

event that additional harvest actions are implemented through these forums, those costs will be added during the implementation phase of this recovery plan. All cost estimates will be refined and updated over time.

The Plan states that if its recommended actions are implemented, recovery of the spring Chinook salmon ESU and the steelhead DPS is likely to occur within 10 to 30 years. The cost estimates cover capital projects and non-capital work projected to occur within the first 10-year period. NMFS supports the policy determination to include 30 years of implementation, with the proviso that before the end of the first 10-year implementation period, specific actions and costs will be estimated for the subsequent years to achieve long-term goals and to proceed until a determination is made that listing is no longer necessary. NMFS agrees that a 10- to 30-year range is a reasonable period of time during which to implement and evaluate the actions identified in the Plan.

Conclusion

NMFS concludes that the Plan meets the requirements of ESA section 4(f) and thus is proposing it as an ESA recovery plan.

Literature Cited

Interior Columbia Technical Recovery Team. 2005a. Updated population delineation in the Interior Columbia Basin. National Marine Fisheries Service, Northwest Fisheries Science Center. Memorandum. May 11, 2005. Interior Columbia Technical Recovery Team. 2005b. Viability criteria for application to Interior Columbia Basin salmonid ESUs. National Marine Fisheries Service, Northwest Fisheries Science Center. July 2005. McElhany, P., M. H. Ruckelshaus, M. J. Ford, T. C. Wainwright, E. P. Bjorkstedt. 2000. Viable salmon populations and the recovery of evolutionarily significant units. U.S. Dept. of Commerce, NOAA Tech. Memo., NMFS-NWFS-42, 156 p.

Public Comments Solicited

NMFS solicits written comments on the proposed Plan. All comments received by the date specified above will be considered prior to NMFS' decision whether to adopt the Plan. Additionally, NMFS will work with the UCSRB to provide a summary of the comments and responses through its regional Web site and provide a news release for the public announcing the availability of the response to comments. NMFS seeks comments particularly in the following areas: (1)

The analysis of limiting factors and threats; (2) the recovery objectives, strategies, and actions; (3) the criteria for removing the ESU and DPS from the Federal list of endangered and threatened wildlife and plants; and (4) estimates of time and cost to implement recovery actions, including the intent to be even more specific by soliciting implementation schedules.

Authority: 16 U.S.C. 1531 *et seq.*

Dated: September 25, 2006.

James H. Lecky,

*Director, Office of Protected Resources,
National Marine Fisheries Service.*

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 072006A]

Incidental Takes of Marine Mammals During Specified Activities; Geophysical Surveys in South San Francisco Bay South of the Dumbarton Bridge

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of an incidental take authorization.

SUMMARY: In accordance with provisions of the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that an Incidental Harassment Authorization (IHA) has been issued to Fugro West, Inc. (Fugro), to take small numbers of California sea lions, Pacific harbor seals, harbor porpoises, and gray whales, by harassment, incidental to geographical seismic surveys being conducted in south San Francisco Bay (SFB or Bay) in California.

DATES: This authorization is effective from September 11, 2006, until September 10, 2007.

ADDRESSES: A copy of the application, IHA, the Environmental Assessment (EA), and/or a list of references used in this document may be obtained by writing to P. Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225.

FOR FURTHER INFORMATION CONTACT: Shane Guan, NMFS, (301) 713-2289, ext 137, or Monica DeAngelis, NMFS, (562) 980-3232.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

An authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses and that the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny issuance of the authorization.

Summary of Request

On March 30, 2006, URS Corporation (URS) on behalf of Fugro submitted an application to NMFS requesting an IHA for the possible harassment of small numbers of California sea lions

(*Zalophus californianus*), Pacific harbor seals (*Phoca vitulina richardsi*), harbor porpoises (*Phocoena phocoena*), and gray whales (*Eschrichtius robustus*) incidental to conducting geophysical surveys in south SFB, California. The purpose of the surveys is to aid the San Francisco Public Utility Commission (SFPUC) in the design of an underground water pipeline, the Bay Division Tunnel, in south SFB.

Description of the Activity

The seismic study will span from Newark Slough and Plummer Creek adjacent to the Cargill Salt property in the east, to the Ravenswood Baylands open space on the western shore of SFB. The study will roughly parallel the existing SFPUC trans-bay pipelines, approximately 1 mile south of the Dumbarton Bridge. Marine seismic surveys will take approximately 8–10 days to perform. In the Newark Slough and Plummer Creek areas, work will be restricted to the non-pupping seasons of the harbor seal (July 1–November 30).

The geophysical (seismic) studies will include 21 seismic sample transects. A total of 25–35 linear miles (40–56 km) of marine-based geophysical sampling will occur. The marine seismic reflection data will be collected along a series of lines that cross the Bay centered over the projected alignment. A centerline and four wing lines are planned. Cross lines, or tie lines, will be run perpendicular to the centerline and extend 200–500 m (656–1,640 ft) beyond the alignment parallel lines, unless restricted by water depth or man-made obstructions. Water depths in the survey area range from roughly 14 m (45 ft) in the deeper mid-Bay channel to about 1.8–2.4 m (6–8 ft) along the shore and in Newark Slough at high tide. Work will be conducted at high tide in the shallow nearshore areas.

Data will be collected from a small boat that tows a seismic energy source and a multichannel hydrophone. Two energy sources will be used, a Squid “minisparker” system and a Geopulse “boomer” system. An onboard generator powers the energy sources. The hydrophone contains multiple sensors that detect the seismic waves reflected from the water bottom and subsea floor sediments and rocks. The hydrophone is filled with inert silicon oil.

The survey boat will travel along predetermined survey lines using a differential global positioning system (DGPS) for navigation. Boat speed during surveys will be at 3–4 knots. The length of time for each survey transect will vary depending on the total distance of the transect. The longest transects spanning from east to west

will take about 1 hour to complete. The shorter north-south transect will generally take less than 30 minutes to complete.

The energy source will be fired every 1/2 second (boomer) or 1 second (minisparker). Data received by the hydrophone are recorded with an onboard seismograph and laptop computer. Sound pressure level from a boomer operating at 350 joules is 204 dB re 1 microPa rms at 1 m, and from a mini-sparker is 209 dB re 1 microPa rms at 1 m. Frequency range for the boomer is at 750–3,500 Hz, with pulse duration 0.1 ms; and frequency range for the minisparker is at 150–2,500 Hz, with pulse duration 0.8 ms.

