ANNUAL STAFF REPORT

ON THE MANAGEMENT OF STATE SCHOOL LANDS FISCAL YEAR 2015-16

SUBMITTED TO EDMUND G. BROWN JR., GOVERNOR THE CALIFORNIA STATE LEGISLATURE AND THE STATE TEACHERS' RETIREMENT SYSTEM



Note to the Reader

School Lands were granted to the State of California on March 3, 1853 by an Act of Congress (Ch. 145, 10 Stat. 244) for the purpose of supporting public schools. These lands consisted of the 16th and 36th sections of land in each township, save lands reserved for other public purposes, lands previously conveyed, e.g., rancho lands, sovereign lands, and swamp or overflowed lands, and lands known to be mineral in character. A supplementary act in 1927 expanded the grant to include minerals (Ch. 57, 44 Stat. 1026). No federal patents to the State were required under the grant; title to the lands was vested in the State upon approval of the U.S. Township Survey Plats.

Indemnity School Lands (also known as lieu lands) – When a Section 16 or Section 36 was not granted to California because of an exception, the State was given the opportunity to select replacement lands from the United States (Ch. 81 19 Stat. 267). Each transaction involved several steps. First, the State filed a list with the federal government describing the lands lost, which were known as base lands. Second, the State filed a list with the federal government describing other federal lands selected in place of the base lands. When the federal government approved replacement lands, it issued the State a Clear List. California's rights to the base lands were relinquished back to the federal government and title to the selected lands became vested in the State. The Clear List was the document of conveyance; no patents were issued by the federal government.

For this Report, the term *school lands* is used to describe lands obtained under the Act of 1853, indemnity school lands obtained through the Clear List application process, and other school lands obtained by the Commission through acquisitions, land exchanges and donations.

The Annual Staff Report on the Management of State School Lands is prepared pursuant to Public Resources Code section 6477, which requires the State Lands Commission to report annually to the Legislature and the Governor on the management of school and lieu lands. CALIFORNIA STATE LANDS COMMISSION

ANNUAL STAFF REPORT ON THE MANAGEMENT OF STATE SCHOOL LANDS FISCAL YEAR 2015-16



CALIFORNIA STATE LANDS COMMISSION

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INTRODUCTION AND EXECUTIVE SUMMARY

The California State Lands Commission manages approximately 460,369 acres of school lands held in fee ownership by the State and the reserved mineral interests on approximately 790,000 acres of school lands where the surface estate has been sold. These interests are what remain of the 5.5 million acres granted by Congress in 1853. Most of the original school lands were sold by the State during the first 130 years of statehood.

Management of the School Lands Program is divided between the Mineral Resources Management Division (MRMD) and the Land Management Division (LMD). The MRMD is responsible for geothermal, solid minerals, and oil and gas leasing on school lands and for geothermal resource development, mining activities, and oil and gas development. The LMD is responsible for managing surface activities on school lands.

School lands were placed into a statutory trust in 1984 when the Legislature enacted the School Land Bank Act and created the School Land Bank Fund. The Commission is the trustee of the Fund. Public Resources Code sections 8700 through 8723 establish management guidelines for school lands. School lands and attendant interests are to be proactively managed and enhanced to provide an economic base in support of public schools. The Commission is required to take all action necessary to fully develop school lands, indemnity interests, and attendant mineral interests into a permanent and productive resource base. Public Resources Code section 8701 contains findings and declarations that emphasize developing school lands into a permanent and productive resource base and underscore that all transactions, including exchanges, sales, and acquisitions, should be implemented for revenue generating purposes.

Public Resources Code section 6217.7 requires that net revenues, monies, and remittances from the sale of school lands be deposited into the State Treasury to the credit of the School Land Bank Fund. Public Resources Code section 6217.5 requires, with one exception, that all net revenues, monies, and remittances from school and lieu lands (i.e., royalties, rents, and interest generated from promissory notes) are deposited into the State Treasury to the credit of the Teachers' Retirement Fund, which benefits the State Teachers' Retirement System (STRS).

The Commission's priorities in administering the School Lands Program are: 1) maximizing revenues from school lands and reserved mineral interests to benefit STRS; 2) protecting the assets of the School Land Bank Fund; and 3) protecting the environment.

Net revenue transferred to STRS during fiscal year 2015-16 was \$4,698,514.90, a decrease of 28.1 percent compared to the previous fiscal year. The decrease was primarily attributable to two factors. First, gross revenues from the solid minerals program declined \$349,930.15 from the previous year, mainly because of lower production from the Mesquite Gold Mine and lower demand for aggregate (sand and gravel resources). Second, royalties from oil and gas leases declined \$742,815.52 from the prior year because of lower production and lower oil prices.

Management expenses in fiscal year 2015-16 totaled \$1,382,450.02, an increase of 10.6 percent from the prior year due to increased staff hours. The School Land Bank Fund's fiscal year-end balance was \$2,619,184.97, an increase of \$205,180.80 over the prior year. The balance does not include a \$59,000,000 loan to the General Fund that was made in fiscal year 2008-09 and remains unpaid. For a summary, see the table entitled "Financial Summary: Fiscal Year 2015-16" on page 21.



GEOTHERMAL, SOLID MINERALS AND OIL & GAS

The Mineral Resources Management Division manages the geothermal, solid minerals, and oil and gas school lands programs. The Division strives to maximize royalty revenues while protecting the environment and achieving the highest standards of public safety. Historically, the majority of annual revenues to STRS from school lands are from mineral production interest. For a summary of this fiscal year revenues, see the table entitled "Summary of Revenue Generated from Geothermal, Solid Minerals, and Oil and Gas Programs – Fiscal Year 2015-16" on page 11 of this report.

The Commission's 2016-2020 Strategic Plan has several actions and targeted outcomes involving geothermal, solid mineral and oil and gas. These include conducting a thorough mineral inventory, actively marketing unleased lands' mineral potential, and promoting lands for development or exchange. Another key outcome is to manage mineral resources to effectively and responsibly plan for development and conservation of mineral resources, and access to these resources, for existing and future generations.

FISCAL YEAR 2015-16 ACTIVITIES

GEOTHERMAL

Managing geothermal leasing and development on school lands requires staff involvement in several specialized areas. Processing applications and negotiating leases requires input from legal and environmental planning staff and drilling proposals require a technical review by engineering staff. Drilling and production operations require documentation by field inspection staff to ensure that lease terms and conditions and drilling plans are fulfilled. Staff with expertise in geothermal operations and lease terms must verify production reports, royalty calculations and payments.

