

FISCAL YEAR 2017-18

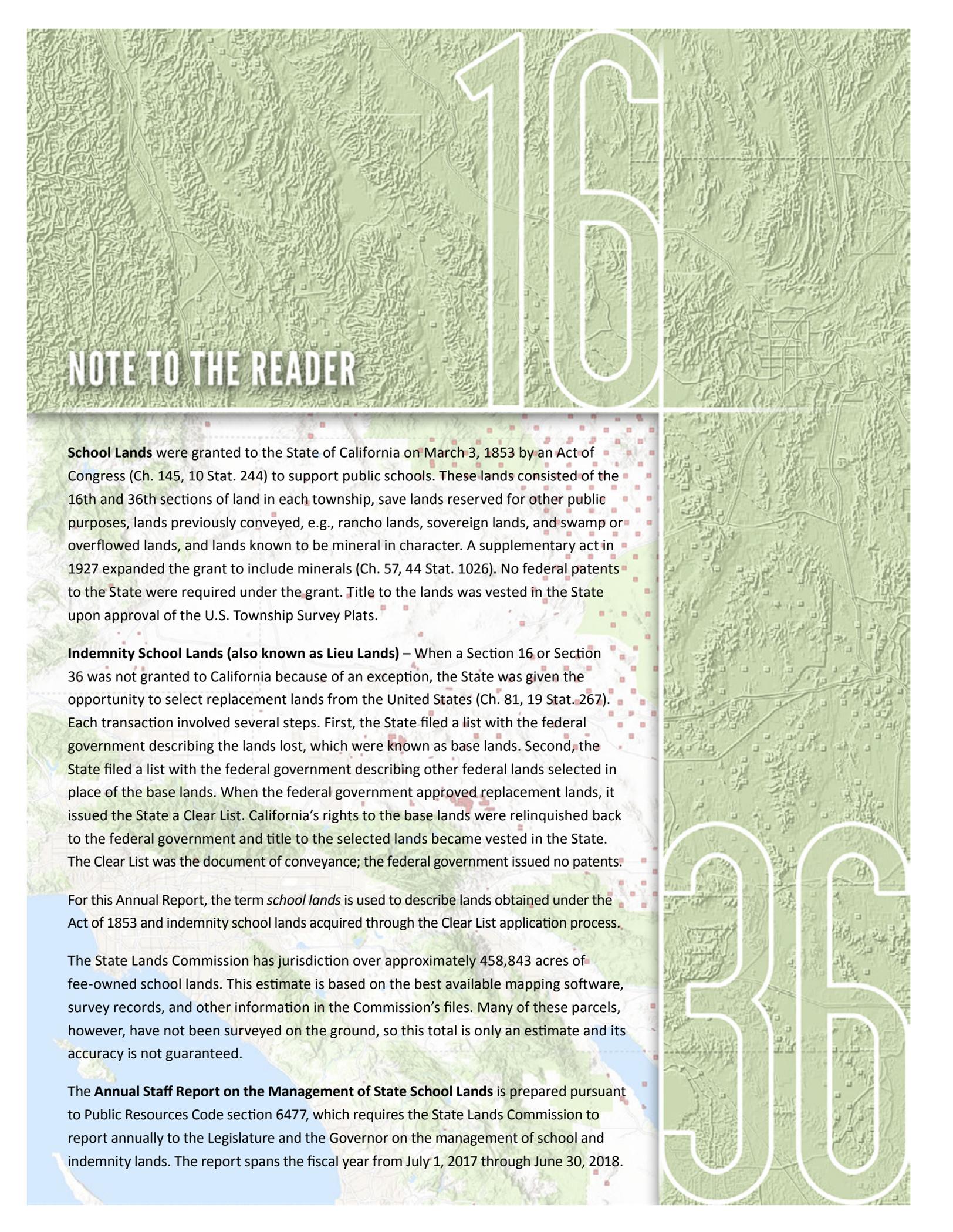
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ANNUAL
STAFF
REPORT

ON THE MANAGEMENT
OF STATE SCHOOL LANDS





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) to support 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; the federal government issued no patents.

For this Annual Report, the term *school lands* is used to describe lands obtained under the Act of 1853 and indemnity school lands acquired through the Clear List application process.

The State Lands Commission has jurisdiction over approximately 458,843 acres of fee-owned school lands. This estimate is based on the best available mapping software, survey records, and other information in the Commission's files. Many of these parcels, however, have not been surveyed on the ground, so this total is only an estimate and its accuracy is not guaranteed.

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 indemnity lands. The report spans the fiscal year from July 1, 2017 through June 30, 2018.

1036 ANNUAL STAFF REPORT ON THE MANAGEMENT OF STATE SCHOOL LANDS

FISCAL YEAR 2017-18

SUBMITTED TO:

- HONORABLE EDMUND G. BROWN JR., GOVERNOR
- THE CALIFORNIA STATE LEGISLATURE AND
- THE STATE TEACHER'S RETIREMENT SYSTEM



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Photo Credits

Front cover top: Calpine’s Eagle Rock Unit 11. Photo by John Grice, courtesy of Calpine Corporation
Page 2: Calpine’s Big Geysers Unit 13. Photo by John Grice, courtesy of Calpine Corporation
Page 3 top: Calpine’s Calistoga Unit 19. Photo by John Grice, courtesy of Calpine Corporation

INTRODUCTION AND EXECUTIVE SUMMARY

The State Lands Commission manages approximately 458,843 acres of school lands held in fee ownership 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. The State sold most of the original school lands during the first 130 years of statehood.

Management of the School Lands Program is divided between the Commission's Mineral Resources Management Division (MRMD) and the Land Management Division (LMD). The MRMD is responsible for geothermal resource, solid mineral, and oil and gas development and leasing on school lands. 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 (Act) which created the School Land Bank Fund (Fund). The Commission is the trustee of the Fund. Sections 8700 through 8723 of the Public Resources Code establish management requirements for school lands. The Act states that school lands and attendant interests are to be proactively managed and enhanced to provide an economic base in support of public schools. The Act requires the Commission 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 the Commission deposit all net revenues, monies, and remittances from the sale of school lands 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 to maximize revenue and reserved mineral interests to benefit STRS and to protect the assets of the School Land Bank Fund. Net revenue transferred to the STRS fund during fiscal year 2017-18 was \$6,367,729.47, an increase of 18.1 percent compared to fiscal year 2016-17. The increase was primarily attributable to the solid minerals program, which increased by 38 percent.

