

## Lesson Plan 1.

### Where and When are RWQPs Needed?

#### Goals/Overview:

This first lesson is an overview offering reasons for and benefits of having an RWQP. In some cases ranchers and landowners must develop an RWQP to be in compliance with a water quality regulatory program, while others may voluntarily develop a plan to demonstrate their proactive approach to addressing and documenting work to enhance water quality. The [RWQP Template](#) worksheets were created to comply with specific regulatory programs, and were designed to be used as a grazing and project management tool that can benefit any grazing operation, regardless of regulatory actions.

If there is a regulatory program in place or in development, landowners and ranchers can often be included in guiding the local regulatory process and compliance mechanisms through engagement opportunities that Regional Water Quality Control Boards may offer, along with agricultural organizations. Existing regulatory programs and partnerships in other regions that have functioned well provide examples from which to create programs in newly regulated watersheds. Building on an existing regulatory framework allows more opportunities to incorporate approaches that improve aspects of ranch management beyond water quality.

#### Learning Objectives:

1. Learn the current situation with water quality regulations and how the RWQP will help ranchers and landowners comply with regulations, if applicable, and enhance water quality.
2. Understand UCCE's history with RWQPs and the NRCS's history with conservation planning in California and the United States.
3. Learn about development of voluntary ranch water quality short courses in California during the 1990s.
4. Become familiar with the definition of total maximum daily load (TMDL), impaired waterbodies, and implementation plan approaches for a specific watershed. Details of TMDLs and the Clean Water and Porter Cologne Acts will be covered in Lesson Plan 2.
5. Understand components of the RWQP, some of which may be required for compliance in a regulatory program and some of which may be optional.
6. Discuss and differentiate natural, historical, and current management impacts on water quality and how each may be treated by the regulatory agency.
7. Understand how an RWQP's components, scope, and schedule will depend on roles, partners, relationships, resources, and so on.

#### Introduction/Hook:

- Review and discuss the role and benefits (ecosystem services) of managed livestock grazing for grassland diversity, wildlife, and reducing wildfire risks, as well as its utilization of forage fiber for producing meat and other consumer products.
- Find local examples of how ranchers and landowners have benefited or could benefit from having an understandable methodology and plan for addressing water quality issues that can also help them improve other aspects of ranch management.

#### Materials/Speakers:

- Provide handouts of proposed and/or pertinent regulations.
- Invited speaker from Regional Water Board staff to explain regulations and be available for questions.
- Provide example of binders or other materials provided from other RWQP programs in California (Tomales Bay or Napa/Sonoma watersheds).
- Educational video: "[Overview of Water Quality and Grazing Management](#)" (7 minutes).
- Educational video: "[Grazing Water Quality Partnership](#)" (8 minutes).

- Food and beverages: Snacks and coffee/tea suffice during introductory meetings.

### Time Allocated:

Allow 1 to 2.5 hours (30 minutes for presentations and 20 to 90 minutes for questions). Times are flexible to allow participants to articulate frustrations or confusion and to get as many questions answered as possible—while starting to build relationships with resource agency staff.

### Procedures/Activities/Strategies/ Questions:

- Welcome; attendees introduce themselves.
- Ascertain what percentage of attendees are landowners, livestock managers, and/or agency staff.
- Explain and discuss the purpose and goals of the program. The purpose of some programs may be to help ranchers create RWQPs to comply with a specific regulatory action. Other programs may be voluntary efforts to create RWQPs to preempt regulatory actions.
- Consider having Regional Water Board staff explain their board's approach to water quality on grazing lands and the status of any regulatory actions.
- Present video: “[Overview of water quality and grazing management.](#)”
- Share stories of local storm and erosion events that attendees remember or know.
- Discuss importance of setting realistic goals to have successful water quality improvements. Briefly review any relevant case studies: 1) No single practice fixes water quality all at once; 2) Numerous practices implemented and improved upon over time have been successful in restoring watershed functions (20 minutes).
- Present video: “[Grazing Water Quality Partnership.](#)”
- Allow extra time for plenty of questions from ranchers.
- Introduce the local conservation partnership that offers support for agricultural producers and consists of staff from agencies (for example, NRCS, resource conservation districts (RCDs), UCCE, Farm Bureau, consultants, land trusts, and so on).
- Briefly describe grants and cost-share programs available to local ranchers and how an RWQP will help make grants more accessible.

### Conclusion/Self-assessment:

- Complete the Session Evaluation Form (appendix A).
- Understand how water quality regulations may impact local ranchers, as well as who needs to comply and why.
- Understand how engagement in the RWQP process and conservation partnerships can open doors to resources for local ranchers to improve water quality and animal production.
- Brainstorm other high-priority questions that require clarification.
  - Filing of plans on ranches.
  - Obligations of landowners and lessees.
  - Required conservation practices, if any. Many people ask if all streams need exclusionary fencing to be in compliance.

### Resources:

- George, M., S. Larson-Praplan, J. Harper, D. Lewis, and M. Lennox. 2011. California's Rangeland Water Quality Management Plan: An update. Rangelands. February: 20–24. [http://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/tomalespathogens/Calif.Rng.WQMP.2011.pdf](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/tomalespathogens/Calif.Rng.WQMP.2011.pdf)
- Larson, S., K. Smith, D. Lewis, J. Harper, and M. George. 2005. Evaluation of California's rangeland water quality education program. Rangeland Ecology & Management 58(5). [https://ucanr.edu/sites/UCCE\\_LR/files/180937.pdf](https://ucanr.edu/sites/UCCE_LR/files/180937.pdf)
- San Francisco Bay Regional Water Quality Control Board. 2007. Tomales Bay pathogen TMDL, TMDL implementation, grazing waver program. [https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/tomalesbaypathogenstmdl.html](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/tomalesbaypathogenstmdl.html)
- San Francisco Bay Regional Water Quality Control Board. 2017. Conditional waiver program for grazing operations in the Napa River and Sonoma Creek watersheds. [http://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/grazing/](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/grazing/)

### Next Steps/Lessons:

- Consider when erosion occurred on your ranch and why.
- Find previously completed conservation plans or ranch plans.
- Plan how to adapt calendar and RWQP Guide to local needs.