SECTION 7.0 DATA MANAGEMENT AND ANALYSIS

7.1 Technical Analysis and Plan Performance

Technical Analysis:

As previously mentioned, and further described in the annotated reference list of existing plans and reports (see Appendix F), local agencies and organizations have conducted numerous studies and developed a significant amount of information related to water management. The former Ventura Countywide Integrated Regional Water Management Plan (VCIRWMP) Group and the Watersheds Coalition of Ventura County (WCVC) have devoted a number of meetings to the discussion of existing data, data formats and the need for additional information. The initial steps in preparing this Plan included conducting a detailed review of these data through creation of a new database and identification of gaps and deficiencies. One key deficiency already identified is that there are no completed watershed management plans for the Ventura River and Santa Clara River Watersheds, although efforts are underway to create plans for each of the these watersheds. In addition, studies are needed to define groundwater basin safe yields in both these watersheds.

The WCVC has further identified problems with information collection. Some rivers and reaches are over-studied, with overlapping monitoring efforts, while others are under-studied. Finally, there are problems with the varying formats in which the data is collected making it difficult to assemble into a coherent whole. The new database may assist in the goal of creating standardized data formats that are also compatible with State and Federal data needs.

Completion of various data-gathering projects, primarily addressing safe yields, will be a key component of this ongoing planning effort. Where possible, this newly generated data will be integrated into the Plan documents. It is anticipated that further data deficiencies will be identified. These may be the subject of future funding requests either through Proposition 50 or from other sources.

Plan Performance:

Generally, successes of the Plan will depend on how well the individual plan objectives (see Section 4) are achieved. Achievement of all of these objectives will, in large part, determine the success of local integrated regional water management planning process.

Additionally, success may be attributed to the Plan when individual projects (see Section 6) meet their goals and objectives and help to cumulatively and positively address individual plan objectives.

This IRWM Plan is a dynamic document, part of an ongoing local effort to achieve integration of local water management. The process, through stakeholder participation and plan revisions, will continue for many years and will be an effective mechanism for addressing the water management issues facing this Region and/or specific watersheds within the Region. As a consequence, on an ongoing basis, plan objectives, regional priorities, Statewide priorities, and program preferences contained within Section 4 will be reviewed for relevance and modified as needed to ensure the overall Plan reflects changing needs and continues to be effective. Additionally, the projects

identified for future implementation will be reviewed and evaluated periodically to ensure that current plan objectives will be met and that the proposed projects offer the greatest benefit possible. Periodically, a new set of projects will be developed to address plan objectives and State and Regional priorities.

Watershed-based planning will continue to be enhanced through ongoing efforts. Through the continuing watershed committee meetings, the Plan will be evaluated for ongoing effectiveness and relevance. The Plan is envisioned to serve as an overarching guide and framework for watershed planning, project proposals, and project implementation.

Regular evaluation of the Plan and its components is vital to ensuring that the Plan lives on as an effective water management program for the Region. It is expected that these evaluations occur as substantial new information is generated or at least once per year.

7.2 Data Management

A wide variety of information – data - is necessary to effectively manage water. The kinds of data needed include information regarding water quality, quantity, population demographics, climate and rainfall patterns, treatment plant effluent, habitat locations and needs, water costs, and more. Data is vitally important to agencies trying to maximize operating efficiency and design projects with limited budgets. The types of data available, current relevance and trends, and knowledgeable people that can interpret the data are all important. Equally important is the opportunity for Federal and State agencies to view local data for their own monitoring needs and to better understand local conditions.

Data regarding water quantity and quality are collected and disseminated currently by a number of different agencies including the State Department of Health Services, Department of Water Resources and Regional Water Quality Control Board, the Ventura County Watershed Protection District, Ventura County Environmental Health Division, local groundwater management agencies, and retail water agencies. The format varies, and the data are not always consistent. In essence, a very good base of data has been compiled, but current gaps need to be filled via more research, more observation, and more funding.

Data is, and will continue to be, disseminated to stakeholders, agencies, and the public through e-mail distribution and postings on the Watersheds Coalition of Ventura County's (WCVC) website, at www.watershedscoalition.org.   The WCVC has established data protocols with the goal that information be collected and organized in formats and with sufficient detail that is compatible with State and Federal needs.

Prior to the consolidation of the VCIRWMP Group and the CCWMP Steering Committee, both organizations had created "data" committees and dealt separately with data needs and established protocols.

Calleguas Creek Watershed Management Plan (CCWMP): Within the CCWMP process, data management is underway. The following is excerpted from the CCWMP: The effort to date has resulted in the collection of an extensive amount of data, preparation of numerous reports, and the development of several Geographic Information System (GIS) layers. The CCWMP has already established a website (http://www.calleguascreek.org) where the public can obtain copies of the various reports (including the TMDL studies), meeting times and minutes, GIS information, and description of the Watershed characteristics.

Action No. 2 of the CCWMP included the development of a data repository. The purpose of the action is to develop a warehouse of CCWMP information, data, maps, and planning recommendations so that public and private entities and interested stakeholders would have the opportunity to work from a common base of information. This resource would help the development of public and private project design and implementation of compatible and coordinated actions in land use, facility development, and conservation actions.

The Public Outreach/Education and Land Use subcommittees will need to work together to identify a 'gatekeeper' responsible for maintaining the repository, and identifying long-term funding sources. The subcommittees would also coordinate with entities undertaking activities related to the CCWMP to ensure the data and information being generated is placed in the Watershed Data Repository and made available. Development of a Watershed Data Repository can serve many purposes, three of which are described below:

1. It provides a single point of access to information resources pertinent to Calleguas Creek, thus simplifying the process of data collection efforts required by individuals and entities interested in conducting various evaluations within the Watershed.