The majority of revenue from the geothermal program is generated from royalties on steam production and electricity generation from State leases at The Geysers Geothermal Field in Sonoma and Lake counties. Electricity generated from steam is sold to local utilities. A portion of this revenue is returned to the State based on a predetermined formula. Geothermal royalties totaled \$4,667,022.65 in fiscal year 2015-2016, a 12.8 percent decrease from the prior year. This is primarily due to the decline in geothermal production caused by the Valley Fire that started on September 12, 2015 in Lake County and lower utility prices.



Geothermal Leases at The Geysers

The Geysers has operated commercially for more than a half century and is the largest geothermal field in the world. When operating normally, the field generates more than 800 megawatts of electricity annually from approximately 28,000,000 pounds of steam, enough to supply over 900,000 homes for a year. Steam production has been relatively stable since 1995 as a result of consolidating field operations and increased water injection into the reservoir. The injection water is piped to the field from nearby reclamation plants in Lake County and the city of Santa Rosa in Sonoma County.

The State owns a 100 percent mineral interest in 7,247 acres under lease at The Geysers, and a 1/16th mineral interest in another 895 acres. Most of these parcels were acquired from the Bureau of Land Management (BLM) as in-lieu lands in the 1940s and through the indemnity selection process in the 1980s. Geysers Power Company LLC and CPN Wild Horse Geothermal LLC, both subsidiaries of Calpine Corporation, hold these leases (Lease Nos. PRC 4596, PRC 4596 "A", PRC 4597, PRC 5206, PRC 6422, PRC 7845, PRC 7179, PRC 8556, PRC 8844 and PRC 8950). Geysers Power Company LLC owns and operates 17 of the 22 electricalgenerating units at The Geysers.

The Valley Fire significantly impacted Calpine's operation. The following structures were damaged in the Fire, including several power plants that receive steam from State properties:

- West Ford Flat (Calpine 4)
- Quicksilver (Unit 16)
- Socrates (Calpine 18)
- Grant (Calpine 20)
- Sonoma (Calpine 3)

Calpine has been working to rebuild and place these plants back on line. Steam from the Bear Canyon wells (Unit 16 area) was redirected to the Big Geyser (Calpine 13) plant approximately two miles to the northwest. This was an interim solution because the steam quality was temporarily reduced due to the additional travel distance required. This has reduced the electrical production capability. The Unit 16 and 18 cooling towers were replaced and the Bear Canyon well steam was redirected to its original destination. State production and revenue has since returned to pre-fire levels for these areas. Calpine has completed about half of the needed repairs to Unit 20, which, like Unit 18, receives most of its steam from nonstate leases.

In 2015, staff conducted a financial and compliance audit of Calpine Geysers' lease Nos. PRC 4596, PRC 4597, and PRC 5206. The audit focused on verifying Calpine's steam production reports, verifying that steam produced was used to generate electricity for sale, and determining the gross value of the electricity generated. Following a comprehensive review of Calpine's steam production and State royalty revenue calculations, audit staff determined there were no material findings within the audit period. The audit evidence indicated that a sound internal control framework is in place to ensure that the State receives accurate royalty payments. Now, Calpine has agreed to provide staff with additional data on a monthly basis, including the volume of steam produced and value of the electricity sold, which will allow staff to verify whether the monthly royalty is accurate.

Geothermal Leasing Applications (Salton Sea Area)

Available State parcels at Truckhaven are interspersed with private lands and federal lands the BLM manages. Alternative Energy Resources Inc., was the successful bidder for all four sections of the BLM lands nominated for the September 2014 lease sale, though they subsequently sold their interest in the Truckhaven area to Ormat Nevada, Inc. In October 2015, ORNI 5 LLC, a subsidiary of ORMAT, applied for a geophysical permit to conduct a short duration three-dimensional seismic survey to evaluate geothermal resources in Imperial County. Staff participated in monthly meetings with the stakeholders to coordinate and discuss progress. The California Department of Parks



and Recreation requires biological and cultural surveys to complete environmental review under the California Environmental Quality Act. These surveys must be completed before the 3D seismic survey can be approved, and before the subsequent exploratory drilling can occur. The biological and cultural surveys started in April 2016, but ORNI later put them on hold due to budgetary constraints and the intense summer heat.



Geothermal Prospecting Permits

In October 2015, the Commission approved a two-year prospecting permit (PRC 9245) authorizing Deep Rose Development LLC to continue its prospecting and road construction on a 640 acre parcel of school land in Inyo County. Deep Rose expects to drill their first exploratory well to determine whether the geothermal resource is commercially viable within the term of their permit. The parcel is surrounded by the Haiwee Geothermal Lease Area, an amalgam of federal parcels that BLM may offer for lease in the future.

In June 2012, the Commission approved a two-year prospecting permit (PRC 8998) for Entiv Organic Energy, LLC, allowing them to deepen a water well on a 520-acre parcel in Siskiyou County. The federal government acquired the surface estate through a condemnation action in the 1940s to enlarge the Lower Klamath National Wildlife Refuge. The mineral interests were reserved to the State. In 2001, the U.S. Fish and Wildlife Service drilled a series of shallow wells on the Refuge to locate fresh water for habitat improvement. The drilling revealed that two wells on the State parcel contained hot water (157-192 degrees Fahrenheit).

In December 2012, Entiv deepened one well to a depth of 1220' to determine if commercial production was viable. In January 2014, Entiv reported that they discovered geothermal resources in commercial quantities and would like to exercise their right for a preferential lease. Entiv applied for a preferential geothermal lease later that year, though their application is incomplete. In March 2016, Entiv addressed several issues with their application; however, there are still unresolved concerns about the project's viability. Staff is working with Entiv to clarify the outstanding questions.

Geothermal Potential Research on School Lands

Commission staff's proactive analysis of geothermal potential has been instrumental in identifying potential geothermal leasing opportunities on school lands. In 2015 and 2016 staff reviewed school land parcels with varying mineral interests that are within or near California's 21 known geothermal resource areas, which are areas the U.S. Geological Survey identified as having high geothermal potential. The inventory of statewide reserved mineral interest lands that staff developed is an important and critical step in determining how geothermal resources can be developed on State lands. The analysis of State land parcels within known geothermal resource areas enabled staff to characterize geothermal potential on all State interests in each area. For each parcel in known geothermal resources areas, staff analyzed geological and geophysical maps indicating earth's subsurface temperature, geothermal well data from the Division of Oil, Gas and Geothermal Resources, and parcel proximity to electric transmission lines and power plants, and other available information.