The School Land Bank Fund's fiscal year-end balance was \$69,628,517.12. For a summary of Fund activities, see the "Financial Summary: Fiscal Year 2017-18" table on page 22.

GEOHERMAL, SOLID MINERALS AND OIL & GAS

The geothermal, solid minerals, and oil and gas School Lands Program strives to maximize royalty revenues while protecting the environment, advancing California’s climate goals and achieving the highest levels of public safety. Historically, most revenue generated for STRS from school lands were from mineral production interest. For a summary of this fiscal year’s revenues, see the table entitled “Summary of Revenue Generated from Geothermal, Solid Minerals, and Oil and Gas Programs – Fiscal Year 2017-18” on page 13.

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

FISCAL YEAR 2016-17 ACTIVITIES

GEOHERMAL



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

Geothermal program royalty revenues are generated from the sale of natural steam and produced electricity 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 the revenue is returned to the State based on a predetermined formula identified in Public Resources Code section 3826. Geothermal royalties totaled \$5,362,824.01 in fiscal year 2017-2018, a five percent increase from the prior year. This is attributed to slightly higher electricity prices.

Geothermal Leases at The Geysers



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

The Commission 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) through the indemnity selection process. Geysers Power Company LLC and CPN Wild Horse Geothermal LLC, 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 electrical-generating units at the Geysers.

Geothermal Leasing Applications (Salton Sea Area)



At Truckhaven in Imperial County, the school land parcels available for leasing are mixed with private lands, federal lands managed by the BLM, and park lands managed by the California Department of Parks and Recreation.

In 2015, ORNI 5 LLC, a subsidiary of Ormat Nevada, Inc., applied for a geophysical permit to conduct a short duration three-dimensional (3D) seismic survey to evaluate geothermal resources in the Truckhaven area. Since then, staff and stakeholders have met periodically to coordinate and discuss survey permitting progress. The California Department of Parks and Recreation, BLM, and Imperial County (the CEQA lead) require the completion of biological and cultural surveys before environmental review under the California Environmental Quality Act and the National Environmental Policy Act.

Also in 2015, ORNI applied for a negotiated geothermal lease in the Truckhaven area. Staff is processing the application and awaiting ORNI's application to Imperial County and BLM to drill up to ten geothermal wells; four of the wells are located on school lands. Imperial County will be the CEQA lead agency and will issue a Conditional Use Permit. Staff is in contact with ORNI and the County about the timing of the County's preparation and consideration of the environmental document. If approved by the County, Commission consideration at a regularly-scheduled public meeting is anticipated in the first half of 2019.

Geothermal Prospecting Permits

In September 2017, the Commission approved a 2-year extension for a prospecting permit authorizing Deep Rose Development LLC to complete road construction on a 640-acre parcel of school land located in Inyo County. Deep Rose plans to drill their first exploratory geothermal well—to determine commerciality of the geothermal resource—within the term of their 2-year permit extension. The parcel is surrounded by the Haiwee Geothermal Lease Area, an assemblage of federal parcels that BLM may offer for lease in the future. Deep Rose has not drilled a well, and their permit will expire on October 31, 2019. An inspection of the site, conducted in September 2017, revealed the road had been completed to within one mile of the proposed drill site.

In 2012, the Commission approved a 2-year prospecting permit, PRC 8998, to Entiv Organic Energy LLC, authorizing the deepening of 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 interest is reserved to the Commission. In 2001, the U.S. Fish and Wildlife Service drilled a series of shallow wells on the Refuge to provide fresh water for habitat improvement. The drilling revealed that two wells on the State parcel contained hot water (157-192 degrees Fahrenheit).

In 2012, Entiv deepened one of those water wells to a depth of 1,220' to determine if commercial production was viable. In 2014, Entiv informed staff that they had discovered geothermal resources in commercial quantities and would like to exercise their right for a preferential lease. In 2014, Entiv applied for a preferential geothermal lease, although their application remains incomplete. In 2016, Entiv addressed several outstanding questions and issues with their application; however, they have not demonstrated the economic viability necessary to obtain a preferential lease.

Geothermal Potential Research on School Lands

Staff's proactive analysis of geothermal potential on school lands has been instrumental in identifying potential future leasing opportunities. In fiscal year 2017-18, staff continued reviewing school lands parcels within other locations known for having geothermal resources, such as the Mammoth Lakes (Mono County) and Truckhaven areas.

Staff's continued research into the State's geothermal potential is characterized by a county-level, broad analysis of the surface favorability for conventional geothermal production, and subsurface favorability for unconventional Enhanced Geothermal Systems. Staff continues to analyze the deep underground heat gradient suitable for enhanced geothermal systems, which could become more prevalent as the technology and economics of geothermal projects continue to improve. Introduction of the deeper enhanced geothermal systems potential dataset enabled cross-analysis of this data with other information, such as surface favorability data. Staff continues to monitor the initiation or re-drilling of geothermal wells near school land parcels to stay informed about new geothermal activities. Staff also completed an initial GIS-based analysis of the parcels exhibiting the highest level of geothermal potential throughout the state.

Renewable Energy Resource Potential Research on School Lands

Staff is also studying other renewable resources potential within school land parcels, including solar, wind, and biomass, and conducted the following activities during the 2017-18 fiscal year:

- Completed relevant literature reviews and prepared a list of scientific, environmental, and economic screening criteria for the development of renewable energy resources.
- Visited the Desert View Biomass Power Plant in Riverside County north of the Salton Sea to learn about technical and financial aspects of the biomass industry.
- Met with the Department of the Navy to discuss determining where renewable energy development on school lands may be inconsistent with the Department of Defense's mission.
- Attended and presented at the California Offshore Wind Industry Summit in Sacramento in March 2018 to announce the Commission's desire to identify and develop renewable energy on school land parcels and to help achieve the State's Renewable Portfolio Standard.
- Presented a summary of efforts undertaken by staff to identify and develop appropriate school lands parcels for renewable energy at the April Commission meeting in Palm Springs, Riverside County.
- Held discussions in June 2018 with Baywa, a leading global renewable energy developer provider, about whether school land parcels could be integrated into their future wind energy development plan.

