

Sierra Nevada Conservancy-Progress Report

**Sierra Nevada Conservancy Grant Program
Safe Drinking Water, Water Quality and Supply, Flood Control
River and Coastal Protection Act of 2008 (Proposition 84)**

Grantee Name: High Sierra RC&D Council, Inc.

Project title: Inventory and Geographic Reference of Firefighting Water Resources

SNC Reference Number: SNC 070072 **Submittal Date:** 9/28/09

Report Preparer: Kay Joy Barge **Phone #:** 530-823-5687 ext. 5

Check one:

6-Month Progress Report

Final Report

<p>6-Month Progress Reports should reflect the previous six months. Final Reports should reflect the entire grant period.</p>

A. Progress Report Summary: (Please provide a general description of work completed during this reporting period.)

The grant objectives were to employ the services of five fire protection districts located in the foothills and mountainous regions of Yuba County, California which are periodically subjected to wild fires, to provide an inventory and geographic reference of potential firefighting water resources within each district. The Districts entered into Cooperative Agreements with High Sierra RC&D. The districts were to ensure field staff attended training in the operation of GPS locating devices and how to fill out field data sheets. This information collected was entered into Excel spreadsheets and submitted to Yuba County Department of Administrative Services, Information Technology staff who were contracted by High Sierra RC&D to develop a GIS map of the water resources and to develop a fire fighting water resource data to be used by firefighters in the event of a wild land fire in or on lands adjacent to Yuba County.

A Project Coordinator was hired using another funding source. The Project Coordinator worked with fire fighting personnel, Information Technology staff and private citizens to establish the data collection protocol. The Coordinator arranged for data collector training and monitored the activities of the fire districts throughout the course of the grant. He served as the go between with the data collectors and IT staff. Other assigned tasks were to provide updates to the Yuba Water Shed Protection and Fire Safe Council and the contracting agency, the Yuba County Agricultural Commissioner, provide reports to High Sierra RC&D, and to work with Yuba County Community

Development, Planning Chief to have water storage units which are required of newly constructed residences located in fire prone areas, included in the GIS database. The Coordinator was also responsible for locating sources of identification signs which would be placed by each water resource identified and ground truthed during the inventory process and for compiling reports of In-Kind/Volunteer contributions made by fire district staff.

The Fire Districts participating in the grant and the number of citizens they serve are:

- Camptonville Community Services District serves an estimated population of 697.
- Loma Rica/Browns Valley CSD serves an estimated population of 6200 and 2200 residences.
- Foothill Fire Protection District serves an estimated population of 6355 residents.
- Dobbins/Oregon House Fire Protection District services an estimated population of 2,340 and 1650 residences.
- Smartsville Fire Protection District serves an estimated 6,000 residents.

This project has been a resounding success. The Fire Districts began working with water source information originally developed as part of Yuba County's DMS 2000 Report and the County's Multi-Hazard Response Plan adding other resources based on local knowledge of their district. They obtained volunteers or employed staff to gather data in the field on worksheets for later entry into Excel spreadsheets which were then given to County Information Technology staff for processing and compilation into a GIS water resource database to be hosted on the Yuba County website. The initial list of potential resources was very large but fire district staff, Boards of Directors and data collectors worked to identify a list of the most suitable water resources. This eventually resulted in the identification, GPS marking, mapping and placement of reflectorized blue signs identifying almost 700 firefighting water resources within and adjacent to Yuba County. The map and database layer are now available online.

The breakdown of firefighting water resources by district is as follows:

Camptonville – 28 sites, Dobbins Oregon House – 127 sites, Foothill-169 sites, Loma Rica/Browns Valley - 284, and Smartsville – 86 sites. A total of 694 firefighting water resources were placed into a GIS map and database available for future fire fighting use in Yuba County.

Signage of Water Resources:

The grant called for identification of water resources placed in the inventory database. Fire service organizations currently mark fire hydrants with blue reflector strips placed in the roadway and also by blue reflectorized posts adjacent to hydrants. This practice along with Yuba County Planning requirements resulted in the adoption of blue reflectorized signs measuring at least 3 inches in diameter and mounted on a fire resistant post as the required identification signs for water resources. These signs were to be placed within close proximity to the water source when allowed by the landowner. Fire districts purchased the signs and placed them at identified locations throughout their respective districts.

