



# **Great Basin Unified Air Pollution Control District**

*2017-2018 Fiscal Year  
SB270 Budget and Fee Assessment*

**Draft – February 3, 2017**

*Phillip L. Kiddoo, Air Pollution Control Officer  
157 Short Street, Bishop, California 93514  
Tel: (760) 872-8211  
Fax: (760) 872-6109  
E-mail: [pkiddoo@gbuapcd.org](mailto:pkiddoo@gbuapcd.org)*



# Contents

Budget and Fee Assessment Summary	- 1 -
Introduction	- 3 -
SB 270 Fee Components	- 3 -
TABLE 1 – Total Fee Summary	- 5 -
FIGURE 1 – Historic SB 270 Fee Assessments	- 6 -
Fee Assessment Details	- 7 -
Introduction	- 9 -
I. Employee Costs	- 9 -
II. Operating Costs	- 10 -
III. – Materials and Equipment Costs	- 15 -
IV. Owens Lake Scientific Advisory Panel (OLSAP)	- 16 -
TABLE 2 – Assessment Details	- 17 -
TABLE 3 – Employee Time Allocation	- 18 -
Workplan	- 19 -
Additional Details Regarding Professional Services Items II.K	- 20 -



# **BUDGET AND FEE ASSESSMENT SUMMARY**



## Introduction

The annual SB 270 fee assessment is the Great Basin Unified Air Pollution Control District's (District) estimate of the reasonable cost of maintaining the level of effort necessary to address violations of state and federal air quality standards due to water-gathering activities by the City of Los Angeles (City) within the District's boundaries (Inyo, Mono and Alpine counties). The assessment is a reasonable fee as provided for in Section 42316 of the California Health and Safety Code. The fee funds the cost of monitoring air quality impacts caused by the City's water-gathering activities, the development of air quality plans, monitoring the City's implementation of control measures, enforcing control measure performance, and control measure research. The fee includes the costs associated with all District employees working on SB 270 matters, general recurring operating costs, the cost of enforcing air quality requirements, long-term or ongoing project costs, funding for dust source research and consulting (professional services) and material/equipment costs. For 2017-18 the fee includes costs for equipment and consulting associated with the implementation of the 2016 SIP Board Order<sup>1</sup> adopted on April 13, 2016, the Phase 9/10<sup>2</sup> EIR, the December 2014 Stipulated Judgment<sup>3</sup> and the 2010 Coso Junction Maintenance Plan<sup>4</sup>.

## SB 270 Fee Components

The SB 270 fee includes the estimated cost of all District employees (wages and benefits), operating costs (rent, utilities, insurance, supplies, travel and professional services associated with regular budget activities) and equipment costs associated with the City's efforts to control the air pollution caused by its water-gathering activities. The proposed fee total is \$5,025,500. Compared to the 2016-17 fee total of \$4,706,000 the proposed fee total represents an increase of 6.79% (\$319,500). The 2017-18 budget contains estimates in each category to meet commitments made by the District in the 2016 SIP Board Order<sup>1</sup>, Phase 9/10<sup>2</sup> EIR, December 2014 Stipulated Judgment<sup>3</sup> and 2010 Coso Junction Maintenance Plan<sup>4</sup> including: 1) maintenance and replacement of air monitoring equipment at Owens Lake; 2) consultant fees necessary to carry out committed regulatory and compliance tasks at Owens Lake and Mono Lake; and 3) the December 2014 Stipulated Judgment<sup>3</sup> to implement the terms of the stipulation and agreement. The Owens Lake Scientific Advisory Panel (OLSAP) deferral will come to an end in July 2017, and this budget does not add anything to the \$750,000 carried over from the 2015-16 fiscal year budget. The assessment is summarized in Table 1, with further detailed budget items in Table 2. The personnel associated with the SB 270 assessment are summarized in Table 3. A graphic comparison of this year's assessment with previous years is shown in Figure 1. The 6.79% (\$319,500) increase in the proposed fee from the 2016-17 fee is mainly due to increases in environmental consulting contracts, increases in Maintenance & Repairs of Equipment, and Equipment purchases.

---

<sup>1</sup> 2016 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (2016 SIP).

<sup>2</sup> Owens Lake Dust Mitigation Program – Phase 9/10 Project Environmental Impact Report (Phase 9/10 EIR). Previous Project Name: Owens Lake 2011 SCR and 2012 SCR Dust Control Measures Projects.

<sup>3</sup> Sacramento County Superior Court No. 34-2013-80001451-CU-WM-GDS (2014 Stipulated Judgment)

<sup>4</sup> See 2010 PM<sub>10</sub> Maintenance Plan and Redesignation Request for the Coso Junction Planning Area (CJPA).

Windblown dust from uncontrolled areas at Owens Lake have been found to contribute to exceedances of the federal PM10 standard in the CJPA. Costs associated with air quality monitoring in the CJMP are included in the SB270 budget and fee for operation of the Owens Lake monitoring network.

The Stipulated Judgment entered by the California Superior Court on December 30, 2014 (2014 Stipulated Judgment) included resolutions of several dust control matters at Owens Lake<sup>5</sup>.

The 2014 Stipulated Judgment provides for financial support by the LADWP of the OLSAP, (Paragraph 12.G). Initial funding for the OLSAP was made pursuant to fee orders by the District per California Health & Safety Code §42316 for fiscal year 2015-16. Activation of the OLSAP was deferred until July 2017 such that the funds from 2015-16 remain unspent. The LADWP is responsible for providing additional funding to the OLSAP for reporting and analyzing new and relevant testing data up to \$2,000,000 annually. Although the OLSAP deferral is coming to an end in July 2017, this budget adds no funds to the OLSAP as the District still has \$750,000 unspent from Fiscal Year 2015-16.

Compared to 22 years ago in 1995, the proposed FY 2017-18 SB 270 estimated budget and fee assessment has increased a total of \$172,704 (3.69%). Compared to the 2007 assessment of \$5,816,250 when the City and District were implementing the 2006 Settlement Agreement, the FY 2017-18 assessment is \$957,132 less (-16.46%). Since 1995, the California consumer price index has increased by 39.68% and by 37.39% since 2007.

---

<sup>5</sup> 2011 SCRD, 2012 SCRD, 2013 SCRD, 2014 SCRD (2014 Stipulated Judgment p. 17-18).

