

CHAPTER 6

Implementation Strategy

The purpose of this chapter is to discuss the implementation strategy for the IRWMP. Specific topics include data management, plan performance and monitoring, and future governance and finance.

6.1 DATA MANAGEMENT

As indicated in the IRWM Guidelines, the intent of the Data Management Standard is to ensure efficient use of available data and stakeholder access to data, and to ensure the data generated by IRWM implementation activities can be integrated into existing State databases. Throughout this document, the term “data” is assumed to mean “non-security sensitive data”. It is not the intent of this NSV Board to require project proponents to submit data that may be in violation of applicable laws, or that, in the project proponent’s or lead agency’s opinion, creates a security risk.

Data management will be used to track data generated by the various projects as they are completed and operated. The types of data to be managed will vary considerably from project to project. Some projects, such as the TCCA Canals Automation Project (Project ID 79), will have very little data of interest to other stakeholders and the State Board. Other projects, such as Glenn County’s proposed Program of Modeling and Monitoring in Support of Groundwater Management (Project ID 9), will generate a substantial amount of data as it seeks to fill gaps that have been identified in the State’s CASGEM database.

Due to budget constraints and limited staff availability, the NSV Board intends to require the project proponents to collect and collate the data generated by the projects. One example of an effective way to do this would be for each project proponent or lead agency to create a webpage specifically for the project. The webpage would include non-security sensitive project data, including electronic (usually PDF) copies of all project data and completed work products such as reports, feasibility studies, design documents, and supporting documentation (well boring logs, geotechnical reports, surveys, *etc.*). In some cases, draft documents would also be posted on the project webpage. A link to the project webpage would be provided on the NSV IRWMP website and data management system. Some ranked projects have project proponents that may have very limited resources available to create a webpage. In these cases, the project proponent can contact their County representatives for more information about how they can comply with the data management requirements of the funding program. At a minimum, the project proponent or lead agency will provide data in the proper format to the NSV Board for coordination with the State databases.

The primary way that stakeholders can contribute data to the NSV region is through data contributions from a specific IRWM project. The quality assurance and quality control (QA/QC) of data is primarily the responsibility of the project proponents. However, the NSV Board appointed County representative from the TAC will review the data and the formatting of the data transferred to State databases.

6.1.1 Data Needs and Typical Data Collection Techniques

The adopted projects range from school programs to groundwater monitoring programs, to construction projects. The data developed for each project and produced during the operations phase of each project will be very different. For construction projects, typical data required include geotechnical studies and topographic surveys. Groundwater monitoring programs usually generate well boring logs during construction and generate groundwater level and water quality data during the monitoring or operations phase. Each project will be required, as part of its Project-Specific Management Program, discussed below, to identify the data that will be required and generated by the project, as appropriate, and provided to the NSV Board for uploading to State databases.

6.1.2 Stakeholder Access to Data

It is the intent of the NSV Board to ensure that all non-security sensitive data generated by the projects are available to the other stakeholders and project proponents. However, it is not the intent of the NSV Board to duplicate efforts and repeat data that are available elsewhere. To accomplish these two goals, the NSV Board will ensure that all stakeholders will have access to the data generated by the other projects through the links page on the IRWM website. The links page will contain links to the project-specific webpages, if applicable, and to the State database webpages.

6.1.3 Integrating Data into State Databases

The NSV Board, or its representative, will coordinate the data received from the project proponents with the following State databases, as appropriate to the type of data collected. The State databases include, but are not limited to:

- California Environmental Data Exchange Network (CEDEN)
- Water Data Library (WDL)
- California Statewide Groundwater Elevation Monitoring Program (CASGEM)
- Surface Water Ambient Monitoring Program (SWAMP)
- Groundwater Ambient Monitoring and Assessment program (GAMA)
- Integrated Water Resources Information System (IWRIS)
- California Environmental Resources Evaluation System (CERES)

As described in the IRWM Guidelines, for geospatial data collected by project proponents with projects within the NSV Region, data maintained by the region will be accompanied by applicable metadata that describes each data set (including projection and datum information, dataset description, data lineage, *etc.*). The State databases are described below. Information about each website is included in Appendix M.

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California Environmental Data Exchange Network – CEDEN is a system designed to facilitate integration and sharing of data collected by many different participants. The CEDEN data templates are available on the CEDEN website: <http://www.ceden.org>. The CEDEN Fact Sheet and Introduction, which includes instructions on required format of submitted data, are included as Appendix M.

Water Data Library – DWR maintains the State’s WDL which stores data from various monitoring stations, including groundwater level wells, water quality stations, surface water stage and flow sites, rainfall/climate observers, and well logs. Information regarding the WDL can be found at: <http://wdl.water.ca.gov/>. A screen shot of the WDL homepage is included in Appendix M.

California Statewide Groundwater Elevation Monitoring Program – CWC §10920 et seq. establishes a groundwater monitoring program designed to monitor and report groundwater elevations in all or part of a basin or subbasin. These requirements also limit counties and various entities (CWC §10927.(a)-(d), inclusive) ability to receive State grants or loans in the event that DWR is required to perform ground monitoring functions pursuant to CWC §10933.5. Requirements of the CASGEM Program can be found here: <http://www.water.ca.gov/groundwater/casgem/>. CASGEM has generated a 104 page Online System Users Guide that details how to upload and download data. A copy of the introductory webpage is included in Appendix M.

Surface Water Ambient Monitoring Program – The SWRCB has developed required standards for SWAMP. Any group collecting or monitoring surface water quality data, using funds from Propositions 13, 40, 50, and 84 must provide such data to SWAMP. More information on SWAMP is available at: http://www.swrcb.ca.gov/water_issues/programs/swamp. A copy of the introductory page and brochure is included as Appendix M. SWAMP is currently in the process of developing a Data Management Plan to describe business rules as well as field sampling guides, data formats, and data management processes that are helpful in collecting and sharing SWAMP-comparable data. The Data Management Plan will be posted to this webpage once completed: <http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/database-management-systems/swamp-25-database/documentation-25/swamp-data-management-plan>

Groundwater Ambient Monitoring and Assessment program – GAMA provides a comprehensive assessment of water quality in water wells throughout the State. GAMA has two main components, the California Aquifer Susceptibility (CAS) assessment and the Voluntary Domestic Well Assessment Project. The CAS assesses the relative susceptibility of public supply wells throughout the State by combining age dating of water and sampling for low-level volatile organic compounds. The Voluntary Domestic Well Assessment Project provides sampling of water quality in domestic wells, which will assist in assessing the relative susceptibility of California’s groundwater to contaminants. Because water quality in individual domestic wells is unregulated, the program is voluntary and will focus, as resources permit, on specific areas of the State. Constituents to be analyzed include nitrate, total and fecal coliform bacteria, methyl tert-butyl ether, and minerals. Additional information on the GAMA program is available at: <http://www.swrcb.ca.gov/gama>. A copy of the GAMA website and fact sheet is included as Appendix M.

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California Environmental Information Clearinghouse (CEIC) – The California Natural Resources Agency (CNRA) maintains the CEIC, which is a statewide metadata clearinghouse for geospatial data. The CEIC is accessible at: <http://ceic.resources.ca.gov/>. The online directory is used for reporting and discovery of information resources for California. Participants include cities, counties, utilities, State and federal agencies, private businesses, and academic institutions that have spatial and other types of data resources. The introductory webpage and a slideshow explaining CEIC is provided in Appendix M.

