Appendix K

Existing Data Collection, Monitoring Programs, and Decision Support Tools

Appendix K: Existing Data Collection, Monitoring Programs, and Decision Support Tools

This Appendix was prepared to identify information needs, potential information sources, and tools for tracking progress on Yolo County SWRP implementation and achievement of objectives. This Appendix is intended for use by project proponents and the Yolo WRA to aid in measuring implementation project performance as described in Section 6. This Appendix was prepared using the 10 April 2013 Technical Memorandum for Westside Sacramento IRWMP, "Information Needs, Potential Sources, and Suggested Implementation Steps for Tracking Progress on Plan Objectives," and information has been updated appropriately for the SWRP for Yolo County. Because this Appendix will be referenced during the tracking of Yolo County SWRP implementation projects, it is anticipated that this Appendix N will be updated as data gaps and outdated information are identified.

This Appendix is organized by each SWRP Objective as presented in Section 1 and includes the potential benefit categories met, potential qualitative measurement, potential quantitative measurement, and local and statewide Data Sources/Decision Support Tools.

1. Provide and promote use of educational curricula for K-12 students

Potential Benefit Categories Met

Community

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Availability of curricula suitable to each grade and student population within Yolo County.
- Number of schools contacted each year to promote use of curricula.
- Number of students who receive instruction from grade-suitable curricula.

Notes

May host an education summit as part of Plan implementation that could result in new targets to replace the current ones.

Data Sources/Decision Support Tools

Education and outreach are available through various agencies within the SWRP area that provide workshops, seminars, field trips, trainings conference presentations, site tours and environmental education to local schools.

Local Resources

- Yolo County Resource Conservation District – Currently run educational workshops for the public however do not have an active education program to target students (http://www.yolorcd.org/nodes/programs/education_outreach.htm)
- Yolo Basin Foundation (http://yolobasin.org/#)
- Cache Creek Conservancy (https://sites.google.com/site/cccpractice2/environmental-education) – Does keep track of the number of students mainly focus on 3rd -6th grade students

- Center for Land-Based Learning (http://landbasedlearning.org/)
- Putah Creek Council (https://www.putahcreekcouncil.org/k-12-environmental-education-and-field-trips)
- Yolo County Office of Education (www.ycoe.org/)

General Resources

- California Environmental Protection Agency Education and the Environment Initiative (http://www.californiaeei.org/); A cooperative, statewide effort already in place to help K-12 students learn about the environment and how it relates to their everyday lives called the California Education and Environment Initiative (EEI). Curriculum information provided by the California Department of Education.
- California Department of Fish and Wildlife (https://www.wildlife.ca.gov/Learning)
- Water Education Foundation (http://www.watereducation.org/education)
- NPDES Phase II Small Municipal Separate Storm Sewer System Permits (https://www.waterboards.ca.gov/water_issues/programs/stormwater/ms4/phsii/eduoutreach.shtml)

Potential Information Needs

- Total estimated number of students in Yolo County by grade level
- Total estimated number of schools in Yolo County by type and location

In order to know if Yolo County is meeting or making progress towards this objective, the total number schools and students within Yolo County will need to be obtained. This information can be approximated from the U.S. Census (http://www.census.gov) or by contacting the school districts within Yolo County to obtain student counts by grade and number of schools.

2. Provide educational information to encourage stewardship by public

Potential Benefit Categories Met

Community

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Number of people who receive the educational materials/messages within Yolo County each year.

Notes

Likely will be able to coordinate and share resources with agencies in Westside and neighboring IRWM Regions (e.g. the Regional Water Authority in the American River Basin Region has expressed interest in collaborating on this objective) who intend to conduct similar public education campaigns.

Data Sources/Decision Support Tools

Education and outreach are available through various agencies within Yolo County that provide workshops, seminars, field trips, trainings conference presentations, site tours and environmental education to local schools and communities.

Local Resources:

- Yolo County Resource Conservation District - Currently runs educational workshops for the public and have several publications such as "Welcome to the Watershed" (http://www.yolorcd.org/nodes/programs/education_outreach.htm)

- Yolo Basin Foundation (http://yolobasin.org/#)
- Cache Creek Conservancy (https://sites.google.com/site/cccpractice2/environmental-education) – Does keep track of the number of students mainly focus on 3rd -6th grade students
- Putah Creek Council (https://www.putahcreekcouncil.org/k-12-environmental-education-and-field-trips)

General Resources:

- California Environmental Protection Agency Education and the Environment Initiative (http://www.californiaeei.org/)
- California Department of Fish and Wildlife (https://www.wildlife.ca.gov/Learning)

Potential Information Needs

- Availability of benchmarked current public communications through various sources including outreach events, materials, and publications disseminated

In order to know if Yolo County is meeting or making progress towards this objective the total population of Yolo County will need to be obtained. This information can be approximated from the U.S. Census (http://www.census.gov).

3. Restore native vegetation/form/function along riparian/aquatic corridors

Potential Benefit Categories Met

Water Quality, Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Acres restored along corridors, canals and ditches
- Number of native plants planted
- Improved connectivity of habitat corridors

Notes

- Support goals established within Natural Community Conservation Plans (NCCPs), Habitat Conservation Plans (HCPs), and other habitat planning documents for Yolo County.
- As habitat planning documents are added or updated these targets need to be updated as well.

