

COLORADO RIVER BOARD OF CALIFORNIA

770 FAIRMONT AVENUE, SUITE 100
 GLENDALE, CA 91203-1068
 (818) 500-1625
 (818) 543-4685 FAX



December 2, 2010

Mr. Alan H. Solomon
 Project Manager
 California Energy Commission
 1516 Ninth Street, MS 15
 Sacramento, CA 95814-5512

DOCKET
09-AFC-7

DATE	DEC 02 2010
RECD.	DEC 04 2010

Dear Mr. Solomon:

The Colorado River Board of California (Board) received and reviewed a copy of the Evidentiary Hearing Order with the Revised Staff Assessment for the Palen Solar Power Project, and the Presiding Member's Proposed Decision (PMPD) for the Palen Solar Power Plant Project.

The Board thanks the Commission for incorporating the Board's March 22, 2010, comments in its Revised Staff Assessment and PMPD reports on the Blythe and the Palen Solar Power Projects regarding potential Colorado River water use due to groundwater pumping at the two project sites. A copy of the Board's March 22nd comment letter has been attached for your reference.

In the Revised Staff Assessment for the Palen Solar Power Project, the estimated groundwater extraction from the Chuckwalla Valley Groundwater Basin (CVGB) / Palo Verde Mesa Groundwater Basin (PVMGB) is about 10,560 acre-feet during the 39 months construction period and the proposed project life. However, according to the U.S. Geological Survey Water Investigation Reports (i.e., WRI 94-4005 and WRI 00-4085), the Palen Solar Power Project site is currently located within the "Accounting Surface" area, i.e. the CVGB/PVMGB groundwater aquifer underneath the project site is currently considered to be hydraulically connected with the Colorado River. Any amount of groundwater withdrawn from the CVGB/PVMGB aquifer is water that would be replaced by the Colorado River, in total or in part, and is considered a use of Colorado River water.

According to the Consolidated Decree of the Supreme Court of the United States in the case of *Arizona v. California, et al.* entered March 27, 2006, (547 U.S. 150, 2006), the consumptive use of water means "diversion from the stream less such return flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation" and consumptive use "includes all consumptive uses of water of the mainstream, including water drawn from the mainstream by underground pumping." Also, pursuant to the 1928 Boulder Canyon Project Act (BCPA) and the Consolidated Decree, no water shall be delivered from storage or used by any water user without a valid contract between the Secretary of the Interior and the water user for such use, i.e., through a BCPA Section 5 contract.

The Board has identified a preferred option for obtaining a legally authorized and reliable water supply for those two projects. That option involves obtaining water through an existing BCPA Section 5 contract holder, The Metropolitan Water District of Southern California. Although other options may be available, it is the Board's assessment that those other options could not be implemented in a timely manner and address the requirement that any water consumptively used from the Colorado River must be through an existing BCPA Section 5 contractual entitlement.

Also, attached for your reference is a copy of the Lower Colorado River Basin states' letter (August 12, 2010) addressed to the Director of the U.S. Bureau of Land Management (BLM), regarding the siting and development of solar power/energy projects on public lands administered by the BLM and the long-term impacts to the water supplies. The letter requests that BLM include provisions in future right-of-way grants or leases that requires the use of best management practices and water use efficient technologies. I have also included a copy of the BLM's recent response letter to the Basin states' letter.

Finally, in its September 20, 2010, letter, the Blythe Solar Power Project's project proponent, Solar Millennium, LLC, disagreed with the Board's comments associated with the use of groundwater as expressed in the Board's September 14th letter to the California Energy Commission. In the October 21st response letter, the Board reiterated the factual statements and Board's position on the potential groundwater use by the Blythe Solar Power Project. Since the Palen Solar Power Project is located in the same geographical area, those letters between the Solar Millennium, LLC, and the Board are also attached for your information.

If you have any questions or require further information, please feel free to contact me, or Dr. Jay Chen of my staff, at (818) 500-1625.

