

Memorandum

To: Victoria Whitney, Chief
Division of Water Rights
State Water Resources Control Board
Post Office Box 2000
Sacramento, California 95812-2000

Date: November 15, 2007

Attention: Paul Murphey, Project Manager

From: W. E. Loudermilk, Regional Manager *WEL*
Department of Fish and Game – Central Region

Subject: Response to the State Water Resources Control Board Request for Review of and Comments on the Technical Memorandum "Draft CEQA Project Description and Baseline Discussion for Possible Use in the Upcoming EIR for Water Right Application A030166," dated August 24, 2007

Staff of the Department of Fish and Game (Department) have reviewed the Technical Memorandum "Draft CEQA Project Description and Baseline Discussion for Possible Use in the Upcoming EIR for Water Right Application A030166," dated August 24, 2007. The Technical Memorandum (Tech Memo) was provided to the Department via email from the State Water Resources Control Board (SWRCB) on September 11, 2007. The header on the Tech Memo indicates that it was prepared by the SWRCB Environmental Impact Report (EIR) consultants, PBS&J/EIP. It is self-described as likely to be used in a Draft EIR under preparation associated with a pending appropriative Right Application. We appreciate this opportunity to provide this early input on your CEQA compliance associated with the Big Sur River.

We offer early input on 1) the organization of the Tech Memo, as it relates to the development of a Draft EIR; 2) the content of the Tech Memo, as it relates to a Draft EIR; and 3) the use of information to support the content of the Tech Memo, particularly as it relates to use of information in the Tech Memo for development of key portions of a Draft EIR. In addition, 4) we have difficulty with the rationale for the CEQA baseline proposed by the SWRCB in this Tech Memo, and offer suggestions for an alternate basis for a CEQA baseline and/or approach to better address public trust resource with modifications of the natural flow. We also provide 5) a discussion of reasonable use; and input on 6) the need for other permits. We are also including comments related to 7) the need for additional studies and 8) project alternatives, as requested by the SWRCB at our meeting with the California Department of Parks and Recreation (DPR) on September 18, 2007.

Additionally, SWRCB staff met with our hydrogeological consultant, Kit Custis, on October 31, 2007. Comments he provided at that meeting are not included in this memorandum due to the timing of that meeting, but please consider his input as a component of the Department's early input.

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Again, thank you for this opportunity to provide early input in the form of comments on the Tech Memo. I have recently designated Julie Means, Senior Environmental Scientist, as our liaison regarding this water right process. She can be reached at (559) 243-4107, extension 240. In recognition of our recent reorganization, it would be most helpful to you, the applicant and the Department if all formal coordination and correspondence on this Water Right application from this date forward be directed through Ms. Means in our Fresno office. She will help assure the internal coordination with appropriate technical staff and serve as Department staff liaison as you proceed with your process on this important application on the Big Sur River.

Attachment

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ec: Department of Fish and Game
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Department of Fish & Game (Department) early input on Technical Memorandum “Draft CEQA Project Description and Baseline Discussion for Possible Use in the Upcoming EIR for Water Right Application A030166”, dated August 24, 2007, and provided to the Department via email from the State Water Resources Control Board (SWRCB) on September 11, 2007. The Tech Memo was prepared by the SWRCB EIR consultants, PBS&J/EIP and is self-described as likely to be used in the Draft EIR under preparation

1. Memo Organization

The Tech Memo could be significantly improved, and provide better support for the EIR, if it were modestly reorganized. As drafted, the overall organization of this tech memo may unintentionally confuse or mislead a reader. Suppositions, assumptions, or conclusions in dispute should not be included in the Project Description. Instead it should focus on clearly describing the project proposed, including the place of use, purpose of use, and points of diversion rather than including analysis of potential impacts. Also all references to the water source should be described as subterranean flow (“underflow”) rather than groundwater.

Overall, we suggest the document structure may be more useful if it includes the “Introduction and Project Overview” including Table X-1, immediately followed by the “California Water Rights and Water Right Process”; and then the “Project Description” and “Project Objectives”, currently found on page X-14 of the Tech Memo. The sections on “Project Site and Environmental Setting”, “Project Location”, “Place of Use” and “Points of Diversion” could follow logically as elaborations on the project description. The “Place of Use” description on page X-15 appears to be redundant with portions of the “Place of Use” on page X-4; the two could perhaps be combined and edited for content.