Data Sources/Decision Support Tools

Local Resources:

- Bay Delta Conservation Plan (http://baydeltaconservationplan.com/Home.aspx)
- California Stormwater Quality Association. Stormwater Best Management Practice Handbook, New Development and Redevelopment. 2003. (https://www.casqa.org/resources/bmp-handbooks/new-development-redevelopment-bmp-handbook)
- Lower Putah Creek Watershed Management Action Plan documents. Lower Putah Creek Coordinating Committee. (http://www.scwa2.com/water-supply/lpccc)
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County. (http://www.yolocounty.org/general-government/general-government-departments/county-

administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-cache-creek-resources-management-plan-ccrmp-)

- Yolo County Resource Conservation District (http://www.yolorcd.org/) – Actively engaged in restoration work and partners with Solano RCD and the Audubon Landowner Stewardship Program (http://ca.audubon.org/landowner-stewardshipprogram)
- Cache Creek Conservancy (https://sites.google.com/site/cccpractice2/) – Restoration is main focus and where most of their budget is dedicated they manage a nature preserve. Complete annual maintenance on invasive removal along Cache Creek.
- Conaway Preservation Group (https://www.facebook.com/Conaway-Ranch-314930978535026/)
- Yolo Bypass Wildlife Area Management Plan. 2006. California Department of Fish and Wildlife. (https://www.wildlife.ca.gov/Lands/Planning/Yolo-Bypass-WA)
- Integrated Regional Water Management Plan. 2007. Water Resources Association of Yolo County.
- Westside Sacramento Integration Regional Water Management Plan. Westside Sacramento Regional Water Management Group. 2013. (http://www.westsideirwm.com/)

General Resources:

- California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC)
- Department of Fish and Wildlife (https://www.wildlife.ca.gov/Conservation/Planning)
- Vegetation Treatment Program. Board of Forestry and Fire Protection. (http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_%28vtpeir%29/)
- Estimated Total Water Use. Model Water Efficient Landscape Ordinance in Division 2, Title 23, California Code of Regulations. Revised 2015.

Potential Information Needs

- Compilation of goals and targets from final adopted planning documents
- Confirm existence or need for specific habitat planning document in upper Cache and upper Putah creek watersheds
- Availability of compiled and benchmarked program implementation and timing information to be able to determine to what extent the IRWM program will support goals established in NCCPs/HCPs

4. Quantify the extent of suitable life-cycle habitat for Threatened/Endangered/Imperiled native fish

Potential Benefit Categories Met

Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Existence of documentation of extent of suitable life-cycle habitat currently accessible to threatened, endangered, or imperiled native fish within Yolo County.

Data Sources/Decision Support Tools

Local Resource:

- Bay Delta Conservation Plan (http://baydeltaconservationplan.com/Home.aspx)
- Lower Putah Creek Watershed Management Action Plan documents. Lower Putah Creek Coordinating Committee. (http://www.scwa2.com/water-supply/lpccc)
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County. (http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-cache-creek-resources-management-plan-ccrmp-)
- Yolo County Resource Conservation District (http://www.yolorcd.org/) – Recently involved in creation of on-farm habitat for species of special concern Sacramento Perch worked with Dr. Peter Moyle at UC Davis.
- Dr. Peter B. Moyle, Associate Director, Center for Watershed Sciences, University of California, Davis. (https://watershed.ucdavis.edu/cws-wfcb-fish-conservation-group)
- Patrick Crain, Fish Biologist, University of California, Davis.
- Yolo County Natural Resources Manager – Elisa Sabatini (http://www.yolocounty.org/Home/Components/StaffDirectory/StaffDirectory/543/664)

General Resources:

- San Diego Zoo. *Missing Linkages: Restoring Connectivity to the California Landscape*. 2000. (http://www.scwildlands.org/)
- California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC)
- Department of Fish and Wildlife – General information regarding natural community conservation planning (https://www.wildlife.ca.gov/Conservation/Planning)

Potential Information Needs

- Documented research and GIS mapping identifying suitable life-cycle habitat for targeted species
- Prepare summary of findings in study for further implementation of SWRP

5. Prioritize/plan/schedule improvements to suitable life-cycle habitat for T/E/I native fish

Potential Benefit Categories Met

Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

The existence of a document with planned, prioritized, and scheduled improvements.

Notes

Data Sources/Decision Support Tools

Local Resource:

- Bay Delta Conservation Plan (http://baydeltaconservationplan.com/Home.aspx)
- Lower Putah Creek Watershed Management Action Plan documents. Lower Putah Creek Coordinating Committee. (http://www.scwa2.com/water-supply/lpccc)
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County. (http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-cache-creek-resources-management-plan-ccrmp-)
- Yolo County Resource Conservation District (http://www.yolorcd.org/) – Recently involved in creation of on-farm habitat for species of special concern Sacramento Perch worked with Dr. Peter Moyle at University of California, Davis.
- Dr. Peter B. Moyle, University of California, Davis. (https://watershed.ucdavis.edu/cws-wfcb-fish-conservation-group)
- Patrick Crain, Fish Biologist, University of California, Davis.
- Yolo County Natural Resources Manager – Elisa Sabatini (http://www.yolocounty.org/Home/Components/StaffDirectory/StaffDirectory/543/664)

General Resources:

- San Diego Zoo. Missing Linkages: Restoring Connectivity to the California Landscape. 2000. (http://www.scwildlands.org/)
- California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC)
- Department of Fish and Wildlife (https://www.wildlife.ca.gov/Conservation/Planning)

Potential Information Needs

- Documented research and GIS mapping identifying suitable life-cycle habitat for targeted species
- Prepare summary of findings in study for further implementation of SWRP

6. Increase availability of suitable life-cycle habitat for Threatened/Endangered/Imperiled native fish identified

Potential Benefit Categories Met

Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Change in the area of suitable life-cycle habitat that is accessible to target species.