Sincerely,



Christopher S. Harris
Acting Executive Director

Attachments

cc: Ms. Lorri Gray-Lee, Regional Director, U.S. Bureau of Reclamation
Ms. Holly Roberts, Associate Field Manager, Palm Springs-South Coast Field Office, BLM
Ms. Eileen Allen, California Energy Commission
Mr. William J. Hasencamp, The Metropolitan Water District of Southern California

COLORADO RIVER BOARD OF CALIFORNIA

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March 22, 2010

Mr. Alan H. Solomon
Project Manager
Siting, Transmission and Environmental
Protection Division
California Energy Commission
1516 Ninth Street, MS 15
Sacramento, CA 95814-5512

Dear Mr. Solomon:

The Colorado River Board of California (Board), created in 1937, is the State agency charged with safeguarding and protecting the rights and interests of the State, its agencies and citizens, in the water and power resources of the seven-state Colorado River System.

The Board has received and reviewed the California Energy Commission's (CEC) documents Nos. Docket 09-AFC-6 and 09-AFC-7: Request for Agency Participation in the Review of the Blythe and the Palen Solar Power Projects in Riverside County, California, Distribution of Application for Certification. Both the Blythe and the Palen Solar Power Projects are proposed to be located in the Southern California inland desert. The applicants for both the Blythe and the Palen Projects are seeking a right-of-way grant for approximately 9,400 acres and 5,200 acres, respectively, of Federal lands that are administered by the Bureau of Land Management (BLM). The total water consumption during the operational period for the Blythe and the Palen Projects is estimated to be 628 and 314 acre-feet per year over the 30-year license period, respectively. In addition during construction, the water use is estimated to be 3,164 and 1,560 acre-feet for the two projects, respectively. The water supply for each project will be pumped groundwater from on-site wells.

According to the Consolidated Decree of the Supreme Court of the United States in the case of *Arizona v. California, et al.* entered March 27, 2006, (547 U.S. 150 (2006)), the consumptive use of water means "diversion from the stream less such return flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation" and consumptive use "includes all consumptive uses of water of the mainstream, including water drawn from the mainstream by underground pumping." Also, pursuant to the 1928 Boulder Canyon Project Act (BCPA) and the Consolidated Decree, no water shall be delivered from storage or used by any water user without a valid contract between the Secretary of the Interior and the water user for such use, i.e., through a BCPA Section 5 contract. Within California, BCPA Section 5 contracts have previously been entered into between users of Colorado River mainstream water and the Secretary of the Interior for water from the Colorado River that exceeds California's basic entitlement to use Colorado River water as set forth in the Consolidated Decree. Thus, no additional Colorado River water is available for use by new

project proponents along the Colorado River, except through the contract of an existing BCPA Section 5 contract holder, either by direct service or through an exchange of non-Colorado River water for Colorado River water.

The Federal lands proposed for both the Blythe and Palen Projects are located within the "Accounting Surface" area designated by U.S. Geological Survey Water Investigation Report Nos. 94-4005 and 00-4085 (USGS Report). This USGS Report indicates that the aquifer underlying lands located within the "Accounting Surface" is considered hydraulically connected to the Colorado River and groundwater withdrawn from lands underlying the "Accounting Surface" would be replaced by Colorado River water, in total or in part. This means that if it is determined that these wells are, in fact, pumping Colorado River water, a contract with the Secretary of the Interior is required before such a use is deemed to be a legally authorized use of this groundwater.

On November 9, 2009, the Board received applications for Lower Colorado Water Supply Project water for the Blythe and the Palen Solar Power Projects from the projects' consultant/proponent, Mr. Josef Eichhammer of Solar Millennium, LLC. This project, enacted by Congress on November 14, 1986, as the Lower Colorado Water Supply Project Act of 1986 (Act) authorized construction of the Lower Colorado Water Supply Project (LCWSP) and appropriated funds for the U.S. Bureau of Reclamation (Reclamation) to construct Phase I of the Project. The LCWSP consists of well field facilities in the Sand Hills along the All-American Canal in Imperial County. The LCWSP is authorized to provide exchange water up to a total amount of 10,000 acre-feet per year for nonagricultural use to those users of Colorado River water along the Colorado River, who do not have an existing Section 5 BCPA contractual entitlement or whose entitlement to use Colorado River is insufficient to meet their needs. Under a "first come first serve" priority basis, the Board has reviewed applications that it has received and, to date, recommended to Reclamation that applicants for LCWSP water in the amount of about 7,500 acre-feet per year are eligible to receive LCWSP water. At this time, the capacity to pump the fully authorized volume of 10,000 acre-feet of water per year has not been constructed. Furthermore, when the Congress passed the Act authorizing the LCWSP, water for large scale solar power/energy projects was not envisioned. Considering these two factors it does not appear that LCWSP water is a viable option for the Blythe and Palen Projects.


