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From: Marion Gee [marion@sierranevadaalliance.org] Sent: Fri 4/23/2010 2:29 PM

To: DWR IRWM Grants

Cc:

Subject: Prop. 84 Comments from the Sierra Nevada Alliance

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Sierra Nevada Alliance Prop. 84 draft guidelines comments 4.14.10.doc(200KB)

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April 23, 2010

Dear Joe,

Attached in a MS Word document are comments and specific recommendations from the Sierra Nevada Alliance on the Prop. 84 IRWM Program Guidelines and PSPs.

We would like to congratulate the Department of Water Resources (DWR) for taking great strides to improve the Integrated Regional Water Management (IRWM) program to address California's pressing water challenges at the regional and local level. The proposed Program Guidelines and PSPs, however, are currently insufficient to address California's water challenges because they fail to: 1) ensure the establishment and completion of IRWM plans statewide, including rural, sparsely populated areas and 2) address the discrepancies in funding and assistance for rural areas that are the main source of our state's water. The small, low income rural communities of the Sierra are charged with stewarding a large portion of the State's natural resources- they can't take on this task without the state recognizing and addressing their unique needs. The Sierra Nevada Alliance is submitting the following recommendations to further strengthen the IRWM program and to better serve and support the needs of rural communities that steward our state's source waters.

Since 1993 the Sierra Nevada Alliance has been protecting and restoring Sierra lands, water, wildlife and rural communities. Over one hundred conservation groups are members of the Sierra Nevada Alliance and we are sharing our comments on the draft guidelines within our network and with Sierra IRWM RWMG representatives. Our Regional Climate Change Program also works to lead and support model regional planning efforts that address climate change emission reduction and adaptation. IRWMs are a priority model plan for the Alliance and we have worked the past four years to help start and support IRWM processes across the Sierra, including the Cosumnes/American/Bear/Yuba (CABY), Inyo-Mono, CenCal and South Sierra IRWMs. We currently serve on the Department of Water Resources' Climate Change Technical Advisory Group and have attached extensive comments on the climate change standard.

We thank you for this opportunity and hope that you take the time to carefully consider and incorporate these comments. Please don't hesitate to contact me with any questions or clarifications.

Best Regards,
Marion Gee

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****
Protecting and restoring Sierra land, water, wildlife and communities since 1993.

SAVE THE DATE! August 27 - 29, 2010: 17th Annual Sierra Nevada Alliance Conference, Mammoth Lakes

April 5, 2010

Joe Yun
Division of Integrated Regional Water Management
California Department of Water Resources
PO Box 942836
Sacramento, CA 94236-0001
Sent via electronic mail

SIERRA NEVADA ALLIANCE

Keeping light in the range.

Re: Comments on Prop. 84 Draft Program Guidelines and Planning & Implementation PSPs

Dear Mr. Yun:

I am writing on behalf of the Sierra Nevada Alliance to congratulate the Department of Water Resources (DWR) for taking great strides to improve the Integrated Regional Water Management (IRWM) program to address California's pressing water challenges at the regional and local level. The proposed Program Guidelines and PSPs, however, are currently insufficient to address California's water challenges because they fail to: 1) ensure the establishment and completion of IRWM plans statewide, including rural, sparsely populated areas and 2) address the discrepancies in funding and assistance for rural areas that are the main source of our state's water. The small, low income rural communities of the Sierra are charged with stewarding a large portion of the State's natural resources- they can't take on this task without the state recognizing and addressing their unique needs. The Sierra Nevada Alliance is submitting the following recommendations to further strengthen the IRWM program and to better serve and support the needs of rural communities that steward our state's source waters. We hope that you take the time to carefully consider and incorporate these comments.

Since 1993 the Sierra Nevada Alliance has been protecting and restoring Sierra lands, water, wildlife and rural communities. Over one hundred conservation groups are members of the Sierra Nevada Alliance and we are sharing our comments on the draft guidelines within our network and with Sierra IRWM RWMG representatives. One of our priority programs is our Regional Climate Change Program, which works to lead and support model regional planning efforts that address climate change emission reduction and adaptation. IRWMs are a priority model plan for the Alliance and we have worked over the past four years to help start and support IRWM plans and processes across the Sierra, including the Cosumnes, American, Bear & Yuba (CABY) IRWM, Inyo-Mono IRWM, CenCal IRWM and South Sierra IRWM. We currently serve on the Department of Water Resources' Climate Change Technical Advisory Group and have also provided extensive recommendations on addressing climate change in the guidelines.

