party fees for participating growers to reflect the lower burden to Preservation, Inc. to manage the SIP Certified subset. The Ag Committee will consider this request at its next cost-allocation and budget meeting.

Member Requirements. SIP Certified has established rules for achieving certification.

Physical Presence. SIP Certified has a physical location and staff in Atascadero. Staff has a long-term relationship with SIP Certified operators, Preservation, Inc. and Water Board staff.

Transparency and Accountability. SIP Certified rules, standards, committees and participants are displayed on the website [www.sipcertified.org].

C.1.5 Related Experience & References

Kris Beal, M.S. Executive Director, Vineyard Team. Kris has led the Vineyard Team since 1998, overseeing several Regional Board water quality related demonstration projects, and has technical expertise in soil-plant-water relationships. Kris holds a MS in Agriculture from Cal Poly and previously worked at the Irrigation Training Research Center, Cal Poly and co-authored the Fertigation text book.

Beth Vukmanic, SIP Certified Director. Beth has led the SIP Certified program since 2008 and oversees all aspects of the program: grower outreach, peer review of SIP standards, inspector accreditation, rules review, advisory committee coordination. Beth holds a Bachelors of Science in Ag Business from Cal Poly and is deeply connected to agricultural issues on the Central Coast through her close collaboration with industry members, regulators, and academics.

C.1.6 Schedule

Certification applies to a calendar year. Final certification is assigned in December. SIP Certified staff will deliver data and summary reports to Preservation, Inc annually, unless required more frequently to meet Order/MRP requirements that apply to Preservation, Inc.

C.1.7 Readiness to Proceed

The Vineyard Team has administered the SIP Certified program for 14 years and has existing standards, rules, governance, and data management systems in place.

C.1.8 Third Party Certification

C.1.8.1 SIP Certified Protects Water Quality

Growers that are SIP Certified present a lower risk to water quality in terms of the types and amounts of inputs and potential off-site transport of soil, water, nutrients, and pesticides. SIP Certified vineyards effectively control discharge and implement management practices to protect water quality, and therefore the certification is consistent with the Order's overarching intent.

Below are examples of specific practices that are required to be SIP Certified. These practices have proven effectiveness for water quality protection, and many were developed by the NRCS, UCCE, etc. If a grower does not implement or cannot document a specific practice, they will not be certified. In addition to the specific prescribed requirements, growers are required to implement additional practices to achieve the minimum point score.

1. SIP Certified vineyards are prohibited from applying many specific pesticides previously associated with water quality problems.
2. SIP Certified vineyards are required to account for all sources of nitrogen inputs through fertilizer, water, and amendments.
3. SIP Certified vineyards are required to utilize drip irrigation, manage irrigation based on water budgets and real time information, and do not have tailwater.

4. SIP Certified vineyards are required to implement winter cover crops, in addition to a number of practices that are recognized to reduce the offsite movement of soil and water.

All of these practices are independently inspected and verified.

This certification program goes beyond certifying a PLAN; rather SIP Certified growers are required to IMPLEMENT specific practices that protect water quality.

C.1.8.2 Quantifiable Water Quality Results

SIP Certified and Preservation Inc will collaboratively review water quality, INMP and groundwater data to inform assessments and/or modifications to the program.

For the most part, SIP Certified vineyards are not located in watersheds requiring Follow-up. For vineyards that are in Follow-up watersheds, Preservation Inc and SIP Certified staff will review CMP data, upstream monitoring data (if applicable), and site specific conditions to assess potential contribution to identified impairments and develop a site specific approach for the ranch.

Some SIP Certified vineyards may overlay an impaired groundwater basin that requires Follow-up. However, since the vast majority of SIP Certified vineyards meet the final (2050) N discharge limit, no additional actions are necessary.

In the event of a site specific situation resulting in surface water impairment or a higher risk of problematic N discharges to groundwater, Follow-up actions will be performed as necessary by the grower as necessary with guidance from SIP Certified staff, Preservation, Inc., and/or outside technical assistance providers.

C.1.8.3 Irrigation & Stormwater Runoff Management, Including Sediment

There is no irrigation runoff in vineyards. To reduce and filter potential stormwater runoff, winter cover crops must be maintained. In addition, BMPs to prevent off site movement of soil and water are required and may include filter strips, mulchings, hay bales/straws, jute nettings, silt ponds, waddles, and vegetated ditches.