The Section on “Project Background” could include everything in that section beginning on page X-8, through the end of “Previous Technical Studies” ending mid-page X-14. The four paragraphs on page X-9 appear to be the “El Sur Ranch Well History” (rather than Water History) and the remainder of that section, including all of page X-10 and the first partial paragraph of page X-11 could be labeled as “Complaint History”.

The Sections which currently begin on pages X-16 and extending through the first half of page X-24, titled “Assumptions Used to Develop Numerical Diversion and Rate Limits”; as well as “Irrigation Operating Practices and Historical Diversions” from page X-8, and the accompanying Table X-2, on page X-7; and portions of the “Land Use” section on page X-8, appear to be information provided by the applicant in support of their requested appropriation. We believe these should be removed from the project description. If used elsewhere in the document they should be renamed, perhaps with the title of “Rationale Provided in the Application to Support Requested Diversion;” and

the introductory paragraph should clearly define the source information. Further, it is unclear to us if inherent assumptions have been made and/or will be utilized by the SWRCB in evaluating the proposed project and/or to support your CEQA analysis. It is not clear how this section would be of use in the upcoming Draft EIR. See our specific comments below, regarding the content of these sections, to better understand the reasons why we believe that the SWRCB would be better served by more fully developing and clarifying your assumptions to evaluate the proposed project.

The final section could be the "CEQA Project Baseline and the Proposed Diversions"; see below for our discussion of the content of that section.

2. Specific Comments on the Project Description and Background

The Introduction states: *"Also included in this chapter is information from technical investigations that were prepared to identify project baseline conditions and to support the appropriation requested in the water right application."* We would like to clarify that studies that are summarized in the Tech Memo, primarily in the sections titled "Previous Technical Studies" and "Assumptions Used to Develop Numerical Diversion and Rate Limits" were not designed to identify project baseline; and, in our view, do not adequately define project baseline conditions. As stated in the "Previous Technical Studies" section of the Tech Memo, the studies were implemented by the El Sur Ranch to examine the various issues central to the Protests. DFG has provided comments directly to ESR and the SWRCB that question the stated conclusions of these studies based on the data collected. We encourage resolution of these issues preceding the definition of CEQA project baseline to avoid challenges later.

Throughout the Project Description, the Tech Memo states that the Ranch *"...seeks to continue existing, historic (sic) direct diversions from the subterranean flow of the lower Big Sur River..."*; *"the applicant would like to ensure the "...continuation of historic (sic) land uses..."*; and that the objective of the proposed project is to *"...authorize the historical use of water on the El Sur Ranch..."*. Referring to the request as a continuation of an historical use is misleading in several ways. First, the application proposes to divert water year-round, and the historical use is primarily April through October. Second, the application asks to divert up to 1,615 acre feet per year, with a "20-year rolling average" of 1,200 acre feet per year; yet the historical diversion average was 857 or 937 acre feet per year, depending on whether a 20- or 30-year average is utilized. As a result, the project description and subsequent analyses in the Draft EIR should delete references to the application as a request for "historical" use. It should articulate the amounts and timing of historical uses being requested to be redefined and authorize, as Appropriate, and define the additional use as such.

Typically, the "Project Description" portion of a CEQA document is a short summary of the request that the applicant has made. Table X-1 summarizes their request, and should be labeled as "Summary of Diversion Limits, Rates, and Operating Practices for

El Sur Ranch ***Proposed Under*** Water Right Application A030166” (emphasis added). The remainder of the project description should be edited to clearly indicate that the proposed elements are part of the applicant’s request. It would be preferable to remove the discussion of rationale for the requested amounts from this section, and if relocated elsewhere, to include with it a clarification of alternative beneficial water duty assessment made by the Department of Water Resources for this type of water use in this area so that adequate comparisons can be made.

The “Project Location” should include more information about the El Sur Ranch (ESR), which is incorrectly characterized as consisting of 292 acres. A clear distinction between the Project location and place of use is important. The Ranch is in actuality thousands of acres (elsewhere identified as “the largest of the remaining working cattle ranches that once existed on the coast between San Simeon and Monterey”); and includes portions of the watersheds of both the Little Sur and Big Sur Rivers. The second paragraph in the “Project Location” should be expanded to summarize information on the “Place of Use” (POU), and should be included in the section on the “Project Site and Environmental Setting”, rather than its current location.

