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Date Filed:	01/26/00
49th Day:	03/15/00
180th Day:	07/24/00
Staff:	AD/DL-SF
Original Hearing Date:	02/15/00
Continued Hearing Date:	04/14/00
Staff Report:	03/24//00
Item No.:	F13a
Commission Action/Vote:	

STAFF REPORT: REGULAR CALENDAR

Application No.: **E-99-08**

Project Applicants: **San Diego Oceans Foundation ("SDOF") and the City of San Diego**

Location: Approximately 1.85 miles offshore Mission and Pacific Beaches, San Diego County. (See Exhibit 1)

Project Description: Sink a 366-foot long decommissioned Canadian naval vessel, the HMCS Yukon, to create an underwater diving attraction.

Related Approvals: City of San Diego. Ordinance No. 18741 (adopted January 10, 2000).

Regional Water Quality Control Board, San Diego Region. Conditional 401 Waiver (January 4, 2000).

U.S. Army Corps of Engineers. "Notice of Application for a Letter of Permission" under Section 10 of the Rivers and Harbors Act (Public Notice/Application No. 199916503-MAT).

Substantive File Documents: **Appendix B**

SYNOPSIS

The San Diego Oceans Foundation ("SDOF") and the City of San Diego are joint applicants in this application to sink and place a 366-foot long decommissioned Canadian naval vessel, the HMCS Yukon, approximately 1.85 miles offshore of Mission and Pacific Beaches in San Diego County.

The application is modeled on the experience of the Artificial Reef Society of British Columbia ("ARSBC"), which in 1992 began a program of sinking vessels to create economic benefit for the Province's communities through scuba diving and fisheries enhancement. The Yukon is one of these decommissioned Canadian Naval destroyers that was purchased by the SDOF for sinking offshore San Diego.

On January 10, 2000, the City of San Diego adopted Ordinance No. 18741 which in part approves the sinking and placement of the Yukon on sovereign lands that were legislatively granted to the City of San Diego in 1933. The Yukon will be placed on sandy-bottom habitat at a depth of 100 feet to create a diving attraction. The Yukon will not be sunk by being "blown up," so there will be no outward explosion; instead, "underwater shaped charges" will cut holes in the hull and the following inflow of water will then sink the ship.

Major Coastal Act issues associated with this project include potential impacts to marine resources and water quality. The project will, however, enhance recreational diving opportunities. Please see Table 1 for a summary of potential impacts and proposed mitigation measures.

The Commission staff recommends approval of the proposed project, as conditioned.

Table 1. Issue Summary: Potential Impacts and Proposed Conditions and Measures

Significant Issue Area	Proposed Special Conditions and Mitigation Measures
Marine Resources: Marine Resources and Water Quality	Issue: Placement of Yukon could adversely affect marine resources and/or water quality through the introduction of debris, pollutants, or hazardous materials. Mitigation Measure: **Special Condition 2** requires that prior to issuance of this permit, the applicants shall provide evidence showing to the satisfaction of the executive director that paint chips identified as a significant shortcoming in the December 13, 1999, inspection of the Yukon have been removed. **Special Condition 3** requires that prior to issuance of this permit, the applicants shall submit to the executive director written evidence that they have fulfilled all of the conditions of the waiver of waste discharge requirements under the State Porter-Cologne Water Quality Control Act, and water quality certification requirements pursuant to Section 401 of the Federal Clean Water Act for the discharge of dredged or fill material, issued by the RWQCB on January 4, 2000. These conditions include submittal of the following items: • Signed letter from the USCG stating that the HMCS Yukon meets their standards of cleanliness; • Signed letter from Darryl Hansen, Pacific Lighthouse Environmental Management Services, Inc., stating that the HMCS Yukon has been cleaned to Environment Canada standards; and • Results of PCB sampling of the HMCS Mackenzie and HMCS Saskatchewan showing that levels of PCBs are not higher than background levels. PCB levels detected from samples taken inside the ship will be assumed to represent leaching, while those taken from outside the ship will be assumed to represent background levels. **Special Condition 4** requires that the applicants retrieve and remove from the marine environment all plastic, plywood, undetonated blasting charges, and all other materials that the towing, sinking, and subsequent diving inspection procedures introduce into said environment.

Table 1, Continued. Issue Summary: Potential Impacts and Proposed Conditions and Measures

Significant Issue Area	Proposed Special Conditions and Mitigation Measures
Marine Resources: Marine Mammals	**Issue:** Sinking of the Yukon through use of "underwater shaped charges," which are technically considered to be blasting, may have adverse impacts on marine mammals and sea turtles in the form of noise or blasting impact.. **Mitigation Measures:** **Special Condition 1** requires that the applicants shall implement all proposals and recommendations of the National Marine Fisheries Service to mitigate any adverse effects on marine mammals and sea turtles from the underwater charges used to sink the ship. Specifically, the applicants shall establish a 500-yard safety zone around the Yukon and place a minimum of two observers in each of three patrol boats and in a spotter plane, to maximize the viewing area, prior to the sinking event. Should any marine mammals be observed within the 500-yard zone, sinking will be delayed until they leave the area.
Public Access and Recreation: On-Water Access Prior To and During the Sinking Event	**Issues:** The applicants propose to establish a "preferred viewing area" reserved for project sponsors and contributors, VIPs, and paying members of the public prior to and during the sinking event. **Mitigation Measures:** **Special Condition 5** prohibits establishment of said "preferred viewing area," stating that at no time may the applicants either (a) establish, delineate, or enforce or (b) propose or participate in the establishment, delineation or enforcement of any "preferred viewing area" that restricts the general public's access to any portion of the open waters, particularly based on payments or contributions, prior to, during, or after the sinking event. On-water restricted zones may be established only for public safety reasons.

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1.0 STAFF RECOMMENDATION

The staff recommends conditional approval of Coastal Development Permit Application No. E-99-08.

Motion:

I move that the Commission approve Coastal Development Permit Application No. E-99-08 subject to the conditions set forth in the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the application and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve the Permit:

The Commission hereby approves coastal development permit E-99-08 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.0 STANDARD CONDITIONS Appendix A

3.0 SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Implementation of National Marine Fisheries Service Recommendations.** The applicants shall implement all proposals and recommendations of the National Marine Fisheries Service to mitigate any adverse effects on marine mammals and sea turtles from the underwater charges used to sink the ship. Specifically, the applicants shall establish a 500-yard safety zone around the Yukon and place a minimum of two observers in each of three patrol boats and in a spotter plane, to maximize the viewing area, prior to the sinking event. Should any marine mammals be observed within the 500-yard zone, sinking will be delayed until they leave the area.

2. **Removal of Paint Chips. Prior to issuance of this permit,** the applicants must provide evidence showing to the satisfaction of the executive director that paint chips identified as a significant shortcoming in the December 13, 1999, inspection of the Yukon have been removed.

3. **Fulfillment of All Conditions of the RWQCB's Waiver. Prior to issuance of this permit,** the applicants shall submit to the executive director written evidence that they have fulfilled all of the conditions of the waiver of waste discharge requirements under the State Porter-Cologne Water Quality Control Act, and water quality certification requirements pursuant to Section 401 of the Federal Clean Water Act for the discharge of dredged or fill material, issued by the RWQCB on January 4, 2000. These conditions include submittal of the following items:

   - Signed letter from the USCG stating that the HMCS Yukon meets its standards of cleanliness;
   - Signed letter from Darryl Hansen, Pacific Lighthouse Environmental Management Services, Inc., stating that the HMCS Yukon has been cleaned to Environment Canada standards; and
   - Results of PCB sampling of the HMCS Mackenzie and HMCS Saskatchewan showing that levels of PCBs are not higher than background levels. PCB levels detected from samples taken inside the ship will be assumed to represent leaching, while those taken from outside the ship will be assumed to represent background levels.[1]

4. **Removal of All Introduced Materials and Debris.** The applicants shall retrieve and remove from the marine environment all plastic, plywood, undetonated blasting charges, and all other materials that the towing, sinking, and subsequent diving inspection procedures introduce into said environment.

5. **Prohibition of a "Preferred Viewing Area."** At no time may the applicants either (a) establish, delineate, or enforce or (b) propose or participate in the establishment, delineation or enforcement of any "preferred viewing area" that restricts the general public's access to any portion of the open waters, particularly based on payments or contributions, prior to, during, or after the sinking event. On-water restricted zones may be established only for public safety reasons.

4.0 FINDINGS AND DECLARATIONS

4.1 Project Background – Canadian Experience

In 1992, the Artificial Reef Society of British Columbia ("ARSBC") began a program of sinking vessels to create economic benefit for the Province's communities through scuba diving and fisheries enhancement. Five ships, including four McKenzie class destroyers, have been sunk in the Straits of Georgia through 1998. Preparation of each ship for sinking involved cleaning it to

[1] E-mail message from Stacey Baczkowski, RWQCB, Region 9, to Moira McEnespy, CCC, January 26, 2000.

strict standards, and creating safe diver access by cutting numerous holes in the ship's superstructure and hull. The ARSBC experience provides the basis for the SDOF's proposed SDURA and Yukon projects. In fact, the Yukon is one of these decommissioned Canadian Naval destroyers that was purchased by the SDOF for sinking offshore San Diego.

4.2 Project Description

Prior to sinking, the Yukon will be cleaned of contaminants (e.g., oil and grease, PCBs, friable asbestos) and prepared for diver safety (e.g., obstacles will be removed, access holes will be cut).

The Yukon will be sunk through use of "underwater shaped charges," which are beads or ribbons of putty-like material that burn extremely fast and at a very high temperature. The charges will be attached to plywood templates that conform to the inner contour of the hull, outlining a square approximately 4' x 4'; there will be six such templates. Upon ignition, the charges will make surgical cuts ¼-to ½-inch wide, similar to plasma cutting in steel fabrication. Almost instantaneously, the holes will be cut and the exterior water pressure will force the 4' x 4' steel plates inward; the following inflow of water will then sink the ship.

