

APPENDIX A

MADERA REGIONAL WATER MANAGEMENT GROUP PROJECT LIST

Appendix A

Madera RWMG Proposition 1 Update Project List

Number	Project Name	Implementation Agency	Project Status	Notes or Comments
1	WWTP Effluent Reuse (Agricultural Reclamation)	City of Chowchilla	On Hold	Current 1.8 MGD WWTP to be used for industrial wastewater when the new plant is online
2	Industrial Area Sewer System	City of Chowchilla	New	
3	City of Chowchilla Water Well Project	City of Chowchilla	New	Construct municipal well to counter well capacity loss due to drought
4	Install recycled water storage, treatment, and conveyance systems	City of Chowchilla	New	
5	Land Acquisitions for Groundwater Recharge Basins in the Industrial Area	City of Chowchilla	New	Feasibility Study required
6	Repair Leaking Water System	City of Chowchilla	New	
7	Water Conservation Program	City of Chowchilla	New	Provide rebates, loans or incentives for installation of high efficiency water fixtures, appliances, smart irrigation clocks or irrigation components, synthetic lawn, etc.
8	Industrial Area Sewer System	City of Chowchilla	New	
9	SCADA System	City of Chowchilla	New	
10	WWTP Rehab/Upgrade	City of Chowchilla	New	
11	Urban Runoff Management Project	City of Chowchilla	New	Consist of making sure runoff is captured for recharge (i.e. disconnect commercial area pump station from pumping into slough and instead pump into basin for recharge)
12	Ultra-low Flush Toilet Replacement Program	City of Chowchilla	Currently no program	Water savings based on AWWARP study and costs based on City of Fresno costs
13	Hall Green Infrastructure and Stormwater Infiltration Project	City of Chowchilla		Green Infrastructure improvements at the City of Chowchilla City Hall will direct runoff from adjacent parking lots, roadways, sidewalks, and the roof downspouts into landscape features designed to infiltrate captured storm water.
14	City of Madera Water Meter Installation Project	City of Madera	In design	Install 850 meters on industrial, commercial, multi-family and institutional connections
15	City of Madera Water Well Project	City of Madera	In design	Construct municipal well to counter well capacity loss due to drought
16	Fresno River Consolidated Stormwater Quality Enhancement Project	City of Madera	New	
17	Install recycled water storage, treatment and conveyance systems	City of Madera	New	
18	Ultra-low Flush Toilet Replacement Program	City of Madera	Currently no program	Water savings based on AWWARP study and costs based on City of Fresno costs
19	Water Conservation Program	City of Madera	New	Provide rebates, loans or incentives for installation of high efficiency water fixtures, appliances, smart irrigation clocks or irrigation components, synthetic lawn, etc.
20	Storm Water Retention Basin Percolation Well Project	City of Madera	New	Construct percolation wells in the City's network of retention basins
21	Installation of Oil/Water Separators at Various Outfall Locations	City of Madera	New	Proposed Oil/Water separator installation project will remove trash, oil, sand and other sediments at outfall locations that leads to the Fresno River.
22	City Hall Conservation Landscaping, Green Infrastructure, and Storm Water Infiltration Project	City of Madera	New	Proposed Green Infrastructure improvements at the City of Madera City Hall will direct runoff from parking lots, sidewalks, and the roof downspouts into landscape features designed to infiltrate captured storm water.
23	Rotary Park Conservation Landscaping, Green Infrastructure, and Storm Water Infiltration Project	City of Madera	New	Proposed Green Infrastructure improvements at the City of Madera's Rotary Park will direct runoff from parking lots, sidewalks, and roadways into landscape features designed to infiltrate captured storm water

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Number	Project Name	Implementation Agency	Project Status	Notes or Comments
24	Water Well Pump and Electrical Equipment Installation	City of Madera	New	Installation of well pump and electrical equipment
25	Water Meter Installation Project	City of Madera	New	Conversion approximately 400 to metered services
26	Water Storage Tank	City of Madera	New	Construct 6.75 million gallon water storage tank , pump station, and 3,450 feet of 24-inch diameter transmission main.
27	City of Madera/MID Storm water Recharge/Retention Basin Projects	City of Madera/MID	Leave on list	City & MID need to work cooperatively to implement existing agreement & further develop project description
28	Fourth and H Streets Flooding Mitigation Project	City of Madera/MID	New	Construct 42 inch storm drainage system
29	Create an Assessment District for Madera Ranchos	County	New	Feasibility Study required
30	Arundo Removal Project in Berenda, Dry, and Cottonwood Creeks	County/MID	In Progress	Continued funding required
31	Canal Way recharge Basin Project	County/MID		Project would construct recharge and new diversion from Canal to convey available flood flows/managed releases into the proposed basin.
32	Downtown Fresno River Project	County/MID/City of Madera	Conceptual	County and City of Madera seeking funds for feasibility study
33	Root Creek Flood Control and Water Supply	County/RCWD	Conceptual	Feasibility Study required
34	Ash Bypass Check Structure	CWD	New	Enlargement of Ash Bypass and Installation of automated gates on check structure
35	Improved Water Level Control Structures in CWD	CWD	Leave on list	Feasibility Study required
36	Improved Water Measurement Structures in CWD	CWD	Leave on list	Feasibility Study required
37	Land Acquisitions for Groundwater Recharge Basins	CWD	New	Feasibility Study required
38	Regulating/Recharge Basins in CWD - Berenda Canal/Greenhills Basin	CWD	Leave on list	Feasibility Study required
39	Regulating/Recharge Basins in CWD - Water Supply Development Study	CWD	Awaiting Authorization	Study to evaluate the potential of developing new supply for future farming and development
40	Replacement of Cast-in-Place Pipe	CWD	In Progress	CWD currently replacing 1/2 mile per year
41	Regulating/Recharge Basins in CWD b. Joint use of City of Chowchilla Basins	CWD/City of Chowchilla	Leave on list	Feasibility Study required
42	Merced Irrigation District CWD Water Transfer	CWD/Merced ID	Scope of work & Feasibility Study	Further evaluations of alternatives required.
43	Expansion of CWD Service Area	CWD/USBR	In Process	USBR processing application to add 10,000 acres
44	Surface Water Storage Reservoirs in CWD	CWD/USBR	Leave on list	Feasibility Study of sites near the Madera Canal required
45	Fairmead Green Infrastructure and Dry Well Improvements	Fairmead Community and Friends	New	The proposed project would improve nine (9) identified locations with known flooding issues in the community, retrofitting these locations with combination green infrastructure and dry well systems
46	San Joaquin River flood water Ground Water Recharge	Gravelly Ford WD	New	Improvements to Gravelly Ford Canal to increase flow capability for groundwater recharge
47	Flooding of Existing Pasturelands	Gravelly Ford WD	New	A new turnout from the Bypass channel and a pipeline across the Chowchilla Canal would be needed to deliver floodwater to this land.
48	Automation and SCADA	Gravelly Ford WD	New	Allows for more effective control of contract and flood flows within the District. Provide accurate measurement of water deliveries

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Madera RWMG Proposition 1 Update Project List