The POU should more clearly be identified as the actual location and number of acres which are to be irrigated under the appropriative right requested, which does not include the 25 acres attributed to that acreage subject to a riparian right. The 25 acres that are to be irrigated under riparian claim should be characterized as irrigated “subject to a riparian right” so as not to confuse that portion of the irrigated fields with those portions of the “Points of Diversion” (POD) and POU which consist of riparian vegetation. The effects of diversions for irrigation of acreage under riparian claim should be considered cumulatively with the effects of diversion made subject to the proposed appropriative right, and the description of the POU for the appropriative right should not include lands to be irrigated under the riparian claim unless a rationale is included for its inclusion. In addition, it should be clearly stated that the 267 acres (or the number of acres that the POU that the SWRCB determines would actually be irrigated by the requested appropriation) does not include Swiss Canyon, the tailwater pond, the dunes, or any other such features not requiring irrigation as may be generally between Highway 1, the Pacific Ocean, an unnamed creek and Andrew Molera State Park, the location described in the Tech Memo. A list of the acreage of each pasture unit, accompanied by a pasture map, should be included for clarity. The expectation is that the acreage described as the POU in the CEQA document will include only those acres that will require irrigation even though adjoining lands may need to be analyzed for impacts of the project.

The “Points of Diversion” should, in addition to the maximum pump rates in cubic feet per second for each well, include information on the “Old Well” to clarify that it was re-drilled in a separate, but nearby, location; the date of construction of the new “Old Well”, and that there are currently two pump houses and associated equipment at the “Old Well” site. Due to the recent drilling of the new “Old Well,” it is likely that a well drilling

report exists for that well, and should be provided by the applicant so that information regarding that well may be included in the EIR. Additionally, it should be clarified that the New Well is currently located approximately 400 feet from the river, but this has not always been the case based on photographic records. Impacts of a shift in the river meander that may move the river closer or farther away from the well may need to be evaluated elsewhere in the document.

The project description, including the subsequent detailed sections on the POD and POU, should include information regarding the vegetation and soils of both the POD and the POU. In particular, sensitive natural communities which have the potential to be affected by the project should be described and summarized; and soil characteristics which would influence the particulars of potential impacts associated with either the POD or the POU should be discussed.

In the section titled "El Sur Ranch Irrigation System Operation", we recommend three changes. First, there should be clarification of how and where the tailwater drains into Swiss Canyon to allow analysis of impacts in the document. Second, the time of construction and the size (in acre feet) of the existing unpermitted tailwater pond and the size of its outlet structures needs to be stated. Third, this section should address the need for permits for the tailwater pond; e.g. water right permit for storage; possibly an NPDES permit for water quality; and a Coastal Development Permit for construction. Finally, at the end of the third paragraph on page X-6, there is a statement which attributes increased salinity in the vicinity of the "New Well" to Spring tides; we believe this is unsubstantiated, and should not be included in the project description. Salinity is a potential environmental effect that will need to be analyzed by the Draft EIR; information regarding sources of salinity should be thoroughly evaluated in order to better inform the EIR.

The "El Sur Ranch Water (Well) History" should clarify the names, dates, and pumping capacity of the various wells which the history chronicles. There is no mention, as stated above, of the new "Old Well", and detailed information regarding the dates and pertinent information regarding the construction of the new "Old Well" should be provided. Of the group of new wells, it appears that the first well constructed (in 1972) was to serve Andrew Molera State Park, not ESR; and that the

well which is now referred to as the "New Well", was constructed specifically for the ESR, but not completed until 1975. That is not consistent with other sections of the Tech Memo which indicate that access was not granted by the California Department of Parks and Recreation (DPR) until 1977, and that the New Well did not begin pumping until 1984. The piping that connects one or both wells to the ESR irrigation system was recently replaced, and the dates of that construction as well as details of the construction should be disclosed. There is mention of a temporary permit issued in

1972 by DPR, but no specific date is provided; and it appears that access to the site for the purpose of completing the wells was not granted until after 1977, again, no specific date is supplied.