The Project Coordinator conducted a field survey in each fire district and confirmed that signs had been placed. Photographs of these signs are included in this report

Identification of Newly Constructed Water Sources:

Yuba County Community Development/Planning enforces planning regulations. One item of concern under this grant is that new construction occurring in fire prone areas is required by state law and/or county ordinance to include water tanks for fire protection of the property. The concern was that these new construction projects be identified and included in the inventory. Additionally it was a goal to have the Planning Division GPS these sites so they can periodically be incorporated in to the firefighting water resource database. The Project Coordinator worked with County Planning staff to accomplish this task. Unfortunately the long term illness of one staff member and then a budget crisis which led to position reductions made this a difficult task. However, the Planning Chief is committed to seeing this task through to completion. He has already greatly improved the Division's efforts to educate builders regarding their fire safe responsibilities and the potential for wild fire in and around their new residences. An informational kiosk was placed in the Building Department lobby for this purpose.

B. Deliverables or Outcomes completed during this Reporting Period or Milestones Achieved: (Include specific information, such as public meetings held, agency participation, partnerships developed, or acres mapped, treated or restored.)

- We have a GIS database that will be maintained by Yuba County that lists all available water sources for fire fighting.
- All water sources have been marked with a blue fire resistant marker.
- Hard copy maps have been produced and distributed to the five Fire Districts.

- The GIS layer information has been shared with US Forest Service and CAL FIRE.

Fire District lessons learned were:

- Fire districts are able to offer greater protection by having better knowledge of what types of water resources are available and where they are located within a response area.
- Fire district is able to forward water resource information they have gathered in this project to the dispatch centers in Grass Valley and Yuba County.
- Maps with water resource locations, quantity and means of access will be provided to neighboring fire districts that provide automatic and mutual aid to the district.
- Get to know your district. Through this grant, Fire Districts have learned that a systematic approach like that used in this project resulted in finding additional resources either natural or manmade that they had not previously identified.
- Many new firefighting water resources were identified.
- The entire district benefitted from this project. All district personnel including firefighters (25) and district staff benefitted.

C. Challenges or Opportunities Encountered: (Please describe what has worked and what hasn't; include any solutions you initiated to resolve problems. If your project is not on schedule, please explain why here.)

Keeping the volunteer Fire Districts on schedule took a little effort, but we were able to complete the project on time.

D. Unanticipated Successes Achieved: (Please describe any additional successes beyond completing scheduled tasks or meeting scheduled milestones.)

The project as spurred interest in surrounding counties to complete the same information.

E. Compare Actual Costs to Budgeted Costs: (Please refer to your grant agreement to list your deliverables/budget categories and budgeted costs compared to actual costs incurred during this reporting period in the table below.)

PROJECT BUDGET CATEGORIES	Budgeted SNC Dollars	Actual Dollars
Contract with the five Fire Districts to locate and	\$50,000	\$50,000

sign water sources in their districts.		
Transfer sources information to CDF, USFS and OES fire GIS management systems.	\$9,000	\$9,000
Project Management	\$5,900	\$5,900
GRAND TOTAL		

Explanation: (if needed)

Resources leveraged:

We leveraged the SNC money to \$21,420 in match. This included \$11,250 from the Five Fire Districts; \$6,050 Yuba County, \$1000 UCCE; and \$3120 High Sierra RC&D Council.

F. Do you have information to report on the project-specific Performance Measures for your project? (If so, please list the Performance Measures below and describe your progress.)

G. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? If so, please attach copies. (Include digital photos, maps, media coverage of project, or other work products.)

N/A

H. Next Steps: (Work anticipated in the next 6 months, including location and timing of any scheduled events related to the project.)

The Fire Districts working with Yuba County and the Yuba County Watershed Protection and fire Safe Council will work on keeping the maps updated. Yuba County will keep the information updated and distributed.

Please Complete this Section for FINAL Report ONLY

Capacity-Building Results and Collaboration and Cooperation with Stakeholders:

(What partnerships did you initiate or strengthen as a result of this project? How did they affect the project outcome? If applicable, how did this grant increase your organization's capacity? What is your plan to sustain this increase?)

Description of Project Accomplishments:

1. Most Significant Accomplishment

Describe in one concise, well-written paragraph, the most significant accomplishment that resulted from this grant.

This project provided for the creation of a GIS map and database that did not previously exist. These new tools will benefit everyone, especially fire fighter from other counties/states. Firefighters will have rapid and accurate information available to them. Citizens will receive better fire protection and the availability of these resources online should improve fire response and better protection of the environment. The water sources were also marked with fire resistant markers.

