# BUTTE COUNTY DEPARTMENT OF WATER & RESOURCE CONSERVATION

STRATEGIC PLAN: 2011-2015

# **MISSION**

To manage and conserve water and other resources for the citizens of Butte County

## **VISION**

To work cooperatively with water agencies, conservation groups, and others to enhance the County's water supply and environment through creative water management; to fully utilize the County's State Water Project allocation; to ensure an abundant and sustainable water supply to support all uses in Butte County; to promote water conservation as an important part of a long-term and sustainable water supply; and to ensure that local water resources are protected to meet local water needs.

#### **VALUES**

- To consider careful input from a wide-range of Butte County's Citizens;
- To treat the concerns of all citizens in a courteous and respectful manner;
- To respect the policies of the Board of Supervisors and carry them out faithfully and with integrity;
- To gain the respect of local, state, and federal water authorities for Butte County's creative water program;
- To support Area of Origin water rights, the existing water right priority system and the authority to make water management decisions locally to meet the county's current and future needs, thereby protecting Butte County's communities, economy, and environment.
- To secure funding for programs that help all of Butte County; and
- To implement the elements of the Integrated Water Resources Plan approved by the Board of Supervisors.

8/5/2011

# **BACKGROUND**

#### FORMATION OF THE DEPARTMENT

The Water and Resource Conservation Department began as the Water Division of the Agriculture Department, in response to the passage of Measure G, "An Ordinance to Protect the Groundwater Resources in Butte County," as codified in Chapter 33 of the Butte County Code. The measure was one of two groundwater regulatory measures placed on the November 5, 1996 ballot and upon its passage incorporated into the Butte County Code.

The initial implementation of Chapter 33 included establishing a division for water management under the direction of the Butte County Agriculture Department, referred to as the Water Division. The Butte County Water Commission advised the Board of Supervisors on staffing needs and a two-tier approach was developed to assist the Water Commission with its task. One tier was confined to implementing the provisions of Chapter 33 only, while the second tier would allow the Water Division to address countywide water concerns, such as CALFED.

In May 1997, the Water Commission recommended that the Board of Supervisors approve the secondtier, with a total of three (3) allocated positions. The new Water Division of the Agriculture Department was established effective July 1, 1997. The Water Division was assigned the responsibility for:

- implementing Chapter 33
- monitoring state and federal water policy
- maintaining a library of water documents
- providing support staff to the Water Commission and the Technical Advisory Committee
- managing the County's water entitlement (Table A Allocation) as a part of the water supply contract between the State of California Department of Water Resources and the County.

On July 1, 1999, the Butte County's Department of Water and Resource Conservation was formed and staff and related resources were moved from the Agriculture Department to the newly created Department. The Butte County Department of Water and Resource Conservation's mission statement, which was approved by the Board of Supervisors, is "to manage and conserve water and other resources for the citizens of Butte County."

## HIGHLIGHTS OF THE FIRST DECADE

The creation the department was a natural progression of actions taken by Butte County to improve the management and protection of local water resources. The first priority of the department was implementation of the 1996 voter-approved Groundwater Conservation Ordinance (Chapter 33). Besides providing one of strongest county ordinances in the state, the Ordinance formalized the county role in monitoring and assessing groundwater. The Groundwater Conservation Ordinance provides the foundation for the department's mission. As water resource issues evolved, the County developed programs, data and activities to advance water resource management.

In 1997, the County called upon the Technical Advisory Committee's expertise to expand the data points in the groundwater level monitoring grid. This expansion included the addition of over 35 new monitoring wells to the grid from 1997 through 1999. Other monitoring wells have been added since that initial expansion effort, and the total data points in the Butte County grid are currently over 100.

In 2001, the department produced the Water Inventory and Analysis report that analyzed water demand and availability. In 2003, the department produced reports on Agricultural and Urban Water Demand. Water resource analytical tools were developed and improved over the past decade. The department secured grants to update the Butte Basin Groundwater Model, develop the Water and Environment Hydrology (WEHY) model, expand the groundwater monitoring network and produce additional baseline data through the Tuscan Monitoring, Recharge and Data Management Project.

In 2005 the County adopted the Butte County Integrated Water Resources Plan (IWRP). The IWRP, developed with public participation, established a baseline of water resource information and strategic priorities for the county. The IWRP remains a viable strategic guide for the County.

