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Agenda

Meeting No. 3

Eel River Valley Groundwater Working Group

Monday, February 22, 2016
1:00 – 2:00 pm

Humboldt County Agricultural Center

1. Introduction (5 min.)
   - Review agenda, personal introductions

2. Proposition 1 Grant Program (15 min.)
   - In January, DWR announced that the County's grant application for the Eel River Valley Groundwater Basin Assessment and Planning Project ($250,000) was recommended for funding
   - Review scope of work, timeline, next steps

3. Update on Alternative Submittal Process (5 min.)
   - Basis for filing, DWR assessment of submittal

4. Summary of Water Supplier Information (10 min.)
   - Review results from eight water supplier interviews

5. Presentation of monitoring data by Cheryl Laffranchi (15 min.)

6. Update on the Humboldt County Resource Conservation District's Irrigation Water and Fertigation Management Planning Project (5 min.)

7. Set Next Meeting Date (5 min.)

Eel River Valley
Groundwater Working Group

Meeting No. 3

February 22, 2016
1:00 pm – 2:00 pm

Humboldt County Agricultural Center

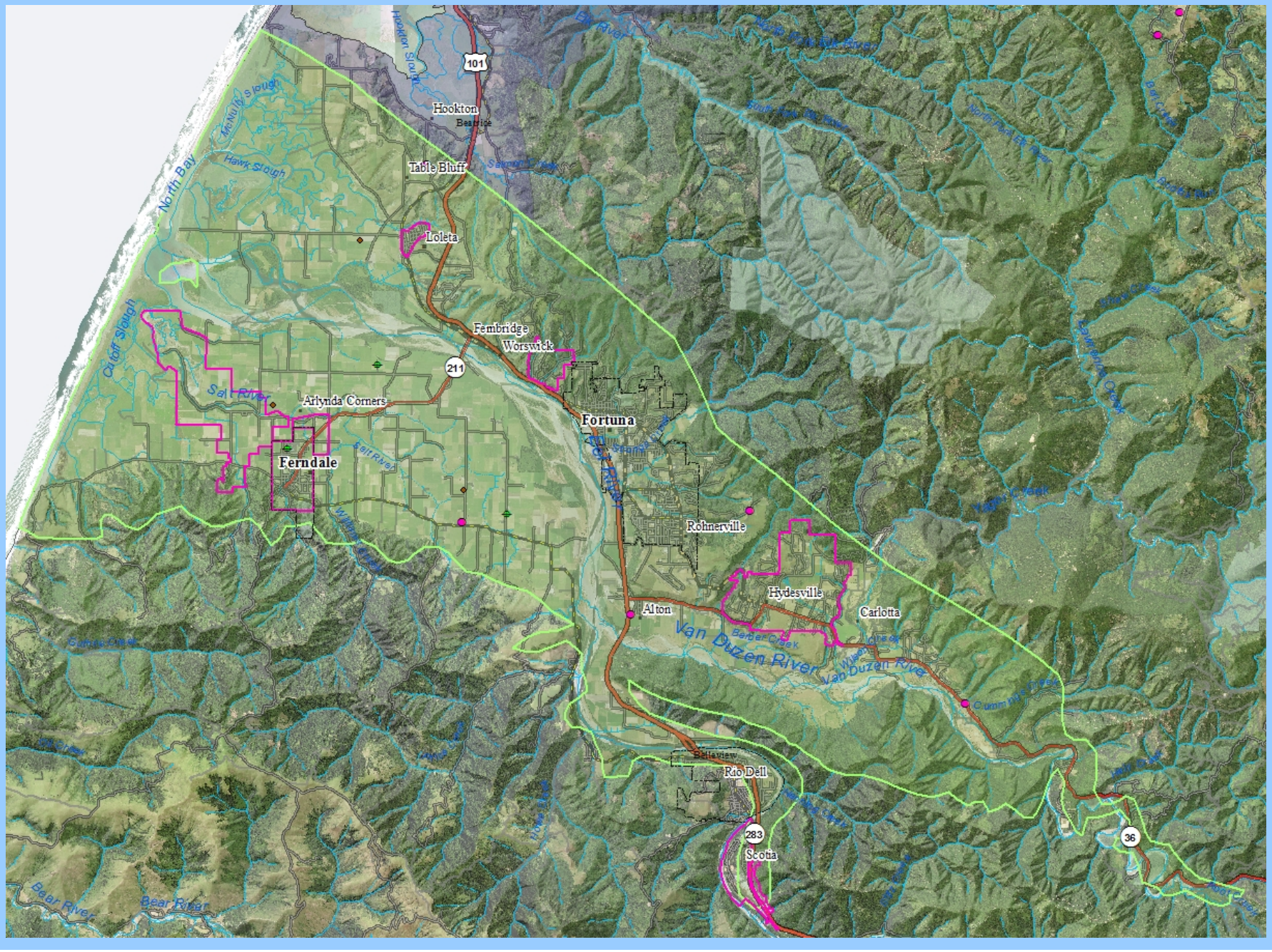
Public Works Department

http://humboldtgov.org/groundwater

Today's Agenda

1. Introduction
    - Review agenda, personal introductions, review last meeting
2. Update on DWR Guidelines and Compliance Timeline (5 min.)
3. Proposition 1 Grant Program (15 min.)
    - Review scope of work, timeline, next steps
4. Summary of Water Supplier Information (10 min.)
    - Review results from eight water supplier interviews
5. Presentation of monitoring data from Cheryl Laffranchi (15 min.)
6. Update on RCD's Irrigation/Fertigation Planning Project (5 min.)
7. Set Next Meeting Date

Eel River Valley Groundwater Basin



Working Group Ground Rules

1. Use people's time wisely; make comments concise
2. Stay on topic, follow the agenda