The sinking itself is planned to be a public event. Vessel safety and management will be coordinated through the U.S. Coast Guard (grants the final "OK" to sink), the U.S. Coast Guard Auxiliary (helps in spectator boat control), the San Diego City Lifeguard Service and the Harbor Police (handle any violations). Onshore spectators will be coordinated with the City of San Diego Police Department. The sinking process is proposed as follows:

- Several perimeters will be established with buoys around the Yukon. An inner zone of 100-yard radius will mark a safety buffer, within which only "official" boats will be allowed (note that the Coast Guard will make the final call on the length of this safety radius). The second zone, between 100-yard and 200-yard radii, will constitute a "preferred viewing area" for project sponsors and contributors, VIPs, and paying members of the public (the applicants estimate costs to be on the order of $50.00 for a kayak; $1,000 for a 50-foot boat); only those with "sponsor flags" will be allowed in this zone. Beyond the 200-yard radius will be the general viewing area;
- The Yukon will be towed out to the sinking site about 24 hours before its planned sinking;
- At the time of sinking, pyrotechnics (fireworks) will be exploded for special effect;
- Simultaneously, the shaped charges will be detonated in a sequence that will cause the bow to sink first, followed by the stern;
- Within a total period of three to five minutes, the entire vessel will sink underwater and reach its resting place on the seafloor;
- After the sinking, divers will inspect the vessel to remove demolition wiring and any unexploded materials;
- Once diver safety is assured, the vessel will be available to the public.

Mooring buoys will be permanently attached to the Yukon and installed off to the sides for dive boats to tie up to; marker (navigational) buoys will also be installed. All buoys will be serviced regularly under the control of the USCG and the City's lifeguard service.

4.3 Related Approvals

4.3.1 City of San Diego

As lead agency under the California Environmental Quality Act, the City of San Diego certified on December 7, 1999, a programmatic environmental impact report ("PEIR") that evaluates (1) the creation of a San Diego Underwater Recreation Area ("SDURA"), and (2) the sinking and placement of the Yukon within the SDURA.

On January 10, 2000, the City Council passed Ordinance No. 18741 to create the SDURA and assume title to and management of the SDURA and the sunken vessels within, including the Yukon.

The City of San Diego is also a joint applicant with the SDOF in this application for a coastal development permit ("CDP"). The CDP application originally proposed the creation of the SDURA and the sinking of Yukon. However, on February 14, 2000, the applicants withdrew that portion of CDP application E-99-08 that proposes the creation of the SDURA.

4.3.2 Regional Water Quality Control Board, San Diego Region ("RWQCB")

On January 4, 2000, the RWQCB conditionally waived waste discharge requirements under the State Porter-Cologne Water Quality Control Act, and water quality certification requirements pursuant to Section 401 of the Federal Clean Water Act for the discharge of dredged or fill material.

4.3.3 California Department of Fish and Game ("CDFG")

The CDFG does not consider the Yukon to be an "artificial reef" under its Artificial Reef Program. The only authorization necessary from the CDFG is pursuant to Section 5500 of the Fish and Game Code, which requires an "explosives permit" in order to use explosives below the waterline to sink the Yukon.

4.3.4 California State Lands Commission ("CSLC")[2]

The proposed siting of Yukon is within sovereign lands that have been legislatively granted to the City of San Diego pursuant to Chapter 688, Statutes of 1933. The City has day-to-day management and permitting authority over these lands and no further authorization from the CSLC is required.

[2] Letter from Mary Griggs, CSLC, to Beth Murray, City of San Diego, September 10, 1998.

4.3.5 U.S. Environmental Protection Agency ("EPA")

The EPA has a limited role in review of the proposed project because it will be within state waters; the applicants do not need to obtain any permit or approval from the EPA.

4.3.6 U.S. Army Corps of Engineers ("ACOE")

In November, 1999, the ACOE issued a "Notice of Application for a Letter of Permission" pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 *(33 U.S.C. 403)* for potential obstructions to navigation *(Public Notice/Application No. 199916503-MAT).* The ACOE has determined that the proposed project will not require a permit pursuant to Section 404 of the federal Clean Water Act for the discharge of dredged or fill material in waters of the United States because the Yukon qualifies as a "structure" rather than a "discharge."

4.3.7 U.S. Coast Guard ("Coast Guard")[3]

The Coast Guard, under an MOU with the U. S. Environmental Protection Agency ("EPA"), conducts inspections of vessels for disposal at sea. The EPA standards for ocean disposal of vessels are set forth in *40 CFR 229.* The Coast Guard has determined, though, that the establishment of the Yukon as a dive attraction/artificial reef is not within the scope of an ocean disposal and therefore does not require EPA "ocean dumping" permitting and Coast Guard inspection.

The Coast Guard does, however, have the statutory responsibility to protect marine waters from the intentional and accidental discharge of oil in a harmful quantity and release of hazardous materials in a reportable quantity. The Coast Guard has reviewed the Environment Canada's guidelines, "Clean-up Standard for Ocean Disposal of Vessels," and has determined that if the Yukon is cleaned to these standards, Coast Guard concerns will be satisfied.

A representative of the Coast Guard conducted a joint inspection of the Yukon on December 13, 1999, with representatives from the San Diego Regional Water Quality Control Board ("RWQCB") and the City of San Diego, to verify that the Canadian standards are met. On December 30, 1999, the Coast Guard advised the SDOF that its regulatory responsibilities were satisfied pending address of some minor discrepancies:

> [T]he U.S. Coast Guard is satisfied with the material condition of the Yukon as an underwater dive attraction. The Environment Canada standards that were adopted and used by SDOF for the cleaning preparing of the Yukon were met. By meeting these standards, SDOF has satisfied the Coast Guard's regulatory responsibilities for the protection of marine waters from oil and hazardous materials releases.[4]

[3] Letter from Lt. Mark Cunningham, USCG, to City of San Diego, July 29, 1999; letter from Lt. M.T. Cunningham, USCG, to Robert Watts, SDOF, December 30, 1999.
[4] Letter from Lt. M.T. Cunningham, USCG, to Robert Watts, SDOF, December 30, 1999.

The Coast Guard is not, however, "certifying" the Yukon's cleanliness or its suitability as an artificial reef.

The actual towing and scuttling of the Yukon requires a Coast Guard "Marine Event" permit. This permit is required when an on-water activity could potentially endanger the public and/or environment. The Coast Guard is also responsible for establishing a "safety zone," which temporarily prohibits public access from the area.

Finally, buoys used for the permanent (longer than six months) marking of the Yukon and/or the underwater park require permitting through the Coast Guard's "Private Aids to Navigation" process.

4.4 "Wreck Alley" and the Mission Beach Artificial Reef; Pacific Beach Artificial Reef

In September, 1986, the Coastal Commission granted permits to the California Department of Fish and Game ("CDFG") to construct artificial reefs in San Diego County offshore Mission and Pacific Beaches (E-86-4 and E-86-3, respectively). Augmentations to these reefs were authorized under the original permits for a ten-year period, and then via permit amendments thereafter.

The boundaries of the Mission Beach artificial reef ("MBAR"), originally known as the Mission Bay Park artificial reef, enclose approximately 200 acres. The MBAR currently contains three vessels—the Ruby E, a 160-foot Coast Guard cutter; El Rey, a 100-foot kelp harvester; and the Shooter, an 80-foot sportfisher. The sunken vessels lie one-half mile south of the proposed Yukon site in 75 to 85 feet of water, and have come to be known collectively as "wreck alley." The MBAR also contains one barge, about 10,500 tons of concrete rubble, the remnants of the Navy Electronics Laboratory tower, and the Mission Beach kelp reef. In 1999, the SDOF conducted a 400-ton augmentation to the CDFG's existing 9,100-ton kelp reef that was built in 1992; there is no separate SDOF reef.

The Pacific Beach Artificial Reef ("PBAR") consists of 24 modules—10,000 tons of quarry rock over an area of 109 acres. The CDFG has not permitted the PBAR for further augmentation at this time.

4.5 Coastal Act Issues

4.5.1 Marine Resources

Coastal Act Section 30230 states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environmental shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

The proposed sinking and placement of Yukon could potentially impact rare, sensitive or ecologically important species populations as a result of (1) underwater charges associated with the sinking; (2) conversion of sandy habitat to hard substrate; or (3) negatively affecting local fish populations.

4.5.1.1 Sinking Activities

The SDOF and the City of San Diego plan to sink the Yukon through use of "underwater shaped charges," which are technically considered to be blasting. Use of these charges to cut holes in the subsurface portions of the ship may have adverse impacts on marine mammals and sea turtles in the form of noise or impact.

Humpback whales *(Megaptera novaeangliae)*, federally listed as endangered, migrate along the California coast April through November. Reported humpback whale sightings off San Diego have been in the range of 15 miles offshore.

Gray whales *(Eschrichtius robustus)* migrate through San Diego's offshore waters twice a year on their way between summer feeding grounds off Alaska and calving areas in the coastal lagoons of Baja California, Mexico. Gray whales may occur in the vicinity of the Yukon between October and early February, during their southern migration, and between late February and the end of May, during their northward migration. Whales have been observed in the nearshore zone in the past, some passing just off the Mission Bay harbor channel entrance.

In addition, harbor seals *(Phoca vitulina)* and California sea lions *(Zalophus californianus)* are common in the San Diego region, and a 1989 census of offshore marine mammal populations throughout the Southern California bight showed the most abundant dolphins to be the Risso's dolphin *(Grampus griseus)* and common dolphin *(Delphinus delphis)*. The City of San Diego reports, however, that neither of these species are found within the proposed project region with any frequency. The bottlenose dolphin *(Tursiops truncatus)* may traverse the nearshore portion of the project area, just beyond the surf zone.[5]

The applicants have consulted with the National Marine Fisheries Service ("NMFS") to mitigate any adverse effects on marine mammals and sea turtles from the sinking event, particularly disturbance from the underwater charges used to cut holes in the subsurface portions of the ship. The NMFS proposes establishing a 500-yard safety zone around the Yukon and placing a minimum of two observers in each of three patrol boats and in a spotter plane, to maximize the viewing area, prior to the sinking event. Should any marine mammals be observed within the 500-yard zone, sinking will be delayed until they leave the area.