The section on pages X-10 and the first portion of X-11 describe the complaint filed by DPR, and the resolution of that complaint by the SWRCB. The section indicates that the SWRCB concluded that the riparian right to underflow was limited to 90 acres; and that the El Sur Ranch has subsequently asserted that their riparian right is "...25 acres, not the 90 acres as identified by the State Water Board". This disparity should be resolved and the issue clarified with appropriate maps, as review of the topography of the POU would suggest that 90 acres is a more realistic figure for ESR lands within the watershed.

The section titled "Water Right Application and Protests" provides a history of the application and the various Protests, including restated information on the riparian right. The description of the application should note, for each portion of the request, that the proposed maximum pumping rates are just that, "proposed". The document could acknowledge that the actual maximum annual diversion in acre feet per annum (afa), the 20-year rolling average, the maximum instantaneous rate of diversion in cubic feet per second (cfs) and/or limits on a 30-day running average for the diversion rate, as well as seasonal and monthly diversion limits, are all conditions which the SWRCB will consider and may require as conditions to protect public trust resources, and to minimize impacts. In addition, we recommend that as the SWRCB move forward scoping and developing the EIR mitigation measures, that it consider, in consultation with the resource agencies, limits on pumping during critically dry periods, which is not now part of the application; and bypass flow standards and the measurement site(s) and monitoring protocols necessary to maintain flows and water quality in the Big Sur River to protect resources throughout the year and variations of annual hydrology.

Also included in the section titled "Water Right Application and Protests" is the statement: *"Additional information, including the assumptions used to develop these limits, is provided below, as well as information regarding the establishment of the baseline condition against which the proposed diversions are analyzed in this EIR to determine whether significant impacts would occur."* This statement does not clearly state that the assumptions which have been used to develop the **proposed** limits are assumptions provided by the applicant in support of the suggested limits. It also implies that the establishment of the baseline condition is also predicated upon the same information provided by the applicant. We encourage the SWRCB, as the lead CEQA Agency, to independently gather and objectively evaluate all the information available, and to do independent data gathering when needed; to support not only the determination of the CEQA baseline, but also the type, scope and significance of potential impacts of the proposed diversion. Please see our comments below regarding these issues.

The section on the "Water Availability Analysis" (WAA) does not indicate the source of the WAA which has been prepared and is referenced in that section. In addition, the section references information provided by the applicant (generally referred to as "Previous Technical Studies" and addressed in the following section of the Tech Memo), and specifically mentions that the studies "...showed that the river flow below the POD exceeds that upstream of the POD..." and that data "...support a conclusion that water is available for the subterranean diversions sought by the Application...". These statements, presented as fact based on information provided by the applicant, have been specifically reviewed and called into question by the Department. Comments were provided to the SWRCB by both Departmental Staff and our hydro geological consultant to avoid contention later. We encourage the SWRCB to review this issue independently and exercise independent judgment in this area. The Department remains concerned about the incorrect assumptions provided by the applicant. We recommend that the SWRCB Tech Memo describe that there are known reaches within the potential impact zone of the river where the flow is not higher than the flows above the proposed diversions. These are the areas with the highest probability of impact to public trust resources, not the specific locations where gaining river reaches mask influences elsewhere. The second conclusion is based on analyzing flows and diversions only on a yearly basis where high winter flows mask the impacts of diverting at an instantaneous rate that represents a high percentage of flow during low flow months or periods.

The section on "Previous Technical Studies" lists a number of studies which were done by the applicant's consultants, and repeats, as fact, conclusions which were reached in some of those studies without supporting data, (such as "...well pumping by the Ranch does not significantly affect river flow or stage..."; or "...a river flow of 5.3 cfs at the upstream USGS river gauge as a supportable measure of flow when considering future monitoring and management requirements to maintain river flows..."; or "...the flood irrigation method and system for the Ranch is efficient and appropriate for the site..."). This section also asserts that the information collected by the applicant in 2007 "...supports the conclusions presented in the 2005 (sic), and will be incorporated as part of the analysis contained in this EIR." Given that the 2007 studies have not been concluded, reported, or reviewed, we believe it premature for the SWRCB Tech Memo to assert conclusions reached in 2005 when the remaining information is as yet incomplete.

