January 10, 2019

Ukiah Valley Basin Groundwater Sustainability Agency and Technical Advisory Committee
501 Low Gap Road, Room 1010
Ukiah, CA 95482

RE: Release of Draft Chapter 2.1 of the Groundwater Sustainability Plan for Ukiah Valley Groundwater

The Ukiah Valley Basin Groundwater Sustainability Agency (UVBGSA), in coordination with our consultant, Larry Walker Associates, is in the process of developing a draft of the Groundwater Sustainability Plan (Plan) for the Ukiah Valley Groundwater Basin (Plan Area) that must be submitted to the California Department of Water Resources by January 31, 2022.

In order to provide multiple opportunities for review and input from members of the UVBGSA Board and Technical Advisory Committee (TAC), as well as interested members of the public, draft chapter segments will be presented to the Board and Committee for discussion and commenting throughout the Plan development process. This will facilitate discussion of the content of chapters as they are developed, allow time for review and feedback, and ideally generate consensus support over time for the Plan's contents. These draft chapters represent a framework for the final document, and while information has been summarized, public input is needed to identify and fill gaps in data and incorporate local knowledge and viewpoints.

Presented with this letter is Chapter 2.1 of the GSP titled: "Description of the Plan Area". Chapter 2.1 is intended to provide an overview of the existing monitoring and management programs in the Plan Area and highlight how they relate to the development and implementation of the Plan. This section includes:

- 2.1.1 Summary of Jurisdictional Areas and Other Features
- 2.1.2 Water Resources Monitoring and Management Programs
- 2.1.3 Land Use Elements or Topic Categories of Applicable General Plans
- 2.1.4 Additional GSP Elements
- 2.1.5 Notice and Communication

This Chapter in its current form is not complete and includes several notes that point to the type of information missing and the reason for the deficiency. Specific topics identified in the draft version of Chapter 2.1 that require additional input or review are commented using a "bold italic" format in the document and listed in Table 1, below. We intend to first, start the GSA's official review and commenting process by proposing this Chapter as a starting point. Review and commenting process was discussed during the meeting on 9 January 2020, in both the TAC and the Board meetings. Second, we hope to obtain comments from the members on the Chapter, as well as supplementary information and direction regarding the missing or incomplete subsections.

Thank you for taking the time to review the draft documents and provide your input. The responses and feedback gained from this process are appreciated and will be used to guide development of this Plan.

Sincerely,

Laura Foglia, PhD

Table 1. Topics identified in the draft version of Chapter 2.1 that require additional input or review.

Section	Page	Comments
Jurisdictional Areas and Land Use	2	*To be completed with appropriate (as needed) discussion of Russian River watershed and PVP project*
2.1.2 Water Resources Monitoring and Management Programs	4-5	*Feedback is needed to add/delete monitoring entities from the list. Each monitoring program should be explained if/how it will be incorporated or limit the flexibility in the GSP implementation. This type of information is not yet available sufficiently and more progress is needed to justify the writing. This Section will be updated accordingly.*
California Department of Fish and Wildlife (CDFW)	6	*More information is needed about the monitoring programs conducted by CDFW. Not yet determined if the NMFS stream gauges should be included in the plan. Subsection will be updated upon receiving more information.*
Feliz Creek Monitoring	6	*This is included in the Mendocino County Water Agency Action Plan as a monitoring program but seems to be one with limited scope. To be checked for details and incorporated accordingly.*
Agricultural Lands Discharge Program	7	*To be checked to see if/which monitoring is being conducted under this program in the Basin and updated accordingly.*
Russian River Regional Monitoring Program (R3MP)	8	*It seems that a monitoring plan is under development, but additional information is needed to include or see if it is relevant.*
Center for Western and Weather Extremes (CW3E) monitoring under Forecast-informed Reservoir Operation Planning	8	*Feedback is needed to see if this program should be included. If so, this section will be updated accordingly through further coordination with the program.*
County of Mendocino Zoning Plan	9	*To be updated with more information if this section is deemed relevant.*
Migration of contaminated groundwater	10	*This section will be updated upon receiving additional information.*
Groundwater contamination cleanup, recharge, diversions to storage, conservation, water recycling, conveyance, and extraction projects	10	*This section will be updated upon receiving additional information.*
Land use plans and efforts to coordinate with land use planning agencies to assess activities 391 that potentially create risks to groundwater quality or quantity	11	*This may include duplicate information as Land Use section and it may not be needed.*
Impacts on groundwater dependent ecosystems	11	*This section will be updated upon GSP progress.*
2.1.5 Notice and Communication	11	*This section will summarize and reference, or include the full text of, Communication and Engagement Plan.*

DRAFT GSP Chapter 2: Plan Area and Basin Setting

Larry Walker Associates, Inc.

12/6/2019

Contents

2.1 Description of the Plan Area

2.1.1 Summary of Jurisdictional Areas and Other Features

The Ukiah Valley groundwater basin (Basin) is located in Mendocino County (County) and underlies the Ukiah Valley, the Redwood Valley, and their tributaries **(Figure 1)**. Under the 2018 basin prioritization conducted by the California Department of Water Resources (DWR), the Ukiah Valley groundwater basin (DWR Basin 1-052) was designated as medium priority (*DWR 2019c*).Elevations in the Basin vary from approximately 500 feet (ft) (150 meters (m)) mean sea level (msl) in the southern part of the Ukiah Valley to over 1000 feet (305 m) msl in the Redwood Valley. The Basin encompasses a surface area of 37,500 acres (59 square miles (mi); 152 square kilometers (km)) and is 22 mi (35.4 km) long and 4.6 mi (7.4 km) at its widest section just north of the City of Ukiah. cities of Ukiah, Redwood Valley, Calpella, and Talmage are the major municipalities within the Basin with populations of 16,075, 1,729, 1,130, and 679, respectively (* U.S.Census Bureau 2010*). The majority of the land within the Basin is privately owned except for small California Tribal Reservations and Rancheria areas, land owned by the State of California, and land in the proximity of Mendocino Lake that is owned by the federal government **(Figure 2)**. The Russian River flows through the entire length of the Basin and is joined by several smaller tributaries. Lake Mendocino borders the eastern side of the Basin and provides managed releases to the East Fork of the Russian River through the operation of Coyote Dam. The east and west forks of the Russian River merge north of the City of Ukiah and flow southward towards the Basin drainage and the City of Hopland. The Basin is bounded by the Mendocino Range of the Coastal Ranges and is bordered by the Sanel Valley Groundwater Basin (1-053) to the south. The Mendocino Range is predominantly composed of the thick, late Mesozoic and Cenozoic sedimentary rocks of the Franciscan formation.

Jurisdictional Areas and Land Use

Ukiah Valley Groundwater Sustainability Agency (UVBGSA) is the sole Groundwater Sustainability Agency (GSA) for the Basin and is responsible for the entire area covered by this Groundwater Sustainability Plan (GSP; **Figure 1**). UVBGSA consists of the County of Mendocino (County), the City of Ukiah, the Upper Russian River Water Agency, and the Russian River Flood Control and Water Conservation and Improvement District**(Figure 3)**. The County of Mendocino exercises land use authority on the land overlying the Basin. The City of Ukiah (City) is a local municipality that exercises water supply, water management, and land use authority within the City's boundaries. The upper Russian River Water Agency is a joint powers authority representing Millview County Water District, Willow County Water District, Calpella County Water District, and Redwood Valley Water District within the Ukiah Valley Basin. The Russian River Flood Control and Water Conservation and Improvement District is a special district created by State Statute (State of California Statue § Act 4830) that exercises water supply and water management authority within the Basin. Rogina Water Company also provides water supply within the Basin but is not a GSA member. The boundaries of these agencies and the UVBGSA are shown in **Figure 3**.

