

**Public Comments & Responses Specific to the Butte County
Groundwater Management Plan (AB 3030 Plan) – April 2004**

**Public Hearing – September 28, 2004 at 10:30 AM
Butte County Board of Supervisors Chambers
25 County Center Drive
Oroville, CA**

Responses to these comments were prepared by Ed Craddock, Director, Eric Miller, Manager – Program Development, and Lara Memmott, Engineering Technician, of the Butte County Department of Water and Resource Conservation (DW&RC).

From: Bruce Smith, Chico, CA (received via email, 6/24/04)

Comment #1) Section 1.3 Area Covered by Plan

Comment: Under the Vina and West Butte Inventory Units (Table 1-1, page 1-3) the inventory sub-unit Chico Urban Area is excluded. The Basin Management Objectives (BMO) ordinance includes the Chico Urban Area as an inventory sub-unit. Shouldn't the inventory sub-units be the same in each document?

DW&RC Response: *The AB 3030 Plan (Table 1-1) will be amended to state that the Chico Urban Area, or that portions of that BMO sub-unit that are not presently covered by an AB 3030 Plan by the local water purveyor, are addressed in the Butte County Groundwater Management Plan. We will address the correction above and include the Chico Urban Area sub-unit.*

Note also that areas overlying the groundwater basin that are regulated by the Public Utilities Commission (CWC Section 10750.7(a)), including the area served by California Water Service Company – Chico, are managed under an Urban Water Management Plan and are not included under the County's AB 3030 Groundwater Management Plan.

Comment #2) Section 1.4 Plan Development Process

Comment: Step 5 of this section describes some relationship between protests and 50% of the assessed value. What does this section mean? It is difficult to understand.

DW&RC Response: *We will insert language to address this concern. Section 10753.6 of the California Water Code (Re: written protest: content; majority protest) states that in order for a majority protest to exist to the adoption of the plan, written protests covering*

over 50% of the assessed value of the land area (shown in Section 1, Figure 1-2) must be filed and not withdrawn before the conclusion of the second public hearing.

Comment #3) Section 2.5 Hydrogeology

Comment: This section indicates the approximate depth at the deepest portion of the aquifer to the base of fresh water within each of the inventory units. Is data available to the public to support this and where is the data?

Figure 2-7 (page 2-3) shows Recharge Areas but does not specify to which aquifer. Is data available to make those links?

DW&RC Response: Language will be changed to clarify this concern. The Butte County Water Inventory and Analysis (2001) provides more information regarding the hydrogeology and fresh water bearing units of the groundwater in Butte County (see Section 3 of the Butte County Water Inventory and Analysis, which is available for review in local public libraries and also at www.buttecounty.net/waterandresource. Click on “Reports” and then on “Inventory Analysis”) but the basic reference to the statement here is DWR Bulletin 118-3.

Comment #4) Section 2.6 Groundwater Well Infrastructure

Comment: Table 2.1 (page 2-9) shows Cal Water Service as an inventory sub-unit. The BMO ordinance describes this as the Chico Urban Area. Please explain the difference.

DW&RC Response: Referring to comment #1 above, we will insert language to address a necessary edit. Also note that, for water use projections in the Chico Urban Area, the California Water Service utilized data compiled in the Butte County Water Inventory & Analysis (2001). By statute, private utilities such as California Water Service are not covered by the legislation that supports AB 3030. However, California Water Service has actively participated in the development of draft water resource planning documents prepared by Butte County.

From: Suellen Rowison, retired nurse, Chico (received via e-mail, 8/12/04)

Comment #5) General Input

Comment: Ms. Rowison expresses concern that the Groundwater Management Plan (GMP) will be considered without it being considered in the context of the Integrated Water Plan, which also incorporates BMOs. There is general agreement with the purposes of the GWP except for “facilitate groundwater replenishment and cooperative management projects.” Actions to carry out this purpose are found throughout the GMP recommendations. The author generally states that environmental policies should drive

our care for water to keep it pure, not economic policies. Even with precautions, there is opportunity to contaminate our groundwater. Some enhanced natural recharge might be acceptable but even this must be monitored carefully. The most economical and easiest way to protect groundwater quality and quantity is to pump less groundwater and allow more surface water to naturally enter the aquifer. Californians will conserve if it is an economic decision, i.e. water rates and pumping costs increase.

DW&RC Response: The California Groundwater Management Act, or AB 3030, was adopted by the California legislature in 1992, which created provisions in the California Water Code Section 10750 et.seq. to manage the safe production, quality, and proper storage of groundwater. Though adoption of a Groundwater Management Plan is not required by law, it is encouraged. AB 3030 is applicable to local agencies, including counties, to develop a county-wide groundwater management plan for portions of the groundwater basin not presently covered by a another groundwater management plan. In August 2003 the Butte County Board of Supervisors approved Resolution 03-134 (located in Appendix A of the document) directing the Butte County Department of Water and Resource Conservation to proceed with the development of a county-wide AB 3030 Plan.

Per Water Code Section 10750 etseq., the County's AB 3030 Plan is a stand alone document. According to the State Department of Water Resources (DWR), 149 agencies have adopted AB 3030 plans and others have begun the process. In some basins groundwater is managed by statutory or judicial authority.

One benefit to the County's adoption of its AB 3030 Plan is to meet objectives of grant funding opportunities available under the Groundwater Management Assistance Program (AB 303). Last January 2004, Butte County applied for an AB 303 grant in the amount of \$236,000 to support the development of a Basin Management Objective (BMO) Information Center. The County's grant proposal was outscored by competing proposals primarily because the County did not have an AB 3030 Plan in place.

DW&RC staff agrees with the concern that the AB 3030 Plan, and its related groundwater policies, should remain in context with the Draft Integrated Water Resources Plan. Regarding the creation of a "groundwater replenishment district," this would only occur if the Board of Supervisors adopted that action.

It is the DW&RC's position to perform and evaluate the scientific studies that will be necessary in the future to assist local policy makers. We will ensure that language corrections will be made in the draft text to reiterate that evaluation is a precursor to facilitation.

DW&RC staff notes that additional responses to comments regarding the Integrated Water Management Plan (IWRP) will be addressed separately (when the IWRP is presented to the Board of Supervisors later this autumn/winter).

From: Linda Cole, Valley Water Protection Association (received via e-mail, 8/20/04)

Comment #6) Page 2-2

Comment: Additionally, surface water managed for agricultural use contributes to (some shallow) groundwater recharge (as well as horizontal transmission of water to stream flows).