Comments and Responses

A notice of receipt and request for 30-day public comment on the application, the proposed authorization, and a draft EA was published on June 20, 2006 (71 FR 35412). During the 30-day public comment period, comments were received from three entities, including a private citizen, the non-governmental organization Center for Biological Diversity (CBD), and the Marine Mammal Commission (the Commission).

Comment 1: One commenter opposes the project out of concern that sea lions, seals, and whales in the Bay would be killed by blasting and sonar.

Response: As described in detail in the **Federal Register** notice of receipt of the application (71 FR 35412, June 20, 2006), no blasting or sonar is planned to be used for the proposed seismic surveys. The project only uses low intensity acoustic device to conduct seismic surveys of the Bay bottom, and the sound levels used are not expected to cause any mortality, injury, or temporary threshold shift (TTS) of hearing to marine mammals.

Comment 2: The CBD questioned whether the authorized take meet certain conditions provided in the MMPA that exempt the moratorium on take of marine mammals. These conditions include that the proposed activity (a) must result in the incidental take of only “small numbers of marine mammals of a species or population stock;” and (b) can have no more than a “negligible impact” on species and stocks. Furthermore, the CBD stated its opinion that in issuing an authorization, NMFS must (a) provide for the monitoring and reporting of such takings and (b) prescribe methods and means of affecting the “least practicable impact” on the species or stock and its habitat.

Response: A **Federal Register** notice (71 FR 35412) published on June 20,

2006, provided a detailed description of the proposed activity. A thorough analysis of the proposed project, the potential impacts to marine mammal species and stocks, the potential impacts to marine mammal habitat, and proposed implementation of mitigation measures by using the best available scientific information was presented in the above referenced **Federal Register** notice and is not repeated here. The analysis prompted NMFS to reach a conclusion that the proposed project would only result in the incidental take of small numbers of marine mammals, and would have no more than a negligible impact on marine mammal species and stocks in the vicinity of the project area. In addition, no take by Level A harassment (injury) or death is anticipated.

NMFS also solicited comments from the Commission and its Scientific Advisors during the public comment period. The Commission concurs with NMFS’ finding that, in light of the proposed mitigation measures, the proposed activities are unlikely to have more than a negligible, short-term impact on the potentially affected marine mammal species and stocks. Therefore, NMFS believes that the authorized harassment takes should be at the lowest level practicable due to incorporation of mitigation measures described in the IHA and in this document.

The same **Federal Register** notice also provided a detailed description of the monitoring and reporting requirements.

Comment 3: The CBD stated that as a threshold issue, an IHA issued pursuant to 16 USC section 1371(a)(5)(D) is only available if the activity has no potential to result in serious injury or mortality to a marine mammal. If such injury or mortality is possible, take can only be authorized pursuant to a Letter of Authorization (LOA) consistent with regulations promulgated pursuant to 16 USC section 1371(a)(5)(A) and 50 CFR section 216.105. Because of the very real risk of marine mammal injury and death from seismic surveys, the CBD expressed its opinion that as a general principle, that the IHA process was inappropriate for authorizing take related to seismic surveys.

Response: As mentioned previously, in light of the proposed mitigation measures, the proposed activities are unlikely to have more than a negligible, short-term impact on the potentially affected marine mammal species and stocks. This conclusion is also supported by the Commission. Therefore, no take by Level A harassment (injury) or death is anticipated by the proposed action,

therefore, issuance of an LOA is not warranted.

Comment 4: The CBD is concerned about the link between seismic surveys and marine mammal stranding events. CBD provided the following examples to support its concern: In 2002, 2 beaked whales (*Ziphius cavirostris*) were found to have stranded in the Gulf of California, Mexico, coincident with geographical surveys that were being conducted in the area (Hildebrand, 2004). That same year, endangered adult humpback whales were reported to have stranded in unusually high numbers along Brazil's Abrolhos Banks, where oil-and-gas surveys were being conducted (Engel *et al.*, 2004). Additionally, the CBD cited studies that suggested that critically endangered western Pacific gray whales were displaced from important feeding grounds and exhibited behavioral changes in response to seismic surveys off Russia's Sakhalin Island (Wursig *et al.*, 1999; Weller *et al.*, 2002). Moreover, CBD cited that one court case that addressed the likely impacts of seismic surveys on marine mammals found sufficient evidence of harm to enjoin the project (see CBD v. National Science Foundation, 2002 WL 31548073).

Response: These examples presented in the comment are irrelevant to the proposed project by SFPUC. While the use of air guns, as noted in the above examples, are standard methods for oil and gas exploration related seismic surveys, the geophysical/seismic surveys proposed by SFPUC will only use two types of low intensity acoustic equipment, the mini-sparker or the boomer. The difference of energy output levels between air guns and the mini-sparker or boomer to be used by SFPUC, is at least in the multitude of 600 times, in terms of sound pressure level (SPL).

In addition, although on several occasions multiple animal strandings occurred in the vicinity where there have been seismic surveys conducted using powerful air guns, the causation between seismic surveys and strandings has yet to be scientifically established. Two of the references (Hildebrand, 2004; Engel *et al.*, 2004) cited did not state that seismic surveys are the cause of the strandings. The report by Wursig *et al.* (1999), cited in Comment 3, provided a detailed study of behavioral ecology of the western Pacific gray whale that summers off Sakhalin Island, Russia. This report by Wursig *et al.* (1999) did not suggest that the species were displaced from their important feeding ground as suggested in the CBD comment. On the contrary, a follow-up final report (Wursig *et al.*, 2000) on the same subject stated that "whales did not

appear to be displaced by industrial activity."

In general, pressure pulses from air guns have longer rise times and are, therefore, less likely to cause damaging pressure waves such as those emitted from high explosives. To date there is no evidence that seismic pulses cause acute physical damage to marine mammals (Gordon *et al.*, 2004).

Comment 5: The CBD stated that NMFS cannot authorize some take (i.e. harassment) if other unauthorized take (i.e. serious injury or mortality) may also occur. Because CBD believes that because NMFS has not promulgated any regulations pursuant to 16 USC sec 1371(a)(5)(A) related to seismic surveys, neither an IHA nor an LOA can lawfully be issued for SFPUC's proposed activities. CBD further states that even if an IHA were the appropriate vehicle to authorize take for SFPUC's planned activities, because the proposed IHA, as drafted, is inconsistent with the statutory requirements for issuance, it cannot lawfully be granted by NMFS.