The Basin boundary encompasses the incorporated communities of Ukiah, Calpella, Talmage, and Redwood Valley. Four small portions of the Basin that are designated federal tribal lands and are not subject to SGMA requirements **(Figure 2)**. These tribal lands are owned by the Guidiville Rancheria Tribe, Pinoleville Pomo Nation, Coyote Valley Tribe, and Redwood Valley little River Band of Pomo Indians. However, one tribal representative sits on each of the UVBGSA Board and the Technical Advisory Committee (TAC). Communities within the Basin are designated as either Disadvantage Communities (DAC) or Severely Disadvantaged Communities (SDAC), as shown in **Figure 4**. Communities with an annual median household income (MHI) of less than 80% of the average annual MHI in California are classified as DACs, while communities with annual MHIs of less than 60% of California's annual MHI are considered SDACs. According to the DWR's DAC Mapping Tool (*DWR URL*), the statewide annual MHI for 2012-2016 is $63,783, which designates the City of Ukiah as a DAC with its annual MHI of $38,686. Moreover, the U.S. Census American Community Survey (ACS) further delineates census tracts within the Basin, each of which are designated as DAC or SDAC. The MHI for each of these tracts is as follows:

- Tract 06045010900, population 5,044 – $44,296 (qualifies for DAC)
- Tract 06045011300, population 5,703 –$36,310 (qualifies for SDAC)
- Tract 06045011500, population, 6,616 – $38,662 (qualifies for DAC)
- Tract 06045011600, population 5,814 – $26,122 (qualifies for SDAC)
- Tract 06045011800, population 2,171 – $49,485 (qualifies for DAC)

All of the census tracts that are wholly within or intersect the Ukiah Valley Basin are designated as DAC or SDAC. In addition, the combined population of these DAC and SDAC census tracts is 25,348, which is about 85% of the estimated 2010 population of the Ukiah Valley Basin (29,671), which includes the Ukiah Census County Division (CCD), the Calpella Census Designated Place (CDP), and the Redwood Valley CDP.

To be added: text about Russian river watershed and PVP

Current Land Use

Land use within the Basin is divided into three major categories: agricultural, urban, and native vegetation, which includes forests and riparian vegetation (**Figure 5**). **Table 1** shows the acreages associated with different land uses within the Basin according to the 2010 Land Use Survey (*DWR Land Use URL*). Major agricultural crops within the basin are grape, pear, and pasture.

Table 1: Acreage and percentage of total Basin area covered by each land use category according to 2010 Land Use Survey.

Land Use Description	Percentage (%)	Area (acre)
Agricultural-Undeveloped	1.86	700
Fruits and Nuts	3.23	1,212
Grain and Hay	0.50	189
Idle	1.36	509
Native and Riparian Vegetation	51.30	19,258
Pasture	0.40	149
Urban	19.14	7,185
Vineyard	20.70	7,769
Water	1.41	530
Total	99.90	37,500

Well Records

Public data regarding wells is limited in the Basin. Using data from the DWR Online System for Well Completion Reports ***(OSWCR; DWR 2019b)***, it is possible to visualize the approximate distribution (i.e., well density) of domestic, agricultural production, and public drinking water wells in the Basin, aggregated to each Public Land Survey System (PLSS) section **(Figures 6–9)**. Because OSWCR represents an index of Well Completion Report (WCR) records dating back many decades, this dataset may include abandoned wells, destroyed wells, or wells with quality control issues such as inaccurate, missing or duplicate records, but is nevertheless a valuable resource for planning efforts. The primary uses of the wells reviewed are shown in **Table 2**.

During the development of the Initial Hydrogeologic Conceptual Model ***(IHCM LACO)*** by the UVBGSA, a database of 2,490 WCRs (WCR Catalog) was obtained from DWR and analyzed. However, the number of WCRs that were located within the Basin and could be reliably located were lower. From the WCRs obtained, only 214 were selected and georeferenced to be used in the development of the report ***(IHCM LACO)***. UVBGSA analyzed and georeferenced 41 additional WCRs in the next phase of the development of the Hydrogeological Conceptual Model (HCM) outlined in this report in **Section 2.2.1**. While the number of WCRs in each category of recorded use in the WCR Catalog is different from **Table 2** , the top categories remain consistent in their order of significance; domestic, monitoring, agricultural, and public/municipal.

Table 2: Number of wells per recorded use category in the Ukiah Valley Groundwater Basin according to OSWCR.

Recorded use	Number of Wells
Agriculture	117
Destructed	5
Domestic	1,058
Indusrial	11
Injection	46
Monitoring	344
Other	1,178
Public/Municipal	70
Remediation	33
Grand Total	2,862

2.1.2 Water Resources Monitoring and Management Programs

There is historical and ongoing work in the Basin and the Russian River watershed (Watershed) related to monitoring and management of surface water and groundwater resources. This section first lists the ongoing statewide, regional, and local monitoring programs. Then, it describes relevant monitoring and management programs to this GSP and outlines the current understanding of a) how those programs will be incorporated into GSP implementation and b) how they may limit operational flexibility in GSP implementation.

Overview of Monitoring and Management Programs

Statewide Monitoring Agencies and Programs

- California Department of Pesticide Regulation (CDPR) Groundwater Protection Program
- Department of Water Resources
  - California Statewide Groundwater Elevation Monitoring Groundwater
  - California Data Exchange Center (CDEC)
  - Water Data Library
- ***California Department of Fish and Wildlife (CDFW)*** *(Text to be added later)*
- California State Water Resources Control Board (SWRCB; State Water Board)
  - Division of Drinking Water (DDW)
  - Cannabis Cultivation Program
  - Groundwater Ambient Monitoring and Assessment Program (GAMA)
  - ***Irrigated Lands Regulatory Program (ILRP)*** *(Text to be added later)*
  - Water Demand Management Program
- United States Geological Survey (USGS)

Regional Monitoring Programs

- California North Coast Regional Water Quality Control Board (NCRWQC)
  - National Pollutant Discharge Elimination System (NPDES) Permits, Waste Discharge Requirements (WDRs), Recycled Water Permits
  - Total Maximum Daily Loads (TMDLs
- Russian River Regional Monitoring Program (R3MP)
- Center for Western Weather and Water Extremes (CW3E) monitoring under Forecast-Informed Reservoir Operation Planning

Local Monitoring Agencies and Programs:

- Mendocino County Resource Conservation District (MCRCD)
- Mendocino County Water Agency
- City of Ukiah
- Mendocino County Farm Bureau
- The Russian River Flood Control and Water Conservation and Improvement District

Feedback is needed to add/delete monitoring entities from this list. I will add texts to each monitoring program to explain if/how they will be incorporated or limit the flexibility in GSP implementation. This type of information is not yet necessarily available to us and we need more progress to justify our writing. I need more info to elaborate on these questions.

Detailed Monitoring and Management Programs

California Department of Pesticide Regulation (CDPR) Groundwater Protection Program

The CDPR obtains groundwater sampling data from other public agencies and through its own sampling program. Monitoring data includes those collected by the U.S. Geological Survey (USGS), SWRCB, SWRCB DDW, California Department of Public Health (CDPH), US Fish and Wildlife (USFS), and CDPR. These data are reported annually along with the actions taken by CDPR and the SWRCB to protect groundwater from contamination by agricultural pesticides. CDPR samples groundwater to determine (1) whether pesticides with the potential to pollute groundwater are present in groundwater, (2) the extent and source of pesticide contamination, and (3) the effectiveness of regulatory mitigation measures (CDPR Website: https://www.cdpr.ca.gov/docs/emon/grndwtr/gwp_sampling.htm). According to the database available at the CDPR website (accessed in December 2018), a dataset consisting of 24 monitoring wells within the Basin that includes groundwater data for 155 chemical compounds collected at different dates starting in August 1977 through the end of 2018.

Department of Water Resources

California Statewide Groundwater Elevation Monitoring Program

California Statewide Groundwater Elevation Monitoring Program (CASGEM) aims to establish a permanent and locally-managed program to track seasonal and long-term groundwater elevation trends in groundwater basins statewide. On November 4, 2009, the State Legislature amended the Water Code with SBx7-6, which mandates collaboration between local monitoring entities and DWR. The primary task of the monitoring entity is to collect groundwater elevation data and report this data to DWR. The collection and evaluation of such data on a statewide scale is an important fundamental step toward improving the management of California's groundwater resources. The County has been officially recognized by the State Water Board, as of August 2014, as the monitoring entity for the Ukiah Valley Groundwater Basin and is currently in compliance. The County is coordinating the monitoring for the basins throughout the County, which involves collecting well data from the local agencies that are conducting the well monitoring and then formatting and uploading the information to the State system. The Mendocino County Resource Conservation District (MCRCD) has been contracted to perform the monitoring in the Ukiah Valley. As of December 2019, 42 wells have been incorporated into the Program within the Basin. Of the 42 wells, seven are under voluntary status meaning that the owners have contributed water level measurements to the program but the wells are not enrolled in the CASGEM Program. This leaves 35 wells that are currently enrolled in the CASGEM Program. CASGEM monitoring is ongoing within the Basin and the County has made a continuous effort to recruit additional wells into the Program. Measurements are normally done twice per year, once during spring (usually in May) and once in fall (usually in November).