2. WOW Factor

If applicable, please describe anything that happened as a result of the project or during the project that is particularly impressive.

There is a resource available for fire fighters, especially from other counties/states, to direct them to the closest water source for fighting fires.

3. Design and Implementation

When considering the design and implementation of this project, what lessons did you learn that might help other grantees implement similar work?

- When working with fire districts there are many potential contact points. Board of Directors, fire chiefs and district staff. This can and cause communication problems unless one or two responsible parties are identified at the onset of activity. Most communication was done by email with more important documents also being mailed, faxed and even hand delivered. What actually happened with this project was often no one responded at all, even with multiple attempts at contacting them. The recommendation is that one person be designated as the primary contact for each district with perhaps a

backup designee. The primary contact would then be responsible for conveying information throughout their organization. It is felt this would dramatically improve communications.

- Check off lists! In this project, Boards of Directors agreed to perform tasks which they may not have had specific day to day control over. A number of tasks were listed in the Schedule A of the Cooperative Agreements signed by the Fire Districts' Board of Directors. An yet It seems that in several districts, no one in the district was actually responsible for tracking progress and seeing all the work was completed , well enough completed on time. This lack of response led to much confusion and frustration toward the conclusion of the grant. The Project Coordinator sent multiple requests by email, mail and person to person telephone contact to contacts in districts for updates on how they were coming with such and such a task only to receive very limited or no response. The quickest and most complete response came from a district which listed only one contact person who was also the fire chief.
- Better coordination between the tasks assigned to the Project Coordinator and the fire districts. The Coordinator was contractually responsible for completing one list of tasks identified in his contract and those tasks did not coincide with tasks assigned to the districts. In the future it is recommended that there be better coordination of work/tasks to ensure that participants understand clearly what they are responsible for accomplishing. A simple listing of each parties requirements/tasks listing them in order of their planned occurrence and the date by which they are to be completed would allow for better tracking of progress and delineation of responsibility.

4. Indirect Impact

Please describe any indirect benefits of the project such as information that has been developed as a result of the project is being used by several other organizations to improve decision-making, or a conservation easement funded by this grant that encouraged other landowners in the area to have conservation easements on their property.

Information gathered was shared with neighboring counties.

5. Collaboration and Conflict Resolution

If you worked in collaboration or cooperation with other organizations or institutions, describe those arrangements and their importance to the project. Also, describe if you encountered conflict in the project and how you dealt with it, or if there was conflict avoided as a result of the project.

We collaborated with the Yuba County Watershed Protection and Fire Safe Council, Yuba County and the 5 Fire Districts in Yuba County. We did not have any conflict in completing the project.

6. Capacity-Building

SNC is interested in both the capacity of your organization, as well as local and regional capacity. Please describe the overall health of your organization including areas in need of assistance. SNC is interested in the strength and involvement of your board, significant changes to your staff, size and involvement of membership. In addition, describe how your project improved capabilities of partners, or the larger community.

Our Council's capacity is good. We have had no changes to staff or membership. We believe the project brought together the 5 fire districts in Yuba County to work collaborative on the project. We think there will be increased communication now between the Districts. We are also seeing better participation in the Fire Safe Council. It also increased the county's working with Cal Fire and FS on mapping issues.

7. Challenges

Did the project face internal or external challenges? How were they addressed? Describe each challenge and any actions that you took to address it. Was there something that SNC did or could have done to assist you? Did you have to change any of your key objectives in response to conditions "on the ground"?

Our biggest challenge was for the Project Coordinator to get Responses from the Fire Districts. Since they are all volunteer organizations, it was tougher than if they all had paid staff that was doing the work.

8. Photographs

Grantees are strongly encouraged to submit photos, slides or digital images whenever possible. These images will be used for SNC publications such as annual reports or on the website. Please make sure you clearly identify location, activity, and your project with each submitted image. Images will be credited to the submitting organization, unless specified otherwise.

A CD with photos is attached as well as some printed out photos.

9. Post Grant Plans

What are the post-grant plans for the project if it does not conclude with the grant? Include a description of the following (if applicable): (1) Changes in operations or scope; (2) Replication or use of findings; (3) Names of other organizations you expect to involve; (4) Plans to support the project financially, and; (5) Communication plans?

We would like to replicate this project in the other 4 counties that we cover.

We will be developing a success story of this project.