Response: Findings reached by NMFS scientists and also supported by the Scientific Advisors of the Commission, supported NMFS' determination that serious injury or mortality is not likely to occur from the proposed low-intensity seismic survey. Please refer to the **Federal Register** notice published on June 20, 2006 (71 FR 35412) and latter in this document for more information. Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. An authorization shall be granted if NMFS finds that the taking (1) will have a negligible impact on the species or stock(s), (2) will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses and, (3) that the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such taking are set forth.

Comment 6: The CBD questions about the analyses NMFS conducted on reaching the finding of "small numbers." CBD states that while the IHA request does estimate the number of harbor seals that may be affected, the EA prepared by NMFS discuss only "negligible impact" and does not address the number of marine mammals to be harassed. CBD is concerned that none of the documents address the number of sea lions or harbor seals that may be impacted.

Response: NMFS' **Federal Register** notice (71 FR 35412, June 20, 2006)

states that "California sea lions, harbor porpoises and gray whales are not known to regularly visit the proposed project area." Therefore, while NMFS is unable to provide an accurate estimate of the numbers of these animals that may be taken by Level B harassment, that number would be from zero to a few individuals at most. As for the harbor seal, both the **Federal Register** notice and the EA provided a population estimate of the species within the proposed project based on a five-year survey (per. Comm. Monica DeAngelis, NMFS Southwest Region, 2006), which is approximately 42 individuals that use Newark Slough, the nearby haul-out site. This meets the definition of "small numbers" required by the MMPA, when compared to the total population of the California stock of harbor seal (minimum population estimate of 31,600; Carretta *et al.*, 2006).

Comment 7: The CBD questions NMFS' conclusion that underwater noise below 160 dB re 1 microPa rms dB would not constitute harassment and cited the following examples: In its recent decision document related to seismic surveys associated with oil and gas exploration in the Chukchi Sea, NMFS imposed a 120-dB safety zone for aggregations of bowhead whales based on its finding that "bowhead whales apparently show some avoidance in areas of seismic sounds at levels lower than 120 dB" (MMS, 2006). CBD further states that harbor porpoises, a species of marine mammal which may be found in the project zone, have been reported to avoid a broad range of sounds low-frequency (airgun pulses), mid-frequency (sonar transmissions), and high-frequency (acoustic harassment devices) at very low sound pressure levels (between 100 and 140 dB re 1 μ Pa) (Kastelein *et al.*, 2000; Olesiuk *et al.*, 2002; Calambokidis *et al.*, 1998; NMFS, 2005).

Response: Marine mammals' responses to underwater sounds vary widely from species to species due to their different hearing sensitivities towards different frequency bands (Richardson *et al.*, 1995). While bowhead whales may be affected by seismic sounds above 120 dB re 1 microPa in the Beaufort Sea, it is not known whether they will respond in a similar manner when in waters other than the Beaufort Sea. In addition, bowhead whales do not occur in SFB. In the harbor porpoise examples referenced in *Comment 7*, harbor porpoises were exposed to acoustic signals with much higher frequencies than the acoustic signals being produced by the proposed project (150 3,500 Hz). For example, the experiment

conducted by Kastelein *et al.* (2000) used three types of sound and all had harmonics with high sound pressure levels above 11 30 kHz. Gordon *et al.* (1998) reported on experimental playbacks to harbor porpoises in inshore waters around Orkney, Scotland, using a small source air gun (source level 228 dB re 1 microPa at 1 m) and observed no changes in the rate of acoustic contact as a result of sound exposure. In general, it is well known that harbor porpoises' hearing sensitivity drops sharply as frequency goes under 8,000 Hz (Andersen, 1970; Kastelein *et al.*, 2002).

Additionally, as discussed in the EA, the proposed project area in south SFB falls in one of the largest metropolitan regions in North America. Since SFB is home to a variety of industrial activities and increased vessel traffic, it is expected that ambient noise levels are higher than those in other non-metropolitan areas. Therefore, it is likely that marine mammals in SFB are habituated to a high level of ambient noise due to these daily anthropogenic sounds.

Furthermore, as discussed above and in the **Federal Register** notice (71 FR 35412, June 20, 2006), marine mammal densities within the proposed project area are typically very low. California sea lions, harbor porpoises and gray whales are not known to regularly visit the proposed project area. Based on a five-year study, the average number of harbor seal utilizing the haul-out site is only approximately 42 individuals. Therefore, NMFS believes that any take, if occurs, would constitute Level B harassment (e.g., behavior).

Comment 8: The CBD is concerned that the calculation of numbers of marine mammals harassed by SFPUC is likely an underestimate as it relies on a received sound threshold (160 dB) that is too high.

Response: It is NMFS' criterion that underwater noise level of 160 dB re 1 microPa and below would not cause Level B harassment to most marine mammal species, including these species found in the action area. Please see response to **Comment 7** for additional information.

Comment 9: The CBD questions NMFS' criteria for avoiding Level A harassment for cetaceans (180 dB) and for pinnipeds (190 dB). CBD is not aware of scientific justification for these thresholds exists. As demonstrated in the literature cited in CBD's previous IHA comments, the CBD believes that these thresholds are too high. CBD cited studies undertaken on the acoustic sensitivity of pinnipeds and suggested that these species are at lower risk of

threshold shift or auditory injury than cetaceans (Kastak *et al.*, 2005; Kastak *et al.*, 1999). Furthermore, CBD stated that some pinnipeds, such as harbor seals, have exhibited low discomfort thresholds, suggesting acute sensitivity to anthropogenic noise (Kastelein *et al.*, 2006). CBD points out that harbor seals are the marine mammal the EA identifies as most likely to be affected by seismic surveys, and given their sensitivity to acoustic disturbance, they should be given especially rigorous protection.

Response: In 1998, scientists convened at the High Energy Seismic Sound (HESS) Workshop, reviewed the available scientific information, and agreed on the received sound levels above which marine mammals might incur permanent tissue damage resulting in a permanent threshold shift (PTS) of hearing. Shortly thereafter, a NMFS panel of bioacousticians used the information gathered at the HESS workshop to establish the current Level A Harassment acoustic criteria for non-explosive sounds, 180 dB re 1 microPa-m (rms) for cetaceans, and 190 dB re 1 microPa-m (rms) for pinnipeds, exposed to impulsive sounds. In the absence of good sound scientific information for specific species, NMFS conservatively adopt these criteria to establish safety zones, within which monitoring or mitigation measures must be applied, for all cetacean and pinniped species.

