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LOW ENERGY OFFSHORE GEOPHYSICAL PERMIT PROGRAM ONE-YEAR PROGRAM IMPLEMENTATION REPORT, INCLUDING RECOMMENDATIONS FOR PROGRAM ADMINISTRATION AND SUMMARY OF THE GEOPHYSICAL ACTIVITIES THAT HAVE OCCURRED UNDER THE UPDATED PROGRAM SINCE ITS ADOPTION BY THE COMMISSION ON SEPTEMBER 20, 2013

BACKGROUND

On September 20, 2013, the California State Lands Commission (Commission or CSLC) approved the Offshore Geophysical Permit Program (OGPP or Program) Update, which governs the CSLC's administration of non-exclusive General Permits for low energy geophysical surveys issued under section 6826 of the Public Resources Code. The OGPP Update was analyzed in a Mitigated Negative Declaration (MND) (State Clearinghouse [SCH] # 2013072021) that found that offshore geophysical surveys utilizing acoustic energy do not have the potential to cause significant environmental impacts when conducted in association with specific operational practices and mitigation measures that are required as part of the Program.

Any person or entity seeking to conduct geophysical surveys offshore in State waters (exclusive of granted lands) must apply for and obtain a General Permit, or use the services of a permitted operator, prior to conducting such activities. General Permits are issued for a three-year period and authorize the permittee to conduct a range of geophysical surveys as long as certain terms and conditions are implemented. This requirement ensures that geophysical survey operations are protective of the State's marine environment. Geophysical surveys conducted under an OGPP General Permit use electromechanical (e.g., echosounders, side-scan sonars, subbottom profilers, mini-sparkers) and passive (e.g., magnetometer, remotely operated vehicles [ROVs]) equipment to obtain critical data on a variety of ocean resources and uses; the use of high energy devices (e.g., airguns, water guns) are expressly prohibited under the Program. Areas of study and survey objectives include, but are not limited to:

- Conducting scientific research, including surveys of near-shore sand erosion and deposition, seafloor changes, and seafloor topography and bathymetry;
- Surveying existing pipelines to assess any structural damage, corrosion, or spanning that could lead to a pollutant release;

- Identifying and avoiding seafloor hazards and faults when designing pipeline- and cable-laying projects, reducing the likelihood of dangerous leaks, ruptures and breakages;
- Surveying existing fiber-optic cables and other seafloor structures to determine how well they are buried or if they can be snagged by fishing gear; and
- Developing maps of hard bottom and essential fish habitat or cultural resources indicating where the placement of permanent or temporary objects (e.g., cables or anchors) should be precluded.

When it approved the OGPP Update, the Commission directed CSLC staff to report back in one year on the status of staff's administration of the updated Program. This One-Year Program Implementation Report (One-Year Report) (Exhibit A) provides an evaluation of Program administration from September 2013 through September 2014, including a summary of the activities that have occurred under the Program, an update on the recommendations provided in the August 2013 Low Energy Offshore Geophysical Permit Program Review,[1] and feedback from permittees and non-permitted operators about the updated Program. The One-Year Report also includes a discussion of additional recommendations and potential next steps. An overview of the One-Year Report's content is provided below.

ONE-YEAR PROGRAM IMPLEMENTATION REPORT

The OGPP Update included the preparation of a MND, a Scientific Review of the current literature on ocean acoustics, and the above-referenced Program Review. The Program Review discussed several recommendations related to CSLC staff's administrative responsibilities under the Program and opportunities to improve participation and public involvement. The One-Year Report, which was prepared to inform the Commission of CSLC staff's administration of the updated Program, identifies the status of Program Review recommendations, and presents a discussion of ongoing implementation challenges for implementation, based on staff experience and feedback from Permittees and other stakeholders. Staff recommendations for formal Program amendments would be brought before the Commission for consideration at a future public meeting.

The One-Year Report discusses:

- The issuance of OGPP General Permits and pre- and post-survey requirements for permittees under the OGPP Update;

[1] The Low Energy Offshore Geophysical Permit Program Review Report, August 2013, was prepared by CSLC staff pursuant to a grant from the Ocean Protection Council. The Program Review Report can be found online at www.slc.ca.gov/Division_Pages/DEPM/OGPP/PDF/OGPP_Permit_Review.pdf

- The amendments to the General Permit and Mitigation Monitoring Program that were adopted by the Commission on April 23, 2014;
- The number, type, and locations of geophysical surveys that occurred under the updated Program between September 2013 and September 2014;
- The implementation status of the recommendations identified in the 2013 Program Review; and
- Ongoing administration challenges and recommendations for Program improvement (identified through internal staff discussions and interviews with OGPP permittees, non-permitted operators, and other stakeholders).

KEY FINDINGS

Program Consistency with the MND

The MND anticipated 10 to 12 surveys representing 70 to 80 survey days. This "predicted activity scenario" was based on the historical participation by 11 permitted companies from 2008 to 2012. Seven permitted surveys and fewer than 30 total survey days by three companies occurred from September 2013 through September 2014, indicating a moderate decrease in the number of surveys compared with the historical data, but within the scope of the MND's analysis. Similarly, survey locations, equipment types, and lengths were representative of the predicted activity scenario; five of seven surveys were in Region II (the area between the Los Angeles/Ventura County line and San Luis Obispo/Monterey County line), no new equipment types were proposed for use, and no surveys longer than anticipated in the MND were conducted. No adverse interactions with marine mammals occurred and the implementation of wildlife protection measures were effective.

Enforcement

Enforcement of the OGPP continues to present challenges to CSLC staff and was the primary concern expressed by permittees in interviews. Through these interviews, CSLC staff was made aware that the number of operators permitted under the OGPP is only a small fraction of the total number of operators conducting surveys in State waters. Notably, the statutory section governing low energy geophysical permits, as outlined under Public Resources Code section 6826, does not contain enforcement authority or a mechanism to compel participation in or compliance with the OGPP. While CSLC staff outreach efforts have resulted in a small number of new applicants for the Program, unpermitted surveys continue to occur, and many unpermitted operators appear disinclined to participate. As recommended in the 2013 Program Review, CSLC staff is in the process of developing regulations for the Program, and is exploring other enforcement mechanisms, including the feasibility of legislation that would institute clear authority and regulatory guidance for the CSLC to enforce the Program.