Recommendations for a Resilient and Fair Statewide IRWM Program:

1) **Prioritize assistance to regions without adopted IRWM plans and to rural, underserved IRWM regions.** Most of the state (its populations centers) are covered by adopted IRWM plans. These urban regions have received significant DWR support and IRWM funding and have the capacity and resources to support an ongoing IRWM process. There are, however, large areas of the state's source waters not encompassed by adopted IRWM plans. Regions like the Inyo-Mono, South Sierra and Tuolumne-Stanislaus in the Sierra Nevada that lack the population base, resources and capacity have started IRWM efforts but they need continued support and their efforts should be priorities to the state. If DWR does not assist these regions in successfully creating good IRWM plans**,** they will continue to be ineligible for state funding while other IRWMs with more resources and capacity will receive even more state funding. **DWR needs to ensure a fair and level playing field for state funding by prioritizing assistance to regions without adopted IRWM plans and to rural, underserved IRWM regions that don't have the capacity and resources available to urban based IRWM regions.** The Alliance suggests the following basic recommendations to achieve this level playing field:

(1a) **DWR staff should provide special assistance to rural, underserved IRWM regions and regions without adopted IRWM plans to ensure they submit competitive grant applications and get a fair chance to access state funding.** This assistance should at least include the following activities:

- Attendance of DWR staff to IRWM meetings prior to grant submittal;
- DWR organizing 1-2 grant assistance workshops in each funding region;
- DWR providing guidance and a process for underserved and rural IRWMs to receive assistance like facilitation or technical assistance to achieve specific outcomes.
- DWR providing trainings in conducting economic analyses and more importantly, provide/contract with experts that could provide services necessary to complete required economic analyses in rural and less advantaged planning regions. DWR's guidance must be clear and specific regarding what is required in the economic analysis.
- DWR prioritizing assistance to help conditionally approved regions like CenCal and Southern Sierra IRWMs become eligible for grant funding so they don't have to miss any more rounds of funding.

The Sierra Nevada Alliance also happily offers to assist DWR in organizing a special workshop(s) for rural IRWMs to discuss their needs and issues and identify specific steps DWR and rural IRWMs could take to get good plans completed and adopted and to create sustainable processes.

(1b) **Planning Grant Applications from IRWM regions without adopted plans or who have not received IRWM planning funding in the past should be given priority.** Planning Grants Evaluation Criteria should include a Balance Points Criteria similar to the one included in the Implementation Grant PSP. This criteria should

consider whether or not the applicant has an adopted plan, whether or not the applicant has already received planning grant and whether or not the applicant has already received implementation grants. Applicants that have NOT received any prior IRWM planning funding and/or do NOT have an adopted plan should received additional points.

(1c) **Reduce the Planning Grant Match to 25%.** To require a 50% match for planning grants without a DAC waiver is too burdensome for rural, underserved IRWM regions that are charged with stewarding the state' main water source. These regions don't have the population, resources, and tax base to support IRWM planning in the long term like urban IRWMs do. The operating budgets of California's rural mountain and foothill counties and water agencies are only a fraction of their urban and valley counterparts- it is unrealistic to expect these low income, rural areas to produce a 50% match. Furthermore, DWR should maintain the provision in Exhibit A of the Planning PSP on p. 20 that allows applicants to include "in-kind services" as match as well as include "costs paid or in-kind services performed from non-state sources" as a funding match between Sept. 30, 2008 and the date of the grant agreement. **DWR must provide clear direction on what would be disallowed as match so that applicants are not unfairly made ineligible.**

(1d) **Planning Grants must include a Disadvantaged Communities (DAC) match waiver**. We understand that in the Prop 50 program the funding match waiver did not necessarily correlate with actual DAC outreach and planning. However, we believe that these guidelines and PSPs along with the requirement that no less than 10% of the funds be used to provide direct benefits to DACs has convinced most regions that they must make the effort. We appreciate that DWR is investing in several pilot projects to better define good practices in engaging DACs and producing implementation grant projects, however, we cannot afford to leave DACs in regions without pilot projects further behind. Instead of eliminating the waiver we recommend that DWR that a planning grant waiver be available only for the proportion of the grant budget that will be used to conduct the actual DAC outreach and planning so long as:

- The application clearly defines activities and how those activities will be specific to the DACs in their region;
- The applicant has already identified at least one DAC community and/or NGOs that have agreed to partner with the region to undertake the activities, evidenced by a letter from the community or NGO;
- The application includes clearly defined outcomes, one of which should be the development of actual DAC projects for inclusion in the Plan and future Implementation Grants;

- DWR carefully assesses the application and has a reasonable degree of confidence that the activities will achieve the goals and that the goals will result in actual DAC integration into the plan and implementation grants;
- DWR writes the Planning Grant contract to indicate that failure to achieve the application's defined outcomes will result in the reduction of the implementation grant amount in the amount of the waived planning grant match.

(1e) **Allow Regions Flexibility In the Timing of Planning and Implementation Grants** by providing a period of 8-12 weeks for completion and submission of Planning Grant proposals and a period of 12-16 weeks for completion of Implementation Grant proposals.