On the bottom of the page it is stated that “the approximate depth at the deepest portion of the aquifer to the base of the fresh water within each of the inventory units is...” This is very misleading as the units are tilted and “zero out” toward the foot hills providing 2/3 to only half of the implied depth mentioned when calculating the volume.

DW&RC Response: The hydrogeologic analysis of the Northern Sacramento Valley, and extent and properties of the Tuscan formation, are still exploratory and under evaluation. As noted above in the response to comment #3, Section 3 of the Butte County Water Inventory and Analysis describes the hydrogeology and geologic setting of the area. Generally speaking, alluvial units tend to pinch out, or become thinner, at the edge of the basins.

Comment #7) Figures 2-3, 2-4, 2-5 and 2-8

Comment: I could not find Figures 2-3, 2-4, 2-5 and 2-8 in the copy I reviewed.

DW&RC Response: These figures are included within electronic versions and hard copy versions of the public review drafts. Electronic downloading of several of these maps may be dependent on the user’s existing internet service provider, hardware, and/or software. Hard copies of these figures may be viewed in either the DW&RC’s office library in Oroville, or the Butte Environmental Council’s library in Chico, or at county libraries located in Chico, Durham, Paradise, Oroville and Gridley.

Figure 2-3 includes a fold-out (8.5” x 14”) geologic map of Butte County; Figure 2-4 includes a fold-out diagram Geologic Legend; Figure 2-5 includes a fold-out diagram of Butte County Geologic Map with cross-sections; Figure 2-8 includes Butte County Groundwater Elevations, Spring 1997.

Comment #8) Section 2.5.1 – Groundwater Levels

Comment: Referring to the last paragraph, in the Cherokee area it took 2 years to recover water levels after the water sales of the drought water bank in 1994. The winter of 1994 and 1995 were wet years which may have helped the recover to only take 2 years. The correction should also be placed in the next to the last paragraph on page 2-7.

DW&RC Response: We will clarify the language in the text. This paragraph refers to long term historical data that shows that groundwater well levels seasonally and annually fluctuate, but that there is no significant difference in the well levels over the long term.

Comment #9) Page 2-9, Table 2-1

Comment: Are these wells reflecting the estimated wells before the requirement to report wells which came into effect in the 1970's?

DW&RC Response: The number and type of well included within Table 2-1 include those wells on file at DWR. Wells on file include those for which a Well Completion Report has been filed, as required under California Water Code since the late 1940s, and any additional well logs on file prior to enactment of the requirement. Well data is available for review at DWR's Northern District Planning and Local Assistance Branch Office, or at the following website: http://well.water.ca.gov/gw/admin/main_menugw.asp.

Comment #10) Page 2-11, Section 2.7.2 – Water Supply

Comment: In the first bullet, the comment regarding East Butte is wrong. There is sufficient land which is dependent on groundwater in East Butte. This area is also quickly growing for housing...there you will find groundwater dependency as well.

Last bullet: Surface water distribution in East Butte is facing limitations due to lack of infrastructure...again creating a greater dependence on stable groundwater levels.

DW&RC Response: Relative to the amount of total applied water (last column of Table 2-3, page 2-11), the East Butte and Foothill inventory units do primarily use surface water and the remainder of Butte County uses groundwater.

Comment #11) Page 2-12, Table 2-4 Normal Year Water Supplies

Comment: Under Table 2-4 in the last sentence of the first paragraph it says, "This increases to more than 640 TAF in drought years, primarily due to a reduction in surface water availability from the Feather River (CDM, 2001)."

The availability is still there, their settlement contracts protect them from no more than 100% reduction in any one year but users opt for selling the water and using groundwater replacement so availability is the wrong word to use.

DW&RC Response: We will edit the sentence to read: "This increases to more than 640 TAF in drought years, primarily due to a reduction in surface water ~~availability~~ use from the Feather River.

Comment #12) page 2-12, 2nd paragraph

Comment: Regarding net groundwater extraction.....please account for the confining layers which Toccoy Dudley (DWR) shows in his cross-sections and identify the deep percolation contributing to shallow aquifers and to stream contributions with a very small percentage going into the deeper aquifers.

DW&RC Response: The hydrogeologic properties of the Sacramento Valley aquifer system is still under evaluation. The hydrogeologic character of the aquifers and interaction with streams, confining layers, and recharge is not well understood. Further evaluation is necessary to make any additional statements beyond estimations that have been put forth here.

Comment #13) page 2-12, Section 2.7.3 Water Demand and Supply Findings

Comment: 3rd bullet - Change “not by total water supply” to include economic availability and access to lower water levels becomes the problem though native habitats cannot adapt.

DW&RC Response: We will delete text and edit the sentence to read as follows: “Shortages are defined by lack of supply, which in most cases is limited by the groundwater infrastructure available ~~not by total water supply.~~”

Comment #14) page 2-13, 1st bullet and 4th bullet

Comment: In the sentence “Long term trends.....not in a state of decline,” add “when looking at normal and wet year contributions. However, operation during summer levels show a decline.”

In the 4th bullet state that “Environmental water use (for rice decomposition) constitutes a substantial part of.....

DW&RC Response: Seasonal fluctuations of groundwater well levels are determined by the amount of use and climatic conditions. Evaluation of the historical data suggests there is not a significant difference in the annual elevation of groundwater well levels in Butte County.

Comment #15) page 2-14, 1st bullet

Comment: Regarding..... “foreseeable changes evaluated would not result in significant long-term changes in agricultural water demand in Butte County” (this may not be the case if ag support businesses are destabilized by following recessions. Profit margins sometimes depend on having ag handlers available for processing.

DW&RC Response: We will address agricultural water demand forecasting in the next Water & Inventory Analysis (the proposed 5-year update is in 2006). Any new data will be welcomed in that process.

Comment #16) Page 2-15, Table 2-5, Summary of Ag Demand Forecast Scenarios

Comment: Regarding the Land Conversion column.... There is a calculated decrease in irrigated land in Vina, East and West Butte sub-units. Is that land developed for other purposes (i.e. for housing)? Densities could come close to the same or more water usage.

DW&RC Response: Land conversion includes both conversions to urban use and conservation easements. Additional water demand following conversion to urban use is addressed in the County's recent Urban Water Demand Forecast document (October 2003). The Butte County Urban Water Demand Forecast may be viewed at www.buttecounty.net/waterandresource. Click on "Demand Forecast" and link to "Urban Water Demand." This document is also available for public review at local libraries.