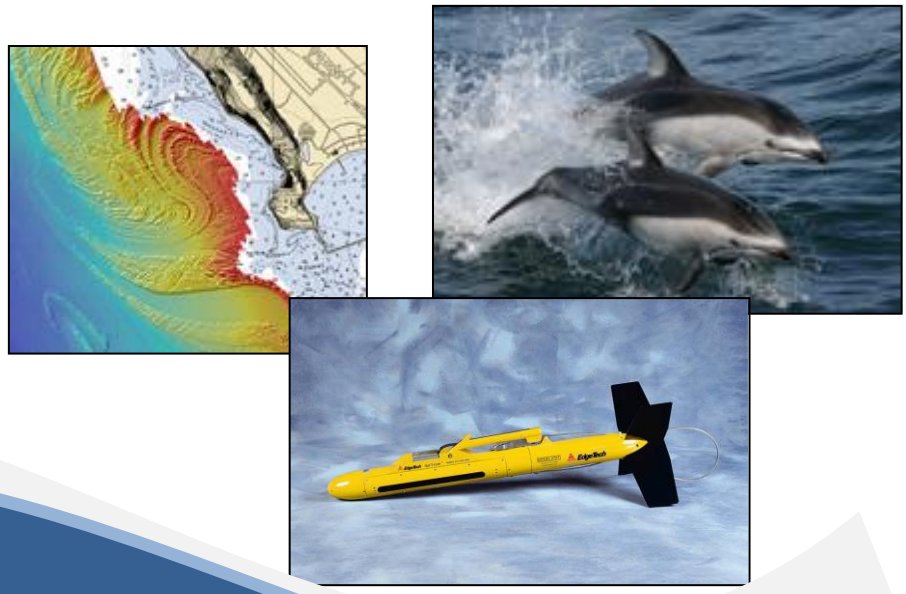
EXHIBIT

A. The OGPP Update: One-Year Program Implementation Report

LOW ENERGY OFFSHORE GEOPHYSICAL
PERMIT PROGRAM UPDATE
C 110 – EXHIBIT A

ONE-YEAR PROGRAM IMPLEMENTATION REPORT

October 2014



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CEQA	California Environmental Quality Act
CSLC	California State Lands Commission
EIR	Environmental Impact Report
kHz	kilohertz
kJ	kilojoule
MM	Mitigation Measure
MMP	Mitigation Monitoring Program
MND	Mitigated Negative Declaration
MWCP	Marine Wildlife Contingency Plan
MWM	Marine Wildlife Monitor
nm	nautical mile
NOAA	National Oceanic and Atmospheric Administration
OGPP	Offshore Geophysical Permit Program
OPC	Ocean Protection Council
OSCP	Oil Spill Contingency Plan
PRC	Public Resources Code
ROV	Remotely Operated Vehicle
SCH	State Clearinghouse
SPL	sound pressure level
USGS	U.S. Geological Survey

1.0 PURPOSE

This One-Year Program Implementation Report focuses on evaluating the California State Lands Commission's (CSLC or Commission) administration of the updated low energy Offshore Geophysical Permit Program (OGPP or Program) since its approval by the Commission on September 20, 2013. The OGPP Update was analyzed in a Mitigated Negative Declaration (MND) (State Clearinghouse [SCH] # 2013072021) that found that geophysical surveys using acoustic energy do not have the potential to cause significant environmental impacts when conducted in association with specific operational practices and mitigation measures that are required as part of the Program.

Pursuant to Division 6 of the California Public Resources Code, section 6826, and California Code of Regulations, Title 2, section 2100, the State of California, acting by and through the CSLC, may issue non-exclusive permits to qualified entities to perform geophysical surveys of the ocean bottom in offshore marine waters within its jurisdiction subject to specified terms and conditions. Permittees include the U.S. Geological Survey (USGS), Fugro West, Inc., EcoSystems Management Associates, Inc., and other entities that contract with public agencies, universities, and private companies that need data that can only be obtained through geophysical surveys. Geophysical surveys conducted under CSLC permits obtain critical data on a variety of ocean resources and uses. Areas of study and survey objectives include, but are not limited to:

- Conducting scientific research, including surveys of near-shore sand erosion and deposition, seafloor changes, and seafloor topography and bathymetry;
- Surveying existing pipelines to assess any structural damage, corrosion, or spanning that could lead to a pollutant release;
- Identifying and avoiding seafloor hazards and faults when designing pipeline- and cable-laying projects, reducing the likelihood of dangerous leaks, ruptures and breakages;
- Surveying existing fiber-optic cables and other seafloor structures to determine how well they are buried or if they can be snagged by fishing gear; and
- Developing maps of hard bottom and essential fish habitat or cultural resources indicating where the placement of permanent or temporary objects (e.g., cables or anchors) should be precluded.

Surveys conducted under the OGPP authorize the use of electromechanical equipment (e.g., mini-sparkers, side-scan sonar, boomers, subbottom profilers, and echosounders); the use of high energy devices (e.g., airguns or water guns) require project-specific environmental analysis under the California Environmental Quality Act

(CEQA) (Pub. Resources Code, § 21000 et seq.) and are not permitted under the OGPP.

In 2013, CSLC staff, with funding assistance from the California Ocean Protection Council (OPC), completed the OGPP Update, which included preparation of the following:

- The MND prepared pursuant to CEQA;
- A Scientific Review which examined the current literature on ocean acoustics, particularly related to the effects of anthropogenic sound on marine biological resources; and
- A Permit Program Review which evaluated existing program requirements and operations, and presented recommendations to improve the efficiency, effectiveness, and transparency of the Program.

This One-Year Program Implementation Report (One-Year Report), which was prepared to inform the Commission of CSLC staff's administration of the updated Program, identifies the status of Program Review recommendations, and presents a discussion of ongoing implementation challenges for implementation, based on staff experience and feedback from Permittees and other stakeholders. Staff recommendations for formal Program amendments would be brought before the Commission for consideration at a future public meeting.

2.1 HISTORY OF THE OGPP

The CSLC, under Division 6 of the Public Resources Code (PRC), holds and manages the State's sovereign lands, which include tide and submerged lands adjacent to the entire California coast and offshore islands from the ordinary high water mark (generally, as measured by the mean high-tide line) to 3 nautical miles (nm) offshore, on behalf of all California pursuant to the Public Trust Doctrine, except where lands have been legislatively granted in trust to local jurisdictions. Under the Public Trust Doctrine, uses of trust lands are generally limited to those that are water dependent or related and have a statewide benefit, and include commerce, fisheries, navigation, environmental preservation, and recreation; Public Trust lands may also be kept in their natural state for habitat, wildlife refuges, scientific study, or open space (CSLC Public Trust Policy, www.slc.ca.gov; click on the "Information" and "Statements" links).

The CSLC has been the State agency with jurisdiction over geophysical survey activities in State waters since 1941 with the enactment of PRC section 6826 that allows the Commission to adopt regulations and grant non-exclusive permits for geophysical survey activities. Geophysical surveys conducted under Commission permits use data-gathering methods that follow a pre-defined course or spatial grid and conduct critical ocean bottom exploration for both scientific and engineering purposes.

Between 1984 and 2013, the CSLC relied on a MND (SCH # 84020113), with subsequent additional conditions imposed in 1987 and 2008 (described below), to comply with CEQA when issuing individual geophysical survey permits for survey activities. The 1984 MND analyzed the expected impacts resulting from the use of both high (≥ 2 kilojoule [kJ] energy input) and low energy (< 2 kJ energy input) geophysical survey equipment and identified measures to mitigate significant impacts to wildlife and the environment from geophysical surveys (Minute Item 11, 5/24/1984).

In 1987, based on new information related to the potential effects on marine life and divers from high energy surveys, the CSLC determined that permits for high energy geophysical surveys employing airguns could not be issued without preparation of an Environmental Impact Report (EIR) (Minute Item 27, 9/23/1987). The CSLC's decision was upheld by the California Court of Appeal (*Meridian Ocean Systems, Inc., et al. v. California State Lands Commission* (1990) 222 Cal. App. 3d 153.). As a result, CSLC staff administered the OGPP between 1987 and 2013 based on prohibiting use of energy sources over 2 kJ of energy input.

In 2008, the CSLC began to require a series of mitigation measures as part of the OGPP, including requirements that permittees develop specific contingency plans (i.e., Marine Wildlife Contingency Plans [MWCP]; Oil Spill Contingency Plans [OSCP]), notify

the CSLC and interested or affected parties of nighttime operations, and provide detailed, equipment-specific information.

As noted above, a considerable amount of relevant research has been completed since the CSLC adopted the original MND in 1984. In an effort to update the OGPP to include the most up-to-date scientific research, the CSLC sought and received funding from the OPC in 2011 to prepare the above-described MND, Scientific Review, and Permit Program Review. As noted by the OPC in its staff recommendation related to the grant award, recent acoustic-related study results "reveal a more complex picture of the hazards associated with ocean noise, based on frequency and sound pressure levels (SPL), rather than just energy levels," which are important factors to consider when evaluating and understanding the potential effects of anthropogenic sound on the marine environment.

When the Commission adopted the MND on September 20, 2013 (Calendar Item 120, 09/20/2013), it additionally directed staff to report back in one year on implementation of the updated OGPP. This One-Year Program Implementation Report, which was prepared to inform the Commission of staff's administration of the updated Program, identifies the status of the Permit Program Review recommendations and presents a discussion of ongoing challenges for implementation, based on staff experience and feedback from Permittees and other stakeholders. Staff recommendations for formal Program amendments would be brought before the Commission for consideration at a future public meeting.

