

Napa Valley Subbasin Groundwater Pumping Reduction Workplan

Napa County GSA TAG Meeting

Overview

1. Groundwater Pumping Reduction Workplan
2. Feedback from Certification Programs
3. Existing and Potential Water Conservation Practices
4. Next Steps



GROUNDWATER PUMPING REDUCTION WORKPLAN

Groundwater Pumping Reduction

- Guiding Framework:
 - Focus on voluntary actions that achieve groundwater benefits for the Subbasin
 - Assess the costs and benefits of alternative actions and focus on those that are most cost-effective
 - Leverage existing programs and opportunities to generate value from a suite of voluntary actions
 - **Include adaptive management to adjust the program as data and sustainability indicators evolve**

Groundwater Pumping Reduction Workplan



Voluntary Approaches to Reduce Pumping

Field-level measurement
Best management practices
Education
Benchmarking
On-farm practices
Other practices
Adaptive management



Subbasin Use Benchmarking and Tracking

Remote sensing, metering
Well permitting
Groundwater trends



Communications and Engagement

Outreach and engagement
Technical Advisory Group
Education and resources



Steps for Implementation


Assess effectiveness
Implement adaptive measurement and potential mandatory measures, pending effectiveness of voluntary efforts



FEEDBACK FROM CERTIFICATION PROGRAMS

Voluntary Certification

- Certification programs reviewed and contacted so far:
 - California Sustainable Winegrowing Alliance
 - Napa Green
- Certification programs reviewed but not yet contacted:
 - Sonoma County Sustainable Winegrowing
 - Fish Friendly Farming
- Other pending outreach:
 - Napa County Farm Bureau
 - Napa RCD
 - Napa Valley Grapegrowers
 - Napa Valley Winegrowers



Are there other entities, individuals, or certification programs that we should meet with as part of GPR Workplan development?



EXISTING AND POTENTIAL GPR WORKPLAN WATER CONSERVATION PRACTICES

Practices Being Analyzed

- On-farm practices
 - Water measurement
 - Distribution uniformity
 - Irrigation system efficiencies
 - Soil moisture monitoring
 - Canopy management
 - **Row orientation**
 - Rootstock selection
- Regional water management practices
 - **Recycled water**
- Other water management practices
 - **Process water for landscaping**
 - **Waterless (e.g., UV) barrel sanitation**
 - Benchmarking



Does this list look complete? If not, what others should we include for analysis?

GPR Workplan


- The GPR Workplan will have detailed information for each water conservation practice
- A matrix concept was developed to summarize key information in a concise format
 - Costs
 - Benefits (private)
 - Benefits (water savings)
 - Implementation Timeline
 - Overall Feasibility
 - Other Required Studies

Matrix Conceptual Overview

Practice	Cost	Benefit, Private	Benefit, Water Savings	Implementation Timeline	Overall Feasibility	Other Required Studies
Unit	\$/AF	\$/AF	AFY	years	Ranking	Description
On-Farm Practices						
Water Measurement						
Distribution Uniformity						
Irrigation System Efficiency						
Soil Moisture Monitoring						
Canopy Management						
Row Orientation						
Rootstock Selection						
Regional Water Management Practices						
Recycled Water						
Other Water Management Practices						
Processing Water Treatment and Reuse						
Waterless (UV) Barrel Sanitation						
Benchmarking						

Analysis In Progress

Proposed Scoring	High	Low	Low	Long-term	Low
	Medium	Medium	Medium	Mid-term	Medium
	Low	High	High	Short-term	High



Does the matrix concept provide a useful simplification of the GPR Workplan water conservation practices? What other criteria should be considered?



SUMMARY AND NEXT STEPS

Looking Forward to Next Steps

- Continue to develop and review certification programs and voluntary conservation practices
 - Outreach is in progress
 - Analysis is in progress
- Establish water savings attributable to selected practices
 - In coordination with other team members and experts
- Analyze costs and benefits of selected practices
- Rank practices for feasibility for Napa County GSA and present results to TAG to receive feedback
 - Using matrix format to summarize outputs
- Develop suite of options for practices and include in the GPR Workplan