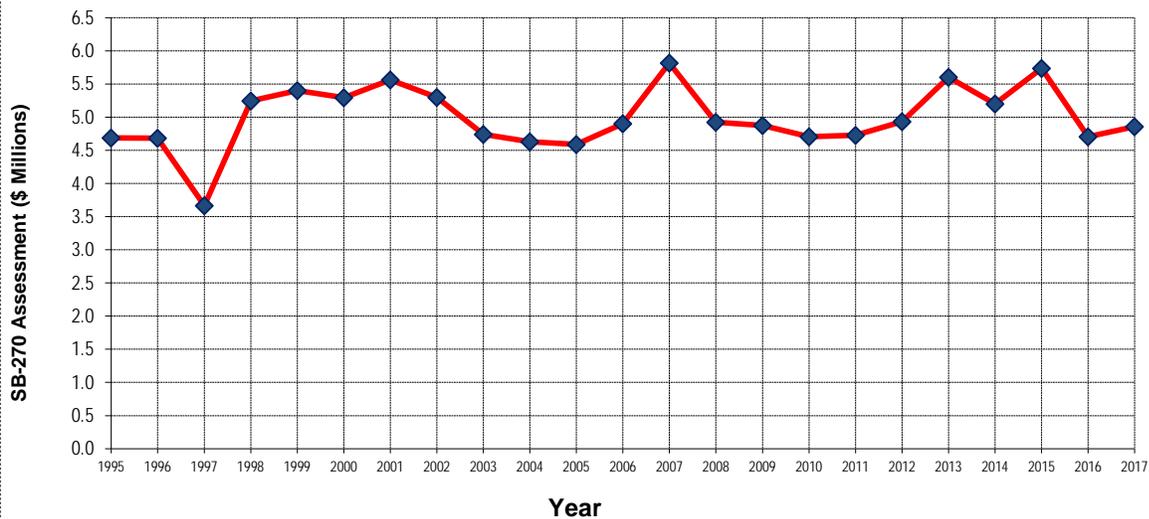
TABLE 1

2017.02.03

**FY 2017-18 SB 270 Total Fee Summary**

	2016-17	2017-2018	% Change
<b>Assessment Expenses</b>			
I. Employee Costs	2,754,000	2,869,000	4.18%
II. Operating & Compliance	1,802,000	1,915,500	6.30%
III. Materials & Equipment	150,000	241,000	60.67%
<b>Sub-Total SB 270 Fee</b>	<b>4,706,000</b>	<b>5,025,500</b>	<b>6.79%</b>
IV. OLSAP Assessment	0	0	
<b>Total SB 270 Fee Assessment</b>	<b>4,706,000</b>	<b>5,025,500</b>	<b>6.79%</b>
<b>Less Reserve Policy Credit</b>	0	(166,382)	
<b>SB 270 Fee Due</b>	<b>4,706,000</b>	<b>4,859,118</b>	<b>3.25%</b>

**Figure 1 - Historic SB 270 Fees**



Year	Amount
1995	4,686,414
1996	4,682,317
1997	3,666,543
1998	5,246,725
1999	5,403,643
2000	5,295,089
2001	5,561,270
2002	5,300,597
2003	4,739,313
2004	4,631,000
2005	4,591,000
2006	4,903,825

Year	Amount
2007	5,816,250
2008	4,922,265
2009	4,876,300
2010	4,703,600
2011	4,730,000
2012	4,934,550
2013	5,601,000
2014	5,200,000
2015	5,737,000
2016	4,706,000
2017	4,859,118

# **FEE ASSESSMENT DETAILS**



## Introduction

The 2017-18 proposed SB 270 fee total is \$5,025,500. Compared to the 2016-17 fee total of \$4,706,000 the proposed assessment represents an increase of \$319,500. The assessment is summarized in Table 1 and details of the categories are shown in Table 2. The 2017-18 budget contains cost estimates in each category to meet commitments made by the District in the 2016 SIP Board Order and Phase 9/10 EIR, the 2014 Stipulated Judgment, and the 2010 Coso Junction Maintenance Plan including: 1) maintenance and replacement of air monitoring equipment at Owens Lake; and 2) staff, legal, and consulting costs necessary to enforce mandatory regulatory and compliance requirements.

The LADWP appealed the District's fee orders for FY 2011-12<sup>6</sup>, FY 2012-13 and FY 2013-14 to the California Air Resources Board (CARB). Administrative hearings were held before CARB in June of 2013 regarding the fee orders issued for FY 2011-12 and FY 2012-13. On February 10, 2014, a settlement agreement was entered into by the LADWP and District along with a Stipulated Judgment that was entered in Kern County Superior Court resolving the disputed fee orders and related matters.

## I. Employee Costs

Since SB 270 was incorporated into the California Health & Safety Code in 1983, the District has assessed fees to the LADWP for the cost of employees and employee overhead associated with the development, implementation and enforcement of dust controls associated with the LADWP's water-gathering activities in the District. For FY 2017-18, it is proposed that the SB 270 fee assessment pay for a total of 20.00 full-time-equivalent employees (FTE) (See Table 3 - Employee Time Allocation). This budget proposes an elimination of the contract Administrative Clerk, and the replacement of a contract Field Services Technician I contract position with a Technical Services Specialist. This is a decrease of 0.35 FTE (-1.72%) compared to FY 2016-17 and a reduction of 2.72 FTEs (-11.97%) since FY 2008-09. At this time, it is expected that 20.00 FTE is adequate to continue implementing terms under the 2014 Stipulated Judgment and requirements of the 2016 SIP.

Total employee costs are estimated to be \$2,869,000, an increase of 4.18% (\$115,000) over FY 2016-17. The increase is primarily attributable to a 2.5 % COLA for employees as well as increased health care premiums, offset by the decrease of 0.35 FTE (contract Administrative Clerk position eliminated). This category includes an allocation of wages, retirement, medical benefits, taxes, unfunded liability for future retiree medical insurance and workers compensation insurance. Other factors reflected in the employee costs section include regular promotion opportunities, regular step increases, retirement expenses, payroll taxes and workers compensation insurance.

---

<sup>6</sup> FY 2011-12 fee order for \$250,000 on appeal with CARB (Appeal No. 3).

The FY 2017-18 budget proposes 12.15 FTEs to perform air quality monitoring and dust source identification at Owens Lake and Mono Lake, including design, purchasing, installation, data collection, maintenance, calibration, filter weighing, quality assurance, data review, and supervision. There are 2.95 FTEs to do data processing and analysis, preparation of maps and figures, maintenance of the GIS system, operation of the Owens Lake Health Advisory Network, and purchasing and maintenance of all computer hardware/software. There are 2.90 FTEs to cover all administrative tasks such as policy recommendations to the Board, overall supervision, project design and management, contract management, document preparation, technical supervision, engineering design, compliance enforcement, government agency coordination, budget preparation, technical support to legal consultants, risk manager, personnel manager and public information. There are 2.0 FTEs to act as administrative assistants, receptionist, document copier, mail clerk, file clerk, supply clerk, billing clerk, fiscal supervisor, fiscal clerk/technician, safety clerk, and board clerk.