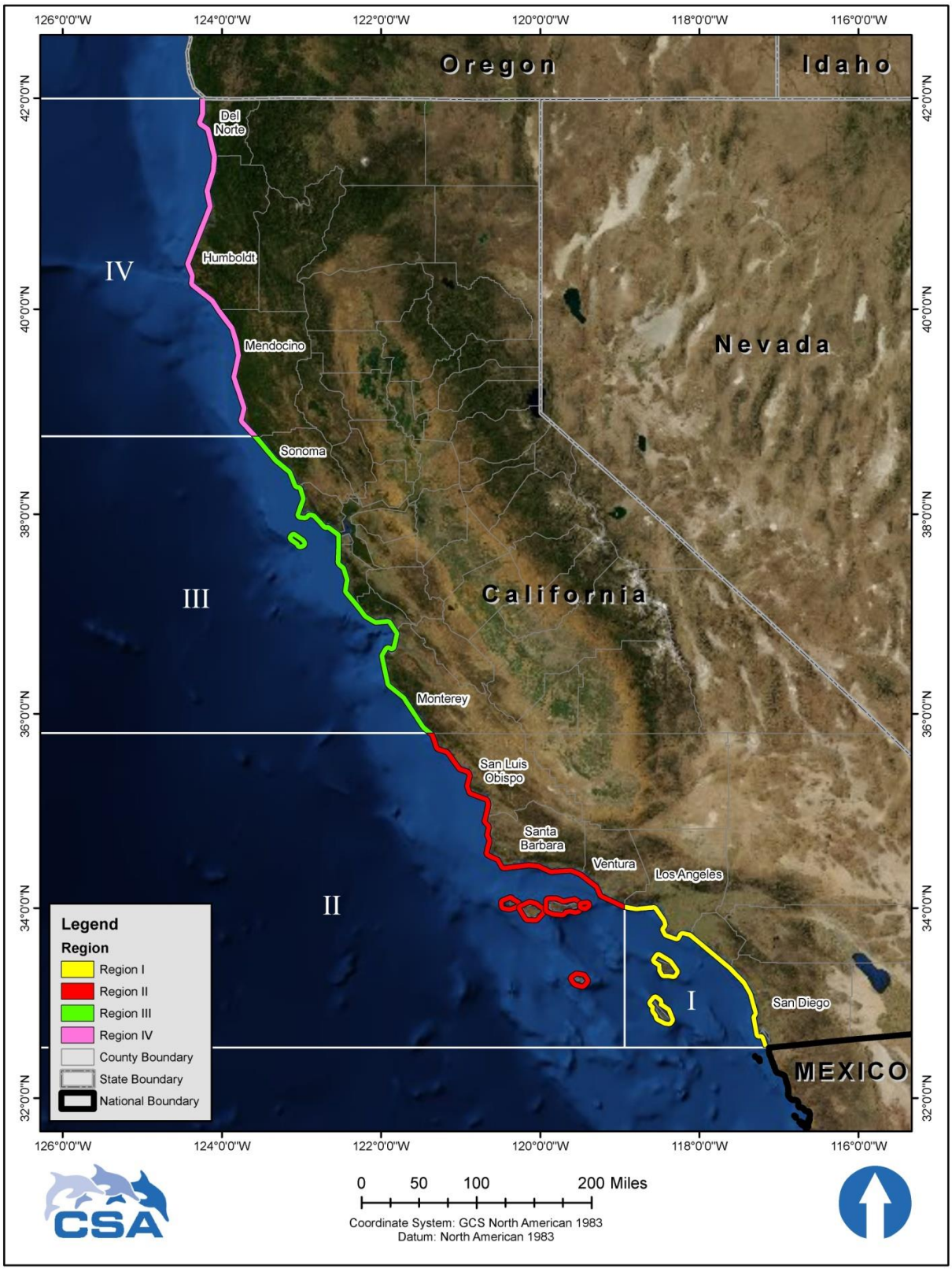
2.2 THE OGPP UPDATE

2.2.1 Geographic Coverage

The geographic coverage for OGPP General Permits includes the marine waters of the State (including ports, harbors, and marinas), exclusive of those tide and submerged lands that have been legislatively granted to local jurisdictions (i.e. the Ports of Long Beach and Los Angeles). In administering the OGPP, the CSLC divides State waters into four separate regions. Region designations and boundaries are defined as follows (illustrated in **Figure 2-1**):

Region I	The area between the California-Mexico border to Los Angeles/Ventura County line.
Region II	The area between the Los Angeles/Ventura County line and Santa Barbara/San Luis Obispo County line.
Region III	The area between the San Luis Obispo/Monterey County line and Sonoma/Mendocino County line, excluding San Francisco, San Pablo, and Suisun Bays.
Region IV	The area in between the Sonoma/Mendocino County line and California-Oregon border.

Figure 2-1. Regions Delineated Under the California State Lands Commission Offshore Geophysical Permit Program



2.2.2 Equipment Types

A variety of equipment may be employed during a low energy geophysical survey depending upon the survey purpose and the type of data being acquired. The OGPP Update does permit the use of low energy geophysical equipment, which can be broadly divided into five categories: subbottom profilers (e.g., mini-sparkers, boomers, chirp, and general subbottom profiler systems), echosounders (e.g., single beam and multibeam echosounders, and fathometers), side-scan sonars, multi-component systems (i.e., containing two or more complementary equipment types), and passive systems (e.g., magnetometer, gravity meters, remotely operated vehicles [ROVs]). As noted above, the Program expressly prohibits the use of any air or water compression devices (e.g., airguns, water guns) for generating acoustic pulses.

2.2.3 Issuance of OGPP General Permits

Between 2008 and 2012, 11 permitted companies conducted 49 geophysical surveys. As of October 2014, there are seven geophysical operators permitted to conduct low energy geophysical surveys under the OGPP's General Permit[1]:

- Fugro Pelagos, Inc.
- Fugro West, Inc.
- EcoSystems Management Associates, Inc.
- University Corporation at Monterey Bay
- TerraSond, Limited
- USGS
- David Evans and Associates, Inc.

One project-specific permit has also been issued to USGS for a geophysical survey conducted in San Pablo Bay. Project-specific permits follow a similar procedure as the General Permit in terms of application and fee payment, but are issued for a prescribed period of time, generally less than one year.

After posting a $50,000 surety bond and obtaining a General Permit from the CSLC, permittees are authorized to conduct OGPP-covered surveys, subject to a number of provisions identified in the General Permit, including notification requirements, operational requirements, and post-survey reporting requirements.

Throughout the pre- and post-survey process, CSLC staff tracks permittee compliance with General Permit provisions (e.g., submission deadlines) using a geodatabase developed in ArcGIS. Additional information in the geodatabase includes pre- and post-survey track lines and the type(s) of equipment used (including frequency and source level) for each survey (see **Section 3.5** for additional details). This information is then

[1] One additional company, Gahagan & Bryant Associates, Inc., has applied for a General Permit, which is scheduled to be considered for approval at the CSLC October 2014 meeting.

used to generate reports, such as this one, to provide an overview of the activities occurring under the updated Program.

2.2.4 Amendments to the General Permit and Mitigation Monitoring Program

In the months following the Commission's approval of the OGGP Update, CSLC staff conducted outreach in the geophysical operator community by sending letters to commercial general contractors, local agencies, port and marina operators, and known survey companies regarding the OGPP. It became evident to CSLC staff, based on responses to the letters, that a number of geophysical surveys occurring in State waters are associated with dredging-related operations, a phenomenon that was not known to staff during preparation of the OGPP Update.[2] During dredging operations, surveyors, usually on behalf of a dredging company, use geophysical equipment to calculate the volume of material removed/dredged in a channel, for example, to determine payment between a company conducting dredging activities and a contractor. CSLC staff spoke with two companies specifically about surveys associated with dredging; one of these companies is permitted under the OGPP and one is unpermitted. These companies indicated that they are unable to comply with the 21-day Presurvey Notification requirement because they are often given short notice (less than 24 hours) to conduct surveys in support of dredging activities; therefore, compliance with the OGPP's 21-day Presurvey Notification would result in the loss of work for permitted operators and may/would discourage non-permitted operators from applying for a permit.