Notes

Data Sources/Decision Support Tools

Local Resource:

- Bay Delta Conservation Plan (http://baydeltaconservationplan.com/Home.aspx)
- Lower Putah Creek Watershed Management Action Plan documents. Lower Putah Creek Coordinating Committee. (http://www.scwa2.com/water-supply/lpccc)

- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County. (http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-cache-creek-resources-management-plan-ccrmp-)
- Yolo County Resource Conservation District (http://www.yolorcd.org/) – Recently involved in creation of on-farm habitat for species of special concern Sacramento Perch worked with Dr. Peter Moyle at University of California, Davis.
- Dr. Peter B. Moyle, University of California, Davis. (https://watershed.ucdavis.edu/cws-wfcb-fish-conservation-group)
- Patrick Crain, Fish Biologist, University of California, Davis.
- Yolo County Natural Resources Manager – Elisa Sabatini (http://www.yolocounty.org/Home/Components/StaffDirectory/StaffDirectory/543/664)

General Resources:

- San Diego Zoo. Missing Linkages: Restoring Connectivity to the California Landscape. 2000. (http://www.scwildlands.org/)
- California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC)
- Department of Fish and Wildlife (https://www.wildlife.ca.gov/Conservation/Planning)

Potential Information Needs

- Documented research and GIS mapping identifying suitable life-cycle habitat for targeted species
- Prepare summary of findings in study for further implementation of SWRP

7. Prevent colonization by quagga mussels/zebra mussels and eliminate/prevent spread of New Zealand mud snails

Potential Benefit Categories Met

Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Presence (or absence) of target invasive species by location within Yolo County.

Notes

A number of aquatic invertebrate prevention programs are operational within Yolo County now.

Data Sources/Decision Support Tools

Local Resources:

No information found.

General Resources:

- U.S. Bureau of Reclamation (https://www.usbr.gov/mussels/)
- U.S. Geological Survey (https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=5)

- California Department of Fish and Wildlife (https://www.wildlife.ca.gov/Conservation/Invasives)
- The 100th Meridian Initiative (http://100thmeridian.org)

Potential Information Needs

- Documentation of an active regional, coordinated invasive aquatic invertebrates management and monitoring program.

8. Establish invasive plant management plan

Potential Benefit Categories Met

Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Existence of an invasive plant management plan for Yolo County or integration of existing plans.

Notes

Data Sources/Decision Support Tools

Local Resources:

- Cache Creek Watershed Weed Management Plan, Yolo County Resource Conservation District. (http://www.yolorcd.org/nodes/programs/projects/Cache_Creek_Watershed_Weed_Management_Plan.htm)
- Yolo County Resource Conservation District (http://www.yolorcd.org/nodes/programs/invasives.htm)
- Lower Putah Creek Watershed Management Action Plan documents. Lower Putah Creek Coordinating Committee. (http://www.scwa2.com/water-supply/lpccc)
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County. (http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-cache-creek-resources-management-plan-ccrmp-)

General Resources:

- California Invasive Plant Council (http://www.cal-ipc.org/)
- US Geological Survey, Ecosystems - Invasive Species Program (http://www.usgs.gov/ecosystems/invasive_species).
- Vegetation Treatment Program. Board of Forestry and Fire Protection. (http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_%28vtpeir%29/)

Potential Information Needs

- Select targeted invasive species (e.g. tamarisk, arrundo, etc.)
- Consistent geographic and species coverage throughout Yolo County.
- Understanding of existing invasives management activities
- Description and synthesis of existing invasives management activities
- Existence of invasive plant management plan

9. Implement invasive plant management plan

Potential Benefit Categories Met

Environmental

Potential Qualitative Measurement

No

Potential Quantitative Measurement

Measures appropriate to the targeted outcomes designated in the Invasive Plant Management Plan.

Data Sources/Decision Support Tools

Local Resources:

- Cache Creek Watershed Weed Management Plan, Yolo County Resource Conservation District. (http://www.yolorcd.org/nodes/programs/projects/Cache_Creek_Watershed_Weed_Management_Plan.htm)
- Yolo County Resource Conservation District (http://www.yolorcd.org/nodes/programs/invasives.htm)
- Lower Putah Creek Watershed Management Action Plan documents. Lower Putah Creek Coordinating Committee. (http://www.scwa2.com/water-supply/lpccc)
- Cache Creek Resources Management Plan. Revised Final August 2002. Yolo County. (http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-cache-creek-resources-management-plan-ccrmp-)

General Resources:

- California Invasive Plant Council (http://www.cal-ipc.org/)
- US Geological Survey, Ecosystems - Invasive Species Program (http://www.usgs.gov/ecosystems/invasive_species).
- Vegetation Treatment Program. Board of Forestry and Fire Protection. (http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_%28vtpeir%29/)

Potential Information Needs

- Regional Invasive Plant Management Plan

10. Create asset management plan for key water management infrastructure

Potential Benefit Categories Met

Water Supply

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Existence of Asset Management Plan

Notes

The California Emergency Management Agency "critical infrastructure protection" criteria and the work done for existing Natural Hazard Mitigation Plans may be a reasonable place to start to identify key water management infrastructure within Yolo County and to set priorities for investment.

Data Sources/Decision Support Tools

Local Resources:

- City of Davis Water Distribution System Optimization Plan. 2011. (http://water.cityofdavis.org/Media/PublicWorks/Documents/PDF/PW/Water/Documents/Davis-Water-Distribution-System-Optimization-Plan-Report.pdf)
- City of Davis 2014 Water Rate Cost of Service Update. 2014. (http://38.106.5.235/home/showdocument?id=1247)
- City of Vacaville Infrastructure, Facilities and Services Status Report (http://www.cityofvacaville.com/index.aspx?page=66). 2007.
- City of Vacaville Municipal Services Review for Comprehensive Sphere of Influence Update. 2017. (http://www.ci.vacaville.ca.us/home/showdocument?id=7985)
- City of Winters Municipal Services Review. 2008. (http://www.cityofwinters.org/pdf/LAFCO%20Public%20Draft%20Winters%20MSR.pdf)
- City of Winters Sewer Collection System Master Plan. 2006. (http://www.cityofwinters.org/public_works/pdf/WintersFINAL2006SewerCollectionSystemMasterPlan_20070216.pdf)
- City of Winters Water Master Plan. 2006. (http://www.cityofwinters.org/public_works/pdf/WintersWaterMasterPlan_FINAL%2020070216.pdf)

General Resources:

- International Infrastructure Management Manual. 2015. (http://www.nams.org.nz/pages/273/international-infrastructure-management-manual-2011-edition.htm)
- California Emergency Management Agency, Critical Infrastructure Protection Program (http://www.caloes.ca.gov/for-businesses-organizations/plan-prepare/critical-infrastructure-protection)

Potential Information Needs

- Define what is key water management infrastructure (e.g., water supply, distribution, treatment, wastewater, flood management)
- Select key metrics from International Infrastructure Management Manual.
- Synthesis of existing infrastructure plans including geographic coverage that match the criteria for key water management infrastructure.