## **II. Operating Costs**

This category includes a proportional allocation of rent for all offices (two offices in Bishop and the Keeler office), utilities, insurance, office supplies and equipment, travel and professional services. Materials and equipment in this category generally have a cost of less than \$5,000 each and/or a short life. Estimated operating costs are \$1,915,000 which represents an increase of \$113,500 or 6.30% compared to FY 2016-17. Items in this category that require more explanation are described below.

### **II.C. – Equipment: Scientific, Computer, Software, Furniture, Office, Safety & General (<\$5,000)**

This category encompasses items costing \$5,000 or less and includes new scientific equipment (calibration devices, etc.) and related equipment (electronic test equipment, digital multimeters, etc.), computer equipment (including printers, scanners and parts), software (upgrades, data logger, GIS, accounting software, anti-virus), furniture, office machines and safety equipment.

This budget accommodates a five-year tech refresh cycle to replace antiquated District computers and tablets, this year amounting to \$30,000. District computers are protected from computer virus and malware by Symantec Antivirus. This budget provides for the renewal of a three-year Symantec Anti-virus subscription at \$2,500. Email, document storage and productivity tools are provided by Google Apps for Work at \$10/user per month, totaling \$4,000. This category also includes the expense of off-site data backups via Backblaze and Amazon Glacier. Backblaze is PC cloud backup at \$50/year/computer, totaling \$1,600. Server cloud backup is via Amazon Glacier, billed by gigabyte, forecasted at \$2,000.

Replacement office furniture is included in the budget for desks, as well as for utility sinks to be installed adjacent to the District laboratory and in the Technician office, which is used for testing and repair of monitoring instrumentation.

In addition, monies are budgeted for replacement of wind, humidity, temperature, barometric pressure and precipitation equipment as the sensors in the field age and breakdown. Funds are also included for additional flow measuring devices for the auditor and the technicians. The budget includes funds for new Sensit and associated equipment for both Dust ID networks at Owens Lake and Mono Lake.

This budget also includes funds for continued development and research for the Induced Particulate Emissions Testing (IPET) accessories, Sharp sensors, and Unmanned Aerial Vehicle (UAV) parts. The District developed IPET program as required by the 2014 Stipulated Judgment for Tillage with BACM Backup (TwB<sup>2</sup>) compliance monitoring and will also be a requirement for Dynamic Water Management (DWM) and Brine with BACM Backup compliance monitoring.

Under provisions of the Board Order 130916-01 A.2., four Cultural Resource Areas (CRAs) have been removed from Phase 7a project areas. These removed areas now referred to as Phase 7b areas have been avoided for dust control mitigation and are required to have sand motion monitoring, mapping, vegetation monitoring and disturbance monitoring.

In summary, the cost to purchase, maintain and upgrade items in this category for FY 2017-18 will be \$143,100. This is an increase of \$47,600 (49.84%) from 2016-17.

#### **II.G. – Leases and Rents**

Budgeted rental and lease costs is estimated at \$113,800. This is a minor increase of \$2,800.

#### **II.H. – Maintenance of Equipment – Labor**

Included in this category are: annual certifications of laboratory equipment, including balances and standard weights. These certifications are a requirement for the District to maintain an EPA-certified laboratory for particulate matter filter processing (Title 40 CFR Part 50, App. L, Sec. 8.1; QA Guidance Document 2.12, Nov. 1998, Sec. 7.2 and 7.3). Additionally, all calibration and audit equipment used by the District's air monitoring technicians must be certified annually. These devices (the District owns 12) must be sent out to the manufacturer for certification. These certifications are required by EPA regulations for all entities conducting air quality monitoring (Title 40 CFR Part 50 App. L, Sec. 9.2.2).

This category also includes vehicle maintenance, i.e. tires, oil changes, tune-ups, etc. for the District's 15 vehicles allocated to SB270 activities. There has been an increase in the cost of safety respirator screen (II.H.5) due to the use of an outside consultant to conduct the annual safety training. The consultant is certified and ensures that the District's respirator safety program complies with the requirements Title 29 CFR Part 1910.134. There is an increase of \$15,000 or 42.86% for estimated expenses as older equipment requires more frequent and more expensive maintenance (\$50,000).

## **II.I. – Maintenance of Equipment – Materials**

The District operates twenty-one (21) or more (depending on special projects) PM monitors in the Owens Lake and Mono Basin networks. Items included in this category for those monitors include: pumps, filters, solar panels, batteries, air inlets, bearings, rebuild kits, and other associated equipment.

This category also includes the cost to maintain or upgrade 120+ Owens Lake and Mono Lake Sensit sand-motion monitoring sites (including solar panels, regulators, batteries, radio communication, network communication, camera replacement and other associated equipment), purchase parts for existing ATV's, vehicles, plus monitoring stations (shelters, tubes, rails, pipes).

The more than 17-year-old Sensit network is performing much better than expected in the harsh Owens Lake environment but does require continual repairs and replacements as newer more reliable dataloggers are developed. Approximately 1/2 of the Owens Lake Sensit network has been upgraded. It is estimated that it will take another two to three years to complete the upgrade for the entire Sensit network.

Also included in this budget are funds for maintenance and repairs for the UAV's used in IPET, mapping, and aerial imagery of Owens Lake and Mono Lake. Further, maintenance items have been included for the 17 meteorological stations with sensors that can be repaired and/or refurbished and 12 camera sites.

Additional funds have been included for the aging TEOM PM monitoring network. Most of these monitors are 15 or more years old and, thus, require more expensive maintenance components. \$151,000 has been budgeted for this category (+\$16,000 or 11.85%).

## **II.K. Professional and Special Services**

### **Owens Lake Scientific and Historic Consulting**

\$10,000 is budgeted for technical support on issues related to science and history of Owens Lake. These funds are budgeted for services to support the District on scientific issues related to the character, nature and development of Owens Lake.