A study by Finneran *et al.* (2002) on the bottlenose dolphin (*Tursiops truncatus*) and beluga whale (*Delphinapterus leucas*), used the behavioral response paradigm by exposing a bottlenose dolphin and a beluga whale to intense impulses from a seismic watergun. Results from this experiment showed that masked temporary threshold shifts (MTTS) occurred to the beluga whale after exposure to an impulsive sound of 160 kPa, or 226 dB re 1 microPa peak-to-peak (p-p), with total energy fluxes of 186 dB re 1 microPa²-s. No MTTS was observed in the dolphin at the highest exposure conditions: 207 kPa, 228 dB re 1 microPa p-p, and 188 dB re 1 microPa²-s total energy flux.

No comparable studies have been conducted on pinnipeds regarding their responses to impulsive sounds. The two references (Kastak *et al.*, 2005; Kastak *et al.*, 1999) cited in the comment cannot be used to address the noise responses of pinnipeds for the proposed project because animals in these studies were exposed to band noises for extended durations (20 to 22 minutes in Kastka *et al.*, 1999; 20, 25, and 50 minutes in Kastka *et al.*, 2005). On the contrary, acoustic signals used in the proposed

projects are impulse sound with extremely short duration (0.1 and 0.8 milli-second for the boomer and the mini-sparker, respectively), thus much lower energy flux. In the third reference (Kastelein *et al.*, 2006) cited in the comment, harbor seals were also exposed to band noise, and no TTS was observed. All these studies underscore the importance of including sound exposure metrics (incorporating sound pressure level and exposure duration) in order to fully assess the effects of noise on marine mammal hearing, not by just looking at the absolute sound pressure levels.

Comment 10: The CBD is concerned that, even with the mitigation measures described in the EA, it is quite possible that marine mammals, being well camouflaged, and who remain underwater for long periods of time, may wander into the safety zone. CBD is concerned that the tiny margin of error NMFS is allowing may result Level A harassment. At 100 m (328 ft) from the mini-sparker or 45 m (148 ft) from the boomer, the effective sound reaching a marine mammal would be 179 dB, which is 1 dB lower than the cited in NMFS criteria 180 dB level to avoid Level A harassment of cetaceans.

Response: NMFS does not agree with the CBD concern. First, not all marine mammals remain underwater for long periods of time. As noted in the **Federal Register** notice (71 FR 35412, June 20, 2006), harbor seals in SFB dive for a mean time of 0.50 minutes to 3.33 minutes (Harvey and Torok, 1994), the mean diving duration for harbor porpoises ranges from 44 to 103 seconds (Westgate *et al.*, 1995), and the mean diving duration for gray whales is approximately 1.84 minutes (Wursig *et al.*, 2003). Second, as sound amplitudes in dB are measured in log scale, 1 dB re 1 microPa difference translates to 1.26 times difference in energy level. Please see response to **Comment 9** regarding NMFS Level A Harassment criteria for noise exposure by marine mammals.

Comment 11: The CBD disagrees with the decision that NMFS did not analyze the fourth alternative in its EA, which would have required acoustic monitoring. Under the current plan, NMFS would have operators rely exclusively on visual monitoring in maintaining a safety zone around the array for marine mammals. CBD argues that although a large whale would likely be detected by visual observers, harbor porpoise would be very difficult to observe visually. CBD states that passive acoustic surveys are not just beneficial, they are eminently practicable, and cites the example of the United Kingdom's

Joint Nature Conservation Committee (JNCC) mandates the use of passive monitoring that “where there are species of particular conservation importance or where a given species or group is difficult to detect by visual observation alone” (JNCC, 2004).

Response: NMFS does not agree with CBD’s comment. As noted in the draft EA (NMFS, 2006), the radii (45 m (148 ft) for the boomer and 100 m (328 ft) for the mini-sparker) based on the 180-dB re 1 microPa isopleths are too small to allow for accurate and effective passive acoustic monitoring (PAM). The JNCC (2004) stated, “in practice this will mean that the exclusion zone must reflect the range accuracy of the system and will often be more than 500 m.” The JNCC also noted that in many cases PAM is not as accurate as visual observation when determining range. Thus, NMFS believes that in this particular seismic survey project, where the safety zone is sufficiently small and less than the JNCC’s recommended 500 m (1,640 ft), is not warranted.

Comment 12: The CBD noticed that the draft EA did not explain the “Additional Passive and Active Acoustic Monitoring” measures to which it alluded and stated that the mere suggestion that such additional measures exist means that NMFS should have explored these measures in order to comply with the MMPA’s prescription that all methods and means of ensuring the least practicable impact have been adopted. CBD urges NMFS to take whatever additional measures are available to ensure that no Level A harassment takes place, and at very least to seriously considered additional available mitigation measures, such as PAM.

Response: NMFS does not agree with CBD’s comment. Acoustic monitoring is neither warranted nor would it work within such a small area. Please refer to response for *Comment 11* for acoustic monitoring. As far as additional mitigation measures are concerned, as part of the IHA, NMFS requires the surveyors to “soft start” acoustic device when work is initiated to allow any marine mammals that are potentially missed during the pre-survey monitoring to vacate the project area. However, NMFS considers that the likelihood of Level A harassment occurring during this project to be remote, given that pre-survey monitoring should be very effective for such a small area.

Comment 13: The CBD noted that “URS will develop a monitoring plan that would collect data for each distinct marine mammal species observed in the south Bay proposed project area during

the period of seismic surveys” (71 FR at 35415). CBD is concerned that there is no such monitoring plan is now in place, and, therefore, the public cannot review the adequacy of such a plan.

Response: URS provided a brief outline of its monitoring plan in its application. URS worked with scientists at NMFS Headquarters and the Southwest Regional Office to develop a set of agree upon mitigation requirements and procedures for the proposed seismic survey project. These were provided in detail in the **Federal Register** notice (71 FR 35412, June 20, 2006). Based on these mitigation requirements and procedures, URS submitted an updated monitoring plan which was approved by NMFS, and is discussed later in this document. A copy of the monitoring plan can be downloaded from NMFS’ Office of Protected Resources Web site (see **ADDRESSES**).

Comment 14: Both the proposed IHA notice and the EA state that NMFS does not intend to consult under the ESA as no listed species are in the action area. While no ESA-listed marine mammals are likely to be in the action area, CBD argues that the South Bay area of the proposed seismic surveys is within the range of ESA-listed fish. Both steelhead trout and coho salmon historically occurred in the South Bay and spawned in the various tributaries. There are still important runs of steelhead in South Bay creeks that could be affected by the seismic surveys.