In 2006, Butte County enacted the Basin Management Objective (BMO) program. The BMO program established an innovative program for local stakeholders to improve the understanding of the groundwater conditions and coordinate groundwater resources based on a standard set of data and information. Groundwater data from the spring and fall are used to evaluate whether conditions meet desirable groundwater levels in 16 areas or "sub-inventory units" in Butte County. In each of the 16 sub-inventory units stakeholders set Alert Stages that trigger locally driven collaborative efforts including heightened awareness and irrigation coordination. In 2009, improvements to the BMO program were implemented based on recommendations from the Technical Advisory Committee. The changes improved the communication between the Technical Advisory Committee and the subinventory representatives and established guidelines for a consistent methodology for setting Alert Stages. A review of the BMO program was begun in 2011 and improvements will be in place for 2012.

The department has management responsibility for the Butte County's State Water Project Table A Allocation. The County has an allocation of 27,500 acre feet from the State Water Project for in-county water demand. Maximizing in-county uses of water from Lake Oroville continues to be a County commitment. Until 2008, the state allowed the County to only pay for the amount of water used. However beginning in 2008, the state required that the County pay the annual cost of the entire allocation. In 2008, the department secured a two-year sale of surplus Table A allocation that provided the County with revenue to cover the cost for almost four years. The unprecedented sale avoided an immediate fiscal crisis and allowed time for the County to explore a long term strategy. The California Water Service, Chico in cooperation with the Department is conducting a feasibility study on options to bring the Butte County's SWP Table A Allocation to the Chico area.

The department is charged with providing education and outreach to the public on water resources. The department's website and its monthly newsletter, *WaterSolutions*, are highly regarded for their providing accurate and comprehensive information and data to the public. The department provides leadership to regional educational forums held by the Northern Sacramento Valley Water Forum. The department is called upon to assist the University of California's Cooperative Extension Service Water Education Forums. The department routinely gives presentations to academic, civic, business and agricultural organizations. Specific project funding has been secured to advance outreach efforts. The Watershed Education and Outreach Project produced fact sheets on water resources and held workshops for the public. The Tuscan Aquifer Project includes a public outreach and education component. Innovative education and outreach opportunities will continue to be pursued.

Fostering regional cooperation has grown over the past ten years. In 2006, a cooperative program was conducted to assess drinking water quality in Butte, Glenn, Tehama and Colusa counties. The Four

County Memorandum of Understanding became a product of that initiative. The Four County MOU has grown into a regional partnership among the six northern Sacramento Valley counties (Butte, Colusa, Glenn, Tehama, Sutter and Shasta) now called, the Northern Sacramento Valley Integrated Regional Water Management (IRWM) Group. The establishment of the Northern Sacramento Valley IRWM governing board is a major milestone in 2011. Supporting the development of the Northern Sacramento Valley IRWM Plan is a priority for the County.

Along with managing critical functions, the department became a catalyst for advancing water and resource projects. Since 2002, over \$9.8 million has been brought into Butte County through the department for watershed, monitoring, scientific and water supply projects. One of the more important legacies of the department was its role in the formation of the Butte County Resource Conservation District. Today, the Butte County RCD functions independently advancing many successful resource initiatives that benefit Butte County.

The department has successfully met water resource challenges through the work of highly dedicated professional staff and in collaboration with the Butte County community. Special gratitude goes to those who volunteered their time and expertise on the Water Commission, Technical Advisory Committee and Water Advisory Committee. Going into its second decade, the department will continue to meet water resources challenges in partnership with the Butte County community.

#### THE NEXT FIVE YEARS

The next five years will be pivotal to water resource management. The legacy of the 2009 Comprehensive Water Package, the Bay Delta Conservation Plan (BDCP) and other state actions will have profound and unpredictable impacts. Economic conditions will have a major bearing on water resource management issues. The predicted slow economic recovery will continue to place limitations and challenges to advancing water resource management projects. The linkage between land use planning and water resource management will create new challenges and opportunities. The adopted General Plan 2030 included an Action Plan that lays out a number of priorities. The department will need to keep pace with improving the understanding of local water resources including potential affects of climate change.