### **Owens Lake Air Quality Modeling**

The District has retained the services of Mr. Ken Richmond to conduct Owens Lake and Mono Lake air quality modeling since the 1990's. Mr. Richmond leads a team of scientists for Environ International Corp which recently merged with Ramboll, a Denmark based firm. The proposed assessment includes \$250,000 for Ramboll Environ to assist the District with the preparation and review of particulate matter air quality modeling at Owens Lake and Mono Lake and to perform air quality model-related investigations needed to support the Owens Lake and Mono Lake PM<sub>10</sub> State Implementation Plans. Air quality modeling is used to help identify areas that cause or contribute to air quality violations at Owens Lake and Mono Lake and is required as part of the Owens Lake Dust ID Program pursuant to District Board Order #080128-01, the 2014 Stipulated Judgment and the 2016 Owens Valley PM<sub>10</sub> SIP. The budget is the same as last year at \$250,000.

### **Dust Compliance Measurement & Enforcement Consulting**

The work tasks in this portion of the budget are for work associated with evaluation of dust control areas on Owens Lake via remote sensing. Because of the large aerial extent of the dust controls on Owens Lake, the District uses satellite imagery to evaluate the LADWP's ongoing compliance with the performance requirements associated with the managed vegetation, shallow flooding and Brine with BACM Backup dust control measures. This component of the assessment is for professional services associated with compliance analysis efforts. District staff conducts much of the shallow flooding compliance analyses in-house as opposed to through a consultant but is still in need of technical assistance by remote sensing professionals in the evaluation of managed vegetation and Brine with BACM Backup areas as well as in the review, development and evaluation of possible new methodologies and in data analysis.

For 2017-18, the amount budgeted for professional remote sensing services from DRI is \$210,000. DRI has provided an exceptional level of remote sensing technical expertise for the District for the past several years. District staff proposes to continue using DRI for this work in 2017-18. The primary work to be completed with these funds includes the following main tasks: 1) Development of a compliance evaluation methodology for the heterogeneous managed vegetation dust control areas; 2) Technical assistance and review of the 2017 compliance call for Managed Vegetation; 3) Technical assistance in the evaluation of compliance monitoring for Brine with BACM Backup; 4) Assistance in the review and evaluation of the results from the LADWP's shallow flooding wetness cover tests; 5) Assistance with monitoring of TwB<sup>2</sup> areas; and 6) General consulting services.

### **Dust Compliance Measurement & Enforcement: Satellite Imagery**

\$15,000 is budgeted for purchase of satellite images for compliance monitoring and enforcement of Owens Lake dust control areas. Most of the anticipated satellite imagery needed by the District for 2017-18 will be acquired by DRI through their contracts. However, \$15,000 is included as a separate line item in the 2017-18 SB270 budget for purchase of additional satellite imagery, as needed, by the District separate from work tasks being conducted by DRI. The imagery purchased with these funds will be used to assist in determining compliance of dust control areas with performance criteria required in the 2016 SIP.

### **Environmental Consulting Services**

The funds in this portion of the 2017-18 budget are to assist District staff with ongoing environmental compliance monitoring and special environmental consulting. The primary work to be completed with these funds includes the following two main tasks: 1) tracking of requirements and provisions in the 2014 Stipulated Judgment, 2016 SIP and environmental impact mitigation measures associated with Owens Lake dust controls, and 2) archaeological and environmental services related to the Cultural Resource Task Force per the 2013 Stipulated Order of Abatement (2013 SOA) for Phase 7a, the 2014 Stipulated Judgment for Phase 9/10, and the 2016 SIP. The budget contains \$70,000 for the environmental compliance tracking services. For FY 2017-18, \$150,000 is budgeted for the environmental consultant to provide archeological and environmental services related to the Cultural Resource Task Force.

The total budget for environmental consulting services is estimated at \$220,000. This is an increase of \$50,000 from FY 2016-17. The increase is due to anticipated additional work related to the nomination of an Owens Lake Archaeological District. A more detailed description of environmental consultant work efforts can be found in the Workplan - Additional Details Regarding Professional Services section.

### **Legal Fees**

This budget includes \$250,000 for legal fees for issues related to Owens Lake dust control. Instead of this being referred to as a “Special Assessment”, the District has included it in the ongoing Operation & Compliance section.

### **II.L. – Supplies and Tools**

Budgeted items for this category include office supplies, general use supplies, computer supplies and in-field supplies and materials. Items in this category typically have a limited operating life.

Backup meteorological and flow rate calibration and audit equipment and miscellaneous tools are required for the District to maintain all of the monitoring equipment in good operating order. Many of the District's meteorological systems are more than 10 years old, as is the equipment used to audit them. It is important to keep the calibration and audit equipment in good working order and to have funds available to procure additional equipment and specialized tools, should the aging equipment in use fail. \$35,000 has been budgeted for the Supplies and Tools category.

### **II.N. – Utilities**

This category includes all communications and internet services for the Bishop and Keeler offices. Both facilities are directly connected to Digital 395; connection costs are included in this category. Additional wireless business services, data acquisition and wireless modem communications with ambient air quality monitoring sites, and telemetry data lines for remote data collection are also included. Peripheral computing and personal remote device connections are also maintained with these services.

Each District facility that houses electronic equipment must maintain the temperature within certain limits for the equipment to properly function. In the environment in the Eastern Sierra, this results in significant costs for heating in the winter, when night time temperatures regularly fall well below freezing, and for cooling in the summer, when the temperatures frequently exceed 100°F. In the case of the monitoring stations that house EPA monitors, the criteria are very restrictive with regard to station temperatures (EPA Quality Assurance Handbook Volume II, Appendix D, December 2013). Maintaining the station temperatures within the limits for collection of valid data results in high electrical costs. The utilities category budget is estimated at \$70,300. This is an increase of \$9,300 or 15.25% from FY 2016-17.

### **III. – Materials and Equipment Costs**

This category includes materials and equipment not associated with general support. This equipment has a higher per item cost (more than \$5,000 each or as a whole) and a longer life. Materials and equipment costs in this category for 2012-13 totaled \$10,000, nothing was budgeted for FY 2013-14 or 2014-15, \$24,000 was budgeted for FY 2015-16 and \$115,000 was budgeted for FY 2016-17. Due to specific equipment purchases planned for FY 2017-18, \$241,000 is budgeted.

#### **III.A – Equipment: Scientific, Computer, Office, & General (>\$5,000)**

This category encompasses items costing more than \$5,000 and includes new or replacement scientific equipment, air monitors and related parts, certain computer equipment, software (office upgrades, data logger, GIS, accounting, anti-virus), furniture, office machines and safety equipment.

The air quality monitoring equipment the District currently uses will typically have an operational lifespan of five to seven years, given the harsh environment in which it functions. Some of the older monitors currently in operation were purchased in 1999, are worn out and need replacement. Equipment failures are likely given the age of the monitoring equipment currently in place.