Number	Project Name	Implementation Agency	Project Status	Notes or Comments
49	Berenda Slough Arundo removal	Madera County	New	Remove approximately 13 miles of Arundo Donax, and Sediment on Berenda Creek as well as permanent repairs to the Creek due to the recent floods
50	Broadview Terrace Sewer System	Madera County	New	
51	Retirement of Irrigated Agricultural Lands	Madera County	Conceptual	Further development of potential program required
52	Subsidence around the Bypass & Red Top area in Madera	Madera County	New	Feasibility Study required
53	Cottonwood Creek Channel Clearing and Levee Repairs	Madera County	New	Remove approximately 12 miles of Arundo Donax and Excessive Overgrowth Vegetation, and Sediment on Cottonwood Creek as well as permanent repairs to the Creek due to the recent floods.
54	Cottonwood Creek Stormwater Capture Structure	Madera County	New	Project would rebuild/refurbish the crossing and replace the boards
55	SA 14 Chuk Chanse Subdivision Sewer System and Storm Drainage repairs	Madera County	New	30 lots are DAC
56	Dry Creek Channel Clearing and Levee/Embankment Repairs	Madera County	New	Remove approximately 7 miles of Arundo Donax and Excessive Overgrowth Vegetation, and Sediment on the River, as well as permanent repairs to the Creek's embankments due to the recent floods.
57	Fairmead - New Well	Madera County	New	Feasibility Study required
58	Fairmead - Sewer Treatment Plant/Sewer System (MD-33)	Madera County	New	Feasibility Study required
59	Fresno River channel clearing and Levee Embankment Repairs	Madera County	New	Remove approximately 23 miles of Arundo Donax and Excessive Overgrowth Vegetation, and Sediment on the River, as well as permanent repairs to the River's embankments and Levees due to the recent floods.
60	Groundwater Management Plan Update	Madera County	New	
61	Paula Road Drywell Stormwater Recharge	Madera County	New	Dry Well (or alternate buried infiltrative device) installation on the west side of our property in order to help with storm water management while at the same time recharging the water table in the area.
62	Brockman Park Flood Control Basin Project	Madera County	New	Project includes building an initial basin covering five acres of a proposed 13-acre site and additionally, a pipeline will be built to deliver surface water from the Madera Irrigation District's Lateral 6.2 to the basin for additional groundwater recharge
63	Hidden Lakes water treatment and collection systems repair	Madera County	New	
64	Indian Lakes Pond Dredging and Clearing	Madera County	New	
65	Madera Ranchos Floodway Recharge	Madera County	New	The proposed project would construct an approximately 0.6 acre detention basin in the northern parcel, and a 0.5 acre detention basin in the southern parcel
66	MD - 6 Water Reliability Project	Madera County		
67	MD - 8 North Fork Sewer System Repair	Madera County	New	Replace septic systems and private wastewater system with new wastewater system
68	MD-10A Sewer System	Madera County	New	
69	MD-10A Storm water and flood control system	Madera County	New	
70	MD-22A Oakhurst Sewer Main Project	Madera County	New	Install 730 feet new sewer main and replace 4,700 feet of existing sewer manis.
71	MD - 95 well water supply reliability project	Madera County	New	

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Number	Project Name	Implementation Agency	Project Status	Notes or Comments
72	Parksdale water meter water conservation Project	Madera County	New	
73	Parkwood Water meter water conservation Project	Madera County	New	Install self-reading electronic meters on approximately 633 connections
74	Parkwood Well Water Supply Reliability Project	Madera County	New	Install new well to meet Parkwood's maximum daily demands
75	Ranchos/Brockman Park Multi Use Basin	Madera County	New	
76	Rampage Vineyards Recharge Facility	Madera County	New	A specific location for a 10 to 20 acre recharge pond will be identified, subsurface borings, layout of the facility including basin, pipeline and pump station, and design drawings will be produced in the updated feasibility study
77	Root Creek Detention Facility	Madera County	New	
78	Studies necessary to fabricate and install new potable water storage tank	Madera County Public Works for CSA-1 (Indian Lakes)	New	Provide environmental, engineering, cost analysis, and other necessary reports to fabricate and install new potable water storage tank
79	Feasibility study to put idle well #4 back into production	Madera County Public Works for CSA-1 (Indian Lakes)	New	Provide a feasibility study, engineering and cost analysis for putting #4 back into production
80	Studies necessary to drill new domestic water well	Madera County Public Works for CSA-1 (Indian Lakes)	New	Provide environmental, engineering, cost analysis and other necessary reports for a replacement domestic well and connection to water delivery system in Indian Lakes
81	Replace standard water meters with Smart meters	Madera County Public Works for CSA-1 (Indian Lakes)	New	Replace standard water meters with Smart meters as recommended by Bartle Wells Associates in water rate study of CSA-1
82	Water treatment equipment for idle Well #4	Madera County Public Works for CSA-1 (Indian Lakes)	New	Water treatment equipment to bring quality of well #4 water into compliance with California State standards
83	Replacement well and connection to water delivery system	Madera County Public Works for CSA-1 (Indian Lakes)	New	Construct new well and connection to water delivery system to replace Well No. 5 which is no longer producing water
84	Water storage tank and installation	Madera County Public Works for CSA-1 (Indian Lakes)	New	Construct new water storage tank for domestic and fire suppression water
85	Bonadelle Ranchos Groundwater Recharge Project	Madera County or SEMCU	New	
86	Illegal Marijuana grow site clean-up - Hazardous waste, Rodenticides, grow supplies	Madera County/CRCD/ Y/S RC&D	New	Studies have been done - this is an ongoing concern and project
87	Western Madera County Subsidence Solutions - Shallow Water Supply Replacement Wells	MID/Chowchilla Water District	Conceptual	Develop approximately 30 new shallow wells to replace deep wells
88	Western Madera County Subsidence Solutions - Recharge Ponds and Turnouts	MID/Chowchilla Water District	Conceptual	720 acres of recharge ponds in Red Top area
89	Western Madera County Subsidence Solutions - Surface Water Distribution System	MID/Chowchilla Water District	Conceptual	Provide distribution system to serve 25,640 acers of agricultural land and groundwater recharge
90	Muddy Falls Stormwater Project	North Fork Rancheria of Mono Indians of California	New	The project is to remove sedimentation, to improve stormwater flow, install drainage pipe, and to implement best management practices per USDA Natural Resource Conservation Service
91	Root Creek Avenue 10 Intentional Recharge Project	Root Creek Water District	In design	Masterplan for wastewater effluent that will be treated to tertiary standards for recharge
92	Root Creek Parkway Water Conservation Project	Root Creek Water District	In design	Multi-use facilities to reuse effluent, recharge stormwater, and recharge surface water supplies
93	Agricultural Irrigation Systems Expansion	Root Creek Water District	New	Expansion of existing agriculture irrigation system for additional surface water use for in-lieu recharge and groundwater improvements
94	Root Creek Road 35 Recharge Basin	Root Creek Water District	New	Development of 80 acer recharge basin to capture storm/flood flows from Root Creek to facilitate recharge to reduce the local groundwater decline
95	Chowchilla Bypass Turnouts	Red Top Area	New	Project to construct turnouts from the Chowchilla flood bypass channel to divert flood water for groundwater recharge