Comment #17) Page 2-17, Figure 2-14, Urban Water Demand Forecast Results

Comment: The low growth in the unincorporated areas shown in Figure 2-14 does not anticipate any "new Town" which is a very real alternative discussed in development circles....that and industrial parks or Indian casinos all could trigger greater growth in water demand in unincorporated areas than shown on your chart.

DW&RC Response: We will address this in the next Water & Inventory Analysis as per comments #15 and #16.

Comment #18) page 3-1, last bullet, re: groundwater replenishment....

Comment: The meetings I've attended stressed the need to protect the existing groundwater and aquifer system, not recharge it given the current knowledge. There was no public discussion nor support for a recharge district.

DW&RC Response: We will clarify this language by striking the word "facilitate" and replace it with "evaluate." We propose to evaluate the geology of the aquifer and consider the science, economics, environmental impacts, and other benefits/impacts, of recharging the aquifer.

Comment #19) RE: Carrying capacity of aquifer...contamination plumes....

Comment: The carrying capacity of the shared aquifer under Butte County needs to be studied, map contamination plumes and their movement with seasonal water extractions.

DW&RC Response: As per above, we propose to evaluate the aquifer's properties. Regarding the mapping of contamination plumes and their movement with respect to seasonal water extractions, we defer to the Butte County Division of Environmental Health.

On a further note, without an AB 3030 Plan in place, Butte County is more susceptible to groundwater management by the State of California. By implementing this plan we also provide ourselves the opportunity to apply for grant funding to further our understanding of the hydrogeologic character of Butte County.

From: Alan Gair, no address provided (received via e-mail, 8/6/04)

Comment #20) General Comments re: water pricing, rice & alternative crops

Comment: "I was looking for the price/demand forecasts for rice and the effect the WTO subsidy restrictions will have on the whole scenario. Such a heavily subsidized crop as rice, which is so capital intensive, and such a heavy user of water, is due for heavy cut backs.

I could not see that you had addressed the basic absurdity of promoting and subsidizing the water price for a tropical crop, grown in a partial desert, with 75% of it sold at subsidized prices abroad when other third world nations so urgently need this crop to survive.

I believe it is in the taxpayer's interest to continue to support more profitable (to the US) alternative crops and I support you in your endeavors. Reducing the billions of dollars in rice subsidies which go to the top 10% of big farmers will do the economic nothing but good."

DW&RC Response: A committee of local agricultural experts developed a range of potential future scenarios that may result in changes to agricultural water demand, with crop price changes being one of the potential scenarios. A change in agricultural water use was then based on this scenario. Our agricultural demands were based on models developed at UC Davis in cooperation with state and federal water agencies. Specific spreadsheets were devised for Butte County as described in our Technical Memorandum, Agricultural Demand Forecast" which was prepared in October 2003 Readers may view this document at www.buttecounty.net/waterandresource (click on "Demand Forecasts" and link to "Ag Water Demand." The document is also available for review in local public libraries). The model requires data on crop price and yield, fixed and variable costs, water costs, irrigated acreage, irrigation water requirements and acreage elasticity's. We need to use the current information to develop the baseline. If there are any significant changes we will pick those up in our 2006 update of our Butte County Water and Inventory Analysis. Please provide us any input you have to assist us in the production of that document.

From: Tim Stroshane, Butte Environmental Council (received via e-mail 8/19/04)

Comment #21) General Input - Several comments posed inter-relate to the Integrated Water Plan. Those shown below can also be addressed in the AB 3030 Plan responses to comments.

Comment: A conjunctive use program is a distinct and specific kind of “coordinated management program” that puts the County’s water up for sale and which could have quick and permanent environmental and economic effects. It should be called out as a definite County proposal and named for what it is: a strategy to put the County’s water up for sale. What is the policy basis for such a program? Is it driven by the County’s fiscal condition?

DW&RC Response: If a conjunctive use program were to be established within Butte County, a preliminary evaluation must first occur to address and explore the hydrogeology of our region. Economic, engineering, and environmental issues must be determined to assist local decision makers with policy making. Such work would likely involve CEQA and the process would be clear and transparent. The County’s fiscal condition is always a concern to policy makers. If possible, and if it is environmentally, economically, technically, and socially sound, it is the interest of the County to minimize financial impacts on its General Fund, which in turn preserves the use of tax payer dollars to other vital County functions.

Additional responses referring to the Policy Recommendations in the draft Integrated Water Resources Plan, such as conjunctive use, will be developed separately.

Comment #22) General comment re: groundwater ordinance

Comment: Regarding the proposed County groundwater ordinance, for policies protecting natural recharge areas – which in the long run will be more energy efficient for County residents and property owners – it must be a priority to protect the natural recharge areas by ensuring that the zoning and General Plan designations that are applied to these areas achieve consistency and ensure adequate protection. Implementation of these policies through zoning and planning powers is key to the success of the proposed groundwater ordinance.

DW&RC Response: Agreed. Before such policies (i.e. General Plan zoning designations) are considered by the Board of Supervisors, one of our top priorities is to conduct evaluations of the local hydrogeology and understand the science that would support such zoning policy recommendations.

Comment #23) General comment re: climatic conditions

Comment: The analysis of the ordinance does not take account of the extraordinary climate conditions of the past 150 years (warmer and wetter than normal, Sierra Nevada Ecosystem Project climate studies) showing century long droughts during the past 1300 years. Climate change models predict less rain, higher snow elevations, earlier spring runoff.....A recent study of global climate change by UC Berkeley is also predicting later in this century that climate warming triggered by industrial and corporate capitalist production and transportation sectors could raise snow levels, shift rainfall patterns, and create tremendous strain on California's water and hydrologic systems.

DW&RC Response: A priority of the DW&RC is developing a sophisticated watershed model for the upper watersheds that contribute to Butte County's groundwater system. The DW&RC has contracted with Dr. Lev Kavvas, at UC Davis, for assistance.

Comment #24) General comment re: artificial recharge

Comment: Artificial aquifer recharge must be rejected as an option to "manage" water in the Butte Basin. The aquifer should not be used as a bank for export with artificial recharge, which would increase the likelihood of contaminating the aquifer, causing the land to subside, and transferring ownership of groundwater. Moreover, approaches to artificial aquifer recharge (e.g. injection of groundwater) is likely to be more energy intensive than maintaining and protecting natural recharge areas. Programs and practices that increase use of energy should be avoided.