Based upon the applications for LCWSP water that were received from Solar Millennium for the Blythe and the Palen Solar Power Projects, several meetings and telephone conference calls have been held among the solar power projects consultants/proponents, Reclamation, BLM, Board's staff, and others. As a result of discussions in these meetings, the Board's staff has identified a preferred option for obtaining a legally authorized and reliable water supply for both the Blythe and the Palen Solar Power Projects over the life of the project that fits into the timeframe that has been established by Solar Millennium. That option involves obtaining water through an existing Section 5 BCPA contract holder, The Metropolitan Water District of Southern California (MWD). Although other options may be available, they, in the Board's opinion, could not be implemented in a timely manner and address the requirement that water consumptively used

California Energy Commission
March 22, 2010
Page 3

from the Colorado River must be through a Section 5 BCPA contractual entitlement.

If you have any questions or need further information, please contact me at (818) 500-1625.

Sincerely,



Gerald R. Zimmerman
Executive Director

cc: Ms. Lorri Gray-Lee, Regional Director, Lower Colorado Region, U.S. Bureau of Reclamation
Ms. Holly Roberts, Associate Field Manager, Palm Springs-South Coast Field Office, BLM
Ms. Eileen Allen, Manager, Energy Facilities Siting and Dockets Office, CEC
Dr. Jeffrey G. Harvey, Principal & Senior Scientist, Harvey Meyerhoff Consulting Group
Mr. Gavin Berg, Project Manager, Solar Millennium LLC
Mr. William J. Hasencamp, Manager, Colorado River Resources, The Metropolitan Water District of Southern California

ARIZONA DEPARTMENT OF WATER RESOURCES
COLORADO RIVER BOARD OF CALIFORNIA
SOUTHERN NEVADA WATER AUTHORITY

August 12, 2010

Mr. Robert Abbey, Director
Bureau of Land Management
U.S. Department of the Interior
1849 C Street NW, Room 5665
Washington, DC 20240

Re: Water Efficient Solar Power

Dear Mr. Abbey:

We are writing on behalf of the Arizona Department of Water Resources, the Colorado River Board of California, and the Southern Nevada Water Authority to communicate our joint concerns regarding current planning for concentrated solar power (CSP) projects throughout the southwestern United States, particularly in Arizona, California and Nevada.

Let us make clear at the outset that all of our agencies fully support the development of additional solar power projects in the southwestern United States and believe that solar power projects are a critical element in our nation's future sustainable electrical power portfolio. However, our concern is that in pursuing the realization of additional CSP projects that state, local and federal agencies do not overlook the energy-water nexus and the corollary adverse impacts that these projects can have on precious and finite water resources if there is not proper planning.

As you are well aware, there are currently numerous and disparate processes ongoing to permit large scale solar power projects in the southwestern United States. These processes include hundreds of individual right-of-way applications from project proponents on tens of thousands of acres managed by the Bureau of Land Management (BLM); the drafting of a Programmatic Environmental Impact Statement intended to establish "solar zones" in Nevada; a BLM "fast track" process in Arizona; and two bills currently pending before Congress, the *American Solar Energy Pilot Leasing Act of 2010* and the *Wind and Solar Leasing Act of 2010*.

With these multiple processes moving forward simultaneously, we believe that it is imperative that BLM apply a uniform standard regarding the efficient use of water for solar power projects. To that end we believe that any right-of way grant or lease issued by BLM for CSP projects in the southwestern United States should include a provision that requires that the best available water efficient technologies be utilized for solar power projects, including specifically that any CSP project utilize dry cooling technology.

Mr. Robert Abbey
Page 2
August 12, 2010

We thank you for your time and attention in this matter. If you have any questions regarding this correspondence, please do not hesitate to contact us directly.