SOLID MINERALS

Revenue from the solid minerals program totaled \$362,226.51 in fiscal year 2015-16, which is a 49 percent decrease from the previous year's revenue of \$712,156.66. School lands revenue from solid minerals has declined over the last three fiscal years due to declining production at the Mesquite Gold Mine. Production has also slightly decreased from active aggregate leases to Vulcan Lands and Hi-Grade Materials; further reducing royalty revenue from solid mineral leasing. Staff manages four solid mineral leases on school lands totaling 1,036 acres. One agreement on a 1/16th reserved mineral interest parcel totals 560 acres, and three mineral prospecting permits total 1,898 acres. In 2015, the Commission extended three of the four active prospecting permits. The remaining permittee has applied for a permit extension.

Mineral Extraction Leases

Three of the four solid mineral leases are for mining commercial aggregate—primarily sand and gravel. Aggregate production in Southern California has yet to recover from the 2006 recession. Vulcan Lands (PRC 8253) serves the market area between Victorville and Barstow in San Bernardino County. Fiscal year royalty decreased 22 percent to approximately \$118,000. At the end of the fiscal year the quarry was not operating and the processing equipment had been moved elsewhere. A large quantity of various sized aggregate, however, is stockpiled and ready for sale. Vulcan management is concerned that increased competition has resulted in lower prices, making it difficult to economically acquire new business.

Likewise, Hi-Grade Materials (PRC 8831), which operates a sand and gravel quarry out of Hesperia in San Bernardino County, experienced weak sales. The State's royalty share was \$22,000. In 2013, San Bernardino County approved an amendment to Hi-Grade's mining and reclamation plan, which approved mining the 116 acres of leased school lands. This will allow aggregate mining to continue for the next three decades. Hi-Grade plans to increase production and is installing a second processing facility.

Positive news was reported regarding the Hanson Vigilante Quarry (PRC 7301) in San Diego County. The quarry closed in 2009 because of weak aggregate demand, but reopened in April 2016. Significant aggregate sales are expected from the Vigilante Quarry since Hanson's other quarry in the area has been mined out and closed.



Additional promising news came from Granite Construction, who mined at the Ludlow Pit (former lease PRC 8272) in San Bernardino County. Granite, who owns the surface estate, allowed their lease to expire in 2011 and sought to sell the surface estate. The County, however, purchased the surface estate from Granite Construction in April 2016. The County plans to assign Granite's mining and reclamation plan to itself and then obtain a lease from the Commission to extract and remove the aggregate.

No gold mining has occurred on the 658-acre Western Mesquite Mines lease (PRC 8039) in Imperial County since 2014, and the State ore portion is mined out. But processing of gold ore remaining on the heap leach pad will continue for many years and the State will continue to receive a steadily diminishing income. Should gold prices approach \$2,000 per ounce as they once did, additional mining could occur on the parcel. Otherwise the lease may not be extended beyond its 2022 lease term.

The Protech Minerals talc lease (PRC 8322) in the Kingston Mountains of San Bernardino County expired in April 2011 because the mine operator was unable to market the talc. Staff worked with San Bernardino County and the Office of Mine Reclamation to ensure proper reclamation was completed, consistent with Surface Mining and Reclamation Act requirements.

Another long awaited accomplishment came with the final reclamation approved by San Bernardino County and the Office of Mine Reclamation for the Manchester Quarry (PRC 6735 — which expired in 1994). Final reclamation was achieved in September 2015.



Mineral Prospecting Permits

The Commission encourages mineral exploration of school lands. The Commission has three mineral prospecting permits. The first is issued to Robert Wetzel (PRC 9305) for a school land parcel northeast of Baker in San Bernardino County. The Old Arrow Mine—a small gold mine—is on this parcel. Following favorable assays of hand samples, Mr. Wetzel hopes to drill to determine if commercial gold deposits are present.

The second permit is issued to Ron Martin (PRC 9164) to prospect for gold and other precious metals in a Kern County area that is known for placer gold. Mr. Martin has discovered a small amount of placer gold, but has not discovered gold in commercially producing quantities. The third permit is issued to Gerald Baughman (PRC 9145) for gold and is in a remote area of Mono County north of the old gold mining (ghost) town of Bodie. Geologic mapping and sampling has revealed promising areas for further precious metal exploration.



Proposed Drill Site

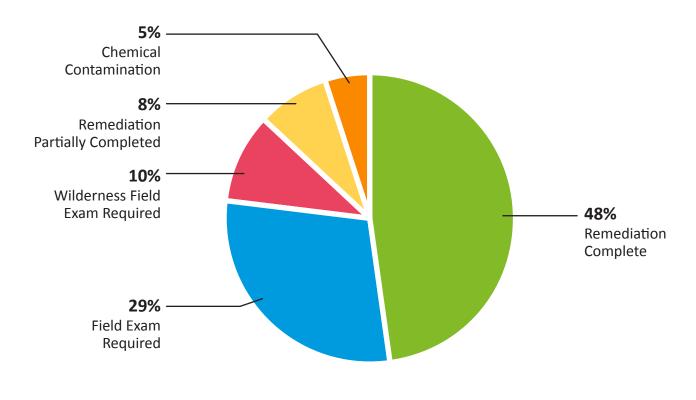


Abandoned Mine Lands

Staff continues to inventory, prioritize, and remediate abandoned mine features on school lands that may threaten public health and safety, wildlife, and present liability issues for the State. Staff participates in meetings with local, county, state, and federal entities, and contractors, environmental organizations, and the public to share information about the physical and chemical hazards and latest remediation techniques used to safeguard abandoned mines.

In 2014, the Office of Mine Reclamation and the Commission embarked on an aggressive closure schedule to remediate six mines, the most ever attempted at once. Permitting was completed in 2014 and contracting was completed in 2015. In fiscal year 2015-16, four bat gates, six cupolas, three cable nets, and four fences were constructed or augmented. Commission staff also conducted additional inventory of abandoned mine sites and installed warning signs.

Other mine features were re-inspected for signs of public visitation, wildlife use, and to estimate their risk potential for future closure. Staff compiled a comprehensive, statewide assessment of all State parcels containing hazardous mine features on school lands. This assessment, which involved a substantial GIS analysis, revealed that 100 school land parcels have abandoned mine features, not 143 as previously believed. This analysis relied on a GIS dataset of school lands that showed the State's exact ownership interest within each section. Approximately 50 percent of the mine features at these parcels have been remediated (see chart below) and work is underway to assess and remediate the remaining mine features.