The applicants propose to implement the NMFS proposal by placing one observer on the Yukon, two observers in the inner safety zone (100-yard radius), and four observers on the outer perimeter of boats that have clustered around the edge of the safety zone to view the sinking

[5] Regional marine mammal information from the Environmental Impact Report (City of San Diego, Planning & Development Review, "San Diego Underwater Recreation Area and HMCS Yukon project," Section 4 (LDR No. 98-0686; Sch No. 98081020)).

activities. Although the 500-yard perimeter will not be marked, the applicants and the NMFS think that it is feasible for the patrols looking out from the outer perimeter to see out 500 yards. There will also be two aerial spotters, one Coast Guard plane and one private plane.

Commission Evaluation

The Commission finds that the 500-yard buffer to be observed during sinking of the Yukon will be adequate to protect marine mammals for the following reasons:

- The NMFS proposed the 500-yard buffer with the goal of determining a safety perimeter around the Yukon before, during and after sinking adequate to avoid adverse effects on marine mammals and sea turtles. The NMFS also recommended placing a minimum of two observers in each of three patrol boats, and in the spotter plane to maximize viewing area;[6]

- The Yukon will not be sunk by being "blown up," so there will be no outward explosion. Upon ignition, "underwater shaped charges," beads or ribbons of putty-like material that burn extremely fast and at a very high temperature, will make surgical cuts ¼-to ½-inch wide. Almost instantaneously (less than one second), six 4' x 4' holes will be cut in the hull and the exterior water pressure will force the steel plates inward; the following inflow of water will then sink the ship. There is little or no sound transmission from this cut because water pressure pushes the plate inward; the opening is not caused by a blast, but rather by an intense burn; and

- The Artificial Reef Society of British Columbia ("ARSBS") has studied the effects on five sinkings performed in Canada and one sinking in Australia. Detailed sound studies were performed at two of the Canadian sinkings; one sinking was in close proximity to a fish hatchery (within 400 meters) and one sinking was near a large group or sea lions onshore (with 100 meters) and in the water near the ship during the event. The ARSBC found that the loudest sound generated by the sinking process is the sound of the ship's bow striking the seafloor with a "thunk." In all of the ARSBC's sinkings, there have not been adverse effects on marine mammals in the area.

To ensure the proposals and recommendations of the NMFS to mitigate any adverse effects on marine mammals and sea turtles from the underwater charges used to sink the ship are employed, the Commission imposes **Special Condition 1**, which requires the applicants to implement said proposals and recommendations. The Commission finds that with the imposition of this special condition, the sinking and placement of the Yukon will be carried out in a manner that maintains marine resources and healthy populations of all species of marine organisms as required by Coastal Act Section 30230, and thus is consistent with that section.

[6] E-mail message from Christina Fahy, NMFS, to Moira McEnespy, CCC, January 20, 2000 (formal letter from the NMFS was not yet available at the time of this report).

4.5.1.2 Habitat Conversion and Local Fish Populations

The applicants conducted a study of the previously proposed 576.68-acre San Diego Underwater Recreation Area site and survey of the proposed Yukon site.[7] The study consisted of a literature search of the general area. Depth in the project area ranges from 80 ft. to 130 ft. The bottom substrate consists of unconsolidated sand averaging 50 ft. deep, and slopes gently from east to west. On January 10, 1999, the applicants conducted a visual survey of the subtidal sand-bottom community over a 36,000 sq. ft. (0.82 acre) area using 22 divers to assess the nature and extent of the seafloor in and around which the Yukon will be placed. The visual survey results showed low densities of Sand Stars *(Astropecten armatas)*, Bat Stars *(Patiria miniata)*, Kellet's Welks *(Kelletia kelleti)*, tube worms, sea pens, and one fish, a sculpin *(Scorpaena guttata)*. Bivalve shells were scattered, but no live bivalves were observed. No attached macro algae (kelp) is present.

Alteration and/or Replacement of the Subtidal Sandy-Bottom Community

In shallow waters of coastal California, the surface-living organisms (epifauna), especially those like sea pens and tube worms that feed on suspended organisms, tend to be most abundant in water depths less than about 10 m.[8] As one goes deeper, organisms that live buried in the sediments (infauna) tend to predominate, and surface dwellers are primarily predators and scavengers such as sea stars. In San Diego County, infaunal organisms are about two orders of magnitude more abundant at the depths of the project area than in very shallow water and are made up mostly of polychaete worms. These organisms appear to be wide-spread and many of them are good colonizers. Placement of the Yukon on the seafloor will alter or replace this sandy-bottom community. The mobile epifauna will be displaced and the sessile epifauna and the infaunal organisms directly underneath the ship will be lost. However, this loss of habitat is unlikely to have any population consequences because the impacted sand bottom is a tiny proportion of the available habitat along the southern California coast. Even considering a very local area, arbitrarily defined as a zone one mile along the coast and a half mile across the shelf (about seven Yukon boat lengths), only about 0.1 percent of the sandy bottom would be affected.

The applicants and the PEIR state that placement of the Yukon will provide substrate similar to rocky reefs, that the increase in hard surface area is expected to result in greater diversity of marine life in and near the Yukon, and that fish are expected to be attracted to the Yukon for its value as a reef. The applicants conclude that they expect the net result to be a beneficial effect on many marine organisms including fish, epifauna, and some infaunal organisms that could offset any adverse effects on sandy seafloor-associated biota.

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[7] "Biological Survey and Report, San Diego Underwater Recreation Area And Yukon Placement Site," LDR No. 98-0686, Prepared by the San Diego Oceans Foundation for the City of San Diego (April 14, 1999, Revised June 1, 1999).

[8] Thompson, B., J. Dixon, S. Schroeter, and D.J. Reish. 1993. Benthic Invertebrates. In, M.D. Dailey, D.J. Reish, and J.W. Anderson, eds. Ecology of the Southern California Bight. A synthesis and interpretation. Berkeley, University of California Press.

Potential Effects on Local Fish Populations

Studies conducted by the CDFG's Artificial Reef Program have found that sunken vessel wrecks are less useful than other reef materials in providing productive habitat for marine organisms.[9] These studies have further shown that "sunken vessels act more like fish attracting devices, rather than encourage fish production that is associated with more complex low to mid-relief reefs, constructed from concrete rubble or quarried rock."[10] The Yukon will not be part of the CDFG's Artificial Reef Program.

Studies have shown that artificial reefs can act simply as fish aggregating devices ("FADs") rather than increasing standing stocks, and thus may contribute to or create a risk of overfishing.

For example, a study by Jeffrey J. Polovina of the NMFS[11] uses three types of evidence to support the following findings:

- Artificial reefs can be excellent fish aggregators, but they do not necessarily increase standing stock;
- Observations from the Japanese artificial reef program lead to the belief that the real benefit of the artificial reefs in the study is that they aggregate wide-ranging fishes close to shore so they can be harvested by fishermen with small vessels; and
- Artificial reefs may aggregate younger fish, making them more vulnerable to capture and actually increasing overfishing; or may increase catachability, thus increase fishing mortality, which further reduces the spawning stock biomass.

Dixon and Schroeter found that there currently is little evidence with which to determine whether rocky habitat is generally limiting to fishes in southern California.[12] Grossman, Jones, and Seaman[13] state that when hard-bottom habitat does not limit regional fish production, "construction of additional artificial reefs will have no effect on fish production; it will merely cause a redistribution of existing biomass." Their review of the scientific literature indicates that reef construction may have potentially deleterious effects on reef fish populations, including (1) increasing fishing effort and catch rates, (2) boosting the potential for overexploitation of stocks by increasing access to previously unexploited stock segments, and (3) increasing the probability of overexploitation by concentrating previously exploited segments of the stock. Furthermore,

[9] "Biological Surveys of Five Southern Artificial Reefs: Oceanside #1, Oceanside #2, Carlsbad, Pacific Beach, and Mission Bay," Dennis Bedford, Jerry Kashiwada, and Greg Walls, CDFG, Marine Resources Division, Administrative Report 95-6, 1995, p. 10.

[10] Letter from Robert Tasto, Supervisor, Project Review and Water Quality Program, Marine Region, CDFG, to Moira McEnespy, CCC, September 20, 1999.

[11] Polovina, Jeffrey J. "Artificial Reefs: Nothing More Than Benthic Fish Aggregators." Southwest Fisheries Center Honolulu Laboratory, NMFS, NOAA (CalCOFI Rep., Vol. 30, 1989).

[12] Dixon, John D. and Stephen C. Schroeter. "The Use of 'Fish Services' as a Common Measure of Ecological Losses from Injury to Marine Habitats and Ecological Gains from Restoration Activities." A Report to NOAA by Ecometrics Environmental Services, February 27, 1998, p. iii.

[13] Grossman, Gary D., Geoff P. Jones, and William J. Seaman, Jr. "Do Artificial Reefs Increase Regional Fish Production? A Review of Existing Data." *Artificial Reef Management*, Vol. 22, No. 4, April, 1997, p. 17.

the literature contains few studies that unambiguously demonstrated that artificial reefs increased regional fish production rather than merely concentrated available biomass."

Dixon and Schroeter found also that "since artificial reefs are subject to heavy sport fishing, reefs may decrease the number of fish in the sea." They also cite a study in which two similar artificial reefs were constructed in Monterey Bay, California. During the three years following the placement of the marked reef, it appeared that it was acting primarily as a device for concentrating fish for harvest.[14]

Finally, Solonsky finds that "since artificial reefs concentrate and attract large numbers of fishes, and often place local fish populations in an area more easily exploitable, management techniques are needed to protect this resource."[15]

It is clear from the work that has been done that the siting and configuration of artificial reefs will determine whether a reef generally acts to increase the number of fish in the sea or whether it generally acts simply as an aggregating device. Therefore, each proposal for the construction of such a reef must be independently evaluated for its effect on regional fish populations. The simple addition of a hard structure to the ocean does not guarantee resource benefits, and care must be taken to avoid inadvertent resources losses.