Sincerely,

Arizona Department of Water Resources



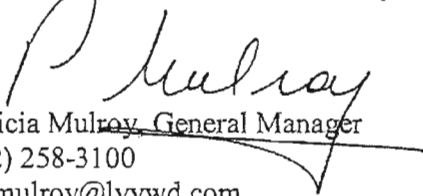
Herbert R. Guenther, Director
(602) 771-8426
hrguenther@azwater.gov

Colorado River Board of California



Gerald R. Zimmerman, Executive Director
(818) 500-1625, ext. 308
grzimmerman@crb.ca.gov

Southern Nevada Water Authority



Patricia Mulroy, General Manager
(702) 258-3100
pat.mulroy@lvvwd.com

cc: The Honorable Shelley Berkley, United States Congress
The Honorable Barbara Boxer, United States Senate
The Honorable John Ensign, United States Senate
The Honorable Dianne Feinstein, United States Senate
The Honorable Dean Heller, United States Congress
The Honorable Jon Kyl, United States Senate
The Honorable Harry Reid, United States Senate
The Honorable Dina Titus, United States Congress



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Washington, D.C. 20240
<http://www.blm.gov>



In Reply Refer To:
1610 (300)

OCT 05 2010

Mr. Herbert R. Guenther
Director, Arizona Department of Water Resources
3550 North Central Avenue, Suite 200
Phoenix, Arizona 85012

Dear Mr. ~~Guenther~~:

Herb

Thank you for your letter of August 12, 2010, concerning water use for solar energy power projects proposed for the states of Arizona, California, and Nevada. We agree that water is a critical resource concern when considering any new development in the arid regions of the Southwest.

The Bureau of Land Management (BLM) is currently processing a limited number of solar energy applications in Arizona, California, and Nevada. Each solar energy development application requires the preparation of its own environmental impact statement in which the water demands of the proposed action are considered in light of impacts to the environment and measures are identified to avoid, minimize, or mitigate potential adverse impacts. We are requiring the analysis of a water conservation alternative for any concentrating solar project that proposes to employ wet cooling.

We are also working on a programmatic environmental impact statement (PEIS) for solar energy development on BLM-administered lands. The draft PEIS is currently undergoing internal and cooperating agency review and is expected to be published in December 2010. That document will, among other things, identify proposed design features for a comprehensive BLM solar energy program. A number of those design features will pertain to water resources. A primary objective for such program requirements is the promotion of sustainable use of water resources through appropriate technology selection and conservation practices.

I strongly encourage you to review the draft document and provide comments through the project Web site (<http://solareis.anl.gov>). Your review of the draft and submission of formal comments is a very important part of the National Environmental Policy Act process.

Sincerely,

Robert V. Abbey
Director

cc:

Mr. Gerald R. Zimmeran
Executive Director, Colorado River Board of California
770 Fairmont Avenue, Suite 100
Glendale, California 91203-1068

Ms. Patricia Mulroy
General Manager, Southern Nevada Water Authority
1001 South Valley View Boulevard
Las Vegas, Nevada 89153

COLORADO RIVER BOARD OF CALIFORNIA

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October 21, 2010

Ms. Alice L. Harron
Senior Director, Development and Permitting
Solar Millennium, LLC
1111 Broadway, 5th Floor
Oakland, CA 94607

Solar Millennium's September 20, 2010 Letter

Dear Ms. Harron:

The Colorado River Board of California (Board) is in receipt of your letter dated September 20, 2010, in response to the Board's September 14th letter to the California Energy Commission (CEC). The purpose of this letter is to reiterate the factual statements and Board's position included in the Board's letter to the CEC. In sum, while the Board continues to support solar energy projects, it remains concerned that the groundwater pumping by the proposed Blythe Solar Project may adversely impact Colorado River supplies and may constitute an unauthorized diversion under existing federal law and authority regardless of whether any final regulation or accounting surface rule is ever promulgated. In the absence of any compelling contrary technical studies or groundwater data, other than those conducted by the U.S. Geological Survey (USGS), the Board is obligated to raise its concerns.

First, the Board would like to reemphasize its full support of solar energy projects as one tool being utilized to achieve our nation's renewable energy goals. Having said this though, the Board remains concerned about the long-term impacts that current and future solar energy projects may have on our limited and finite water supplies in the Lower Colorado River basin.

As you are aware, the Board is charged with safeguarding and protecting California's rights and interests in the water and power resources of the Colorado River. One of the primary goals of the Board is to work with agencies holding lawful Colorado River water entitlements to maximize the efficient use of Colorado River water while remaining within California's basic mainstream apportionment of 4.4 million acre-feet annually when required by the U.S. Bureau of Reclamation (Reclamation). As you point out in your letter, the Board is aware that it does not have regulatory authority with respect to granting, and contracting for, entitlements to the use of Colorado River water in California, nor did it presume to imply that it did. That responsibility and authority is vested in the Secretary of the Department of the Interior (Secretary).