11. Meet 20% by 2020 conservation targets

Potential Benefit Categories Met

Water Supply

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Water conservation measured in gallons per capita day as defined by the Water Conservation Act of 2009 and DWR guidance methodologies. Use UWMPs to measure progress. The 2015 interim demand and 2020 compliance targets for each urban water supplier are summarized in the following table:

Urban Water Supplier	Baseline (gpcd)	2015 Interim Demand (gpcd)	2020 Compliance Target (gpcd)
City of Davis	215	119	172
City of West Sacramento	293	183	234
City of Woodland	290	260	232

Notes

- The UWMP compliance targets are subject to review and revision during the 2020 UWMP development cycle. Water use efficiency is critical to all water agencies, but is particularly important to those agencies that use imported water diverted from the Sacramento River as meeting this objective will be key to reducing Yolo County's dependence on the Delta for water supply.
- Portions of Yolo County are not required to prepare an Urban Water Management Plan; however, there are multiple conservation programs and regional conservation is encouraged.

Data Sources/Decision Support Tools

Local Resources:

- City of Davis 2015 Urban Water Management Plan (http://cityofdavis.org/Home/ShowDocument?id=5586)
- City of West Sacramento 2015 Urban Water Management Plan (http://www.cityofwestsacramento.org/civica/filebank/blobdload.asp?BlobID=14238)
- City of Woodland 2015 Urban Water Management Plan (http://www.cityofwoodland.org/civicax/filebank/blobdload.aspx?blobid=16640)

General Resources:

- California Department of Water Resources Urban Water Management Programs (http://www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm)
- Estimated Total Water Use. Model Water Efficient Landscape Ordinance in Division 2, Title 23, California Code of Regulations. Revised 2015.

Potential Information Needs

- Annual progress and 2020 UWMP updates to measure performance.

12. Increase adoption of agricultural Best Management Practices

Potential Benefit Categories Met

Water Quality, Water Supply

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Compliance with Senate Bill SBX7-7, the Water Conservation Act of 2009 (http://www.water.ca.gov/wateruseefficiency/sb7/).

- Number of required Efficient Water Management Practices (EWMPs) adopted.
- Number of optional EWMPs adopted.
- Number of other Best Management Practices (BMPs) adopted (beyond EWMPs).

Notes

- EWMPs are a subset of all potential BMPs.
- A list of EWMPs can be found in California Water Code §10608.48(c).
- Other agricultural BMPs include actions to protect or improve water quality, to improve soil conservation, or to reduce impacts on habitat.
- Since agricultural water users can divert up to 600,000 AFY from the Sacramento River, use of EWMPs is critical to reducing Yolo County's dependence on the Delta for water supply.

Data Sources/Decision Support Tools

Local Resources:

No information found.

General Resources:

- California Farm Bureau Federation (http://www.cfbf.com/)
- Natural Resources Conservation Service (https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/
- Agricultural Water Council (http://www.agwatercouncil.org/)
- Department of Water Resources Agricultural Water Management Guidebook. (http://www.water.ca.gov/wateruseefficiency/agricultural/agmgmt.cfm)

Potential Information Needs

- Number of Ag water suppliers complying with Act in Yolo County; availability of Agricultural Water Management Plans for review
- Number and type of Ag BMPs and EWMPs currently implemented by suppliers in Yolo County.

13. Maintain and increase water-related recreational opportunities

Potential Benefit Categories Met

Community

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Describe maintenance activities that benefit water-related recreation performed annually.
- Describe additional or enhanced water-related recreational opportunities provided annually.

Notes

Some areas within Yolo County rely more heavily on water-related recreational opportunities as part of the local economy than other areas and so actions designed to maintain water-related recreation may hold a higher priority for those areas (e.g., communities surrounding Clearlake).

Data Sources/Decision Support Tools

Local Resources:

- Cache Creek Conservancy – provides creek side access to visitors can provide estimates (https://sites.google.com/site/cccpractice2/)
- Yolo County Parks, Recreation, & Wildlife Advisory Committee. (http://www.yolocounty.org/general-government/general-government-departments/parks/parks-recreation-wildlife-advisory-committee)

General Resources:

- U.S. Bureau of Reclamation – (https://www.usbr.gov/recreation/)
- U.S. Bureau of Land Management – (https://www.blm.gov/programs/recreation)
- California Department of Parks and Recreation (http://www.parks.ca.gov/)

Potential Information Needs

- Estimated usage at non-fee facilities/water bodies
- Existence of compiled estimates of recreation usage throughout Yolo County.
- List of recreation areas to be tracked in Yolo County.
- Summary of recreation-related maintenance activities throughout Yolo County.

Recreation areas that are non-fee do not have a means to track the number of people.

14. Provide adequate flood protection

Potential Benefit Categories Met

Flood Management

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Change in calculated level of flood protection.

Notes

Provide flood protection consistent with the Central Valley Flood Protection Plan; for urban and urbanizing areas meet the urban level of flood protection; for other developed areas meet the FEMA standard of flood protection; for rural areas provide the level of protection warranted for the assets subject to damage.