DW&RC Response: Such programs, if feasible, must be backed up by scientific evaluation. If the proposed AB 3030 Plan is adopted and approved by the Board, it would allow the DW&RC to apply for grant funds available under AB 303 to conduct preliminary and necessary research.

Further evaluation of the groundwater of Butte County is necessary. Existing conditions are not completely understood. Potential action such as the implementation of a recharge district or conjunctive use program will be addressed by the Board of Supervisors when more options are evaluated.

Comment #25) General comment re: public outreach

Comment: Public outreach to non-professional members of the public with little knowledge of the hydrology and politics that define water policy is no substitute for state and county efforts to defend the public trust from privately owned resource transfer entities with professional policy staff. State and local government should follow the precautionary Principle: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." We recommend that the County create a position for a public trust advocate whose charge, similar to the ratepayer advocate in California Public Utilities Commissions proceedings, identifies and

advocates for the public interest and public trust resources in County water policy proceedings and decisions, and to provide some county balance to the expertise readily obtained on behalf of water districts and municipal water utilities.

DW&RC Response: In the absence of such a position, the County will work closely with the Water Advisory Committee (WAC), Technical Advisory Committee (TAC), and environmental community that could assist us in meeting public outreach needs. The WAC and TAC are provided for in Chapter 33A of the Butte County Code (included as Appendix B of the document), which addresses the Basin Management Objective (BMO) ordinance adopted by the Board in February 2004.

Comment #26) General comment re: water district and municipal well restrictions

Comment: Water district and municipal well exemptions should be rejected by the County. Butte County, as the trust agency for Butte County citizens, must retain regulatory authority over existing districts with AB 3030 Plans and municipal entities.

DW&RC Response: AB 3030 legislation is not available to municipal utilities that are under control of the Public Utilities Commission. AB 3030 is available to local agencies, including counties and special districts such as water districts, which are recognized as political subdivisions of the State. By statute, under AB 3030, Butte County has no authority over these districts that already have their own authorities under existing legislation.

It is the desire of the DW&RC to conservatively manage groundwater resources in Butte County. The implementation of the AB 3030 Plan will ensure that there is a management strategy to deal with groundwater resource issues.

From: Defenders of Wildlife, Butte Environmental Council, Friends of the River, Lassen Forest Preservation Group, Sacramento Valley Environmental Water Caucus (received via FAX, 8/20/04)

Comment #27) Section 1.2 Plan Objectives

Comment: “Minimize the long term drawdown of groundwater levels.” Common sense suggests that extreme fluctuations of ground water levels could have a detrimental effect on water quality and aquifer stability. The Water Commission should consider minimizing significant level fluctuations in both the short and long terms.

DW&RC Response: Agreed. As part of the BMO ordinance (Chapter 33A in the Butte County Code, attached as Appendix B of this document), a Water Advisory Committee (WAC) and Technical Advisory Committee (TAC) will be set up to address BMO

standards and applications, which include the monitoring of groundwater levels and aquifer performance.

To date, the DW&RC has conducted an introductory meeting to educate the public of the BMO process (held in Durham on June 16, 2004) which was attended by more than 80 persons. At this time we also have several individuals and organizations from the Chico Urban Area, Vina, Western Canal, Esquon, M & T, and North Yuba sub-units that have expressed interest to participate in the BMO process. DW&RC staff will convene meetings with these representatives throughout the autumn and winter of 2004.

Further evaluation of the hydrogeologic character of Butte County will allow management direction and regulatory efforts to be scientifically based. At this time it is unknown what "safe" levels of fluctuations may be.

Comment #28) Section 1.2... Plan Objectives (continued)

Comment: "Facilitate groundwater replenishment and cooperative management projects." Before planning to artificially facilitate groundwater replenishment, the Water Commission must conduct comprehensive CEQA review to identify all potential impacts such as water quality, subsidence, agricultural productivity, and habitat values.

DW&RC Response: *Agreed. In addition to CEQA, the BMO ordinance will trigger analysis by the WAC and TAC and environmental community. Much preliminary scientific evaluation of the local hydrogeology is necessary before replenishment and cooperative management programs is considered. Further, we will strike the word "facilitate" and replace it with "evaluate" and ensure that similar text within the document reflects the same language (evaluate instead of facilitate).*

Comment #29) Section 1.3 Area covered by Plan

Comment: "...the foothill and mountain areas of the County do not overlie groundwater basins as defined in DWR Bulletin 118-2003, and are therefore not included under this GMP."

It is illogical to disassociate the areas where the Tuscan formation intersects the surface recharge areas for the major aquifers) from the groundwater basin. The Water Commission must extend its jurisdiction to the foothills to adequately analyze and protect aquifers.

DW&RC Response: *We concur. As noted in comment #23 above, the DW&RC is working with scientists at UC Davis to develop a watershed model whereby some data may be utilized to be incorporated into an existing groundwater model currently being calibrated to update the IGSM-2 groundwater model. In short, we will address this concern as part of groundwater modeling efforts. By statute, the AB 3030 Plan is limited in jurisdiction as defined by the State of California to groundwater basins identified in*

DWR Bulletin 118-3. The implementation of this AB 3030 Plan is designed to be another step in conserving and managing groundwater resources in Butte County.

Comment #30) Pp 1-3, Table 1-1 Butte County AB 3030 GMP Included Areas

Comment: What does the number “4” indicate in column 4?

DW&RC Response: The number “4” inadvertently was included. In the final report the number “4” will be replaced with a “”, “Yes,” which denotes an area included within this AB 3030 Plan. The other blank boxes will indicate “No.”*

Comment #31) Pp 1-6, Table 1-2 Butte County AB 3030 GMP Components

Comment: Questions on components of AB 3030 law:

- a) Are mandatory, voluntary, and suggested components enforceable under California’s Water Code?
- b) What is the difference between monitoring “groundwater elevation” (a mandatory component) and “groundwater levels” (a voluntary component)?

DW&RC Response: Refer to the following:

- a) *The California Water Code, Section 10753.9, states that a groundwater management plan must have the mandatory elements addressed in Table 1-2, and the voluntary components not required but that we propose in the county’s AB 3030 Plan, are indicated. We will footnote the table accordingly.*

The mandatory elements are required by DWR to enable the County to qualify for State grants available under AB 303.