Existing federal law and authority prohibit the unauthorized use of water drawn from the Colorado River mainstream by underground pumping in California regardless of whether any final procedural regulation is promulgated. Under existing federal law, to lawfully use water from the mainstream of the lower Colorado River, a person or entity must have:

- (a) a decreed right as described in the Consolidated Decree entered by the United States Supreme Court in *Arizona v. California*, 547 U.S. 150 (2006) (Supreme Court Decree),
- (b) a contract with the Secretary, or
- (c) a Secretarial Reservation of Colorado River water.

The prohibition on unauthorized diversion of Colorado River supplies is set forth in the 1928 Boulder Canyon Project Act (P.L.70-642) (BCPA), that provides that no water shall be delivered from storage or used by any water user without a valid contract between the Secretary and the water user for such use, i.e., through a BCPA Section 5 contract. These principles were confirmed by the United States Supreme Court in 1964 as most recently stated in the Consolidated Decree in *Arizona v. California, et al.*, (547 U.S. 150, 2006). The Decree states that the consumptive use of water means “diversion from the stream less such return flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation” and consumptive use “includes all consumptive uses of water of the mainstream, including water drawn from the mainstream by underground pumping.”

By promulgating a rule, *Regulating the Use of Lower Colorado River Water Without an Entitlement*, Reclamation proposed to address and eliminate the use of Colorado River water from the mainstream in the lower Colorado River basin (Lower Basin) without an entitlement. At Reclamation’s request, USGS developed a method to identify wells that pump water that is replaced by water drawn from the lower Colorado River. The USGS method identifies a River Aquifer and a theoretical accounting surface within the River Aquifer. The River Aquifer extends outward from the Colorado River until encountering a geologic barrier to groundwater flow and encompasses the water bearing materials from which water can move to and from the lower Colorado River. The accounting surface was developed with a groundwater model and represents the elevation and extent of the river aquifer that is in hydraulic connection with the lower Colorado River. The accounting surface extends outward from the exterior boundary of the Colorado River floodplain to the exterior limit of the River Aquifer.

Through the proposed rule, Reclamation sought to establish procedures that it would follow in making determinations of unlawful use of lower Colorado River water based on the technical studies conducted by USGS regarding the reach of the Colorado River or what constitutes “water drawn from the mainstream by underground pumping.” USGS’s technical studies, set forth in USGS Water Resources Investigations Reports No. 94-4005 and No. 00-4085, were extensively reviewed through the USGS peer review and report publishing process. The timing of depletions from wells distant from the lower Colorado River has been addressed cooperatively by Reclamation and the USGS using numerical modeling techniques. The USGS released a Scientific Investigations Report 2008-5113, “Update of the Accounting Surface Along the Lower Colorado River” concerning this matter in 2008.

Since July 1994, the accounting surface methodology has been the primary tool Reclamation utilizes to determine if the use of a well does, or does not, result in a consumptive use of mainstream water from the lower Colorado River. Whether or not any final rule is issued,

USGS's methodologies continue to define those areas that could be deemed to be either pumping Colorado River water, or water replaced by Colorado River water unless the static water elevation in a well is above the elevation of the accounting surface in the area of the well. Absent any compelling contrary technical data, until stated otherwise by Reclamation, a valid BCPA Section 5 Contract is required for use of groundwater that USGS and Reclamation determine to be water drawn from the mainstream by underground pumping. The CEC staff asserts that a hydraulic connection exists between local groundwater and the Colorado River, therefore suggesting that groundwater withdrawals from the Palo Verde Mesa Groundwater Basin (PVMGB) are largely balanced by recharge (inflow) from the river via the Palo Verde Valley Groundwater Basin. The CEC in its Final Commission Decision stated:

“The evidence indicates that proposed groundwater used during project construction (approximately 820 acre-feet per year (afy) and operation (600 afy) could place the groundwater basin into overdraft (defined as the condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years during which water supply conditions approximate average conditions).

Based on the described connection between the PVMGB and the Colorado River, Staff asserts that wells drawing groundwater from the PVMGB might be considered as withdrawing water from the river.”