Data Sources/Decision Support Tools

Local Resources:

- Yolo County Flood Control and Water Conservation District (http://www.ycfcwcd.org/)
- Yolo County. Floodplain Management. (http://www.yolocounty.org/community-services/planning-public-works/building-inspection-services/floodplain-management)
- FloodSAFE Yolo Pilot Program (http://www.ycfcwcd.org/floodsafeyolo.html)
- California Department of Water Resources. *Central Valley Flood Protection Plan Update*. 2017. (http://www.water.ca.gov/cvfmp/2017-cvfpp-docs.cfm)

- California Department of Water Resources. Flood Control Systems Status Report. 2017. (http://www.water.ca.gov/cvfmp/docs/2017/2017FSSR-Compiled-Aug2017.pdf)
- Federal Emergency Management Agency. Flood Insurance Study, Yolo County. 2010.
- Water Resources Association of Yolo County. Storm runoff modeling for foothills west-southwest of Esparto. Stockholm Environment Institute. 2017.
- FloodSAFEYolo. Yolo County City/County Drainage Manual. Wood Rogers, 2010.

General Resources:

- California Department of Water Resources Flood Management (http://www.water.ca.gov/floodmgmt/)
- Governor's Office of Emergency Services. Pre-Disaster & Flood Mitigation. (http://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/pre-disaster-flood-mitigation)

Potential Information Needs

- Identify current and targeted levels of flood protection deemed appropriate in Yolo County.
- GIS mapping coverages showing current and desired levels of flood protection.

15. Manage watershed activities to reduce large erosion events

Potential Benefit Categories Met

Water Quality, Flood Management, Environmental

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Number of large erosion events documented each year.
- Number of preventive measures taken and repairs made to reduce large erosion events.

Notes

Tracking progress on this objective will require establishing a definition of (and possibly criteria to identify) a "large erosion event" including consideration of wildfires, landslides, and construction-related discharges.

Data Sources/Decision Support Tools

Local Resources:

- Water Resources Association of Yolo County. Storm runoff modeling for foothills west-southwest of Esparto. Stockholm Environment Institute. 2017.
- FloodSAFEYolo. Yolo County City/County Drainage Manual. Wood Rogers, 2010.

General Resources:

- Bureau of Land Management Resource Management Plans for California's Public Lands (https://www.blm.gov/programs/planning-and-nepa/plans-in-development/california)
- California Stormwater Quality Association. Stormwater Best Management Practice Handbook, New Development and Redevelopment. 2003. (https://www.casqa.org/resources/bmp-handbooks/new-development-redevelopment-bmp-handbook)

- U.S. Department of Agriculture Forest Service Pacific Southwest Region Land and Resource Management Plan Mendocino National Forest (https://www.fs.usda.gov/resources/mendocino/landmanagement/resourcemanagement)
- U.S. Department of Agriculture Natural Resources Conservation Service (http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/)
- Vegetation Treatment Program. Board of Forestry and Fire Protection. (http://bofdata.fire.ca.gov/board_committees/resource_protection_committee/current_projects/vegetation_treatment_program_environmental_impact_report_%28vtpeir%29/)

Potential Information Needs

- Define "large erosion event" and criteria that will be used to identify such an event.
- Documentation of preventative measures, programs, and activities currently undertaken throughout Yolo County
- Quantify number of acres burned in Yolo County

16. Monitor state/federal Delta programs

Potential Benefit Categories Met

Water Quality, Environmental, Community

Potential Qualitative Measurement

- Scientific information and studies available that characterize potential impacts to Yolo County.
- Active participation and engagement in specifically identified state and federal water resources planning and projects

Potential Quantitative Measurement

None

Notes

Data Sources/Decision Support Tools

Local Resources:

No information found.

General Resources:

- California Department of Water Resources. Water Data Library. (http://www.water.ca.gov/waterdatalibrary/)
- U.S. Geological Survey (USGS). USGS Water-Data Site Information for California. (https://waterdata.usgs.gov/ca/nwis/si)

Many other general state and federal programs could be listed here.

Potential Information Needs

- Identify which programs to monitor and existence of current representatives in Yolo County that monitor such programs.
- Define "active participation"

17. Monitor conditions/improve understanding to support sustainable groundwater basins

Potential Benefit Categories Met

Water Quality, Water Supply, Community

Potential Qualitative Measurement

- Information to understand and predict status of aquifer functions over the long-term
- Understand opportunities to improve regional water supply portfolio through conjunctive management

Potential Quantitative Measurement

Prevent long-term declines in groundwater levels and quality throughout Yolo County.

Notes

- Potential long-term declines of groundwater levels can be assessed by computing and reporting a 10-year moving average of groundwater levels at key locations for active aquifers each year within Yolo County. Comparing a 10-year moving average each year should filter out most effects of annual variability in local precipitation, groundwater use and recharge.
- Potential long-term declines in water quality can be assessed by computing an annual average for key constituents from select groundwater wells in active aquifers. The list of aquifers and constituents to be tracked for each aquifer needs to be identified.

Data Sources/Decision Support Tools

Local Resources:

- Yolo County Flood Control and Water Conservation District. Groundwater Management Plan. 2006. (http://www.ycfcwcd.org/documents/gwmp2006final.pdf)
- Yolo County Flood Control and Water Conservation District. Groundwater Monitoring Program Report. 2004. (http://www.ycfcwcd.org/pdffiles/reports/ab%20303%20gw%20final%20report%20pdf%20reduced.pdf)
- City of Davis/University of California, Davis. Groundwater Management Plan. 2006. (http://water.cityofdavis.org/Media/PublicWorks/Documents/PDF/PW/Water/Documents/Groundwater-Management-Plan.pdf)
- City of Woodland Groundwater Management Plan
- Colusa County Groundwater Management Plan
- Yolo County Integrated Groundwater and Surface Water Model, Model Development and Calibration. 2006. (http://www.ycfcwcd.org/documents/ycigsm_report_060106.pdf)
- Yolo Subbasin Groundwater Agency (https://yologroundwater.org/)
- Stockholm Environment Institute. Water Evaluation and Planning (WEAP) Model for Yolo County.
- Water Resources Association of Yolo County. Storm runoff modeling for foothills west-southwest of Esparto. Stockholm Environment Institute. 2017.