This section (as well as the extensive section on "Assumptions") does not mention, or consider, extensive review and comments that the Department previously provided to the SWRCB and the applicant (on Technical Studies). Prior comments by the Department express concern that aspects of the Technical Studies put forward by the applicant are flawed, and include conclusions that are not supported by the data. It is appropriate to depict conditions at the site in the EIR using all pertinent information, including instances where opinion differs. We recommend that the SWRCB include

only factual information, and not conclusions based on disputed studies in the CEQA project description, and that if disputed studies are to be utilized in other sections of the EIR that they are balanced by the whole of the information made available to the SWRCB.

The remainder of the Tech Memo, up to the section on the CEQA baseline, summarizes information provided by the applicant in support of their application. The information is intended to support the requested diversion and includes suggested limits on diversions using several different time periods and pumping caps. The specifics are too general to be helpful and do not appear to be internally consistent, and do not appear to be supported by fact or data. We recommend that the SWRCB not utilize this text in the project description. Instead, we encourage that other pertinent information be utilized in the impact analysis section such that the whole body of information and opinion are disclosed as part of the public process.

3. Use of Applicant's Information in the Memo and as Proposed for the Draft EIR

The information which has been provided by the applicant thus far may be problematic if included in the Draft EIR. Some studies have been conducted without including recommendations made by the Department and NOAA. The result thus far is that we cannot determine whether, or to what degree, the proposed level of diversion would have impacts on public trust resources. The conclusions reached in the reports are, in some cases, not supported by the data collected. The Department has provided numerous written reviews of the materials referenced in the Technical Memo. These reviews have been provided to the applicant as well as to the SWRCB. However, we see no reference or recognition of the Department's recommendations or peer review on the submitted information. Additionally, our technical advice on the potential impacts of the proposed project to public trust resources appears to have been ignored. For example, studies conducted by applicant's consultants in 2006 were to be based on specific targeted data collection that was developed in consultation with the Department, its hydro geological consultant, and National Marine Fisheries Service (NOAA). The proposed data collection and goals of the study plans were formalized in correspondence between ESR and the Department with copies to the SWRCB, DPR, and the Resources Agency. The resulting studies did not provide all of the data components. The approved study plans were to be included to support conclusions to be drawn. Yet, it appears that unsupported conclusions are tendered as established fact in the Tech Memo.

It is not clear to what extent the SWRCB will be utilizing the information provided by the applicant to inform and support analysis of potential impacts and the significance of those impacts in the CEQA document. We encourage you to independently determine the scope of work still required; to conduct studies, or have studies conducted under the direct supervision of the SWRCB; and to evaluate information collected, as necessary for the evaluation of impacts from the proposed project, and not rely solely on

conclusions provided by the applicant. This would include evaluation of the applicant's information, as well as the review/comments provided by this Department and other trustee agencies. We recommend that only factual information be included in the project description and that if disputed studies are to be utilized in other sections of the EIR that they be balanced by the whole of the information made available to the SWRCB and that any conclusions be based on the independent analysis of the data by the SWRCB.

4. Determination of CEQA Baseline and Public Trust Protection

We encourage the SWRCB to give careful consideration to the selection of the baseline description in this CEQA document. Ongoing activities may properly be considered under CEQA as part of the existing environmental baseline by the lead agency, yet should not result in understating the environmental impacts associated with legal historical diversions. The SWRCB normally grants water rights under Porter-Cologne and the public trust doctrine with mitigation terms and conditions necessary to protect trust resources that are/may be impacted. We view this as separate from the project-related impacts you may identify in the CEQA context, which may rely on current case law governing the selection of environmental baseline, and ongoing unauthorized activities. The SWRCB has not clarified how it plans to meet its public trust responsibilities but the Department expects the SWRCB to include adequate analysis of the adverse impacts for the entirety of the project in their EIR document, regardless of the baseline chosen, to ensure that resources are protected. The Introduction in the Tech Memo states that the SWRCB "*...must consider the relative benefit to be derived from all beneficial uses of water concerned, including the preservation and enhancement of fish and wildlife, and uses protected in a relevant water quality control plan*". It is not clear how the relative benefits of protecting the public trust resources will be considered in the Draft EIR. This objective is not clearly spelled out, nor is there specific mention of elements of such preservation and enhancement in the Tech Memo. We encourage the SWRCB to revise the Tech Memo to clarify how it intends to meet its public trust responsibilities which require that analysis be completed prior to the SWRCB exercising its permitting authority. Regardless, we encourage the SWRCB to avoid selection of a CEQA baseline that minimize or eliminate the impacts of the proposed project on these resources.