California Data Exchange Center (CDEC)

DWR installs, maintains, and operates hydrologic and meteorological data collection networks throughout the state. The data collected includes river stage and streamflow, precipitation, reservoir storage and operation, snow, etc., and is made available to the public through a centralized internet location called the California Data Exchange Center (CDEC). CDEC also receives and exchanges data with various Federal and State agencies including the National Weather Service (NWS), U.S. Bureau of Reclamation (USBR), U.S. Army Corps of Engineers (USACE), Pacific Gas & Electric (PG&E), Sacramento Municipal Utility District (SMUD), and USGS. As of December 2019, CDEC hosts a variety of meteorological and hydrologic data for two stations within the Basin: CDW and RRU.

California Department of Fish and Wildlife (CDFW)

Stream gauges (?)

We are not sure if we want to include the gauges. If so, we will need to gather more information from the TAC about them and include here.

Feliz Creek Monitoring

This is included in the Mendocino County Water Agency Action Plan as a monitoring program but seems to be one with limited scope. We need more information to see what this includes

California State Water Resources Control Board (SWRCB; State Board)

Division of Drinking Water (DDW)

The State Water Resources Control Board's Division of Drinking Water, monitors public water system wells per the requirements of Title 22 of the California Code of Regulations relative to levels of organic and inorganic compounds such as metals, microbial compounds, and radiological analytes (this effort was formerly performed by the California Department of Public Health). Data are available for active and inactive drinking water sources, for water systems that serve the public, and wells defined as serving 15 or more connections, or more than 25 people per day. In the Basin, Division of Drinking Water wells are monitored for Title 22 requirements.

Cannabis Cultivation Program

The SWRCB through Order No. WQ 2019-0001DWQ (Cannabis Cultivation Activities General Order) and the Cannabis Cultivation Policy, requires selective monitoring of cannabis cultivation sites and associated facilities to ensure that dischargers to waters of the state do not adversely affect the quality and beneficial uses of such waters.

Groundwater Ambient Monitoring and Assessment Program (GAMA)

The Groundwater Ambient Monitoring and Assessment (GAMA) Program was created by the SWRCB in 2000 and is utilized to integrate existing monitoring programs and design new programs as necessary to monitor and assess groundwater quality in basins that account for 95% of California's groundwater use. GAMA provides a centralized information hub for groundwater quality data for the public and decision-makers to help protect groundwater resources and improve statewide groundwater monitoring. The GAMA Program receives data from a variety of monitoring entities including DWR, USGS, and SWRCB. GeoTracker is a database and geographic information system (GIS) used by the GAMA program that was initially developed in 2000. It contains records for sites that require cleanup, such as leaking underground storage tank

sites, Department of Defense sites, and cleanup program sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including Irrigated Lands Regulatory Program, oil and gas production, operating permitted underground storage tanks, and land disposal sites. GeoTracker GAMA is a module that was added to the GeoTracker system to compile and share groundwater data regarding water quality, water levels, contaminant sources, and groundwater publications. Data are submitted to GeoTracker GAMA by CDPH, USGS, DWR, CDPR, the Lawrence Livermore National Laboratory (LLNL), State Water Board, and Regional Water Boards.

Agricultural Lands Discharge Program

We need to check to see if/which monitoring is being conducted under this program in the Basin.

Water Demand Management Program

On September 20, 2011, the SWRCB adopted a Frost Protection Regulation for the Russian River Watershed that required any diversion of water for frost protection between March 15 and May 15 to be regulated under and according to an approved Water Demand Management Program (WDMP). WDMPs require management of instantaneous demand on the Russian River stream system during frost events to prevent stranding and mortality of salmonids. This is achieved partially through monitoring and reporting of: 1) the quantity of water diverted from the river system through a direct diversion or pumping of a well that is connected to the subterranean channel during each frost event; and, 2) the stream stage at an appropriate location. Currently, three WDMPs within the Basin are approved and conduct the required monitoring:

- California Land Stewardship Institute - For diversions in Mendocino County not including from the main stem of the Russian River
- Mendocino County Farm Bureau - For diversions from the main stem of the Russian River in Mendocino County
- North Coast Resource Management (Individual WDMP for Dutra Vineyards) - For diversions from the West Fork of the Russian River in Mendocino County

United States Geological Survey (USGS)

USGS monitors and collects streamflow data from three gauges within the Basin (11461000, 11462000, 11462080)and one just south of the Basin near Hopland (11462500, which represents the drainage from the Basin). Station 11462000 is representative of the East Fork Russian River and releases from Lake Mendocino, while Station 11461000 represents the West Fork Russian River up to the north of the City of Ukiah and before the confluence of the East Fork and West Fork. Stations 11462000 and 11461000 are no longer monitored by the USGS and have been reassigned to DWR and monitored for reporting to CDEC under Site IDs CDM and RRU, respectively.

California North Coast Regional Water Quality Control Board (NCRWQC)

National Pollutant Discharge Elimination System (NPDES) Permits, Waste Discharge Requirements (WDRs), and Recycled Water Permits

Stormwater and wastewater discharges to water bodies are regulated under NPDES Permits. Within the Basin area, the City of Ukiah is a co-permittee to the stormwater Phase I Municipal Separate Storm Sewer Systerm (MS4) Permit in the North Coast Region (Order No. R1-2015-0030). The County of Mendocino discharges are regulated under the Phase II Small MS4 Program (Order No. 2013-0001 DWQ, permit WDID 438918 1 23M2000162). Both orders require monitoring and reporting of pollutants including but not limited to organics, inorganics and metals, pesticides, indicator bacteria, and toxicity at outfalls and receiving water bodies during dry and wet weather. The City of Ukiah Wastewater Treatment Plant (Ukiah WWTP)

is regulated under Order No. R1-2018-0035 (NPDES Permit No. CA0022888) and is required to monitor pollutants in its in influent and effluent, upstream and downstream of its discharge to the Russian River, and in five groundwater wells as prescribed in the Order's Monitoring and Reporting Plan (MRP).

Total Maximum Daily Loads (TMDLs)

A TMDL for Pathogens/Fecal Indicator Bacteria is under development for the Russian River and its tributary creeks. Actions have been proposed in the NCRWQC Staff Workplan under the TMDL Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region (Sediment TMDL Implementation Policy) but no mandatory monitoring has been required. Lake Mendocino is listed as impaired under Section 303 (d) of the Clean Water Act for mercury pollution and is expected to be regulated under the statewide Mercury TMDL. A temperature TMDL has been proposed by the NCRWQC, but has not yet been scheduled. To summarize, no required TMDL monitoring is required within the Basin as the date of this report.

Russian River Regional Monitoring Program (R3MP)

It is Under development(?) Need feedback and info for text and also if it is relevant.

Center for Western Weather and Water Extremes (CW3E) monitoring under Forecast-Informed Reservoir Operation Planning

Need feedback and information to add details and check if this heading is relevant and should be included.