- b) *“Groundwater level” and “groundwater elevation” refer to the same concept which is defined as “water under positive pore pressure in the saturated zone.”*

Comment #32) Pp 1-6, More on Table 1-2

Comment: In Table 1-2, we advocate establishing the following voluntary components as *required* elements: 8. Control of saline intrusion; 9. Identification and management of wellhead protection areas and recharge areas [high priority]; 10. Regulation and mitigation of contaminated groundwater; 11. Administration of well abandonment and well destruction program; 14. Monitoring of groundwater levels and storage; 16. Identification of well construction policies; 17. Construction and operation by local agency of groundwater contamination cleanup...conservation...; 19. Review of land use plans and coordination with land use planning agencies to assess activities that create reasonable risk of groundwater contamination.

DW&RC Response: The “Mandatory” and “Voluntary” are in reference to California State Water Code, Section 10753.9, guidance, as discussed in response to the previous comment #31. These designations do not necessarily reflect the Department’s level of interest in each plan component. Please refer to the Groundwater Management Plan section indicated for a description of current and proposed activities.

Comment #33) Pp 1-6, More on Table 1-2

Comment: We support with qualifications the following *voluntary* components: 12. Mitigation of conditions of overdraft [not by using artificial recharge.]; 18. Development of relationships with state and federal regulatory agencies [local stakeholders must be cautious not to sign away local quality/quantity issues to mitigate problems occurring in more politically influential districts].

DW&RC Response: Please also see the previous two comment responses. Regarding overdraft, the County addresses groundwater overdraft in Chapter 33 of the Butte County Code (which we will insert as Appendix D to the document). Regarding the development of relationships with other entities, the County continues to develop relationships with state, federal and other local agencies and will continue to evaluate and learn more about our groundwater system to gain knowledge of our existing situation.

Comment #34) Pp 1-6, More on Table 1-2

Comment: We are likely to oppose the following *voluntary* components: 13. Replenishment of groundwater extracted by water producers [Replenishment by artificial recharge carries the potential to contaminate otherwise pure aquifers and to damage terrestrial habitats]; 15. Facilitating conjunctive use operations [Demands on groundwater during drought years and private financial enhancement to water sellers at the expense of the public trust are two problems]; 17. Construction and operation by local agency of groundwaterstorage...and extraction projects [that lead to exports of water].

DW&RC Response: Please see the previous comment responses. These components would be part of the evaluation process that would move forward if directed by the Board of Supervisors (reiterating the need to do environmental, engineering, geologic, and economic evaluations). Further, such evaluation could consider proposed projects such as conjunctive use programs, conservation efforts, water quality analysis, and water recycling efforts. These evaluations will occur prior to the implementation of any proposed projects.

Comment #35) Section 2.3 Climate

Comment: There is no mention of climate change, of the extraordinary climate conditions of the past 150 years.....

DW&RC Response: We agree that the climate may be changing (refer also comment #23) but we are not sure if climatic changes are extraordinary. The groundwater management plan attempts to manage groundwater under likely conditions. How the groundwater dynamics responded to climate conditions over a thousand years ago is unknown as historical well data does not go beyond the 1940's. This groundwater management plan will allow us to address current conditions and reasonably foreseeable actions. We can incorporate current data, and analysis, in future modeling efforts. We do plan to run some climate change scenarios after the calibration of our updated groundwater model this fall.

Comment #36) Pp 2-2 Section 2.5 Hydrology

Comment: “The approximate depth at the deepest portion of the aquifer to the base of fresh water within each of the inventory units...” An illustration would be helpful in explaining what this is describing. The definition of aquifer depth is unclear.

DW&RC Response: Referring to Section 3 of the Butte County Water and Inventory Analysis (2001, and available for review at www.buttecounty.net/waterandresource, click on “Reports” then link to “Inventory Analysis”) more thoroughly describes the hydrogeologic character of the fresh-water bearing units in Butte County. Water found in geologic units of a marine depositional environment are thought to contain saline water that may not be appropriate for human use. Depth to fresh water refers to the depth from the surface of the earth.

Comment #37) Pp 2-3 more on Hydrology, 1st paragraph

Comment: “Ninety percent of the agriculture and municipal wells are completed in the upper 600 feet and 750 feet of the aquifer, respectively.” An illustration would be helpful in explaining what this is describing. The definition of aquifer and “upper 600 feet and 750 feet” is unclear. Also, the model implies that there is an aquifer that is shaped and filled like a water vessel. How uniform is the aquifer? Are there variations in mineral density that disallow for water volume estimations?

DW&RC Response: It is estimated that the lower portion of the fresh water bearing units extend to approximately a 1450 feet depth below the ground surface. However, evaluation of the hydrogeologic character of the fresh water bearing formations in Butte County is necessary to further understand the aquifer boundaries, uniformity, and lithology. The upper 600 feet refers to 600 feet measured from the ground surface.

Comment #38) Pp 2-3, Figure 2-7 Tuscan Formation Recharge Areas

Comment: “Figure 2-7 shows the areas where the Tuscan Formation outcrops in Butte County; groundwater recharge of the Tuscan Formation occur in these areas.” There is an obvious need to include these natural recharge areas in all Butte County groundwater management strategies. Zoning to protect open space land use is needed to recharge the

Tuscan aquifer with abundant clean water. Failure to do so will reduce infiltration and inject contamination into the aquifer.

DW&RC Response: County zoning policies are formulated by the Butte County Planning Commission, adopted by the Board of Supervisors, and implemented by the County Department of Development Services. It is our intent to provide the public and governing agencies with the best information possible to make responsible decisions regarding water and resource conservation issues. AB 3030 is only applicable to lands overlying groundwater basins identified in DWR Bulletin 118.

Comment #39) Pp 2-6 Section Groundwater Movement

Comment: “There is a groundwater depression under the City of Chico....” This is the first of several comments pointing to the impacts of pumping on groundwater structure. Changes in groundwater dynamics are inevitable as demand (local and out-of-area) increases “Colusa Dome...impedes groundwater movement to the south in this area...resulting in a shallow groundwater table and the formation of wetlands.” This area must have enhanced monitoring to prevent wetland destruction as demands on groundwater accelerate. This area is a unique regional ecosystem.

DW&RC Response: We recognize that there are areas of special concern such as cones of depression. It is our intent to implement this groundwater plan to promote a strategy that will proactively address these types of issues. In addition, we are proposing an Environmental Monitoring Program to deal with ecosystem evaluation.

Comment #40) Pp 2-6, Section 2.5.3 Groundwater in Storage

Comment: “Groundwater in storage typically increases during the winter...”. Language is a critical factor in describing groundwater dynamics and reality. “Storage” assumes human utility. Another way to define it would use the word, “flowage” or simply, “volume.”