Integrated Water Resources Information System – DWR maintains IWRIS, which is a data management tool for water resources data, but not a database. IWRIS is a web based GIS application that allows entities to access, integrate, query, and visualize multiple sets of data simultaneously. Information on IWRIS is available at: <http://www.water.ca.gov/iwris/>. A copy of the introductory webpage is provided as Appendix M.

California Environmental Resources Evaluation System – CERES is an information system developed by CNRA to facilitate access to a variety of electronic data describing California's rich and diverse environments. The goal of CERES is to improve environmental analysis and planning by integrating natural and cultural resource information from multiple contributors and by making it available and useful to a wide variety of users. The CERES is available at: <http://ceres.ca.gov/>. A copy of the CERES introductory webpage is provided as Appendix M.

6.1.4 QA/QC of Projects

The IRWM Board expects project proponents to provide QA/QC for projects, since the project proponents should have full control over their projects, and hold their scientific, engineering and other consultants fully responsible for competent project design and reporting.

6.2 PLAN PERFORMANCE AND MONITORING

As indicated in the IRWM Guidelines, the intent of the Plan Performance and Monitoring Standard is to ensure:

- The NSV Board is efficiently making progress towards meeting the goals and objectives in the IRWMP.
- The NSV Board is implementing projects listed in the IRWMP.
- Each project in the IRWMP is monitored to comply with all applicable rules, laws, and permit requirements.

This standard is consistent with PRC §75026.(a), which states that an IRWMP “shall include performance measures and monitoring to document progress toward meeting plan objectives.”

For the NSV Board, monitoring performance will be closely related to the implementation of projects. As indicated below, the NSV Board or its appointee will be the primary contact for project proponents. Project proponents will take primary responsibility for tracking project progress and coordinating with the NSV Board. Project-Specific Monitoring Plans (PSMP) will be prepared and carried out. At this point, most of the adopted projects are in the concept stage

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and therefore would not necessarily trigger a PSMP. The proposed Plan Performance and Monitoring is discussed below.

6.2.1 Responsibility for IRWM Implementation Evaluation

The NSV Board will appoint a NSV TAC representative from County staff to track the project progress for the NSV Board. The activities of this representative will likely be limited to summarizing project progress information provided by the project proponents as reported to DWR, as part of the overall RWMG responsibilities described under the Data Management System section, above. Other responsibilities may be added to the NSV Board's representative as budget and staff time is available.

6.2.2 Evaluation Frequency

The NSV Board representative will poll the project proponents on a minimum annual basis and update the IRWM website, add any new data to the Data Management System (DMS), and notify the DWR, as appropriate. The project proponents will provide the data and updates to the NSV Board representative.

6.2.3 Relationship to DMS

The NSV Board representative will update the DMS with any new data and project progress information provided by the project proponents.

6.2.4 Feedback Protocol

As the projects move through planning, design, and plans and specifications stages of development, any changes to the projects that may affect the validity of the project under the IRWMP (for example, if RMSs or Statewide Priorities for the project change), the project proponents will notify the NSV Board representative who will direct the NSV Board's attention to the changed project. If the NSV Board feels further review is required, it will put the matter on the next NSV Board agenda for discussion and potential action.

In addition, the NSV Board may choose to amend the project RMSs or IRWM goals and objectives if data or changed conditions during project development warrant. As indicated in the IRWM Guidelines, any amendments to the RMS or objectives will need to adequately identify water demand, water supply, water quality protections, and environmental stewardship actions that provide long-term, reliable, and high-quality water supply; including water supply to DACs.

6.2.5 Project-Specific Monitoring Plans

All projects that enter the development phase and are receiving funding under the IRWM grant program must submit a PSMP. The party with primary responsibility for developing the PSMP, actions that would trigger a PSMP, and typically required PSMP contents are described below.

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6.2.5.1 Party with Primary Responsibility for PSMP

The project proponent will have primary responsibility for developing and submitting the PSMP to the NSV Board for review. The NSV Board will review the draft of the PSMP and provide comments to the project proponent.

6.2.5.2 Actions that Trigger PSMP

As of June 2013, the IRWMP discusses 124 projects, 113 ranked projects and 11 Projects to Track. PSMPs have not been developed for any of the 113 ranked projects. Concept-level, draft and final, and updated PSMPs will be required at various stages of project development. The general categories are described below:

Planning Stage – Concept-level PSMP will be provided by the project proponent to the NSV Board so the NSV Board can verify conformance with the IRWMP goals and objectives, and RMSs, include in the DMS, and provide to the DWR. If data are to be collected during the planning stage, the data collection program will be provided in greater detail than the data collection program intended for the execution phase of the project. This submittal need not be completed until funding is secured for the project.

Design Stage – Draft and final PSMPs will be provided by the project proponent to the NSV Board so the NSV Board can verify conformance with the IRWMP goals and objectives, and RMSs, include in the DMS, and provide to the DWR.

Execution Stage – Updates to the PSMP will be provided by the project proponent to the NSV Board during the project execution stage (construction and operation, as appropriate) as information becomes available that would require changes to any of the PSMP components. Draft and Final PSMPs, as described above, will be provided by the project proponents for projects that are in the execution stage at the time the project is listed in the IRWMP.

The concept level PSMP will generally include the same contents as the draft and final PSMPs, described below, but with less detail.

6.2.5.3 Typically Required Contents of PSMP

The PSMP will be prepared to clearly document the data that will be collected during all stages of the project. Although no specific template has been developed, it is the intent of the PSMP to provide the necessary information in as concise a format as possible, using summary tables and lists to condense the information. The minimum required contents listed below were taken from the IRWM Guidelines.

- Clearly and concisely (in a table format) describe what is being monitored for each project. Examples include monitoring for water quality, water depth, flood frequency, and effects the project may have on habitat or particular species (before and after construction).

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- Include measures to remedy or react to problems encountered during monitoring. An example would be to coordinate with the Department of Fish and Wildlife if a species or its habitat is adversely impacted during construction or after implementation of a project.
- Include location of monitoring.
- Provide the intended monitoring frequency.
- Include the monitoring protocols/methodologies that will be used, including who will perform the monitoring.
- Include DMS or procedures to keep track of what is monitored. Each project's monitoring plan will also need to address how the data collected will be or can be incorporated into statewide databases.
- Provide procedures to ensure the monitoring schedule is maintained and that adequate resources (including funding) are available to maintain monitoring of the project throughout the scheduled monitoring timeframe.

6.3 FUTURE REGIONAL WATER MANAGEMENT GROUP GOVERNANCE AND FINANCE

The IRWM Guidelines for Integrated Regional Water Management, prepared by DWR, require inclusion of a chapter on finance in the IRWMP. Here is what the IRWM Guidelines say:

The IRWM Plan must include a plan for implementation and financing of identified projects and programs (CWC § 10541.(e)(8)). The IRWM Plan must also identify and explain potential financing for implementation of the IRWM Plan. The financing discussion must, at a minimum, include the following items:

- *List known as well as possible funding sources, programs, and grant opportunities for the development and ongoing funding of the IRWM Plan.*
- *List the funding mechanisms, including water enterprise funds, rate structures, and private financing options, for projects that implement the IRWM Plan.*
- *An explanation of the certainty and longevity of known or potential funding for the IRWM Plan and projects that implement the Plan.*
- *An explanation of how operation and maintenance (O&M) costs for projects that implement the IRWM Plan would be covered and the certainty of operation and maintenance funding.*

This section is organized into three parts:

1. IRWMP process funding during development of the Plan, October 1, 2011 through anticipated adoption around March 2014.
2. Minimum requirements of the IRWM Guidelines as outlined above, which primarily require a plan for implementation and financing of projects and programs identified in the IRWMP.
3. Anticipated funding to support the NSV Board following adoption of the Plan.