(1f) **Allow Sufficient Time, at least 6 weeks, between Planning and Implementation Grant Deadlines.** The almost simultaneous distribution of planning and implementation grant funds sends the wrong message to regions about the importance and value of engaging in real planning as opposed to engaging in a process of "checking boxes" to meet necessary criteria to be eligible for funding. Simultaneous grant processes also serve to leave regions without approved plans farther behind as they compete for funds with more resourced regions.

To address these concerns we recommend that DWR allow sufficient time between the award of planning grant dollars and implementation grant dollars. With the new Proposition 84 requirements there is not a single region that would not benefit from spending more time planning and updating their plan. There is no reason to rush into an implementation grant process.

(1g) **Take a two-phase approach to Implementation Grant Project Proposal: Phase I should serve as a pre-proposal review and evaluation step and Phase II should serve as the final evaluation of merit for each final and complete proposal submission.** Requirements for Implementation Grant Project Proposals are quite substantial, requiring a great deal of information and effort on the part of the applicants. Given the limited amount of Implementation Grant funding, and to avoid the expenditure of very limited time and resources in rural and less advantaged planning regions, a two-phase Implementation Grant Project Proposal process is recommended. The proposed two-phased process could be analogous to other funding programs that first require a concept/pre-proposal enabling an initial review and recommendations to project applicants. Doing so would in turn enable the applicant to then determine whether they should proceed with developing full proposals. Phase II would then serve as the final evaluation of merit for each final and complete proposal submission.

2) Integrate Climate Change Into Key Existing Plan Requirements and provide more explicit direction, support and credit for IRWMs to address

climate change. The state of California, especially the Department of Water Resources, has been a leader in calling attention to and addressing climate change through AB32, the Climate Action Teams, the California Adaptation Strategy and the State Water Plan. While the guidance in the draft guidelines provides essential context, generally good direction, and useful tools (thank you for including the Sierra Climate Change Toolkit in the resources section!), the current requirements are not clear and the current organization of the guidelines makes climate change appear to be a new, separate and burdensome program element. Instead, climate change should be a criteria that is integrated into existing plan elements. We appreciate DWR's recognition that many agencies and regions do not have strong existing capacity on climate change and have definitely heard from various regions some fear and reticence to embrace climate change as part of the IRWMP. We do not, however, believe that delaying implementation is the answer.

We also recognize that there are varying degrees of certainty about potential impacts of climate change depending on the scale of analysis and that research in some regions is far ahead of research in other regions. Fortunately, designing climate-resilient water projects is not contingent on a thorough regional analysis of climate change in most cases. Designing projects that reduce energy use, implement low-impact development, reduce pollution, conserve water, minimize non-climate stressors to ecosystems etc. are likely to be climate resilient no matter climate change impacts a region is likely to expect. Instead of letting regions off the hook until new data is available, DWR should strongly encourage and support regions to implement what we already know to be climate resilient projects. In its current form, DWR and the climate change standard has already given guidance on early actions IRWM can take, which the Alliance has compiled into a Table in our attached and detailed recommendations (see page 16).

To ensure IRWMs are robust mechanisms to address California's water supply, quality and ecosystem challenges in a changing climate, the Alliance recommends the following:

(2a) DWR develop a ramping up of climate-related expectations in the guidelines and PSPs that begins with **guidance on existing climate-resilient strategies and modifications** that are unlikely to produce any regrets no matter the actual pattern of climate-related change a region can expect;

(2b) DWR **provide incentives** for regions to take on the task of doing their own analysis of how climate change will impact water in their region and even greater incentives to regions that use a scale of analysis that will illuminate particular climate-related issues likely to be faced by DACs in their region;

(2c) DWR **provide workshops and lists of experts** that regions can make use of to assist them in the analysis of their existing projects and in the update of their plans and development of new climate resilient projects;

(2d) DWR work with regions to **review projects prior to application and provide feedback and advice** regarding how to further develop projects to maximize climate resilience; and

(2e) Consistent with the vital importance of investing in climate resilient projects, and the need to integrate climate into all elements of the regional plans, **adjust grant scoring criteria to include a separate category for climate change** so that the award of full points reflects integration of climate resilience.

3) Realize the Full Potential for Open Governance Structures and Robust and Diverse Stakeholder Participation. We, along with organizations like Environmental Justice Coalition for Water, have previously asserted that plans with the most open governance structures and the most robust stakeholder processes have produced the IRWMPs that come the closest to achieving the full potential of the IRWMP process. We appreciate the inclusion of new language on governance and stakeholder participation prompted by the language in SB1XX, but we also urge DWR **not** to see the language in SB1XX as the bar to reach for, but as a floor that everyone must meet at a minimum. To encourage regions to maximize participation we recommend the following:

(3a) Provision of more **guidance in the guidelines regarding how stakeholder participation can be maximized** (regardless of their ability to pay) in the governance structure while minimizing issues of liability;

(3b) Provision of advice in the guidelines regarding **how to maximize participation in governance if a region has selected a JPA as their governance structure**, including a discussion of the limited flexibility allowed in the law for NGOs and Tribes to participate in JPAs;

(3c) Review of planning grant budgets and appropriate scoring to **assure that ample resources are being allocated toward outreach and engagement of stakeholders**; and

(3d) Provision of specific advice and review and scoring of proposals that reflects the need for and investment in **technical assistance for DACs** both to build the capacity necessary to participate and to provide assistance with the development of project proposals.