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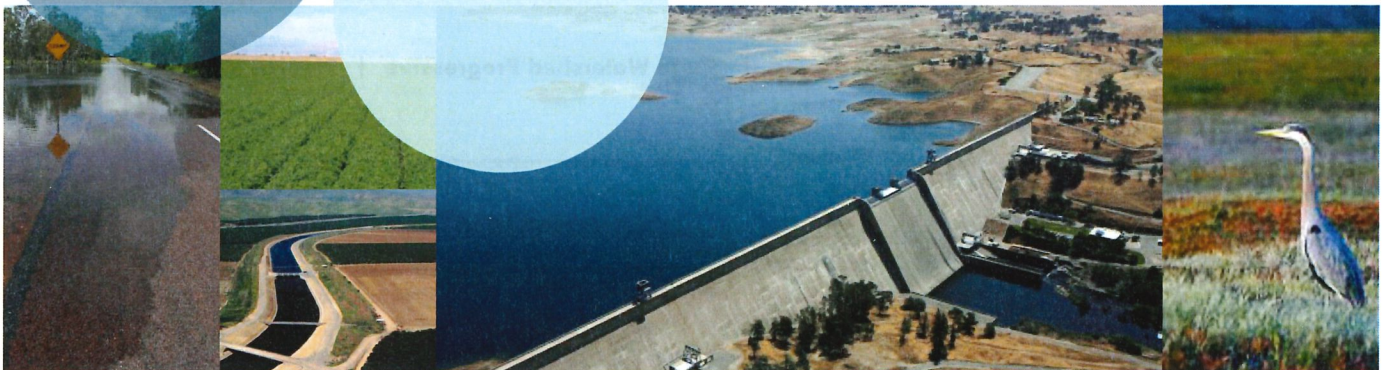
Number	Project Name	Implementation Agency	Project Status	Notes or Comments
96	Eastside Bypass Flood Water Diversion and Recharge Project	Red Top Area	New	Project proposes to divert flows from the Eastside Bypass to three ranches for flood control purposes. Two slant mount pumps would be installed at each of the three ranches.
97	Liberty Groves - Madera Ranchos South Drainage	SEMCU	New	Potential to create basin for groundwater recharge at Ave 11 ¼ alignment (existing vineyard)
98	Madera County Drain Wells	SEMCU -Countywide	Approved for addition to Plan June 13, 2016	Installation of 200 or more 24 inch and 36 inch diameter drain/dry wells to capture flood and storm water for recharge
99	Madera Ranchos North Drainage – Section north of Avenue 12 between Road 34 ½ & 35. Location in the back portion of 10-acre parcels accessed by Avenue 12 ¼.	SEMCU	New	Potential to create off-channel basin or in-channel basin for groundwater recharge. Feasibility Study is Required.
100	Madera Ranchos North Drainage: South of Avenue 12 to Avenue 11, Road 31	SEMCU	New	Feasibility Study is Required
101	Madera Ranchos: Repair Leaking Water System	SEMCU	New	
102	Madera Ranchos South – Detention Basin: North of Avenue 12 & Road 38, adjacent to eastside of MID lateral 6.2 Canal.	SEMCU	New	Feasibility Study is Required
103	Madera Ranchos: Water Fixture Retrofit	SEMCU	New	
104	Madera Ranchos: Water Meter Installations	SEMCU	New	
105	MD-10A & Rolling Hills Service Area 19 Residential Water Metering & Conservation Project	SEMCU	New	Similar to the City of Madera and Chowchilla projects - Also meters are required by 2025 for existing public water systems.
106	Valley Teen Ranch/MD10A Water System Consolidation	SEMCU	Grant Application submitted	Grant application has been submitted to the State Revolving Fund
107	Replacement of Discharge Valve at Friant Dam - Madera Canal	USBR	working w/bureau	Feasibility Study Required
108	San Joaquin River Storage - Temperance Flat	USBR	Requires State Legislation	County needs to support authorization legislation & obtain its share of the project yield.
109	Mendota Pool Bypass and Reach 2B Improvements	USBR		The Mendota Pool Bypass and Reach 2B Improvements Project (Project) includes the construction, operation, and maintenance of the Mendota Pool Bypass and improvements in the San Joaquin River channel in Reach 2B.

APPENDIX B

MADERA COUNTY STORMWATER RESOURCE PLAN 2017

COUNTY OF MADERA
Storm Water Resource Plan

December 28, 2017



APPENDIX C

RESOLUTION TO ADOPT

APPENDIX C
COMMUNITY CAPACITY – MOUNTAIN COUNTIES



**Madera IRWM
Community Capacity Workshop**

October 30, 2018

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Madera: Community Capacity Workshop Introduction

In 2017, the Sierra Institute for Community and Environment (Sierra Institute) was selected by representatives from each Integrated Regional Water Management (IRWM) region in the Mountain Counties Funding Area (MCFA) to be the applicant for the Proposition 1 Disadvantaged Community (DAC) Involvement Program. The DAC Involvement Program includes the following objectives:

1. Work collaboratively to involve DACs, community-based organizations, tribes and stakeholders in IRWM planning efforts to ensure balanced access and opportunity for participation in the IRWM planning process.
2. Increase the understanding, and where necessary, identify the water management needs of DACs and tribes on a Funding Area basis.
3. Develop strategies and long-term solutions that appropriately address the identified DAC and tribal water management needs to the grantee.

The community capacity workshops are part of a methodology that the Sierra Institute is implementing to better understand community characteristics using a combination of capacity and multiple socio-economic measures. To identify communities, Sierra Institute starts with US Census block groups, the smallest unit for which there is reliable and consistent demographic data to ensure inclusion of dispersed populations throughout the region.

In order to accomplish this task, Sierra Institute took the following steps starting with a pilot community capacity workshop in the Madera IRWM:

- Conducted a preliminary mapping exercise with local experts to identify communities from block groups in the Madera IRWM (results are shared and finalized at the workshop);
- Facilitated a Community Capacity Assessment Workshop with community members that spoke to the capacity of several communities in Madera;
- Prepared a preliminary community capacity report for the region.

Upon completion of the community capacity workshops throughout the MCFA, results are relativized across the region and the following steps will be taken:

- Gather socio-economic census data for each community across the MCFA to augment capacity measures determined through workshop participation;
- Develop a final report for capacity and socio-economic findings for communities in the IRWM region.

The final report will not only support IRWM planning efforts and future funding opportunities through the IRWM Grant Program or other financial assistance programs, but also shed light on low capacity communities across the Sierra that have many challenges, including unmet water and wastewater needs.

Methods

The benefit of this approach to DAC identification is the creation of a methodology that can be replicated so that communities are not excluded from funding based on a single economic or environmental indicator. Reliance on a single indicator using census data can skew data in areas with low populations and does not fully account for unincorporated communities. Due to low populations, median household income (MHI) estimates in rural communities often have large margins of error, a problem exacerbated by the high number of vacation homes in the area. Demographic information is also complicated by retired, seasonal, and chronically unemployed populations that may be excluded from census data. As a result, large portions of rural counties, like those in the MCFA, are excluded from funding for projects that benefit DACs, even though much of the region is characterized as disadvantaged in some way, whether by poverty or distance from resources. Finally, results can be compared with the community capacity assessments conducted across the Sierra for the Sierra Nevada Ecosystem Program (SNEP), which took a comprehensive look at the same community-based scale for assessing community well-being during the mid-90s.

