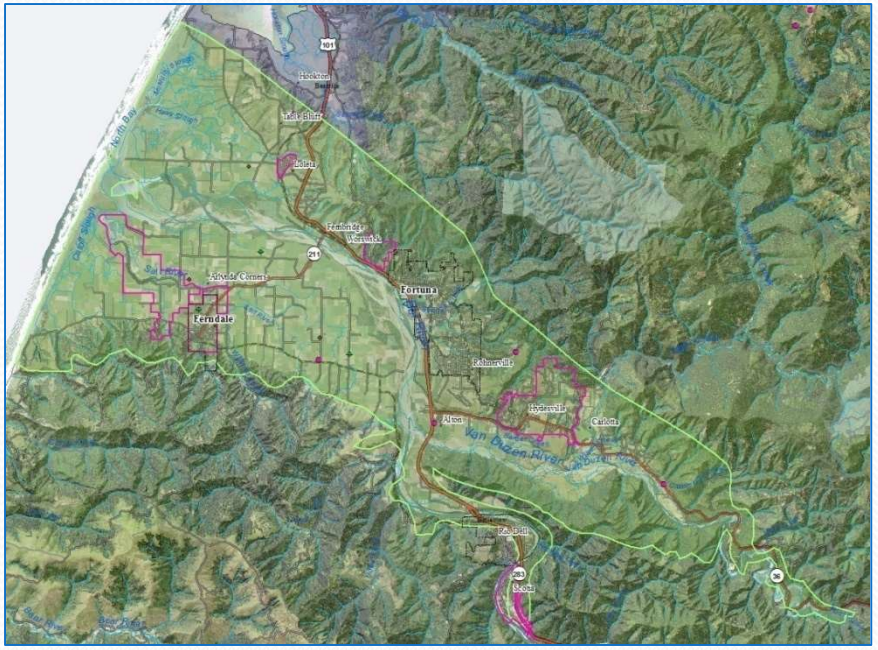
Eel River Valley Groundwater Working Group