4) Maintain and support key elements within the Prop. 84 draft program guidelines and PSPs, which include:

(4a) **Allowing Non-Profits to be the Fiscal Sponsor and/or Applicant for Prop. 84 Grants**. This is especially important for the Sierra, where non-profits have experience, credibility and flexibility in performing the role of fiscal sponsor. Allowing non-profits to be the fiscal sponsor encourages IRWMs to give prominent roles and responsibilities to diverse stakeholders including local non-profits. [p. 6]

(4b) **Supporting the Ahwahnee Water Principles** and stressing the importance of multi-agency collaboration, stakeholder involvement and collaboration, regional approaches to water management, water management involvement in land use decisions and projects monitoring to IRWM planning. [p. 19]

(4c) **Keeping the Disadvantaged Communities Match Waiver for Implementation Grants.**

(4d) **Ensuring IRWM Regions will Not use Funding from their Region for Projects in Other IRWM Regions Without the Support of the IRWM Region in which the Project is Located.** [p. 18] While some IRWM regions will want to utilize Prop. 84 funding to support projects in another funding region or outside of their IRWM region, it is important that they demonstrate notification of and full support by the IRWM region and entire Regional Water Management Group in which the project is located. This will ensure interregional collaboration and coordination and prevent IRWMs from creating projects that might undermine or contradict the Objectives and Resource Management Strategies of other IRWM regions.

(4e) **Requiring IRWMS to Demonstrate How they are Integrating their Stakeholders, Resources, and Projects.** [p. 47]

(4f) **Requiring IRWMs to Demonstrate how they are Financing the Long Term Implementation of their Plan.** [60]. To further encourage the long term sustainability of IRWMs, it would be useful to ask IRWMs if they have a fundraising strategy and to award extra points in the Planning and Implementation scoring criteria to those IRWMs that can demonstrate they have at least applied for other funding sources to support their efforts.

(4g) **Requiring Eligible Projects to Demonstrate and Yield Multiple Benefits** [p. 17]

In order to help DWR address the aforementioned general recommendations, the Alliance has taken the Prop. 84 draft guidelines and PSPs and made specific edits, re-writes and additions. The Alliance's specific recommendations and suggested amendments are attached to this letter.

Thank you again for this opportunity to comment on the Prop. 84 draft program guidelines and PSPs. We look forward to working and collaborating with the Department of Water Resources more closely in the future to continue to build a strong IRWM program that works for rural regions, that comprehensively addresses the issue of climate change, and that protects and maintains the state's water supply, water quality and ecosystem health. Please feel free to contact Marion Gee, Program Associate at 530-542-4546 ext. 320 or by email marion@sierranevadaalliance.org at any time with questions, clarifications or responses.

Sincerely,

Marion Gee
Regional Climate Change Program Associate

Richard McIntyre
Regional Climate Change Program Director

CC: John Andrew (Climate Change Manager, DWR), Andrew Schwartz (Climate Adaptation, DWR), Wade Wylie (DWR Lahontan Funding Coordinator), Tanya Meeth (DWR San Joaquin Funding Coordinator) ,

Trevor Joseph (Tulare Lake Funding Coordinator), Craig Cross (DWR Sacramento Funding Coordinator), Cindy Wise (Grants Manager, Lahontan RWQCB).

Prop. 84 Program Guidelines, Planning and Implementations PSPs

Specific Comments from the Sierra Nevada Alliance
April 5, 2010

I. Prop. 84 IRWM Program Guidelines

p. 13, Table 1- Statewide Priorities

Comment: In the description of "desirable" projects that address climate change adaptation, the list should not be limited to projects that address impacts to the fixed, built water infrastructure but include projects that address impacts to ecosystems, habitat and natural water infrastructure. The Alliance suggests including projects listed on page 21 of DWR's "Managing an Uncertain Future" white paper in order to convey the broad range of desirable projects that address climate change adaption.