These policy drivers heighten the importance of regional water resource management coordination. As such the Department will continue to work aggressively and cooperatively with the surrounding counties and local stakeholders to develop regional water management strategies that protect all water rights and assure the sustainability of our shared groundwater resource consistent with County policies embodied in the Butte County IRWM, the Groundwater Management Plan, the General Plan 2030 and water related Ordinances. The specific goals over the next five years include:

- Secure the long term sustainability of the County's Table A Allocation
- Support the development of the Northern Sacramento Valley IRWM Plan
- Integrate water resources policies and programs with the General Plan 2030
- Support the protection of water rights, local water resource management authority and oppose a redirection of impacts from state water initiatives.

# PRIORITIES FOR 2011-2015: GOALS AND OBJECTIVES

The Priorities for 2011-2015 outlines the actions and priorities of the department for the next five years. Over the next five years circumstances will change that will affect these and other priorities. The Goals and Objectives will be a dynamic document that will be updated annually. Action items are designed as Ongoing, Short term (1-2 years), Medium term (3-5 years) or Long term (greater than five years). The designations are intended as a general characterization at this point in time. The actual sequencing of action items may be adjusted due to funding availability and changed circumstances. If an action item was part of the General Plan 2030 Action Plan, the reference is provided.

# KEY STRATEGIC GOALS BY 2015

- Secure the long term sustainability of the County's Table A Allocation
- Support the development of the Northern Sacramento Valley IRWM Plan
- Integrate water resources policies and programs with the General Plan 2030
- Support the protection of water rights, local water resource management authority and oppose a redirection of impacts from state water initiatives.

# Goal 1: Utilize the State Water Project Table A Allocation Action Items

- Fully utilize the Table A Allocation to meet Butte County needs and attain fiscal sustainability (S)
- Conduct a study in cooperation with the California Water Service Company to assess the feasibility of making the Table A allocation available in the Chico/Durham area. (M) (General Plan W-A3.3)
- Continue to explore opportunities to utilize surplus Table A water while long term in-county uses are secured (O).
- Fiscally administer the Table A Allocation to maximize benefits for the County and its citizens. (O)
- Address the supply reliability and cost of the Table A Allocation. (S)

# Goal 2: Support solutions to ensure the sustainability of community water supplies

# **Action Items**

- Complete the administration of the Lime Saddle Trust Fund (S)
- Magalia Dam Support efforts to fund the seismic retrofit of Magalia Dam to increase the utilization of Magalia Reservoir. (M)
- Promote agricultural and urban water use efficiency. (L) (General Plan W-A4.2)
- Encourage and cooperate with water purveyors to support the delivery of surface water for the economic development of agriculture. (O) (General Plan W-A2.3)

# Goal 3: Produce data, information and analyses on water resources Action Items

- Implement and improve the Basin Management Objective Program (O)
- Monitor and Report Groundwater Conditions (O)
  - O Monitor groundwater elevation, subsidence and water quality (temperature, ph and electrical conductivity); (O)
  - O Prepare the annual Groundwater Status Report and BMO report and submit the report to the Water Commission and the Board of Supervisors; (O)
  - O Participate in the California Statewide Groundwater Elevation Monitoring (CASGEM) program enacted under the 2009 Comprehensive Water Package. (S)
  - o Improve the groundwater monitoring network through the installation of additional monitoring wells. (S) (General Plan W-A1.1)
  - O Cooperate with state and regional partners on the Sacramento Valley Global Positioning System Land Subsidence Monitoring Project (M)
- Update the Water Resource Inventory and Analysis Report. (M) (General Plan W-A3.5)
- Develop and maintain analytical tools to evaluate changes that may affect water resources
  - o Update the Butte Basin Groundwater Model (L)
  - o Conduct modeling scenarios (M)
- Administer the Drought Preparedness and Mitigation Plan (O)
- Complete the Tuscan Aquifer Monitoring, Recharge and Data Management Project (S)
- Implement the Environmental Monitoring Program (M)

# Goal 4: Protect and manage groundwater resources Action Items

- Support the Groundwater Conservation Ordinance related to water transfers involving groundwater substitution. (O)
- Seek funding for and conduct comprehensive, countywide mapping of water resources and groundwater resource areas. (M) (General Plan W-A3.1)
- Integrate water resource considerations into land use planning (M)
- Improve groundwater recharge (M)
  - o Evaluate previously proposed cooperative management options from the IWRP and identify additional potential coordinated management options (M)
  - O Assist in the development of programs to manage storm water to promote groundwater recharge (M)
  - O Support the development of a Rock Creek/Keefer Slough flood management/recharge project (M)