General Resources:

- California Department of Water Resources. Groundwater. (http://www.water.ca.gov/groundwater/)
- California Department of Water Resources. Water Data Library. (http://www.water.ca.gov/waterdatalibrary/)

- California Statewide Groundwater Elevation Monitoring (CASGEM) (http://www.water.ca.gov/groundwater/casgem)– The Water Resources Association of Yolo County is the designated monitoring entity for Yolo County as of January 1, 2013.
- National Oceanic and Atmospheric Administration (NOAA). NOAA Atlas 14 Point Precipitation Frequency Estimates: CA. Yolo County. (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)
- The Soil Agricultural Groundwater Banking Index (SAGBI, https://casoilresource.lawr.ucdavis.edu/sagbi/) is a suitability index for groundwater recharge on agricultural land. The SAGBI is based on five major factors that are critical to successful agricultural groundwater banking: deep percolation, root zone residence time, topography, chemical limitations, and soil surface condition.
- U.S. Geological Survey (USGS). USGS Water-Data Site Information for California. (https://waterdata.usgs.gov/ca/nwis/si)

Potential Information Needs

- Selection of targeted basins for groundwater monitoring and key criteria for monitoring groundwater levels and quality.
- Determination of key locations for monitoring groundwater levels and constituents to be monitored.

18. Maintain/enhance watershed and natural resource monitoring network and information sharing

Potential Benefit Categories Met

Water Quality, Water Supply, Environmental, Community

Potential Qualitative Measurement

- Availability of important information
- Ease of access to data and information across agency boundaries

Potential Quantitative Measurement

None

Notes

Data Sources/Decision Support Tools

Local Resources:

- Yolo County Flood Control and Water Conservation District. Groundwater Management Plan and Monitoring Program. (http://www.ycfcwcd.org/groundwatermonitoring.html)
- Water Resources Association of Yolo County. Storm runoff modeling for foothills west-southwest of Esparto. Stockholm Environment Institute. 2017.

General Resources:

- California Department of Water Resources. Water Data Library. (http://www.water.ca.gov/waterdatalibrary/)
- California Statewide Groundwater Elevation Monitoring (CASGEM) (http://www.water.ca.gov/groundwater/casgem)– The Water Resources Association of Yolo County is the designated monitoring entity for Yolo County as of January 1, 2013.
- California State Water Resources Control Board, California Integrated Water Quality System Project (CIWIQS) (https://www.waterboards.ca.gov/ciwqs/)

- National Oceanic and Atmospheric Administration (NOAA). NOAA Atlas 14 Point Precipitation Frequency Estimates: CA. Yolo County. (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)
- State Water Resources Control Board. Watershed Management. (https://www.waterboards.ca.gov/water_issues/programs/watershed/)
- U.S. Geological Survey (USGS). USGS Water-Data Site Information for California. (https://waterdata.usgs.gov/ca/nwis/si)

Potential Information Needs

- Establish desired parameters, topics, and information related to natural resources that is to be shared throughout Yolo County.

19. Address pollutant sources to meet runoff standards and TMDL targets

Potential Benefit Categories Met

Water Quality

Potential Qualitative Measurement

Actions taken to address pollutant sources

Potential Quantitative Measurement

- Compliance with runoff standards as described in stormwater permits
- Progress toward meeting targets identified in specific TMDLs within Yolo County

Notes

The following table presents a summary of the TMDLs existing within Yolo County:

Water Body	Pollutant	Resolution No.	Target	Compliance Date
Cache Creek, Lower (Clear Lake Dam to Cache Creek Settling Basin near Yolo Bypass)	Mercury	R5-2005-0146	0.12 mg/kg wet weight in trophic level 3 fish 0.23 mg/kg wet weight in trophic level 4 fish	Regional Water Board will review the progress toward meeting the water quality objectives and the Basin Plan requirements at least every five years.

Data Sources/Decision Support Tools

Local Resources:

No information found.

General Resources:

- California Stormwater Quality Association. Stormwater Best Management Practice Handbook, New Development and Redevelopment. 2003. (https://www.casqa.org/resources/bmp-handbooks/new-development-redevelopment-bmp-handbook)
- Central Valley Regional Water Quality Control Board. Cache Creek, Bear Creek, Sulphur Creek, and Harley Gulch TMDL. (https://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/cache_sulphur_creek/index.shtml)

- Simple Method. Described in many resources such as the New York State Stormwater Management Design Manual (2015)
- U.S. Environmental Protection Agency. System for Urban Stormwater Treatment and Analysis Integration (SUSTAIN)

Potential Information Needs

- Understanding and benchmarking of existing stormwater permit compliance challenges, if any.
- Determination of activities stakeholders can participate in to help achieve TMDL targets.