In order to address these failures and avoid data loss, which would jeopardize the District's ability to determine the efficacy of the LADWP mitigation measures, sufficient funds need to be budgeted for replacement equipment each year. During the 2008-2009 fiscal year, the District started capital accrual accounts for equipment replacement. In order to minimize the impact that wholesale equipment replacement would cause in any single budget year, District staff proposed spreading the equipment replacement over several years, thereby reducing the impact in any one year and smoothing out year-to-year budget variations.

Additional accrual account funds were removed from the FY2012-13 budget due to the fact that the company that produced the TEOM monitors (Rupprecht & Patashnick) was purchased by Thermo Fisher Environmental. Thermo will discontinue support of the R&P model 1400a(AB), which comprises all the monitors in the District's current stock, in 2020, however, as the District has recently discovered, it is already difficult to procure consumable parts for the older monitors. Thermo has produced an upgraded version of the TEOM that collects both PM2.5 and PM10 data that has been certified by EPA for monitoring PM10, PM2.5 and PM10-2.5.

Since FY 2012-2013, staff postponed accruals for instrument purchase until two upgraded TEOM PM2.5/PM10 monitors could be tested. The District procured two of these monitors and has been testing them, as well as two other competing PM monitors, at the White Mountain Research Center and Keeler sites, comparing them with the existing TEOM monitors at the two locations. These tests will continue through June 2017 after which the District will make a determination regarding replacement monitors for the District's aging TEOM monitors.

All of the candidate monitors being tested cost about the same. Staff estimates the full replacement of the TEOM monitors will need to be completed by 2020 when the model 1400a(AB) TEOMs are no longer supported by the current manufacturer. Full replacement of the TEOM monitors will cost approximately \$620,000. The District currently has approximately \$154,000 for replacement monitors in the accrual or asset reserve account for replacement monitors. Budgeting an additional \$150,000 per year for the next three (3) fiscal years will provide the District with the funds needed to replace the PM monitors in the network.

Funds in the amount of \$10,000 were added to this budget item for the installation of a new monitoring shelter in the community of Lee Vining to replace the existing filter-based monitor. A continuous PM10 monitor will be placed in the new shelter and will provide hourly-resolved PM10 concentration data that can be used for more accurate modeling of the impacts of emissions from Mono Lake on the community of Lee Vining. These funds will be used for the shelter foundation, fencing, and other incidental installation costs.

### **III.B – Vehicles and ATVs**

The District relies on off-road vehicles and all-terrain vehicles (ATVs) for transportation from and to monitoring stations at Owens Lake and Mono Lake. The District policy on replacement of vehicles states that field vehicles may be replaced after they have accumulated 110,000 miles, or when staff determines significant maintenance and/or safety issues warrant replacement. Staff may determine that vehicles be kept beyond the 110,000 mile limit but must inspect the vehicles regularly and annually reassess them. Funding for one replacement off-road sport utility vehicle for the Senior Scientist is budgeted for FY 2017-18. No funding is budgeted for ATVs.

## **IV. Owens Lake Scientific Advisory Panel (OLSAP)**

The 2014 Stipulated Judgment provides for financial support by the LADWP of the OLSAP. Funding for the OLSAP will be made pursuant to fee orders by the District per California Health & Safety Code §42316. The fee order for OLSAP may vary based on the statement of work and tasks submitted to the National Academy of Sciences (NAS). Annual funding for the NAS to create and direct the OLSAP to address the tasks provided by the sponsors may range from \$500,000 to \$750,000. Additional funding up to \$2,000,000 annually may be provided by LADWP for field studies and additional projects that are deemed necessary to address the tasks given to the OLSAP. OLSAP funding for FY 2015-16 was \$750,000 and these funds were unexpended due to mutual agreement between the District and LADWP to defer the panel until July 2017. These funds have been carried over to FY 2017-18 and may be used to engage the OLSAP at the end of the deferment period. No additional funding is included in the FY 2017-18 SB270 budget.

**TABLE 2**  
**FY 2017-18 SB 270 Fee**

2017.02.03

<b>EXPENSES</b>	<b>2016-17</b>	<b>2017-18</b>	<b>% change</b>
<b>I. Employee Costs</b>			
A. Employee Wages	1,678,000	1,692,800	0.88%
B. Retirement	378,000	424,500	12.30%
C. Insurance Benefits	394,000	449,700	14.14%
D. Taxes	287,000	285,500	-0.52%
E. Worker's Compensation Insurance	17,000	16,500	-2.94%
<b>Employee Costs</b>	<b>2,754,000</b>	<b>2,869,000</b>	<b>4.18%</b>
<b>II. Operating &amp; Compliance</b>			
A. Advertising - Legal Notices & Ads	5,000	6,000	20.00%
B. Dues, Subscriptions, Education, Use Tax & Fees	26,000	40,000	53.85%
C. Equipment: Computer, Furniture, General, Office, Safety, Scientific, Software (<\$5,000 ea)	95,500	143,100	49.84%
D. Fuel & Gasoline	31,000	30,000	-3.23%
E. Health & Safety	4,000	2,000	-50.00%
F. Insurance - Liability, Fire & Casualty	46,000	45,000	-2.17%
G. Leases & Rents: Equipment, Office, Site, Storage	111,000	113,800	2.52%
H. Maintenance & Repairs of Equipment - Labor	35,000	50,000	42.86%
I. Maintenance & Repairs of Equipment - Materials	135,000	151,000	11.85%
J. Postage & Shipping	4,000	3,000	-25.00%
K. Professional & Special Services	1,100,500	1,188,300	7.98%
L. Supplies & Tools (In-Field, Office, General Use)	30,000	35,000	16.67%
M. Transportation & Travel	18,000	28,000	55.56%
N. Utilities	61,000	70,300	15.25%
O. Project Demonstration: Control Measure Testing	100,000		-100.00%
P. Public Outreach & Education		10,000	
<b>Operating &amp; Compliance Costs</b>	<b>1,802,000</b>	<b>1,915,500</b>	<b>6.30%</b>
<b>III. Materials &amp; Equipment</b>			
A. Equipment: Computer, Furniture, General, Office, Scientific, Software, Furniture (>\$5,000 ea)	115,000	191,000	66.09%
B. Vehicles & ATVs	35,000	50,000	42.86%
<b>Materials &amp; Equipment Costs</b>	<b>150,000</b>	<b>241,000</b>	<b>60.67%</b>
<b>Expenses Total (Parts I, II, III)</b>	<b>4,706,000</b>	<b>5,025,500</b>	<b>6.79%</b>
<b>IV. Owens Lake Scientific Advisory Panel</b>			
A. 2014 Stipulated Judgment (Paragraph 12.G)	0	0	
* District has \$750,000 in reserve, unspent, from FY 15/16			
<b>SB 270 Total Fee Assessment (Parts I - V)</b>	<b>4,706,000</b>	<b>5,025,500</b>	<b>6.79%</b>
Reserves Balance as of March 31, 2016	572,405		
Reserves Balance as of March 31, 2017 (estimated)		1,171,482	
Reserve Policy Amount @ 20% of FY Costs	941,200	1,005,100	
Credit to SB 270 Fee Assessment	-	166,382	
<b>FY 2017-2018 SB 270 Fee Due</b>	<b>4,706,000</b>	<b>4,859,118</b>	<b>3.25%</b>

Highlighted budget line items are further explained in the "Fee Assessment Details" section.