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6.3.1 IRWMP Process Funding

This section describes all cost components for development of the IRWMP: USBR grant-funded consultant work, DWR Proposition 84 and Proposition 50 grant-funded consultant work, in-kind local staff contributions, and direct cost shares.

The development of the IRWMP is being substantially completed by the consultant team with support and active participation by County staff, members of the TAC and NSV Board, and extensive input from stakeholders and the public. The consultant team is funded through two key grants: U.S. Bureau of Reclamation (USBR) funded Sacramento Valley IRWMP Revision Grant (\$100,000) and the Proposition 84 IRWMP Planning Grant (Proposition 84) (\$900,000). \$45,000 of the Proposition 84 grant is allocated to Butte County for grant administration since Butte County is the fiscal agent of the grant on behalf of the NSV Board. For both grants, local agencies contribute a local cost-share. Nearly all of the cost-share in the NSV region is coming through in-kind contributions of County staff time, which is a combination of local coordination as well as direct work on specific IRWMP tasks. The USBR grant covered costs related to development of early technical memoranda for both governance and finance, and also supported NSV Board and TAC activities during 2011 prior to availability of Proposition 84 funds. The Proposition 84 grant authorized the consultant to proceed on October 12, 2011, and funds the remaining IRWMP development process. In addition, during the fall of 2012 DWR funded a new program for development of regional flood protection plans, as a follow-up action to the adoption earlier that year of the Central Valley Flood Protection Plan. Since flood management is a resource management strategy of an IRWMP, DWR agreed to extend completion of this NSV IRWMP until April 2014, to allow for the better coordination and integration of information developed from the regional flood protection plan to be integrated into the NSV IRWMP. Additionally, \$50,000 of Proposition 50 funds previously-allocated to Butte County will be used to support inclusion of the new regional flood protection plans into the IRWMP.

Table 6-1 shows the total grants awarded and the portions that will be allocated to consultants and the accompanying local-cost share components. The total cost of the IRWMP process is expected to be about \$1.4 million in direct consultant and tracked in-kind costs. However, the total local contribution is understated in Table 6-1 because it does not take into consideration the countless hours that NSV Board appointees and other members of the public have contributed toward the development of the IRWMP. Such local in-kind support includes an active and direct role in outreach to disadvantaged communities.

Table 6-1. Summary of Grants Awarded and Local Cost-Share Contributed to Support the Development of the NSV IRWMP

Grant	Total Grant Award	Allocation to Consultant (West Yost)	Local Cost-Share Commitment	Planned Cash Contribution from Local Agencies	Planned In-Kind Contribution from Local Agencies	Project Total
Prop 84	\$900,000	\$855,000	\$299,000	0	\$299,000	\$1,199,000
USBR	\$100,000	\$100,000	\$100,000	\$22,000	\$78,000	\$200,000
Prop 50	\$50,000	\$50,000				
Total Cost of IRWMP Process						\$1,399,000

6.3.2 Implementation of Projects and Programs

This section addresses potential funding sources for IRWMP implementation by categories of projects and programs.

A review of a number of existing IRWMPs reveals that some provide detailed funding information, while others provide more general information. Recognizing the changing nature of potential funding sources, the IRWMP web site (<http://www.nsvwaterplan.org/>) will be updated periodically to provide information on potential project funding sources. This section describes potential funding sources in 13 categories, which encompass most or all of the resource management strategies as well as individual proposed projects incorporated into this IRWMP:

1. Municipal water and wastewater, including small systems
2. Local flood management/internal drainage
3. Regional flood management
4. Ecosystem restoration and enhancement / watershed management
5. Groundwater/subsidence monitoring, including water levels and quality
6. Groundwater banking, conjunctive use
7. Agricultural and urban water use efficiency
8. Tribal water-related projects
9. Water management and planning
10. Water quality
11. Surface water supplies and hydro power generation
12. Water supply reliability and drought preparedness
13. Recreation

Each of the 13 categories is addressed below by four potential funding sources: (1) local funding support, (2) general funding opportunities, (3) specific funding sources for each of the 13 categories, and (4) specific funding that may be available for multiple categories.

6.3.3 Local Funding Support

The information for the 13 project categories primarily addresses outside funding sources including certainty and longevity of such sources. These are the first and third of the four required elements in the DWR IRWM Guidelines. The other required elements are addressed in general below:

1. Local Funding Mechanisms. Most projects and programs that will be included in the IRWMP fall into four sub-categories: (a) projects that provide utility functions, either for municipalities, water districts or Tribal governments; (b) surface and groundwater monitoring programs; (c) capital investments in ecosystem restoration or flood control; and (d) projects that may benefit DACs. We expect that local cost shares will

be provided for the first two subcategories by way of a combination of utility rate increases, revenue bond sales and appropriations by the governing bodies. This will be a decision to be made by the sponsors of each project, working with the beneficiaries (in many cases, utility ratepayers). Capital investments for monitoring programs are expected to attract utility funds for any required local cost share. Capital investments in ecosystem restoration will depend on specific projects that may be proposed and identified funding sources. Full funding may be available for some projects, and a local cost match may be required in other cases. It is possible, based on past experience, that non-profit foundations could provide all or a portion of any local cost share that may be required. Local flood control investments are expected to be treated in a similar manner as municipal utility investments, to the extent a local cost share is required. Projects for DACs pose a greater challenge, since “ability to pay” will be a serious issue. Full funding may be available for some projects in DACs, so that a local cost share would not be needed.

2. Funding for Operations and Maintenance (O&M). O&M costs will be straightforward for most utility-related projects, with such costs recovered through the utility rate structure. Monitoring programs are heavily weighted toward O&M, and we would expect that the utility beneficiaries (municipalities, water districts, *etc.*) would develop a mechanism for funding continuing O&M costs. Such costs for ecosystem and local flood control projects will depend on the nature of projects, and whether such projects are one-time investments without an O&M component or projects that require O&M to maintain project benefits. Such projects will need to identify a local or regional sponsor to cover O&M costs before they can proceed. Funding O&M for DAC-related projects, such as improvements to small water and wastewater systems, will pose a serious problem. O&M for DAC projects will require a project-by-project determination, and any grant requirements related to O&M from the funding source. It is clear that many DACs will be challenged in recovering full O&M costs in utility rates.

6.3.4 General Funding Opportunities

Californians are at a time of increased uncertainty regarding funding of water resource projects and programs, just as it is a time of uncertainty for public financing in general. This section describes existing or anticipated future funding sources, recognizing that a statewide water bond is currently anticipated to be on the ballot in late 2014 although there are substantial legislative discussions about changes in both the content, total dollar figure, and timing of that bond measure. There is also continued interest and discussion in the Congress about formation of a federal infrastructure bank. It is important to recognize that implementation of most projects and programs will require multiple funding sources.