Commission Evaluation: Habitat Conversion and Local Fish Populations

The Yukon measures 366 ft. x 42 ft., so its placement on the seafloor will alter or replace the sandy-bottom community in a maximum of 15,372 sq. ft., or 0.35 acre, area. The Commission nevertheless finds that this habitat replacement will not adversely affect marine resources for the following reasons:

- The species constituting the subtidal sandy-bottom community on which the Yukon will be placed are common and widespread;
- Recovery of the affected populations is expected to be rapid;
- No impacts to hard-bottom substrate or communities, or kelp communities, will be caused by the project activities;
- Activities will be conducted in areas where no unique, rare or endangered species exist; and
- The CDFG has stated that it does not object to placement of the Yukon from a marine resource perspective.

However, as detailed in the previous section ("Potential Effects on Local Fish Populations"), studies have indicated that structures such as the Yukon can act as FADS. This fish-aggregating

[14] Dixon and Schroeter, pp. iv and 26.
[15] Solonsky, Allan C. "Fish Colonization and the Effect of Fishing Activities on Two Artificial Reefs in Monterey Bay, California." *Bulletin of Marine Science*, 37(1): 336-347, 1985.

propensity combined with a possible increase in sport fishing brought about by placement of the Yukon could have adverse negative impacts on the local fish population.

Some 500 fish species occur in the San Diego coastal region. Dominant fish species expected to occur in and near the Yukon include barred sand bass, blacksmith, jack mackerel, kelp bass, senorita wrasse, black surfperch, Pacific sardine and white surfperch.[16]

The Commission staff considered the imposition of a "no-take" zone around the Yukon. The "no take" status would prohibit take or collection of any plant, fish, mollusk, crustacean, or any other form of plant or animal life. However, representatives of the CDFG informed Commission staff that a "no take" zone is not necessary at Yukon because the relatively low level of sport fishing that will occur at the Yukon site will not negatively impact the regional fish population. Sport fishing boats along that area of the coast tend to seek popular areas like the kelp beds at Point Loma and La Jolla and deeper waters for best yields. The CDFG therefore will not support establishment of a "no take" zone at the Yukon site.[17] A "no take" zone can only be established by the California Fish and Game Commission.

Diving activities at Yukon will also limit sport fishing at the site. The local charter boat operators that transport divers to offshore wreck sites like "Wreck Alley" do not permit fishing during dive trips.

4.5.1.3 Conclusion – Marine Resources

For the reasons discussed above, the Commission finds that the proposed project, as conditioned, will be carried out in a manner that maintains marine resources and healthy populations of all species of marine organisms as required by Coastal Act Section 30230, and thus is consistent with that section.

4.5.2 Marine Water Quality

Coastal Act Section 30230 states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environmental shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

[16] These fish species have been observed by the CDFG at the Ruby E shipwreck site. All of these species are legal to take in California, subject to CDFG regulations, and none are protected species.

[17] Personal communication between Peter Douglas, Executive Director, CCC, and Robert Hight, Executive Director, CDFG, February 13, 2000.

Coastal Act Section 30231 states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

The sinking of Yukon could potentially degrade the quality of coastal waters through introduction of contaminants or foreign materials or substances.

4.5.2.1 Existing Regulatory Scheme

The California Ocean Plan

Beneficial uses on and offshore Mission and Pacific Beaches under the *Water Quality Control Plan for Ocean Waters of California (California Ocean Plan)* include swimming, surfing, diving, fishing, kelp harvesting, boating, whale watching, research and education, conservation of endangered species and habitats, and aesthetic enjoyment. Water quality must be maintained at a level to support these uses.

The *California Ocean Plan* sets forth limits or levels of water quality characteristics for ocean waters to ensure the reasonable protection of beneficial uses and the prevention of nuisance. The plan states that the discharge of waste shall not cause violation of these objectives. Applicable water quality objectives contained in the *California Ocean Plan* are as follows:

Chapter 2.C.1.
"Floating particulates and grease and oil shall not be visible."

Chapter 2.E.1.
"Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded."

The *California Ocean Plan* also sets forth general requirements for management of waste discharge to the ocean. Applicable requirements state that "[w]aste discharged to the ocean must be essentially free of" the following:

Chapter 3.B.2.
"Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life."

Chapter 3.B.3.
"Substances which will accumulate to toxic levels in marine waters, sediments or biota."

Chapter 3.B.4

"Substances that significantly decrease the natural light to benthic communities and other marine life."

Finally, the *California Ocean Plan* sets forth discharge prohibitions. Applicable prohibitions are as follows:

Chapter 5.B

"Waste shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas."

Other Existing Standards

State Standards

The state has not established water quality standards specific to the sinking of a ship.[18]

Federal Standards

The EPA has regulations governing ocean dumping; a part of these regulations concerning transportation and disposal of vessels *(40 CFR 229.3(a)(3))* states the following:

> ...appropriate measures shall be taken, prior to disposal, by qualified personnel to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation (i) emptying of all fuel lines and fuel tanks to the lowest point practicable, flushing of such lines and tanks with water, and again emptying such lines and tanks to the lowest point practicable so that such lines and tanks are essentially free of petroleum, and (ii) removing from the hulls other pollutants and all readily detachable material capable of creating debris or contributing to chemical pollution.

The Coast Guard, under an MOU with the EPA, conducts inspections of vessels for disposal at sea. The Coast Guard has determined, though, that the establishment of the Yukon as a dive attraction is not within the scope of an ocean disposal and therefore does not require EPA "ocean dumping" permitting and Coast Guard inspection.[19] The Coast Guard does, however, have the statutory responsibility to protect marine waters from the intentional and accidental discharge of oil in a harmful quantity and release of hazardous materials in a reportable quantity.

[18] Letter from John H. Robertus, Executive Officer, RWQCB, to Robert Watts, SDOF, January 4, 2000.
[19] Letter from Lt. Mark Cunningham, USCG, to City of San Diego, July 29, 1999.

Environment Canada Clean-up Standards

In the absence of directly applicable state and federal standards, the applicants have cleaned the Yukon to the clean-up standard for ocean disposal of vessels promulgated by Environment Canada.[20] Environment Canada is the Canadian counterpart of U.S. Environmental Protection Agency (USEPA) and is responsible for administering the Canadian Environmental Protection Act (CEPA). CEPA provides the framework for protection of Canadians from pollution of all kinds, particularly that caused by toxic substances.

CEPA Part VI regulates the disposal of substances at sea through a system of permits and inspections administered by Environment Canada. The Act also controls the loading of substances on ships, aircraft, platforms or other human-made structures for disposal at sea and the deliberate disposal at sea of a ship or aircraft.

The "Clean-up Standard for Ocean Disposal of Vessels" (hereinafter "Canadian Standard") and the accompanying guidance document for organizations, "Clean-up Guidance for Ocean Disposal of Vessels," were developed in 1998. This Environment Canada clean-up standard was largely developed from the clean-up criteria applied to the last two of five vessels sunk off the Pacific coast of Canada. Post-sinking observations have shown that the clean-up was effective at preventing visible hydrocarbon pollution of the environment. Data from subsequent site monitoring of the vessels and the surrounding areas have also been considered. The Canadian Standard approaches each clean-up criterion "from the viewpoint of reasonableness, with the proviso that environmental effects or potential environmental effects are the priority."

The Canadian Standard addresses the following issue areas:

Oil and Grease

The standard states that "[t]he aim of the hydrocarbon clean-up is to remove liquid hydrocarbons (fuels, oils) that could escape into the environment....In general terms all liquid hydrocarbons are to be removed and semi-solids (greases) either removed where practical or contained."

The standard addresses oil and grease clean-up for structural tanks; non-structural tanks; fuel and oil filling points; fuel and oil piping including manifolds; fuel and oil piping fittings; bilge piping; gauges and gauge lines; combustion engines; boilers; non-combustion engines, shafting, gearing and stern glands; steering gear; auxiliary machinery; hydraulics; grease reservoirs; bilge areas; decks and floor coverings; and bulkheads and deckheads.

Hazardous Materials

The standard addresses the removal of residues in cargo areas; unknown wastes; antifreeze and coolants; batteries; fire extinguishing systems; refrigerants and halons; mercury; plastics and other synthetic materials; zinc anodes; lead ballast bars, shielding and fittings; black and gray water; and fitted hazardous materials and products.

[20] "Clean-up Standard for Ocean Disposal of Vessels," Environment Canada, Environmental Protection Branch, Pacific and Yukon Region (February, 1998).

There are no restrictions on copper or other metals not named above. However, all salvageable parts and materials, including those containing copper and other metals, are encouraged to be recycled.

All PCBs are to be removed from the vessel, including those components which have PCB concentrations less than 50 ppm. Where there is reason to suspect that equipment or components contain PCBs, the applicant must either remove the component or equipment, or provide proof that said component or equipment are free of PCBs.

A certificate of radiation compliance stating that material remaining on the vessel meets the de minimus requirements of the Atomic Energy Control Regulations is required for ex-warships, research vessels, or other vessels that may have carried radioactive material or equipment.

Debris

Clean-up debris must be removed from the vessel to the standard of "broom clean." This standard essentially calls for all debris to be removed, and the areas swept and vacuumed.

Vessel debris may remain in the vessel except if contaminated with hydrocarbons or hazardous material, and if contained in a sealed compartment or structural tank that is below the waterline of the ship and underneath the largest section of the superstructure.

Recyclable metals (e.g., copper, lead, brass, bronze and aluminum) left as vessel debris are not acceptable except as small cuttings and minor amounts in clean-up debris.