November 30, 2020 // 11:00 am – Noon

Video-conference via Zoom



Department of Public Works

http://humboldtgov.org/groundwater

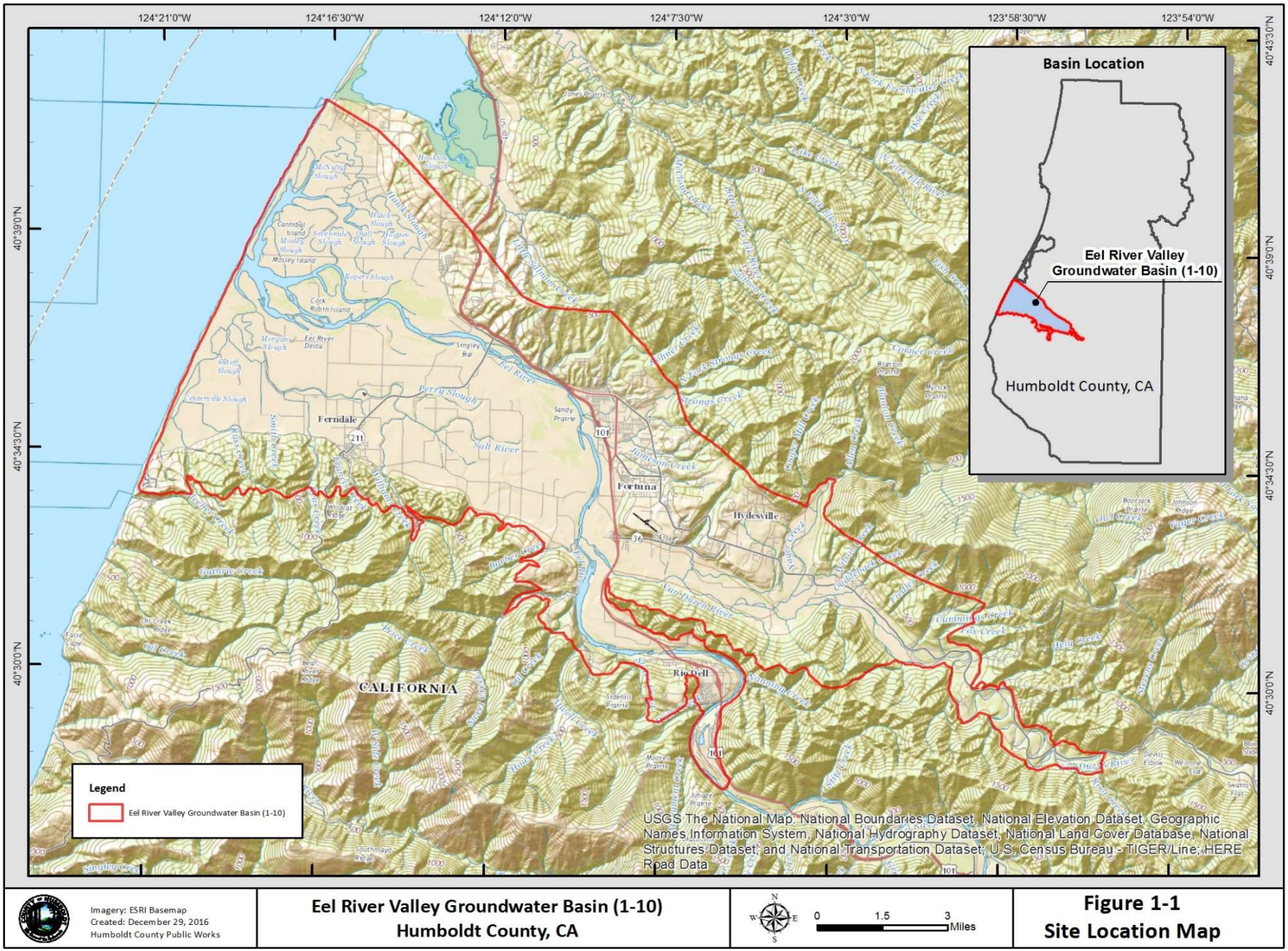
Today's agenda

1. Background review
   - *Sustainable Groundwater Management Act (SGMA)*
   - *Work in Eel River Valley Groundwater Basin (2015-2020)*

2. Groundwater Sustainability Agency (GSA)
   - *Role of GSA, Working Group, potential Groundwater Resources Advisory Committee*

3. Groundwater Sustainability Plan (GSP)
   - *Overview of GSP content*
   - *Work in progress*
   - *Introduction to team developing the GSP*

4. Timeline and opportunities to be involved



Imagery: ESRI Basemap
Created: December 29, 2016
Humboldt County Public Works

Eel River Valley Groundwater Basin (1-10)
Humboldt County, CA

0 1.5 3 Miles

Figure 1-1
Site Location Map

Background Review

- September 2014: SGMA became law (mandatory compliance for medium- and high-priority basins)
- Purpose of SGMA: local groundwater management with state oversight (Department of Water Resources and State Water Resources Control Board) that balances the needs for water supply, irrigation, and environmental uses in the present and future
- Working group convened by Humboldt County in 2015
- Data collection and analysis for Eel River Valley in 2016 ($250,000 grant from DWR)
- December 2016: GSP Alternative (streamlined plan) submitted
- November 2019: DWR disapproved GSP Alternative due to incomplete data/analysis
- November 2019: Humboldt County applied for grant ($1.9 million) to develop full GSP
- March 2020: Most recent Working Group meeting to discuss GSA options
- May 5, 2020: Humboldt County Board of Supervisors formed Humboldt County GSA
- August 2020: Contracts in place to initiate development of GSP (due January 31, 2022)

Roles

Humboldt County Groundwater Sustainability Agency

- Board of Supervisors is decision-making body
- Humboldt County Public Works will coordinate with water users and perform staff work with consultant support
- Formation of GSA avoided intervention by the State Water Resources Control Board
- To date, costs supported by Humboldt County General Fund and two grants from DWR
- GSA has discretion on using legal authorities provided by SGMA
- Humboldt County GSA will make science-supported decisions and consider all groundwater interests
- Humboldt County GSA's first formal decision will be adoption of GSP at end of 2021
- Future decisions will depend on findings and proposed actions in GSP

Roles

Eel River Valley Groundwater Working Group

- Existing, informal organization of stakeholders open to all
- Serves to provide forum for sharing information, viewpoints
- No formal decision-making role

Potential Groundwater Resources Advisory Committee

- Potential formation in mid-2021
- Designated members (likely 7) with formal meetings (Brown Act procedures) open to the public
- Committee would advise Public Works on preparation of GSP and vote on whether to recommend approval to Board of Supervisors

Groundwater Sustainability Plan: Outline

1. Introduction
2. Planning area
3. Basin setting

   - Hydrogeologic conceptual model, groundwater conditions, water budget

4. Sustainability indicators

   - Groundwater levels, groundwater storage, sea water intrusion, water quality, land subsidence, depletion of interconnected surface water

5. Monitoring networks
6. Sustainability thresholds for undesirable results
7. Projects and management actions to eliminate undesirable results (if necessary)
8. Plan implementation

Big Questions for Eel River Valley

1. Does pumping affect river flows during the Summer and Fall?

   - If yes, how much?