2.1.3 Land Use Elements or Topic Categories of Applicable General Plans

The County of Mendocino General Plan

The County of Mendocino General Plan (General Plan) serves to chart a course for County government over the next 20 years. The goals, policies, and programs in the General Plan represent the County's statement of how it should grow or change in the coming decades (or where/how it should remain the same) and how today's challenges will be met. The General Plan identifies overarching principles that provide the basis for the goals and policies included in the rest of the plan. The principles embody key issues identified by the residents of Mendocino County, such as stewardship of County resources, planning for growth, and the efficient and equitable provision of public services. The components of the General Plan with the most relevance to the GSP include the Development Goals and Policies and the Resource Management Element. There are also community-specific policies defined for the Redwood Valley Area that are relevant to this GSP. Many of the objectives and policies within the General Plan align with the goals of the GSP and significant changes to water supply assumptions within these plans are not anticipated. The General Plan outlines development goals related to various topics including land use, infrastructure, water/sewer, flooding/inundation, and geologic conditions that are relevant to this GSP. All these goals follow the aforementioned principals and in turn lead to policies and objectives for the development of the County. The General Plan aims: 1) for the land use patterns to preserve the County's natural resources (Goals DE-1 and DE-3 of the General Plan); 2) to provide sufficient, efficient, and adequate water and sewer service infrastructure for existing and future development (Goals DE-7 and DE-16); and, 3) to protect life and property while also protecting and managing natural drainage ways, floodplains and flood retention basins and maintain flood-carrying capacity in harmony with environmental, recreational and open space objectives (Goals DE-18 and DE-19). These goals are in line with the purpose of the GSP and provide no conflicting horizon. The Resource Management Element of the General Plan emphasizes the vital role of water for a healthy environment and economy. It recognizes the importance of watersheds, groundwater and recharge, water supply, water quality, ecosystem, biological resources, freshwater and marine resources, open spaces, rural landscapes, and scenic resources (among others) as the pillars of the element, provides

an overview of each topic and its existing condition and role within the County, and aims at protecting and enhancing these resources. This Element defines the County's goals as follows:

- Goal RM-1 (Watersheds): Land uses, development patterns and practices that facilitate functional and healthy watershed ecosystems.
- Goal RM-2 (Water Supply): Protection, enhancement, and management of the water resources of Mendocino County.
- Goal RM-3 (Water Quality): Land use development and management practices that protect or enhance water quality.
- Goal RM-4 (Ecosystems): Protection and enhancement of the county's natural ecosystems and valuable resources.
- Goal RM-7 (Biological Resources): Protection, enhancement and management of the biological resources of Mendocino County and the resources upon which they depend in a sustainable manner.
- Goal RM-8 (Marine Resources): Protection and restoration, and enhancement of Mendocino County's freshwater and marine environments.

As a result of these goals, the County continues to outline policies for resource management that align with the objectives of this GSP. To provide a few examples, Policy RM-6 under Water Resources Policies intends to "promote sustainable management and conservation of the County's water resources." Furthermore, Policy RM-12 under the same section requires that "the County supports the creation of a comprehensive plan for surface and groundwater resources in Mendocino County." These highlighted Policies are just two of a long list of policies outlined in this Element of the General Plan that promote sustainable management, protection, and enhancement of water, habitat, and ecosystem resources.

County of Mendocino Zoning Plan

Need feedback from Sarah and the County to obtain the plan and see if it is relevant.

Ukiah Valley Area Plan

The Ukiah Valley Area Plan (UVAP) provides comprehensive, long-term policy direction for growth and development by refining and supplementing the policies in the County's General Plan to focus on issues of importance in the Ukiah Valley. Land use and community development, water management, and open space and conservation sections are the most relevant sections of the plan to this GSP. Land use and community development Section aims at creating communities that can achieve its principles of sustainability. The Water Management Section promotes efforts to protect and increase water supply storage and capacity, reclamation and conservation of water, and protection of water quality. As a result, the UVAP is founded upon similar principles as the General Plan and this GSP, and therefore, presents visions and goals that align with the objectives of this GSP.

Well Permitting

Water well permitting is administered by the County's Environmental Health Division and under the Mendocino County Well Ordinance §16.04 and regulations of the State of California as they pertain to water well construction and destruction. Well permit applications require information from the applicant, from an authorized well contractor, as well as payment of a fee.

2.1.4 Additional GSP Elements

Control of saline water intrusion

There is no evidence of saline water intrusion within the Basin. As an undesirable result under the SGMA, this is discussed in more detail in Section 2.2.2.

Well construction policies, wellhead protection, well abandonment, and well destruction program

As mentioned in Section 2.1.3, all well permitting, well construction, well abatement, and well destruction within the County and the Basin is conducted according to the Mendocino County Well Ordinance §16.04 and appropriate State standarads and Federal suggested practices.

Migration of contaminated groundwater

Need feedback from the County to obtain information and see if it is relevant.

Replenishment of groundwater extractions

No artificial groundwater replenishment is currently operational within the Basin

Conjunctive use and underground storage

No conjunctive use projects are currently operational within the Basin. Ukiah WWTP owns and operates effluent and recycled water percolation ponds that subsequently recharge the groundwater aquifer and flow to the Russian River. Discharges to the percolation ponds are conducted in accordance with the Ukiah WWTP NPDES Permit and required monitoring data are reported to the NCWQRC via the California Integrated Water Quality System (CIWQS).

Groundwater contamination cleanup, recharge, diversions to storage, conservation, water recycling, conveyance, and extraction projects

Need feedback from the County to obtain information and see if it is relevant.

Efficient water management practices

The County has adopted County Ordinance §16.24 – Water Conservation that outlines specific requirements for conservation devices to be met in order for a building permit to be issued. Water conservation and use efficiency are also included as the main goals of the County General Plan and UVAP. In addition, the City conducts an ongoing water conservation program according to the City's Urban Water Management Plan (UWMP). The program consists of a variety of demand management measures for conserving water following the general memorandum of understanding regarding urban water conservation in California (the City is not a signatory). The City has also advocated for emphasis on recycled water use and has expanded its recycled water program to deliver 1,000 acre-feet per year (AFY; 1.2 million cubic meters per year). The City will further expand its recycled water delivery upon completion of Phase IV of it recycled water project to 1,400 AFY (1.7 million cubic meters per year).

Relationships with State and federal regulatory agencies

In the Basin, U.S. Forest Service (USFS), U.S. Army Corps of Engineers (UACE), and California Department of Fish and Wildlife (CDFW) are major landowners. UACE manages the Coyote Dam on Mendocino Lake for the purposes of flood protection. U.S. Environmental Protection Agency (USEPA) Region 9, SWRCB, NCWQCB, DWR, and CDFW are major regulatory agencies involved within the Basin and the Russian River Watershed.

Land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity

I think this is a duplicate topic considering the Land Use sections and general plan sections.

Impacts on groundwater dependent ecosystems

To be completed later.

2.1.5 Notice and Communication

We have already developed and approved the Communication Plan (CommPlan) that satisfies all the requirements of this section. I will add the document here later since it needs some formatting adjustments in the schedule figure, but there is no need for re-reviewing that document.