Step 1: Block Group Data- Mapping Exercise

As part of an approach to identifying DAC, Sierra Institute first conducted a community mapping exercise involving county planners and local experts in order to delineate communities in the Mountain Counties Funding Area. The purpose of the exercise was to identify communities based on social characteristics. We began to identify communities using block groups, the smallest unit for which there is reliable and consistent demographic data, and which also allows inclusion of dispersed populations throughout the region.

For the exercise, residents and local experts created community units from adjacent block groups that use common service centers, have regular interactions, and/or share similar social characteristics. Geographic features, school systems or community service districts aided in the delineation of communities. Participants formed community units by combining adjacent block groups and block groups were never split into smaller units. Some communities consisted of a single block group, some communities consisted of multiple block groups, and several communities transcended watershed and/or county boundaries.

The second challenge of the exercise was to name the community, or aggregation of block groups. A single name was occasionally sufficient for aggregated block groups, but in many instances, two, three, or even four names were needed to capture the communities represented.

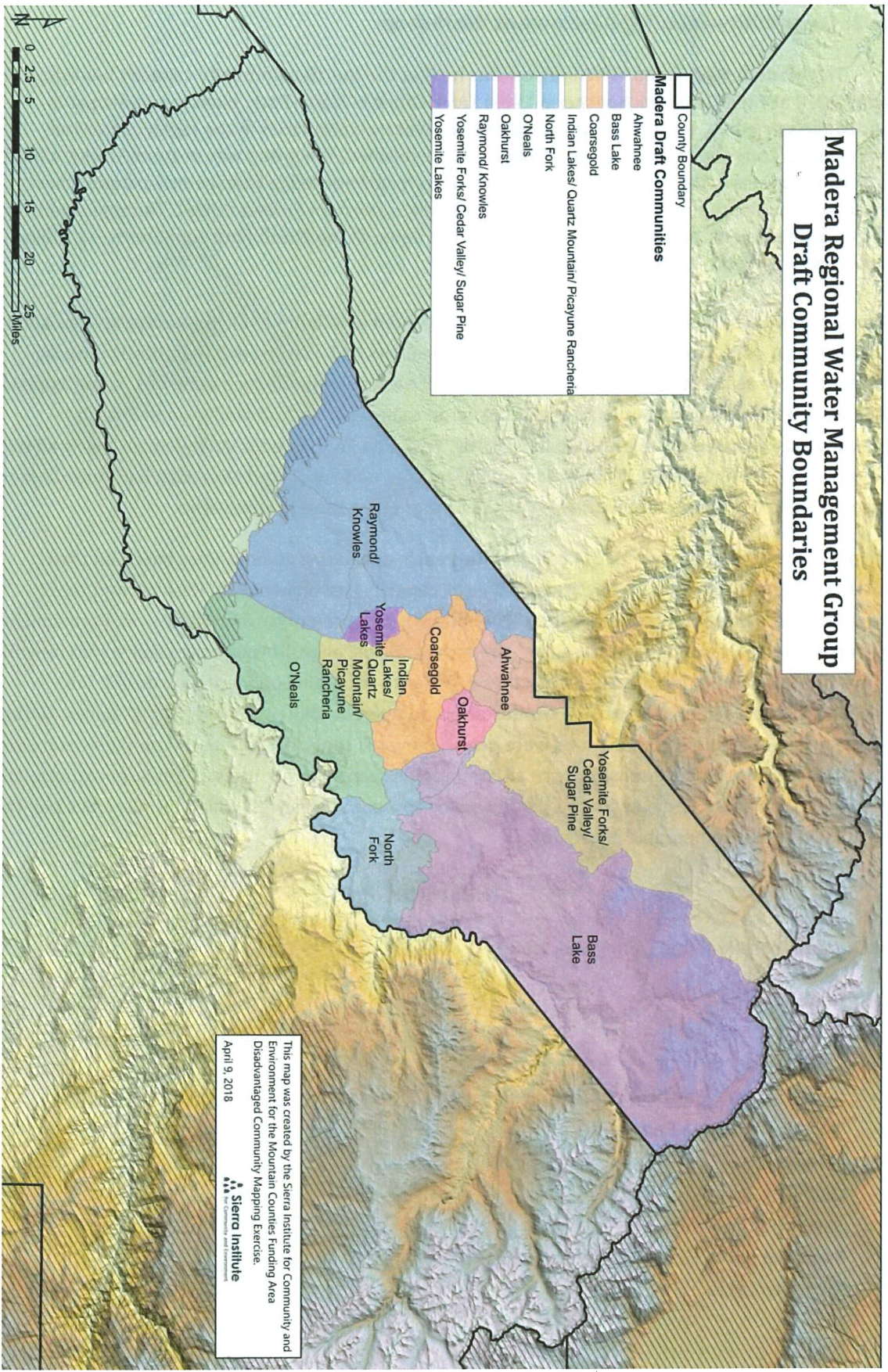


Figure 2: Draft communities developed with county planners and local experts in Step 1 of methods.

Step 2: Community Capacity Assessment Workshop

The Madera Watershed IRWM region was held as the fourth community capacity workshop. On July 24th 2018 at the North Fork Rancheria Tribal TANF Office in North Fork, nineteen participants attended the workshop, each bringing knowledge of several communities in the region. After the Disadvantaged Community Involvement Program was explained, the group was presented with a draft map of communities in the region that was informed by local knowledge from county planners and previous community capacity work for the Sierra Nevada Ecosystem Project (1996). Through small and large group discussions, an alteration was made to the name of the North Fork community by adding “Mono Rancheria” onto its existing name.

Following community identification, the facilitator presented a definition of community capacity and the five capitals that collectively form capacity. Once participants had a strong grasp of these concepts, participants were asked to rate their own knowledge of each community on a scale of 1-3, see Appendix A, then were assigned communities to assess based on their reported knowledge so that each community was assessed by at least two individuals. Yosemite Forks/ Cedar Valley/ Sugar Pine had two surveys completed. Ahwahnee, O’Neals, Raymond/ Knowles and Yosemite Lakes each had three surveys completed while the other communities each had four or more surveys completed.

Participants completed surveys for 3-4 communities each, evaluating communities based on their financial, social, cultural, human, physical and overall capacity, see Appendix B. Results from these surveys were confidential and displayed to the whole group to prompt further discussion. Participants were encouraged to describe communities’ strengths and challenges through the capacity framework with five capitals without identifying their scores in order to maintain confidentiality during the discussion. This was aimed at creating a comfortable and open dialogue to encourage all voices. During this large group discussion, communities were given an overall capacity score based on their assets and deficits, as determined by consensus. Once all communities were scored, the scores were relativized to each other and finalized ending with the group coming to a consensus with which communities had the highest, lowest, and comparable capacities.