10. Post Grant Contact

Who can be contacted a few years from now to follow up on the project? Please provide name and contact information.

Kay Joy Barge
High Sierra RC&D Council
530-823-5687 ext. 5
Kay.joy@ca.usda.gov

SNC-approved Performance Measures: (Please list each Performance Measure for your Project, as identified in your Grant Agreement, and the results/outcomes.)

Number and extent of firefighting water resource identified and signed? **694**

Number of special status species identified and protected through refereeing on firefighting water resource database? **None**

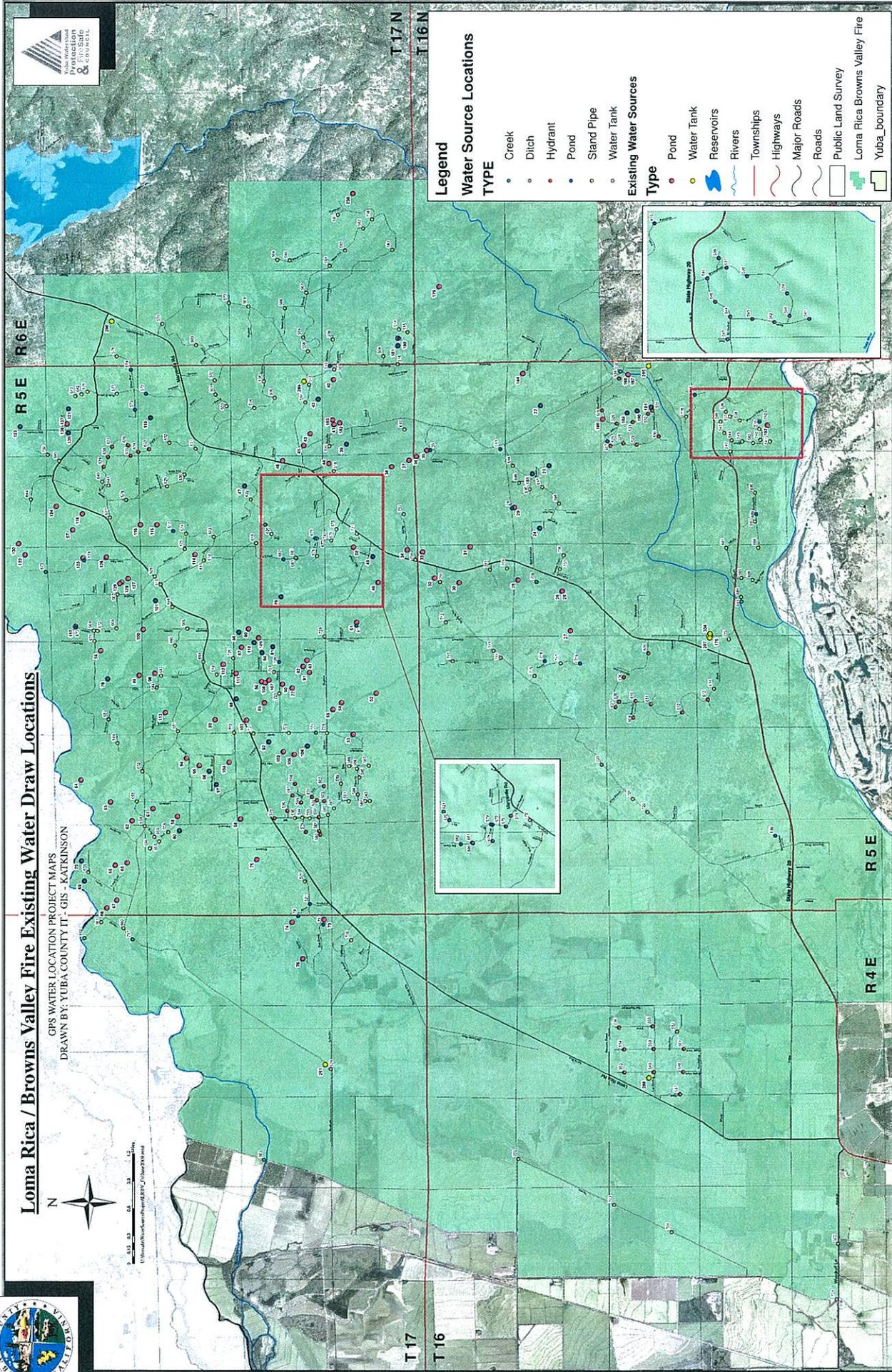


Loma Rica / Browns Valley Fire Existing Water Draw Locations

GIS WATER LOCATION PROJECT MAPS
DRAWN BY: YUBA COUNTY IT - GIS - KATKINSON

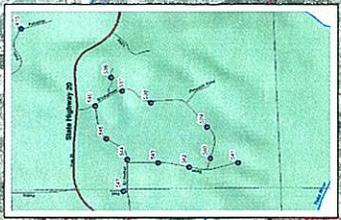
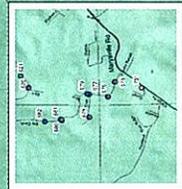