DW&RC Response: Groundwater storage is standard hydrologic terminology referring to water in the saturated zone under positive pore pressure.

Comment #41) Pp 2-7 Sections 2.5.1 and 2.5.3

Comment: Sections 2.5.1 and 2.5.3 discuss significant groundwater “storage” fluctuations during the droughts of 1976-77 and 1986-94. Given the minor severity of these droughts compared to other droughts in the geological history, it is important to consider the effects that may be extrapolated from decades-long periods of drought.

DW&RC Response: We agree that it is important to attempt to manage groundwater resources for reasonably foreseeable conditions. Our intent is to implement this

groundwater management plan to effectively manage groundwater resources for the benefit of the citizens of Butte County.

Comment #42) Pp 2-9 Section 2.6 Groundwater Well Infrastructure, Table 2-1

Comment: Why are there no monitoring wells on California Water Service and Western Canal units in the west Butte area? Why do the Esquon and Cherokee units in east Butte have so few monitoring wells?

DW&RC Response: Groundwater well monitoring is determined by two factors, accessibility and knowledge of well drilling logs. Our access is based on voluntary cooperation of landowners to monitor their wells and it is greatly appreciated. It is also important to understand the well casing and the lithology that the well resides in so that we know what fresh water bearing units (i.e. aquifers) the well is extracting water from. We appreciate any additional access comments or information that can be supplied to our department regarding locations of potential well monitoring locations at any time. As a side note, we may accrue additional well monitoring information as we progress with the development of BMO's within the regions described above.

Comment #43) Pp 2-11 Section 2.7.1 Water Demand

Comment: “Some conveyance losses (evaporation and evapotranspiration) are not available to the system for future use, but deep percolation and spillage are available for future use.” We are concerned that this is a policy statement that will be used to give water conveyers opportunities to extract groundwater to export conveyance systems. According to agricultural experts, much of the conveyance leakage is unlikely to penetrate into deep aquifers.

DW&RC Response: This statement refers to the fact that water that is no longer in a liquid state enters an entirely different facet (the atmosphere) of the hydrologic cycle and is therefore unavailable for future use (until it becomes a droplet of precipitation and potentially enters the liquid state again). As water moves through a conveyance system (whether it's an open canal, river or stream course) some of that water is lost to surrounding shallow aquifers, the unsaturated (vadose) zone and to vegetation. This statement does not promote or intend to justify groundwater extraction.

Comment #44) Pp 2-12 Section 2.7.2 Water Supply

Comment: “the total volume of extracted groundwater in the County is approximately 440 thousand acre-feet in normal years...to more than 640 TAF in drought years...” This statement should be in the Water Demand section of the document. The assumption that a “normal” year is a predictive measure of future climate conditions is contradicted by the climate science mentioned above. Still, this is a perfect example of how human demand, backed by political will power, will inevitably accelerate water extraction when dry conditions prevail. Extending Butte County groundwater as a resource to other areas will certainly increase the pressure to use groundwater to meet demands even though

groundwater recharge and quantity is naturally decreased during drier periods. It is during dry years that the environment and the aquifer are in need of decreased rather than increased groundwater drafting.

DW&RC Response: The indicated groundwater volumes are extracted as a water supply to meet the water demands described in Section 2.7.1.

Comment #45) Pp 2-12 Section 2.7.3 Water Demand and Supply Findings

Comment: “Shortages are defined by lack of supply, which in most cases is limited by the groundwater infrastructure available, not by total water supply.” This statement implies that there is plenty of water in the cup, even in dry years. It further implies that increasing the intensity of plumbing (deeper wells, more pipes) will ameliorate water supply shortages. This implication is not supported by science and ignores significant fluctuations in aquifer levels that have occurred during relatively mild droughts in the past few decades. Plumbing development may delay, but will not prevent, water shortages during severe droughts.

DW&RC Response: We will strike “not by total water supply” from the document. Refer also to comment #13.

Comment #46) Pp 2-13 Section 2.7.3 (continued)

Comment: “Future increases in demand will be associated with population growth and environmental regulatory requirements, both within and outside of the county.” This statement implies that groundwater enhanced exports will be used to meet environmental demands such as the Environmental Water Account (EWA). We oppose manipulation of EWA flows to enhance Delta pumping.

DW&RC Response: This statement, “Future increases in demand will be associated with population growth and environmental regulatory requirements, both within and outside of the county” is made in reference to the overall demand on water resources in the area of Butte County. The minimum flow requirements that are currently being addressed by teams of scientists in the Sacramento River Valley is one example of how environmental regulatory requirements may increase the demand on water resources. This statement does not imply that groundwater pumping may be used in Butte County to ameliorate water resource issues in the Delta.

Comment #47) Pp 2-16, Pp 2-17 Urban Water Demand Forecast, Table 2-7 & Figure 2-14

Comment: Table 2-7 uses the 2000 census of population in the legal City of Chico area (59,444) rather than the more scientifically appropriate Chico Urban Area population (over 100,000 people). Figure 2-14 charts the urban water demand forecast using faulty baseline estimates. The Chico Urban Area has a population of over 100,000 rather than the 59,444 that are documented in the GMP. The Chico baseline is already more than the projected demand of 2030. Are these estimates based only on California Water Service

drafting volume records without the addition of individual well volume estimates? What are California Water Company volume records for 2000?

DW&RC Response: The Urban Water Demand Forecast dataset was collected using the best available information compiled from the US Census and the California Water Service Company. The California Water Service Company is the primary water provider for the City of Chico and provides water to approximately 80,000 residents located within its service area, which includes portions of the unincorporated territory of the Chico Urban Area. The data utilized represents a known, volumetric value, of water delivered to California Water Service Company's customers within their service area. The methodology is best explained in the Butte County Urban Water Demand Forecast which is available for review at local public libraries and also at www.buttecounty.net/waterandresource (click on "Demand Forecasts" then link to "Urban Water Demand"). Specifically, Table A-2 in Appendix A of that document summarizes the methodology and projections for the type of dwelling unit, type of water use (i.e. customer class), and demographics. Note that in Table 2-7 of the draft AB 3030 Plan, the sixth row identifies populations for the unincorporated area within Butte County, which includes the geographic regions of the unincorporated areas for the Chico Urban Area, the Oroville Urban Area, and other outlying areas. Several water purveyors serve these urban areas along with those parcels that use private wells. As tallied in Table A-2, the total population of Butte County is approximately 203,000.