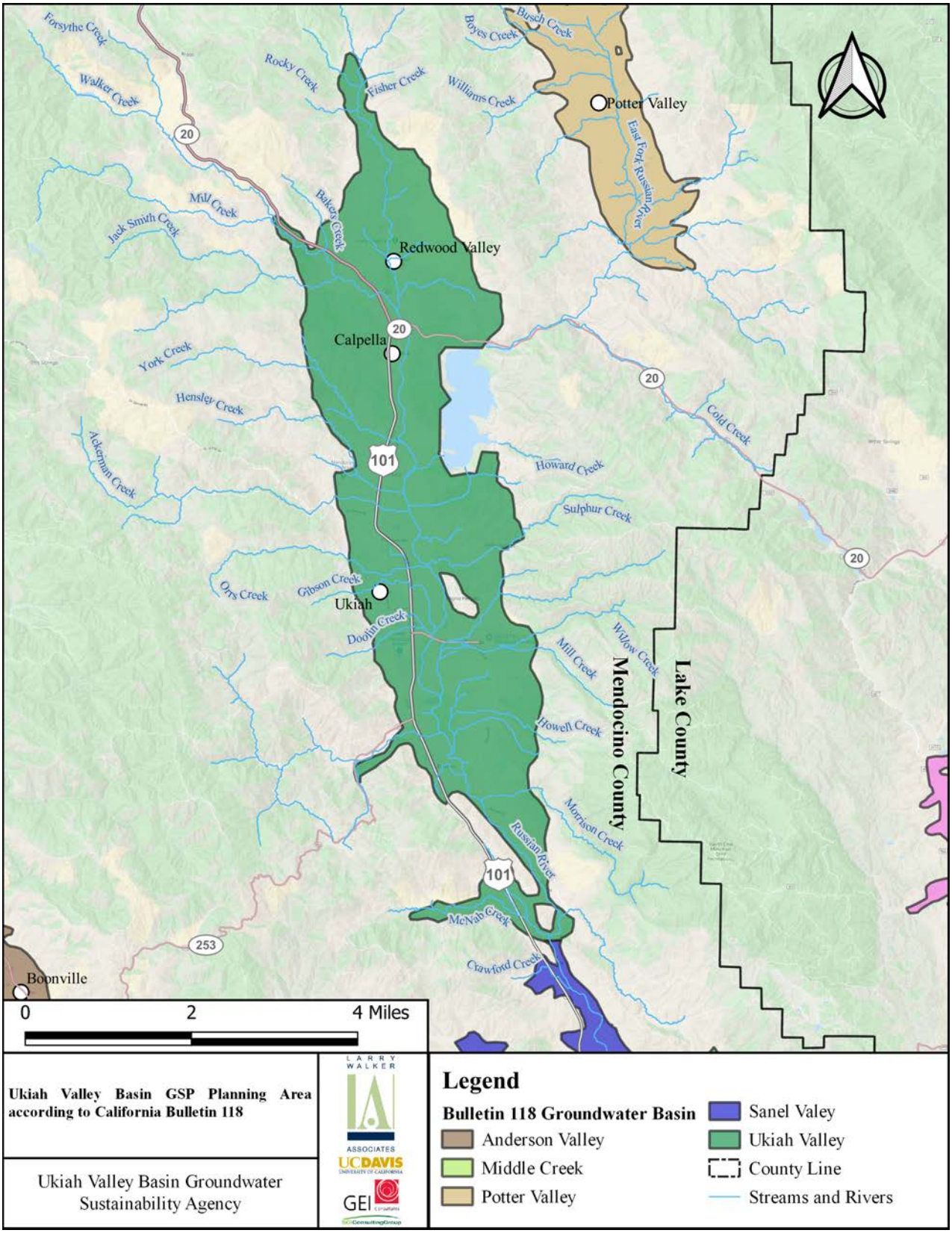

Figure 1: Ukiah Valley Bulletin 118 basin boundary and area.

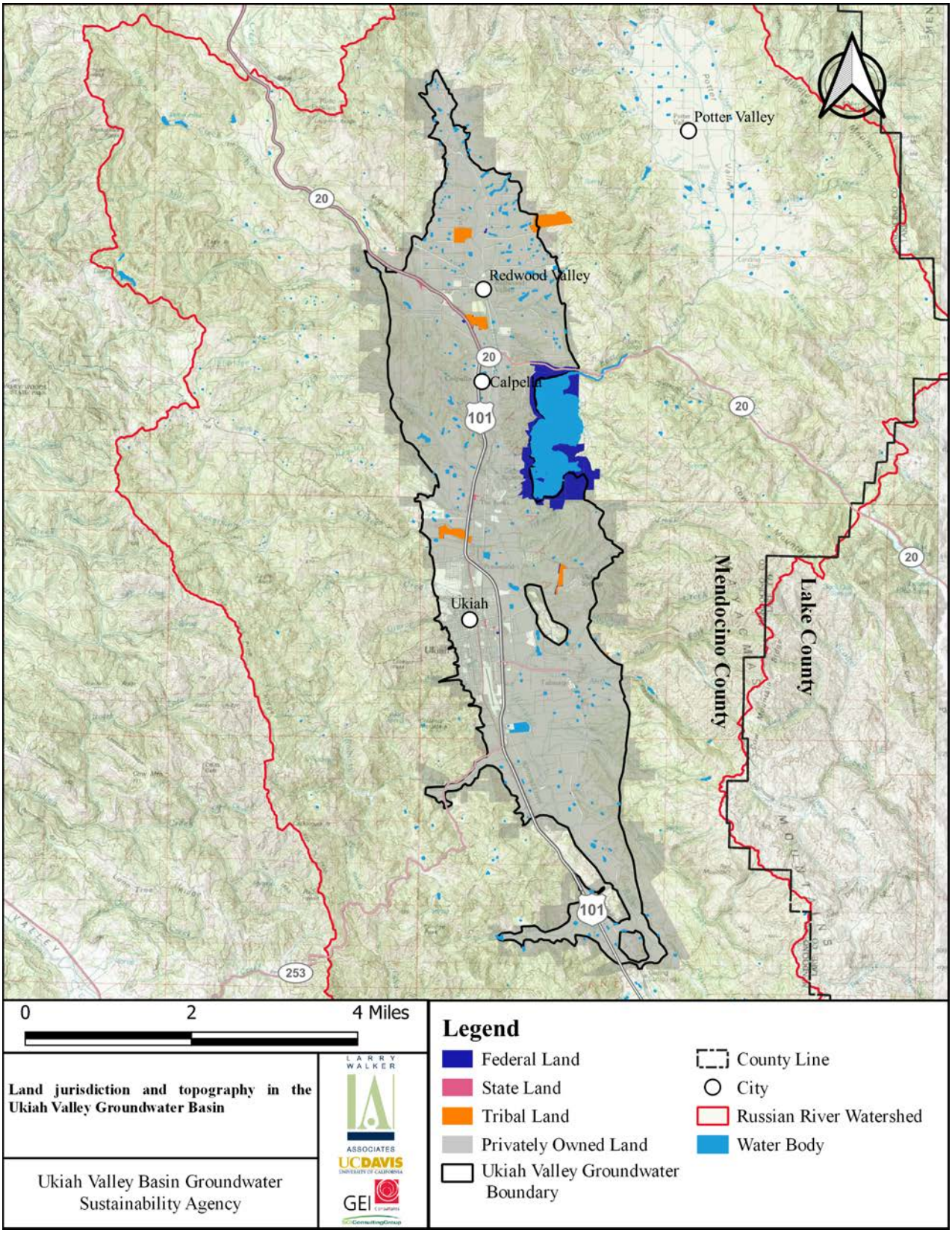

Figure 2: Land Jurisdiction and Topography in the Ukiah Valley Groundwater Basin.