C.1.8.4 Riparian Area Management

Vegetated Perimeter Buffers are required no less than 25 feet from the edge of perennial streams and wetland areas.

C.1.8.5 Groundwater Protection

Vineyards have minimal deep percolation and minimal nitrogen applications and do not represent a threat to nitrogen leaching to groundwater.

A ranch-specific water budget is generated annually to track total water the vineyard receives during the season from rainfall, frost protection, and irrigation. Irrigation system distribution uniformity evaluations are required on a recurring basis.

Irrigation scheduling tools are required to inform in-season scheduling decisions, including soil based monitoring devices to track soil moisture depletion, or plant based monitoring devices to monitor the moisture status of the vineyard, and evapotranspiration (ET).

A ranch-specific nutrient budget is developed annually based on the vineyard's nutrient application plan. Well water quality analysis and soil sampling are required for nutrient content, pH, Electrical Conductivity (EC), and toxicities every five years plus annual tissue sampling. Documentation and knowledge of soil series, permeability, and runoff rates of vineyard soils are also required.

Wellhead protection is required to prevent contamination.

C.1.8.6 Pesticide Management & Chemical Storage

SIP Certified Prohibits Use of High Risk Pesticides that are included on any of the following regulatory agency lists: California DPR Groundwater Contaminants; Toxic Air Contaminants; Cholinesterase Inhibitors; California Restricted and EPA Federally Restricted Materials. These materials are reviewed and updated annually based on the state and federal designations.

Monitoring and Recording of pest, disease, and weed pressure at regular intervals throughout the growing season. Equipment calibration and spot treatment is required.

Chemical storage must be designed to contain spills. Liquids are stored separately from dry materials. Dry materials are elevated above spill zone. Mixing and loading are conducted in areas of low runoff hazard.

C.1.8.7 Certification Verification

Certification is awarded using an arms length structure (i.e. not by grower and not by SIP-Certified staff) using a CAC as described above (including a Water Board representative) through review of blind inspector reports.

C.1.8.8 Inspection and Audit Regimes

SIP Certified properties receive a full onsite inspection and records review on Year 1 of their certification cycle. In Years 2 & 3 of the cycle, they receive a records inspection. Growers may be selected for a random on-site inspection in years 2 & 3. Approved inspectors are selected and trained by SIP staff and are selected after an application process.

C.1.8.9 Point Systems

In order to be eligible for SIP Certified, growers must reach 75% of the available total points and 100% of the requirements. Standard questions are weighted based on importance and relation to water quality.

C.2 TREATMENT SYSTEMS FOR SURFACE WATER FOLLOW-UP IN CENTRAL COAST WATERSHEDS

... in partnership with Preservation, Inc.

Ross Clark, Director, Central Coast Wetlands Group (CCWG)
Don Chartrand, Executive Director, Creek Lands Conservation (CLC)

C.2.1 Goal & Performance Metrics

To provide Preservation Inc. with technical and programmatic support to meet Ag Order and MRP 4.0 requirements for Follow-Up Surface Receiving Water Implementation in prioritized watersheds, particularly where greater challenges are anticipated in meeting Numeric Limits on the timelines designated in the Order/MRP. Within these areas we will provide treatment system recommendations at spatial scales best suited to meet the water quality needs of then ILRP and the operational and maintenance requirement needs of the farmers within that subdrainage. Performance will be measured as concentration and/or load reductions for water quality constituent(s) of concern targeted by each treatment system.

C.2.2 Who We Are

We represent a newly expanded partnership between two of the premier wetland and creek restoration programs on the Central Coast focused on solving on-the-ground water quality challenges through partnerships with local landowners.