Staff continues to evaluate the potential for renewable resources throughout the State, collaborate with the California Energy Commission and other local, state and federal agencies, and develop a framework for marketing, developing, and leasing school land resources to help California achieve its climate goals.

SOLID MINERALS

Revenue from the solid minerals program totaled \$756,658.11, a 38 percent increase from the prior year's revenue of \$548,116.18. The revenue increase is the result of the Hanson Aggregates mineral extraction lease in San Diego County. Hanson's royalty revenue of \$587,835.05 equates to 78 percent of the total solid mineral revenue.

Staff manages five solid mineral leases on school lands totaling 1,116 acres. The Commission recently approved a new mineral extraction lease, PRC 9451.2, to the County of San Bernardino that became on effective May 1, 2018. Staff also manages an agreement on a 1/16th reserved mineral interest parcel that constitutes 560 acres.

Mineral Extraction Leases



Staff manages four solid mineral extraction leases for mining commercial aggregate, primarily sand and gravel. Aggregate production in Southern California is slowly increasing but remains below the pre-recession peak.

Vulcan Lands, Lease No. PRC 8253, suspended mining near the end

of the fiscal year 2015-16. Their quarry did not operate in in fiscal year 2017-18 and the processing equipment was moved offsite. A large quantity of aggregate, however, is stockpiled and sold periodically. Vulcan Lands informed staff that increased competition resulted in lower prices and made business

economically challenging. The quarry serves the greater Victorville market area in San Bernardino County. Sales did not exceed Vulcan's minimum annual royalty of \$68,000. Vulcan Lands submitted a lease renewal application in May 2018.



Production remained steady for Hi-Grade Materials, Lease No. PRC 8831, which operates a sand and gravel quarry in Hesperia in the southwestern region of San Bernardino County. Hi-Grade Materials paid \$35,399.06 in royalty, a \$1,100 decrease from the previous year. In 2013, San Bernardino County approved an amendment to Hi-Grade's Mining and Reclamation Plan,

which permitted mining the entire 116 acres of leased school lands. This will allow Hi-Grade to continue aggregate mining in San Bernardino County for the next three decades. The Commission recently approved a 10-year lease renewal for the Hi-Grade operation that is effective through June 30, 2023.



Hanson Aggregate's Vigilante Quarry, Lease No. PRC 7301, located in northeast San Diego County, resumed production in April 2016. This lease generated \$587,835.05 in revenue last fiscal year and is our largest solid mineral revenue contributor. Since Hanson Aggregate's other nearby quarry has been mined out and closed, significant aggregate sales are expected from the Vigilante Quarry in the near future.



Since 2014, no gold mining has occurred on the 658-acre Western Mesquite Mines, Lease No. PRC 8039 in Imperial County. As of March 2018, the economic part was mined out, but 564 ounces of the State's gold ore remains on the heap leach pad for processing. It is estimated that the Commission will receive its final royalty payment within 3 years. If gold prices escalate, the lessee may

consider amending their mine plan with the County that could resume production on the State school land parcel. Otherwise, the lessee may not renew, and the lease will expire in 2022.



On April 19, 2018, the Commission approved mineral extraction Lease No. PRC 9451 to the County of San Bernardino for an existing quarry located near Ludlow. Granite Construction, the former lessee for the Ludlow Pit, mined under expired Lease No. PRC 8272, sold its surface estate to the County following reclamation. The County assigned itself Granite Construction’s Conditional Use Permit/Mining and Reclamation Plan. The County will mine aggregate for public use, such as

road maintenance on the historic Route 66 and may sell aggregate to CalTrans or private contractors to maintain roadways and bridges.

Mineral Prospecting Permits



Proposed Drill Site

The Commission requires responsible school lands mineral exploration. Staff manages seven mineral prospecting permits on school lands; two of which were issued in fiscal year 2016-17. Of the seven prospecting permits, two are new permits that were issued in 2017-18: one to Radius Gold U.S, permit PRC 9419, and one to Robert G. Wetzel, PRC 9441, to explore for precious, base and non-metallic metals in the Mescal Mountains of San Bernardino County. These permits span roughly 3,698 acres. Robert G. Wetzel holds five of the seven permits. PRC 9305 is on a parcel northeast of Baker in San Bernardino County that contains the Arrow

Gold Mine—a small gold mine last operated in the 1930s. Mr. Wetzel plans to drill on the site should there be favorable assays of surface samples that determine that commercial gold deposits are present.

PRC 9385, PRC 9390, and PRC 9377 are in Inyo County and were issued to prospect for metallic and non-metallic minerals, including lithium bearing clays. PRC 9377 is on 100 percent reserved mineral interest school lands, while the other two are on fee school lands.

Mr. Ronald Martin has permit PRC 9378 to prospect for gold and other precious metals in Kern County in an area that is known for placer gold. Mr. Martin discovered a small amount of placer gold but has not found gold in commercially producing quantities.

Radius Gold U.S. has a permit, PRC 9419, which is for gold prospecting in a remote area of Mono County north of the old gold mining town of Bodie. Geological mapping and sampling have revealed promising areas for further precious metal exploration.