As has been indicated in previous discussions with your staff, and in correspondence to you as well as the CEC, the Board and the agencies represented on the Board have developed an alternative that can provide long-term assurance that an adequate and lawful water supply can be obtained and utilized in support of proposed solar energy projects located near the Colorado River that could be affected by Reclamation's future determinations. This alternative involves obtaining water through an existing BCPA Section 5 contract holder, The Metropolitan Water District of Southern California. Although other options may be available, it is still the Board's assessment that they could not be implemented in a timely manner.

At a minimum, the Board is hopeful that by implementing the Soil and Water Resources Conditions of Certification stated in Appendix G of the U.S. Bureau of Land Management's Plan Amendment/Final Environmental Impact Statement for the Blythe Solar Power Project, you will be able to demonstrate that the Blythe Solar Project is not adversely affecting the Colorado River. It is the Board's position that Reclamation approval of all water supply offset measures will be required. As a potentially affected public agency, the Board requests that it be copied on and included in the process of reviewing all groundwater and hydrogeological monitoring and reporting related to local groundwater and Colorado River resources and proposed water supply offset measures.

Solar Millennium, LLC
October 21, 2010
Page 4

It should be mentioned again that the content of the Board's September 14th letter to the CEC remains factually correct. If you have any questions or require further information, please feel free to contact me at (818) 500-1625.

Sincerely,



Gerald R. Zimmerman
Acting Executive Director

cc: Ms. Lorri Gray-Lee, Regional Director, U.S. Bureau of Reclamation
Ms. Holly Roberts, Associate Field Manager, Palm Springs-South Coast Field Office, BLM
Ms. Eileen Allen, California Energy Commission
Mr. Allan H. Solomon, California Energy Commission
Mr. William J. Hasencamp, The Metropolitan Water District of Southern California

September 20, 2010

Gerald R. Zimmerman, Executive Director
Colorado River Board of California
770 Fairmont Avenue, Suite 100
Glendale, California 91203-1068

Re: Response to Colorado River Board's Letter to Alan H. Solomon, California Energy
Commission, regarding Presiding Member's Proposed Decision (PMPD) for the Blythe Solar
Power Project, September 14, 2010

Dear Mr. Zimmerman:

We were very disappointed by the content of the Colorado River Board's (CRB) last minute letter to the California Energy Commission (CEC) concerning the Blythe Solar Power Project (BSPP). We feel compelled to reply directly for the record to correct your unfounded claims.

At the outset, we want to ensure that CRB understands the BSPP has been designed for maximum water efficiency. BSPP is a dry-cooled project and has – at significant expense – incorporated water conservation BMPs and water-efficient technology. Thus, with regard to your reference to the August 12, 2010 letter from three Lower Colorado River Basin states suggesting that BLM require use of best management practices and water use efficient technologies (paragraph 6), such considerations are ingrained into the project design. Further, the CEC has independently reviewed and conditioned BSPP specifically with a view to ensuring all feasible water efficiency measures.

With respect to the bulk of your letter, it appears to be predicated on the assertion that the BSPP involves "*Colorado River water use due to the groundwater pumping at this project site*" (paragraph 2). This assertion is based on water law and policy that do not exist.

Although contemplated and previously noticed in the Federal Register (with a comment period that expired over two years ago), the Bureau of Reclamation (BOR or Reclamation) has not adopted an Accounting Surface Rule. It is our understanding that Reclamation is presently in the process of substantially reformulating the concept. Unless and until the Accounting Surface identified in the two USGS papers you reference (USGS Water Investigation Reports, WRI 94-4005 and WRI 00-4085) is afforded legal status (if such ever occurs), it does not provide a valid basis for claims concerning the BSPP pumping from the Palo Verde Mesa Groundwater Basin (Mesa Basin).

Nor do the two USGS papers separately provide a basis for the claims in your letter. As you are well aware, USGS papers do not establish water law, groundwater regulation, or federal policy with regard to Colorado River surface water accounting. In fact, the USGS papers did not make any determination regarding an "Accounting Surface area" as you imply; rather, they made an "assumption" regarding an extensive Colorado River Aquifer and presented an Accounting Surface "concept." The USGS assumptions were predicated on very simplistic geologic assessments and two-dimensional modeling, with no analysis or recognition of physical conditions specifically existing in and relevant to the Mesa Basin – notably including an absence of analysis of the physical conditions in the Palo Verde Valley Groundwater Basin (Valley Basin) that lies between the Mesa Basin and the Colorado River.