Additionally, CSLC staff determined, after consultation with the National Oceanic and Atmospheric Administration (NOAA Fisheries), Natural Resources Defense Council, and survey operators, that the marine wildlife monitor (MWM) and safety zone monitoring requirements were not necessary for surveys operating equipment at frequencies equal to or greater than 200 kilohertz (kHz) because this frequency range is higher than what is detected by, and is thus not audible to, marine mammals. Because the frequency range is outside the hearing range of marine mammals, the sound generated by the equipment would not be expected to cause a behavioral or physical impact.

As a result of the above-described events, staff brought a proposed amendment to the General Permit to the Commission for consideration. This amendment was approved by the Commission on April 23, 2014 (Calendar Item 67, 04/23/2014), and consisted of the following changes:

1. California Air Resources Control Board's Tier 2-Certified Engine Requirement – the amended permit clarified that Tier 2 engine compliance only applies to diesel engines (as opposed to applying to all types of engines).

[2] CSLC staff and its consultant requested information, during development of the MND, from known surveyors regarding their equipment, vessels, and anticipated activities. Dredging surveys were not brought to staff's attention by surveyors during this consultation.

2. Marine Wildlife Monitors – the amendment requires only one MWM (down from two) to be onboard the survey vessel during transit and data collection activities for surveys only using passive geophysical equipment or active geophysical equipment operated at frequencies ≥ 200 kHz.

3. Safety Zone Monitoring – the amendment eliminated the requirement for monitoring of safety zones for surveys using passive geophysical equipment or using geophysical equipment operated at frequencies ≥ 200 kHz.

4. Presurvey Notification for OGPP Surveys Associated with Dredging Activities – the amendment added an alternate Presurvey Notification requirement for surveys associated with dredging activities in ports, harbors, and marinas. It specifies 24-hour notice be provided (instead of 21 days), and requires the operators to have a MWCP and OSCP on file with the CSLC for surveys related to dredging activities in ports, harbors, and marinas.

2.2.5 OGPP Survey Activity: Year One

MND Predicted Permittee Activity Scenario

Based on geophysical survey activity trends in 2008-2012 and results of CSLC staff's consultations with operators on expected future survey activity, the OGPP MND anticipated the following permittee activity scenario for the updated Program's first year:

- A total of 10 to 12 surveys representing 70 to 80 survey days are anticipated, although the implementation of longer duration surveys may push the total survey days to 100 or more; a prevalence of daytime surveys is expected.

- Surveys are expected to typically last one to four days, with minor exceptions; most surveys will continue to be associated with infrastructure (e.g., surveys of outfalls, pipelines, and cables).

- The vast majority of future survey work (i.e., 90 to 95%) is expected to occur in Regions I and II, with limited activity (i.e., 5 to 10%) expected in Regions III and IV.

- Survey vessels will mobilize and will overnight/berth at the closest suitable port.

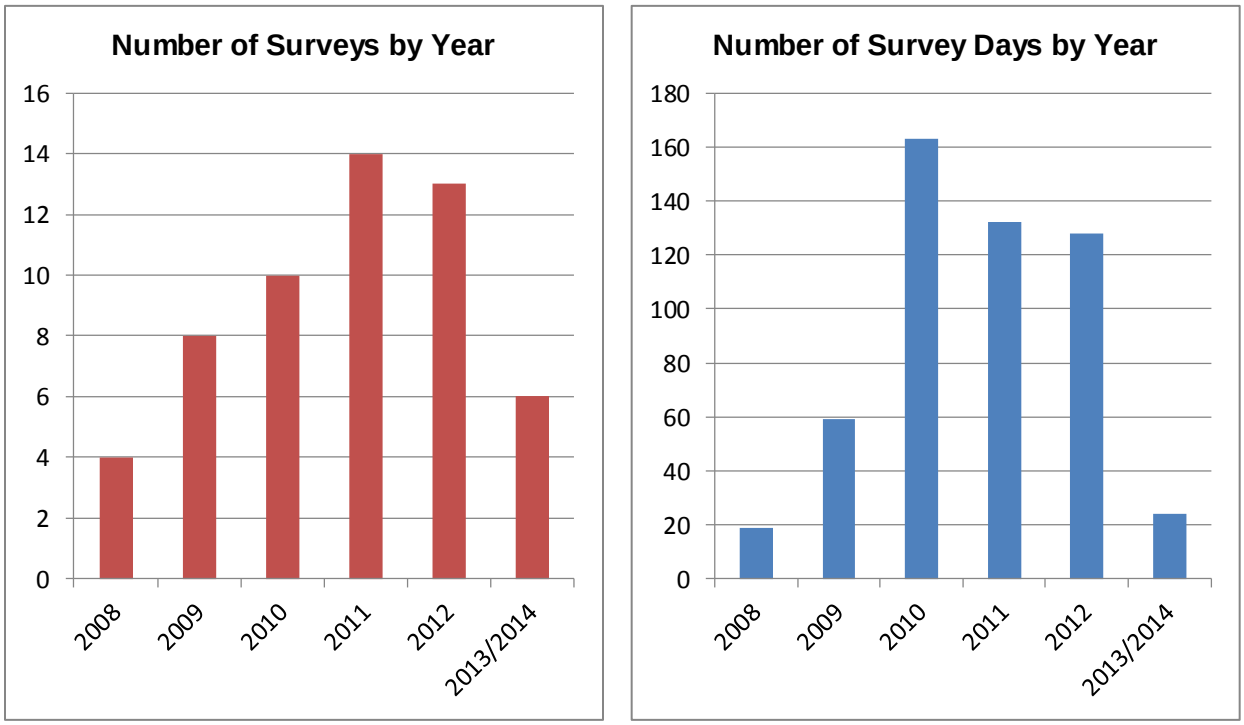
- Multibeam echosounders, single beam echosounders, subbottom profilers (including chirp and sparkers), and side-scan sonar will continue to represent the most commonly used pieces of equipment, in addition to boomers. The concurrent use of equipment (e.g., use of subbottom profiler and side-scan sonar) will continue and may be expected to occur approximately 15% of the time.

- Boomer use, while generally limited to longer (duration) surveys, is expected to continue; its use relative to other equipment types will be dependent upon the nature and duration of future surveys.

Actual Permittee Survey Activity: October 2013 – 2014

During the first year of the updated Program, six low energy geophysical surveys, representing 24 survey days, were conducted by three permittees, Fugro West, Inc., EcoSystems Management Associates, Inc., and USGS. **Table 2-1** provides information for each survey conducted under the OGPP since October 2013, including the type of equipment used and the purpose of the survey. **Figure 2-2** illustrates the level of survey activity for October 2013-September 2014 compared to the 2008-2012 reference period.

Figure 2-2. Low Energy Geophysical Surveys/Survey Days (2008 – Sept. 2014)*



*Note: Figure 2-2 does not include January-September 2013

Five of the six surveys occurred in Region II, with one survey occurring in Region III. Surveys typically lasted one to three days and were conducted during daylight hours, with vessels returning to a local port for overnight berthing; one survey lasted 13 days.[3]

[3] This survey was a 24-hour survey conducted by USGS over a 13-day period in Region II from Gaviota to Point Sal in Santa Barbara County. Both a mini-sparker and magnetometer were used to collect geophysical data; however, the magnetometer was the only piece of equipment permitted to operate during nighttime operations because it does not use acoustic energy to acquire data.