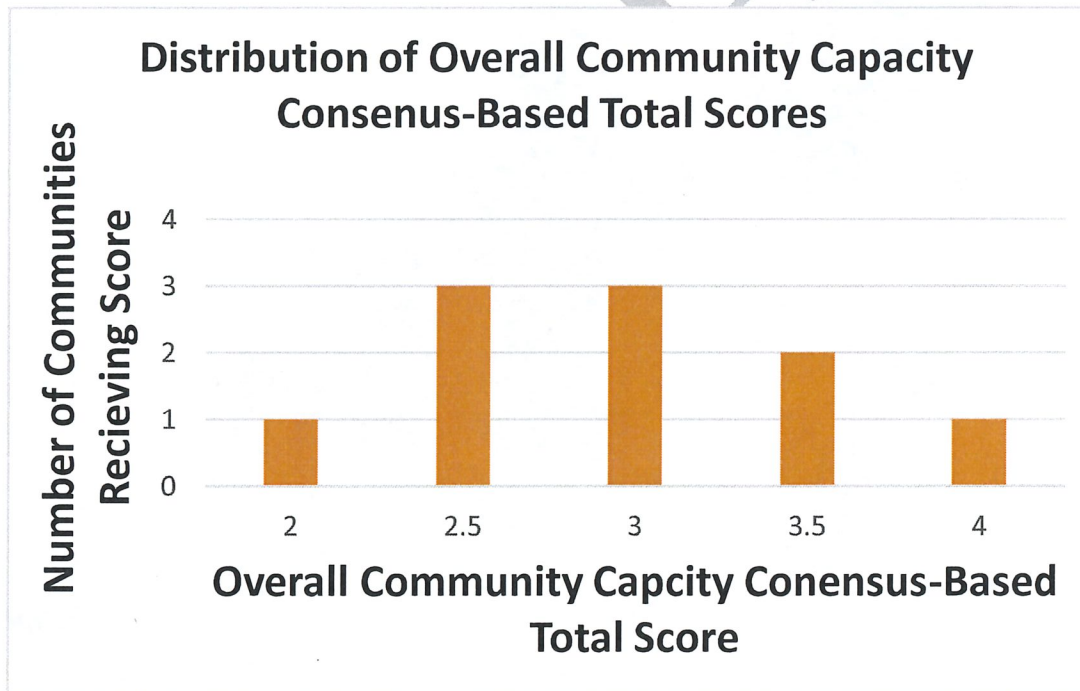
Results

Final Communities Identified During Workshop

- Ahwahnee
- Bass Lake
- Coarsegold
- Indian Lakes/ Quartz Lake/ Picayune Rancheria
- North Fork/ Mono Rancheria
- O’Neals
- Oakhurst
- Raymond/ Knowles
- Yosemite Forks/ Cedar Valley/ Sugar Pine
- Yosemite Lakes

Community Capacity Assessments Results¹

Communities	Overall Community Capacity Consensus-Based Total
Raymond Knowles	2
O'Neals	2.5
North Fork/ Mono Rancheria	2.5
Indian Lakes/ Quartz Lake/ Picayune Rancheria	2.5
Ahwahnee	3
Bass Lake	3
Yosemite Forks/ Cedar Valley/ Sugar Pine	3
Coarsegold	3.5
Yosemite Lakes	3.5
Oakhurst	4



¹ Community narratives and individual community capital data are available upon request.

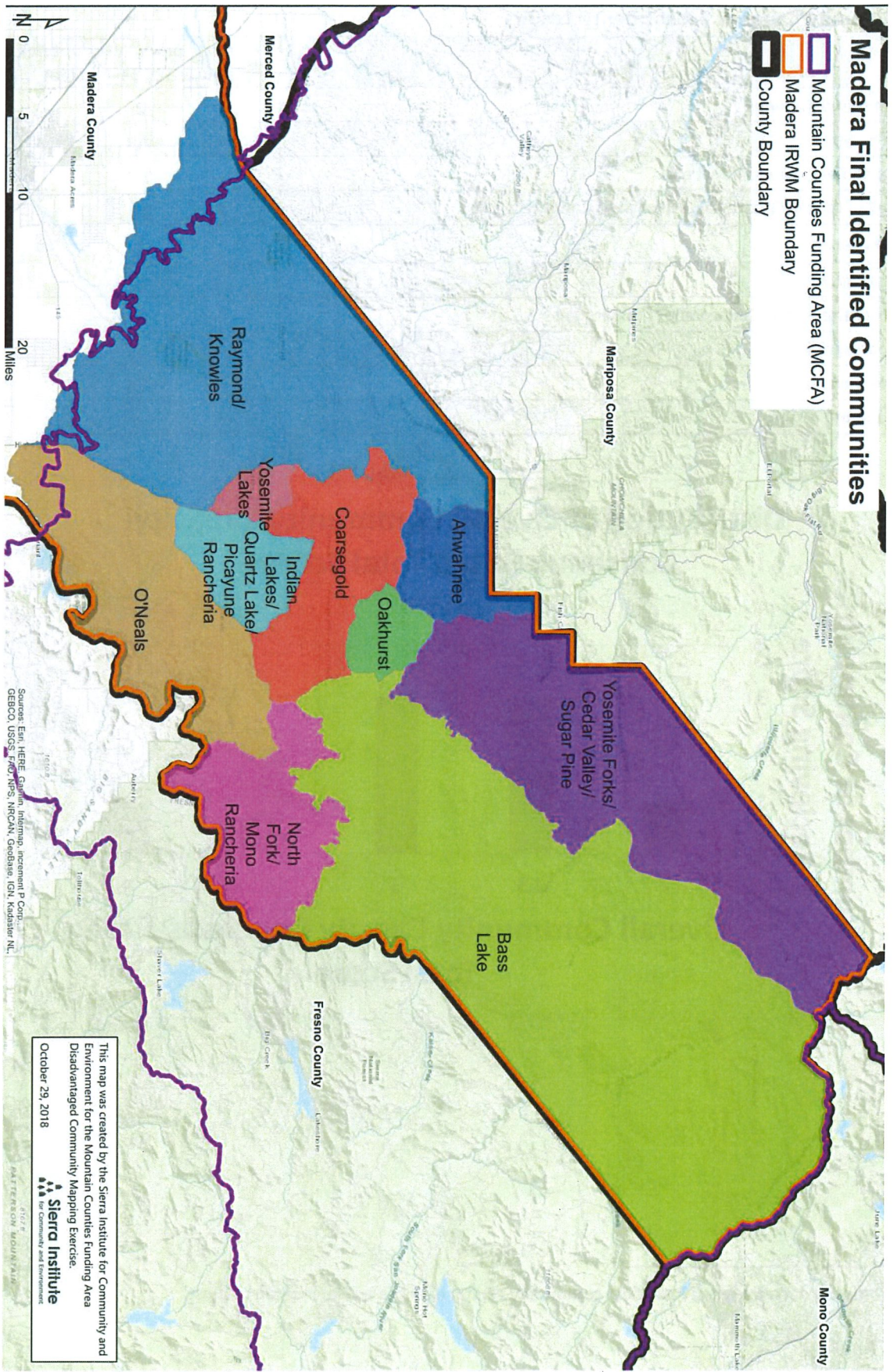


Figure 3: Communities in the Madera IRWM region, finalized during the Community Capacity Assessment Workshop.