Abandoned Mine Lands September 2016

Staff also inspected the bat gate that was installed in June 2015 at the Gunsight Mine near Tecopa in southeastern Inyo County and installed a warning sign in front of the bat gate.

In cooperation with the Office Mine Reclamation, staff inspected the site and installed warning signs at the Baxter and Gladstone mines in southeastern Inyo County. In addition, two completed cupolas were inspected at the Iron Horse Mine, one completed cupola was inspected at the Shadow Mountain Mine , and one cupola and bat gate were inspected at the Pacific Fluorite Mine.

Staff inspected the culvert closure for an adit at the Fremont Peak Mine and installed a warning sign at a small mine feature associated with the Quartzite Mountain mining area.

The Office of Mine Reclamation staff and Commission staff augmented and installed fencing for two shafts at the Lorman Mine and constructed a new fence around a shaft at the Rusty Gold Mine. Warning signs were installed at the Brooklyn Mine and the Pinto Mountain Mine. A shallow mine shaft about 15 feet deep was partially filled in by hand using shovels.

Staff inspected four school land parcels surrounding the Death Valley Junction region that contained minor remnant mining features. Warning signs were installed on three of four parcels—the fourth parcel was unreachable. The three parcels had mine features composed of primarily

OIL AND GAS

Royalty revenue from oil and gas production on school lands totaled \$684,401.56 in fiscal year 2015-16, which is a 52 percent decrease from the previous year. The 160-acre Round Mountain parcel near Bakersfield generated \$683,978.50 of that revenue. This parcel is part of a unit operated by Macpherson Oil Company. Oil production from this parcel totaled 2,855,755 barrels, which is a 14 percent decrease from the previous fiscal year. The oil price averaged \$40.49 per barrel, which is 44 percent lower than the previous fiscal year. The remaining revenue was generated from the seven-acre Sulfur Crest parcel in the Ojai Oil Field in Ventura County. excavations and small rock piles. A similar remnant mine site within Greenwater Valley was also inspected, inventoried, and signed, as was an adit in the Dublin Gulch area near the town of Shoshone.

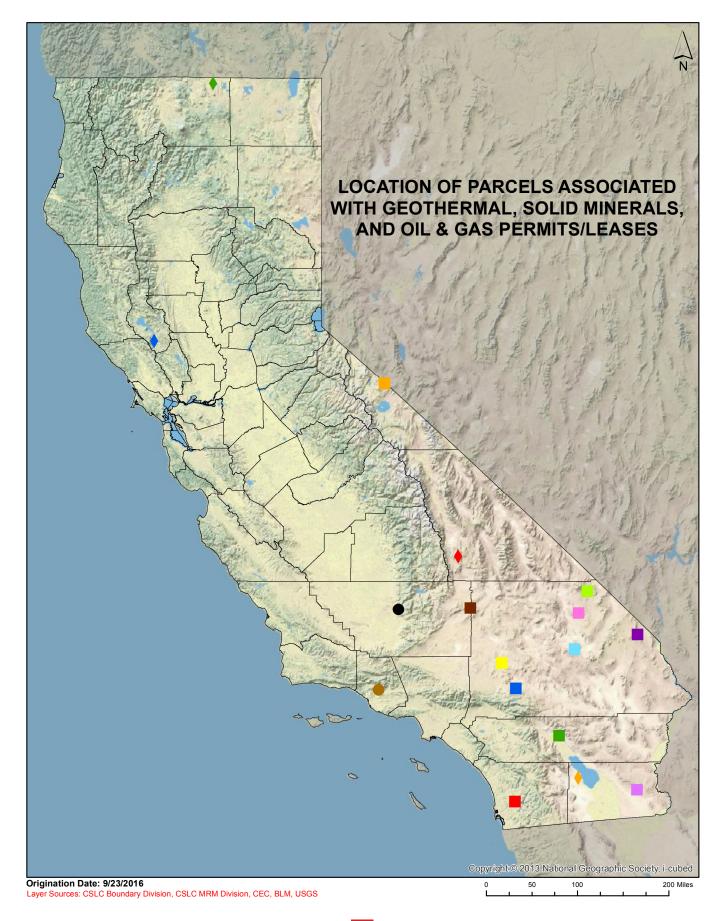


Gladstone Mine Shaft

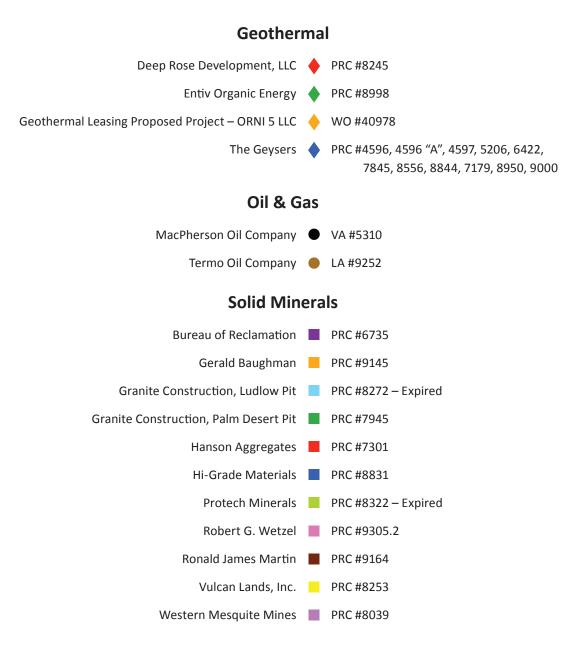


Brooklyn Mine

In March 2015, staff completed a financial and compliance audit of Macpherson Oil's parcel in Kern County, covering the period from July 1, 2010 through June 30, 2014. The audit focused on verifying crude oil royalties paid to the State based on the amount of oil produced and the price of oil sold. While there were no material financial findings, staff provided guidance to the lessee, who now provides a detailed spreadsheet that allows Commission staff to more accurately verify production and royalties.