Insulation

Any asbestos that is moved or disturbed during the operation, or is otherwise unsealed, is to be removed. Intact and undisturbed asbestos insulation need not be removed. Other types of insulation may be considered as vessel debris.

Paint

Anti-fouling coatings must be at least five years old. Underwater hulls that are more than 80% covered with marine growth will be assumed to be free of active anti-fouling products. There are no restrictions on above waterline exterior and interior paints.

The following table contains detailed Canadian clean-up standards for various hazardous materials and oil/grease.

Constituents	Common/Ship Uses	Canadian Clean-up Standard
Antifreeze and coolants	Motors	Antifreeze and coolant mediums are to be drained and removed from the vessel.
Asbestos	Thermal insulation	Any asbestos that is moved or disturbed during the operation, or is otherwise unsealed, is to be removed. Intact and undisturbed asbestos insulation need not be removed.
Batteries	Various uses	All batteries are to be removed from the vessel.
Black and gray water	Sewage, wastewater from sinks, showers, and dishwashers	Sewage lines and drains for sinks, showers, and dishwaters are to be flushed.
CFCs	Aerosol propellant, refrigerant, plastic foaming agents and cleaners	All refrigerants are to be removed.
Copper	Cabling, motors, generators, and fittings	Permit applicant is expected to make a significant effort to salvage copper from cabling, motors, generators, and fittings.
Fire extinguishing systems	Fire fighting	All extinguishing systems are to be fully decommissioned. Except for those that employ untreated sea water or fresh water, all fire fighting compounds are to be removed from the ship. Any lines that have been charged with any fire fighting product other than untreated sea water or fresh water are to be treated as for fuel and oil piping.
Fitted hazardous materials and products	Vessel frame and parts	Materials that are an integral component of the structure of the vessel may be left *in-situ*.
Lead	Bearing metal, solder, storage batteries, radiation shielding, anticorrosive pigment in coatings, cable sheathing and sound deadening applications	Lead ballast bars, shielding and fittings are to be removed.
Mercury	Gauges for industrial and control equipment; thermometers	All equipment components using mercury, thermometers, and other measuring equipment employing mercury are to be removed.
PCBs	Transformers, capacitors, filters and chokes	All PCBs are to be removed, including those components which have PCB concentrations less than 50 ppm.
Plastics and other synthetic materials	Various uses	May be left *in-situ* if they are part of the vessel structure or securely attached to the vessel.
Radioactive materials		A certificate of radiation compliance is required for ex-warships.
Zinc	Hull, pipes, coolers	Zinc anodes are to be removed from the exterior hull, sea bays, piping systems, and coolers.
Oil & Grease	Multiple uses	All liquid hydrocarbons are to be removed and semi-solids (greases) either removed where practical or contained.

4.5.2.2 Potential Impacts from Sinking of the Yukon

Although the Yukon will be cleaned prior to sinking, there nevertheless remains the possibility that foreign and/or hazardous materials or substances will be released into the marine environment. Categories of potential pollutants include oil and grease; hazardous materials such as metals and insulation; and paint. Of particular concern is the potential that polychlorinated biphenyls, or "PCBs," may be released into the environment.

PCBs were freely used in the manufacture of electrical components, wire, gaskets and o-rings, adhesives, hydraulic fluids, and other materials from approximately 1948-1973. Although PCBs are not used in the manufacture of these items today, the Yukon was constructed in 1960-1963, and so may contain some PCB-laden materials.

When the Canadian Navy decommissioned the Yukon, it performed a detailed survey of the vessel and removed components from the Yukon known to contain PCBs (i.e., transformers and electrical equipment). Although it marked all remaining parts as being "PCB-free," some of these components (e.g., wiring, gaskets and o-rings, adhesives, hydraulic fluids and other materials that were part of the original construction of the vessel) may contain PCBs due to its use by manufacturers during the time the Yukon was constructed.

The applicants have taken the following actions to address this potential PCB issue:

> Wiring. Removed 80% of the wiring (more for diver safety than PCB reasons); the remaining wire is located between bulkheads, in non-accessible rooms or in very small quantity in other areas. Samples of some of the wire were taken and tested by a local laboratory, which detected very small quantities of PCBs (well below EPA and RWQCB levels);
>
> Hydraulic Fluids. Removed all hydraulic fluids. Note that the Canadian Navy banned use of hydraulic fluids containing PCBs, unlike the U.S. Navy;
>
> Gaskets, o-rings, and adhesives. Removed some.

To remove all traces of the above items would require a complete dismantling of the ship which defeats the purpose of the project. Thus, to evaluate any potential effect from the remaining twenty percent of components that may contain PCBs, the applicants will conduct PCB sampling of two Canadian ships that were cleaned to the same standard as proposed for the Yukon—the HMCS Mackenzie and the HMCS Saskatchewan—prior to being placed on the ocean floor off Vancouver Island in Canada as diving attractions in September, 1995, and June, 1997.

Sampling will be conducted to determine if PCBs are leaching from materials left on these ships. Sampling will consist of taking four samples from areas inside each ship and one core sediment sample from an area outside the ship. Samples will then be tested to EPA 8082 protocol standards. Environment Canada has agreed to monitor the taking of the samples and the testing per the EPA protocol. Results are expected by April, 2000.

Two studies, however, have already been conducted to help determine if cleaning the Yukon to the proposed Canadian standard will be adequate with respect to PCBs, metals, and asbestos. The first study was conducted by the South Carolina Department of Natural Resources ("SCDNR") to assess (1) if sinking ex-military ships and other vessels to create artificial reefs could have unknowingly introduced PCBs into the marine environment via PCB-containing components onboard, and (2) if PCBs and/or certain heavy metals could be found in the tissues of marine organisms which were permanent or temporary residents of artificial reefs constructed from such vessels, and, if so, what sort of environmental or human health concerns existed as a result.

Over 100 samples of reef materials, resident invertebrates and resident finfish were collected, including permitted artificial reefs and naturally occurring "hard-bottom" reefs. Findings from the study suggest that (1) even with PCBs remaining in some materials onboard vessels years after sinking, these compounds are not being bioaccumulated in artificial reef organisms to a greater degree than they are among organisms found on non-artificial reef sites, and (2) artificial reefs constructed from ex-military and other ships pose no higher degree of environmental risk associated with the bioaccumulation of heavy metals than might be experienced on natural hard-bottom locations, and that the degree of human health-related risk is also equally low.[21]

In the second study, Environment Canada performed marine water monitoring for the sunken vessel "HMCS Chaudiere" (sunk in December 1992). Samples were collected in and around the ship and from reference areas representing background conditions, and analyzed for oil/grease, 29 metals (including cadmium, lead, copper, iron, and zinc), and asbestos. Samples were taken in February 1993 (two months after sinking the vessel) and September 1993 (nine months after sinking). The results indicate that water quality conditions around the vessel are comparable to those at the reference site, and that there has been no elevation in the concentration of any of the water quality parameters measured between February 1993 and September 1993.[22]

4.5.2.3 Preparation and Inspection of the Yukon

Vessel Inspections

Agency personnel have conducted three inspections of the Yukon:

March 10-11, 1999, Vancouver, British Columbia. Conducted by the USCG in conjunction with Mr. Darryl Hansen, Pacific Lighthouse Environmental Management Services, Inc., to evaluate (1) the suitability for towing to San Diego (e.g., watertight integrity, contingency plans, structural integrity) and (2) the Environment Canada standards for cleaning and preparing the Yukon as an underwater dive attraction.

September 3, 1999, San Diego, CA. Conducted by the USCG, the RWQCB, and the City of San Diego.

[21] Bell, Melvin, Robert M. Martore and Thomas D. Mathews, "Levels of PCBs and Heavy Metals in Biota Found on ex-Military Ships Used as Artificial Reefs," South Carolina Department of Natural Resources, Project Number F-54 (Seg. 4), March, 1997.

[22] "HMCS Chaudiere Monitoring Survey Results," Environment Canada, April, 1993.

December 13, 1999, San Diego, CA. Conducted by the USCG, the RWQCB, and the City of San Diego. Final inspection for cleaning and preparation.

Conditional Satisfaction of USCG Regulatory Requirements

There were several minor discrepancies, and one significant shortcoming with respect to paint chips identified at the December 13, 1999, inspection. On December 30, 1999, the USCG advised the SDOF that its regulatory responsibilities were satisfied pending address of these discrepancies:

> [T]he U.S. Coast Guard is satisfied with the material condition of the Yukon as an underwater dive attraction. The Environment Canada standards that were adopted and used by SDOF for the cleaning preparing of the Yukon were met. By meeting these standards, SDOF has satisfied the Coast Guard's regulatory responsibilities for the protection of marine waters from oil and hazardous materials releases.[23]

RWQCB Issuance of a Conditional Waiver

The RWQCB evaluated the proposed project against standards from the EPA, Environment Canada, and the *California Ocean Plan* to determine potential impacts to water quality. On January 4, 2000, the RWQCB conditionally waived waste discharge requirements under the State Porter-Cologne Water Quality Control Act, and water quality certification requirements pursuant to Section 401 of the Federal Clean Water Act for the discharge of dredged or fill material. The conditional waiver will be valid upon receipt of the following items prior to sinking:[24]

- Signed letter from the USCG stating that the HMCS Yukon meets their standards of cleanliness;
- Signed letter from Darryl Hansen[25], Pacific Lighthouse Environmental Management Services, Inc., stating that the HMCS Yukon has been cleaned to Environment Canada standards; and
- Results of PCB sampling of the HMCS Mackenzie and HMCS Saskatchewan showing that levels of PCBs are not higher than background levels.