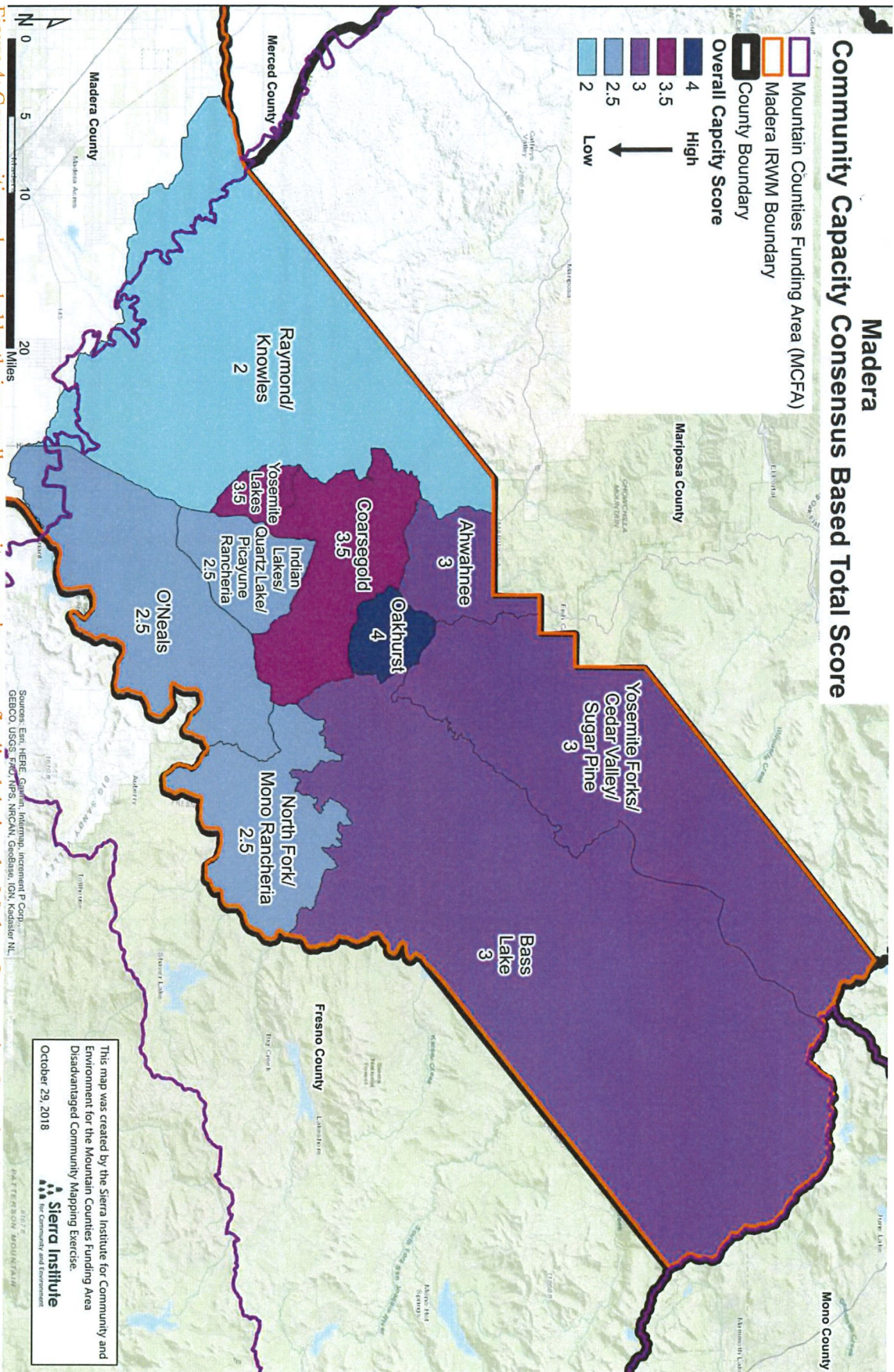


Figure 4: Communities color coded by their overall community capacity score, finalized during the Madera Community Capacity Assessment Workshop.

Madera: SI Designated Communities Using Overall Capacity Scores vs. DWR Designation of Disadvantaged Communities Using 2016 Median Household Income by Block Group

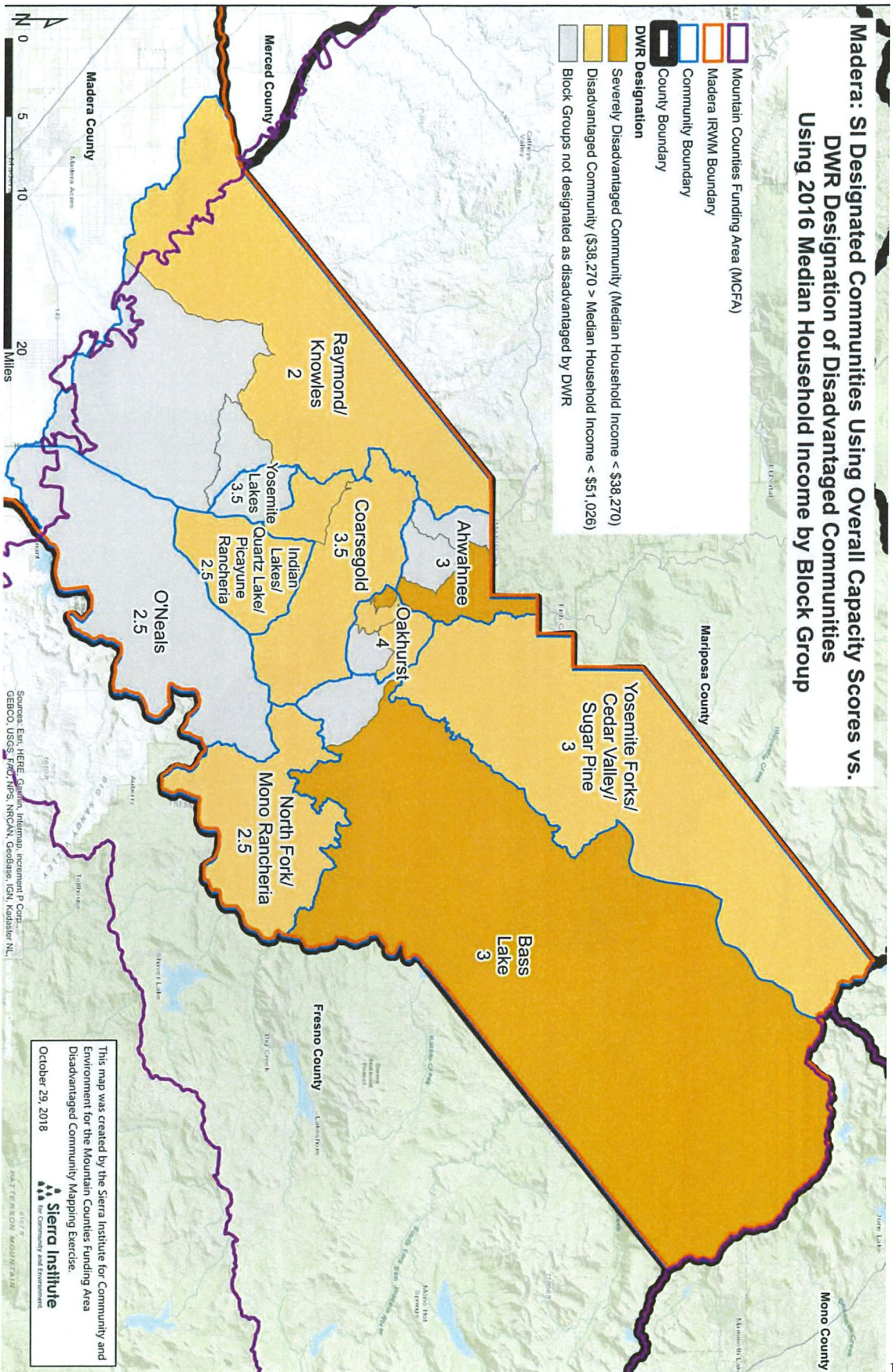


Figure 5. Department of Water Resources designation of disadvantaged communities by block groups based on Median Household Income from U.S Census data compared to overall community capacity score from workshop.