LEGEND TO REFERENCE MAP FOR PARCELS ASSOCIATED WITH GEOTHERMAL, SOLID MINERALS, AND OIL AND GAS PROGRAMS





SUMMARY OF REVENUE GENERATED FROM GEOTHERMAL, SOLID MINERALS, AND OIL AND GAS PROGRAMS – FISCAL YEAR 2015-16

Geothermal Royalties

Regular PRC Royalties	\$ 4,318,645.96
Supplemental PRC Royalties	\$ 153,199.74
Fractional RMI Royalties	\$ 180,790.26
Deposit to GRDA fund 034	\$ 14,386.69
Geothermal Total	\$ 4,667,022.65

Solid Minerals Royalties

Solid Minerals Total	\$ 362,226.51
Royalties from permits	\$ 0.00
Royalties from 1/16th interest parcels	\$ 0.00
Royalties from leases	\$ 362,226.51

Oil & Gas Royalties

Oil & Gas Total	\$ 684,401.56
TOTAL GROSS REVENUE	\$ 5,713,650.72



FISCAL YEAR 2016-17 PROJECTIONS

GEOTHERMAL

The Geysers

Staff anticipates that revenue from geothermal leases at the Geysers will again be reduced in fiscal year 2016-17. Staff anticipates that steam production on developed leases will continue its slow, long-term decline, but notes that electrical generation will continue to be impacted in the short term by the destruction of cooling towers in the Valley Fire. The prices for electrical power generated by geothermal operations are tied to natural gas prices which have been, and remain, historically low. The continued scarcity of capital, preferential federal tax treatment for competing wind and solar generation, and degree of risk required to drill geothermal wells will continue to hamper new exploration activities. Although some new well proposals have been submitted, at most only a handful will likely be drilled; rig operations will therefore be limited to maintenance and work over activities.

Geothermal Applications

Staff will continue processing ORNI's negotiated lease application in the Truckhaven area of Imperial County. Staff will continue to participate in meetings with the BLM, the California Department of Parks and Recreation, and Imperial County to advance the application and develop this extensive geothermal resource. Staff will continue to communicate with Entiv regarding construction of a new geothermal plant in Oregon, which may help Entiv use a new technology to develop a high volume, lower temperature geothermal resource.

Geothermal and Renewable Energy Potential on School Lands

Staff will continue to monitor and recommend to the Commission amending and issuing new geothermal and other renewable energy leases. Staff encourages new applications and regularly responds to inquiries about geothermal development. Staff will continue to expand its participation in technical conferences related to renewable energy development to disseminate information about school lands' geothermal and other renewable energy potential. In addition to reviewing and updating known geothermal resource area potential, staff will continue to review publically available renewable energy resource data developed by scientific, governmental, and research organizations. Available resources from these entities is used to examine and analyze the suitability of geothermal and other types of renewable energy production on state lands throughout California.

SOLID MINERALS

Mineral Lease Management

The estimated school land revenue for the next fiscal year from solid minerals is approximately \$450,000. This is based on the resumption of mining at the Hanson Vigilante Quarry, an increase in production for the Hi-Grade lease,

Abandoned Mine Lands

Staff will continue participating in abandoned mine meetings to share information about abandoned mines on school lands. Staff is consulting with the Office of Mine Reclamation to mutually determine suitable candidates for contract remediation work in the next fiscal year. Staff will also inventory and assess previously uninspected abandoned mine features on school lands, and create a list issuance of a new aggregate lease to San Bernardino County at the Ludlow Pit, rising commodity prices, and the ability of aggregate producers to secure competitive contracts.

of prospective future mine closures. Staff will continue to install fences and warning signs as an interim or permanent measure based on the circumstances. Staff will continue to re-inspect mines that have received signage, fencing, bat gates, cupolas, backfills, or other protective measures to ensure their continued protection against vandalism.

OIL AND GAS

Staff estimates that revenue from the two school lands oil and gas parcels (VA 5310, LA 9252) will remain flat in the next fiscal year because of energy prices stabilizing at their current intermediate levels and the oil fields natural decline.



SURFACE MANAGEMENT

The Land Management Division is responsible for overseeing all surface activities on school lands. Surface activities include land exchanges, sale of school lands parcels, land acquisitions to enhance the resource base, and administering leases for renewable energy production, agriculture, grazing, and rights-of-way for roads, oil and gas pipelines, and electrical transmission lines. The Division's objectives are to generate revenue to benefit STRS, assure ongoing viability of the State's resources, protect the trust, enhance local economic development, and protect the environment. For a summary of the revenues generated to STRS and the School Land Bank Fund through surface activities, please see the table entitled "Summary of Revenue Generated from the Surface Management Program in Fiscal Year 2015-16" on page 17.

FISCAL YEAR 2015-16 ACTIVITIES

STATE TEACHERS' RETIREMENT SYSTEM FUND REVENUES

Surface Rental Income and Revenues

General surface leasing involves processing new applications, re-issuing expiring leases, processing lease assignments and amendments, conducting rent reviews, terminating old leases, and conducting other surface management activities. The majority of the 460,369 acres of school lands are isolated landlocked parcels, many of which are non-revenue generating desert lands and lands inside national parks or federal wilderness areas. Approximately a quarter of the total school land acreage is leased for revenue-generating purposes. Revenues deposited into the STRS fund from approximately 140 revenue generating surface leases in fiscal year 2015-16 totaled \$381,700.89, an increase of 12.3 percent from fiscal year 2014-15. Surface rent rates are usually tied directly to land values, which are slowly improving. Surface leases typically require rent reviews every five years and these revisions reflect the higher land values. Several new right-of-way leases were also issued during the year.

SCHOOL LAND BANK FUND – LOAN TO THE GENERAL FUND, REVENUES, EXPENSES AND ACQUISITIONS

General Fund Loan

In fiscal year 2008-09, the Legislature requisitioned \$59,000,000 from the School Land Bank Fund to help balance the state budget. This loan to the General Fund was part of the 2008 Budget Act (Chapter 2, Statutes of 2009, Third Extraordinary Session). The loan was scheduled to be repaid by June 30, 2016, but repayment had not occurred. During the term of the loan, interest accrues based on the rate used by the Surplus Money Investment Account.

Bureau of Land Management CDPA Land Exchange

On October 31, 1994, the California Desert Protection Act (CDPA) was signed into law by the President of the United States (Public Law 103-433). The CDPA designated 3.6 million acres in southern California as wilderness to be administered primarily by the BLM, and designated an additional four million acres in southern California for inclusion in the national park system. The purpose of the CDPA is to preserve areas in the California desert to protect their natural, cultural, scenic, and historical values, and to provide for public enjoyment. Four hundred forty-two parcels (approximately 251,000 acres) of fee-owned school lands and more than 100 parcels encumbered by the State's reservation of mineral interests were initially identified as within the CDPA boundaries.