TABLE 3

2017.02.02

<b>FY 2017-18 Employee Time Allocation</b>	<b>District</b>	<b>SB-270</b>	<b>FTE</b>
<b>Regular Employees</b>			
Admin Asst/ Board & Permit Clerk	0.25	0.75	1.00
Admin. Projects Manager	0.15	0.85	1.00
Air Monitoring Specialist	0.15	0.85	1.00
Air Monitoring Tech I/II	0.10	0.90	1.00
Air Monitoring Tech II	0.15	0.85	1.00
Air Monitoring Tech II	0.00	1.00	1.00
Air Monitoring Tech II	0.10	0.90	1.00
Air Monitoring Tech II	0.00	1.00	1.00
Air Monitoring Technical Specialist	0.00	1.00	1.00
Air Pollution Control Officer	0.10	0.90	1.00
Air Quality Specialist II	1.00	0.00	1.00
Air Quality Specialist II	1.00	0.00	1.00
Deputy Air Pollution Control Officer	0.20	0.80	1.00
Director Technical Services	0.00	1.00	1.00
Field Services Technician I	0.00	1.00	1.00
Field Services Technician II	0.00	1.00	1.00
Field Services Technician II	0.30	0.70	1.00
Fiscal Services Technician	0.15	0.85	1.00
Research & Systems Analyst II	0.10	0.90	1.00
Research & Systems Analyst II	0.00	1.00	1.00
Research & Systems Analyst II	0.00	1.00	1.00
Senior Scientist	0.20	0.80	1.00
Sr. Systems & Research Analyst	0.05	0.95	1.00
Technical Services Specialist	0.00	1.00	1.00
<b>Subtotal Regular Employees</b>	<b>4.00</b>	<b>20.00</b>	<b>24.00</b>
<b>TOTAL 2017-18 FTE</b>	<b>4.00</b>	<b>20.00</b>	<b>24.00</b>
TOTAL 2016-17 FTE	4.10	20.35	24.45
TOTAL 2015-16 FTE	4.15	20.85	25.00
TOTAL 2014-15 FTE	4.11	18.34	22.45
TOTAL 2013-14 FTE	3.56	19.81	23.37
TOTAL 2012-13 FTE	3.51	18.86	22.37
TOTAL 2011-12 FTE	3.58	20.29	23.87
TOTAL 2010-11 FTE	3.55	21.07	24.62
TOTAL 2009-10 FTE	3.66	22.71	26.37
TOTAL 2008-09 FTE	3.65	22.72	26.37
<b>SB270 FTE increase 16-17 to 17-18</b>		<b>0.35</b>	<b>1.72%</b>
<b>SB270 FTE increase 08-09 to 17-18</b>		<b>2.72</b>	<b>11.97%</b>

## Workplan

The following efforts will take place under the SB 270 Assessment:

### **Air Quality Monitoring**

For fiscal year 2017-18 the SB 270 program will operate 25 air quality monitors (21 TEOMS and 4 Partisols in operation; of these 3 TEOMs are portable and ready for deployment) at 14 separate sites at Owens Lake and 2 sites at Mono Lake. These sites have been selected by District staff and approved by the EPA. They were selected in accordance with Title 40 CFR Part 58, Sections 58.3, 58.10, 58.13, 58.14, 58.20, and Appendix D. These stations are operated in accordance with Title 40 CFR Part 58 Appendix A.

In addition to the air quality monitors, there are 21 meteorological sites at Owens Lake and one at Mono Lake (many of the meteorological sites are located at air monitoring sites). District personnel are responsible for the operation and maintenance of the monitoring equipment as well as installing and removing filters, weighing filters, validating data, conducting quality control checks, conducting quality assurance audits, and data reporting.

### **Dust ID Program**

The District will continue to operate the Owens Lake and Mono Lake Dust Identification Programs. The effort at Owens Lake consists of operating approximately 120+ Sensit sand motion sensing devices on the lake bed, and within the Keeler Dunes, mapping the location of dust emissions during dust storms, time-lapse video recording of dust events and GPS mapping the location of emission areas on the lake bed after dust storms.

The Dust ID program at Mono Lake consists of 10 Sensit sites collocated with Cox Sand Catchers (CSCs), seventeen (17) additional CSC-only sites and two cameras. The purpose of this network is to characterize the exposed playa source area contribution to the PM<sub>10</sub> impacts on the northeast shore of Mono Lake. This year's budget includes funds to add a radio network to collect data from the 10 Sensit sites. This will improve data quality, and will streamline data collection and site visits.

The Dust ID Program at Owens Lake is an ongoing effort to identify dust source areas at the Lake, and to quantify their dust emissions and impacts on air quality. The program was initiated in 1999 and includes an extensive network of erosion monitoring equipment, time lapse cameras, PM<sub>10</sub> monitors, and meteorological towers. The Dust ID Program also provides resources for personnel to map source area boundaries and dust plumes, and to collect and analyze the information.

The Dust ID Program at Owens Lake is a required component of the 2016 SIP Board Order and 2010 Coso Junction Maintenance Plan and is the primary method used to identify dust source areas that cause or contribute to exceedances of the PM<sub>10</sub> standard. These would include any new additional BACM contingency areas that may need control or already controlled areas that are out of compliance with SIP and Maintenance Plan requirements.

## **Additional Details Regarding Professional Services Items**

### **II.K.**

The Professional Services sub-budget (II.K.) contains funds for contracts with consultants for technical support in remote sensing techniques for dust control measure compliance development and enforcement, for environmental services associated with the implementation of the 2016 SIP and the 2014 Stipulated Judgment, for professional services for refinement of Brine with BACM Backup, and professional services related to review of the project description for the Master Project and planned associated groundwater development under Owens Lake. Additional details on the scope of work for these contracts are provided below.