C.2.3 Central Coast Wetlands Group Qualifications

Central Coast Wetlands Group has worked on wetland restoration, water quality monitoring and watershed policy challenges within the working landscapes of the northern portion of the Central Coast for more than 20 years (Salinas and Pajaro Valleys). Our focus has been on finding the best project designs to meet the hydrogeomorphic challenges within that particular watershed. Our research team collaborates with scientists from a number of Central Coast and State universities to improve methods to quantify the benefits of our restoration and water quality treatment projects for habitat and water quality. Website: <https://mlml.sjsu.edu/ccwg/>

Ross Clark, Director: Ross is an ecologist with 22 years of experience developing environmental programs for coastal communities including: wetlands restoration and ecology, water quality monitoring, nutrient load reductions through wetland restoration, integration of environmental objectives with agricultural business goals, coastal planning, and identifying climate change mitigation opportunities and potential impacts from sea level rise. He also participates on numerous regional environmental commissions and committees and authors a monthly environmental article for the local newspaper.

Kevin O'Connor, Program Manager: Kevin is an ecologist specializing in wetland restoration, monitoring and assessment, and is the Project Manager for CCWG. Kevin is involved with wetland and upland restoration in the Moro Cojo Slough, the development of a rapid assessment method (CRAM) for multiple wetland types in California, and participation with the California Wetlands Monitoring Workgroup. He also serves as one of the central coast liaisons for the Level 2 Committee of the CWMW.

Jenny Balmagia, Lower Salinas Valley Watershed Coordinator: Jenny is a water resources scientist with a background in ecology, wetland restoration and assessment, and water quality monitoring. She earned her Master's degree in Environmental Science and Management specializing in water resources management from the Bren School of Science & Management at UC Santa Barbara. In her role as watershed coordinator, she is responsible for coordinating the planning and design of multiple benefit watershed projects through facilitating interagency coordination and partnership development with regional stakeholders including the local Groundwater Sustainability Agency, Integrated Regional Water Management Program, and agricultural entities. She also serves as a committee member on the Salinas Valley Basin Groundwater Sustainability Agency Langley Subbasin Committee.

C.2.4 Creek Lands Conservation Team Qualifications

Creek Lands Conservation's volunteers, scientists, and partners are the backbone of regional conservation efforts to restore and strengthen the vitality of Central Coast ecosystems. Our mission is to conserve and restore Central Coast watersheds and nearshore marine ecosystems through conservation science, environmental education, and stewardship action. Our involvement complements CCWG and adds a body of experience in the southern sections of the Central Coast that CCWG hasn't historically worked in. We express the watershed component of our mission strategically through collaborations with landowners to develop voluntary solutions for water security, habitat enhancement, and fish migration. We have compiled critical streamflow data across regional watersheds and are working with key partners to establish lasting processes with multiple benefits. Website: www.creeklands.org

Don Chartrand, Executive Director, former healthcare executive and avocational naturalist working with California nonprofit watershed conservation organizations, Don joined CLC in 2018. Applying his experience in science-based businesses to emphasize operational excellence and program effectiveness, Don will be responsible for project financial and operational oversight.

Steph Wald, Watershed Projects Director, has a B.S. in Forest Biology and an M.S. in Biology with an emphasis in Restoration. Steph has provided CLC with watershed projects leadership for 18 years and has completed 6 stakeholder-driven watershed management plans as convener, facilitator, and plan writer. All plans have included a robust water quality component. She will be responsible for overall project management as well

as convening team and landowner meetings and coordination with legal. She will also be developing permitting needs, reviewing all deliverables and contributing to technical review and design program elements.

Aleksandra Wyzdga, Chief Science Officer, holds a B.S. in Hydrology with an emphasis in aquatic biology from the University of California, Santa Barbara, and a M.S. in Civil and Environmental Engineering from the University of Washington. With CLC for 8 years, Aleksandra has over 20 years of private and public sector experience in streamflow enhancement, riverine management, river restoration projects, and water quality monitoring projects throughout the Western United. Aleksandra's area of expertise includes surface water monitoring of water quality and ecologically significant flows; restoration engineering design and construction; streamflow enhancement design; surface-groundwater connectivity; hydrologic, hydraulic, geologic, and geomorphic assessments; sediment transport and sedimentation studies; hydro-geomorphic response to human modification of the landscape and of drainage networks; riverine processes; and salmonid habitat formation and maintenance.