Section 707 of the CDPA authorizes exchanging school lands within CDPA designated areas for federal lands located else-

where. The Commission is compensated for the exchange of its fee and mineral interests on a value-for-value basis, as determined by fair market appraisals. To date, five CDPA land exchange transactions are complete, resulting in the transfer of more than 66,000 acres of school lands to the BLM and deposits totaling more than \$14.7 million into the School Land Bank Fund.

Work on a sixth CDPA land exchange involving 69 parcels of school lands totaling approximately 38,434 acres has stalled due to a report from the federal Government Accountability Office that concluded that the BLM had not adequately maintained their accounts. Staff hopes that the sixth land exchange will be completed in fiscal year 2016-17 and result in a deposit of \$7,994,925 into the School Land Bank Fund. For more information, please see page 19.

United States of America Land Sale

On January 14, 2014, the United States, acting through the Department of the Navy, submitted an application to purchase portions of seven sections of school and indemnity lands as part of the expansion project for the Marine Corps Air Ground Combat Center at Twentynine Palms. The Commission approved this sale on June 29, 2015. The sale, which closed in March 2016, involved approximately 2,563 acres of school lands and generated \$806,500 for the School Land Bank Fund.

Accrued Interest on the School Land Bank Fund

A total of \$10,352.59 in interest was generated by the Surplus Money Investment Account to the School Land Bank Fund during fiscal year 2015-16. Interest accruals increased slightly from the previous year due to a higher Fund balance.

Expenses Charged to the School Land Bank Fund

Expenses during fiscal year 2015-16 totaled \$611,671.79. Of this amount, \$464,101.25 was charged to the Renewable Energy Program, and \$105,046.86 was charged to the

Abandoned Mine Remediation Program. The remainder was charged to statewide administrative services.

Acquisition of Land in Barstow

In October 2013, staff learned that the BLM was preparing to declare certain federal lands in Barstow as surplus and available for disposition. The lands totaled approximately 43.75 gross acres, of which approximately 41.25 acres were located at the intersection of Interstate 15 and L Street and included in the proposed *Spanish Trail Specific Plan,* a joint commercial development between the city and private developers.

Under the terms of the CDPA, the Commission has first right of refusal on all lands declared surplus within the area covered by the CDPA, and has the right to file an indemnity lands application with the BLM to acquire the surplus lands if it chooses. Because of the high potential commercial value of these lands, staff filed an indemnity application with the BLM in May 2015. In exchange for the BLM lands, the application submitted the rights to 320 acres of base lands¹ in Imperial County. After appraisals of the base lands and surplus federal lands were completed and Phase I environmental reports were obtained, staff presented the proposed acquisition to the Commission for approval in August 2015. The acquisition was approved and the federal Clear List, which vests ownership to the State, was recorded in April, 2016. The lands acquired for the School Land Bank Fund had an appraised market value of \$2,025,000 in 2015.

Staff is collaborating with city officials and the city's development team on the future development of the property as part of *The Shoppes at Spanish Trail* under the *Spanish Trail Specific Plan.* The property has the potential to provide significant revenues to STRS when it is developed and leased, and the potential to add to the School Land Bank Fund if a portion of the property is eventually sold or exchanged as part of the overall project.

¹ The term "base lands" refers to the debt in real property owed to the State under the original Act of 1853 and subsequent legislation. (For more information on the indemnity selection process, please see **"Note to the Reader"** prior to the Table of Contents at the beginning of this report.) In this indemnity selection, the base lands used accrued to the State due to a loss from a fractional township. In effect, the only thing the Commission gave up was a property right, not actual physical real estate.

SUMMARY OF REVENUE GENERATED FROM THE SURFACE MANAGEMENT PROGRAM IN FISCAL YEAR 2015-16

SURFACE RENTALS

Surface Rentals	\$ 381,700.89
Timber Sales	\$ 0.00
TOTAL GROSS REVENUE GENERATED TO STRS FUND	\$ 381,700.89

SCHOOL LAND BANK FUND

REVENUES

United States of America	\$ 806,500.00
Interest Income (SMIA)	\$ 10,352.59
GROSS REVENUE GENERATED TO SCHOOL LAND BANK FUND	\$ 816,852.59
EXPENSES	
Statewide Administrative Services (Pro Rata)	\$ -41,700.99
Statewide Administrative Services (Fi\$Cal)	\$ -2,000.00
Accounting adjustment from prior year	\$ 1,440.21
Program 10 Statewide Administrative Services	\$ -262.90
Program 10 & Program 20 - Renewable Energy	\$ -464,101.25
Program 10 – Abandoned Mine Closure Program	\$ -105,046.86
TOTAL EXPENSES	\$ -611,671.79
NET REVENUE GENERATED TO SCHOOL LAND BANK FUND	\$ 205,180.80



FISCAL YEAR 2016-17 PLANNED ACTIVITIES

POTENTIAL STATE TEACHERS' RETIREMENT SYSTEM FUND REVENUES

Surface Rentals Income

Staff estimates that revenues from surface use leases on school lands parcels during fiscal year 2016-17 will increase over the prior year due to rent revisions, adjustment to

existing leases, and the commencement of at least one significant renewable energy lease (described below).

Timber Harvests

There is potential for income from timber salvage and sanitation operations in fiscal year 2016-17. These operations are conducted periodically due to losses from natural causes such as fire, high winds, insect infestation, and diseases. Because of the irregular nature of these operations, the amount of additional income from these sources is difficult to predict.

Renewable Energy Projects

With the increase in public awareness and concern about climate change and rising energy prices, staff expects more interest in the long-term leasing of school lands for renewable energy projects. Some projects may involve using wind as an energy source, and may require the

Wind

In October 2016, the Commission authorized a lease for a portion of Phase II of a proposed wind energy facility known as Tule Wind. The entire project involves more than 12,000 acres of lands located in eastern San Diego County, including federal lands administered by the BLM, private lands, tribal reservation lands belonging to the Ewiiaapaayp Band of Kumeyaay Indians, and 640 acres of school lands.