Financial support can be provided in two forms. The first is an outright grant, which does not require repayment but often requires a local cost share or match. The second is help in financing all or a portion of capital investments, typically in the form of below-market loans through various state and federal government programs. Many such programs are limited in scope, tailored to specific problems or types of projects.

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The State of California (State) administers a number of grant and loan programs for a wide variety of purposes related to water. The key agencies are the State Water Resources Control Board, DWR, and the Department of Public Health/Drinking Water Program. The Department of Fish and Game also administers funds for wildlife habitat conservation programs. Finally, the California Natural Resources Agency has specific authority to administer some funding programs, although details are not readily available. Each has statutory authority to administer specific loan and grant programs. Here are links to descriptions of their respective financial support programs:

- State Water Resources Control Board:
http://www.swrcb.ca.gov/water_issues/programs/grants_loans/srf/index.shtml
- Department of Water Resources:
<http://www.grantsloans.water.ca.gov/>
- Department of Public Health:
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWPfunding.aspx>
- Department of Fish and Wildlife:
<http://www.dfg.ca.gov/habcon/>
- California Natural Resources Agency:
<http://resources.ca.gov/>
- In addition, the California Infrastructure and Economic Development Bank (I-Bank) was established, "...to finance public infrastructure and private development that promote economic development, revitalize communities and enhance quality of life for Californians". While the I-Bank has broad financing authorities, it is not focused primarily on water and there is a great deal of competition for such financing. The I-Bank web site is:
<http://www.ibank.ca.gov/>.

The federal government also administers a number of grant programs, particularly through the Federal Emergency Management Agency (FEMA), the Department of Housing and Urban Development (HUD), and the U.S. Fish & Wildlife Service. FEMA's programs provide some form of financial assistance related to disaster preparedness and disaster recovery. FEMA's Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce loss of life and property due to natural disasters, and to support implementation of mitigation measures during immediate recovery from a disaster. In addition, FEMA administers the National Flood Insurance Program, which may be of particular importance in our region due to remapping of flood-prone areas.

HUD administers the Community Development Block Grant (CDBG), which provides communities with resources to address a wide range of community development needs. Beginning in 1974, the CDBG program is one of the longest continuously run programs at HUD, and provides annual grants.

The U.S. Fish & Wildlife Service administers funds for wildlife habitat conservation programs.

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The U.S. farm bill is the primary agricultural and food policy tool of the federal government, with a new farm bill coming before the Congress every four to five years. The farm bill is administered by the U.S. Department of Agriculture. The current farm bill was passed in 2008, and indications are that the Congress will consider a new farm bill in 2013. The 2013 farm bill is expected to be under pressure to reduce federal funding along with many programs in the federal budget, aimed at reducing the federal deficit.

The 2008 farm bill provided funding for a variety of purposes, described below from the USDA web site (<http://www.usda.gov/wps/portal/usda/farmbill2008?navid=FARMBILL2008>):

*The **Food, Conservation, and Energy Act of 2008** <was> enacted into law in June 2008.... Its 15 titles include administrative and funding authorities for programs that cover income and commodity price support, farm credit, and risk management; conservation through land retirement, stewardship of land and water resources, and farmland protection; food assistance and agricultural development efforts abroad and promotion of international access to American farm products; food stamps, domestic food distribution, and nutrition initiatives; rural community and economic development initiatives, including regional development, rural energy efficiency, water and waste facilities, and access to broadband technology; research on critical areas of the agricultural and food sector; accessibility and sustainability of forests; encouraging production and use of agricultural and rural renewable energy sources; and initiatives for attracting and retaining beginning and socially disadvantaged farmers and ranchers.*

The 2008 farm bill addresses a number of problems and issues that are directly related to many of the projects and programs in the IRWMP. It is reasonable to expect that similar problems and issues will be considered as part of the 2013 farm bill.

6.3.4.1 Specific Funding Sources, By Category

All projects contained in the IRWMP are eligible for available IRWMP implementation funding on a competitive basis. Such funding currently exists through Proposition 84, with limited remaining funding from the earlier Proposition 50 and some funding through Proposition 1E. We assume that future State water bonds may also provide some funding for IRWMP implementation, although on a competitive basis within a designated funding region as set forth in the bond language.

Listed below are specific funding opportunities for the 13 general project categories.

1. Municipal Water and Wastewater, including Small Systems. The Federal Water Pollution Control Act (Clean Water Act) established the Clean Water State Revolving Fund (CWSRF) program. The CWSRF program offers low interest financing agreements for water quality projects. This program disburses between \$200 and \$300 million to eligible projects. Program details are provided and updated on the State web site: http://www.swrcb.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

Projects potentially funded under this program include construction of publicly-owned wastewater treatment facilities, sewers and interceptors, water reclamation and storm water facilities. Applicants for this program must fall into one of three

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categories as described on the web site: (1) a city, town, district, or other public body created under state law; (2) a Native American tribal government or an authorized Native American tribal organization having jurisdiction over disposal of sewage, industrial wastes or other waste; or (3) any designated and approved management agency under Section 208 of the Clean Water Act. Applications for the CWSRF program are accepted on a continuing basis, with a great deal of competition for available funding.

The SWRCB in partnership with the Rural Community Assistance Corporation (RCAC) provides wastewater-related training to small, disadvantaged communities (SDACs) statewide. The SWRCB's Division of Financial Assistance defines a SDAC as a public body with a population of 20,000 persons or less, and an annual median household income (MHI) of less than 80 percent of the current statewide MHI. The assistance will help improve SDAC compliance and ensure that funds available through the SWRCB are used as effectively as possible in implementing practical, cost-effective wastewater projects that will be adequately maintained over the long-term. The types of training courses to be offered include: Wastewater Board Basics: Board; Sewer System Management Plan; Rate Setting and Proposition 218; and Small Wastewater System Operation and Maintenance.

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/small_community_wastewater_grant/strategy.shtml#wwtraining

The USDA provides loans and grants to develop water and waste disposal systems in rural areas and towns with populations less than 10,000. The funds are available to public bodies, non-profit corporations and Indian tribes. Applications are accepted at any time through the Rural Development State and Area Offices.

<http://www.rurdev.usda.gov/UWP-dispdirectloansgrants.htm>

USDA Emergency Community Water Assistance Grants provide assistance to rural communities that have experienced a significant decline in quantity or quality of drinking water due to an emergency, or in cases where such decline is considered imminent, to obtain or maintain adequate quantities of water that meets the standards set by the Safe Drinking Water Act. This emergency is considered an occurrence of an incident such as, but not limited to, a drought, earthquake, flood, tornado, hurricane, disease outbreak or chemical spill, leakage or seepage.

<http://www.rurdev.usda.gov/UWP-ecwag.htm>

USDA offers Section 306E Grants for the Construction, Refurbishment, and Servicing of Low or Moderate Income Individual Household Water Well Systems. The purpose is to provide funds to non-profit organizations to assist them in establishing loan programs from which individuals may borrow money for household water well systems. Applications are accepted at any time through the Rural Development State and Area Offices.

<http://www.rurdev.usda.gov/UWP-individualwellsystems.htm>

The USDA has made available Technical Assistance and Training Grants for Rural Waste Systems. The purpose is to provide grants to non-profit organizations for technical assistance and/or training to associations on a wide range of issues relating to delivery of water and waste disposal service. These associations are located in rural

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areas or cities and towns with a population of 10,000 or less.