Response: NMFS Permit, Conservation and Education Division has discussed this proposed project with endangered species biologists from NMFS Southwest Region. Although available information indicates that a couple of the listed salmonids may occur in the project area, these species use SFB primarily as a migration corridor en route to the Pacific Ocean to rear as juveniles or to upstream areas to spawn as adults. This migration takes place in the winter and spring months. Adult steelhead and adult winter-run Chinook salmon typically begin migrating through SFB in early December. Adult spring-run Chinook salmon migrate through the SFB during the spring months. Juvenile steelhead and Chinook salmon migrate downstream through SFB during the late winter and spring months. Since the proposed seismic survey is planned in summer/fall months, specifically to avoid potential impacts to ESA-listed fish species, NMFS believes that no ESA-listed fish species will be affected by the proposed seismic surveys. Therefore, no section 7 consultation is warranted.

Comment 15: The EA acknowledges that coho salmon historically had runs in the South Bay, including such tributaries as Newark Slough (at the eastern end of the project activity), and that coho may still be transitory or incidental visitors to the South Bay. CBD is also concerned about the Central California Coast Coho Evolutionary Significant Unit (“ESU”), which the EA determined not to be affected due to their low hearing sensitivity, and because “the proposed project would be limited to relatively small areas, temporary in duration, would not block fish passage, and would not contribute towards Bay water turbidity.”

CBD is also concerned about various Distinct Population Segments (“DPSs”) of West Coast steelhead (*Oncorhynchus mykiss*), which were listing as “threatened” or “endangered” on January 5, 2006 (71 FR 634). CBD points out that steelhead continue to run in several creeks in the action areas. CBD recommends NMFS to initiate section 7 consultation, as the proposed seismic testing threatens several runs of the Central California Coast steelhead DPS.

Response: NMFS disagree with CBD’s comment on the potential impacts of the activity on listed fish species, and determines no listed species will be affected. Please see response to *Comment 14* for more information.

Comment 16: The CBD is concerned that NMFS’ dismissal of potential acoustic impacts to fish because salmon have “low hearing sensitivity” is not scientifically supportable. CBD argues that fish are sensitive to acoustic disruption, particularly the high-decibel disruptions planned in this project.

CBD states that one series of recent studies showed that fish sustained extensive damage to the hair cells located at the sensory epithelia of the inner ear after they were exposed to impulsive air gun noise. The damage, described as “blebbing” and “blistering” on the surface of the epithelia, “suggest that hair cells had been ‘ripped’ from the epithelia (immediate mechanical damage) or, alternatively, had ‘exploded’ after exposure (physiological damage)” (McCauley *et al.*, 2003).

Response: NMFS disagree with CBD’s assessment on acoustic impact on fish species in the project area. First, it is important to understand that different fish species differ greatly in the range of frequencies, or bandwidth of sound that they are able to detect, just like any other animal groups (e.g., mammalian species). Second, the draft EA did not state that “salmon have low hearing sensitivity”. The draft EA states that salmonids have “low hearing sensitivity

for sounds above 150 Hz.” One should not be confused that the parameter in this case is the frequency of sound, as measured in Hz or kHz, not the amplitude (or loudness), which is normally measured in decibel (dB).

The lowest levels of the sound detected at each frequency (or hearing threshold) by several salmon species are described in several studies (e.g., Hawkins and Johnstone, 1978; Knudsen *et al.*, 1992; 1994), and it is general accepted that these fish response to sound at frequencies generally below about 35 Hz (Knudsen *et al.*, 1994; Hastings and Popper, 2005). It also appears, however, that these fish only respond when they are very close to the infrasound source, most likely because very low-frequency sound will not propagate in shallow water (Rogers and Cox, 1988).

The experiments by McCauley *et al.* (2003), as cited in the comment, were conducted by carrying out trials where pink snapper (*Pagrus auratus*) held in cages and were exposed to signals from an air-gun towed toward and away from the cages. The air-gun, which has a source level of 222.6 dB re 1 microPa p-p (or 203.6 dB re 1 microPa rms) at 1 m, was towed from start up at 400 800 m (1,312 2,615 ft) away to 5 15 m (16 49 ft) at closest approach to the cage. The study showed that the ears of fish exposed to an operating air-gun sustained extensive damage to their sensory epithelia that was apparent as ablated hair cells. However, the authors cautioned that several caveats must be considered when interpreting these results. First, the fish studied were caged and could not swim away from the sound source. Video monitoring of behavior suggested that the fish would have fled the sound source if possible. It is also likely that many fish species hearing the approaching air-gun would swim away, as has been observed on a large scale by Engas *et al.* (1996). Second, the authors also cautioned that the fish used (i.e., pink snapper) are more sensitive to intense stimulation than other species such as salmon. Third, the impact of exposure on ultimate survival of the fish is not clear.

Finally, due to the transient and short-term (8 – 10 days) nature of the proposed project, the timing of the project (to avoid the time period when ESA-listed species are expected to be present), and because the acoustic energy being introduced into the water is relatively low, NMFS does not believe that the proposed project will affect ESA-listed fish species in the project area.

Comment 17: As with marine mammals, CBD is also concerned about

noise-induced temporary hearing loss in fish. CBD states that even at fairly moderate levels, noise from outboard motor engines is capable of temporarily deafening some species of fish, and other sounds have been shown to affect the short-term hearing of a number of other species, including sunfish and tilapia (Scholik and Yan, 2002a; Scholik and Yan, 2002b; Smith *et al.*, 2003).

CBD cited several studies that documented noise affects on fish species. For example, fish display marked “alarm” responses to airguns and other forms of anthropogenic noise (Knudsen *et al.*, 1992; McCauley *et al.*, 1999; Wardle *et al.*, 2001). Also for years fishermen in various parts of the world have complained about declines in their catch after intense acoustic activities moved into the area, suggesting that noise is seriously altering the behavior of some commercial species (McCauley *et al.*, 2000). A group of Norwegian scientists attempted to document these declines in a Barents Sea fishery and found that catch rates of haddock and cod (the latter known for its particular sensitivity to low-frequency sound) plummeted in the vicinity of an airgun survey across a 1,600 square-mile area, an area larger than the state of Rhode Island. In another experiment, catch rates of rockfish were similarly shown to decline (Engas *et al.*, 1996; Skliski *et al.*, 1992; L kkeborg and Soldal, 1993). Drops in catch rates in these experiments range from 40 to 80 percent.