The Tule Wind project was analyzed in a joint EIR/EIS prepared by the California Public Utilities Commission (as the lead agency under CEQA) and the BLM (as the lead

installation and operation of wind turbines to generate electricity. Other renewable energy projects proposed on school lands may involve solar technology, such as photovoltaic cells and solar-concentrating systems.

agency under NEPA). In December 2011, the BLM issued a Record of Decision authorizing Phase I of the project, which is located primarily on federal lands. In December 2013, the Bureau of Indian Affairs issued a Record of Decision allowing a lease agreement for the Ewiiaapaayp wind turbines. The lease the Commission authorized will provide a minimum base rent of \$135,500 per year with the opportunity of additional royalty revenue from electricity generation. Construction on the school lands parcel is scheduled to begin late in 2017. Solar

Staff will continue processing two applications for solar energy leases that together would cover approximately 4,641 acres of school lands. The proposed projects, Aurora Solar and Windhub Solar B, will require environmental review under CEQA. Both projects are proceeding with preliminary surveys pursuant to the preparation of Environmental Impact Reports. If these projects are successfully completed and leases are issued, staff anticipates significant revenue beginning in fiscal year 2017-18.

POTENTIAL SCHOOL LAND BANK FUND REVENUES AND ACTIVITIES

Applications for the projects discussed below are under consideration and will be processed in fiscal year 2016-17.

Staff anticipates new requests for land exchanges and land sales will be submitted throughout the year.

CDPA/BLM Land Exchange

Prior CDPA land exchanges between the Commission and the BLM resulted in an unequal balance between the values of the lands exchanged. Currently, the Commission owes the BLM lands worth \$2,154,675. The BLM has available, through the General Services Administration, \$7,938,432.71 from surplus federal land sales designated for CDPA land purchases from the Commission. Staff continues to work with BLM on a new proposed "Ledger Balancing Land Exchange" whereby the Commission will transfer school lands of approximately \$10,149,600 in value to the BLM and National Park Service to eliminate the outstanding balance and complete the exchange. As part of the transaction, the National Park Service submitted a payment of \$56,492.29 to balance the transaction. However, this transaction is stalled because the Government Accountability Office issued an opinion in December 2010 questioning BLM's authority to use funds from the sale of surplus federal property to complete exchanges with the Commission. The legal basis for using funds from the sale of surplus federal property to complete the exchanges remains unresolved. While the Commission hopes to complete this transaction during fiscal year 2016-17, it remains uncertain if and when the legal dispute will be resolved. When completed as proposed, staff anticipates that \$7,994,925 will be deposited into the School Land Bank Fund.



Barstow Commercial Land – The Shoppes at Spanish Trail

Staff will continue to negotiate with Barstow city officials and their contracted private developers on the 43.75 acres of lands that were acquired as an indemnity selection in April 2016 (see "Acquisition of Land in Barstow" on page 16). The property is part of a large proposed commercial development known as *The Shoppes at Spanish Trail*. Current negotiations are focused on exchanging a portion of the lands for an existing, revenue-generating commercial property located elsewhere and retaining a portion of the property for long-term revenue purposes within the proposed development. These negotiations are ongoing and are subject to change.

Salvation Mountain, Inc. Land Sale, Chasterus Foundation Land Sale and Slab City Community Group Inc. Land Sale

Among the 1,200± parcels of land held within the School Land Bank Fund is a 640-acre parcel near the Salton Sea in Imperial County known as "Slab City". Originally under the jurisdiction of the Commission, this parcel was condemned by the federal government in 1942 and was developed and used for military purposes as part of Camp Dunlap. When Camp Dunlap was deemed unnecessary, the Department of Defense cleared the site and the parcel was quitclaimed back to the Commission in 1961. However, numerous concrete building foundations were left in the ground. Over the years, the property gradually became a destination for tourists, intermittent campers, and transients and has a long history of environmental, legal, and social issues, including unauthorized occupancy and illegal dumping.

Included in the southwest quarter of the section is a tourist mecca known as Salvation Mountain, which was constructed over a period of many years out of hay bales, stucco and paint by a local resident named Leonard Knight. Since Mr. Knight passed away in early 2014, his monument has been preserved and maintained by the Salvation Mountain, Inc., a nonprofit corporation. Also included within the section and located along the northern perimeter of the parcel is an unauthorized development known as "East Jesus," which is maintained by the nonprofit corporation Chasterus Foundation. This 30-acre site was constructed over many years and includes an artist colony that purportedly teaches self-sufficiency and sustainable living. The Commission approved the sale of this 30-acre parcel at its December, 2015 meeting. The sale closed on September 8, 2016. The proceeds from the sale were \$25,500 and will be included in the annual report for fiscal year 2016-17.

Staff is processing two other purchase applications: one from Salvation Mountain, Inc. for the southwest quarter, and one from Slab City Community Group Inc. for the remainder of the section, and anticipates bringing these purchase applications to the Commission for its consideration in fiscal year 2016-17.



FINANCIAL SUMMARY: FISCAL YEAR 2015-16

STRS FUND REVENUES AND EXPENSES

Revenues

Surface Rentals	\$	381,700.89
Geothermal	\$	4,667,022.65
Solid Minerals	\$	362,226.51
Oil and Gas	\$	684,401.56
GROSS REVENUES	\$	6,095,351.61
Less: Geothermal Resource Development Account Deposits (Public Resources Code section 3826)	\$	<14,386.69>
TOTAL REVENUES	\$	6,080,964.92
Expenses – Net Management Cost	ts	
Land Management	\$	593,369.53
Geothermal	\$	613,766.19
Solid Minerals	\$	271,715.09
Oil and Gas	\$	0.00
Ownership Determination	\$	32,649.33
GROSS EXPENSES	\$	1,511,500.14
Less: Reimbursement Recovery	\$	<129,050.12>
TOTAL EXPENSES	\$	1,382,450.02
NET REVENUE TO STRS	\$ 4	1,698,514.90

SCHOOL LAND BANK FUND

FUND BALANCE AS OF JUNE 30, 2016	\$ 2	2,619,184.97
Less: Expenses	\$	<611,671.79>
Surplus Money Interest Earned Fiscal Year 2015-16	\$	10,352.59
Revenue from Land Sales	\$	806,500.00
Balance as of July 1, 2015 (after year-end accounting adjustment)	\$	2,414,004.17

(Note: Does not include \$59,000,000 loan to General Fund that was due 6/30/16)



ADDENDUM

Status of School Land Consolidation Efforts in the California Desert

Introduction and Purpose

In September 2011, the Executive Officer of the California State Lands Commission, with authority from the Commission, executed a memorandum of understanding with the four agencies comprising the Renewable Energy Action Team (REAT)¹ expressing the agencies' intent to coordinate and cooperate on development of the Desert Renewable Energy Conservation Plan (DRECP) in the Mojave and Colorado Desert regions of the State. The goal of the DRECP is to provide for effective protection and conservation of desert ecosystems while allowing for appropriate renewable energy development. In addition to the REAT agencies and the Commission, the planning process involves other state and federal agencies, including the California Public Utilities Commission, California Department of Parks and Recreation, National Parks Service, and the Department of Defense, and interested stakeholders including cities, counties, tribal interests, industry and utilities, and nongovernmental environmental organizations.