A great deal of technical analysis has been given to address urban water demand projections. We will update these tables and figures in our next Urban Water Demand Forecast, and the next Water Inventory and Analysis, and adjust the incorporated areas' populations as necessary to reflect annexation activities implemented by our cities.

Comment #48) Pp 3-1 Section 3.2 Groundwater Management Objectives

Comment: "To accomplish the stated plan goal...Facilitate groundwater replenishment and cooperative management projects." This statement opens the way to artificial recharge schemes associated with projects that may benefit out-of-county interests while stressing the local groundwater, environment, and agriculture.

DW&RC Response: We will change the statement, "Facilitate groundwater replenishment and cooperative management projects" to "Evaluate how to effectively and efficiently manage groundwater resources and recharge in Butte County."

Comment #49) Pp 3-7 Section 3.5.1 Groundwater Well Ordinances

Comment: Re: Butte County Code, Chapter 23B5a, Pumping capacity and parcel size. "The pumping capacity of the well's pump shall not be greater than 50 gallons per minute per acre....(excepting wells which are exempt under section 23B-5c(1) and section 23B-5c(4).... The limitation on pumping capacity applies to all wells required to have a permit under this chapter and that are installed after July 25, 1996." Where are the exempt wells? Who owns them? Are they able to negatively impact the aquifer by

creating cones of depression with impunity? Should the local government amend the ordinance to include these wells in the capacity limitations to protect the public trust? The citizens of Butte County must be clearly informed about entities that are exempt from regulatory oversight.

DW&RC Response: This question will be referred to the Butte County Division of Environmental Health. We will also attach Chapter 23B of the Butte County Code as Appendix E to the document.

Comment #50) Pp 3-10 Section 3.5.4 Groundwater Conservation Ordinance

Comment: Re: Transfer pumping permits. “The ordinance bars the extraction of groundwater for use outside the County without first obtaining a permit. Permits are also required for groundwater pumping for use on land within the county in lieu of surface water, if the surface water which would have otherwise been used on the land is proposed to be transferred outside the County.” This is the first overt mention of the intention to use groundwater to facilitate water exports (sales) out of county. The public needs to be informed of the intention. People in southern California seem to be more aware of the potential groundwater exports than residents of the county. A more candid discussion of the likelihood that water exports/sales are looming would arouse more public concern and participation. When will Butte County attempt to educate its citizens in this manner?

DW&RC Response: This statement refers to the Groundwater Conservation Ordinance passed by the voters in 1996 (i.e. refer to Butte County Code, Chapter 33). Also in the previous section of the document (Pp 3-9, Section 3.5.3, third bullet) there is language that says, “The County does not hereby intend to regulate, outside of Chapter 33 [BCC], the use of groundwater; unless established BMO’s are exceeded.” The purpose of the Transfer Pumping Permits is to regulate the extraction of groundwater that is pumped directly or in lieu of surface water use and transferred out of the county. We will insert Chapter 33 of the Butte County Code as Appendix D to the document.

Comment #51) Pp 3-10 Wellhead and Recharge Area Protection Measures

Comment: “Butte County has not formally adopted wellhead or recharge area protection measures. The Butte County Water Commission and Board of Supervisors will consider implementation of policy recommendations for [sic] during the plan review and approval process.” Preserving foothill open space from speculative land development may be a politically challenging goal, but it must be the first priority in establishing groundwater management policy. This plan should not proceed without implementing, not just considering, zoning and General Plan revisions to preserve recharge areas from land uses that are detrimental to the water capacity and quality of the aquifer.

DW&RC Response: We fully agree that Wellhead Protection Area (WHPA) are a priority and are identified on page 3-11, fourth and fifth bullets, under the section: Groundwater Resource Protection Action: The Department (Butte County DW&RC) will work with other county departments, such as the Agricultural Commissioner, who is

already mandated to deal with wellhead protection under Title 3 of the California Code of Regulations. We will attach these regulations as Appendix F to the document.

Comment #52) Pp 3-11 Safe Drinking Water Act Amendments of 1986

Comment: “A Wellhead Protection Area (WHPA) may also be the recharge area that provides the water to a well or wellfield.” The county would be unwise to fall back on federal law to overcome local government inertia in preparing and implementing a recharge area protection ordinance with strict land use guidelines. What is the timeline for the Department to take action on implementation of DIWRP policies, programs, and projects approved by the BOS, including recommendations addressing protection of groundwater recharge areas?

DW&RC Response: Again, this is an issue that will be referred to the Butte County Division of Environmental Health. Refer also to Chapter 23B of the Butte County Code (note: to be attached as Appendix E to the document).

Comment #53) Pp 3-13 Section 3.6.2 Groundwater Modeling

Comment: “Once the groundwater model has been reviewed, updated and re-calibrated, it can be used to: Evaluate water transfer applications...”. This statement clearly links groundwater to export marketing. This public document needs a thorough discussion of who profits from water sales, whether publicly funded conveyances are being used to transfer the wealth, and who owns the water prior to conveyance. The bullet stating that the groundwater model can be used to, “Study short-, medium-, and long-term drought impacts to groundwater,” should include out-of-area demands and legal rights. The bullet that states, “Evaluate recharge benefits and impacts,” should include the word “artificial” if that is what is being considered.

DW&RC Response: The Department (DW&RC) feels it is important to have scientific analytical tools to evaluate the cultural and environmental dynamics of water resources in Butte County. We plan to use knowledge gained to evaluate water transfers under Chapter 33 (BCC) if and when they occur. Chapter 33 will trigger hydrogeologic studies (prepared by the applicant) as well as CEQA documentation.

Comment #54) Pp 3-13 Section 3.6.3 Construction and operation of Groundwater Management Facilities

Comment: “Ensuring the long-term sustainable use of the groundwater resources...may require the planning and construction of projects that:

- Evaluate the need and potential for enhanced groundwater recharge;
- Enhance groundwater recharge;
- Facilitate cooperative management projects through improvements to recharge...infrastructure;”
- Protect groundwater quality, or remediate, contaminated sites.”

The repetitive drumbeat of enhanced (artificial) groundwater recharge is a bold attempt to insert this controversial plan into the groundwater management plan and is based solely on the availability of a county allocation of Lake Oroville water and the dream of converting this allocation into money. The alternative of running the water down existing conveyance infrastructure is common sense. There is great concern that major public works projects, which would be required to facilitate this scheme, would be detrimental to the health and vitality of the local economy and environment.