CBD is also concerned about possible high mortalities from noise exposure in developmental stages of fish. CBD cited that a number of studies, including one on non-impulsive noise, show that intense sound can kill eggs, larvae, and fry outright or retard their growth in ways that may hinder their survival later (Dalen *et al.*, 1996; Dalen and Knutsen, 1987; Banner and Hyatt, 1993; Kostyuchenko, 1973). Also, larvae in at least some species are known to use sound in selecting and orienting toward settlement sites (Simpson *et al.*, 2005). Acoustic disruption at that stage of development could have significant consequences on affected species (Popper, 2003).

Response: Unless the impacts of anthropogenic sounds are directly affecting marine mammal food sources impacts on non-ESA-listed fish species are not related to the issuance of this IHA. As addressed in the previous response, because the transient and short-term (8 – 10 days) nature of the proposed project, and because the low acoustic energy being introduced into the water is relatively low, NMFS does not believe that the proposed project

will significantly affect marine mammal food sources or any non-ESA-listed fish species/stocks in the survey area. In addition, many of the experiments cited in the comments were conducted on fish that were placed in confined cages and could not swim away. Those studies (e.g., (Scholik and Yan, 2002a; Scholik and Yan, 2002b; Smith *et al.*, 2003) also exposed fished for long duration with continuous noise, which contained significantly more acoustic energy, as compared to brief pulsed sound from seismic surveys.

As for the alarm behavior expressed by the Atlantic salmon, the study cited in the comments (Knudsen *et al.*, 1992) used low frequency intense sound under 150 Hz to elicit awareness reaction. The authors stated that “the 150 Hz sound failed to evoke avoidance responses, even at a level 30 dB above the threshold for spontaneous awareness reactions.” This conclusion supports that salmonids have lower sensitivity towards sounds at and above 150 Hz. A separate study cited in the comment (Wardle *et al.*, 2001) used high-power airgun to evaluate the effects of seismic airguns on marine fish. Despite some “C-start reactions” displayed by a triple G. airgun (three synchronized airguns), the authors stated that “the sound of the G. guns had little effect on the day-to-day behaviour of the resident fish and invertebrates.”

Comment 18: The Commission recommends that, prior to issuing the requested authorization, the NMFS

(1) determine whether the proposed pre-survey and post-survey monitoring are of sufficient duration and extent to yield meaningful results;

(2) specify the minimum approach distances around Newark Slough and Plummer Creek during the harbor seal pupping season to ensure that seals are not disturbed at those sites;

(3) require that the applicant inform stranding network participants of the dates of the proposed activities to alert them that any animals that strand around those dates should be examined for signs of acoustic trauma; and

(4) specify that survey activities be suspended immediately if a dead or seriously injured marine mammal is found in the vicinity of the operations and the death or injury could have occurred incidental to the proposed activities.

Response: The proposed project would occur in a limited area for 8 – 10 days, and the potential impacts, if any, to marine mammals are expected to be minimal as discussed in the **Federal Register** notice (71 FR 35412, June 20, 2006). Therefore, NMFS believes that

the proposed pre-survey and post-survey monitoring are of sufficient duration and extent for such a small scale operation. NMFS also believes that notifying the stranding network participants of the dates of the proposed activities is not warranted since no injury or mortality is likely or authorized from the proposed seismic surveys.

The proposed seismic surveys will be carried out in summer/fall of 2006, which is not harbor seal pupping season. Therefore, no nursing seals or seal pups are expected to be disturbed at Newark Slough and Plummer Creek.

NMFS agrees with the Commission that survey activities should be suspended immediately if a dead or seriously injured marine mammal is found in the vicinity of the operations and the death or injury may have occurred incidental to the proposed activities. This requirement is one of the conditions in the IHA.

Description of the Marine Mammals Potentially Affected by the Activity

The marine mammals most likely to be found in SFB are the California sea lion, Pacific harbor seal, and harbor porpoise. From December through May, gray whales may also be present in the Bay. General information of these species can be found in Carretta *et al.* (2006), which is available at the following URL: <http://www.nmfs.noaa.gov/pr/pdfs/sars/po2005.pdf>. Refer to that document for information on these species. Additional information on these species is presented below.

Pacific harbor seal

Within the project area, Pacific harbor seals are known to haul-out near the junction of Newark Slough and Plummer Creek. Newark Slough is a continually used seal haul-out site, although it is used by small numbers of harbor seals compared with Mowry Slough to the south and Yerba Buena Island and Castro Rocks in the North Bay. Harbor seals are also known to utilize Newark Slough as a pupping site (Harvey and Oates, 2002) and up to 82 individuals have been documented hauling-out at that location on a single day. During a five-year survey period between 2000 and 2005 at Newark Slough, an average of 42 individuals were counted each year during the pupping season, compared to Mowry Slough 2 miles to the south, where an average of 279 animals were counted each year during the pupping season. The California stock of harbor seal is the only stock of this species found in the proposed project area, and its

abundance is estimated to be 34,233 (Carretta *et al.*, 2006).

California sea lion

California sea lions breed off the Central and Southern California coastline. Once the pupping season is completed (May - June), male sea lions migrate north and enter the Bay. Although California sea lions are mainly known for haul-out sites off the San Francisco and Marin shorelines within the Bay, it is possible for this species to forage in the south Bay area as well. The U.S. stock of the California sea lion population is estimated between 237,000 to 244,000 (Carretta *et al.*, 2006).

Gray whale

In the past, eastern Pacific gray whales have been seen irregularly in SFB. These individuals likely wandered off the migration route. The number of gray whales observed in the Bay increased in 1999 and 2000, and the observed whales apparently were feeding in a number of areas in May and June. The increased aberrancies of gray whale sightings in timing and location, along with foraging activities on its migration route in 1999 and 2000, were potentially caused by a significant decline in amphipod density in gray whale's feeding ground in the Bering and Chukchi seas (Le Boeuf *et al.*, 2000). Although twice being hunted to the brink of extinction in the mid 1800s and again in the early 1900s, the eastern North Pacific gray whales population has since increased to a level that equals or exceeds pre-exploitation numbers (Jefferson *et al.*, 1993). Angliss and Lodge (2006) reported the latest abundance estimate of this population is 18,178.

Harbor porpoise

Harbor porpoises found in waters off the coast of central California from San Francisco to Point Arena belong to the San Francisco-Russian River stock. Year-round surveys in the Gulf of the Farallones area have shown harbor porpoise occurrence within 10 – 20 km (6 – 12 miles) of San Francisco Bay (Calambokidis *et al.*, 1990). High harbor porpoise sightings were also reported just outside the Golden Gate and about 1 km (0.62 mile) inside SFB, however, the occurrence of harbor porpoises in the southern part of the Bay is rare (DeAngelis, personal comm. 2006). Based on Carretta *et al.* (2006), the estimated abundance of the San Francisco-Russian River stock of harbor porpoise is 8,521.