Tim Delany, Staff Hydrologist, has a B.S. in Environmental Management and Protection with a concentration on hydrology from California Polytechnic State University, San Luis Obispo. Tim's work with CLC includes conducting and organizing environmental monitoring and providing data analyses for reports and decision support. He designs and implements monitoring plans for surface and groundwater systems, with an emphasis on streams exhibiting microflow or ephemeral behavior. Tim's technical experience includes the siting, installation, and maintenance of stream gages and stream gage records, storm frequency analysis, rating curve development, suspended sediment analysis, streamflow mapping, groundwater level monitoring, water quality, and biotic monitoring. He is also the in-house GIS specialist at CLC and translates field data and narratives into map products.

C.2.5 Areas of Support

Load Reduction Projections

We will work with Preservation Inc., local landowners and/or growers, and Regional Board staff to identify surface water off-farm load reduction objectives and use recently developed load reduction data and models to identify the scale of treatment systems needed to achieve these reductions. We will reference load reduction estimates for various treatment systems and load reduction potential of other California efforts to provide scientifically defensible load reduction estimates for treatment systems.

Treatment Option Identification and Cost Benefit Analysis

We will work with partners to select opportunity areas for the placement of treatment systems that address the local hydraulic challenges and landowner concerns. We will identify project priorities that can be implemented in a phased approach that predict the incremental load reduction benefits, identify design and operational challenges and estimate costs to operate. We will work with Preservation Inc. to obtain agreement of landowners and/or growers within selected drainages to adopt off-farm treatment systems as part of a sub-watershed cooperative agreement. This process of identifying load reduction benefits, operational costs and real estate needs will also aid landowners/growers in decision-making around on-farm management practices and compliance at the ranch level.

Initial Siting and Design of Constructed Projects.

We will work with local engineers (local consulting firms, RCDs, and NGOs) to draft 30% (concept) and 65% (ability to give probable cost estimate) designs of preferred treatment systems needed for easement negotiations, permitting and application for state and federal grant matching funds.

Matching Fund Attainment

We will work with Preservation Inc. and local partners to apply for implementation money (State bond and USDA Farm Bill funding) to provide matching funds to support the construction of water quality treatment projects that help implement local Surface Water management strategies and local TMDLs for nutrients and other contaminants. To the extent possible, we will align our efforts with other local entities such as GSAs, flood control agencies, etc.

Contract administration

We will work with Preservation Inc to acquire matching funding to support construction of the selected projects. We will work with local partners to design and construct selected projects and establish long term maintenance agreements that meet the fiscal and operational needs of participating landowners and/or growers.

Monitor Load Reduction Results

We will implement monitoring efforts needed to document project success (load reductions, water quality benefits) and integrate these project-specific load reduction data with CMP watershed loading data to aid obtainment of Third Party compliance requirements established by the Order/MRP.

TMDL/303d Alignment

CCWG will work with Preservation Inc. and the Central Coast Regional Water Board to collect and analyze cumulative receiving water data to document incremental improvements in receiving water quality. We will align watershed project implementations dates with documented water quality improvements similar to successful work completed in the Moro Cojo watershed. When stepwise incremental improvements are documented (not discerned using standard trend analysis), we will provide written documentation to Preservation Inc. for use in conversations with Regional Board staff.

Data Management

Data will be collected, managed, and reported according to accepted SOPs and, if desired, an approved QAPP and SAP. Water quality and participation data will be reported as required by the Order and MRP to document compliance.

Membership and Fee Accounting

Rather than form a separate Third Party, the CCWG/Creek Lands Conservation partnership will act in alignment with and as a technical service provider to Preservation, Inc. and its members. Membership, eligibility, and general Third Party program fees will be managed by Preservation, Inc. Additional costs, such as the on-going operation and maintenance of specific treatment systems, will be allocated by agreement between participating growers and/or landowners and, if applicable, the Ag Committee and/or Preservation, Inc. Board. Participation in a CCWG/Creek Lands Conservation collective treatment project will never be mandatory, however growers who elect not to participate in an available treatment opportunity may need to demonstrate the ability to comply with water quality objectives in another manner.

Thank you for your consideration.

Sincerely,



Ross Clark, Director, Central Coast Wetlands Group (CCWG)

A handwritten signature in black ink, appearing to read "D Chartrand". The signature is cursive and somewhat stylized.

Don Chartrand, Executive Director, Creek Lands Conservation (CLC)