20. Minimize accidental wastewater spillage/discharges

Potential Benefit Categories Met

Flood Management

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Number of spills reported per year
- Volume of wastewater spilled that reached receiving waters

Notes

Data Sources/Decision Support Tools

Local Resources:

No information found

General Resources:

- California State Water Resources Control Board, California Integrated Water Quality System Project (CIWQS) can be used to query data by Agency such as violations (i.e. sewer spills, exceedance in effluent limits) and enforcement actions (http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/publicReportFacilityAtGlanceCriteria.jsp)
- Central Valley Regional Water Quality Control Board. Executive Officer's Reports to the Board. (https://www.waterboards.ca.gov/centralvalley/board_info/exec_officer_reports/)
- National Oceanic and Atmospheric Administration (NOAA). NOAA Atlas 14 Point Precipitation Frequency Estimates: CA. Yolo County. (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)

Potential Information Needs

- Compilation of annual number/quantity of spills for wastewater agencies for Yolo County
- Agencies that do not report to the CIWQS system

21. Reduce public health risks by reducing contaminants in drinking water sources

Potential Benefit Categories Met

Water Quality, Water Supply, Flood Management

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Improvements in source water quality for constituents of concern
- Cost savings for meeting quality standards for drinking water at point of delivery
- Reductions in concentration of constituents of concern in drinking water point of delivery

Notes

This objective highlights that there are multiple ways within a watershed to meet drinking water standards and that cleaner sources of water can provide lower levels of public health risk.

Data Sources/Decision Support Tools

Local Resources:

- Yolo County. Small Public Water Systems Program. (http://www.yolocounty.org/community-services/environmental-health-services/land-environmental-protection/drinking-water-program)
- Yolo County. Water Well Program. (http://www.yolocounty.org/community-services/environmental-health-services/land-environmental-protection/ground-water-protection-and-well-permits)

General Resources:

- California State Water Resources Control Board. Chemical and Contaminants in Drinking Water. (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chemicalcontaminants.shtml)

Potential Information Needs

- Identify contaminants of concern in drinking water sources to be monitored
- Understanding of drinking water sources that have present challenges meeting drinking water quality standards.
- Track projects implemented by water suppliers to improve or provide treatment of contaminants

22. Meet all drinking water and wastewater discharge standards

Potential Benefit Categories Met

Water Quality, Water Supply, Flood Management

Potential Qualitative Measurement

None

Potential Quantitative Measurement

Compliance with all relevant quality standards

Notes

- Basin Plans consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. The Basin Plans containing the water quality standards for the Central Valley Region are:
  - Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin.

- Water Quality Control Plan for the Tulare Lake Basin.

- State Implementation Policy (SIP) establishes a standardized approach for permitting discharge of toxic pollutants to non-ocean surface waters in a consistent manner.
  - Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California. State Water Resources Control Board California Environmental Protection Agency, 2005.
- The U.S. Environmental Protection Agency (EPA) promulgated numeric water quality criteria for priority toxic pollutants and other water quality standard provisions to be applied to waters of the State of California to protect human health and the environment.
  - California Toxics Rule (CTR)
- The California Safe Drinking Water Act authorizes the California Department of Public Health to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by the U.S. EPA.
  - Title 22, California Code of Regulations Division 4. Environmental Health Chapter 15. Domestic Water Quality and Monitoring Article 4. Primary Standards A—Maximum contaminant levels

Data Sources/Decision Support Tools

Local Resources:

No information found

General Resources:

- California State Water Resources Control Board. California Integrated Water Quality System Project (CIWIQS) can be used to query data by Agency such as violations (i.e. sewer spills, exceedance in effluent limits) and enforcement actions (http://ciwqs.waterboards.ca.gov/ciwqs/readOnly/publicReportFacilityAtGlanceCriteria.jsp)
- California State Water Resources Control Board. Annual Compliance Reports for Public Water Systems which includes summary of violations by contaminant category, individual contaminant and by violation category in each county (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Publications.shtml)

Potential Information Needs

- Inventory of all water and wastewater entities in Yolo County.
- Determine agencies that are not in compliance with water and/or wastewater standards

23. Provide 100% reliability of municipal and industrial water supplies

Potential Benefit Categories Met

Water Supply

Potential Qualitative Measurement

None

Potential Quantitative Measurement

- Number of days in reporting year that M&I water suppliers invoke drought ordinances
- Number of days rationing is required in reporting year

Notes

- Meeting this objective can be accomplished through a variety of approaches such as increased supplies, conjunctive management, water transfers, long-term demand management, water rationing, etc.
- Satisfaction of this objective should include consideration of availability of alternate supplies should a drinking water source become contaminated or otherwise disrupted.

Data Sources/Decision Support Tools

Local Resources:

- Stockholm Environment Institute. Water Evaluation and Planning (WEAP) Model for Yolo County.

General Resources:

- Estimated Total Water Use. Model Water Efficient Landscape Ordinance in Division 2, Title 23, California Code of Regulations. Revised 2015.

Potential Information Needs

- Survey all M&I water suppliers to determine existence of drought ordinances, stipulations, and number of days ordinance is invoked each year.
- Include consideration of available alternate water supplies for each agency.

24. Provide agricultural water supplies to support a robust agricultural industry

Potential Benefit Categories Met

Water Supply

Potential Qualitative Measurement

Changes in agricultural outputs within Yolo County over time

Potential Quantitative Measurement

- Groundwater levels and quality throughout Yolo County
- Annual surface water deliveries for agricultural use as compared to contracted amounts.

Notes

While it is true that a robust agricultural industry within Yolo County relies on many factors, a consistent water supply of appropriate quality is a major factor.

Data Sources/Decision Support Tools

Local Resources:

- Reclamation District No. 2035. Agricultural Water Management Plan 2016. (http://www.water.ca.gov/wateruseefficiency/docs/2016/Reclamation%20District%202035%202016%20AWMP.pdf)
- Yolo County Flood Control and Water Conservation District. Agricultural Water Management Plan 2015. (http://www.water.ca.gov/wateruseefficiency/sb7/docs/2016/YoloCoFCWCD%202015%20AWMP.pdf)
- Reclamation District No. 108. SBx7-7 Water Measurement Compliance Program. 2016. (http://www.water.ca.gov/wateruseefficiency/sb7/docs/2017/RD108%20Water%20Measurement%20Program.pdf)

- Yolo County. Crop Statistics Starting in 1937. (http://www.yolocounty.org/general-government/general-government-departments/agriculture-cooperative-extension/agriculture-and-weights-measures/crop-statistics) – As a performance measure can obtain annual crop reports.
- Stockholm Environment Institute. Water Evaluation and Planning (WEAP) Model for Yolo County.