Table 2-1. Low Energy Geophysical Surveys (October 2013 – 2014)

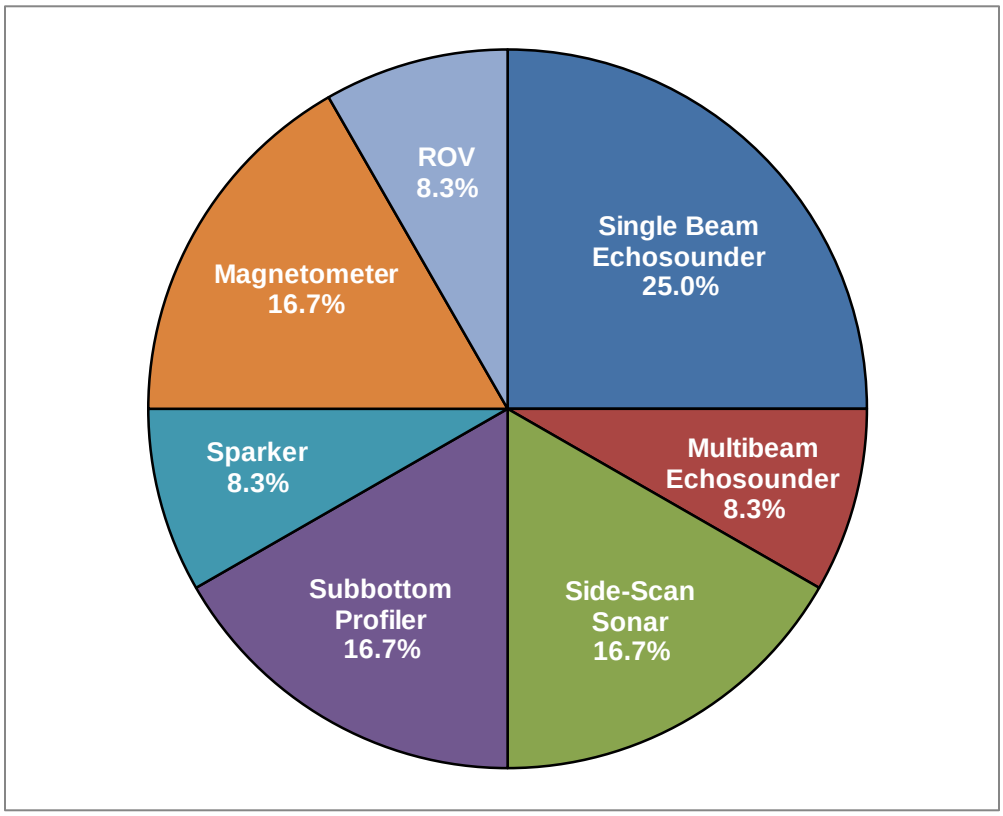
Permittee	Month/Year of Survey	Region	Area	Day(s) of Operation	Equipment	Purpose of Survey
Fugro West, Inc.	Dec 2013	2	Pt. Buchon, San Luis Obispo County	3	ROV	To record the location of and seafloor habitats crossed by a cable that provides power to and transmits data from four OBS units.
EcoSystems Management Associates, Inc.	Jan 2014	2	Palos Verdes, Los Angeles County	2	SBES, SSS, SBP	To locate an area to construct a fish/kelp reef for a scientific pilot study and restoration.
USGS	Apr 2014	3	Monterey Bay, Monterey County	1	MBES	To support the CSMP and to characterize seafloor geology and habitats, assess geologic hazards, and to aid regional sediment management.
EcoSystems Management Associates, Inc.	May 2014	2	Palos Verdes, Los Angeles County	3	SBES, SBP	To determine geologic hazards, faults, shallow gas, and soft sediments at the project area.
Fugro West, Inc.	July 2014	2	Offshore, Ventura County	2	SSS[1], SBE[1], Mag	To document the seafloor conditions within the corridor that centers on a proposed outfall location.
USGS	July 2014	2	Gaviota to Pt. Sal, Santa Barbara County	13	Spark, Mag	To support the CSMP and to map sediment thickness, inform habitat and geologic maps, and accurately locate offshore geologic structures such as earthquake faults.

[1] Concurrent use of equipment.

Abbreviations: CSMP = California Seafloor Mapping Program; Mag = magnetometer; MBES = multibeam echosounder; OBS = ocean bottom seismometer; ROV = remotely operated vehicle; SBES = single beam echosounder; SBP = subbottom profile (general); Spark = mini-sparker; SSS = side-scan sonar; USGS = U.S. Geological Survey.

Seven different equipment types (**Figure 2-3**) were used during the first year of the updated Program. Single beam echosounders (25%) represented the most commonly used piece of equipment, followed by side-scan sonars (16.7%), subbottom profilers (general) (16.7%), magnetometers (16.7%), multibeam echosounders (8.3%), sparkers (8.3%), and ROVs (7.1%); no boomers, chirps, or fathometers were operated. Concurrent equipment operations occurred during one two-day survey using a single beam echosounder and side-scan sonar, both of which were operated at frequencies above 200 kHz (above the known functional hearing range of marine mammals).

Figure 2-3. Low Energy Geophysical Equipment Use (October 2013 – 2014)



Three of the six surveys operated geophysical equipment at frequencies above 200 kHz or operated passive equipment (no acoustic energy). Equipment operating at frequencies less than 200 kHz (within the known function hearing range of marine mammals) included a survey using a mini-sparker and two surveys using subbottom profilers.

All permittees submitted the required Post Survey Report (General Permit Condition 9) to CSLC staff within 30 days of survey completion which provided operational (e.g., a narrative description of the work performed, charts/maps) and biological (e.g., sightings of marine wildlife) information for the surveys. Post Survey Reports have not only allowed staff to review field operations, but also the types of wildlife encountered during

the survey and how mitigation measures were implemented by captain, crew, and MWMs in real-time.

Based on the information provided in the Post Survey Reports, the most abundant marine wildlife observed during survey activities were California sea lions (*Zalophus californianus*), common dolphins (*Delphinus spp.*), and bottlenose dolphins (*Tursiops truncatus*). Other sightings included humpback whales (*Megaptera novaeangliae*), gray whales (*Eschrichtius robustus*), Risso's dolphins (*Grampus griseus*), harbor seals (*Phoca vitulina*), and sea otters (*Enhydra lutris*), as well as a few whale species that could not be identified.

Sea lions were often observed resting at the surface/thermoregulating, diving, porpoising, and playing in the survey area, while common dolphins and bottlenose dolphins were often observed engaging in aerial/acrobatic activities, playing, foraging, swimming, and bowriding. Large whales, including humpback whales and gray whales, were often seen swimming, and occasionally foraging, at distances ranging from 500 m to several kilometers away from survey vessels.

For surveys operating equipment at frequencies less than 200 kHz, mitigation measures such as safety zones and shutdowns were implemented to protect marine wildlife from injurious or disturbing sound levels. Based on the information provided in Post Survey Reports, California sea lions, common dolphins, and bottlenose dolphins were the species most often recorded approaching the survey vessel or within the safety zones; thus, shutdowns were implemented most often for these species when the established safety zone was breached. For example, during USGS's 13-day survey, geophysical equipment was shut down 65 times due to the proximity of marine mammals to the survey vessel and in/near the established safety zone (130 meters), and most shutdowns were the result of common dolphins bowriding, as well as swimming, playing, and engaging in aerial/acrobatic activities near the survey vessel. No disturbance or adverse behavioral reactions were observed or recorded in the Post Survey Reports.

This section discusses the implementation of the recommendations provided by CSLC staff in the Permit Program Review. The discussion below provides an overview of the issues identified in the Permit Program Review regarding the administration and implementation of the Program prior to the OGPP Update, CSLC staff recommendations for improvement and efficiency, and how the recommendations have been implemented in the past year.

3.1 QUALIFYING SURVEYS AND PROGRAM RESTRICTIONS

Pre-Update

Based on a 1984 MND, the CSLC relied on an equipment energy threshold of 2 kJ to distinguish between surveys that could be administered under the OGPP and those that needed to undergo a project-specific environmental analysis.