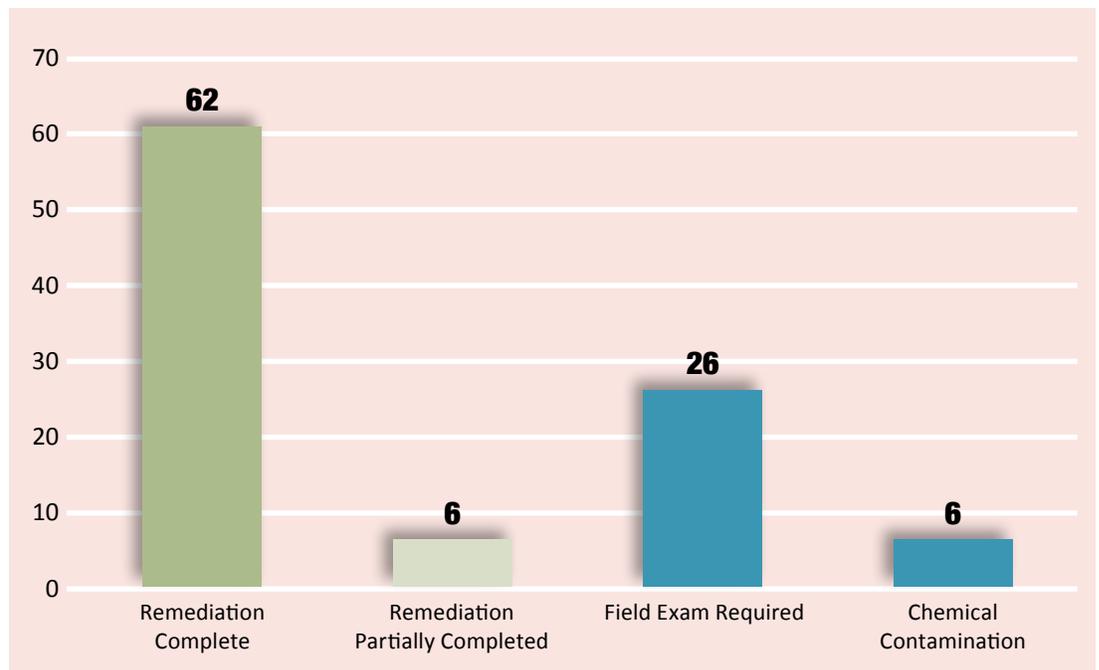
Abandoned Mines on School Lands

Staff inventories and remediates abandoned mine features on school lands that may threaten public health and safety, pose dangers to wildlife, or present liability issues to the State. Staff collaborates with local, county, state, and federal agencies, contractors, environmental organizations, and the public by sharing information about the physical and chemical hazards and latest remediation techniques used to safeguard abandoned mines and coordinates with these same entities to effectively and efficiently abandon mines on school lands.

Staff conducted a series of improvements to existing reclamation, inspected the closure work completed by a contractor at five mine sites, constructed fences, installed dozens of warning signs, and began the inventory for the next round of abandoned mine lands reclamation sites. Staff installed three safety fences and 16 warning signs at abandoned mine locations throughout the California desert. Some fences are temporary pending more durable remediation while others may be permanent depending on the attributes of the mine feature.

Other mine features were re-inspected for signs of public visitation, wildlife use, and to estimate their risk potential for future closure. Staff has completed an assessment of all State parcels containing hazardous mine features on school lands. This evaluation, which involved a substantial GIS analysis, revealed that 100 school land parcels had abandoned mine features. This review used a GIS dataset of school lands that showed the State's ownership interest within each school land section. Significant progress was made to increase the number of parcels where remediation is complete (see the chart below). Work is underway to assess and remediate remaining mine features. About two-thirds of all abandoned mines on State school lands have been remediated or are partially remediated, with some additional work remaining. Many of the remaining ones are in remote locations that are difficult for staff to reach on foot, but plans are underway to address those, too.

Abandoned Mine Lands Summary Fiscal Year 2017-2018



This year, the primary focus was working with the California Division of Mine Reclamation (DMR) to inspect the remediations completed by Sweetwater Construction, under a contract with DMR, to remediate the five mine sites. These projects included features at the Mohawk Hill, Clark Mountain Gold, Grande 1-7, Leiser Rey, and the Little Mike mines, all within San Bernardino County. The following are additional activities related to the ongoing remediation of hazardous mine features:

**Fiscal Year
2017-2018
Abandoned
Mine Lands
Accomplishments**

September 2017	Conducted a contractor bidwalk in conjunction with DMR staff for remediation work at Mohawk Hill, Clark Mountain Gold, Grande 1-7, Leiser Rey, and the Little Mike mines. Sweetwater Construction was awarded the contract.
December 2017	Inspected the previous closure work at the Gunsight Mine and installed two warning signs each at the Rusty Pick and Greenwater Valley mine parcels.
January 2018	Installed two safety fences at the Leiser Rey Mine. Completed closure construction was inspected at Clark Mountain Gold and Little Mike mines.
February 2018	Inspected a completed foam plug and cupola at the Leiser Rey Mine and a completed cupola at the Mohawk Hill mine.
March 2018	Installed four warning signs at the Gold Dollar Mine. Installed a fence at the Leiser Rey Mine, and the completed culvert gate was inspected at the Grande 1-7 mine site.
June 2018	Inspected and installed warning signs at mine features (prospect pits, trenches and rock waste piles) at six parcels near the Haiwee Reservoir in Inyo County south of Lone Pine.