- **Suggested Additions to Table 1 under "Climate Change Response Actions" [additions/changes in bold]:**

  Proposals that contain projects that when implemented address adaptation to climate change effects in an IRWM region. Desirable proposals include those that:

  - Advance and expand conjunctive management of multiple water supply sources.
  - Use and reuse water more efficiently
  - Water management system modifications that address anticipated climate change impacts, such as rising sea-level, and which may include modifications or relocations of intakes or outfalls
  - **Incorporate corridor connectivity and restoration of native aquatic and terrestrial habitats to support increased biodiversity and resilience.**
  - **Protect, enhance and restore upper watershed forests and meadow systems.**
  - **Re-operate dams and restore watersheds to support and sustain anadromous fish populations.**

p. 21 and p.40-41, Region Description

Comment: The Prop. 84 guidelines improved and clarified what should be included an IRWM region's description. However, a few important factors in describing a region, its natural and built water systems and the conflicts and challenges it faces are missing. Factors that should

require description include: habitat and biodiversity issues (this was called out in the Prop. 50 First Round Program Guidelines p. 19) and social, cultural and economic makeup of the region (this is mentioned on p. 21 but not in Appendix C). These are significant factors that affect water management in the region and will affect the plan's objectives and approach to regional water conflicts. The Alliance suggests the following additions to both the summary on p.21 and the region description section of Appendix C on p. 40-41 to enhance the region description and to improve consistency between the section on p. 21 and Appendix C.

- **Suggested Edits to Region Description Section p. 21 [additions in bold, only sections with additions are included below]:**

  Region Description. An IRWM Plan must include a description of the region being managed by the RWMG. This description should include a comprehensive inclusion of the following:

  - A description of the watersheds and the water systems, **both** natural and anthropomorphic (i.e. "man-made"), including major water related infrastructure, flood management infrastructure, and major land-use divisions. Also include a description of the quality and quantity of water resources within the region (i.e. surface waters, groundwater, reclaimed water, imported water, and desalinated water). **As relevant, describe areas and species of special biological significance and other sensitive habitats such as Marine Protected areas and impaired water bodies within the region.**

- **Suggested Edits and Additions to Region Description Section, Appendix C p. 40-41 [additions/changes in bold]:**

  <u>Description of Watersheds/Water System:</u> Consideration of watershed areas should be taken to describe all aspects of the system that is being managed including a description of natural and anthropomorphic components of the region's water system.

  Watersheds are often at the level suitable for regional planning efforts. Some RWMGs manage multiple watersheds based on the similarity of water management issues. Conversely, some RWMGs separate the lower and upper watersheds (each belonging to a different IRWM plan,) because water management issues in each area are different. Another advantage of using a watershed as a possible management unit is that there are often existing watershed planning efforts that can provide information or data on the watershed and that have existing relationships with important stakeholder groups operating in the watershed.

  In describing the watersheds in your region, you should explain the characteristics of your watershed including hydrology, groundwater, vegetation, fisheries, species and habitats of special concern, and management issues like invasive species. IRWMs may want to utilize existing local plans that have already comprehensively described these characteristics. IRWMs should also describe effects climate change may have on their

watersheds, in addition to water supply and demand. The following link is to the California Watershed Portal where you may find additional resources: http://cwp.resources.ca.gov/index.html.

Social, Cultural, Economic Makeup: A description of the social and cultural makeup of the regional community. Identify important cultural or social values. Identify DACs in the management area. Describe economic conditions and important economic trends within the region. Describe Tribal government representative consultation and collaboration to better sustain Tribal and regional water and natural resources (if applicable).

p. 71-78 Climate Change

Comment: Climate Change is an enormous and overwhelming issue among the many other complex issues that IRWMs are expected to address. In these difficult economic times and with many IRWMs without the capacity or expertise, it easy for them not to want to address climate change as more "work" or as too uncertain. The Sierra Nevada Alliance suggests the following re-organization, edits and additions in order to emphasize that climate change can be integrated into existing IRWM plan standards and requirements without having to develop a separate climate change action plan or hiring a separate consultant. The climate change standard should be less descriptive and convey more simply what IRWMs should do to address climate change.

With regard to the project level GHG emissions analysis, DWR should be clear with IRWMs what is required under CEQA and what is voluntary. Do the IRWMs need to look at all greenhouse gases or just carbon dioxide?

The Alliance suggests the following edits and additions. One major addition suggested by the Alliance is a new Table "X" Climate Change Standard Requirements, which is based on direction given by DWR throughout the guidelines on how IRWMs should address climate change adaptation and emission reduction. This table will provide clear and easy to follow direction on the initial steps IRWMs should take to address climate change. That table indicates the page numbers where DWR direction was given within the guidelines or if it's a suggested addition by the Sierra Nevada Alliance it is highlighted in BOLD. Please don't hesitate to contact the Sierra Nevada Alliance with any questions regarding this table and our intent.

- **Suggested Edits and Additions to bottom p. 71 [additions/changes in bold]:**

  California is already seeing the effects of climate change on hydrology (snowpack, river flows, storm intensity, temperature, winds, and sea levels). Planning for and adapting to

these changes, particularly their impacts on public safety, ecosystem, and long-term water supply reliability, will be among the most significant challenges facing water and flood managers this century.