DW&RC Response: The DW&RC also agrees that large scale construction of a groundwater recharge facility needs evaluation. Our position is that we must understand, through thorough scientific evaluation, the pros and cons of various groundwater management activities.

Comment #55) Pp 3-14 Stakeholder Involvement

Comment: “Public outreach and education is a primary function of the Butte County Department of Water and Resource Conservation.” Public outreach to non-professional members of the public with little knowledge of the hydrology and politics that define water policy is no substitute for local legislation to defend the public trust from privately owned entities controlling natural resources. While public meetings may create an illusion of transparency and semblance for lay citizen input, resource policy meetings are dominated by paid representatives of the very companies that benefit from resource extraction and transfer. The solution would be public ownership of major resources such as groundwater and surface water. Users should pay a fee based on usage that would fund sustainable public trust asset management.

DW&RC Response: The DW&RC has promoted public involvement as the key mechanism for local management of groundwater resources. Section 1.5 of the document (Pp 1-4) outlines the public involvement process and a more thorough discussion of the local management of groundwater resources that has been facilitated by this process found in Appendix B of the groundwater management plan, which addresses the Groundwater Management (BMO Ordinance) process.

We agree that public education is essential and staff is committed in this endeavor. In addition to regularly scheduled public meetings, staff is available to visit with local community groups, environmental organizations, and other interested civic organizations that are concerned about water resources. We also provide the local media with press releases and general information updates. Department personnel can be reached at (530) 538-4343. Or we encourage interested parties to visit our department’s web address at <http://www.buttecounty/waterandresource> for information on Department resources, planning documents, newsletters, and upcoming meetings.

Comment #56) Pp 3-15 Section 3.7.1 Interagency and District Cooperation

Comment: “In Butte County the following agencies have AB 3030 Plans: Biggs-West Gridley Water District, Butte Water District, Richvale Irrigation District, and Western

Canal Water District.” The term “agency” is perceived by the public as an administrative government division. Listing these water districts that serve the interests of a few private entities along with the State Department of Water Resources, the State Water Resources Control Board, Bureau of Reclamation and California Bay-Delta Authority adds to the notion that water districts can be held accountable by a regional citizenry. The reality is that these water districts are able to coordinate their economic advantage with state agencies that are charged with balancing the interests of the entire state against the interests of rural districts. Our local government must prioritize defending local public trust assets from the powerful drive to quench the thirst of a rapidly expanding California that is driven by the interests of land developers. We are at risk of having our economy and our environment sacrificed during dry decades as our water wealth is “cooperatively” transferred to more politically powerful regions.

DW&RC Response: The implementation of AB 3030 by the California legislature allows the citizens of Butte County to effectively and efficiently manage groundwater resources in Butte County. Areas that have established Groundwater Management Plans are not subject to the County’s AB 3030 Plan. However, special districts must be cooperated with as they are considered as subdivisions of the state just as counties are.

Comment #57) Figure 3-5 Integrated Water Resource Planning Objectives

Comment: Figure 3-6 mentions a goal of protecting water rights. We are concerned that water transfer contracts to urban users and agricultural interests will result in durable claims to Butte County surface and groundwater. This AB 3030 Plan must identify the risks of legal water rights that may be established by water transfers and the strategies that will be employed to prevent the sacrifice of our local economy, environment, and quality of life to serve the “greater good” of an expanding California.

DW&RC Response: The implementation of the AB 3030 Groundwater Management Plan does not authorize Butte County to act as a regulatory entity regarding water rights. Pursuant to California Water Code Section 10753.9 (b), nothing in this report shall be construed as authorizing the local agency to make a binding determination of the water rights of any person or entity.

From: Sharon Fritsch, address not provided (via e-mail 8/20/04)

Comment #58) General supportive comment

Comment: I am impressed by the technical quality of the work that the DW&RC has been doing. I am very glad that you recognize the importance of maintaining aquifer recharge zones, including the vegetation above these areas. I am also very glad that you are committed to maintaining local control of water resources.

DW&RC Response: We appreciate this input as a great deal of staff and monetary resources have been utilized to prepare local water resource planning documents for

Butte County. The AB 3030 Plan, and the proposed components of the draft Integrated Water Resources Plan which will be presented to the Board of Supervisors throughout the autumn of 2004, should not only provide sound technical guidance to assist local policy makers, but also viewed as a “self-defense” mechanism for the citizens of Butte County. The more we know about local hydrogeology and the interlinks with recharge areas and our upper watersheds, the better off we are to demonstrate local water needs for agricultural, urban, and environmental water demands.

It is our intent that the citizens of Butte County understand that the AB 3030 Plan is a supporting document that links with other water resource planning documents. Much work remains to analyze the science and to evaluate opportunities that benefit the local community. Understanding of the local hydrology and geology will continue to be a “work in progress” for many years.

From: Pat Zwicker, Paradise (provided verbally at the 9/7/04 meeting of the Butte County Water Commission)

Comment #59) General input re: fund to compensate injured parties

Comment: In the draft AB 3030 Plan, or the BMO ordinance, these do not address the mitigation or the tax burden to establish a fund to compensate persons who are injured as a result of groundwater pumping. We need to compensate for damages, maybe set up a fund from the sales of water through transfers?

DW&RC Response: *We appreciate this input as the subject matter was not previously raised. Language in Chapter 33 of the Butte County Code, Section 33-8(i), addresses third party impacts. In the context of an applicant’s application for a permit, the language reads as follows: “A description of the proposed mitigation program for any third party impacts, which may specify a dollar amount held in a trust account to satisfy potential third party claims.”*

This requirement is one of several the applicant must undergo, in addition to other elements of Chapter 33-8 which require the applicant to provide the amount of surface water available to the land and the amount proposed to be transferred, the transfer period, the physical source of the surface water to be transferred, the applicable surface water right held by the applicant, a list of parcels of land where surface water deliveries are to be reduced, a list of wells (including the maximum pumping capacity of each well’s pump and motor, which are proposed to participate in the groundwater substitute pumping program and their location), a list of wells within the well spacing requirements (per Chapter 23B of the Butte County Code) of the wells identified along with certification that the owners of such wells have received notice of the application, a map showing the location of all parcels and wells identified under the permit application, a groundwater hydrology report provided by the applicant, and a description of the proposed monitoring program and the pumping curtailment.

In general, the best mitigation is through the preventive strategies identified in Chapter 33 and Chapter 33A (BMO ordinance), and by implementing the AB 3030 Plan. We intend to use an adaptive management strategy as situations occur.

End of comments and responses to draft AB 3030 Plan