New Cupola at Mohawk Hill Mine Shaft, February 2018



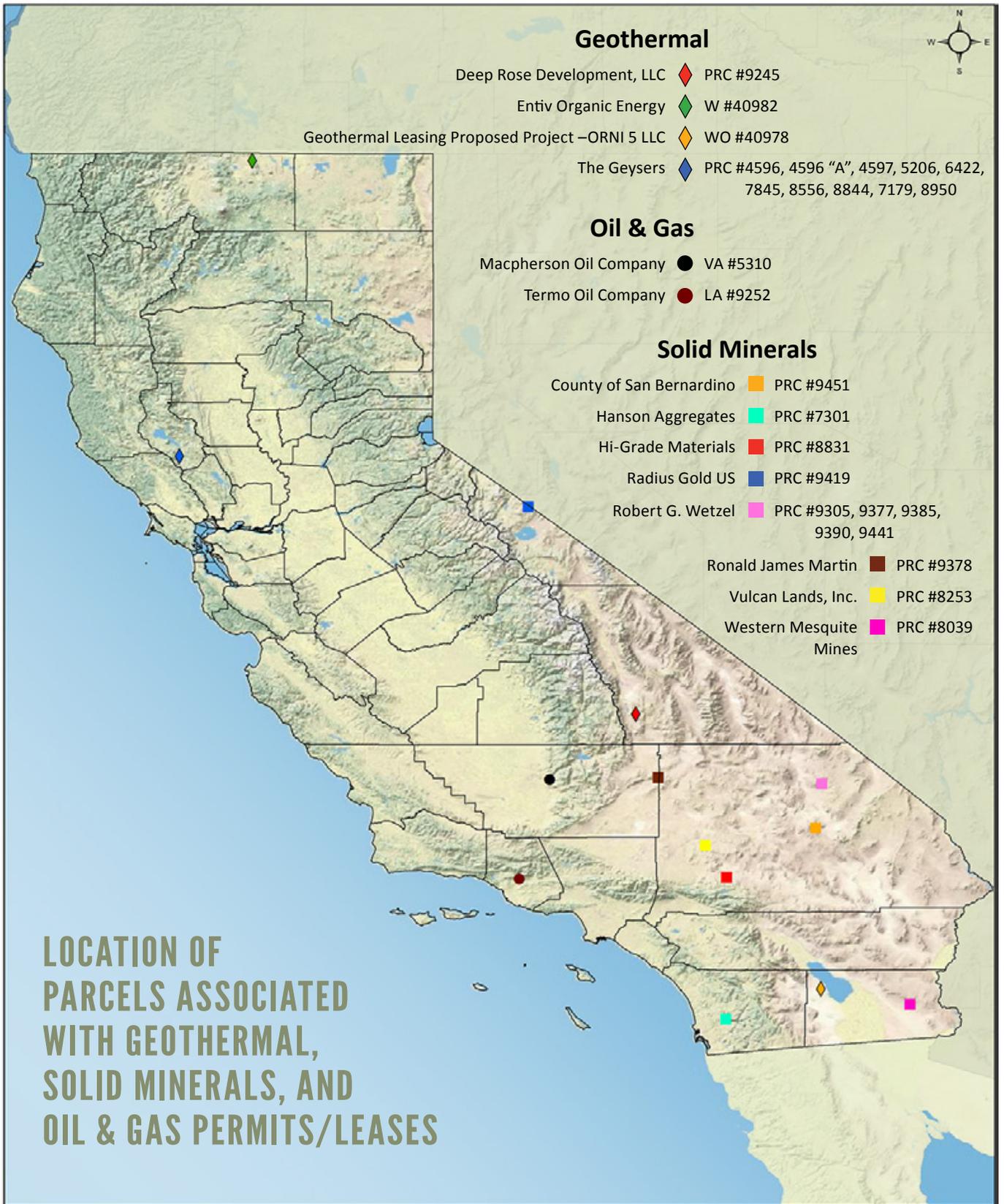
New Cupola at Leiser Rey Mine, January 2018



New Warning Sign installed at Rusty Pick Mine Site, December 2017. Fence to follow.

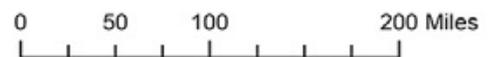
OIL & GAS

Royalty revenue from oil and gas production totaled \$710,397.10, which is a 24.3 percent increase from the prior year. All the royalty, except for about \$1,000, is from the Round Mountain Parcel, a 160-acre parcel northeast of Bakersfield in Kern County. Under Chapter 303, Statutes of 1921, the state retains a 1/16th mineral interest in the Round Mountain Parcel, which has a designation of VA5310.2. The 15/16th mineral owner has entered into a unit agreement operated by Macpherson Oil Company. The State is paid for its 1/16th mineral reservation, which amounts to roughly 0.6% of the unit royalty. Oil production from the unit totaled 2,145,506 barrels, which is a 22 percent decrease from the previous year. The balance of the revenue is from the seven-acre Sulfur Crest parcel in the Ojai Oil Field operated by Termo Oil Company in Ventura County, which has a designation of LA 9252.2. The Sulfur Crest parcel is also a 1/16th mineral reservation retained by the State. Although production was down, the higher royalty is attributable to a substantial increase in the price of oil. Over the past fiscal year, Round Mountain's oil price increased 42 percent and the Sulfur Crest oil price increased 47 percent.



Origination Date: 11/9/2018

Layer Sources: CSLC Land Management Division, National Geographic.



SUMMARY OF REVENUE GENERATED FROM GEOTHERMAL, SOLID MINERALS, AND OIL & GAS PROGRAMS – FISCAL YEAR 2017-18

Geothermal Royalties

Regular PRC Royalties	\$ 4,277,232.90
Supplemental PRC Royalties.....	\$ 1,085,591.11
Fractional RMI Royalties	\$ 0.00
Deposit to GRDA fund 034.....	\$ 0.00
Geothermal Total	\$ 5,362,824.01

Solid Minerals Royalties

Royalties from leases	\$ 756,658.11
Royalties from 1/16th interest parcels.....	\$ 0.00
Royalties from permits.....	\$ 0.00
Solid Minerals Total	\$ 756,658.11

Oil & Gas Royalties

Oil & Gas Total	\$ 710,397.10
(Royalties from 1/16th interest parcels)	

TOTAL GROSS REVENUE.....	\$ 7,453,320.58
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FISCAL YEAR 2018-19 PROJECTIONS

GEOHERMAL

The Geysers Staff anticipates that revenue from geothermal leases at the Geysers will remain stable as steam production slightly declines, and electricity prices track natural gas prices that remain about \$3 per one thousand cubic feet (MCF). According to our lessees, continued scarcity of capital, preferential federal tax treatment for wind and solar generation, and the relative risk and high cost involved with drilling geothermal wells is likely to continue hampering new exploration. In recent months, a few well work permit applications have been submitted to other agencies, suggesting that rig operations will primarily be limited to maintenance, plug-and-abandonment, and workover activities. Staff encourages new applications, actively seeks out new geothermal opportunities, and responds to inquiries about geothermal development regularly.

Geothermal Applications Staff will continue to process ORNI's lease application in the Truckhaven area of Imperial County. Staff will also continue to participate in meetings with BLM, the California Department of Parks and Recreation, Imperial County and the Department of Conservation's Division of Oil, Gas, and Geothermal Resources to advance the application process and develop this resource.