Assembly Bill 982 (Skinner), enacted as Chapter 2 of the School Land Bank Act, (Chapter 485, Statutes of 2011 and codified in California Public Resources Code §§ 8720-8723), builds on this cooperative relationship. Chapter 485 requires that the Commission staff submit this report on its school land consolidation efforts in the California desert,² including the status of the memorandum of agreement (MOA) between the Commission and the United States Department of the Interior, Bureau of Land Management described in subdivision (a) of secton 8722, and progress on a Phase 1 exchange proposal.

Background

The majority of the over 340,000 acres of school land under the Commission's jurisdiction in the desert are fragmented and isolated, and the size of the individual parcels is insufficient for development of renewable energy projects. In addition, significant portions of these parcels are within national parks, preserves, monuments, and forests. Although these lands retain significant conservation value, their location and physical characteristics limit development potential.

Generally, the Commission's objective in participating in developing the DRECP is to ensure that its goals for renewable energy and environmental protection are accomplished in a manner that is consistent with and advances the Commission's statutory and fiduciary responsibilities for management of school lands in the desert area. Chapter 485 supports this effort because it underscores the important role of land consolidation efforts in achieving a successful DRECP and improving revenue generation on school lands. Specific activities and accomplishments related to this objective and the provisions of Chapter 485 are described below.

Memorandum of Agreement

The provisions of the School Land Bank Act enacted under Chapter 485 direct the Commission to consolidate school lands through exchanges with the Department of Interior, represented by the BLM, in the California desert area, which includes the DRECP Plan Area. Section 8722, subdivision (a) requires the Commission to enter into an MOA with the BLM by April 1, 2012, to facilitate and prioritize these exchanges such that the resulting contiguous school land holdings are suitable for large-scale renewable energy projects. This MOA was signed by the Commission's Executive Officer and the California Director of the BLM on May 21, 2012. The MOA formalizes the working relationship between the agencies and provides a process for cooperation to prioritize, enter into, and complete one or more mutually beneficial land exchanges.

The MOA sets forth the objectives and commitments of the Commission and the BLM, including information sharing, minerals evaluation and appraisal, streamlining the land exchange process, and commitments to prioritize completion of exchanges. Through its participation in the DRECP development process, Commission staff has engaged the BLM, California Department of Fish and Wildlife, and other state and federal agencies to develop a Phase 1 land exchange proposal that, when completed, will be an important contributor to the goals in Chapter 485.

Exchange Proposal

Chapter 485 directed the Commission to prepare and submit, within 240 days from the execution of the MOA, "...a proposal for land exchanges that consolidate school land parcels in the California desert into contiguous holdings that are suitable for large-scale renewable energy-related projects." Consistent with this direction, the Commission's Executive Officer submitted a proposal to the BLM on January 15, 2013. At its October 2015 meeting, the Commission authorized a memorandum of intent with the BLM for Phase 1 of a land exchange involving the conveyance of approximately 61,000 acres of school lands to the BLM for conservation purposes in exchange for approximately 5,600 acres of federal lands with operational renewal energy facilities or lands that otherwise have potential to generate revenue for STRS. The BLM lands include parcels with a high potential for large-scale renewable energy development, including an area with an operating solar facility, and the school lands consist of scattered inholdings located within designated BLM wilderness, as well as lands proposed for national conservation landscape designations under the DRECP Land Use Plan Amendment (LUPA). The State parcels are prioritized according to mineral resource evaluations, with parcels of no or low mineral potential the highest priority for exchange. Depending on the outcome of the land and mineral appraisals on the parcels in the exchange proposal, the Commission and BLM may need to adjust the exchange parcel lists to equalize the value, prior to completing the transaction.

On September 14, 2016, the BLM, represented by the State Director, issued a Record of Decision for the DRECP LUPA. This Decision approved the "preferred alternative" discussed in the final LUPA and associated documentation under the National Environmental Policy Act (NEPA). A description of the proposed Phase 1 land exchange is in the final LUPA as Appendix F, and includes a feasibility summary, proposed time table and cost summary, and a list of the parcels included in the proposal. Commission and BLM staffs worked together in 2016 to complete the legal description review, agree to a framework to share costs and responsibilities, and make minor adjustments to the acreage calculations of a small number of parcels based on final land designations in the approved LUPA. Next actions include preparing the feasibility package for submittal to BLM headquarters. This package is expected to include an agreement to initiate and exchange, notice of exchange proposal, inspection and title reports (e.g., hazmat, certificate of inspection and possession), and environmental review under NEPA and CEQA.

On December 12, 2016, Interior Secretary Sally Jewell and Governor Edmund G. Brown Jr. executed a Memorandum of Understanding regarding renewable energy in California which, among other provisions, directs the State and the Department of the Interior to continue to maintain the Renewable Energy Action Team, prioritize processing applications for renewable energy development in areas that are consistent with the DRECP, and complete the Phase 1 land exchange by December 31, 2018. BLM staff has indicated that a request for funding to complete the exchange has been submitted to the Washington, DC headquarters and that absent this funding, completion of the exchange is unlikely.

There are many components involved in completing a land exchange, especially one of this magnitude. Land exchanges typically take several years to complete, even in the absence of issues or conflicts that may arise throughout the process. Land exchanges require environmental review and public participation, as well as congressional notification, review and approval by the Commission, Department of Justice, and national, state and field office levels of the BLM. In the Phase 1 land exchange, there will be four BLM field offices involved: Ridgecrest, Palm Springs, Barstow and Needles. Interested stakeholders and the public will have an opportunity to review and comment on the proposed land exchange.

¹ The REAT was established pursuant to a memorandum of understanding among the California Energy Commission, the California Department of Fish and Wildlife, the U.S. Department of Interior Bureau of Land Management, and the U.S. Fish and Wildlife Service, dated November 17, 2008.

² The "California desert" means the California Desert Conservation Area as described in Section 1781(c) of Title 43 of the United States Code.