By design, IRWM planning efforts are collaborative and include many entities dealing with water management. These aspects make IRWM a good platform for addressing broad based concerns like climate change where multiple facets of water management are affected. **Climate change is a complex and sometime overwhelming issue but this standard is meant to help RWMGs integrate climate change considerations into their existing planning processes.**

The intent of the Climate Change standard is to **ensure that IRWM Plans through existing plan standards describe, consider, and address the effects of climate change on their regions and disclose, consider and reduce when possible GHG emissions when creating and implementing projects. DWR will provide guidance and assistance in your efforts to update your plans through this climate change standard, through staff consultation and through a Climate Change Clearinghouse of resources and experts that can direct you in updating your plans to address climate change.**

- **Suggested Edits and Additions to sections "Implications of the Effects of Climate Change" and "Consideration of Effects of Climate Change" p. 74 [additions/changes in bold]:**

Identifying Climate Change Impacts and Developing Adaptation Strategies

The Integrated Regional Water Planning Act, CWC §10541(e)(10), states that IRWM plans must include an evaluation of the adaptability to Climate Change of water management systems in the region. The next few paragraphs and Table X, give direction as to the initial steps IRWMs should be taking to address climate change adaptation within existing plan standards. More specific direction will come in the second solicitation of Prop. 84 IRWM funding.

Given the currently predicted effects of Climate Change on California's water resources, IRWM Plans should address adapting to changes in the amount, intensity, timing, quality and variability of runoff and recharge. Areas of the state that receive water imported from the Sacramento-San Joaquin River Delta, the area within the Delta, and areas served by coastal aquifers will also need to consider the effects of sea level rise on water supply conditions and identify suitable adaptation measures.

Decisions about adapting water management systems as well as mitigating Climate Change through reductions in GHG emissions, should take into account the risks to the region of no action.

A key factor in assessing the effects of Climate Change and adapting to those changes is the use of adaptive management. **IRWM plans should contain policies and procedures that promote adaptive management.** As more effects of Climate Change manifest; new

tools are developed; and new information becomes available, RWMGs must adjust their IRWM plans accordingly.

Chapter 3 of the *2009 California Climate Adaptation Strategy* discusses comprehensive State adaptation strategies, six in all, that would help coordinate adaptation efforts to increase cost and implementation efficiencies statewide. Strategy 5 is to develop statewide, as well as sector a specific, California Climate Vulnerability Assessment. Implementation of Strategy 5 will help unify the Climate Change scenarios which will influence the risk determined for specific Climate Change effects in specific IRWM regions. Another benefit of implementation of this strategy will be the development of tools to help local agencies determine specific risks in their IRWM planning regions. Once the vulnerability assessment and tools are available, RWMGs should use them to identify adaptations relevant to their IRWM regions.

In the interim, RWMGs are encouraged to **consider and implement** so-called "no regret" adaptations to general effects of Climate Change **as a part of their Resource Management Strategies.** Such adaptations are those that make sense in light of the current water management context for a region and also help in terms of effects of Climate Change. **Some of these "no-regret" strategies IRWM regions should pursue include** increasing water use efficiency, practice integrated flood management, and seek to enhance and sustain ecosystems. **More of these "no regret" strategies can be found within the further resources section below, including the Sierra Nevada Alliance's Sierra Climate Change Toolkit.** Appropriately applied, these "no regret" adaptations can help a wide variety of water management situations.

IRWM plans must contain language in their Description of Region Section that describes likely Climate Change impacts on their region. These descriptions should be updated and become more specific to the region as vulnerability analysis tools become available and are applied. RWMGs should stay involved in CNRA's California Adaptation Strategy process to help shape the document through their participation.

As IRWM plans document how the IRWM region has considered RMS in the CWP Update 2009, consideration of the effects of Climate Change must be part of that discussion. Likewise, as projects are developed and selected to implement an IRWM Plan consideration of adapting to the effects of Climate Change must be part of that process and should be explicitly stated in an IRWM Plan's project review process.

- **Suggested Edits and Additions to section "Climate Change Mitigation/GHG Reduction" p. 75 [additions/changes in bold]:**

Climate Change Mitigation/GHG Reduction in IRWM Planning

In addition to responding to the effects of Climate Change, IRWM plans can also help mitigate Climate Change by reducing energy consumption, especially the energy embedded in water use, and ultimately reducing GHG emissions. Water management

results in the consumption of significant amounts of energy in California and the accompanying production of GHG emissions, especially where water must be pumped from long distances; from the ground; or over significant elevations. According to California Energy Commission November, *2005 CEC-700-2005-011 California's Water – Energy Relationship Final Staff Report*, 19% of the electricity and 30% of the non-power plant natural gas of the State's energy consumption are spent on water-related activities, primarily related to end-uses of water (i.e. what the customer does with the water). The close connection between water resource management and energy is an important consideration for helping the State meet its GHG emission reduction goals. All aspects of water resources management have an impact on GHG emissions, including the development and use of water for habitat management and recreation; domestic, municipal, industrial, and agricultural supply; hydroelectric power production; and flood control. **The next few paragraphs and Table X, give direction as to the initial steps IRWMs should be taking to address climate change emission reduction within existing plan standards. More specific direction will come in the second solicitation of Prop. 84 IRWM funding.**

Mitigation of Climate Change is a factor to consider in an IRWM region's project review process, but only as a secondary criterion. Although energy consumption and GHG emissions are an important consideration for water projects for helping the State meet its GHG emission reduction goals, the primary objective of IRWM planning is to meet regional water management objectives. In evaluating different ways to meet IRWM plan objectives, where practical, RWMGs should consider the strategies adopted by CARB in its AB 32 Scoping Plan, **which can be found on page X here: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.** In addition to offsetting emissions, RWMGs may also consider options for carbon sequestration where such options are integrally tied to supporting IRWM Plan objectives.