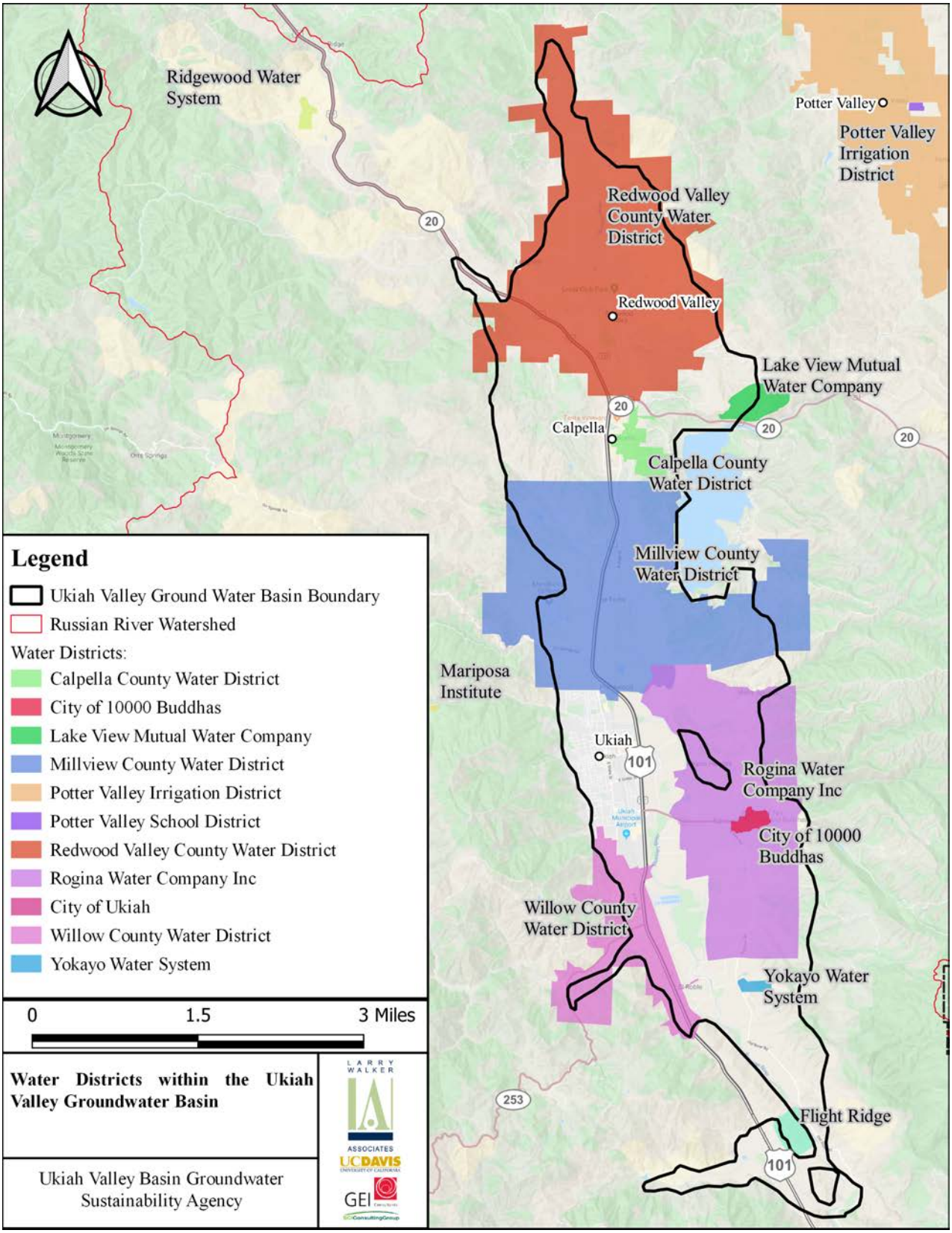

Figure 3: Water Districts in the Ukiah Valley Groundwater Basin.

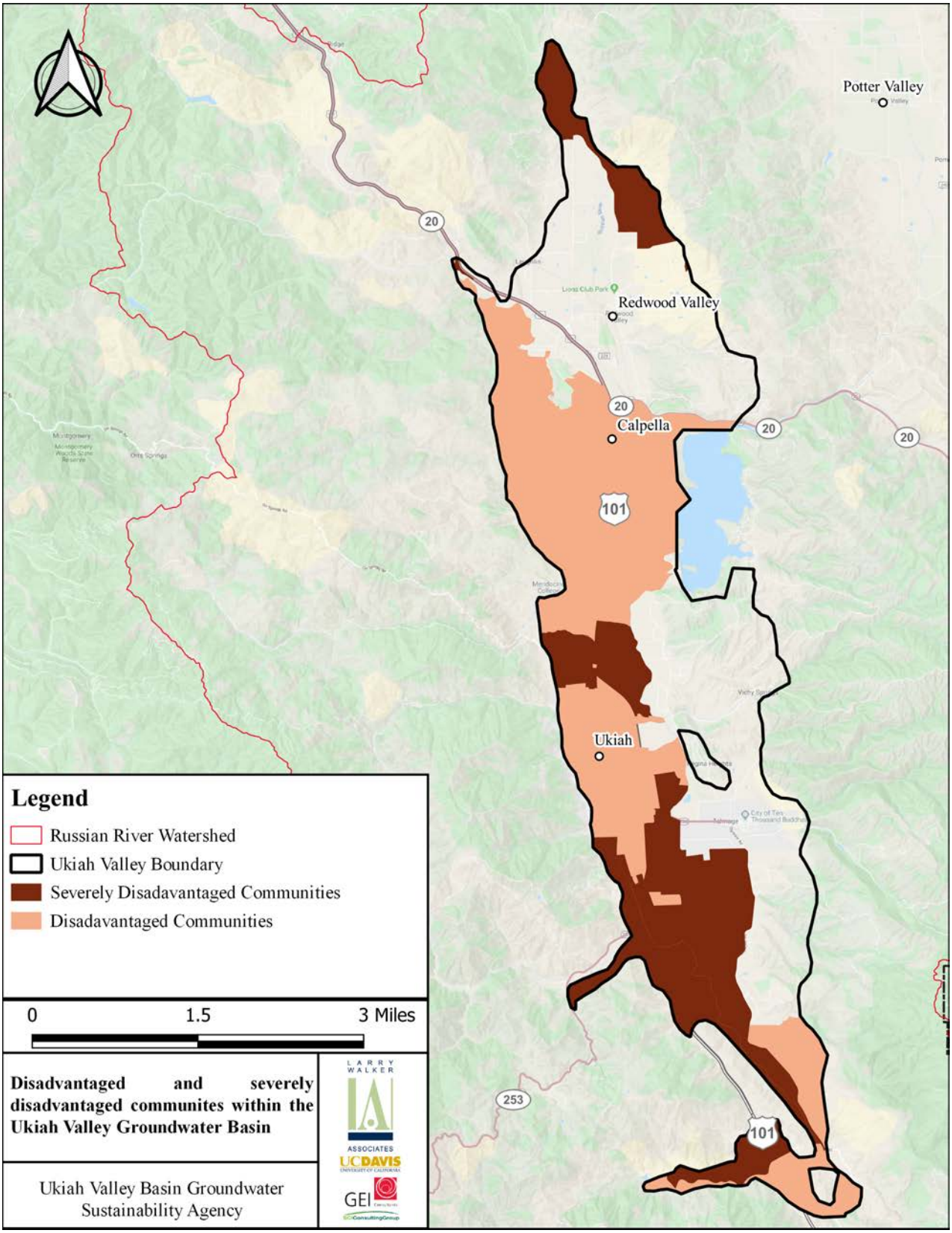

Figure 4: Disadvantaged and severely disadvantaged communities in the Ukiah Valley Groundwater Basin (order of overlay: census place, census, tract, census blocks).

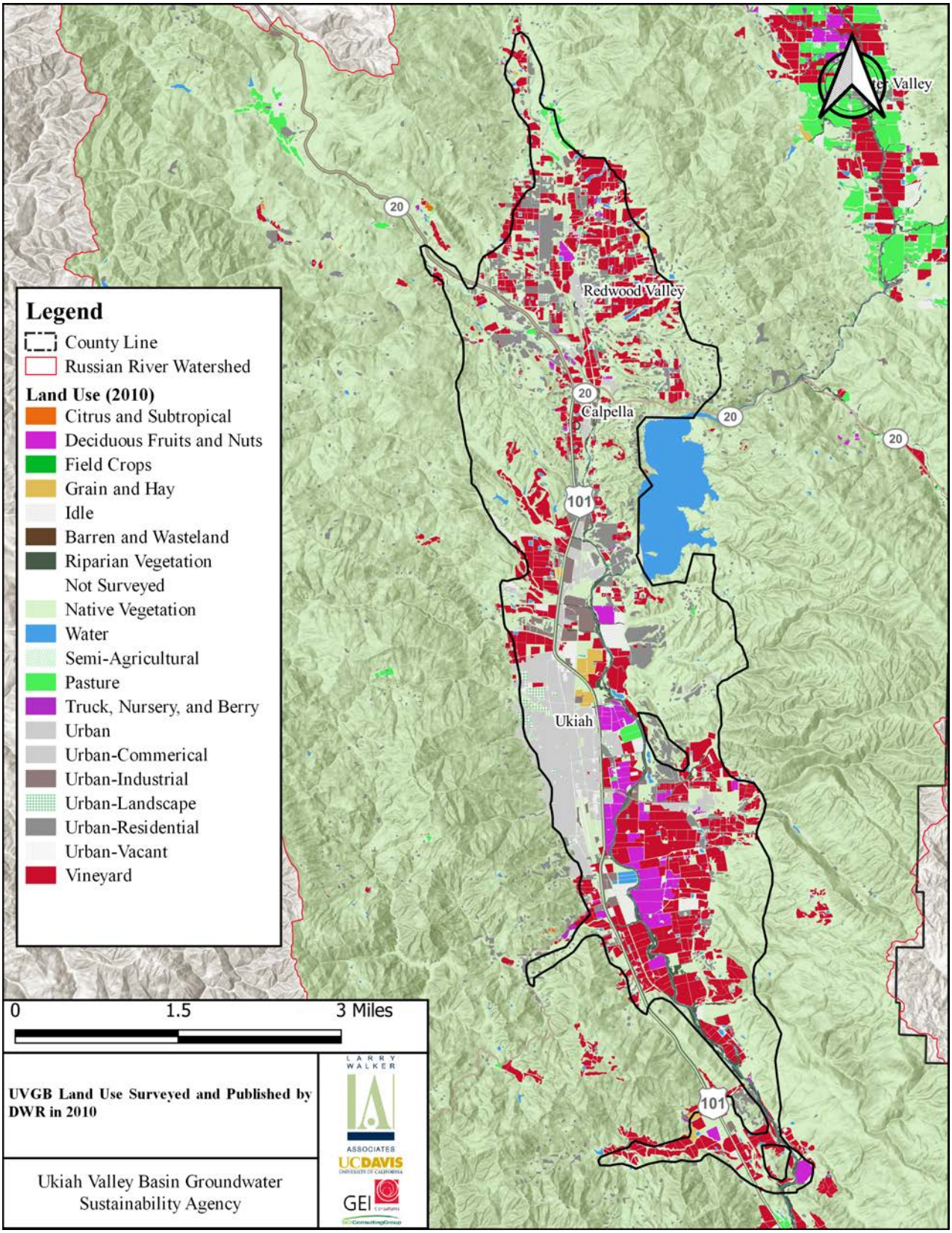

Figure 5: Land Use in the Ukiah Valley Groundwater Basin according to 2010 Land Use Survey.