3. Be respectful of other speakers, refrain from talking over others
4. Continuity of members and regular attendance at meetings is important
5. Set goals or desired outcomes for meeting
6. Meeting dates should be scheduled in advance

General Timeline for Sustainable Groundwater Management Act

	State	Local
2016	Feb. 18: DWR released draft guidelines for content of local groundwater plans and review criteria June 1: Deadline for DWR to adopt final regulations	
2017	DWR to publish Bulletin 118 – Interim Update (boundaries, prioritization)	Jan. 1: Due date for "alternative submittals" June 30: Groundwater sustainability agencies established for all high- and medium-priority basins
2018		
2019		
2020		
2021		
2022		Jan 31: Groundwater sustainability plans adopted for high- and medium-priority basins not in critical overdraft
2042		Achieve sustainability goal

Water Code Section 10733.6

10733.6. (a) If a local agency believes that an alternative described in subdivision (b) satisfies the objectives of this part, the local agency may submit the alternative to the department for evaluation and assessment of whether the alternative satisfies the objectives of this part for the basin.

(b) An alternative is any of the following:

(1) A plan developed pursuant to Part 2.75 (commencing with Section 10750) or other law authorizing groundwater management.

(2) Management pursuant to an adjudication action.

(3) An analysis of basin conditions that demonstrates that the basin has operated within its sustainable yield over a period of at least 10 years. The submission of an alternative described by this paragraph shall include a report prepared by a registered professional engineer or geologist who is licensed by the state and submitted under that engineer's or geologist's seal.

(c) A local agency shall submit an alternative pursuant to this section no later than January 1, 2017, and every five years thereafter.