The proposed CEQA baseline in the Tech Memo seems to advocate the establishment of new baseline metrics that include averages, rolling averages, and seasonal and monthly "caps" which may be irrelevant to assessing impacts of the project. The adoption of multiple baseline metrics, with their focus on long-term changes, may confuse rather than disclose to readers the potential project-related environmental impacts in the CEQA. For example, proposing analysis of the impacts resulting from changes to a 20-year rolling average baseline can mask the potential impacts to instream resources, because it is not addressing impacts at a scale appropriate to discern site specific- or reach specific impacts on shorter time frames. In its worst case,

rolling average diversions over a 20-year period can be made to comply with the constraints imposed by a 20-year rolling average period while still allowing significant adverse impacts to resources due to complete or nearly complete dewatering for various time intervals. The Department has repeatedly provided guidance arguing against the use of averages for analysis of impacts, since this level of analysis simply masks the instantaneous impacts. The instantaneous and longer duration issues are essential components to analyzing impacts to resources and providing specific terms or conditions on Appropriative Water Rights that will protect public trust resources.

To justify the baselines, the Tech Memo includes rationale including, "*(t)ypically, the baseline condition represents the physical environmental conditions as they exist at the time the notice of preparation (NOP) is published (Cal. Code Regs., tit. 14 Section 15125, subd.(a)). However, as the proposed project essentially represents the conditions present at the time of the NOP, the State Water Board considered other options for considering the potential environmental effects of the proposed projects.*" As stated previously, the Department disagrees that the proposed project "essentially represents the conditions present at the time of the NOP" relative to the amounts, rates or the seasons of diversion.

We encourage you to carefully consider development of a CEQA baseline premised upon legal diversions. It is conceivable that a baseline condition which is limited to riparian claims would be considered as the baseline condition described in your CEQA document. The existing conditions and the "no project" alternative would be based on the legal diversions, and result in no diversion above that which is authorized under a riparian right¹. Cumulatively, we suggest that there are other potential dates and actions which should be carefully considered when setting the CEQA baseline consistent with the results of a "no project" alternative. The period of 1985 to 2004 may be inappropriate unless the limited legal diversions are properly included in your determinations.

5. Reasonable Use

It is not clear how the information provided in the Tech Memo will be utilized to determine reasonable use, defined in the Tech Memo as "*...the amount required to supplement the water naturally provided by precipitation and other climatic factors should reasonably match the requirements of that use so that the water is not wasted*". The Tech Memo does not clearly identify what standards or metrics would be utilized to determine "reasonable use" or how the project could be evaluated and alternatives developed, to provide reasonable use limitations. Thus far, information provided by the applicant on the proposed diversions, the purpose of use, seasons of use, place of use,

¹ In 1992 the SWRCB determined that the applicant's right to divert was limited to a riparian claim for the irrigation of 90 acres of riparian pastureland, with a corresponding total diversion limit of 270 acre feet per annum (afa). The amount of riparian land has been adjusted to 25 acres which would correspondingly reduce the amount of riparian diversion to 75 afa.

and the proposed irrigation method for pasture land, does not appear to characterize a reasonable use of the water requested for appropriation.