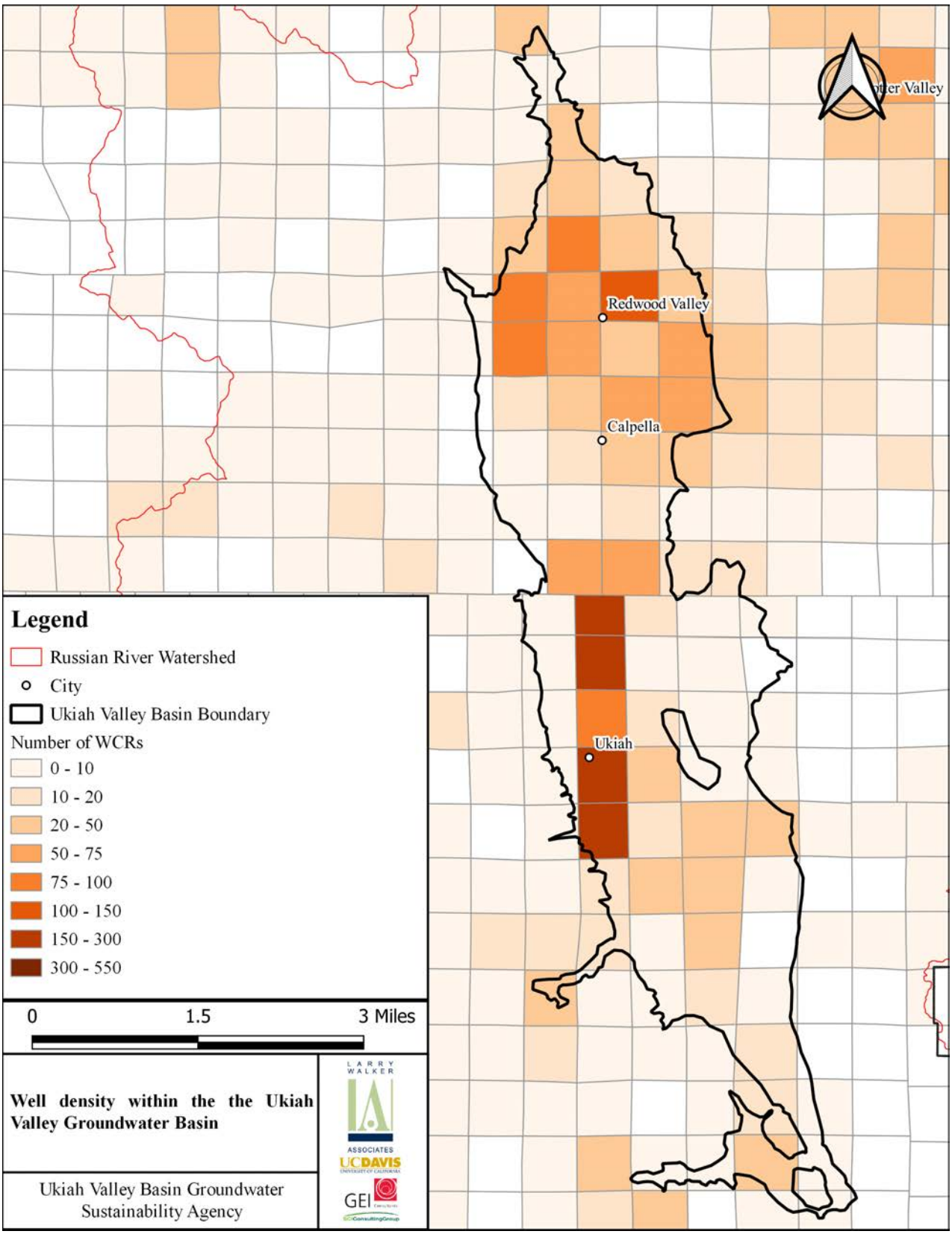

Figure 6: Total well density within the Ukiah Valley Groundwater Basin according to the ***(OSWCR; DWR 2019b)***

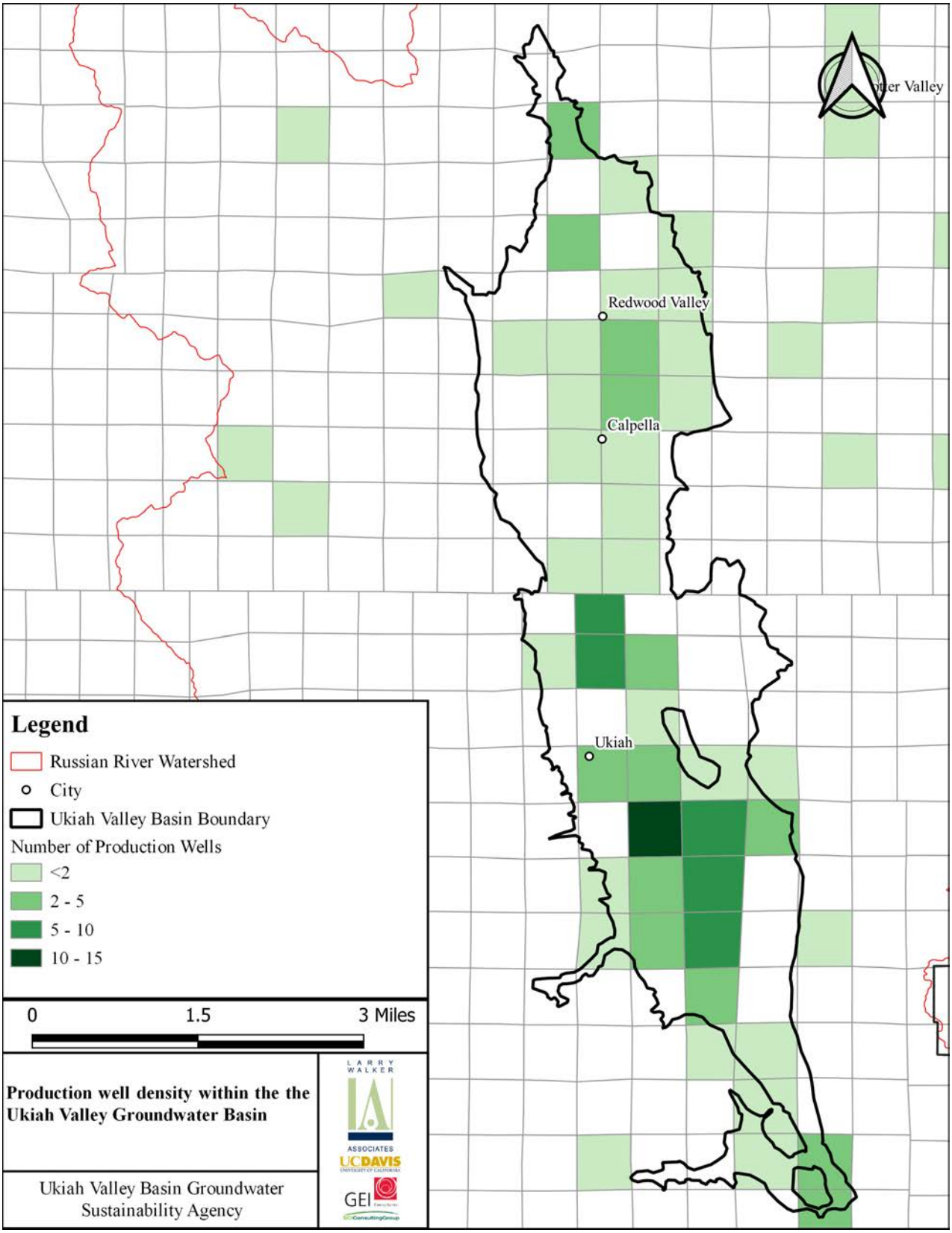

Figure 7: Production well density within the Ukiah Valley Groundwater Basin according to the ***(OSWCR; DWR 2019b)***