General Resources:

- California Statewide Groundwater Elevation Monitoring (CASGEM) (http://www.water.ca.gov/groundwater/casgem)– The Water Resources Association of Yolo County is the designated monitoring entity for Yolo County as of January 1, 2013.
- National Oceanic and Atmospheric Administration (NOAA). NOAA Atlas 14 Point Precipitation Frequency Estimates: CA. Yolo County. (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)
- The Soil Agricultural Groundwater Banking Index (SAGBI, https://casoilresource.lawr.ucdavis.edu/sagbi/) is a suitability index for groundwater recharge on agricultural land. The SAGBI is based on five major factors that are critical to successful agricultural groundwater banking: deep percolation, root zone residence time, topography, chemical limitations, and soil surface condition.

Potential Information Needs

- Identify what measures will be used to track "robust agricultural industry" – suggest using multi-year moving average of economic production for Yolo County
- Contracted/requested amount of water compared to delivered (YCFC&WCD and other water suppliers)

25. Convert paved and/or impervious areas and increase tree canopy and vegetation, reducing urban heat island effects

Potential Benefit Categories Met

Environmental, Community

Potential Qualitative Measurement

- Reestablishment of the natural hydrograph
- Increased infiltration

Potential Quantitative Measurement

- Increased area of urban greenspace
- Water temperature improvements

Data Sources/Decision Support Tools

Local Resources:

No information found.

General Resources:

- California Stormwater Quality Association. Stormwater Best Management Practice Handbook, New Development and Redevelopment. 2003. (https://www.casqa.org/resources/bmp-handbooks/new-development-redevelopment-bmp-handbook)
- National Land Cover Database (NLCD) Percent Tree Canopy Collection. (https://catalog.data.gov/dataset/national-land-cover-database-nlcd-percent-tree-canopy-collection)

Potential Information Needs

- Inventory of physical structures in waterways
- Baseline water temperature
- Area of riparian vegetation and tree canopy

26. Optimize the rural storm water conveyance system to drain and retain storm water flows as necessary. Provide proper rural drainage and keep conveyance systems clear of debris to minimize county road flooding during storm events.

Potential Benefit Categories Met

Water Supply, Flood Management

Potential Qualitative Measurement

- Reduction in localized flooding events

Potential Quantitative Measurement

- Volume of runoff captured
- Percent of wet weather deliveries met

Data Sources/Decision Support Tools

Local Resources:

- Yolo County Flood Control & Water Conservation District. Water Information and Daily Water Report. (http://www.ycfcwcd.org/waterinfo.html)
- Yolo County Flood Control & Water Conservation District. Flow Monitoring Network. (http://www.ycfcwcd.org/flowmonitoring.html)
- Water Resources Association of Yolo County. Storm runoff modeling for foothills west-southwest of Esparto. Stockholm Environment Institute. 2017.
- FloodSAFEYolo. Yolo County City/County Drainage Manual. Wood Rogers, 2010.

General Resources:

- California Department of Water Resources. Water Data Library. (http://www.water.ca.gov/waterdatalibrary/)
- California Stormwater Quality Association. Stormwater Best Management Practice Handbook, New Development and Redevelopment. 2003. (https://www.casqa.org/resources/bmp-handbooks/new-development-redevelopment-bmp-handbook)
- National Oceanic and Atmospheric Administration (NOAA). NOAA Atlas 14 Point Precipitation Frequency Estimates: CA. Yolo County. (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)
- U.S. Geological Survey (USGS). USGS Water-Data Site Information for California. (https://waterdata.usgs.gov/ca/nwis/si)

Potential Information Needs

- Inventory of historical flooding in Yolo County and road closures due to localized flooding
- Capacity of conveyance systems throughout Yolo County

27. Enable proper rural retention and modify rural landscape to maximize groundwater recharge of excess storm water.

Potential Benefit Categories Met

Water Supply, Flood Management

Potential Qualitative Measurement

- Increased infiltration
- Reduction in localized flooding events

Potential Quantitative Measurement

- Volume of runoff captured
- Area of infiltration

Data Sources/Decision Support Tools

Local Resources:

- Yolo County Flood Control & Water Conservation District. Water Information and Daily Water Report. (http://www.ycfcwcd.org/waterinfo.html)
- Yolo County Flood Control & Water Conservation District. Flow Monitoring Network. (http://www.ycfcwcd.org/flowmonitoring.html)
- Water Resources Association of Yolo County. Storm runoff modeling for foothills west-southwest of Esparto. Stockholm Environment Institute. 2017.
- Stockholm Environment Institute. Water Evaluation and Planning (WEAP) Model for Yolo County.
- FloodSAFEYolo. Yolo County City/County Drainage Manual. Wood Rogers, 2010.

General Resources:

- California Statewide Groundwater Elevation Monitoring (CASGEM) (http://www.water.ca.gov/groundwater/casgem)– The Water Resources Association of Yolo County is the designated monitoring entity for Yolo County as of January 1, 2013.
- National Oceanic and Atmospheric Administration (NOAA). NOAA Atlas 14 Point Precipitation Frequency Estimates: CA. Yolo County. (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)
- The Soil Agricultural Groundwater Banking Index (SAGBI, https://casoilresource.lawr.ucdavis.edu/sagbi/) is a suitability index for groundwater recharge on agricultural land. The SAGBI is based on five major factors that are critical to successful agricultural groundwater banking: deep percolation, root zone residence time, topography, chemical limitations, and soil surface condition.

Potential Information Needs

- Capacity of conveyance systems throughout Yolo County