#### **Environmental Consulting Services**

There are two main items to be included in budget category II.K. The first item consists of work related to the tracking of provisions and requirements in the 2016 SIP and environmental impacts and mitigation measures from previous EIRs (\$70,000). The second item consists of technical work and professional services related to the Cultural Resource Task Force (CRTF) (\$150,000). The total amount of the two items in budget category II.K.16 and 17 is \$220,000. In FY 2015-16 the District solicited proposals for this work. Through the selection process, the District retained TEAM Engineering from Bishop, CA. The District also retained TEAM Engineering in 2016-17 for this work and plans on continuing to use the services of TEAM Engineering for this work in 2017-18.

The 2016 Owens Valley SIP and multiple EIRs completed for dust controls on Owens Lake contain a considerable number of dust control compliance requirements and mandatory mitigation measures. The efficient implementation of the 2016 SIP and multiple EIRs involves coordination, communication, and reporting among the District, the LADWP, and other public agencies. These other agencies mainly include the California State Lands Commission and the California Department of Fish and Wildlife.

The 2016 SIP contains several new dust control measures that are being implemented by LADWP on Owens Lake. These new dust control measures allow the LADWP to reduce the amount of water used on the lake bed but make the implementation and operation of the dust control project more complicated. As the 2016 SIP is implemented, the District will be responsible for ensuring compliance with dozens of requirements for Owens Lake dust controls. Multiple monitoring and reporting requirements are included in the 2016 SIP to make sure the new dust control measures are performing such that there are no exceedances of the PM10 standard at the regulatory shoreline.

The work in this portion of the 2017-18 budget involves tracking the dust control measure requirements included in the 2016 SIP to ensure the timely implementation and reporting and completeness of required provisions for dust controls on the lake bed. The work in this portion of the budget also includes reviewing the adequacy of compliance reports submitted to the District by the LADWP in fulfillment of mitigation measure requirements from the multiple EIRs to avoid and/or reduce environmental impacts. The budget contains a \$70,000 for both the tracking of 2016 SIP requirements and environmental compliance monitoring and reporting as well as for assistance with general environmental issues.

For FY 2017-18, the environmental consultant will also provide archeological and environmental services related to the Cultural Resource Task Force (CRTF) per the 2013 Stipulated Order of Abatement (SOA), 2014 Stipulated Judgement and Phase 9/10 Dust Control project. As the District has no archaeological expertise and the CRTF is dealing with complex technical and legal archaeological issues, the District must retain outside assistance. The budget contains \$150,000 for work related to the CRTF. This represents an increase of \$50,000 from that in the 2016-17 budget. The increase is needed for the additional work anticipated from the potential nomination of the Owens Lake area as part of an Archaeological District and the development of the associated Programmatic Agreement (PA) or MOU with all interested agencies and landowners. The creation of the Owens Lake Archaeological District and the related PA or MOU is being discussed with the CRTF to facilitate implementation of any future BACM Contingency dust controls on Owens Lake and a path forward will be established for dealing with any cultural resources present within the project area(s).

### **Dust Control Measure Compliance and Enforcement – DRI**

**Remote Sensing.** The FY 2017-18 budget contains funds for dust control measure compliance enforcement and for technical support by the Desert Research Institute (DRI) of the District's remote sensing efforts (\$210,000). Work tasks provide for consultation services with District staff for compliance measurements for the existing Managed Vegetation area on the southern portion of Owens Lake, compliance measurements of existing Brine with BACM Backup areas, development of a method for determining compliance of the new complex Managed Vegetation areas that are part of Phase 7a with performance requirements, work on the TwB<sup>2</sup> monitoring and the Shallow Flooding Wetness Cover Tests as well as general consulting services. Each task is discussed in more detail below.

The funds budgeted for remote sensing professional services in FY 2017-18 is increased by \$60,000 from FY 2016-17 (at \$150,000). The increase was included in FY 2017-18 to provide additional funds for the purchase of high-resolution satellite imagery needed for work tasks, described below. Note that a corresponding decrease was made in Satellite Images budget from \$40,000 in 2016-17 to \$15,000 in 2017-18 (see description below) such that the total of the two tasks is unchanged from 2016-17 to 2017-18.

Remote Sensing Work Tasks: (\$210,000)

#### **Managed Vegetation Compliance**

An evaluation of the saltgrass vegetation cover on the Managed Vegetation dust control measure on the southern portion of Owens Lake will be completed with satellite imagery. This evaluation of the saltgrass cover for the southern Managed Vegetation area established in 2002 will be performed in 2017-18 for the 2017 growing season using the routine developed by DRI. District staff plans to run the standard 2017 Managed Vegetation calls using the DRI routine. A portion of the funds budgeted in II.K are to provide the District with technical support from DRI in the review of the 2017 Managed Vegetation compliance call.

Additionally, the LADWP has created new Managed Vegetation areas as part of the Phase 7a Project. These areas were planted in fall of 2015 as part of a transition from Shallow Flooding to Managed Vegetation. The Phase 7a Managed Vegetation areas vary substantially from the original Managed Vegetation area in that it consists of multiple plant species that provide both vertical and horizontal variation. Due to this structural and compositional diversity, the current approved compliance determination method used for the 2002 Managed Vegetation area is not capable of accurately evaluating the compliance conditions for the complex vegetation areas. The District is working on developing a new vegetation compliance method that can be applied to the new complex vegetation areas. A portion of the funds budgeted in II.K are to provide the District with technical support from DRI in the development of this proposed new vegetation compliance method as well as conducting a compliance call for the existing Managed Vegetation area on the southern portion of the lake bed.

### **Brine with BACM Backup Compliance**

The 2016 SIP allows the LADWP to implement a new modified version of Shallow Flooding that utilizes the abundant salts present on Owens Lake to create a mix of stable surfaces similar to those found in the Brine Pond. Implementation of Brine with BACM Backup will allow LADWP to reduce the amount of water used on Owens Lake while still providing the level of dust control required. The new Brine with BACM Backup dust control measure requires that each Brine area consist of a mix of three stable surfaces including: water, evaporite crust, and thick capillary crust. Each component surface has specific conditions in order to meet the required performance criteria. If the performance criteria are not met or the Brine with BACM Backup area begins to deteriorate such that it is in a potentially emissive state, the area will be ordered for re-flooding so that Shallow Flooding conditions are met.