<http://www.rurdev.usda.gov/UWP-wwtat.htm>

2. **Local Flood Management.** As with other potential project categories, there are a number of possible grant and loan sources. Grant programs potentially available for local flood management include elements of the following State bond programs: drainage funding (Proposition 204), flood protection corridor (Proposition 13), FloodSAFE California (Propositions 84 and 1E), and stormwater flood management (Propositions 84 and 1E). Another potential grant funding source is the State's Urban Streams Restoration Program.

Loan sources are more limited, either through self-funding by public agency owners/sponsors of revenue or general fund bonds, and any funding that might be available through the State I-Bank.

Regional Flood Management. Funding from various sources has historically been available for elements of the Sacramento River Flood Control Project – a complex program consisting of reservoirs, levees, weirs and bypasses. Key elements of the Project in the Northern Sacramento Valley include Shasta Dam, Oroville Dam, Sacramento River levees and the Sutter Bypass. The Project is operated in an integrated manner. Key facilities outside of the IRWMP boundaries include Bullards Bar Reservoir, Folsom Dam and the Yolo Bypass. Much funding has been available through Congressional appropriations through the U.S. Army Corps of Engineers. Information on weirs and bypasses is summarized in this December 2010 DWR report:

<http://www.water.ca.gov/newsroom/docs/WeirsReliefStructures.pdf>.

Augmenting the Project is the Sacramento River Bank Protection Project (SRBPP) a continuing construction project authorized by the Flood Control Act of 1960, to provide protection for the existing levees and flood control facilities. SRBPP details can be found on the Sacramento Area Flood Control Agency's (SAFCA) web site: (<http://www.safca.org/protection/sacriverbank.html>).

Funding for any regional flood management projects associated with the Sacramento River will likely be considered in the context of the entire area of the Sacramento River Flood Control Project. DWR's Flood Control Subventions program along with the Central Valley Flood Protection Board provide financial assistance to local agencies cooperating in the construction of federally authorized flood control projects. The Central Valley Flood Protection Board administers the State financial assistance for major U.S. Army Corps of Engineers' projects in the Central Valley, including the Sacramento River Flood Control Project. Details of this funding program are on DWR's web site:

<http://www.water.ca.gov/floodmgmt/fpo/sgb/fcs/>.

DWR also administers the Flood Protection Corridor Program, funded over the years by Propositions 13, 84 and 1E (see: <http://www.water.ca.gov/floodmgmt/fpo/sgb/fpcp/>).

DWR also administers the Proposition 84 Local Levee Assistance Program (see: <http://www.water.ca.gov/floodmgmt/fpo/sgb/llap/>).

One unknown area of potential funding is anything new that may arise following the adoption of the Central Valley Flood Protection Plan in June 2012 (<http://www.cvfpb.ca.gov/CVFPP/>) and the subsequent development of nine regional flood management plans (<http://www.water.ca.gov/cvfmp/regionalplan/>), of which portions of four regional flood management plans are located in the IRWMP area. Development of the regional flood management plans began in early 2013, and the outcome of the four local plans in the Northern Sacramento Valley (including any new potential funding sources) will be reflected in the adopted final IRWMP.

3. Ecosystem Restoration and Enhancement/Watershed Management. Grants historically have been made available through the Watershed Restoration program (Proposition 50). In addition, a variety of funding sources have been available in the past due to implementation of the CALFED ecosystem restoration program. Such funds have been a combination of annual State and Federal appropriations and various bond funds. In addition, technical and financial support has been available through local resource conservation districts and the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) (it should be noted that NRCS funding and technical support services is specifically for individual landowners, not organizations).

A subset of this category is improvements in fish passage including modification of flows downstream of major reservoirs. Large multi-purpose reservoirs that have gone through relicensing of their hydropower projects through the Federal Energy Regulatory Commission (FERC) in the past 20 years has often resulted in requiring reservoir operators to modify their downstream fish flow releases and make other investments to improve fish passage. In addition, a great deal of attention in the past 20 years has been brought to salmon migration in the Sacramento River, requiring all major reservoir operators to change their operations. The most significant capital improvement to date has been the installation of a temperature control structure at Shasta Dam. Many other investments have been made to improve fish passage in the NSV area, including a number of projects on Butte Creek and other tributaries to the Sacramento River. Funding sources have been complex, but typically include a variety of State and Federal funds combined with local contributions.

Sacramento River fish passage has been benefitted from the replacement of a number of major agricultural surface water intakes with state-of-the-art screened intakes. Such projects to date have run into the tens of millions of dollars, and have been funded through a complex series of sources that also included specific Federal appropriations. The single largest such project, the new intake for the Tehama-Colusa Canal, has been completed with a cost in excess of \$200 million.

Separate from usual funding sources is the California Fisheries Fund, which offers three types of loans: fishing association loans, infrastructure loans, and business loans. The Fund's web site is:

<http://www.californiafisheriesfund.org/loan.html>.

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4. Groundwater/Subsidence Monitoring, including Water Levels and Quality. DWR's Local Groundwater Assistance Program, funded through Proposition 84, is currently on hold as indicated on the program web site (<http://www.water.ca.gov/lgagrant/>). The program was established to provide grants for projects such as groundwater data collection, modeling, monitoring and management studies; monitoring programs and installation of equipment; basin management; development of information systems; and other groundwater related work. Technical support related to groundwater monitoring historically has been provided by DWR's regional offices.
5. Groundwater Banking, Conjunctive Use. Funds historically have been available through State bond programs that have/had specific groundwater programs in the bond language. Most or all of such funds have been allocated under Propositions 204, 13, and 50. Additional unallocated funds are available under Proposition 84.

More specifically, grant funds are available through the Local Groundwater Assistance Program (Proposition 84), Groundwater Storage Program (Proposition 13), and any funding that might be available in annual legislative appropriations through the groundwater assistance program set up through AB 303. Loans historically have been available through the Groundwater Recharge Construction Program (Proposition 13).

Groundwater banking is still a relatively new water management tool in California, but is expanding in use. "Water banks" that have been set up in the San Joaquin Valley are mostly self-funded through a combination of investments by the owner/operator and any revenues generated through water storage agreements on behalf of participants. One example is the Semitropic Water Storage District Water Bank, a partnership through the sponsoring agricultural water district and a number of urban water utilities located outside that region.

6. Agricultural and Urban Water Use Efficiency. Grants historically have been available through the State's Agricultural and Urban Water Use Efficiency program (Proposition 50). In addition, loans historically were made available under the Agricultural Water Conservation program (Proposition 13).
7. Water Management and Planning. Major funding has been provided through Propositions 204, 13, 50 and 84 for water resources planning and management. As indicated earlier, IRWMP development and implementation support has been provided through funding from Propositions 50, 84 and 1E. Funding has continued to increase in succeeding State bonds for integrated regional water management, and would continue based on language in the proposed water bond that had been scheduled for the November 2012 ballot. The California Legislature is revisiting the bond based on a number of public financing and water resource planning concerns arising since the language of the proposed bond was adopted in late 2009.
8. Water Quality. Grant funds have been made available for investments in Sacramento River water quality (Proposition 84). Loans for agricultural drainage management are still available under Proposition 204, although grants under Proposition 204 have been fully allocated. The SWRCB administers California's Non-Point Source Program, which receives about \$4.5 million per year from the U.S. Environmental Protection Agency to support implementation and planning

projects that address water quality problems in surface and ground water resulting from non-point source pollution.