The Commission staff understands from consultation with RWQCB staff that PCB levels detected from samples taken inside the ship will be assumed to represent leaching, while those taken from outside the ship will be assumed to represent background levels.[26]

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[23] Letter from Lt. M.T. Cunningham, USCG, to Robert Watts, SDOF, December 30, 1999.
[24] Letter from John H. Robertus, Executive Officer, RWQCB, to Robert Watts, SDOF, January 4, 2000.
[25] A ship engineer in Victoria, B.C., who has performed 17 prior inspections for Environment Canada on similar vessels.
[26] E-mail message from Stacey Baczkowski, RWQCB, Region 9, to Moira McEnespy, CCC, January 26, 2000, 1:33 pm.

The RWQCB states in its January 4, 2000, letter that with implementation and adherence to EPA, state, and Environment Canada standards, and with successful completion of the specified conditions, it is confident that water quality standards will be protected.

4.5.2.4 Commission Evaluation: Water Quality

If the standards from the EPA, and the objectives, requirements and prohibitions of the *California Ocean Plan* are met, then the Commission can conclude that marine resources will be maintained, and the biological productivity and quality of coastal waters will be sustained, per the requirements of Coastal Act Sections 30230 and 30231. An evaluation of the proposed project against said standards, objectives, requirements, and prohibitions thus follows.

Oil and Grease

Applicable Standard(s):

- "Floating particulates and grease and oil shall not be visible." (*California Ocean Plan* water quality objective, Chapter 2.C.1)

- "...appropriate measures shall be taken, prior to disposal, by qualified personnel to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation (i) emptying of all fuel lines and fuel tanks to the lowest point practicable, flushing of such lines and tanks with water, and again emptying such lines and tanks to the lowest point practicable so that such lines and tanks are essentially free of petroleum..." *(40 CFR 229.3(a)(3))*

Attainment:

The Environment Canada standards state that "[t]he aim of the hydrocarbon clean-up is to remove liquid hydrocarbons (fuels, oils) that could escape into the environment....In general terms all liquid hydrocarbons are to be removed and semi-solids (greases) either removed where practical or contained."

The standards address oil and grease clean-up for structural tanks; non-structural tanks; fuel and oil filling points; fuel and oil piping including manifolds; fuel and oil piping fittings; bilge piping; gauges and gauge lines; combustion engines; boilers; non-combustion engines, shafting, gearing and stern glands; steering gear; auxiliary machinery; hydraulics; grease reservoirs; bilge areas; decks and floor coverings; and bulkheads and deckheads.

Furthermore, post-sinking observations and water monitoring of previously-scuttled Canadian ships (e.g., HMCS Chaudiere) have shown that the clean-up, to the same standard that will be applied to the Yukon, was effective at preventing hydrocarbon pollution of the environment.

The Commission finds that the EPA requirements and *California Ocean Plan* objectives with respect to oil and grease have been met.

Anti-Degradation of Marine Communities; Accumulation of Substances to Toxic Levels

Applicable Standard(s):

- "Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded." (*California Ocean Plan* water quality objective, Chapter 2.E.1)

- "Waste discharged to the ocean must be essentially free of substances which will accumulate to toxic levels in marine waters, sediments or biota." (*California Ocean Plan* requirement, Chapter 3.B.3)

- "...appropriate measures shall be taken, prior to disposal, by qualified personnel to remove to the maximum extent practicable all materials which may degrade the marine environment..." *(40 CFR 229.3(a)(3))*

Attainment:

The Yukon measures 366 ft. x 42 ft., so its placement on the seafloor will alter or replace the sandy-bottom community in a 15,372 sq. ft., or 0.35 acre, area. The Commission nevertheless finds that this habitat replacement will not adversely affect marine resources (please see Section 4.5.1.2 of this report for the discussion and findings).

With respect to water quality and the marine environment, the Canadian clean-up standard addresses oil and grease, hazardous materials, debris, insulation, and paint. At the December 13, 1999, ship inspection, several minor discrepancies and one significant shortcoming were identified, as documented in a letter report dated December 22, 1999.[27] The significant shortcoming consisted of paint chips in some spaces. The remedy identified the easiest option to be removing the paint chips by sweeping or vacuuming, but provided for leaving the chips as vessel debris, subject to the standard's debris conditions.

Given that the consultant identified the easiest remedial option for said paint chips to be removal, and that removal would provide the maximum amount of environmental protection, the Commission imposes **Special Condition 2**, which requires the applicants to address this significant shortcoming by removing the paint chips.

The PCB standard provides that where there is reason to suspect that equipment or components contain PCBs, the applicant must either remove the equipment or components, or provide proof that said equipment or components is/are free of PCBs. The hazardous materials standard addresses the removal of residues in cargo areas; unknown wastes; antifreeze and coolants; batteries; fire extinguishing systems; refrigerants and halons; mercury; plastics and other synthetic materials; zinc anodes; lead ballast bars, shielding and fittings; black and gray water; and fitted hazardous materials and products. Even though there are no restrictions on copper or other metals not named above, they are encouraged to be salvaged for recycle.

[27] Letter Report entitled "Inspection of Ex-HMCS Yukon;" Report Date, December 22, 1999. Prepared by Darryl J. Hansen, President, Pacific Lighthouse Environmental Management Services, Inc. (PLEMS: J9909-1).

As previously discussed, water and tissue samples collected in South Carolina and British Columbia from sites with similarly sunken military vessels have indicated that concentrations of PCBs, metals, asbestos, and oil/grease from the artificial reefs are not higher than those from reference background areas. Nevertheless, to further evaluate any potential effect from the remaining twenty percent of components that may contain PCBs (after removal of 80%), the applicants will conduct PCB sampling of two Canadian ships that were cleaned to the same standard as proposed for the Yukon prior to being placed on the ocean floor off Vancouver Island in Canada as diving attractions in September, 1995, and June, 1997.

Sampling will be conducted to determine if PCBs are leaching from materials left on these ships. Sampling will consist of taking four samples from areas inside each vessel and one core sediment sample from an area outside the ship. Samples will then be tested to EPA 8082 protocol standards. Environment Canada has agreed to monitor the taking of the samples and the testing per the EPA protocol. Results are expected by February, 2000.

The Commission thus imposes **Special Condition 3**, which states that prior to issuance of this permit, the applicants must submit to the executive director written evidence that they have fulfilled all of the conditions of the waiver of waste discharge requirements under the State Porter-Cologne Water Quality Control Act, and water quality certification requirements pursuant to Section 401 of the Federal Clean Water Act, issued by the RWQCB on January 4, 2000. Fulfillment of these conditions specifically requires submittal of the results of the PCB sampling described above. Said results must show that levels of PCBs from samples taken from within the ships (which are assumed to represent leaching) are not higher than those taken from outside the ships (which are assumed to represent background levels).

Finally, the Yukon was issued a certificate of radiation compliance from the Canadian government on June 18, 1997.

The Commission thus finds that with the imposition of **Special Condition 3**, the EPA and *California Ocean Plan* requirements and objectives with respect to anti-degradation of marine communities and prevention of accumulation of substances to toxic levels have been met.

Settleable Material

Applicable Standard(s):

- "Waste discharged to the ocean must be essentially free of settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life." (*California Ocean Plan* requirement, Chapter 3.B.2)

- "...appropriate measures shall be taken, prior to disposal, by qualified personnel to remove to the maximum extent practicable all materials which may degrade the marine environment..." *(40 CFR 229.3(a)(3))*

Attainment:

The applicants propose to temporarily cover holes cut within the ship with plastic or plywood. These material will be removed just prior to sinking. With respect to water quality, the Canadian clean-up standard addresses hazardous materials, debris, insulation, and paint. To ensure no debris is left behind from sinking activities, the Commission imposes **Special Condition 4**. This condition requires the applicant to retrieve and remove from the marine environment all plastic, plywood, undetonated blasting charges, and all other materials introduced during the towing, sinking, and subsequent diving inspection procedures. The Commission thus finds that with the imposition of **Special Condition 4**, the EPA and *California Ocean Plan* requirements with respect to settleable materials will be met.

Natural Light Availability

Applicable Standard(s):

- "Waste discharged to the ocean must be essentially free of substances that significantly decrease the natural light to benthic communities and other marine life." (*California Ocean Plan* requirement, Chapter 3.B.4)

Attainment:

The Yukon will be placed in 100 feet of water. At its tallest point, there will be at least 30 feet of water between it and the water surface. The photic zone is generally the upper 100 feet in coastal southern California. The Yukon will nevertheless not significantly decrease natural light to benthic communities and other marine life because it will be sitting on sand, and thus shading effects will be minimal.

The Commission thus finds that the *California Ocean Plan* requirement with respect to natural light attenuation has been met.

Areas of Special Biological Significance ("ASBSs")

Applicable Standard(s):

- "Waste shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas." (*California Ocean Plan* prohibition, Chapter 5.B)

Attainment:

ASBSs are designated by the State Water Resources Control Board to protect the species or biological communities in these areas from an undesirable alteration in water quality. The concept of "special biological significance" recognizes that certain biological communities,

because of their value or fragility, deserve very special protection, consisting of preservation and maintenance of natural water quality conditions to the extent practicable.[28]

There are two ASBSs in San Diego: The San Diego Marine Life ASBS and the San Diego-La Jolla Ecological Reserve ASBS. Both are located north of Point La Jolla, at least six miles away from the proposed Yukon site. Exiting water quality conditions in the ASBSs will be maintained with the sinking and placement of the Yukon because (1) the Yukon will be cleaned prior to sinking and placement, and (2) any residual concentrations of pollutants that may result from placement of the Yukon will be so diluted at the ASBS sites that they will be negligible.

The Commission thus finds that the *California Ocean Plan* prohibition with respect to ASBSs has been met.