Next Steps

To further assess the current state of community well-being throughout the Sierra Nevada, a scale depicting variation in selected socioeconomic indicators for the community aggregations was developed from 2016 Census population and housing data. The scale incorporated five primary categories; housing tenure, poverty, education, employment, and children in households with public assistance. Income is not included as a category here because most of the variables are closely correlated with income measures available from the census data are problematic given how pockets of high income can distort the real distribution of income in aggregations. These individual categories are combined into a seven-point categorical scale that equally weights each measure. One on the scale indicates the lowest socioeconomic score and 7 is the highest. Higher levels of home ownership, education and employment are assumed to indicate higher levels of socioeconomic well-being, whereas higher levels of poverty and a higher percentage of children in homes receiving public assistance income indicate lower levels of socioeconomic well-being. Socioeconomic indicators are listed and described below.

Housing tenure: The score reflects the relative level of owner-occupied housing versus renter-occupied housing across the Sierra. The score is the percentage of the occupied housing units that are owner occupied, the inverse of this variable being equal to the percentage of occupied housing units that are renter occupied. Housing tenure is suggestive of the relative wealth and permanence of residents in an area and offers an insight into the degree of local control over housing resources.

Poverty: This measure intends to capture the intensity of poverty within a given area and includes two equally weighted components; the percentage of all persons in poverty and a measure of poverty level and intensity. The first component, the percentage of all persons with income below the poverty level, is the ratio of persons with income above the poverty level to those with incomes below the poverty level. The second component of the poverty score indicates the relative intensity of poverty of those individuals with income below the poverty level.

Education: Education is reflected by a cumulative educational attainment score preferentially weighted toward higher levels of educational attainment for all persons twenty-five years of age and older.

Employment: This score is the percentage of the civilian labor force that is employed and is the inverse of the percentage of persons who are unemployed.

Children in households with public assistance: This measure reflects the percentage of all children under fifteen years of age living in households that receive public assistance income.

For the final analysis, scores from the socio-economic scale will be complemented by community capacity score from workshops. The five-factor socioeconomic scale offers a useful though static perspective of socioeconomic status while the measure of capacity provides a current and important perspective to overall community well-being. Capacity and socioeconomic status will be combined to assess overall well-being.

Other factors will be included from 2016 Census data as supplementary descriptors of the Sierra Nevada population. These include language isolation, uninsured population, commute to work and industry employment. This supplementary information is combined with community capacity narratives to present a deeper understanding the strengths and challenges of communities across the Sierra.

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Appendix A: Community Expert Sheet

Community Capacity Assessment Workshop

Name: _____

Instructions: Please indicate how knowledgeable you are about each of the following communities on a scale of 1 to 3, where 1= little to no knowledge, 2= some familiarity, and 3= significant knowledge of the community.

Community Name	Level of Knowledge		
	Low	Medium	High
Ahwahnee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bass Lake	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coarsegold	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indian Lakes/ Quartz Lake/ Picayune Rancheria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
North Fork/ Mono Rancheria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O'Neals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oakhurst	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raymond/ Knowles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yosemite Forks/ Cedar Valley/ Sugar Pine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yosemite Lakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Appendix B: Community Capacity Measures Worksheet

Sierra Institute Socioeconomic Monitoring: Community Capacity Assessment Workshop

Community Name _____

Please circle the number that best reflects your community's level of capital or capacity (on a scale of 1-5, 1 being the lowest level of capital or capacity and 5 being the highest level). Use space beneath each type of capital to provide narrative information. For example, describe the unique or important characteristics of your community that informed your decision. Additional space is provided at the end of this worksheet.

FINANCIAL CAPITAL

LOW 1 2 3 4 5 HIGH

(Availability of dollars for local uses and projects and to meet pressing local needs. These may be public dollars or private dollars, but if private they are tightly linked to community purpose and not just self-interested purposes.)

Please describe why you rated this community as you did in the box below.

HUMAN CAPITAL

LOW 1 2 3 4 5 HIGH

(Individuals with knowledge/ability to address conditions and stressors of concern; it is also the experience and capabilities of local residents their willingness to use these locally.)

Please describe why you rated this community as you did in the box below.

OVERALL CAPACITY RATING

LOW

1

2

3

4

5

HIGH

Please describe why you rated this community as you did in the box below.

Additional Narrative Information:

DRAFT

SOCIAL CAPITAL

LOW 1 2 3 4 5 HIGH

(The ability and willingness of local residents to work together towards community ends and purposes.)

Please describe why you rated this community as you did in the box below.

CULTURAL CAPITAL

LOW 1 2 3 4 5 HIGH

(The prevalence and strength of shared local bonds and ways of living, and the uniqueness of and identification with this.)

Please describe why you rated this community as you did in the box below.

PHYSICAL CAPITAL

LOW 1 2 3 4 5 HIGH

(The “hard infrastructure” of a community, such as roads, sewers, schools, etc., including the quality of this infrastructure and its ability to meet local need.)

Please describe why you rated this community as you did in the box below.

MADERA IRWMP Workshop

DACTI Flip Chart Notes

(07-24-18)

TECHNICAL ASSISTANCE

The Madera *IRWM Plan 2014* discusses water resource issues and major water conflicts (Chapter 4), it also addresses Disadvantaged Communities Issues and Barriers (Chapter 4.6.) Below is information gathered from surveys, the workshop and one-on-one conversations. The intent of this section is to identify additional technical assistance needs for follow-up with stakeholders through the IRWM process.

➤ Project Planning / Development

- Assessment of existing systems - Staff from public agencies are concerned with the vulnerabilities of their existing water systems. Needs assistance in the following:
 - Small water purveyors would like assistance in determining capital improvement needs.
 - Need assistance in developing a Capital Improvement Plan
 - Would like a better understanding of the benefits to privatizing water systems.
 - If a determination was made to privatize, stakeholders would like planning assistance.

➤ Engineering / Design

- Stakeholders expressed a desire to receive engineering and design services for multiple projects and planning documents throughout the region. They discussed these services/technical assistance in the potential Resource Center.

➤ Operations and Maintenance

- Manuals - Staff from small water systems requested assistance in developing or locating manuals that describe their particular water system.

- Schedules - Stakeholders requested assistance in developing maintenance schedules for equipment and systems related to water and wastewater services.
- Expertise - Assistance is requested for resources to help with the operation and maintenance. This assistance could be in the form of contact lists, information, guidance, documents, etc.