For example, the USGS papers assume hydraulic connection between the distant aquifers and the River but ignore the presence of 104,500 irrigated acres on the Palo Verde Valley, and the deep percolation recharge of applied irrigation water that adds approximately 65,000 to 95,000 acre-feet of recharge water annually to the groundwater basin that lies between the River and the Mesa Basin. The presence of this groundwater renders movement of water from the River to the Mesa Basin essentially impossible. Indeed, the introduction of that volume of water over more than a century has created a saturated soil condition that has required the installation of an elaborate drainage system to convey water out of the Valley Basin so as to keep groundwater levels in the Valley below the root zone.

Since the Valley Basin sits between the Mesa Basin and the Colorado River, and is oversaturated from deep percolation of irrigation water applied over more than a century, the USGS's assumption that water from the River is hydraulically connected in a free flowing manner with the Mesa Basin cannot be supported.

Although you cite to the Consolidated Decree, the definition of "consumptive use" has not changed since the original 1964 decree, and has always included "*water drawn from the mainstream by underground pumping.*" Nowhere else in California or western water law has the notion of underground pumping from a surface water system extended to groundwater pumping many miles from the surface watercourse. It is unprecedented in more than a century of western water law to interpret the Supreme Court's use of the term "mainstream" as meaning any and all connected aquifer systems irrespective of their distance from the River channel. Indeed, we note that your letter glosses over the substantial difference between the phrase "hydraulically connected with the Colorado River" (even were such connection to exist in the case of the Colorado River and Mesa Basin) and the legal standard of "water drawn from the mainstream by underground pumping" as used in the Law of the River. We are aware of no legal support for the implied assertion that these phrases mean the same thing.

To the contrary, we do not believe the Law of the River has or will be interpreted by a court to mean that pumping of groundwater from the Mesa Basin – or from any other location except in the immediate proximity of the River – falls within the meaning of the phrase "water drawn from the mainstream by underground pumping." Accordingly, the assertion in your letter that groundwater pumped from the Mesa Basin requires "a valid contract between the Secretary of the Interior and the water user for such use" is without legal support.

Further, throughout its development, the Law of the River has always involved the allocation of the annual quantity of diversions from the Colorado River, and the management of water releases to satisfy the annual quantity of diversions allocated to each of the states and others. In contrast, percolating groundwater does not move at a speed that can be related to annual diversion allocations. Even if the irrigation practices in the Palo Verde Valley were ignored completely, the BSPP water that the CRB would treat as water withdrawn from the Colorado River and subject to the Law of the River allocation would take upwards of several decades to migrate from the surface water system to the groundwater system in the location of the BSPP wells, approximately 10 miles from the closest point of the Colorado River. There is no legal basis for considering pumping of decades old groundwater as constituting surface water of the Colorado River subject to diversion control under the annual allocation methodology of the Law of the River.

The groundwater proposed to be used for the BSPP is presently governed as groundwater subject only to California groundwater law, as it has been for over a century.

If adopted as originally proposed, Reclamation's Accounting Surface policy would result in federalizing millions of acre-feet of State of California groundwater, and could ultimately adversely affect thousands of landowners and groundwater users, potentially resulting in many millions of dollars of economic impacts – obviously a radical change in water law.

Your implied assertion that the CRB can impose a requirement for any groundwater user to obtain an entitlement to Colorado River water (paragraphs 4 and 5) is equally erroneous, since your agency does not grant entitlements to Colorado River allocations or control rights to use of California groundwater. Such a claim also appears to be an arbitrary and unprecedented treatment of the proposed solar power projects, since neither the CRB nor Reclamation has to our knowledge ever asserted that any other groundwater user on the Palo Verde Mesa or the Chuckwalla Valley must have such an entitlement, or ever attempted to account for their water use as a part of consumptive use of River water on an annual accounting basis. (There are approximately 581 water supply wells that exist on the Mesa Basin.)

CRB's contentions have caused confusion for the agencies that do not have expertise concerning the Law of the River, and they have had a detrimental effect on the permitting and financing of solar projects which are using minimal water (all are dry cooling) and are attempting to lead California towards producing the most renewable energy in the world and reducing greenhouse gas emissions.