0 0.5 1 1.5 2 Miles



Legend

- Water Source Locations**
- Creek
 - Ditch
 - Hydrant
 - Pond
 - Stand Pipe
 - Water Tank
- Existing Water Sources**
- Pond
 - Water Tank
 - Reservoirs
 - Rivers
 - Townships
 - Highways
 - Major Roads
 - Roads
 - Public Land Survey
 - Loma Rica Browns Valley Fire
 - Yuba_boundary





Foothill Fire Protection District - GPS Water Draw Locations

GPS WATER LOCATION PROJECT MAPS
DRAWN BY: YUBA COUNTY IT - GIS - Kalkinson

R 7 E R 8 E

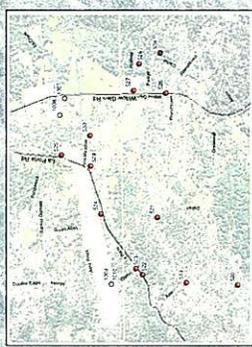
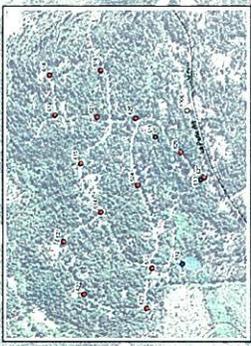
R 5 E R 6 E

R 6 E R 7 E

T 20 N
T 19 N

T 19 N
T 18 N

T 20 N
T 19 N

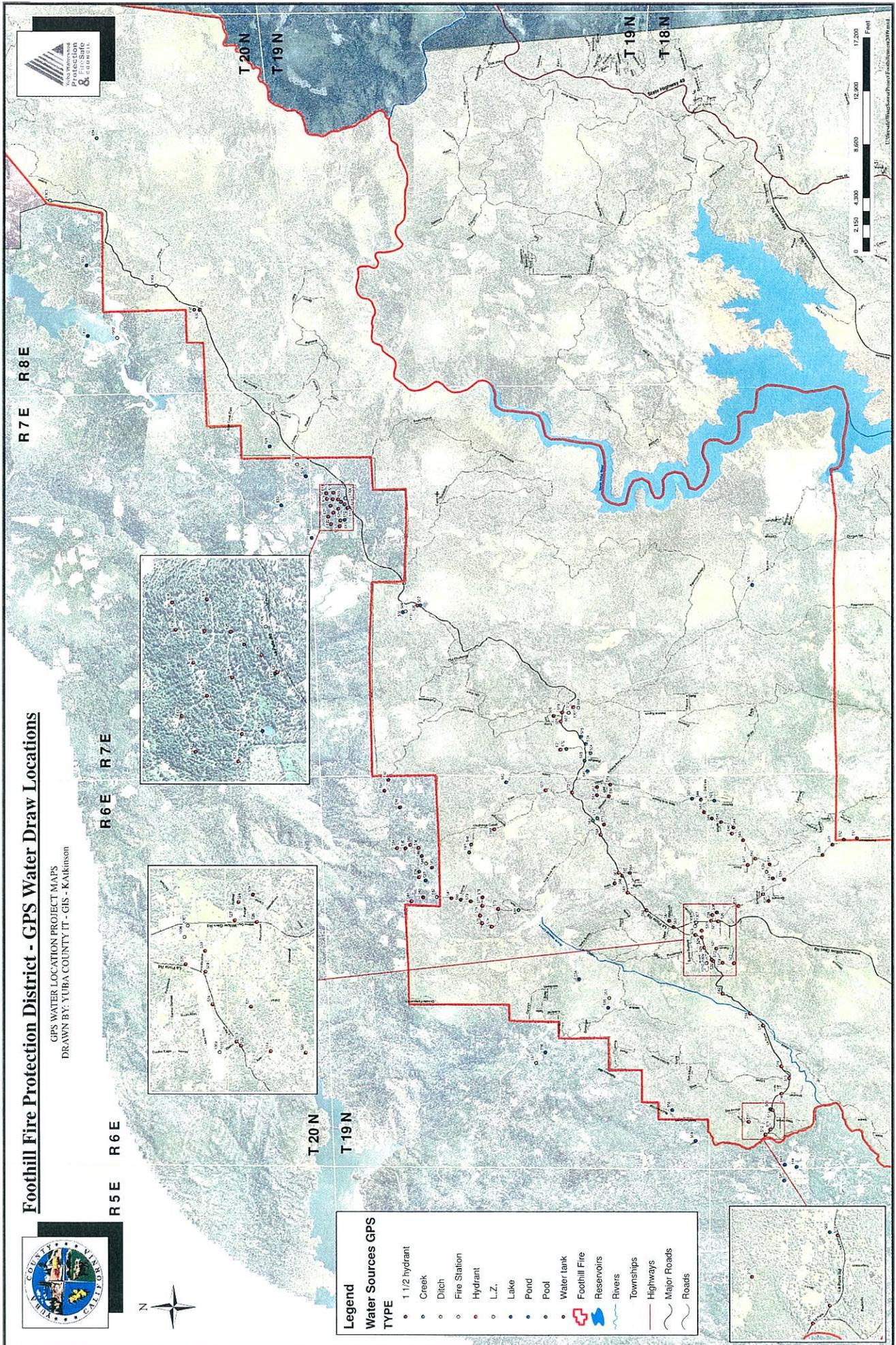
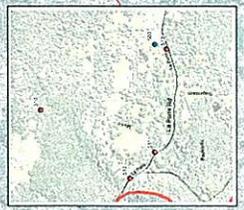