2013 Recommendation

CSLC staff recommended discarding the kJ metric in favor of a more scientifically rigorous and widely used noise modeling approach that accounts for equipment-specific parameters (e.g., frequency, source level) and environmental factors (e.g., sound speed profile of the ocean, geoacoustic properties of the sediment) that influence the strength, or loudness, of a sound as it propagates away from the source. These interactions ultimately determine the distance at which a sound will contribute to ambient noise levels in the ocean. Understanding and modeling these interactions, as well as taking into account the hearing range(s) of marine wildlife, is important for establishing mitigation measures, such as safety zones, that effectively protect marine mammals, sea turtles, and fishes from injurious or disturbing sound levels.

Implementation Status

Complete. The MND for the OGPP Update did not use the kJ metric to distinguish between what equipment types fall under the OGPP. Instead, the MND relied on a scientifically rigorous modeling approach based on a representative sample of low energy geophysical sound sources authorized under the OGPP. Using a conservative approach, this modeling study selected equipment-specific parameters (e.g., frequency, source level) that produced higher acoustic impact estimations; as a result, the acoustic impact estimates in the modeling study are considered the maximum practically achievable, rather than the expected average (Zykov 2013). This approach provided CSLC staff with the information needed to identify the necessary conditions (e.g., size of safety zones) of the General Permit and Mitigation Monitoring Program (MMP) that would mitigate and avoid the potential for a significant effect on the environment.

3.2 PRESURVEY NOTICE TO THE CSLC

Pre-Update

Prior to the OGPP Update, the General Permit required permittees to submit various notices with inconsistent timing requirements.

2013 Recommendation

CSLC staff recommended that notifications be standardized into one submittal 21 days prior to the proposed survey start date. Not only would this ensure adequate review time, it would provide more time for CSLC staff to work with permittees to address any issues with the Presurvey Notification materials without delaying the survey. Additionally, CSLC staff recommended developing a Presurvey Notification Checklist for use by permittees to facilitate compliance and to aid in CSLC staff review.

Implementation Status

Complete; Ongoing. In accordance with the OGPP Update and General Permit, all Presurvey Notification materials must be submitted to the CSLC at least 21 days prior to all scheduled survey activities.[4] To help facilitate compliance with the Presurvey Notification requirements and submission deadline, a Presurvey Notification Checklist (Exhibit G of the General Permit) was developed as a reference for permittees. The Checklist includes "yes" and "no" check boxes next to each item to be submitted (e.g., permits from other agencies, MWCP), as well as room for an explanation as to why an item is not included (e.g., not all surveys require permits from other agencies).

Additionally, CSLC staff developed several guidance documents to assist permittees with preparing Presurvey Notifications, including:

- Guidance for Developing a Marine Wildlife Contingency Plan,
- Data Collection Guidelines for Marine Wildlife Monitors,
- Guidance for Developing an Oil Spill Contingency Plan, and
- Presurvey Screening – Important Information and Guidance.

These guidance documents were developed to help improve the transparency of the OGPP and help permittees develop documents that include the necessary information needed by CSLC staff to determine compliance with the updated Program. This ensures that surveys are not denied or delayed due to missing information or inappropriate survey conditions/equipment.

[4] For geophysical surveys associated with dredging in ports, harbors, and marinas, a 24-hour notice of survey operations must be submitted to the Statewide Geophysical Coordinator.

The 21-day Presurvey Notification submission deadline has helped CSLC staff review Presurvey Notification materials, especially at the beginning stages of implementation when permittees were submitting materials under the updated Program for the first time. This extended timeframe has allowed CSLC staff to adequately review Presurvey Notification materials and discuss them with permittees to assure all General Permit and MMP conditions are met before the survey commences.

3.3 PUBLIC NOTIFICATION

3.3.1 Survey Notification Requirements

Pre-Update

Because low energy geophysical surveys result in the presence of survey vessels and associated equipment that may interrupt or affect other ocean users in the survey area, it is important to ensure interested and affected parties are aware that a survey will be taking place. As a result, permittees were required to send a 15-day notice of the proposed survey location and date to individuals and entities (e.g., government offices, harbormasters, businesses, fishermen) on an extensive 19-page, region-specific list included in the General Permit. The process proved to be time consuming and inefficient, and placed an unnecessary burden on permittees. Additionally, the contact list was not kept current, and there was no clear information on how interested parties could be added to the notification list.

2013 Recommendation

To increase the efficiency and effectiveness and to streamline the survey notification process, CSLC staff recommended that the contact list in the General Permit be eliminated and replaced with a web-based notification system or listserv designed to allow interested parties to subscribe or unsubscribe via the OGPP webpage.

Implementation Status

Complete; Ongoing. A CSLC staff-administered listserv was created with ExactTarget to notify interested parties about upcoming geophysical surveys via email. The notification emails provide information about who is conducting the survey and where/when the survey will occur, as well as a link to the survey-specific Presurvey Notification on the OGPP webpage. Presurvey Notifications provide detailed, survey-specific information including maps/charts and track lines, the type(s) of geophysical equipment to be used, a MWCP and an OSCP, and other permits, authorizations, and verifications. Interested parties can subscribe (and unsubscribe) to the listserv by visiting the OGPP webpage. The list is not viewable by the public or other subscribers and is not shared or distributed.

Additionally, in an effort to alert local individuals or parties who may not be subscribers to the OGPP listserv, permittees are required to provide a 21-day notice of survey activities, via email or regular mail, to the U.S. Coast Guard Local Notice to Mariners, as well as to harbormasters and dive shops located in/near the survey area. This ensures that local entities and individuals who may not be aware of the OGPP are alerted of upcoming geophysical activities in their area.

3.3.2 CSLC Website

Pre-Update

Information related to the OGPP was found on two separate webpages on the CSLC website. The information covered was limited to a review of the OGPP and efforts to update the Program, a brief guidance for current and future permittees regarding geophysical applications, and links to upcoming or recent survey notices.

2013 Recommendation

CSLC staff recommended that the CSLC website include a single, easy to locate, main OGPP webpage containing subsections and links to various categories of interest under the Program, such as notices and maps, data reports (e.g., information on permit-specific MWCPs and OSCPs, and Post Survey Reports, including permit-required records of observations and/or incidents), permittees and expiration dates, and other guidance or topics as necessary.

Implementation Status

Complete. A main webpage for the OGPP was created on the CSLC website that provides a general overview of the Program, notifications and reports regarding upcoming, current, and completed geophysical surveys, and important resources and documents for permittees. Specifically, the OGPP webpage has sections that cover:

- Information and Data: Provides information on the CSLC's permitting authority to issue non-exclusive permits for low energy geophysical surveys of the ocean bottom on state sovereign lands extending from the shoreline to three nautical miles offshore. Links are provided to the geophysical permit application; current permittees, including contact information and permit expiration; upcoming/current survey information (Presurvey Notifications); past survey information (Presurvey Notifications and Post Survey Reports); general information and data; and frequently asked questions.

- News: Informs viewers of the OGPP mailing list and how to sign up.

- Resources for Surveyors: Informs surveyors/viewers that permits are required for all geophysical surveys conducted in State waters, not including surveys in

granted lands, and provides a link to the CSLC Granted Lands webpage for additional information. Links are provided to the following documents: the General Permit, including Exhibit F (Presurvey Notification Form), Exhibit G (Presurvey Notification Checklist), and Exhibit H (MMP); Guidance for developing a Marine Wildlife Contingency Plan; Data Collection Guidelines for Marine Wildlife Monitors; Guidance for Developing an Oil Spill Contingency Plan; and Presurvey Screening – Important Information and Guidance.

- Program Objectives and Reports: Provides information on the types of data obtained from OGPP surveys. Links are provided to: a scientific report on the effects of anthropogenic sound on marine wildlife; a Program review of the OGPP pre-Update; the MND and associated appendices; and the Calendar Item brought before the Commission for their consideration and approval of the Program Update.