# Goal 5: Protect Local Water Resources through Partnerships, Cooperation and Leadership on a Regional and Statewide Basis Action Items

- Support the Northern Sacramento Valley Integrated Regional Water Management Plan (O)
- Support Area of Origin water rights, the existing water right priority system and the authority to make water management decisions locally to meet the county's current

and future needs, thereby protecting Butte County's communities, economy, and environment. (O)

- Actively engage in state water policies that may affect Butte County (O)
  - o Continue to participate in the California Water Plan, Delta Plan and the Bay Delta Conservation Plan processes(S)
  - o Track the implementation of the 2009 Comprehensive Water Package and other related legislation. (S)

# Goal 6: Advance Water Resource Education and Knowledge Action Items

- Continue to prepare and distribute the newsletter, Water Solutions, on a monthly basis (O)
- Develop the outreach components of the Tuscan Aquifer Monitoring, Recharge and Data Management Project (S)
- Continue to provide leadership for the Northern Sacramento Valley Water Forum (O)
- Continue to participate in educational forums (O)
- Promote in local school districts water education curriculum (M)
- Establish kiosks in libraries and other venues that utilize computer models and data layers to educate the public about local water resources. (L)

# **OPERATIONAL AND STRATEGIC ISSUES**

#### **PLANNING**

Water resource planning efforts provide a road map for achieving desired goals to sustain and protect water resources. Plans are dynamic and subject to modification as new innovations, concepts, or constraints occur. Water resource planning activities include various strategic plans/programs, utilization of analytical tools, production of reports and institutional coordination. Planning efforts are built upon the acquisition of sound scientific data and provide the means to identify and implement water resource management projects.

Butte County's Integrated Water Resource Plan (IWRP) was approved in 2005 and currently serves as the County's primary water resource strategic plan. The programmatic underpinnings for the Department are based on implementation of Butte County Ordinances (Chapter 33 and 33A of the Butte County Code) and the First Tier Policies identified in the Butte County Integrated Water Resources Plan (IWRP) that was approved by the Board of Supervisors in 2005. The First Tier Projects identified in the IWRP include:

- Continuing ongoing water resources efforts;
- Improving water management of the State Water Project Table A allocation;
- Protecting recharge areas through zoning;
- Increasing agricultural and urban water use efficiency;
- Developing Basin Management Objectives that support native vegetation;
- Informing and educating the public about water;
- Working cooperatively with the Butte County Resource Conservation District;
- Supporting solutions to potential water shortages in the Ridge Community;
- Implementing a coordinated management program;
- Coordinating regional watershed management
- Taking steps to understand and improve Butte County's water quality;
- Serving as an advocate to improve the understanding of conditions for special status species in creeks and rivers.
- Enhancing a Multi-County Cooperative Outreach Effort

The Department originally intended to update the IWRP within five years. Since that time, substantial progress has been made on the regional planning efforts of the 4 County Group, now called the Northern Sacramento Valley Integrated Regional Water Management Planning Group. The Northern Sacramento Valley IRWMP includes the Counties of Butte, Glenn, Tehama, Colusa, Sutter and Shasta. The County will focus staff resources towards the development of the Northern Sacramento Valley IRWMP and work cooperatively to obtain grant funding.

The Butte County General Plan 2030 process presents new and innovative approaches to bridge land use planning and water resource management. The Butte County General Plan confirms the County's commitment to protecting its water resources by incorporating water policies and programs into a Water Resources Element. The Butte County General Plan 2030 was approved by the Board of Supervisors on October 26, 2010. The Water Resources Element included six goals:

- 1) Maintain and enhance water quality
- 2) Ensure an abundant and sustainable water supply to support all uses in Butte County
- 3) Effectively manage groundwater resources to ensure a long-term water supply for Butte County
- 4) Promote water conservation as an important part of a long-term and sustainable water supply.
- 5) Protect water quality through effective stormwater management
- 6) Improve streambank sustainability and protect riparian resources.

Within the Water Resource Element Goals, a number of specific policies and action items were adopted by the Board. The Water Resource Element policies and related action items establish direction for the department. The Zoning Ordinance is expected to be completed in 2012. The implementation of the General Plan will require greater programmatic integration between land use and water resources that will take years to complete. Implementation of the General Plan 2030 will require in most cases additional funding.