   - If yes, does pumping cause a significant and unreasonable adverse impact on the beneficial uses of interconnected surface water?

2. Does pumping affect the intrusion of seawater into the aquifer?

   - If yes, is that effect significant and unreasonable?

3. What is the sustainable yield of the groundwater basin? In other words, how much groundwater could be pumped without causing undesirable results?

Work in Progress

1. Stakeholder engagement and outreach
2. Data collection and analysis
   - 23 new monitoring wells
   - 6 flow meters for voluntary flow measurement of irrigation systems
   - Utilize local weather station installed in early 2019 (Alexandre Dairy)
   - Update agricultural irrigation water use estimate
   - Continuous water level measurements (35 wells)
   - Surface water flow measurements (10 locations)
   - Water quality testing (15 wells) and saltwater intrusion testing (30 wells)
   - Aquifer parameters
   - Assessment of groundwater dependent ecosystems and surface water beneficial uses
3. Hydrologic modeling
   - Computer model will simulate the processes that could have a significant influence on the six sustainability indicators
   - Constructed, calibrated, and validated based on site-specific data from the basin

Team Introduction

1. Hank Seemann, Humboldt County Public Works – project director
2. U.S. Geological Survey – source of existing information, technical assistance and peer review
3. GHD – primary technical consultant
   Subconsultants: SHN, Stillwater Sciences, Thomas Gast & Associates, GEI
   Subcontractors: Northcoast Pumphouse, well driller to be determined
4. Jack Rice, Western Resources Strategies – stakeholder engagement for agricultural operations and support for GSP development
5. Humboldt County Resource Conservation District – stakeholder engagement and support for data collection
6. Summer Daugherty, Humboldt County Public Works – consultant coordinator, data collection coordinator, grant administrator

General Timeline

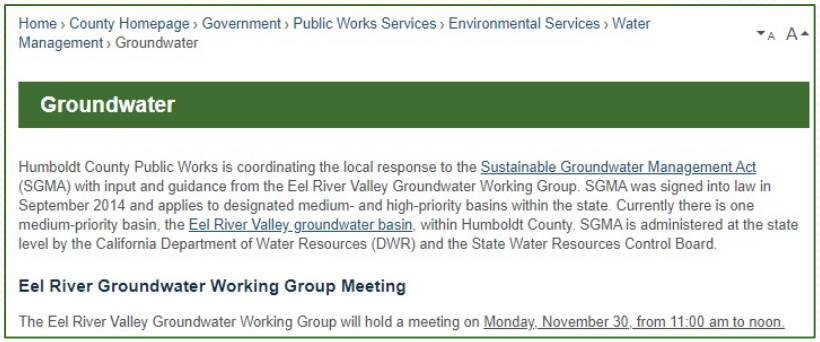
January-February 2021	• Well drilling
Spring-Summer 2021	• Groundwater and surface water monitoring • Surface flow measurements • Irrigation pumping measurements (aiming for six volunteers)
Now through October 2021	• Hydrologic modeling (computer-based)
March, June, September, November 2021	• Working group meetings (possibly transition to advisory committee) • Technical memos and data summaries with preliminary results
June-November 2021	• Development of criteria and minimum thresholds for each sustainability indicator
October-November 2021	• Draft chapters of GSP
December 2021	• Target date for consideration of GSP by Board of Supervisors
January 31, 2022	• Deadline for submission of GSP to DWR

Opportunities to be Involved

1. Request individual discussion or group presentation
   - Humboldt County Public Works (hseemann@co.humboldt.ca.us; sdaugherty@co.humboldt.ca.us)
   - Western Resources Strategies (jack@wrstrat.com)
   - Humboldt County Resource Conservation District (franceshcrcd@gmail.com)
2. Support collection of data and information
3. Participate in irrigation water use study
4. Participate in Working Group (or Advisory Committee) meetings
5. Review interim work products (technical memos and data summaries)
6. Review draft chapters
7. Review final plan and provide comments to Board of Supervisors
8. Provide comments on adopted GSP to DWR

Communication

1. E-mail list
   - To be added to the contact list, send a request to sdaugherty@co.humboldt.ca.us
2. Facebook: Humboldt County Groundwater Sustainability Agency
3. Website: www.humboldtgroundwater.com
4. Presentations at meetings of other organizations and agencies
5. Starting in January 2021, monthly videos (brief updates on specific topics)



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Questions