The new and improved OGPP webpage is administered by CSLC staff and kept up-to-date as new information regarding the Program becomes available, including when Presurvey Notifications and Post Survey Reports are received from permittees. Additionally, this webpage not only provides Program transparency, but allows CSLC staff to direct permittees and interested parties to general information about the OGPP that is consistent, accurate, and current.

3.4 ENFORCEMENT

Pre-Update

The CSLC's authorities related to low energy geophysical permits are outlined under PRC section 6826 and California Code of Regulations, Title 2, Article 2.9, section 2100. These statutes do not contain enforcement procedures or provisions, such as vessel impoundment or fines. This lack of explicit enforcement authority constrains the CSLC's options when it finds entities operating without a permit or when a permitted entity is out of compliance.

Without explicit authority to develop and implement an enforcement program, the CSLC relied on word of mouth or tips from other ocean users (generally other surveyors) to learn of activities being conducted without a valid permit. When called to the attention of the CSLC staff, non-permitted contractors were officially notified and asked to submit an application and pay the necessary permit application fees.

With regard to violation of permit terms and conditions by a surveyor who does have a permit, the CSLC's only option was to revoke the permit. If such a violation of permit conditions violated other laws (e.g., the Marine Mammal Protection Act, Clean Water Act, etc.), the applicable jurisdictional agency could pursue action.

2013 Recommendation

To improve enforcement and compliance, CSLC staff recommended drafting new legislation and subsequent rulemaking to institute clear authority and regulatory guidance for the CSLC to enforce penalties against entities operating without a permit. CSLC staff also recommended developing an outreach and information campaign to increase awareness of the OGPP and the requirement to obtain a geophysical permit. Additionally, CSLC staff recommended improving its tracking and monitoring procedures (see **Section 3.5**, below) to facilitate prompt attention to any incidents of non-compliance by permittees.

Implementation Status

Regulations

In Progress. To make the provisions of PRC section 6826 more specific, as it pertains to offshore geophysical survey implementation, staff is nearing completion of proposed regulations that will provide regulatory structure to the OGPP which has historically has operated under CSLC authorized permit terms and conditions. It is staff's belief that the regulations reflect and utilize the information obtained over the past year though interviews with survey operators and experience administering the MMP developed under the MND. The proposed regulations will be made available for pre-rulemaking public review and comment as well as additional public comment once the rulemaking process begins, either in late 2014 or early 2015.

Although the planned regulations themselves will not include explicit enforcement capacity, they will set forth the process and administrative guidance to permittees and would enhance compliance by memorializing Program requirements in the California Code of Regulations. This will lay the necessary regulatory framework for any subsequent legislation that might provide express enforcement authority.

Legislation

In Progress. Staff's goal has been to analyze the operations of the OGPP since the October 2013 update before determining what subsequent tools might be necessary to support program administration and compliance. It has been made clear to staff, after interviews with permittees and the industry, that express enforcement authority may be necessary to promote participation in the OGPP by parties either sponsoring or conducting surveys. Staff is exploring potential legislative proposals that may be suitable to helping the CSLC ensure uniform OGPP compliance.

Survey Activity Review

Ongoing. On a weekly basis, CSLC staff review the U.S. Coast Guard Local Notice to Mariners to monitor where geophysical surveys are being conducted (i.e., within CSLC's jurisdiction or not), and which operators (permitted or non-permitted) are carrying out the surveys.

Compliance Outreach

Ongoing. CSLC staff also developed a mailing list of both the sponsors of geophysical surveys and the operators conducting those surveys in California. Two sets of letters (February and June 2014) were sent to 38 surveyors/contractors and 43 entities holding CSLC dredging leases notifying them of the permit requirement for geophysical surveys in State waters.

The letters sent in February 2014 notified operators of the OGPP and encouraged them to apply for and obtain a permit. This letter led to subsequent conversations with operators interested in complying with the OGPP who helped staff understand how their operation works and the types of surveys they conduct, as well as their concerns with some of the conditions of the General Permit and MMP. These conversations lead to CSLC staff drafting amendments to the General Permit and MMP in April 2014, as described above.

The letters sent in June 2014 provided operators with information on the OGPP inclusive of the amendments adopted by the Commission on April 23, 2014. These letters have led to email, phone, and in-person conversations about the OGPP, including where/when a CSLC permit is required for geophysical activities (e.g., granted vs. sovereign lands). As of October 2014 one additional company has applied for a General Permit and another has stated intention to apply.

Additionally, CSLC staff has begun asking all appropriate agencies (e.g., California Coastal Commission) and contractors (e.g., Dredgers) seeking the work of geophysical survey operators in state tidelands to use only those operators with a valid CSLC issued General Permit. This creates an incentive for non-permitted operators to comply with the OGPP if they were to bid on a project that required a geophysical survey. Internally, CSLC staff will include a lease term in new/renewed dredging leases, and any other leases proposing geophysical surveys, requiring the use of OGPP permitted operators.

3.5 PERMIT ACTIVITY AND COMPLIANCE TRACKING

Pre-Update

Since the early 1980's, OGPP-related materials, including applications, permits, notifications, and reports, were kept in paper files; however no electronic tracking system or database existed. As noted above in this Report, with the advancement of a

considerable body of relevant research since the CSLC adopted the original MND in 1984, it became clear that CSLC staff's ability to aggregate and analyze data, monitor permit compliance, and track survey activity needed to be addressed.

2013 Recommendation

Staff recommended development of an electronic tracking system to facilitate easy access to information on permits and permit activity, more efficient tracking of permittees and permit expiration dates, monitoring of compliance with permit provisions, and efficient organization and analysis of survey-specific information including dates, locations, and the type(s) of equipment used. Additionally, staff recommended that the database have a geospatial record-keeping component composed of track line data submitted by permittees to provide a visual representation of OGPP surveys. With this information in a centralized location, permittee and survey information could be more efficiently tracked and monitored by CSLC staff, and periodical performance reports could be issued to ensure accountability and transparency of the Program.

Implementation Status

Complete; Ongoing. The administration of the updated OGPP is shared between two of the CSLC's divisions, including the Mineral Resources Management Division (MRMD) and the Division of Environmental Planning and Management (DEPM). MRMD is responsible for receiving and processing General Permit applications, while DEPM is responsible for tracking, environmental compliance, outreach (including web page and listserv maintenance), and GIS. In addition to filing/organizing all permit- and survey-related files electronically in a central location, a geodatabase was created in ArcGIS to track permittees and surveys under the updated OGPP. The geodatabase provides a visual representation of pre- and post-survey track line information linked to permittee and survey-specific information, including compliance with permit provisions (e.g., Presurvey Notification submission deadlines), dates and locations of survey activities, and the type(s) of equipment used (including frequency and source level). Additionally, the geodatabase allows CSLC staff to overlay survey track lines with important areas of interest, such as Marine Protected Areas.

This section identifies the ongoing implementation challenges identified by CSLC staff for the updated Program, and discusses additional areas for Program improvement. The discussions below were developed through interviews with OGPP permittees and non-permitted operators as well as identified internally by staff as the Program was administered over the course of the first year. Conversations with OGPP permittees and non-permitted operators also provided CSLC staff with feedback on the updated Program, as well as how General Permit requirements and mitigation measures play out in real world survey and business scenarios.

4.1 ENFORCEMENT

As discussed in **Section 3.4**, the statutes related to low energy geophysical permits do not contain enforcement procedures or provisions to compel operators to participate in the Program, and as a result, the CSLC does not have the authority to enforce penalties against entities operating without a permit or when a permitted entity is out of compliance. This lack of enforcement authority has been of concern to CSLC staff, and was identified as the highest priority area for improvement by permittees. Some permittees have expressed concerns about being out-competed by non-permitted operators when bidding on geophysical survey projects due to the potential extra costs associated with complying with OGPP General Permit conditions and mitigation measures.