#### GROUNDWATER MANAGEMENT

Butte County's groundwater is one of its most precious resources and critical to the County's economy, communities and ecosystem. In 2005, the County adopted a Groundwater Management Plan that established goals and actions to sustain local groundwater resources. The goals of the Groundwater Management Plan include:

- Minimize the long-term drawdown of groundwater levels;
- Protect groundwater quality;
- Prevent inelastic land surface subsidence from occurring as a result of groundwater pumping;
- Minimize changes to surface water flows and quality that directly affect groundwater levels or quality;
- Minimize the effect of groundwater pumping on surface water flows and quality;
- Evaluate groundwater replenishment and cooperative management projects.

Groundwater resource management tools and programs include, but are not limited to:

- Butte County Code Chapter 23 B (Well Spacing Ordinance)
- Butte County Code Chapter 33 (Groundwater Conservation Ordinance)
- Butte County Code Chapter 33A (Groundwater Management Ordinance)
- Butte Basin Groundwater Model and Groundwater Management Plan
- Butte County Integrated Water Resources Plan (IWRP)

## **GROUNDWATER CONSERVATION ORDINANCE**

The Groundwater Conservation Ordinance (Chapter 33 of the Butte County Code) requires that any project that involves the substitution of groundwater for surface water transfers receive the appropriate environmental analysis, have a mitigation component and fully assess impacts to groundwater users.

In November 1996, Butte County voters approved the Groundwater Conservation Ordinance intended to provide groundwater conservation through local regulation of water transfers which move water outside of the county and have a groundwater component. A permit is now required for both

exportation of groundwater outside the county and groundwater pumping as a substitute for surface water exported outside the county. A permit for this type of water transfer outside of the county would be denied if the proposed activity would adversely affect the groundwater resources in the county, including causing or increasing overdraft of the groundwater; causing or increasing saltwater intrusion; exceeding the safe yield of the aquifer or related sub-basins within the county, cause subsidence or result in uncompensated injury to overlying groundwater users or other users.

## GROUNDWATER MONITORING AND REPORTING

Developing and maintaining high quality and scientifically sound data is the cornerstone of any water resource program. Without such data the County is destined for inadequate planning and policy decisions. These data acquisition activities provide the basis for water resource planning and implementation efforts. Groundwater basin surveillance monitoring provides a critical data foundation. According to Chapter 33A-9 of the Butte County Code, at a minimum groundwater elevations shall be monitored four (4) times during the year; one measurement prior to the irrigation season in March, two measurements during peak groundwater use in July and August, and one measurement following irrigation season in October. DWR and the Department share the monitoring duties. Chapter 33A-9 further states that the frequency for groundwater quality monitoring shall be at a minimum of once a year during peak groundwater use (July or August). We test for the constituents of temperature, pH and electric conductivity. Monitoring frequency for land subsidence is conducted on a continuous basis through the use of extensometers. These data are the cornerstone to support groundwater protection efforts and implementation of the Groundwater Conservation Ordinance (Chapter 33 of the Butte County Code) and the Groundwater Management Ordinance (Chapter 33A of the Butte County Code). The acquisition of specific scientific data provides a means to better understand aquifer properties and characteristics. The data from the monitoring regimen is reported in an annual groundwater status report. The department has will be the monitoring entity for Butte County under the California Statewide Groundwater Elevation Monitoring Program (CASGEM). The CASGEM program was created under the 2009 Delta Reform Act (SB 1X6).

In addition to monitoring programs, research is conducted to better characterize recharge and other aquifer properties to better analyze, manage and protect water resources. Butte County is committed to continuously improve the collection of groundwater monitoring data. In 1997, the County called upon the Technical Advisory Committee's expertise to expand the data points in the groundwater level monitoring grid. This expansion included the addition of over 35 new monitoring wells to the grid from 1997 through 1999. Other monitoring wells have been added since that initial expansion effort, and the total data points in the Butte County grid are currently over 100. The Lower Tuscan Monitoring, Recharge and Data Management Project includes data acquisition that will further the scientific understand of the Lower Tuscan aquifer.