An evaluation of the Brine with BACM Backup dust control measure will be completed with a combination of interpretation of aerial photographs or high resolution satellite imagery combined with field measurements. This evaluation of the Brine with BACM Backup cover conditions will be performed in 2017-18 using the method developed by DRI. District staff plans to run the Brine with BACM Backup calls while being trained in the DRI routine. A portion of the funds budgeted in II.K are to provide the District with technical support from DRI for conducting compliance calls on the Brine with BACM Backup dust control areas.

### **Monitoring of Shallow Flooding Wetness Cover Tests and TwB<sup>2</sup>**

The LADWP is conducting tests of Shallow Flooding using sprinklers in order to refine the curve that relates control efficiency to wetness cover. The new work plan from LADWP for the testing calls for regular wetness cover measurements across the two test areas using airborne SWIR sensors. Additionally, the LADWP has converted about 4 square miles of Shallow Flooding to TwB<sup>2</sup> per the 2014 Stipulated Judgment. The roughness, emissivity, and clod cover of the TwB<sup>2</sup> areas will be monitored regularly throughout the project. The District plans to use the professional services of experts at DRI to assist in data analysis and evaluation of results from both the Shallow Flooding Wetness Cover Tests and the TwB<sup>2</sup> areas. A portion of the DRI II.K budget will be used to provide technical support in this effort.

Satellite Images. As discussed above, District staff will be conducting the Shallow Flooding dust control compliance determinations in 2017-18. Due to the large areal extent of the dust control areas (approximately 48.6 square miles as of December 31, 2017 following completion of Phase 9/10), the only practical way to conduct the compliance determinations is through analysis of satellite imagery. The current method used for compliance determinations on the Shallow Flooding areas generally uses LandSat8 and LandSat7 satellite imagery. This imagery is obtained at no cost from the USGS. However, this free imagery is only available on a regular schedule (rotating every 8 days between LandSat8 and LandSat7) and has a horizontal resolution of 30 meters. This frequency and spatial resolution is sufficient most of the time, but restricts the District in its ability to conduct wetness calls in the Shallow Flooding areas during cloudy periods and during certain times of year when higher resolution is needed.

Additionally, the District needs high resolution satellite imagery as part of the compliance monitoring method determination for the Brine with BACM Backup and complex Managed Vegetation dust control areas. Most of the high resolution imagery in 2015-16 and 2016-17 has been acquired by DRI as part of the District contract for remote sensing services such that funds were added to the budget for their work tasks to accommodate this. However, occasionally, the district needs to purchase satellite imagery for Owens Lake outside of the work done by DRI. There is \$15,000 budgeted in II.K. for purchase of satellite imagery for the 2017-18 year. This represents a decrease of \$25,000 from FY 2016-17.

#### **Brine with BACM Backup Refinements**

The 2016 SIP makes a commitment by the District to review the data from the Brine with BACM Backup areas in order to see if the performance criteria can be refined. This commitment was made recognizing that the performance criteria might be overly conservative and that they could be modified without compromising the overall performance of the Brine with BACM Backup areas to achieve the required dust control levels needed.

The funds included in the 2017-18 budget in II.K. are for professional services for the review of the Brine with BACM Backup areas and potential refinements to the performance criteria. The District would like to retain the services of someone with experience in the development and changes of salt crusts in similar environments around the world to those found at Owens Lake. \$75,000 is budgeted for this work in 2017-18.

#### **Hydrological Review for Master Project**

LADWP has been working on the Master Project for Owens Lake since 2010. As part of the Master Project, LADWP intends to use groundwater from beneath Owens Lake and has been conducting an Owens Lake Groundwater Evaluation Program since 2008. The project description and Draft Environmental Impact Report (DEIR) for the Master Project are reportedly planned to be released in the spring of 2018.

Funds in this budget category are for professional services related to the review and evaluation of the proposed groundwater pumping plan for dust controls on Owens Lake. The District is concerned that groundwater pumping from under Owens Lake may impact the existing stable shoreline meadows and vegetation associated with springs and seeps and increase the amount of dust controls required on the lake bed. The District anticipates using the services provided by professional hydrogeologists at Environ or DRI for this work. \$100,000 is budgeted for this task.

## **SUMMARY**

### Fees

In 2012, the LADWP failed to pay \$1,141,164 in SB270 fees ordered by the District. The District was forced to file a lawsuit in Inyo County Superior Court on August 31, 2012 (which was transferred to Kern County Superior Court, Case No. S-1500-CV-277962, SPC) to compel LADWP to pay. The Court ordered the LADWP to make the payment and it did so on January 24, 2013.

A trial on the merits of the case was scheduled for October 21, 2013 and was continued until February 10, 2014. Trial was averted by entry of a Stipulated Judgment on February 13, 2014 and a Settlement Agreement by which LADWP paid \$1,350,000 to the District as an environmental public benefit payment for solar power to public service districts and \$1.2MM to support District activities to reduce air pollution emissions.

The LADWP and District agreed, among other things, that several categories of fees under Health & Safety Code Section 42316 are legally valid. Included are the District's legal fees to respond to LADWP's administrative comments, appeals, lawsuits and other legal challenges related to H&S Section 42316 as well as costs of government (i.e. employee costs and overhead). The Stipulated Judgment for the District also required the LADWP to dismiss four (4) fee order appeals before CARB.

### Dust Control Measures

On December 16, 2014, the Sacramento County Superior Court issued a ruling denying LADWP's petition requesting that CARB's 2011 SCR D decision in favor of the District, be overturned. On December 30, 2014, the Sacramento Superior Court approved a stipulated judgment (2014 Stipulated Judgment<sup>7</sup>) in favor of the District requiring completion of dust control measures at Owens Lake. This ruling follows prior decisions by other courts in favor of the District, the California Air Resources Board, and the State Lands Commission, which were sued by LADWP.

The 2014 Stipulated Judgment negotiated between the District Governing Board and the LADWP Commission settles the dispute initiated with the 2011 SCR D. It brings closure to a long series of legal battles primarily between the District and the LADWP that started in 2011. More importantly, it will result in LADWP completing dust control measures on 48.6 square miles of the Owens Lake bed, while also saving water, and ultimately it will bring the Owens Valley into compliance with the federal air quality standard.

---

<sup>7</sup>Sacramento County Superior Court No. 34-2013-80001451-CU-WM-GDS

LADWP and the District made many new commitments that are contained in the 2014 Stipulated Judgment. District and LADWP staff have a common goal, which is to get the final dust control measures implemented and to do it in a way that will help LADWP reduce the amount of water used at Owens Lake. As discussed in earlier sections, there are additional costs for personnel, equipment and professional services for dust control measures and monitoring tasks to be carried out over the next three to five years.