Draft DWR Guidelines (Feb. 18, 2016)

(3) An alternative submitted pursuant to Water Code Section 10733.6(b)(3) shall demonstrate that no undesirable results are present in the basin or have occurred between January 1, 2005, and January 1, 2015. Each subsequent submission shall

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February 18, 2016

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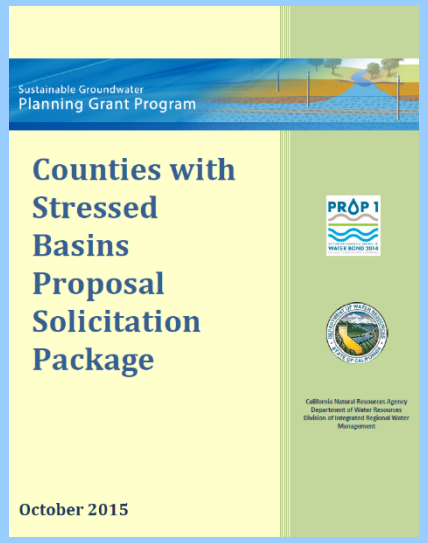
demonstrate that no undesirable results are present in the basin or have occurred for the preceding ten-year period.

Proposition 1 Grant Program

County	Proposal Title	Proposal Score (Out of 20) and Evaluation	Total Proposal Cost	Grant Amount Requested	Draft Funding Recommendations
Butte	Evaluation of Restoration and Recharge Potential Within the Groundwater Basins of Butte County	12	$249,272	$249,272	$249,272
Colusa	A Program to Advance Groundwater Sustainability for Colusa County through Policy, Institutional, and Technical Refinement	17	$375,932	$250,000	$250,000
Fresno	Kings/Westside Groundwater Basin Boundary Monitoring Program	18	$500,000	$500,000	$500,000
Glenn	Data Management and Hydrogeologic Conceptual Modeling to Support a Groundwater Model in Support of Sustainable Groundwater Management Activities	15	$259,962	$249,962	$249,962
Humboldt	Eel River Valley Groundwater Basin Assessment and Planning Project	12	$270,418	$250,000	$250,000
Kern	Kern County Sustainable Groundwater Planning and Technical Support	17	$1,001,300	$500,000	$500,000
Kings	Kings County Critically Overdrafted Groundwater Basin Modeling Plan	16	$500,000	$500,000	$500,000
Madera	Madera Subbasin and Chowchilla Subbasin Groundwater Sustainability Agency (GSA) Formation	8	$500,000	$500,000	$500,000
Mendocino	Mendocino County Initial Groundwater Sustainability Plan Development	9	$235,414	$200,000	$200,000



Grant Application for Eel River Valley Basin

Project Summary

•The project is a geologic and hydrogeologic investigation combined with initial management planning efforts in response to the Sustainable Groundwater Management Act

•Purpose: provide improved understanding of the basin to support local decision-making; assess whether basin is being managed sustainably for beneficial uses without undesirable results

• Scope includes preliminary water balance and estimate of sustainable yield

•Will support determination on compliance pathway: Groundwater Sustainability Plan or Alternative Submittal

•Aim to collaborate with Working Group, RCD, NRCS, UC-CE, HSU, DWR, USGS

Grant Application for Eel River Valley Basin

Task 1: Compilation of existing data and previous studies

Task 2: New data collection

Subtask 2.1: Exploratory borings

- Six borings (300 feet depth) to support two cross-sections
- Two nested well pairs, two single wells

Subtask 2.2: Surface water/groundwater level coupled monitoring

- Continuous hydrographs with dataloggers at three groundwater monitoring wells and two river monitoring sites for at least six months

Subtask 2.3: Pump tests to measure hydraulic conductivity

Subtask 2.4: Surface water flow measurements during dry season

- Measure Eel River discharge at four locations (min. 4 sampling events)

Grant Application for Eel River Valley Basin

Task 2: New data collection (continued)

Subtask 2.5: Irrigation pumpage estimation

Subtask 2.6: Water level measurements and chloride testing

- Measure groundwater levels and collect samples for chloride testing
- Minimum two sampling events (in conjunction with DWR monitoring)
- Minimum 40 monitoring wells (to supplement the seven DWR wells)