Final USCG and RWQCB Approval

USCG's final approval of the project depends on correcting the minor discrepancies and one significant shortcoming identified during the December 13, 1999, inspection. A final inspection will be conducted by Darryl Hansen, Pacific Lighthouse Environmental Management Services, Inc., and interested parties prior to the proposed sinking to ensure completion of all appropriate corrective actions. In addition, the RWQCB's waiver of waste discharge requirements and water quality certification requirements will only take effect upon receipt of the necessary documents from the USCG and Mr. Hansen regarding the vessel's cleanliness, and PCB results from two previously sunken vessels. The Commission thus imposes **Special Condition 3**. This condition requires that prior to issuance of this permit the applicants must submit to the executive director written evidence that they have fulfilled all of the conditions of the waiver of waste discharge requirements under the State Porter-Cologne Water Quality Control Act, and water quality certification requirements pursuant to Section 401 of the Federal Clean Water Act, issued by the RWQCB on January 4, 2000. Fulfillment of these conditions specifically requires submittal of the following items:

- Signed letter from the USCG stating that the HMCS Yukon meets their standards of cleanliness; and
- Signed letter from Darryl Hansen, Pacific Lighthouse Environmental Management Services, Inc., stating that the HMCS Yukon has been cleaned to Environment Canada standards.
- Results of PCB sampling of the HMCS Mackenzie and HMCS Saskatchewan showing that levels of PCBs are not higher than background levels. PCB levels detected from samples taken inside the ship will be assumed to represent leaching, while those taken from outside the ship will be assumed to represent background levels.

[28] Water Resources Control Board and California Regional Water Quality Control Board Administrative Procedures, September 24, 1970, Section XI and Miscellaneous, Rev. 7-9/1/72, in *California Marine Protected Areas*, ed. by Deborah McArdle, California Sea Grant Extension Program, 1997, Publication No. T-039.

4.5.2.5 Conclusion – Water Quality

For the reasons discussed above, the Commission finds that with the imposition of **Special Conditions 2, 3, and 4**, the project as proposed and conditioned will be carried out in a manner that maintains marine resources and sustains the biological productivity and quality of coastal waters as required by Coastal Act Sections 30230 and 30231, and thus the project is consistent with these Coastal Act sections.

4.5.3 Shoreline Processes

Coastal Act Section 30235 states in part:

> *...construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.*

Coastal Act Section 30253 states in relevant part:

> *New development shall...neither create nor contribute significantly to erosion...or destruction of the site or surrounding area....*

The Yukon will be placed within the Mission Beach subcell of the Mission Bay littoral cell. The seaward limit of seasonal onshore-offshore sediment and sand transport within the subcell increases from a depth of 23 feet MSL at False Point (north of the Yukon) to 34 feet MSL at the jetty (south of the Yukon). The maximum seaward distance from shore, including length of the beach, associated with these depths is 2,150 feet.[29]

The Yukon will be placed approximately 1.85 miles (9,768 feet) seaward from shore at a depth of 100 feet; there will be a minimum of 30 feet of water above the highest submerged portion of the Yukon. The sunken vessels within the Mission Beach Artificial Reef ("MBAR") lie one-half mile south of the proposed Yukon site in 75 to 85 feet of water (refer to section 4.4 of this report for a description of the MBAR). Local sand patterns around the MBAR wrecks suggest a relatively stable environment with no local shoaling or other obvious physical effects from the wrecks. Conditions at Yukon site will be very similar to those experienced within the MBAR.

Finally, in order for a structure to affect wave action it must be near the lower depth of the wave. The main bulk of the Yukon will be below the influence of projected maximum storm waves. The small amount of the structure that may be within a depth to affect wave action will be too small to cause any appreciable modification to the waves. No modification to shoreward sediment deposition or erosion patterns should occur.

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[29] "Sediment Budget Report, Mission Bay Littoral Cell; Coast of California Storm and Tidal Waves Study" (Reference No. CCSTWS 88-7); prepared by Moffatt & Nichols for the Corps of Engineers, Los Angeles District (December, 1988), pp. VII, 68, and 69.

Commission Evaluation

Based on the following information, the Commission finds that placement of the Yukon will generate no significant adverse effects on nearshore coastal processes such as sand transport or wave action in the vicinity of the Yukon, the greater submerged area, or onshore:

- The general depth beyond which there will be little if any onshore-offshore sediment exchange for the subcell is about 34 feet, which occurs no farther than 2,150 feet seaward from shore. The Yukon will be placed at a depth of 100 feet, about 9,768 feet seaward from shore. Hence, the Yukon will be well seaward of the zone in which its placement may affect littoral transport;

- In order for a structure to affect wave action it must be near the lower depth of the wave. The Yukon will be placed such that there will be a minimum of 30 feet of water above the highest submerged portion; the bulk of the structure will be in much deeper water. Only a small amount of the structure will be near the lower depth of any waves, and no modifications to shoreward sediment deposition or erosion patterns will occur; and

- Conditions at Yukon site will be very similar to those experienced within the MBAR. Hence, the Yukon is not expected to adversely affect local conditions because no adverse effects have been observed within the MBAR from or on the existing wrecks.

The Commission thus finds that the project will be carried out in a manner that does not alter or interrupt existing shoreline processes as required by Coastal Act Sections 30235 and 30253.

4.5.4 Placement of Fill in Coastal Waters

Coastal Act Section 30108.2 defines "fill" as "earth or any other substance or material, including pilings placed for purposes of erecting structures thereon, placed in a submerged area." The Yukon thus constitutes fill as defined in Coastal Act Section 30108.2.

Coastal Act Section 30233(a)(8) states in part:

> *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(8) Nature study, aquaculture, or similar resource dependent activities.*

Coastal Act Section 30233(a) permits fill in coastal waters if three tests are met. The first test requires that there be no feasible less environmentally damaging alternative. Several alternative location sites were evaluated, but rejected due to military restrictions, use conflicts, water quality concerns, and availability of existing infrastructure such as harbor facilities, hotels, and

recompression chambers (medical service). Several alternatives to the project as proposed were evaluated in the PEIR.

The "no project" alternative. The PEIR rejects the "no project" alternative because it would not fulfill the purpose and intent of the project—to create a recreational dive site using a naval destroyer.

Use of the existing "wreck-alley" site. The PEIR and the applicants reject use of the vessels currently sunk within the existing "wreck alley" site to fulfill diving attraction purposes based on the contention that the vessels contained in "wreck alley" are not substitute diving attractions for the Yukon and other planned sunken vessels and objects because of their size and type.

The applicants deem placement of the Yukon into the existing "wreck alley" site infeasible because the MBAR, within which "wreck alley" is located, was intended for the creation of low- and mid-relief artificial reef habitat (as opposed to creation of diving attractions). The high relief of the Yukon does not meet the existing CDFG criteria for artificial reefs. Furthermore, the ocean depth at the "wreck alley" site averages 80 feet. Due to its superstructure height (keel to top is 70 feet), the Yukon requires an ocean depth of at least 100 feet so that the highest level of the ship will be at least 30 feet below the ocean surface so as not to become a hazard to navigation.

The PEIR thus concludes that the project as proposed is the least environmentally damaging alternative.

The second test of Coastal Act Section 30233(a) requires that feasible mitigation measures be provided to minimize adverse environmental effects. The Commission finds that the conditions contained in this permit provide feasible measures to mitigate potential adverse effects on marine resources as discussed in Sections 4.5.1 of this report.

The third and final test requires that the project fit into one of the eight categories of uses permitted for open coastal water fill enumerated in Coastal Act Section 30233(a). Allowable use Number 8 consists of "nature study, aquaculture, or similar resource dependent activities." Diving is inherently a resource-dependent activity because, by definition, diving requires use of ocean or other surface waters. Thus, the sinking of the Yukon to create a diving attraction may also be considered resource-dependent activities.

The question is whether this project is similar to nature study or aquaculture. Activities that constitute nature study can be interpreted to mean primarily viewing activities, which do not alter the resource from its existing state or condition. Placement of fill can sometimes facilitate nature study (e.g., placement of a walkway or interpretive signage).

As discussed in Section 0 of this report, studies conducted by the CDFG's Artificial Reef Program have found that sunken vessel wrecks are less useful than other reef materials in providing productive habitat for marine organisms. The Yukon will nevertheless act as fish attracting device. Thus, the argument can be made that in the case of its sinking and placement,

the fill (i.e., the vessel itself) is occurring to facilitate nature study by, for example, attracting fish which can then be viewed. Hence, to the degree that it may facilitate nature study, the placement of the Yukon can be viewed as being similar to nature study.

The Commission thus finds that the proposed project constitutes a resource-dependent activity similar to nature study, and thus meets the test of allowable use Number 8 under Coastal Act Section 30233(a).

Hence, the Commission concludes that the project as proposed and conditioned satisfies the three tests of Coastal Act Section 30233(a).

4.5.5 Public Access – Traffic and Parking

Coastal Act Section 30210 states in relevant part:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs...and natural resource areas from overuse.*

Coastal Act Section 30252 states in part:

> *The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, ... (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation,....*

4.5.5.1 Short-term Impacts – The Sinking Event

Onshore

In consultation with local groups (Pacific Beach Town Council and other local beach communities groups) and via a public forum, the applicants have determined that there will be few if any land-based observations of the Yukon sinking because (1) the only good observation of the Yukon sinking will be from a boat in the nearby vicinity, (2) the distance offshore of 1.8 miles is too far to keep site of the ship in normal swells, especially with 200-400 boats surrounding the sinking site, and (3) the beach areas immediately closest to the sinking (Pacific & Mission Beach) are flat and without hills or tall buildings from which to get a better vista point. The applicants thus estimate that the number of shore-based viewers will be fewer than 200.

The most likely location for people to attempt to observe is the Belmont Park area of Mission Beach, which also has the largest parking facility in the beach area.

Based on the above factors, there is no need for traffic control or the closing or blocking of streets.