Regarding Entiv's geothermal lease application, staff will continue to communicate with the company about the construction of the new geothermal plant in Oregon, which may help Entiv use new technology to develop a high volume, lower temperature geothermal resource in California.

Renewable Energy Potential on School Lands Staff has initiated an effort to develop maps and dashboards showing geothermal potential on all available school land parcels. Through this effort, staff identified land parcels with the highest potential for various types of renewable energy development in each county and intends to market them for prospecting and leasing.

Staff will continue to expand its participation in technical conferences related to renewable energy development, with the goal of disseminating information about the State's school lands renewable energy potential. Current efforts are focused on reviewing publicly available renewable energy resource data developed by scientific, governmental, and research organizations. Available resources from these entities are used to examine and analyze the suitability of renewable energy potential on State school land parcels throughout California. Staff intends to develop the framework for marketing, bidding, and leasing parcels with renewable energy potential.

SOLID MINERALS

Mineral Lease Management The estimated school land revenue next year from solid minerals is approximately \$800,000. This is based mainly on continuation of the high levels of production at the Hanson's Vigilante Quarry, new mining at the Ludlow Pit, rising commodity prices, and the continuing ability of aggregate producers to secure competitive contracts.

Mineral Applications

In April 2017, Fort Cady California Corporation applied for a mineral prospecting permit to prospect for calcium borates. The project area includes 269 acres of reserved mineral interest lands in portions of Section 36, T8N, R5E, SBM, east of Barstow in San Bernardino County. Staff requested additional information regarding their proposed geophysical activities. The application remains incomplete.

Abandoned Mine Lands

Staff will continue participating in the DMR-hosted, California Abandoned Mine Lands Agency Group (CAMLAG) meetings to share information about abandoned mines on school lands. Staff will also continue its collaboration with DMR to determine suitable candidates for contract remediation work and will continue to inventory and assess previously uninspected abandoned mine features and create a list of prospective future mine closures. Fences and warning signs will be installed as an interim or permanent solution based on the circumstances of each mine site. 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 the forces of nature and possible vandalism.

OIL & GAS

Although oil and gas commodities have historically displayed higher price volatility than other asset classes, staff anticipates that revenue from the two oil and gas parcels may continue to increase. Oil and gas revenue is projected to be \$750,000-\$800,000 in the coming year, up from \$710,397.10.

SURFACE LAND MANAGEMENT

The Land Management Division oversees surface activities on school lands, including land exchanges, the sale of school lands parcels to public or private entities, 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 objectives are to generate revenue to benefit STRS, assure the ongoing viability of the State’s resources, protect the assets of the trust, enhance local economic development, and protect the environment.

Surface leasing involves processing new applications, processing lease assignments and amendments, conducting rent reviews, terminating old leases, and conducting other surface management activities. Most of the 458,843± 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.

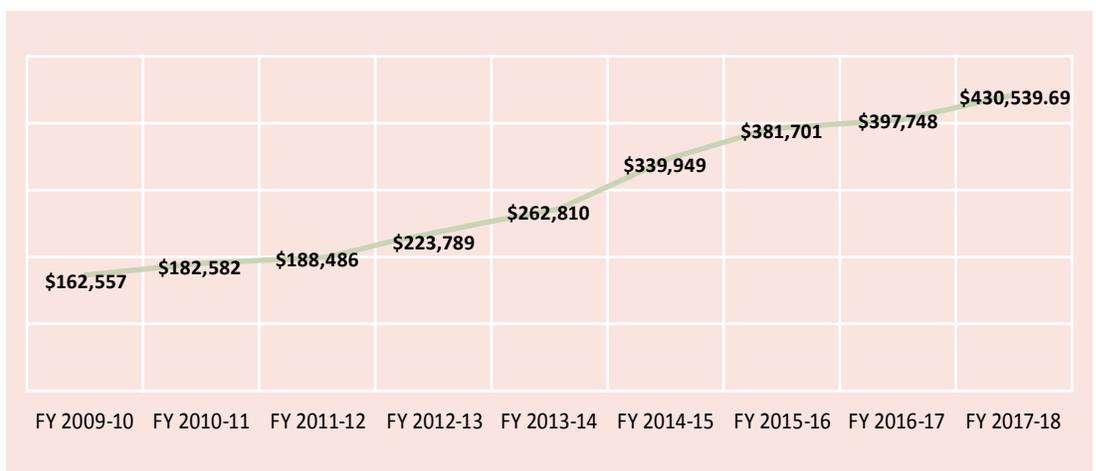
FISCAL YEAR 2017-18 ACTIVITIES

STATE TEACHERS’ RETIREMENT SYSTEM FUND REVENUES

Surface Rental Income and Revenues

Revenues deposited into the STRS fund from approximately 100 revenue-generating surface leases totaled \$430,539.69, an increase of 8.2 percent from fiscal year 2016-17. Surface rent rates are usually tied directly to land values, which are slowly improving. Surface leases typically require rent reviews every five to ten years, and these reviews generally result in upward rent revisions due to increasing land values or application of a Consumer Price Index adjustment.

LMD Surface Leases Annual Gross Revenue



SCHOOL LAND BANK FUND – REVENUES, EXPENSES AND ACQUISITIONS

Bureau of Land Management CDPA Land Exchange (Commission File No. AD 556)

On October 31, 1994, the California Desert Protection Act (CDPA) was signed into law. 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. A total of 442 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 elsewhere. 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 an adverse report from the federal Government Accountability Office, which concluded that the BLM had not adequately maintained their accounts. For more information on this exchange, please see page 21.

Accrued Interest on the School Land Bank Fund

A total of \$944,730.04 in interest was generated by the Surplus Money Investment Account to the School Land Bank Fund. Interest accruals increased significantly from the previous year due to a higher Fund balance.

Expenses Charged to the School Land Bank Fund

Expenses totaled \$678,493.26. Of this amount, \$335,010.71 was charged to the Renewable Energy Program, and \$258,385.55 was charged to the Abandoned Mine Remediation Program. The remainder was charged to statewide administrative services.

Acquisition of Land in Barstow/ Proposed Sale to Barstow Spanish Trail, LLC

In 2013, staff learned that 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 about 41.25 acres are located at the intersection of Interstate 15 and L Street and are included in the proposed Spanish Trail Specific Plan, a joint commercial development between the city and private developers.