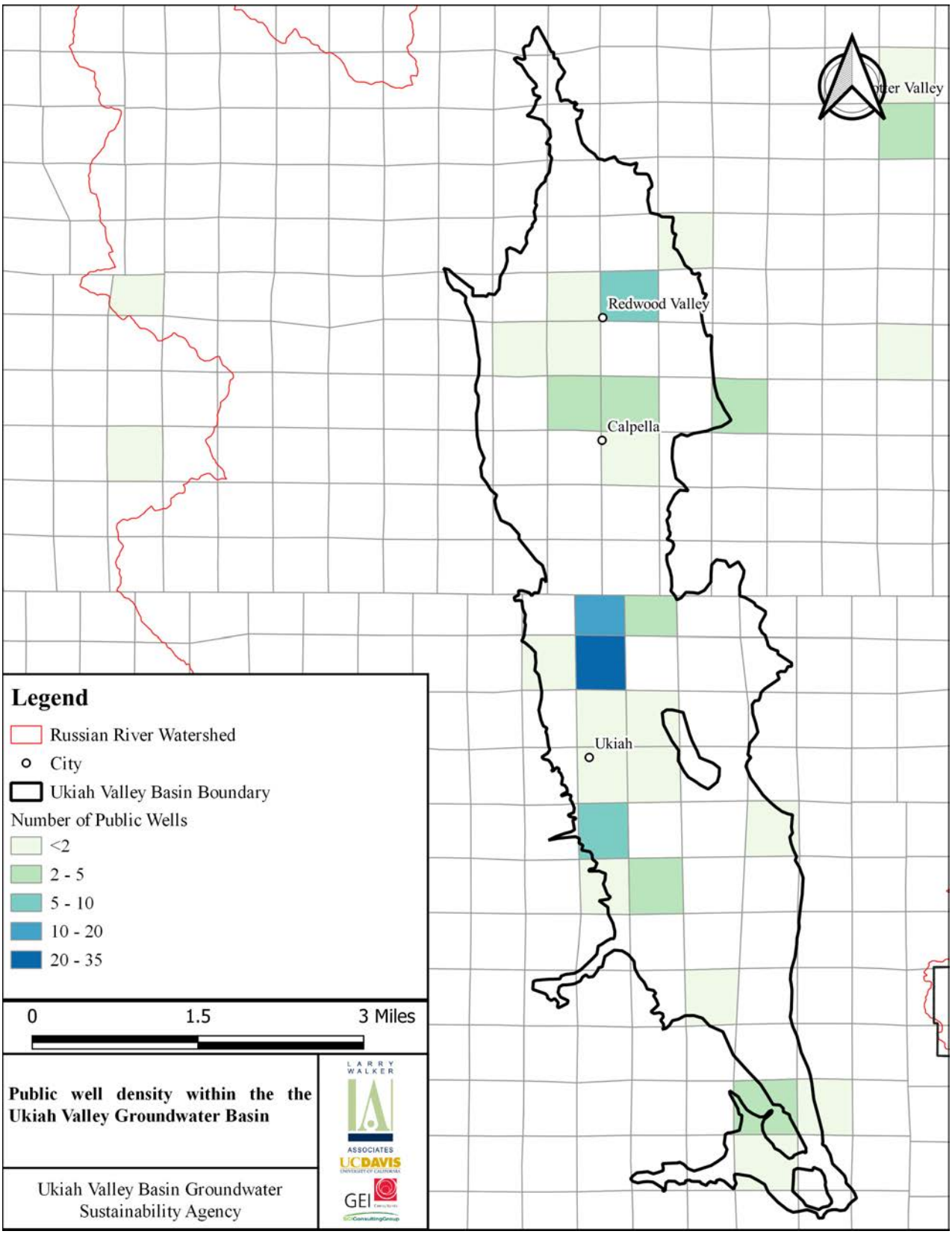

Figure 8: Public well density within the Ukiah Valley Groundwater Basin according to the ***(OSWCR; DWR 2019b)***

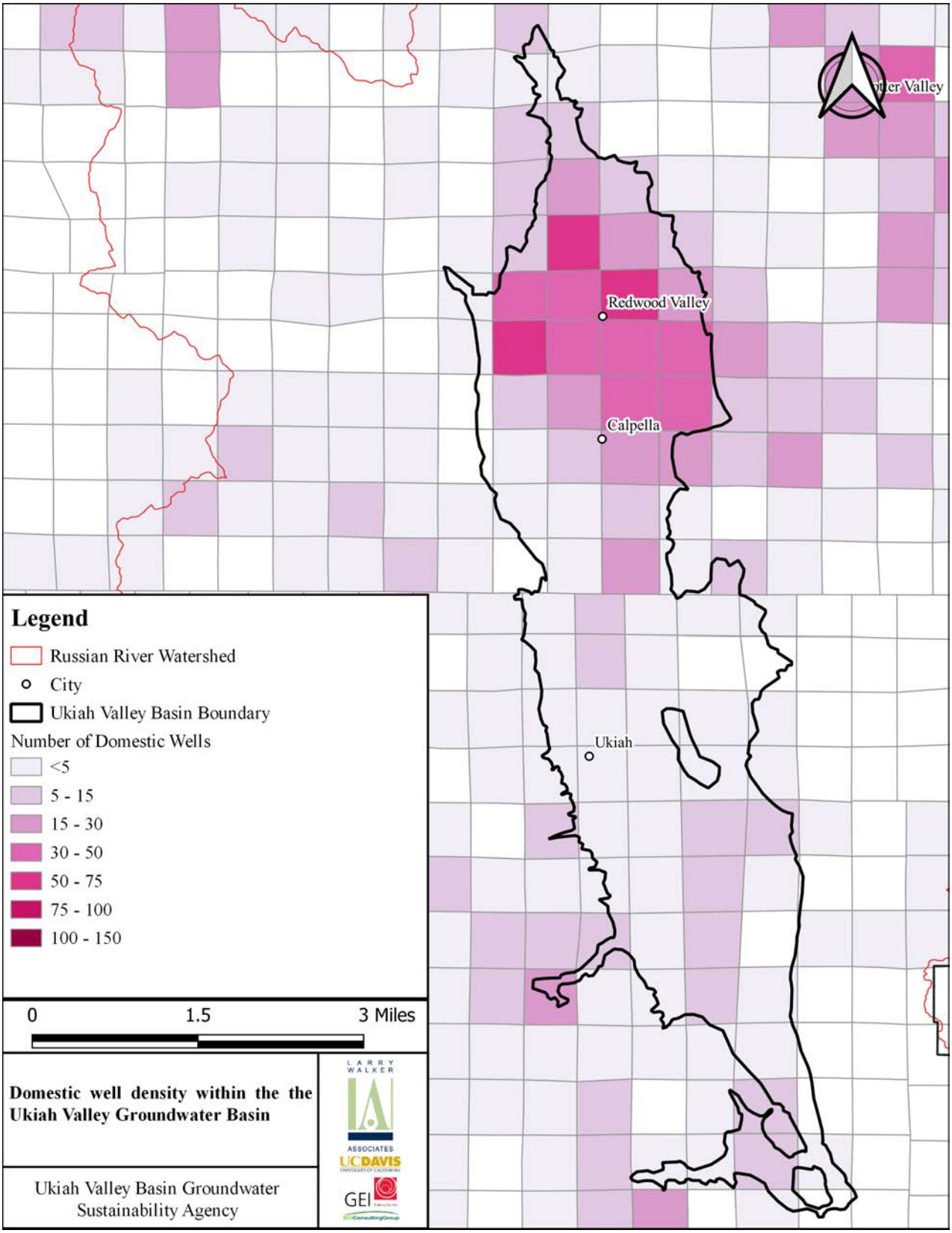

Figure 9: Domestic well density within the Ukiah Valley Groundwater Basin according to the ***(OSWCR; DWR 2019b)***