Task 3: Conceptualization of basin hydrogeology and river-aquifer exchange

- Analyze and describe the size, structure, composition, and characteristics of the basin
- Address interactions between water-bearing units, geographic areas
- Address seasonal variability

Grant Application for Eel River Valley Basin

Task 4: Water balance

- Evaluate and quantify the primary water balance components:

  Inputs

  - Deep percolation of rainfall
  - Irrigation/water supply return flows
  - Stream infiltration
  - Subsurface inflow

  Outputs

  - Agricultural pumping
  - Municipal pumping
  - Stream discharge
  - Subsurface outflow

- Develop best estimate and reasonable range for each component
- Discuss variability and uncertainty
- Estimate sustainable yield

Grant Application for Eel River Valley Basin

Task 5: Stakeholder involvement and initial management planning

- Work with Working Group to develop basin-specific definition of sustainability consistent with Sustainable Groundwater Management Act
- Assess historic and current sustainability, discuss future scenarios
- Four (actually five) potential paths of action

Grant Application for Eel River Valley Basin

Task 5: Stakeholder involvement and initial management planning

- Four (actually five) potential paths of action:

	Current Conditions	Future Changes	Action
1	Sustainable	Limited concern for adverse changes	Alternative Submittal
2	Unsustainable	Improvements needed	• Develop objectives to restore sustainability • Prepare GSP
3	Sustainable	Vulnerable to becoming unsustainable in near future	• Develop objectives to maintain sustainability • Prepare Alternative Submittal or GSP
4a	Inconclusive	To be determined	• Secure funds for additional investigation • GSP due by Jan. 2022
4b	Sustainable	Inconclusive	

Task 6: Grant administration

SCHEDULE

Eel River Valley Groundwater Basin Assessment and Planning Project

	Task	2016								2017			
		May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	Compilation of Existing Data and Previous Studies												
2	New Data Collection												
	2.1 Exploratory borings												
	2.2 Surface water/groundwater monitoring												
	2.3 Pump tests												
	2.4 Surface water flow measurements												
	2.5 Irrigation pump estimation												
	2.6 Water levels and chloride testing												
3	Conceptualization of Hydrogeology and River-Aquifer Exchange												
4	Water Balance												
5	Stakeholder Involvement / Initial Management Planning												
6	Grant Adminstration												

Water Supplier Surveys

Background

Summary of Results

SGMA Compliance

Background

- Provide additional data sources
- Understanding of water supplier issues
- Establish working contacts for water suppliers
- Determine level of involvement
  - Interest Group vs. Working Group
- 9 water suppliers in Eel River Basin
- 8 surveys completed to date

Summary of Results

- Number of wells – 15
  - Comparison – 467 agricultural and domestic
- Depth of wells – varies based on location
  - Range in general from 50’ to 170’
  - One at 691’
- Water levels – varies based on location
  - Range from 7’ in winter to 41’ in summer
  - Fluctuations for majority are less than 10’
- Water use
  - Combined 1.57 MGD or 4.82 acre-feet per day
- Population Served
  - Combined 21,227

Summary of Results

- Current issues facing water suppliers
  - Financing
  - Maintenance and upgrades to water system
- Concerns with new groundwater regulations
  - Impacts on ability to deliver water to customers
  - Cost of compliance
  - Extraction fees and impacts on future growth

SGMA Compliance

- Additional data source
  - Well logs
  - Depth to water historic data
  - Geologic studies
  - Industry knowledge

SGMA Compliance

- Potential Future Collaboration Efforts
  - Water quality parameters
  - Saline intrusion monitoring
  - Pump tests

SGMA Compliance

- Assist with GSA formation and GSP creation
  - Understanding water customer needs
  - Consistency with CDPH regulations
  - Assist with policy and procedure development
  - Knowledge of Board processes within Districts
  - Account for population growth in Districts

Humboldt County RCD's Irrigation/Fertigation Project

Set Next Meeting Date

Information will be posted at

www.humboldtgov.org/groundwater