9. Surface Water Supplies and Hydro Power Generation. Funding for surface water facilities is typically from mixed sources, since most surface water facilities are multi-purpose projects. Funding sources historically have included: (1) assessments from water sales, typically through long-term water supply contracts; (2) income from hydropower generation; (3) Federal funding for flood control components; and (4) State and Federal funding for project components associated with fish, wildlife, and recreation. Potential funding sources for new surface water projects will be very specific to the proposed purposes and beneficiaries of the project. Funding and financing of relatively small new reservoirs (50,000 acre-feet storage or less) are far more likely to be funded through programs of the sponsoring operating utility than larger projects. It is difficult to address funding opportunities in the abstract, since they are fairly specific to individual proposed projects.

There is continuing attention to development of additional surface storage in California, as well as expansion of current storage facilities. For the Northern Sacramento Valley, new surface water facilities have been proposed in the past to provide local and regional flood control, stabilize water supply reliability for the region, provide additional water supplies for users outside the region, and/or augment flows for downstream environmental purposes. The most significant currently proposed new storage facility is the proposed Sites Reservoir, which has been under study for more than a decade. Sites Reservoir is included in the IRWMP as a project to be tracked, since there is currently no specific project proposal. Should this or any proposed project go forward, potential funding sources will depend on the mix of benefits and beneficiaries. This mix is currently not known, but indications are that it could be a mix of downstream environmental and water supply benefits combined with local water supply reliability improvements.

Hydro power generation is included in this category since it is typically a component of multi-purpose surface water facilities. To that extent, hydro power generation facilities would be funded as a component of a new surface water facility on the basis of the expected beneficiaries of the power to be generated. However, the IRWMP may include other power generation proposals, including but not limited to small hydropower facilities on water canals and pipelines, power generation related to wastewater treatment facilities, solar power facilities ancillary to another IRWMP project, *etc.* Funding for such facilities would need to be considered on a case-by-case basis, mindful of the increasing financial incentives at the federal and state levels for developing sources of renewable electrical energy.

10. Water Supply Reliability and Drought Preparedness. Funding for this general category of projects overlaps with other categories, including groundwater, water management, surface storage and investments in water use efficiency. As greater focus is placed in the next few years on urban and agricultural water use efficiency, it is possible that additional funding sources may be developed (such as may be included in future State water bonds). In addition, past drought conditions in California have brought further legislative and funding attention to water supply reliability.

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11. **Recreation.** Historically, recreation funding at reservoirs in the Sacramento Valley has been provided through funding programs available at the time each reservoir was constructed. This has changed over time for those multi-purpose reservoirs that have gone through relicensing of their hydropower projects through the FERC. Over the past 20 years or more, FERC relicensing has often resulted in requiring reservoir operators to make additional investments at their expense on reservoir recreation.

6.3.5 Funding for Multiple Categories

Other funding sources are available that may help support multiple categories of projects. These are summarized below. Funding programs are typically time-sensitive, with application deadlines and specific application requirements. A web link follows the description of each program.

- The California Energy Commission has announced the availability of funds for low-interest loans for energy efficiency and energy generation projects. Low interest rates of 3 percent can help local jurisdictions invest in energy efficiency, save money, reduce greenhouse gas emissions, and create new jobs and industries.
<http://www.energy.ca.gov/efficiency/financing/index.html>
- CAL FIRE has Urban & Community Forestry Grants to advance the development of sustainable urban and community forests in California, with current funding available from Proposition 84. Here is a link to the program:
http://www.fire.ca.gov/resource_mgt/resource_mgt_urbanforestry.php
- The Clean Water State Revolving Fund Financial Assistance Application has been updated. Applications are accepted on an ongoing basis.
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml
- The Department of Energy's (DOE) \$25 million Technical Assistance Program (TAP), in support of the State Energy Program (SEP) & the Energy Efficiency and Conservation Block Grant (EECBG), is providing state, local, and tribal officials with tools and resources needed to implement successful and sustainable clean energy programs. TAP offers a wide range of assistance.
<http://www.energy.gov/recovery/index.htm>
- The REAP/EA/REDA (Rural Energy for America Program - Energy Audit and Renewable Energy Development Assistance) Grant Program will provide grants for energy audits and renewable energy development assistance.
http://www.rurdev.usda.gov/BCP_ReapEaReda.html
- The SWRCB Agricultural Drainage Loan Program and Agricultural Drainage Management Loan Program accepts applications on a continuous basis.
http://www.swrcb.ca.gov/water_issues/programs/grants_loans/agdrain/agdrain_loan.shtml
- The U.S. Bureau of Reclamation's WaterSMART program provides grants to support efficient water use (both agricultural and municipal). These grants require a 50 percent cost-share and are offered to irrigation and water districts, Tribes, States, and other entities with water or power delivery authority in the following categories:

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Water and Efficiency Grants, System Optimization review Grants, and Advanced Water Treatment and Pilot and Demonstration Project Grants. The WaterSMART program also offer Grants to Develop Climate Analysis Tools to universities, non-profits and other organizations with water or power delivery authority.

<http://www.usbr.gov/WaterSMART/>

- The USDA Rural Development Energy Program provides direct loans and loan guarantees to upgrade, expand, maintain, and replace America's rural electric infrastructure including construction of electric distribution, transmission and generation facilities, and on- and off-grid renewable energy systems.
<http://www.rurdev.usda.gov/Energy.html>
- The USDA has grant programs to help rural businesses create jobs through cooperative development centers. Under the RCDG program, grants may be awarded to colleges, universities, and non-profit groups to create and operate centers that help individuals or groups establish, expand or operate rural businesses, especially cooperatives. Grants may be used to conduct feasibility studies, create and implement business plans, and help businesses develop new markets for products and services.
http://www.farmprogress.com/story.aspx/nl5_5nl/grants/will/help/rural/development/conservation/8/50260
- USDA provides funding to stabilize and reduce energy costs for residents in remote rural areas where the current costs of producing electricity is high. The funds are being provided through USDA's High Energy Cost Grant program and much of the money will go to construct renewable energy projects. Grants are available to individuals, businesses, non-profit entities, states, local governments and federally recognized Indian tribes.
http://www.rurdev.usda.gov/RD_Grants.html

The USDA NRCS offers a wide variety of programs to assist landowners with conservation and good stewardship. While technical assistance is always available, some financial assistance is made available during certain times of the year. Landowners, including Tribes, may apply for funding by visiting their local NRCS office. A conservation planner will assist the landowner in identifying their resource concerns, methods of addressing these concerns, and to develop a conservation plan. This conservation plan will serve as a road map to determine their short term and long term goals and objectives and to set priorities. Once a plan is developed, the landowner can apply for funding to address all or a portion of their conservation plan. Because funding is limited, each project is screened and ranked for environmental benefit. Projects that screen as High priority, meaning they best address the area's priority resource concerns, are funded first. The ranking score is used to determine the order in which each High priority project is funded. NRCS will fund as many high priority projects as the available funding will allow.