Legend

Water Sources GPS

TYPE

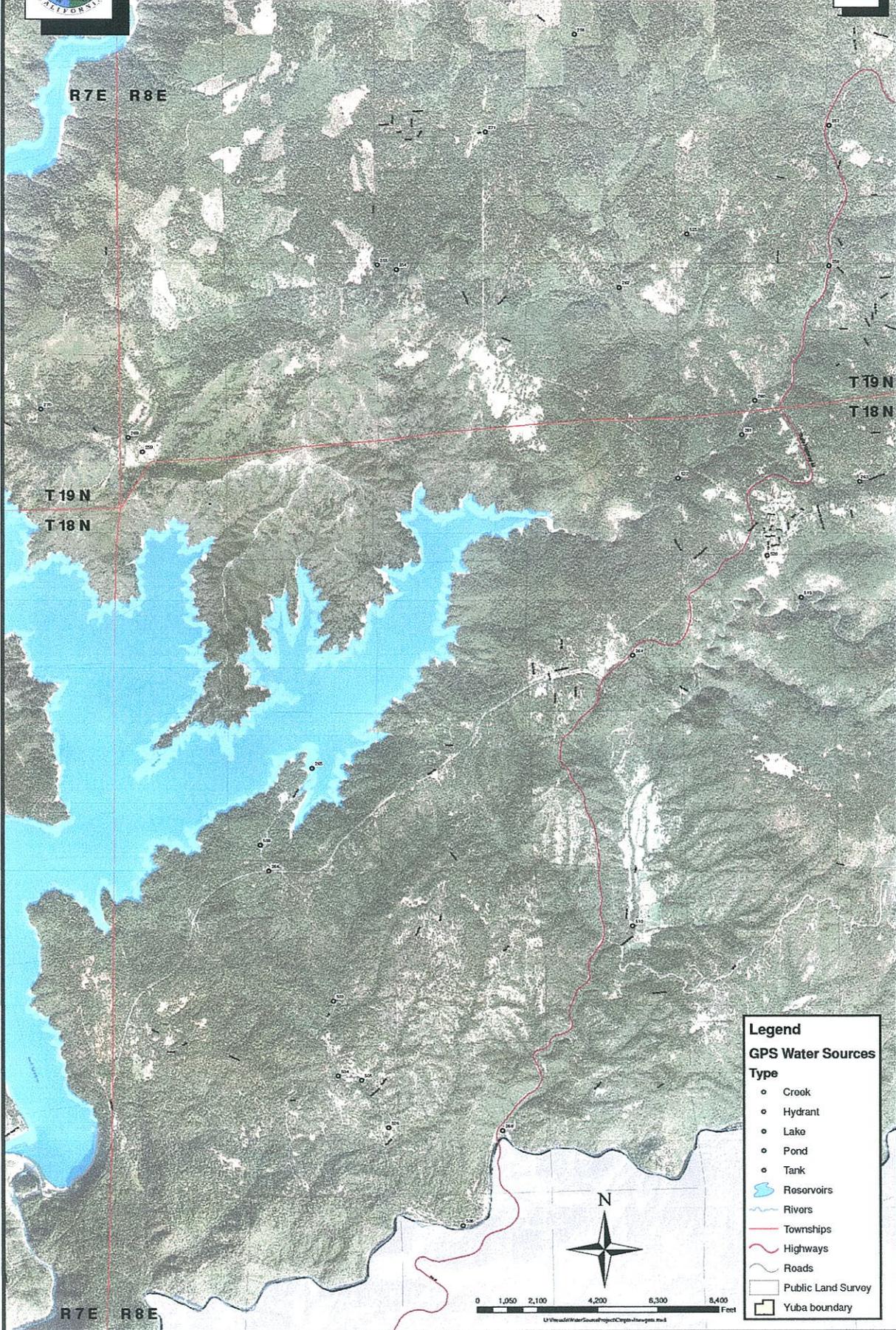
- 1 1/2 hydrant
- Creek
- Ditch
- Fire Station
- Hydrant
- L.Z.
- Lake
- Pond
- Pool
- Water tank
- Foothill Fire
- Reservoirs
- Rivers
- Townships
- Highways
- Major Roads
- Roads