# **BASIN MANAGEMENT OBJECTIVES**

The Groundwater Management Ordinance (Chapter 33A of the Butte County Code) provides for a systematic manner to monitor, evaluate and report on groundwater conditions for the valley portions of the county. The BMO program utilizes criteria to determine acceptable groundwater conditions as a means to inform local stakeholders of groundwater conditions. The BMOs are set annually by each sub-inventory unit working through the Water Advisory Committee (WAC), Technical Advisory Committee, the Water Commission and the Board of Supervisors to establish acceptable groundwater elevation levels. A review of the BMO program will be completed in 2011 and implementation of changes will be made by 2012.

# **ANALYTICAL TOOLS**

Water resource analyses pose unique challenges since water is affected by numerous dynamic natural and human variables. Computer models allow for assessing changes that may affect water resources. The Butte Basin Groundwater Model was originally developed in the 1990s by the Butte Basin Water Users Association (BBWUA) to assess the groundwater resources in the Butte Basin, develop a quantitative hydrologic understanding of the groundwater resources, provide a tool for evaluating regional hydrologic impacts on the groundwater of alternative water policy decisions and to evaluate water transfer applications under Chapter 33 of the Butte County Code. In 2001, DWRC took over management of the Butte Basin Groundwater Model and later acquired funding from the U.S. Bureau of Reclamation to update and calibrate this model. The 2008 update of the Butte Basin Groundwater Model improves the understanding, characterization and ability to disseminate information on the hydrogeology and groundwater hydrology of the Butte Basin. DWRC continues to improve the analytical capabilities of the Butte Basin Groundwater Model. In 2010, DWRC completed a project with scientists from the University of California, Davis to develop the Water and Environment Hydrology model (WEHY) for the Feather River watershed. The WEHY model provides the ability to assess water inputs into the Butte Basin from upper watershed areas. The analytical capability of the WEHY model complements the Butte Basin Groundwater Model. The Lower Tuscan Monitoring, Recharge and Data Management Project will produce data and analyses that will continue with the effort to improve the utility of the Butte Basin Groundwater Model.

### WATER INVENTORY AND ANALYSIS

Water resource planning efforts must be based on understanding current and future water demands. The Butte County Water Inventory and Analysis was first produced in 2001 and provides an important set of water demand analyses. The Water Inventory and Analysis was updated in 2008 to capture changes since 2001. In addition the Water Inventory and Analysis should be completely updated every ten years to reflect the latest population, crop acreage and production, crop water requirement, environmental water use, water quality, and habitat quality data. Accounting for the environmental water demand as a component of the Water Inventory and Analysis remains a priority for the County. The department continues to seek funds to implement the Environmental Monitoring Plan.

## DROUGHT PREPAREDNESS AND MITIGATION PLAN

In 2005, Butte County Board of Supervisors adopted the Drought Preparedness and Mitigation Plan (Resolution 04-200) as part of the IWRP. A key element of the Plan was the creation of the Drought Task Force (DTF). The charge of the Drought Task Force is to monitor hydrologic conditions throughout the water year and report the findings to the Water Commission and the Board of Supervisors biannually, quarterly, or monthly as a drought progresses. The DTF continues to compile and review data on snow-pack, reservoir levels, stream flow, precipitation, climatic conditions; and groundwater levels. The current drought cycle was the first test of the Drought Preparedness and Mitigation Plan. The Drought Preparedness and Mitigation Plan should be assessed by the staff and potentially modified by the Board of Supervisors.

#### REGIONAL COORDINATION

Managing groundwater resources involves not only activities within the County but also requires coordination across the region. Since water resources transect political boundaries, the County is actively working towards regional coordination of water resources. Butte County entered into an agreement with Colusa, Glenn and Tehama counties in 2006 through the Four County Memorandum of

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Understanding (Four County Group). The Four County MOU established a foundation for improved water management coordination among the counties that share common aquifers and interests. The Four County Group was expanded in 2009 with the addition of Sutter County and in 2010 with the addition of Shasta County. The Northern Sacramento Valley IRWM Group developed a governance structure and a work plan for an integrated regional water management plan for the Northern Sacramento Valley region. The Governing Board has been seated and the next step is to utilize Proposition 84 and other funds to develop an integrated regional water management plan for the region with the participation and support of regional stakeholders.

State water policies can have a significant impact on the Butte County's water resources. The California Water Plan will establish the strategic plan for water resource issues on a statewide basis. The update of California Water Plan will be done on a continuous cycle. The 2009 Comprehensive Water Package and the Bay Delta Conservation Plan will have long term implications not only for the Sacramento-San Joaquin Delta but for northern Sacramento Valley.