Finally, there have been discussions by both the U.S. President and the Congress in recent years about some form of national infrastructure investment bank. This has not yet translated into action, but if implemented could be a very important source of funds for implementation of public infrastructure projects that may be identified in the IRWMP.

6.3.6 Future Funding for the Regional Water Management Group (NSV Board)

This section describes anticipated ongoing NSV Board and TAC activities (aside from project and program categories addressed in Section 6.3.2) following adoption of the IRWMP, including potential costs and funding sources. These ongoing activities may include coordination, administration, NSV Board/TAC meeting facilitation and documentation, development of loan/grant applications, website maintenance and data management. Keeping any organization going requires support, through funding of consultants and/or support from member organization staff and volunteers.

In developing the proposed future structure and funding plan, the NSV Board discussed at length the business case for ongoing purposes and tasks of the organization, costs and value. The NSV Board also considered its own institutional history beginning in early 2011, as well as examples of different organizational and funding approaches used by regional water management groups in California as they updated and implemented their respective IRWMPs. The NSV Board took action at its March and April 2013 NSV Board meetings to include the budget and structure outlined below.

Once the IRWMP is adopted, program monitoring, data management, and public outreach must continue for the projects to be eligible to receive grant funding. Variables that have been considered included who would do the work (county staff vs. consultant), the number of assumed NSV Board and TAC meetings each year, and how and where the NSV website would be hosted, along with many other issues. Estimated costs were developed for each task. Assumed costs for this analysis are County staff at \$90/hour, Local Computer Consultants (distinctly different from in-house county computer or IT staff) at \$100/hour, and Engineering Consultants at \$190/hour. A Local Computer Consultant is defined as a private consultant located within the NSV region that could assist the County staff with computer-related issues that could not be performed by county computer or IT staff. The billing rate for County Staff was developed by Butte County based on the average billing rate of the County Representatives. The cost analysis does not account for in-kind county staff time provided to support the NSV IRWMP effort, but is in addition to such efforts.

6.3.7 Task Descriptions

Ten Tasks have been identified as being necessary to move forward with the collaborative work effort forged by the NSV IRWMP. They are:

1. NSV Board Meetings
2. TAC Meetings
3. Website
4. Data Management System
5. Accepting/Logging Public Comments
6. Press Releases/Letters to Tribes/Correspondence
7. Grant Applications

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8. Grant Administration Coordination
9. Public Workshops/Meetings
10. Addressing Regional Water Policy Issues

In addition, there are some first-year costs (both soft costs (County staff) and out-of-pocket hard costs) in setting up the data management and public outreach website. Each task is described in more detail below, and whether these tasks could be performed by either County staff, local computer consultants, or an Engineering consultant.

6.3.7.1 NSV Board and TAC Meetings

Tasks include:

- Driving the preparation of the Agenda packet and other meeting material preparation, including staff reports and leading the agenda and conference call discussions of the Joint Executive NSV Board/TAC Committee
- Posting meeting materials and meeting announcements to website and posting agenda at physical meeting location
- Facilitation/Attendance to respond to questions/provide clarifications
- Preparation of meeting notes

These tasks could be performed by either County Staff (CS), the Engineering Consultant (EC), or split between both. To-date, these tasks have been performed by the Engineering Consultant – with the exception of posting the agenda at the meeting location. Based on West Yost's actual average effort to date to perform these services, this effort requires approximately 41 hours of staff effort, as broken down by individual subtask on Table 6-2.

Table 6-2. Estimated Labor Hours to Support NSV Board and TAC Meetings		
Tasks	Labor Hours per meeting	Notes
Agenda packet and other meeting material preparation	16.5	Includes development of staff reports, determining agenda contents, photocopying agenda packets and other meeting materials, preparing posters, and preparing PowerPoint presentations. Based on West Yost's actual average effort.
Posting meeting materials and meeting announcements to website	1	Based on West Yost's actual average effort.
Facilitation/Attendance	6.5	Based on West Yost's actual average effort.
Meeting minutes	17	Based on West Yost's actual average effort.
Total per meeting	41	

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6.3.7.2 [Website](#)

Tasks include:

- Website/URL hosting, Programming/formatting website maintenance
- Day-to-day maintenance/posting updates/responding to public comments

The current NSV website is hosted on a private system by a subconsultant to West Yost, MIG. There will be on-going annual fees for MIG to continue to host this website and provide maintenance. Currently the EC is also providing website updates, posting new information as available, and responding to public comments. However, these functions can all be performed by CS in the future. The website could also be moved and hosted on a county website, or local independent site. There will be some one-time charges related to the transfer of the website to a new host location.

For budgeting purposes, four hours per month (48 hours per year) was assumed needed to program the website and two hours per month (24 hours per year) to complete day-to-day maintenance. This level of effort does not include costs or time to perform the actual transfer of the website to another host location.

6.3.7.3 [Data Management System](#)

The IRWM grant program requires the IRWM Group to maintain data regarding project status for the projects included in the NSV IRWMP, and to make all non-security sensitive data related to these projects and the IRWM region available to the public and allow uploading to the State database. Three tasks have been identified:

- NSV IRWM – Database Coordinator
- NSV IRWM – Specific Data Management
- Online Database Data Updates

These first two tasks could be completed by CS, the EC, or local Computer Consultant (CC). Four hours per month was used as an estimate (48 hours per year) for each of the first two tasks. The third task could be completed by the CC or possibly in-house by County technical staff. Twenty hours per year was assumed for updating the online database. Depending on the actual database software selected, there could be additional one-time charges and effort required.

6.3.7.4 [Accepting/Logging Public Comments](#)

This public outreach task could be completed by CS or the EC. An estimate of 4 hours per month (48 hours per year) was used for this task.

6.3.7.5 [Press Releases/Letters to Tribes](#)

This public outreach task could be completed by CS or the EC. An estimate of 2½ hours per month (30 hours per year) was used for this task.

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6.3.7.6 Grant Applications

Grant applications would be completed by each individual project proponent so there would not be a monthly expense related to this task.

6.3.7.7 Grant Application Coordination

Administration and coordination of project proponent submitted grant applications will be required by the NSV Board.

This task could be completed by CS or the EC. An estimate of 160 hours per year was used for this task.

6.3.7.8 Public Workshops/Meetings

Public Workshops and Meetings, if needed, will be incorporated into scheduled NSV Board and/or TAC meetings, so no budget is being planned for separate public workshops. As specific needs develop, this budget line item could be revisited in the future budgets.

6.3.7.9 Additional First Year One Time Costs

In addition to the annual costs, several one-time costs will be incurred to transition the website and Data Management System for project and data tracking. Two tasks have been identified:

- Transition of website
- Data Management Site Prep

The assumption is that the website would be transitioned from the current proprietary structure to a common “content management system”, possibly hosted by one of the participating counties. This cost is estimated to be approximately \$6,000 (mostly staff time costs, but there will also be some hard costs). The SWIM database and other database options were discussed although no decision was made regarding the specific database to use. However, a one-time cost of \$60,000 is being used as a “place holder” cost for this line item.

These two one-time tasks could be performed by the CC, or CS.

6.3.8 Discussion, Including Addressing Regional Water Management Issues

The proposed budget and level of effort relies heavily on County Staff to perform most, if not all of the work. To minimize out-of-pocket expenses, it is assumed that tasks would be split among the six participating NSV IRWM Counties with the intent to balance the in-kind costs among the counties, with each county serving as the lead or co-lead for a particular task. As discussed by the NSV Board (and pending support by each County Board of Supervisors), preliminary identification of the possible County to take the lead or co-lead on a particular task is shown in Table 6-3.