Potential Effects on Marine Mammals and Their Habitat

Seismic surveys using acoustic energy may have the potential to adversely impact marine mammals in the vicinity of the activities (Gordon *et al.*, 2004). Intense acoustic signals from seismic surveys have been known to cause behavioral alteration such as reduced vocalization rates (Goold, 1996), avoidance (Malme *et al.*, 1986, 1988; Richardson *et al.*, 1995; Harris *et al.*, 2001), and changing in blow rates (Richardson *et al.*, 1995) in several marine mammal species.

The proposed seismic studies use a low-intensity acoustic energy source with levels of 204 dB re 1 microPa rms at 1 m (boomer) and 209 dB re 1 microPa rms at 1 m (minisparker) to conduct the seismic surveys. However, it is unlikely that any marine mammals in the vicinity will be exposed to high sound pressure levels due to transmission loss of the acoustic energy in the water column. In addition, the sound pulses produced by the energy sources are extremely short, lasting for only 0.1 ms for the boomer and 0.8 ms for the minisparker. Therefore, the energy from the seismic impulse is expected to be significantly low.

Pinniped disturbance could also be caused by the presence of vessels and humans that are involved in the geographical surveys. These disturbances could cause hauled out harbor seals or California sea lions to flush and possibly result in temporary use of alternate haul-out sites in the Bay. However, long term abandonment of the sites is not likely because noise from traffic, recreational boaters, and other human activities already occur in the area, and it is likely that these animals have become habituated to these disturbances.

Furthermore, marine mammal densities within the project are typically very low. California sea lions, harbor porpoises and gray whales are not known to regularly visit the proposed project area, which is located in southern SFB. Although harbor seals use portions of the proposed project area as haul-out sites, their density is low. Within the last 5 years, individual harbor seals counted while hauling-out at the Newark Slough haul-out site during the post-pupping season have fluctuated between a maximum of 34 animals in 2001 to a minimum of 10 animals in 2005 (DeAngelis, personal comm. 2006). Numbers of harbor seals counted at the Newark Slough haul-out site during May 2001 and May 2002 (pupping season) ranged from 26 - 65 individuals. Lastly, the entire

geophysical survey will only last for 8 - 10 days, which excludes any possible long term noise exposure to marine mammals in the vicinity of the action area.

Based on this information, NMFS concluded that a small number of Pacific harbor seals, California sea lions, harbor porpoises, and gray whales that may be swimming, foraging, or resting in the project vicinity would be potentially taken by Level B behavioral harassment due to the proposed activity. In addition, proposed mitigation measures discussed below would greatly reduce the potential takes of marine mammals due to the proposed geophysical surveys.

Mitigation

The following mitigation measures are required under the IHA that has been issued to Fugro for conducting geophysical surveys in southern SFB. NMFS believes that the implementation of these mitigation measures will reduce impacts to marine mammals to the lowest extent practicable.

Time and Location

Geophysical studies will only be conducted during daylight hours from 7 a.m. - 7 p.m., when marine mammal monitoring prior to and during the surveys will be most effective.

Seismic studies will not occur in the vicinity of Newark Slough or Plummer Creek during the harbor seal pupping season (March 1 - June 30). Seismic studies will only occur over open water transects during that period.

Establishment of Safety Zones

A 45-m (148-ft) radius safety zone for the boomer system and a 100-m (328-ft) radius for the minisparker system safety zones shall be established and monitored during the seismic surveys. At these distances, the SPLs would be reduced to 179 dB re 1 microPa rms and 169 dB re 1 microPa rms, respectively, which are lower than NMFS standards set for avoiding marine mammal Level A harassment (180 dB re 1 microPa rms for cetaceans and 190 dB re 1 microPa rms for pinnipeds).

Observers on boats will survey the safety zone for 15 minutes to ensure that no marine mammals are seen within the zone before a seismic survey begins. If marine mammals are found within the safety zone, seismic surveys will be delayed until they move out of the area. If a marine mammal is seen above the water and then dives below, the surveyor will wait 15 minutes and if no marine mammals are seen by the observer in that time it will be assumed that the animal has moved beyond the

safety zone. This 15-minute criterion is based on scientific evidence that harbor seals in San Francisco Bay dive for a mean time of 0.50 minutes to 3.33 minutes (Harvey and Torok, 1994), the mean diving duration for harbor porpoises ranges from 44 to 103 seconds (Westgate *et al.*, 1995), and the mean diving duration for gray whales is approximately 1.84 minutes (Wursig *et al.*, 2003).

Soft Start

Although marine mammals will be protected from Level A harassment by establishment of a safety zone at a SPL levels of 169 and 179 dB re 1 microPa rms, mitigation may not be 100 percent effective at all times in locating marine mammals. In order to provide additional protection to marine mammals near the project area by allowing marine mammals to vacate the area prior to receiving a potential injury, and to further reduce Level B harassment by startling marine mammals with a sudden intensive sound, Fugro will implement "soft start" practice when starting up acoustic equipment. By implementing the "soft start" practice, acoustic equipment will be initiated at an energy level less than full capacity (i.e., approximately 40 - 60 percent energy levels) for at least 5 minutes before gradually escalating to full capacity. This would ensure that, although not expected, any pinnipeds and cetaceans that are missed during safety zone monitoring will not be injured.

Equipment Shut-down If Marine Mammal Enters Safety Zone

With all the aforementioned mitigation measures in place, marine mammals may still enter the safety zone when geophysical surveys are underway. As a result, there is a possibility that Level A harassment could occur to these animals when exposed to intensive sounds. In order to prevent any potential Level A harassment to marine mammals from occurring, the surveyors shall shut down the acoustic equipment if a marine mammal is sighted in or believed to have entered within the safety zone during the survey transect. The surveyors shall not start the acoustic equipment again until the marine mammal leaves the safety zone, or no marine mammals are sighted within the safety zone for 15 minutes after the last sighting.

Monitoring and Reporting

URS has developed a monitoring plan that will collect data for each distinct marine mammal species observed in the

south Bay proposed project area during the period of the seismic surveys. Marine mammal behavior, overall numbers of individuals observed, frequency of observation, the time corresponding to the daily tidal cycle, and any behavioral changes due to the geophysical surveys will be recorded on daily observation sheets.