Camptonville Community Service District - Water Draw Locations

GPS WATER LOCATION PROJECT MAPS
DRAWN BY: YUBA COUNTY IT - GIS - KATKINSON



Legend

GPS Water Sources

Type

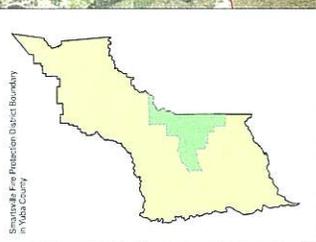
- Crook
- Hydrant
- Lake
- Pond
- Tank
- Reservoirs
- Rivers
- Townships
- Highways
- Roads
- Public Land Survey
- Yuba boundary

0 1,050 2,100 4,200 6,300 8,400 Feet

U:\Projects\Water Sources\Project\Origin\Drawings.mxd



Smartsville Fire Protection District Boundary
in Yuba County



Smartsville Fire Protection District Water Draw Location

GPS LOCATED WATER SOURCES FOR FIRE SUPPRESSION
DRAWN BY: YUBA COUNTY IT - GIS - K.A.E.A

R 5 E R 6 E

R 4 E R 5 E

T 15 E T 16 E

R 5 E R 6 E

Legend

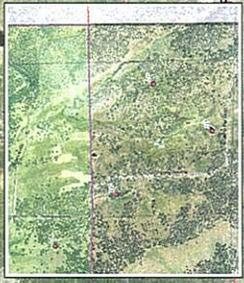
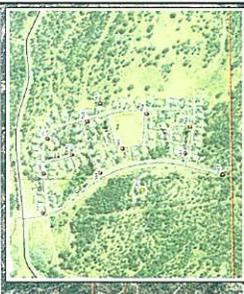
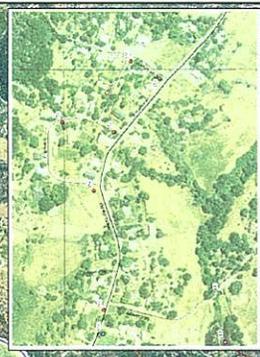
Reservoirs	Rivers
Townships	Highways
Major Roads	Roads
PLS	Smartsville Fire
Yuba boundary	Yuba boundary

GPS Water Draw Locations

Canal	Creek	Fire Station	Hydrant	Pond	Pool	River	Stand pipe	Tank	Tank & Creek	Tank & Hydrant	Well
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Existing Water Sources

Pond	Water tank
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Dobbins Oregon House Fire Protection District