The previous SWRCB finding concerning the quantity of water available under the riparian claim made it clear that a standard yearly diversion total of 3.0 acre feet (af) of water per acre of irrigated land is considered a reasonable beneficial use for the riparian portion of the ranch. Currently, the Appropriative Water Right application requests a total maximum annual diversion of 1,615 af for application on the additional (non-riparian) 267-acre POU. This amounts to placing in excess of 6 af of water on each acre of pasture not subject to a riparian claim each year, or twice the reasonable amount previously considered reasonable for the riparian use by the SWRCB. The proposed maximum annual usage of 1,615 af also exceeds what has historically been utilized on the ranch on a year-by-year basis (Table X-2) during every year (and water year type) in the past 30 years (except 1984 when pump tests expanded the water used in that year). In fact, analysis of Table-2 shows that in the past 20 years the water duty on the ranch never exceeded 3.9 af per acre in any year and was more commonly well less than 3.0 af per acre per year. This is reflective of a limited season of water diversions for irrigation that differs from the longer season currently requested/proposed. Up to this point, diversions have been very limited (with no diversion occurring in most years) during the months of November through March or April. In fact, in the past 20 years the total diversions during the months of November through March have never exceeded a total diversion of 76 af during all of those months in any year. The proposed increase in diversion during the wetter period should be considered in establishing reasonable use in much the same way the applicants have proposed limitations reasonable use in the dry season from July 1 and October 31. It is inappropriate to assume that increased diversions during the wet season months will have no adverse effects based on the instream flows during those months that will vary by precipitation and water year type.

The Tech Memo includes some inconsistencies. Table X-4 lists estimated irrigation requirements, rather than the actual diversions made to support the ranch historically. The estimate of proposed "requirements" in Table X-4 exceeds the actual usage for every year of record except three: the drought year of 1977; 1982; and 1984 when actual pumping was not related to demand. Some requested amounts in the water application even exceed the estimated amounts in Table X-4 for time periods without precipitation. For example, the maximum amount requested in the water application for the period of July through October is 735 af. This exceeds the projection in Table X-4 that identifies only 700 af for use *in years with no precipitation* and Table X-2 indicates that historical diversions to support the ranch from July through October was limited to 540 af or 585 af, depending on if a 20- or 30-year average is utilized.

One valid approach to establishing "beneficial use" under this Application, is to assume that the reasonable water use for the riparian right, as determined by the SWRCB in 1992, is consistent with reasonable use applied over the remaining acres of the POU.

In the case of the ESR, the right to water for 90 acres results in the corresponding total diversion of 270 af, or 3 af per acre per year. That would translate to 801 acre feet per year for all of the proposed 267 acres of irrigated pasture (with corresponding adjustment of this amount if less than 267 acres are to be irrigated).

Finally, there appears to be little or no conservation practices proposed for the ranch that would reduce its overall water needs. Rationale for not implementing or seriously considering alternative irrigation methods to replace flood irrigation with other methods claimed that current practices were "...to help maintain natural view of the coastline..." and that "...regulatory prohibitions of natural landform alternation..." were barriers to the utilization of other methods. Conservation that would initiate and utilize recovered tailwater for irrigation to reduce the need to divert is also dismissed because it "...may be limited due to regulatory, environmental and construction constraints..."). It is unclear which existing regulations this statement references or what the logic is for this statement. For example, switching to another method of irrigation would be unlikely to trigger the need for permits, unless grading/sloping the land were involved. Such a switch could hardly be characterized as alteration of natural landforms, or interfering with the natural view of the coastline. Additionally, decisions regarding land uses often require the balancing of competing resource needs. The increased efficiency of another irrigation technology, which would result in water conservation such that public trust resources would benefit, would likely get approval unless the proposal resulted in some as yet undefined impact.

6. Need for Other Permits

The Tech Memo overlooks some of the regulatory framework of the proposed project, including compliance with the State and Federal Endangered Species Acts; the California Coastal Act; and consistency with the Big Sur Local Coastal Plan, and the Big Sur River Protected Waterway Management Plan, both of which were prepared by the County of Monterey. The diversion also needs to be evaluated for consistency with any Monterey County policy and other policies which involved out-of-basin water transfers.

The proposed project has the potential to impact at least two Federally listed wildlife species, the California red-legged frog; and steelhead, in particular the South/Central California Coast ESU. Take of these species is prohibited, unless a take authorization has been issued by the administering agency, the U.S. Fish and Wildlife Service, in the case of California red-legged frog; and the National Oceanic and Atmospheric Administration, for steelhead. Other listed species may also be affected, and the need for permits would be evaluated after appropriate surveys have been conducted and impact analyses completed.

The installation of two wells, as well as replacement of hundreds of feet of pipeline would likely need Coastal Development Permits. The dates of previous construction

would likely determine if any of their activities were "grandfathered" as to permits. In addition, diversion of surface flow from the Big Sur River may need a Streambed Alteration Agreement pursuant to Section 1600 et. seq. of the Fish and Game Code.