CSLC staff has been monitoring the U.S. Coast Guard (USCG) Local Notice to Mariners as a way of monitoring any unpermitted geophysical activities that may be occurring. Based on this monitoring, CSLC staff does not have evidence suggesting that a high number of marine geophysical surveys are taking place by unpermitted operators, with the exception of dredging-related geophysical surveys. When an apparent geophysical survey is listed in the Local Notice to Mariners, CSLC staff reviews the location to determine if the survey is under OGPP jurisdiction. While a small number of surveys associated with dredging activities have been performed by unpermitted companies, the majority of these surveys are conducted within granted lands, where the Commission does not retain permitting authority. In addition, with the exception of a single operator that CSLC staff is investigating, it appears geophysical surveys in the 2013-2014 time period were performed by permitted operators or were located in federal waters.

Recommendation: In addition to continuing its outreach and education activities, CSLC staff is in the process of developing formal regulations, pursuant to the Administrative Procedures Act. The regulations, set to be opened for public review in late 2014 or early 2015, will set forth clear process and administrative guidance to permittees and would enhance compliance by memorializing Program requirements in the California Code of Regulations. In addition to regulations, which are limited to

clarifying the administration of the Program, CSLC staff is currently exploring the possibility of pursuing legislation to amend the statutory provisions related to geophysical surveys such that the Commission would be granted explicit enforcement authority rather than relying on what is essentially "voluntary" participation.

4.2 WHO NEEDS AN OGPP GENERAL PERMIT?

While a General Permit is required to conduct geophysical surveys in the marine waters of the State (exclusive of tide and submerged lands legislatively granted to local jurisdictions), because the geographic extent or boundaries of granted lands are not easily identifiable to operators and/or contractors, it is difficult for them to determine if/when an OGPP General Permit is needed to conduct a geophysical survey.

Additionally, two operators have suggested that the CSLC apply the permitting requirement differently than current practice – either that the CSLC apply the requirement to the vessel owner, or to the project proponent, rather than the survey company. CSLC staff notes that as currently administered, the OGPP is not limited with regard to what kind of entity can apply for a General Permit; applications may be submitted by anyone wishing to obtain coverage. The most common practice is that the survey companies obtain the required permit because they are the entities actually operating the geophysical equipment. If the Program's enforcement provisions were more explicit, permitted operators would have an advantage over non-permitted operators when bidding for work because the contractor would not have to obtain its own General Permit.

Recommendation: With regard to where the OGPP applies and granted lands boundaries, CSLC staff is currently working internally to expedite boundary determination requests to determine if General Permits are needed for surveys. Concurrently, CSLC staff is working to digitize the general location of granted land boundaries, which will allow CSLC staff to efficiently relay boundary information to permittees or non-permitted operators. With regard to who the CSLC requires obtain a General Permit, CSLC staff believes that the current applicability is sufficient, as the Program does not restrict or dictate what entity possesses the permit as long as the activity is carried out under a permit. Staff invites interested parties to submit specific ideas and comments when proposed regulations are introduced in late 2014 or early 2015.

4.3 PRESURVEY NOTIFICATIONS

4.3.1 Presurvey Notification Submission Deadline

Condition 5 of the General Permit requires permittees to submit a Presurvey Notice and associated materials to CSLC staff at least 21 days prior to commencement of survey activities. This deadline was extended from the 14-15 day submission deadline that

was in place prior to the OGPP Update to provide additional time for CSLC staff and public review (as discussed in **Section 3.2**); however, some permittees have indicated in interviews that the 21-day submission deadline cannot always be met, which could result in the loss of survey work or surveys occurring out of compliance with the OGPP submission deadline. This issue was initially raised for geophysical surveys associated with dredging-related activities due to the short timeframe in which operators are notified by contractors. As a result, the CSLC responded by amending the General Permit and MMP for such surveys and reduced the Presurvey Notification submission deadline to 24-hours prior to survey commencement. The General Permit and MMP were further amended such that permittees are not required to submit survey-specific MWCPs or OSCPs for surveys related to dredging activities; instead, general plans would be developed by each permittee and kept on file.

During the initial implementation phase of the updated Program, the 21-day submission deadline helped CSLC staff review Presurvey Notification materials, especially with permittees submitting materials for the first time under the updated Program. This three-week window between the submission deadline and the start of the survey allowed CSLC staff to work with permittees to address any issues with their Presurvey Notification materials and assure all General Permit and MMP conditions were met before the survey commenced. Now that the updated Program is entering its second year, permittees who have been conducting surveys are familiar with what materials are required for the Presurvey Notification, so a 21-day submission deadline is not necessary for CSLC staff review; however, as operators sign up for a General Permit, this extended submission deadline may be necessary. In addition, a shortened submission deadline leaves less time for the public to review Presurvey Notification materials and notify CSLC staff with their concerns regarding the upcoming survey.

Recommendation: While the 21-day Presurvey Notice requirement was cited by only two of the seven permittees as an area of concern, CSLC staff is exploring the feasibility of reducing the notice requirement to 14 days. While shortening the notice requirement may facilitate some surveys, the 21-day notice does provide the benefit of more time to correct deficiencies in the notice; therefore shortening the notice period could cause more surveys to be delayed, in the event a notice was deficient and the permittee could not provide the required materials in a timely manner. In addition, though CSLC staff believes that 14 days would be adequate time for its own review of the notice materials, it is important to obtain feedback from the public and interested stakeholders subscribing to the listserv prior to bringing an amendment to the Commission for consideration.

4.3.2 Presurvey Notification to Harbormasters and Dive Shops

Exhibit E, Condition A.2 of the General Permit requires permittees to notify harbormasters and dive shops in the survey area at least 21 days prior to commencing geophysical survey activities. This condition is intended to alert local individuals or

parties who may not be subscribers to the OGPP listserv of upcoming geophysical activities in their area. While notifying harbormasters was a permit condition prior to the OGPP Update, notifying local dive shops is a new condition developed during the MND process over concerns regarding the potential acoustic-related impacts to divers as a result of low energy geophysical surveys. During the CSLC staff conducted interviews, several permittees expressed that notifying these entities can be a time consuming process depending on where the survey is located, and have received email bounce-backs and returned letters due to incorrect contact information available on the Web.

Recommendation: One permittee has suggested that an alternative to dive shop notification could be to require survey vessels to stay a minimum distance away from dive vessel, which should be marked with a dive flag. CSLC staff is currently researching the feasibility of this suggestion, and other potential improvements, and may bring an amendment to the Commission for consideration at a future time.

4.4 VERIFICATION OF EQUIPMENT SERVICE AND MAINTENANCE

MM BIO-6 of the MMP and Condition 5(f) of the General Permit requires permittees to provide CSLC staff with verification of equipment service and maintenance to ensure that all acoustic-generating equipment is in proper working order and within the manufacturer's equipment specifications. Permittees have interpreted this measure to mean that they must ship the equipment to the manufacturer for testing and service annually, which, for equipment manufactured overseas, can be cost-prohibitive and cause the equipment to be unavailable for surveys for extended periods.

This mitigation measure was originally developed to ensure that malfunctioning geophysical equipment would not impact marine wildlife by causing acoustic pulses of a more damaging frequency and volume than intended; however, after consulting with technical operators knowledgeable about the equipment, it was clear that not only was this mitigation measure not serving its intended purpose, it also was financially infeasible. If a piece of geophysical equipment were to malfunction, not only would the equipment operate in an "under-powered" state, thus not increasing the potential for acoustic impacts to marine wildlife, the survey would be called off because the desired data would not be collected by the malfunctioning equipment.

Recommendation: CSLC staff has reviewed the information provided by permittees, the analysis in the MND, the MM BIO-6 related to equipment maintenance, and other available information, and has concluded that no amendment of the permit is necessary; rather, staff is developing written guidance for permittees interpreting the standards of maintenance and verification. This guidance will also be incorporated into the regulations being developed by CSLC staff.

5.0 REFERENCES

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