Under 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 BLM to acquire the surplus lands if it chooses. Because of the high potential for commercial use 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.

The Commission approved the acquisition in 2015, after appraisals of the base lands and surplus federal lands were completed and Phase I environmental reports were obtained. The federal Clear List, which

vests ownership to the State, was recorded in April 2016. The lands acquired for the School Land Bank Fund were appraised at \$2,025,000.

In April 2017, Barstow Spanish Trail, LLC applied to purchase these lands, together with two other school land parcels in the vicinity. The application included lands totaling 63.3 gross acres. After an independent appraisal on the properties, staff negotiated a sales agreement for a purchase price of \$4,538,200. The Commission approved the sale in August 2017, and closing is anticipated in late 2018.

¹ The term “base lands” refers to the debt in real property still 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 the case of this indemnity selection, the base lands used accrued to the State due to a loss from a fractional township. In effect, the only thing given up by the Commission was a property right, and not actual physical real estate.

SUMMARY OF REVENUE GENERATED FROM SURFACE LAND MANAGEMENT PROGRAM – FISCAL YEAR 2017-18

Surface Rentals

Surface Rentals	\$ 430,539.69
Timber Sales.....	\$ 0.00
TOTAL GROSS REVENUE GENERATED TO STRS FUND	\$ 430,539.69

SUMMARY OF STRS FUND AND SCHOOL LAND BANK FUND FISCAL – YEAR 2017-18

REVENUES

Interest Income (SMIA)	\$ 944,730.04
GROSS REVENUE GENERATED TO SCHOOL LAND BANK FUND	\$ 944,730.04

EXPENSES

Statewide Administrative Assessments (ProRata).....	\$ -83,097.00
Statewide Administrative Assessments (Fi\$Cal)	\$ -2,000.00
Program 10 & Program 20 - Renewable Energy.....	\$ -335,010.71
Program 10 – Abandoned Mine Closure Program.....	\$ -258,385.55
TOTAL EXPENSES	\$ -678,493.26

NET REVENUE GENERATED TO SCHOOL LAND BANK FUND	\$ 266,236.78
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FISCAL YEAR 2018-19 PLANNED ACTIVITIES

POTENTIAL STATE TEACHERS' RETIREMENT SYSTEM FUND REVENUES

Surface Rentals Income Staff estimates that revenues from surface use leases on school lands parcels 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.

Timber Harvests There is potential for income from timber salvage and cleanup operations. These operations are conducted periodically due to losses from natural causes such as fire, high winds, insect infestation, and disease. 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, rising energy prices, and the state's landmark renewable energy goals, 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 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.

WIND

The Commission approved Pacific Wind Development's Tule Wind project in eastern San Diego County in October 2016. Construction was expected to begin in 2018, but the project is on hold. The lessee is working to obtain property rights from adjacent landowners that will improve the financial feasibility of the project. Construction is not expected to begin until 2019. Until construction is completed and the facility becomes operation, the minimum annual rent to the State is \$135,500.

SOLAR

Staff will continue processing three applications for solar energy leases that together would cover approximately 3,148 acres of school lands. The proposed projects, Aurora Solar, Windhub Solar B, and EDF Renewable Development, will require environmental review under the California Environmental Quality Act. Aurora Solar and Windhub Solar B are proceeding with preliminary surveys under the preparation of Environmental Impact Reports. The application from EDF Renewable Development is incomplete, and staff is awaiting further information on the project. If these solar projects are completed as proposed, they will have a total capacity of up to 240 megawatts and should generate significant revenues for the State Teachers' Retirement System.

POTENTIAL SCHOOL LAND BANK FUND REVENUES AND ACTIVITIES

Applications for the projects discussed below are being processed, with Commission consideration contemplated for 2019-20. Staff also expects applicants to submit new requests for land exchanges and sales during the year.

CDPA/BLM Land Exchange (Commission File No. AD 556)

Prior CDPA land exchanges between the Commission and BLM resulted in an unequal balance between the values of the lands exchanged. 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. This transaction, however, 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 with the Commission remains unresolved.

Barstow Spanish Trail, LLC (Commission File No. SA 5772)

Staff will continue working toward the successful closing of this sale of 63.3 gross acres in Barstow. The Commission approved the sale in August 2017 and escrow was opened in September 2017. Staff obtained the executed patent from the Governor in January 2018. The buyer is trying to secure the financing for the purchase of the property. This sale will generate \$4,538,200 for the School Land Bank Fund.

Salvation Mountain, Inc. Land Sale (Commission File No. SA 5769) and Slab City Community Group Inc. Land Sale (Commission File No. SA 5768)

Among the 1,200± parcels of land held under the School Land Bank Fund is a 610-acre parcel near the Salton Sea in Imperial County that is commonly known as Slab City. Formerly under the jurisdiction of the Commission, this parcel was condemned by the federal government and developed and used for military purposes in World War II as part of Camp Dunlap, a training facility. When Camp Dunlap closed, the Department of Defense cleared the site, and the parcel was quitclaimed back to the Commission in 1961. Numerous concrete building foundations were left in the ground, hence the name Slab City. Over the years, the property became a destination for tourists, seasonal campers, and transients and had 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 popular tourist attraction known as Salvation Mountain, which was constructed over a period of many years out of hay bales, stucco, and paint by a 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. Staff is processing a purchase application from Salvation Mountain, Inc. for the southwest quarter of the property. Slab City Community Group Inc., a group of residents, has applied to purchase the remainder of the 610-acre property. Staff will continue to work on these applications during the coming year and also will be working with the California Department of Resources, Recycling, and Recovery and local residents on a general clean-up of the area.