Additionally agencies that are part of an IRWM effort should consider joining the California Climate Action Registry (CCAR), http://www.climateregistry.org/. The CCAR is a private non-profit organization that serves as a voluntary GHG registry to protect and promote early actions to reduce GHG emissions by organizations. The CCAR is migrating registry data to the Climate Action Registry (CAR) which incorporates all of North America. A comparison of the CCAR and the CAR can be found at http://www.climateregistry.org/resources/docs/misc/ca-voluntary-mandatory-reporting-matrix.pdf. Participation in these voluntary GHG registries, allows access to tools and consistent reporting formats which may aid RWMGs in understanding their GHG emissions and ways to reduce them.

CEQA project level analyses in the area of Climate Change may assist RWMGs with a means of disclosing and evaluating GHG emissions of project alternatives. DWR is *not* suggesting that a full project CEQA analysis need be performed before a grant application is submitted; rather, an analysis of GHG emissions on a project – performed so that it not only serves to evaluate that aspect of a project for the purposes of IRWM project

selection but also satisfies the requirements of CEQA – may be a useful analysis that satisfies multiple purposes. Projects incorporated into IRWM plans are wide ranging. Project proponents should seek their own legal counsel in determining the appropriate level of analysis for their particular project.

DWR will usually act as a responsible agency for projects successful in obtaining grant funding. The guidance that follows is general guidance that may help project proponents understand how DWR will behave in that capacity specifically in the area of Climate Change analysis.

In preparing a project-level GHG emissions analysis RWMGs and the project proponents should estimate GHG emissions from the project; establish significance criteria; identify those project components that may **support** carbon sequestration; and, if applicable, explain how the project may help in the adaptation to effects of Climate Change.

In most cases, a GHG emissions analysis for a project should be quantitative. Emission sources that are commonly applicable to projects include:

- Operation of construction equipment
- Passenger vehicle trips during construction and operation
- Transportation of construction materials and equipment
- Transportation of material inputs for O&M
- Transportation of material outputs or production
- Generation of electricity used for operation of projects
- Waste generation and disposal of materials during construction and operation

Some projects or components of projects cannot be quantified such as carbon sequestration ability of a restored habitat. Addressing such components should include such items as the current state of scientific understanding, ongoing research, and potential ranges of emissions or sequestration. Project analysis should also consider all known applicable BMPs or other mitigation measures to reduce GHG emissions. In considering the appropriate level of analysis for a specific project, proponents may want to utilize the OPR Technical Advisory on CEQA and Climate Change, the CAPCOA White Paper, CARB's early action measures, and the six key elements and the 39 measures for GHG reduction from Climate Scoping Plan; the California Attorney General's Office website, and other relevant studies and resources **(links are listed below in the additional resources section).**

For project level GHG emissions assessments a useful emissions reporting protocol has been developed by the World Resources Institute (WRI) in cooperation with the World Business Council for Sustainable Development (WRI and WBCSD, n.d). This protocol was used as the basis for the CCAR. The WRI and CCAR emissions reporting protocols establish guidelines for voluntary accounting of GHG emissions and provide a peer

reviewed and widely accepted methodology for calculating GHG emissions. WRI has also published several calculation tools to simplify and document the procedure, http://www.ghgprotocol.org/calculation-tools/all-tools. In general, the protocols outline how to estimate emissions from mobile combustion sources, electricity consumption, and industrial processes. Both the State and the federal government require reporting of emissions for regulated entities that emit 25,000 metric tons of CO_2e or more per year.

Once the emissions from a proposed project have been determined, the CEQA lead agency must assess the impacts of these emissions and make a determination of significance. A threshold of significance is used to gauge project effects. It may be a quantitative, qualitative, or performance level of a particular environmental effect above which impacts will normally be considered significant. Three basic strategies have been outlined in the technical guidance documents published to date: Establish a significance threshold of net-zero; establish a non-zero significance threshold based on compliance with AB 32 or other established GHG reduction strategies; **what is the third strategy?**. If a project proponent is considering a non-zero threshold, the following may be of assistance:

1) Does the project implement or fund its fair share of a mitigation strategy designed to alleviate Climate Change? This might be achieved through consistency with AB 32 and the early implementation strategies proposed by CARB.