2. The information contained within the repository can be used as the basis for developing public outreach and educational materials aimed at improving the public's knowledge and understanding of Watershed processes and issues, and what actions they can take to help implement and support various solutions to these issues.

3. The repository can be used as a checklist in determining if all the necessary information required for a particular technical evaluation exists, in what form, and who should be contacted about obtaining it.

Future Watershed Data Repository implementation efforts should focus on at least three additional issues:

1. Determine appropriate data and metadata compliance standards for the development of spatial and non-spatial data. This effort should be coordinated with the various public agencies and entities actively developing data within the Watershed. For consistency and cost effectiveness, an effort should be made to incorporate and adopt existing standards that may have already been developed by other entities within the Watershed, such as the County of Ventura.

2. Identify and establish a single entity responsible for maintaining the Watershed Data Repository. It is important to determine the anticipated level of effort required and the appropriate technology and skills the selected entity needs to maintain. For example, the initial Watershed Data Repository functions within the context of a standard website. If an interactive mapping application or database query tool is added to the repository, additional hardware and software and the skills to develop and manage data within these tools may be required.

3. Form a Technical Working Group composed of representatives from the CCWMP, local jurisdictions and other entities developing GIS and database information within the Watershed to determine the appropriate applications that should be developed within the context of the repository for the benefit of everyone working on Watershed-related work products and issues. The group may decide that the existing level of effort, which includes a listing of contact information and the ability to download certain datasets and tools, is sufficient and no further development is required. However, the group may also determine that additional features may be appropriate, in which case they would need to determine which technologies to utilize and what effects those decisions have on the hosting and management of the repository.

Placing newly obtained data into the data repository has the added benefit of providing a central location to obtain any existing data on the Watershed, which will minimize data collection efforts for planning agencies and the public.

Additionally, as part of the Brine Line project, a water quality monitoring program has been established as discussed in the previous subsection. These surface water and groundwater data can be made available to the SWRCB SWAMP and GAMAP programs.

Ventura Countywide Integrated Regional Water Management Plan (VCIRWMP):

Efforts early in the process resulted in creation of a website to display information regarding the Group's reports, goals and objectives, and other important information and resources regarding local and Statewide water management planning. Recently a new website (discussed below under "WCVC") has been created and now reflects the integration of the two watershed planning areas.

The VCIRWMP Group recognized early on that a committee was needed to define goals and objectives, define data needs, and determine how the data should be gathered and by whom. The committee met regularly and determined that an abundance of data was already being collected by various agencies and organizations and that one concern was that no one entity knew the types and extent of data available within the other organizations. From that point forward, the effort was to catalog the data available by type, how it is maintained, responsible party contacts, age of data and how frequently it was updated. This approach was thought to be the most efficient and encouraged greater communication among agencies and organizations.

In order to ascertain the available data and its various properties, a table was created by the committee which lists possible data availability by type of entity (e.g., sanitation districts, water purveyors, groundwater management agencies, etc.) The tables have been distributed to all participating and stakeholder organizations for completion. The information has begun to be organized and will be made available for use by any interested party. A copy of the table depicting the types of agencies and the data they may possess is shown in Appendix D.

The committee determined a format for presenting the information of available data and it was further determined that a database should be created to manage and present the information. Consequently, a Microsoft Access database is in development which has the capability of being sorted in a number of ways to present available data to those who desire it. Accuracy of data is vital, and if not currently accurate, it will be noted that the data are estimates, projections, or older data that may have become outdated. Appropriate notes pertaining to the specific data will be presented. Once the database becomes "live," it will be posted on the WCVC website and an electronic file will be made available to all watershed management plan stakeholders including appropriate State and Federal agencies.

Typical reports which may be produced from this Database include:
* What data each organization possesses
* What organizations possess individual types of data
* Currency, frequency, contact information, and other properties for each data.

Efforts are being made to integrate additional capability into this Database. It is envisioned that the Database contain additional general information pertaining to the participating organizations; proposed and envisioned projects; project status; possible funding sources; and whether the

projects meet Statewide Priorities, Program Preferences, IRWMP Objectives, and to which Water Management Strategies the projects relate.

Additional reports which may be produced from this Database include:
- Contact information for each organization
- Mailing labels for any combination of organizations
- Information about any applied for project, future project or concept project
- Organizations and/or proposed projects sorted by watershed
- Projects sorted by project types
- Criteria applicable to each project

A copy of the Data Table Relationships depicting the type of data and its properties and how it might be sorted is provided in Appendix E.

Watersheds Coalition of Ventura County (WCVC): The consolidation of the two water management plans has been a recent occurrence. The data needs, available data and emerging data are being coordinated and integrated as much as possible. Efforts have already been, and will continue to be made, to integrate and link data, and expand the Available Data Database to incorporate the agencies and entities of both organizations. The database is dynamic and will be updated regularly.

A new website (www.watershedscoalition.org) reflects that the consolidation has been established and data has been migrated from the old website. The new website contains the data mentioned above under "VCIRWMP," plus data on each of the three watersheds; maps; a library of reports/studies; contact information; a list of all participating agencies; links to appropriate Federal, State and local agencies, local environmental organizations, and other helpful websites. The Calleguas Creek Watershed Group will continue to develop its data repository and maintain data on its website for its own planning and management purposes; however, maximum efforts will be made to link that website with the WCVC website and promote an integrated data repository as a whole. The WCVC website will be augmented and updated as new information is generated.

The Ventura County Watershed Protection District recently completed a database entitled "Inventory of Public and Private Water Purveyors in Ventura County." This database is available in printed form and on compact disc. The database provides information on the location and contacts; the wholesale water district area in which it lies; officers, governing board; staff; website; wells; connections; and comments. It has provided a valuable source of information for the Available Data Database for water purveyors.