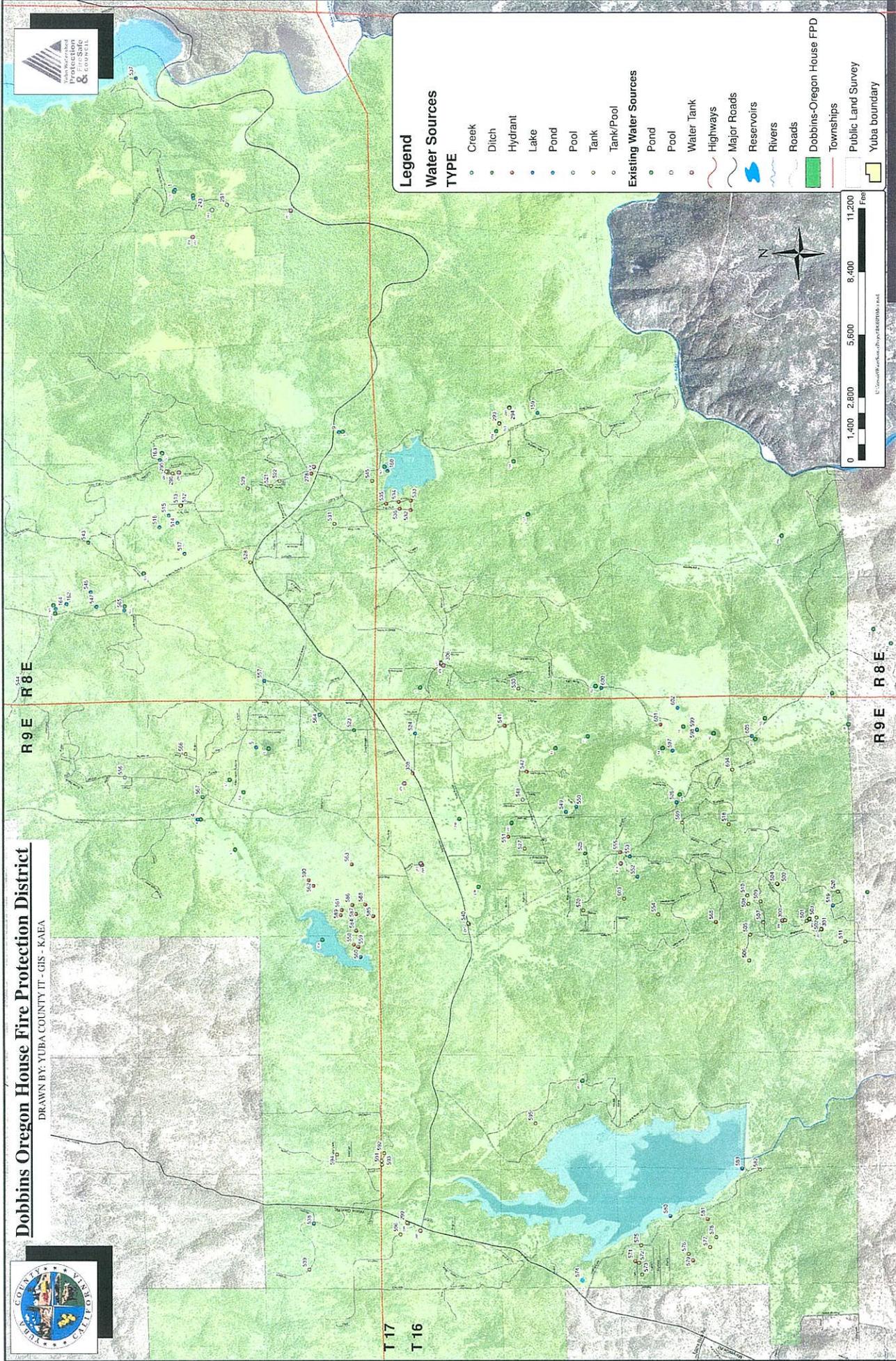
DRAWN BY: YUBA COUNTY IT - GIS - KAEA



R 9 E R 8 E

R 9 E R 8 E

T 17
T 16



Legend

Water Sources

TYPE

- Creek
- Ditch
- Hydrant
- Lake
- Pond
- Pool
- Tank
- Tank/Pool

Existing Water Sources

- Pond
- Pool
- Water Tank
- Highways
- Major Roads
- Reservoirs
- Rivers
- Roads
- Dobbins-Oregon House FPD
- Townships
- Public Land Survey
- Yuba boundary





Dennis DR



99-4



4-H CAMP
←

129 3136

15356

↑ 153

OREGON PEAK
FOREST FIRE LOOKOUT
←
CALIFORNIA DEPARTMENT OF FORESTRY

NOT A PUBLIC ROAD



City
UNION

Crescent Valley / The
UNION

Blue circular sign