2) How and in what ways does the project move California toward a lower carbon future?

3) How closely does the project's overall GHG emissions balance approach zero? Considerations here would include whether the emissions are under the reporting requirement for 25,000 metric tons of CO_2e or more per year.

4) Are there process improvements or efficiencies gained by implementing the project?

- **Suggested Addition of a Table X Climate Change Standard Requirements on p. 76-77 to provide a simple overview of how climate change should be incorporated into existing IRWM plan standards. Items in the table are pulled from the Climate Change Standard or from other sections of the draft program guidelines and are indicated by page numbers. Suggested additions from the Sierra Nevada Alliance are in BOLD:**

Table X: Climate Change Standard Requirements	
Region Description	IRWM plans must contain language in their Description of Region Section that describes likely Climate Change impacts on their region. These descriptions should be updated and become **more region-specific** as vulnerability analysis tools become available and are applied. (P. 21, 41, 74)
Plan Objectives	*Adapting to Climate Change:* **In developing plan objectives, IRWMs must consider the following:** • IRWM Plans should address adapting to changes in the amount, intensity, timing, quality and variability of runoff and recharge. (P.74) • IRWM Plans need to consider the effects of sea level rise on water supply conditions and identify suitable adaptation measures. (p. 74) *Reducing Emissions* • IRWM plans can also help mitigate Climate Change by reducing energy consumption, especially the energy embedded in water use, and ultimately reducing GHG emissions. (P. 75) • In evaluating different ways to meet IRWM plan objectives, where practical, RWMGs should consider the strategies adopted by CARB in its AB 32 Scoping Plan. (P. 75) • In addition to offsetting emissions, RWMGs may also consider options for carbon sequestration where such options are integrally tied to supporting IRWM Plan objectives. (P. 75)
Resource Management Strategies	*Initial Steps:* Identify and Implement "No-Regrets" Adaptation Strategies to the general effects of climate change such as meadow and forest restoration, flood plain protection and water use efficiency. (p.74) • Decisions about adapting water management systems as well as mitigating Climate Change through reductions in GHG emissions, should take into **account the risks to the region of no action**. (p.74) • IRWM regions should pursue increasing water use efficiency, practice integrated flood management, and seek to enhance and sustain ecosystems. Appropriately applied, these "no regret" adaptations can help a wide variety of water management situations. (p.74) *Next Steps:* Identify and Implement, using vulnerability assessments and tools, Adaptation Strategies that address region-specific climate change impacts. (p.74) • IRWM Plans should address adapting to changes in the amount, intensity, timing, quality and variability of runoff and recharge. (P.74) • IRWM Plans need to consider the effects of sea level rise on water supply conditions and identify suitable adaptation measures. (p. 74)

	• IRWM plans can also help mitigate Climate Change by reducing energy consumption, especially the energy embedded in water use, and ultimately reducing GHG emissions. (P. 75) • An IRWM must demonstrate how the effects of climate change on the IRWM region factored into their consideration of resource management strategies. (P.21)
Project Review Process	The *Project review process* must include the following factors: • *Contribution of the project to adapting to climate change*: RWMG must include potential effects of climate change on their region and consider if adaptations to the water management system are necessary. (P.52) • *Contribution of the project in reducing GHG emissions as compared to project alternatives: T*he RWMG needs to consider a project's ability to help the IRWM region reduce GHG emissions as new projects are implemented over the 20 year planning horizon. Considerations include energy efficiency and reduction of GHG emissions when choosing between project alternatives. (P.53) *CEQA project level analyses:* In preparing a project-level GHG emissions analysis RWMGs and the project proponents should estimate GHG emissions from the project; establish significance criteria; identify those project components that may supply carbon sequestration; and, if applicable, explain how the project may help in the adaptation to effects of Climate Change. See P. 75 for more details.
Relation to Local Water Planning	IRWM plans must consider and incorporate water management issues and climate change adaptation and mitigation strategies from local plans into the IRWM Plan (P. 64)
Relation to Local Land Use Planning	IRWMs must demonstrate information sharing and collaboration with regional land use planning in order to manage multiple water demands throughout the state, as described in CWP Update 2009, adapt water management systems in regions to climate change, and potentially offset climate change impacts to water supply in California.(P. 67)
Plan Performance and Monitoring	IRWM plans should contain policies and procedures that promote adaptive management. As more effects of Climate Change manifest; new tools are developed; and new information becomes available, RWMGs must adjust their IRWM plans accordingly**.** (P.74)
Coordination	• **RWMGs should be in contact with DWR staff in order to keep both parties informed of climate change activities and to coordinate activities.** • RWMGs should stay involved in CNRA's California Adaptation Strategy process to help shape the document through their participation. (P. 74) • Agencies that are part of an IRWM effort should consider joining the California Climate Action Registry (CCAR), http://www.climateregistry.org/. (P. 74)