7. Additional Study Needs

The Department has clarified the surveys and studies which in our view are needed to inform the process and provide adequate disclosure. Our input included accepted protocols and data to be collected. This input was provided in previous communications with the SWRCB. We have also provided comments on the data gaps in studies that have been performed to date, including those completed in 2006. Some information requested and agreed to at the time of study plan approval has not been provided. If the SWRCB requires additional information or a summary, the Department can provide it upon request.

We reiterate our previous and still pertinent request for Instream Flow Incremental Methodology (IFIM) and information necessary to define protective bypass flows for this project. In its 2002 NOP response, the Department recommended that the SWRCB utilize IFIM, or equivalent, to develop information which could be used to determine instream flows necessary to protect the differing life stages of steelhead, in a variety of water years. To date, these types of important instream flow studies have not been completed.

Most recently, in an effort to expedite protective instream flow information gathering for the EIR, a 2006 study plan was developed to gather data by using the "Thompson" methodology to assess fish passage. The data provided to the Department for review included only the depth component of that methodology, which is meaningless without the complementary and equally important velocity component. Recent communication from the applicant's representatives has clarified that they do not believe velocity information is needed, although the acceptable sampling methodology was clearly presented in the circulated and agreed to study plan. The Department is evaluating its options regarding the independent development of instream flow recommendations.

8. Developing Alternatives for the EIR

The SWRCB also requested comments from the Department on project alternatives for inclusion in the EIR. While the Department cannot provide a full set of appropriate alternatives, it does make the following suggestions for the SWRCB to consider as it develops the project alternatives for inclusion in the EIR.

- Include in both the project proposed, and all alternatives, full disclosure of the acres of land to that will actually be irrigated as pasture (this would eliminate from the proposed place of use the acreage of Swiss Canyon, the coastal bluffs, the tailwater pond, etc) under both the requested appropriative rights and the

riparian claim. This will clarify for disclosure and analysis the total acre feet of water that will be applied to each acre of irrigated land and allow comparison with water duty information typically provided by other sources in acre feet per annum (afa) per acre irrigated.

- Include analysis of restricting water use during the wetter months of the year with adequate resource-protective terms in place year round. This analysis, in addition to protecting most of the migration season for steelhead in the reach of the Big Sur River affected by the pumping (which to this point is an unanalyzed impact), will allow the first project objective listed on page X-14 of the Tech Memo to be met and provide irrigation to ESR during the periods it has indicated, and is supported by historic records, as the priority periods for use for cattle production.
- Ensure that diversion requested is limited to the beneficial use proposed on the POU being analyzed. This may require restrictions under the water right for wet or very wet years when water use on the pasture would be satisfied by the natural conditions and/or additional water use would adversely impact Swiss Canyon, the coastal bluffs, or adjoining DPR lands. It may also limit additional diversions (beyond riparian) in drier periods and years to protect public trust resources.
- Limit the beneficial use of water to a **maximum** of 3 af per irrigated acre, with adequate resource protection bypass terms in place, particularly in dry or critically dry years. This amount is reflective of the DWR recommendations for diversion to meet the water duty for irrigated pasture, and exceeds limitations for uncultivated land set by the water code. In addition, this is consistent with the 3 af per acre for the previous SWRCB resolution of the quantity of the riparian claim for the ranch, and would eliminate the discrepancy between the 3 af per acre as an appropriate beneficial use for the ranch's lands subject to a riparian right and the higher than 6 af for each acre of those lands on the ranch which are not subject to a riparian claim.
- Clearly disclose the current level of efficiency of water use at the POU, as well as analyzing the reduced need for diversion based more modern operations, including but not limited to a more efficient irrigation system, reclamation and reuse of tail water, and a more modern system to determine when irrigation is needed (such as CIMIS, the California Irrigation Management Information System.)
- Analyze the financial impacts of importing feed rather than relying on direct diversion from the Big Sur River, especially in critical dry years or during critically dry periods when flow are not available for diversion because of public trust considerations.

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- Clearly analyze the impact of the application of irrigation water, in the context of the specific soils that comprise the POU, especially with regard to soil properties, soil water capacities, and the water needed for leaching and irrigation.