Monitoring will be conducted by qualified NMFS-approved biologists. Binoculars and optical or digital laser range finders that are accurate to 3 feet (0.9 m) will be standard equipment for the monitors.

Monitoring will begin prior to the first day of the survey to establish baseline data, and would occur from a chase boat during the 8 - 10 day survey period. Post-survey monitoring will occur for a period of one day upon completion of the seismic studies.

Before the startup of the survey equipment, a marine mammal observer will visually survey the area for 15 minutes to confirm the safety zone is clear of any marine mammals. Seismic surveys will not begin until the safety zone is clear of marine mammals. Two observers will be present when surveys start onboard a separate boat and scan different sections of the overall survey area, particularly the safety zone. Once seismic survey of a transect begins and a marine mammal is sighted or believed to be within the safety zone, the observer(s) must notify the surveyor (or other authorized individual) immediately turn off the acoustic equipment and follow the mitigation requirements as outlined previously (see Mitigation). The seismic equipment must not be turned on until the animal leaves the safety zone, or 15 minutes after the last sighting. The surveyor may continue seismic survey uninterrupted as long as no marine mammals are sighted within the safety zone.

URS shall submit a final report to NMFS 90 days after completion of the seismic survey project. The final report would include data collected for each distinct marine mammal species observed in the south Bay project area during the period of the seismic surveys. Marine mammal behavior, overall numbers of individuals observed, frequency of observation, and any behavioral changes due to the geophysical surveys shall also be included in the final report.

National Environmental Policy Act (NEPA)

In June, 2006, NMFS prepared a draft EA on the issuance of an IHA to Fugro to take marine mammals by harassment incidental to conducting seismic surveys in south SFB. The draft EA was

released for public review and comment along with the application and the proposed IHA. During the 30-day public comment period NMFS received comments from the CBD on the draft EA. All comments are addressed in full in the Comments and Responses section. Subsequently, NMFS finalized the draft EA and issued a Finding of No Significant Impact on the proposed project on September 8, 2006.

Endangered Species Act (ESA)

Based on a review conducted by NMFS biologists, no ESA-listed species are expected to be affected by the seismic surveys in south SFB during the proposed project period in summer/fall. Therefore, NMFS has determined that this action will have no effect on listed species, and a section 7 consultation is not necessary.

Determinations

For the reasons discussed in this document and in the identified supporting documents, NMFS has determined that the impact of seismic surveys and other activities associated in the south SFB would result, at worst, in the Level B harassment of small numbers of California sea lions, Pacific harbor seals, harbor porpoises, and potentially gray whales that inhabit or visit south SFB. While behavioral modifications, including possibly temporarily vacating the area during the survey period of 8 - 10 days, may be made by these species to avoid the resultant visual and acoustic disturbance, the availability of alternate areas within SFB and haul-out sites (including pupping sites) and feeding areas within the Bay has led NMFS to determine that this action will have a negligible impact on California sea lions, Pacific harbor seals, harbor porpoises, and gray whale populations along the California coast.

In addition, no take by Level A harassment (injury) or death is anticipated and harassment takes should be at the lowest level practicable due to incorporation of the mitigation measures described in this document.

Authorization

NMFS has issued an IHA to Fugro for the potential harassment of small numbers of harbor seals, California sea lions, harbor porpoises, and gray whales incidental to conducting of seismic surveys in south San Francisco Bay in California, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: September 25, 2006.

P. Michael Payne,

*Acting Director, Office of Protected Resources,
National Marine Fisheries Service.*

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BILLING CODE 3510-22-S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 092106F]

Advisory Committee to the U.S. Section to the International Commission for the Conservation of Atlantic Tunas; Fall Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: In preparation for the 2006 ICCAT meeting, the Advisory Committee to the U.S. Section to International Commission for the Conservation of Atlantic Tunas (ICCAT) will meet in October 2006.

DATES: An open session will be held on October 15, 2006, from 2 to 5 p.m. Closed sessions will be held from 9 a.m. to 5 p.m. October 16-17, 2006. Oral and written comments can be presented during the public comment session on October 15, 2006. Mailed written comments on issues being considered at the meeting should be received no later than October 10, 2006.

ADDRESSES: The meeting will be held at the Hilton Hotel, 8727 Colesville Road, Silver Spring, MD 20910. Written comments should be sent to Kelly Denit at NOAA Fisheries Office of International Affairs, Room 13114, 1315 East-West Highway, Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT: Kelly Denit (301) 713-2276.

SUPPLEMENTARY INFORMATION: The Advisory Committee to the U.S. Section to ICCAT will meet in open session on October 15. The Advisory Committee will receive information on the stock status of highly migratory species and management recommendations of ICCAT's Standing Committee on Research and Statistics. There will be an opportunity for oral public comment during the October 15, 2006, open session. Written comments may also be submitted at the October 15 open session or by mail. If mailed, written comments should be received by October 10, 2006 (see **ADDRESSES**).

During its fall meeting, the Advisory Committee will also hold two executive sessions that are closed to the public. The first executive session will be held on October 16, 2006, and a second executive session will be held on October 17, 2006. The purpose of these sessions is to discuss sensitive information relating to upcoming international negotiations.

NMFS expects members of the public to conduct themselves appropriately for the duration of the meeting. At the beginning of the public comment session, an explanation of the ground rules will be provided (e.g., alcohol in the meeting room is prohibited, speakers will be called to give their comments in the order in which they registered to speak, each speaker will have an equal amount of time to speak, and speakers should not interrupt one another). The session will be structured so that all attending members of the public are able to comment, if they so choose, regardless of the degree of controversy of the subject(s). Those not respecting the ground rules will be asked to leave the meeting.

Special Accommodations

The meeting location is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kelly Denit at (301) 713-2276 at least five days prior to the meeting date.

Dated: September 26, 2006.

William T. Hogarth,

*Assistant Administrator for Fisheries,
National Marine Fisheries Service.*

[FR Doc. 06-8374 Filed 9-26-06; 2:28 pm]

BILLING CODE 3510-22-S

DEPARTMENT OF DEFENSE

Office of the Secretary

Defense Science Board

AGENCY: Department of Defense.

ACTION: Notice of Advisory Committee Meetings.

SUMMARY: The Defense Science Board Task Force on Biometrics will meet in closed session on *September 28-29, 2006*, at Science Applications International Corporation (SAIC), 4001 N. Fairfax Drive, Arlington, VA. This meeting will define the role of biometrics technologies and capabilities within DoD's Space. It will also recommend best organizational fit within DoD to implement the biometric and identify dominance missions. The briefings will contain proprietary