FINANCIAL SUMMARY: FISCAL YEAR 2017-18

STRS FUND REVENUES AND EXPENSES

Revenues

Surface (LMD).....	\$	430,539.69
Surface (MRMD)	\$	172,648.25
Geothermal (MRMD).....	\$	5,362,824.01
Solid Minerals (MRMD).....	\$	756,658.11
Oil and Gas (MRMD).....	\$	710,397.10
Miscellaneous.....	\$	20,253.42
TOTAL REVENUES	\$	7,453,320.58

Expenses

Land Management	\$	588,302.45
Geothermal.....	\$	277,264.87
Solid Minerals.....	\$	292,897.00
Oil and Gas.....	\$	3,179.06
Ownership Determination	\$	17,086.53
GROSS EXPENSES.....	\$	1,178,729.91
Less: Reimbursement Recovery	\$	<93,138.80>
TOTAL EXPENSES	\$	1,085,591.11

NET REVENUE TO STRS **\$ 6,367,729.47**

SCHOOL LAND BANK FUND

Balance as of July 1, 2017	\$	69,362,280.34
Revenue from Land Sales.....	\$	0.00
SMIF Interest Earned Fiscal Year 2017-18.....	\$	944,730.04
Less: Expenses.....	\$	<678,493.26>
BALANCE OF FUND AS OF JUNE 30, 2018	\$	69,628,517.12

ADDENDUM

STATUS OF SCHOOL LAND CONSOLIDATION EFFORTS IN THE CALIFORNIA DESERT – FISCAL YEAR 2017-18

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)² expressing the agencies' intent to coordinate and cooperate on development of the Desert Renewable Energy Conservation Plan (DRECP or Plan) in the Mojave and Colorado Desert regions of the State. On September 14, 2016, the BLM signed a Record of Decision on the DRECP's Land Use Plan Amendment, which covered the 10 million acres of BLM-managed lands in the DRECP plan area and marked the completion of Phase 1. The goal of the DRECP is to provide for effective protection and conservation of desert ecosystems while allowing for the appropriate development of renewable energy projects. In addition to the REAT agencies and the Commission, the planning process involved numerous 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, as well as interested stakeholders including cities, counties, tribal interests, industry and utilities, and non-governmental environmental organizations.

Assembly Bill 982 (Skinner), enacted as Chapter 2 of the School Land Bank Act, Land Exchanges for Renewable Energy-Related Projects (Chapter 485, Statutes of 2011 and codified in California Public Resources Code §§ 8720-8723), builds on this ongoing cooperative relationship. Pursuant to the requirements of Chapter 485, Commission staff is submitting this report on its school land consolidation efforts in the California desert,³ including the status of DRECP and progress made on a Phase 1 exchange proposal.

Background

The majority of the over 340,000 acres of school land under the jurisdiction of the Commission in the California desert are fragmented and isolated, and the size of the individual parcels is insufficient for development of renewable energy projects. Significant portions of these parcels are located within national parks, preserves, monuments, and forests. Although these lands retain significant conservation value, their location and physical characteristics limit development potential. Chapter 485 seeks to help resolve this by requiring the Commission to work cooperatively with the Department of the Interior, through the BLM, to consolidate the Commission's landholdings in the California desert such that renewable energy development would be more feasible.

Generally, the Commission's objective in participating in the development of the DRECP is to ensure that DRECP goals for renewable energy and environmental protection are accomplished in a manner that is consistent with and advances the statutory and fiduciary responsibilities for management of school lands in the California desert area.

Pursuant to Chapter 485, the Commission and BLM California entered into an MOA which set forth the objectives and commitments of the Commission and the BLM, including information sharing, minerals evaluation and appraisal, streamlining of the land exchange process, and commitments to prioritize completion of exchanges. 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, which was agreed on in July 2015, and consists of approximately 5,600 acres of BLM-owned lands, and approximately 61,000 acres of school lands (based on estimated comparative land values for the

identified parcels). 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 currently designated BLM wilderness, as well as lands proposed for national conservation landscape designations under the DRECP.

Status of the Phase 1 Exchange Efforts

At the end of 2016, then-Interior Secretary Sally Jewell and Governor Jerry Brown executed a Memorandum of Understanding regarding renewable energy in California which, among other provisions, directed the State and the Department of the Interior to continue to maintain the Renewable Energy Action Team, place priority on processing applications for renewable energy development in areas that are consistent with the DRECP, and complete the Phase 1 land exchange proposal by December 31, 2018.

Since the inauguration of the new President and related appointments of leadership at the DOI and BLM, BLM staff has notified Commission staff that all land transactions were “on hold” and would not be considered by their Washington, DC leadership. Additionally, on February 2, 2018, the BLM published in the Federal Register a *Notice of Intent to Amend the California Desert Conservation Area, Bakersfield, and Bishop Resource Management Plans and Prepare Associated Environmental Impact Statements or Environmental Assessments*. Ostensibly in response to the President’s Executive Order 13783 – Promoting Energy Independence and Economic Growth, the Notice offered little in the way of specific amendments being sought or issues needing to be resolved; rather, it simply stated the BLM was seeking “comments on increasing opportunities for increased renewable energy development, recreational and off-highway vehicle (OHV) access, mining access, and grazing.”

In its comment letter on the Notice, Commission staff pointed out that this justification was difficult to reconcile with the federal administration’s proposed budget cuts to federal renewable energy research and development programs. Together with several other state agencies including the California Energy Commission, Commission staff suggested the BLM instead consider administrative pathways, including forming an “implementation group” to facilitate implementation of the DRECP and resolve differences in interpretation of Plan components. In addition to staff’s comment letter, the Commission also adopted, at its February 27, 2018 meeting, a resolution entitled *Resolution by the California State Lands Commission Opposing Federal Actions which would Undermine the Desert Renewable Energy Conservation Plan by Amending the California Desert Conservation Area and the Bakersfield and Bishop Resource Management Plans to Allow Development in Areas Designated for Conservation* ([Calendar Item 91](#)). Since issuance of the Notice and convening of several public scoping meetings, the BLM has not proceeded with formal actions to proceed with any DRECP amendments.

While Commission staff is disappointed that the Phase 1 land exchange proposal, and indeed the overall implementation of the DRECP, appears to be stalled, it believes the federal parcels identified during the Commission-BLM Phase 1 effort may still be considered for acquisition using another mechanism, such as through the indemnity selection process. Staff will continue to research these alternatives.

² 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.

³ The “California desert” in this report means the California Desert Conservation Area as described in Section 1781(c) of Title 43 of the United States Code.