➤ **Training Program**

- Stakeholders expressed a frustration with water agency Board members being unaware of water related issues. Suggested training be made available for unpaid Board members.

➤ **Grant Writing and Administration**

- Project Concept - Assistance is required to develop a project concept, a creative and effective project proposal.
- Writing Grants - Stakeholders need assistance in writing grants for DAC and other IRWM projects. They would like to have a service provider(s) assist in grant development opportunities.
- Fiscal Sponsors - Viable fiscal sponsors are needed to develop a project proposal and budget. For example, Yosemite/Sequoia Resource Conservation Development Council.
- Lists - Notification and a list of funding opportunities.

➤ **Creation of an Integrated Mapping System for IRWM**

- Stakeholders were interested in receiving a GIS mapping system that integrates all projects in the region. They were also interested in the possible Sierra Water Workgroup Data Management Tool.

➤ **Regulatory Compliance**

- Training - The staff from public agencies were interested State Water Resources Control Board (SWRCB) regional training.

- Coordination - They would like assistance in coordinating and consolidating training classes across the IRWM.
- Education - Coordination for Continuing Education Units (CEUs) are required for renewal of operator licenses.

➤ **Safety Training**

- Coordination - Stakeholders would like assistance in coordinating safety training for public agencies.
- Lists - Provide a list of vendors, State, Federal and local agencies that offer safety training. Coordinated effort

➤ **Program Management**

- Workshops – Informational workshops on watershed management, and water quality monitoring program would be helpful.
- Technical assistance - Project management software is requested.

➤ **Environmental Compliance**

- Consultation – Stakeholders require affordable consultation on NEPA/CEQA requirements.
- Shared consultants – Stakeholders would like to share the costs and work for specialists in environmental planning and implementation documents. specialists
- Classes – Stakeholders would like assistance in exploring University Extension classes and cooperative education courses in the subject of environmental compliance.

➤ **Information and Data**

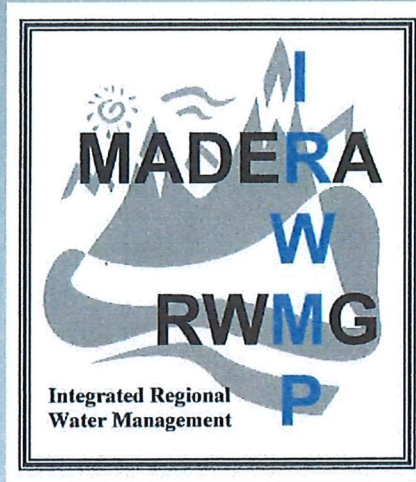
- Need more water resource information -Information requested to make better decisions based on planning horizon of 10 years or more.
 - Develop future needs based on historical data.

- Rate Study – Provide information from County from rate study

➤ **1-Stop Resource Center**

- Madera IRWM stakeholders stated that a shared Resource Center that provided information, professional staff resources, and project management advice was a great idea. Services requested:
 - Project engineering and design for proposals and implementation.
 - Environmental Specialist to assist with environmental permitting and other environmental documentation. NEPA/CEQA Specialist
 - Hydrologist
- Sharing equipment resources for:
 - Leak detection
 - Pipe location

APPENDIX D
MADERA INTEGRATED REGIONAL WATER MANAGEMENT PLAN - 2014



M A D E R A

Integrated Regional Water Management PLAN

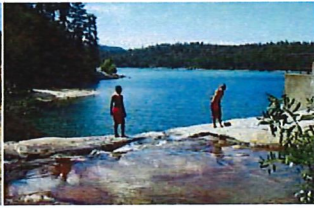
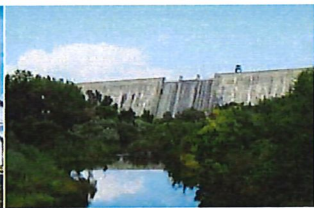
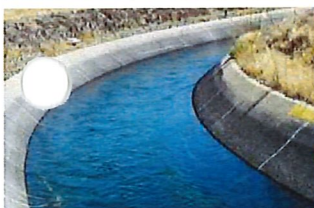


December 2014

APPENDIX E1
MADERA INTEGRATED REGIONAL WATER MANAGEMENT PLAN
VOLUME 1 - 2008

Integrated Regional Water Management Plan

Volume 1



April 2008



BOYLE
ENGINEERING CORPORATION

In association with
Kenneth D. Schmidt and Associates

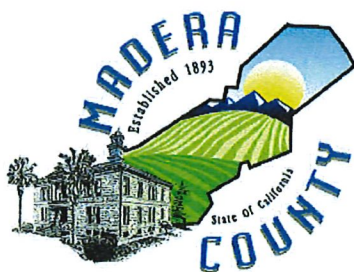
Appendix E1 - all pgs

APPENDIX E2
MADERA INTEGRATED REGIONAL WATER MANAGEMENT PLAN
VOLUME 2 - 2008

Integrated Regional Water Management Plan

Volume 2 - Appendices

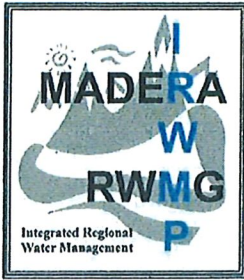
April 2008



In association with
Kenneth D. Schmidt and Associates

Appendix E2 - 1,226 pgs

**APPENDIX F
RESOLUTION**



Regional Water Management Group Resolution to Adopt Madera Regional Water Management Group

This resolution establishes and affirms that the Madera Regional Water Management Group (RWMG) adopts by consensus the Madera Integrated Regional Water Management Plan Update (Plan) as presented. Formal RWMG adoption is required for the submission to the California Department of Water Resources for approval as well as for the Plan to become a framework for implementation and be eligible for project funding.

This RWMG resolution is voluntary and non-binding in nature and does not commit RWMG members to any specific course of action. Individual agencies and organizations will sign a formal resolution of adoption.

WHEREAS, the RWMG has developed the Plan for the Madera region, and pursuant thereto, published notice of intent to adopt such a plan in accordance with the requirements of the California Integrated Regional Water Management Planning Act; and

WHEREAS, the Plan includes chapters regarding local land-use and water planning, description of the Region, regional goals and objectives, climate change, resource management strategies, Disadvantaged Community and Tribal engagement and others; and

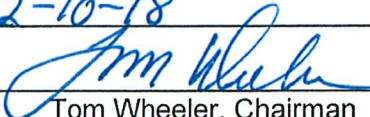
WHEREAS, the Plan was developed through an inclusive process of stakeholder collaboration; and

WHEREAS, the Plan is not a "project" as defined by the California Environmental Quality Act (CEQA) because the plan is not likely to cause any significant physical change to the environment, given that it is simply a planning tool. The Plan is therefore exempt from CEQA pursuant to Section 15262 and Section 15306 of the CEQA Guidelines.

WHEREAS, the Plan is also exempt under Section 15262 because it involves planning studies for possible future actions that participation agencies have not yet approved. The Plan only consists of basic data collection that will not result in disturbance of any environmental resource.

Now, Therefore, be it resolved that the RWMG does hereby adopt the Plan.

Adopted Date: 12-10-18

Signed: 
Tom Wheeler, Chairman
Madera Regional Water Management Group