Table 6-3. Estimated Future Annual Costs for NSV Board Financing After IRWMP Adoption^(a)

Task No.	Tasks	Quantity	Estimated Cost ^(b)			Notes ^(c)
			In-Kind	Out-of-Pocket	Total	
1	Board Meetings	2	\$ 7,690	\$ -	\$ 7,690	Two Board meetings per year, all tasks by County Staff. In-Kind support services assumed to be provided by Butte County as lead with support from Tehama County.
2	TAC Meetings	4	\$ 15,380	\$ -	\$ 15,380	Four TAC meetings per year, all tasks by County Staff. In-Kind support service assumed to be provided by Butte County as lead with support from Tehama County.
3	Website	1	\$ 6,480	\$ -	\$ 6,480	All work to be performed by County Staff. In-Kind support services assumed to be provided by Shasta County for server hosting and website maintenance, with Colusa County leading the content management task for website.
4	Data Management System	1	\$ 10,440	\$ -	\$ 10,440	All work assumed to be performed by County Staff (might need some assistance from local computer consultants). In-Kind support services assumed to be led by Shasta County with support from Colusa or Butte Counties.
5	Accepting/logging public comments	1	\$ 4,320	\$ -	\$ 4,320	All work by County Staff. In-Kind support services assumed to be led by Colusa County, with support from Shasta County.
6	Press releases/letters to Tribes	1	\$ 2,700	\$ -	\$ 2,700	All work by County Staff. In-Kind support services assumed to be led by Butte County, with support from Tehama County.
7	Grant Applications and Administration	0	\$ -	\$ -	\$ -	All work by project proponents, no cost to RWMG.
8	Grant Application Coordination	1	\$ 14,400	\$ -	\$ 14,400	RWVG support for grant applications, review, meetings, etc. All work by County staff. In-Kind support services assumed to be led by Sutter County with support from Glenn County.
9	Public workshops/meetings	0	\$ -	\$ -	\$ -	No public workshops assumed to be included in this budget
10	Additional First Year One Time Costs					
	10a Transition of website	1	\$ -	\$ 6,000	\$ 6,000	Website migration by Computer Consultant.
	10b Data Management Site Preparation ^(d)	1	\$ -	\$ 54,000	\$ 54,000	New Data Management System created by Computer Consultant.
	Task 10 Subtotal			\$ 60,000	\$ 60,000	\$60,000 cost is sum of items 10a + 10b presented in the budget item lines above. Currently assumed that each county will be responsible for contributing \$10,000 each.
Total First Year Cost			\$ 61,410	\$ 60,000	\$ 121,410	First Year cost includes Item 10.
Total Annual Cost Year 2 onward			\$ 61,410	\$ -	\$ 61,410	

^(a) Includes assumed labor cost of County Staff (including County IT Staff) at \$90/hour, Engineering Consultant at \$190/hour, and local Computer Consultant at \$100/hour.

^(b) Levels of effort based on historical West Yost levels of effort, or as estimated by West Yost and sub-consultants.

^(c) Although the County identified as the tentative lead/co-lead for each task, it is understood that all counties will be actively participating in all tasks.

^(d) Could be new site or transition of SWIM site. If no online project tracking, another method to consolidate data obtained by IRWM projects and coordinate with State databases must be developed.

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The costs shown in Table 6-3 provide an estimation of County Staff charges and local Computer Consultant charges for illustrative comparison. No estimation has been made for existing/on-going NSV Board or TAC staff efforts currently being provided to support the NSV IRWMP efforts. The in-kind efforts are over and above the county staff's current in-kind contributions.

To provide a reference point baseline to the preferred option summarized in Table 6-3, currently West Yost is providing essentially all support functions for both the NSV Board and TAC meetings, and there are currently four NSV Board meetings and 10 TAC meetings scoped per year.

Following adoption of the NSV IRWMP, there would be two NSV Board meetings per year and four TAC meetings. County Staff would take responsibility for all NSV Board and TAC meeting tasks. Based on the discussions with the 6-County Representatives, Butte County has been tentatively identified to lead this task with support from Tehama County.

County Staff would also complete the day-to-day website maintenance. Colusa County has been tentatively identified to take the lead in providing staff to manage the content of the NSV website, while Shasta and/or Butte Counties have been proposed as possible server hosts for the NSV website (which would include website hosting maintenance and operation). The 6-County TAC Representatives also felt strongly that the database system and upkeep should be locally controlled and managed, to help control both potential cost increases and data consistency. Therefore, it is also being recommended that County Staff assume the responsibility of hosting and maintaining the data management database. Shasta County has been tentatively identified as potentially taking the lead for hosting and providing support for the data management database, with possible support from Colusa or Butte Counties. There may also be the need for some outside computer consultant services.

The remaining tasks such as accept/log public comments would be led by Colusa County with support from Shasta County; press releases and letters to Tribes would be led by Butte County with support from Tehama County; and grant application coordination would be led by Sutter County with assistance from Glenn County.

No tasks would be performed by the Engineering Consultant, but the tasks that only the Computer Consultant could provide, described above, could be completed by "in-house" County IT staff.

While the tasks above cover all activities directly related to costs, they do not address the NSV Board's future level of engagement on water policy or related water resource issues that may arise and impact the NSV IRWMP area, either within or outside of the Northern Sacramento Valley IRWMP Region.

The NSV Board can have an important and appropriate role in educating, coordinating, and influencing regional approaches to water issues, recognizing the authority vested in each member agency and organization to act independently according to their authorities and responsibilities. It is important to respect and acknowledge that Tribal Sovereign Nations can be approved by the U.S. Environmental Protection Agency to be treated in the same manner as a state, which allows Tribes to set water quality standards and certification programs under the Clean Water Act.

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Individual member organizations and agencies (particularly each of the six county boards of supervisors) speak and act in the political arena. The NSV Board can support this exchange by educating, coordinating, and influencing regional approaches to water issues where there is a common goal or position. The NSV Board supports the opportunity for NSV Board members and the public to discuss water related topics of regional concern at future meetings. At some point, the NSV Board might consider a response or some other sort of involvement as determined by the NSV Board at that time. This does not reflect an additional layer of government, but allows for better education, discussion and involvement on important water policy issues, particularly on a regional basis.

More specifically, the NSV Board supports, for the purpose of discussion in the NSV Draft IRWMP, the following activities:

1. Inform: The NSV Board should maintain the option of providing a forum for mutual education and discussion on regional water issues, and the NSV Board may host or participate in hosting workshops or other educational events on topics of interest. NSV Board meeting agendas, forums, briefings and/or workshops should be scheduled and coordinated through the NSV Board's Joint NSV Board and TAC Executive Committee.
2. Coordinate: The NSV Board should continue to promote coordination among the NSV Board members and other meeting participants related to regional water issues.
3. Influence: The NSV Board should only take a position or offer comments on water issues of regional importance so long as:
 - a. The Board of Supervisors from each of the six member counties has had a chance to review and vet the regional water topic (be it project or issue) and
 - b. The NSV Board's position does not contradict the outcome of the Board of Supervisors vetting process.