# STATE WATER PROJECT TABLE A ALLOCATION

Butte County has been a State Water Contractor since 1963. The management of Butte County's State Water Project Table A Allocation (27,500 acre feet) represents a County-wide water resource management priority. The County has sought to find in-county uses for the entire allocation. But due to its cost, supply reliability, securing in-county uses for the entire allocation has not been achieved. In the mid-1990s, DWR requested that the County find a use for its remaining Table A Allocation. Initially when the dam was built, the County has only been required to pay for the Table A water that it is able to use through a Table A reduction contract with the DWR. However in 2006, DWR notified the County that it would not be allowed to have a reduction contract and would be responsible for paying for the entire allocation. In 2007, Butte County prepared a Table A Allocation Alternative and Long-Term Action Plan. Currently, the California Water Service Company-Oroville and the Del Oro Water Company are the primary entities that utilize Butte County's Table A Allocation. Steps have been taken to modify existing contracts to accommodate increases in demand and bring the rate closer to market cost. A longer term plan to bring the Table A Allocation to the Chico area would meet a critical water need as well as alleviate the demand on groundwater. The Department has continued work with the California Water Service Company-Chico on a feasibility study that would investigate options to allow for the utilization of the Table A Allocation in the Chico area. Until full in-county utilization can be achieved (within the next 7-10 years), the Department will pursue other opportunities to assure that the Table A Allocation is a County asset.

#### WATER SUPPLY RELIABILITY

Addressing water supply needs of the Ridge Community is a priority for the Department. The Department has worked with the Del Oro Water Company on their intertie project that will improve the reliability of their water supply. The Department has been vested with the responsibility for overseeing the management and disposition of the Lime Saddle Trust Fund. Additionally, the Department continues to work with the Paradise Irrigation District on projects to improve their water supply reliability.

# WATER USE EFFICIENCY

Water use efficiency and water conservation programs are recognized as a major component for sustaining and managing water resources. Many water providers already work to improve water use efficiency. The 2009 Comprehensive Water Package poses new water conservation requirements for

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agricultural and urban water agencies. If requested, the Department will assist local agencies to comply. For many residents who rely on private wells, particularly those in unincorporated areas, water conservation programs and incentives are limited. The Department will seek to develop programs to assist these water users. Butte County operations should continue to demonstrate leadership in using water efficiently to meet its needs. In 2010, the County, in cooperation with the California Water Service Company, completed a water audit of two library branches and implemented actions to improve water use efficiency. The Butte County General Plan sets a number of policies to have Butte County facilities utilize water in the most efficient manner.

## COORDINATED MANAGEMENT AND GROUNDWATER RECHARGE

Looking to the future, Butte County should explore coordinated management opportunities that will improve the reliability and to meet future demand of local water resources. The Butte County IRWM Plan identified the need for and potential opportunities for coordinated management programs. Coordinated management programs typically include a recharge component, a recovery component, a monitoring program, and an institutional framework. For projects that involve engineering activities, a preliminary engineering or reconnaissance level study must be completed. Such studies need to be completed to determine if a more expensive feasibility study is needed. Potential projects must be further evaluated for the likelihood of success. Potential projects that look promising must undergo feasibility studies to look a various alternatives, their cost versus benefits and their environmental impacts. When preferred project alternatives are chosen they must be designed and pass environmental scrutiny.

Coordinated management programs have generated controversy and concern, particularly when programs are developed to support the water demands outside the region. However, coordinated management programs can be enormously beneficial to enhance local water resource sustainability. The utilization of the County's SWP Table A allocation represents a good opportunity for coordinated management program that could benefit the basin. Improving and enhancing groundwater recharge has been identified as a county land use policy that needs further investigation. Additionally, the protection of watershed areas can enhance groundwater recharge and ecologic health. The Department will continue to identify opportunities to support watershed protection efforts.

# **EDUCATION AND OUTREACH**

Fostering public knowledge and understanding of water resources will create a heightened culture of resource stewardship. The Department will continue its efforts to educate the public about local water resources and issues. The Department participates in numerous settings to provide education and outreach on water resources. The Department participates in the development of educational forums sponsored by the Northern California Water Forum and University of California Cooperative Extension's Water Awareness Workshops. Future activities could include working with local school districts to incorporate water resource materials into the education curriculum such as those available through the state's Environmental Education Initiative and the Water Education Foundation.