As you may know, the PMPD was adopted by the full CEC at its September 15 meeting. We expect to proceed with the BSPP and look forward to making a substantial contribution to California's greenhouse gas emission reduction goals with this renewable generation project. We trust that this letter serves to correct the claims you have made. Please feel free to contact the undersigned should you have any further concerns.

Sincerely,



FOIA

Alice L. Harron
Sr. Director, Development and Permitting

Cc: Ms. Lorri Gray-Lee, Regional Director, U.S. Bureau of Reclamation
Ms. Holly Roberts, Associate Field Manager, Palm Springs-South Coast Field Office, BLM
Mr. Allan H. Solomon, California Energy Commission
Ms. Eileen Allen, California Energy Commission
Mr. William J. Hassencamp, The Metropolitan Water District of Southern California

COLORADO RIVER BOARD OF CALIFORNIA

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September 14, 2010

Mr. Alan H. Solomon
Project Manager
Siting, Transmission and Environmental
Protection Division
California Energy Commission
1516 Ninth Street, MS 15
Sacramento, CA 95814-5512

Dear Mr. Solomon:

The Colorado River Board of California (Board), has received and reviewed a copy of the Presiding Member's Proposed Decision (PMPD) for the Blythe Solar Power Project, August 2010 CEC-800-2010-009 PMPD, DOCKET NUMBER 09-AFC-6.

The Board would like to thank you for your incorporating the Board's comments in your PMPD report as addressed in the March 22, 2010 comment letter on both the Blythe and the Palen Solar Power Projects regarding the Colorado River water use due to the groundwater pumping at this project site. A copy of the Board's comment letter is also attached here for your reference.

In this PMPD report, the estimated groundwater extraction from the Palo Verde Mesa Groundwater Basin (PVMGB) is about 21,680 acre-feet during the 68 months construction period and the proposed project life. This extraction amount is about 0.35 per cent of the total PVMGB groundwater storage. However, according to the U.S. Geological Survey Water Investigation Reports (i.e., WRI 94-4005 and WRI 00-4085), the Blythe Solar Power Project site is currently located within the "Accounting Surface" area, i.e. the PVMGB groundwater underneath the project site is hydraulically connected with the Colorado River. Any amount of groundwater withdrawn from the PVMGB aquifer that will be replaced by the Colorado River, in total or in part, is considered a use of Colorado River water.

According to the Consolidated Decree of the Supreme Court of the United States in the case of *Arizona v. California, et al.* entered March 27, 2006, (547 U.S. 150, 2006), the consumptive use of water means "diversion from the stream less such return flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation" and consumptive use "includes all consumptive uses of water of the mainstream, including water drawn from the mainstream by underground pumping." Also, pursuant to the 1928 Boulder Canyon Project Act (BCPA) and the Consolidated Decree, no water shall be delivered from storage or used by any water user without a valid contract between the Secretary of the Interior and the water user for such use, i.e., through a BCPA Section 5 contract.

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As a result of previous discussions, the Board has identified a preferred option for obtaining a legally authorized and reliable water supply for these projects. That option involves obtaining water through an existing BCPA Section 5 contract holder, The Metropolitan Water District of Southern California. Although other options may be available, it is the Board's assessment that they could not be implemented in a timely manner and address the requirement that water consumptively used from the Colorado River must be through a BCPA Section 5 contractual entitlement.

Attached for your reference is a copy of three Lower Colorado River Basin states letter addressed to the Director of the U.S. Bureau of Land Management (BLM), Mr. Robert Abbey, regarding the siting and development of solar power/energy projects on public lands administered by the BLM and the long-term impacts to the water supplies. The letter requests that BLM include provisions in future right-of-way grants or leases that require use of best management practices and water use efficient technologies.

If you have any questions or require further information, please feel free to contact me at (818) 500-1625.

Sincerely,



Gerald R. Zimmerman
Acting Executive Director

Attachments

cc: Ms. Lorri Gray-Lee, Regional Director, U.S. Bureau of Reclamation
Ms. Holly Roberts, Associate Field Manager, Palm Springs-South Coast Field Office, BLM
Ms. Eileen Allen, California Energy Commission
Mr. William J. Hasencamp, The Metropolitan Water District of Southern California