Offshore

The applicants estimate that more than 1,000 people will view the sinking event from private and charter boats in the water surrounding the ship. The applicants plan to establish several perimeters marked by buoys around the Yukon as soon as it is towed to the sinking site (about 24 hours prior to sinking). An inner zone of 100-yard radius will mark a safety buffer, within which only "official" boats will be allowed (note that the Coast Guard will make the final call on the appropriate length of this safety radius). The second zone, between 100-yard and 200-yard radii, will constitute a "preferred viewing area" for project sponsors and contributors, VIPs, and paying members of the public (the applicants estimate costs to be on the order of $50 for a kayak; $1,000 for a 50-foot boat); only those with "sponsor flags" will be allowed in this zone. Beyond the 200-yard radius will be the general viewing area. Vessel safety and management will be coordinated through the U.S. Coast Guard (grants the final OK to sink), the U.S. Coast Guard Auxiliary (helps in spectator boat control), the San Diego City Lifeguard Service and the Harbor Police (handle any violations).

Commission Evaluation

Coastal Act Section 30210 requires that maximum access and recreational opportunities be provided for all the people consistent with public safety needs. The Commission finds that establishment of a safety zone prior to and during sinking activities is a "public safety need" and thus that restriction within this zone is consistent with this Coastal Act requirement. Restriction within a "preferred viewing area," however, is not consistent with Section 30210, due to the fact that this zone will be reserved for those who can afford to and are willing to pay, and thus will not be available to "all people" as required by Section 30210.

The Commission thus imposes **Special Condition 5**, which prohibits establishment, designation and/or enforcement of any "preferred viewing area" that restricts the general public's access to any portion of the open waters, particularly based on payments or contributions. On-water restricted zones may be established only for public safety reasons.

Based on the projection that there will be fewer than 200 shore-based viewers and that there is no need for traffic control or the closing or blocking of streets, and with the imposition of **Special Condition 5**, the Commission finds that the project will maintain public access consistent with Coastal Act Sections 30210 and 30252, and thus finds that the project is consistent with these Coastal Act sections.

4.5.5.2 Long-term Impacts – Continued Access to the Yukon

The PEIR states that the Yukon is expected to receive divers at frequencies equal to or potentially exceeding the number of visits per year currently observed for 'wreck alley" in the MBAR—that is, 17,000 to 21,000 divers annually from commercial and private boats.

The PEIR expects that divers, fishers, and others going to the Yukon site will use access, parking, and boat launch facilities at Mission Bay. The PEIR concludes that although the

Mission Beach Precise Plan describes a shortage of available parking to serve the community regarding beach access, the Mission Bay access and parking facilities are currently capable of accommodating Yukon users.

The Mission Bay Master Plan of 1994 states that there are 6,595 marked spaces in parking areas and an additional 720 marked street parking spaces for a total of 7,315 spaces. Peak utilization is reported at 85% overall and 95% in some lots.

There are six to nine existing charter dive boats in Mission Bay that require 50 parking spaces (assuming two people per vehicle) at full capacity. These charter dive boats are located in several commercial marinas. Projected increases in demand for parking spaces would be for up to 50 more spaces over the two to three years after the Yukon project is implemented as visits increase, spread out over different areas of Mission Bay near the charter boats.

Commission Evaluation

Because users will need to access the Yukon by boat, parking must be adequate near the area's boat docks, launch areas, and marinas.. Mission Beach does not offer any boat docks, launch areas or marinas; Mission Bay Park does.

Although Mission Beach definitely suffers a public parking shortage on peak beach use days (as documented in the Mission Beach Precise Plan), placement of the Yukon will not impact public parking in Mission Beach for the following reasons:

- It is unlikely that a user of the Yukon dive site would deliberately park within the Mission Beach community because Mission Beach does not provide any boat docks, launch areas or marinas;

- It is unlikely that charter boat patrons of the Yukon dive site would be forced to park on the public streets of Mission Beach because charter boats operate on a reservation basis such that there wouldn't be more people arriving than the marina parking lots could handle; and

- It is unlikely that a user of the Yukon dive site would park within the Mission Beach community to access the public recreation facilities of Mission Bay because there is so much more parking available in Mission Bay than in Mission Beach.

Any parking impacts to Mission Beach would thus be both indirect and unlikely, and would only result, if at all, as "spill-over effects" from Mission Bay Park. In other words, the westernmost public parking lots in Mission Bay Park located on the east side of Mission Boulevard, north of West Mission Bay Drive, are adjacent to existing marinas on El Carmel and Santa Clara Points. If those lots were to become full, it is possible, though unlikely, that people trying to access the marinas or nearby Mission Bay Park amenities could park along the streets within the Mission Beach community. The more typical situation is the reverse: people accessing Mission Beach park in the public parking lots of Mission Bay Park since so much more parking is available.

It is even less likely that any impacts to the Mission Beach community could occur further south. East of Mission Boulevard and south of West Mission Bay Drive only a couple hundred feet separate Mission Bay and the ocean. In that area, there are several large public parking lots located in Mission Bay Park that also serve to supplement the parking shortage in Mission Beach. It is not likely that these parking lots would be more filled due to the Yukon project, since these lots are so far removed from any marina facilities. The parking lots at or near the other Mission Bay Park marinas are too distant to be used at all for access to Mission Beach.

With respect to Mission Bay Park, the following factors show that there will be adequate parking in Mission Bay Park to support the projected increase in visitors to the Yukon site:

- The 1994 Master Plan for Mission Bay lists 6,595 marked spaces in parking areas and 720 marked street parking spaces for a total of 7,315 spaces. Peak utilization is reported at 85% overall (use of 6,218 of the total spaces). Although use is reported at 95% in some lots, these lots are close to the beach area, and the marinas are not located near beach access points. The projected increase in demand for parking is 50 spaces, which is only 0.6% of the total available space (and thus would bring peak utilization to 85.6% overall, not accounting for non Yukon-related growth);

- Increased parking demand will be offset by charter boat operators changing their schedules. Specifically, by increasing their dive offerings, charter boats will stagger the demand for parking throughout a longer period of the day (e.g., one charter boat operation that currently departs at 8:00 am and returns at 1:00 – 1:30 pm could move to offering two trips a day, one in the morning and one in the afternoon);

- Increased parking demand will be spread out over the five commercial marinas in Mission Bay Park that allow commercial charter boat operations[30] and those in San Diego Harbor. Each of the Mission Bay Park marinas has a large parking area. There are also four existing non-commercial boat launching ramp and parking areas; only one of these launch ramps shares its parking lot with a commercial marina (Dana Landing); and

- There will be many visiting divers from outside San Diego County that are expected to come to dive the Yukon who will stay in nearby hotels (and thus not need to park nearby). Of the current group of current divers that come to "wreck alley" it is estimated that more than 30% are from out of town and normally stay at nearby hotels.

In addition, although placement of the Yukon will occur outside the City's Local Coastal Program ("LCP") area, the project's support facilities are located primarily in Mission Bay Park. The LCP segment for Mission Bay Park is not yet certified. As detailed above, the potential increase in marina usage and boating activity is, however, consistent with the Mission Bay Park Master Plan.

[30] The five commercial marinas in Mission Bay that allow commercial charter boat operations are Quivira Basin, Dana Landing, Perez Cove Marina, El Carmel Point and Santa Clara Point (although the last two have very limited facilities).

Based on the above discussion, the Commission finds that placement of the Yukon will maintain public access to the coast consistent with Coastal Act Section 30252(4). In addition, because, as stated, parking arrangements are consistent with the Mission Bay Park Master Plan, they will not prejudice development by the City of San Diego of implementing ordinances for the Mission Bay LCP segment.

4.5.6 Recreation

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30213 states in part:

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*

Coastal Act Section 30220 states:

> *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Coastal Act Section 30234.5 states:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Recreation-oriented beneficial uses on and offshore Mission and Pacific Beaches under the California Ocean Plan include diving, swimming, surfing, boating, whale watching, kelp harvesting, aesthetic enjoyment, and fishing.

Recreational Diving

Snorkeling and scuba diving currently take place off the beaches where hard or rocky substrates are present, such as in the project vicinity at the Mission Bay jetties. Most diving occurs in the reef areas off Point Loma to the South and La Jolla to the North, and at "wreck alley" in the MBAR. Current diving activity at the MBAR's "wreck alley" ranges from 12,000 to 15,000 divers annually from commercial dive boats, depending on the duration and severity of winter storms; many more divers visit "wreck alley" on private boats. The total number of annual divers from commercial and private boats using "wreck alley" is most likely in the range of 17,000 to 21,000.

Sinking and placement of the Yukon will greatly enhance San Diego area diving opportunities. Dive boats will tie up to mooring buoys permanently attached to the Yukon and buoys lying off to the sides. The PEIR states that the Yukon is expected to receive divers at frequencies equal to or potentially exceeding the number of visits per year currently observed for "wreck alley" in the MBAR.

Swimming and Surfing

Swimming and surfing are the most popular water-contact sports along the broad, sandy beaches of Ocean, Mission, and Pacific Beaches. The beach-use estimate for this stretch of coast peaks during the summer at over 80,000 people per day.

Recreational Boating

Because it is located near the entrance to Mission Bay, the project area is regularly traversed by power and sail boats. Most boats turn north or south shortly after exiting the harbor channel and head for La Jolla or Point Loma. Jet skiers and sailboarders occasionally use the nearshore area. Naval and commercial ship traffic takes place further offshore.

Whale Watching

Humpback whales *(Megaptera novaeangliae)*, federally listed as endangered, migrate along the California coast April through November. Reported humpback whale sightings off San Diego have been in the range of 15 miles offshore.

Gray whales *(Eschrichtius robustus)* migrate through San Diego's offshore waters twice a year on their way between summer feeding grounds off Alaska and calving areas in the coastal lagoons of Baja California, Mexico. Gray whales may occur in the vicinity of the Yukon site between October and early February, during their southern migration, and between late February and the end of May, during their northward migration. Whales have been observed in the nearshore zone in the past, some passing just off the Mission Bay harbor channel entrance.

Kelp Harvesting and Mariculture

Kelp harvesting and mariculture do not occur within the project area.

Recreational Fishing

Although the ocean shoreline in the project area is often too crowded with swimmers and surfers for good surf fishing, Ocean Beach Pier, the longest pier on the west coast (1,971 feet), and Crystal Pier in Pacific Beach draw anglers from many different areas. Pier facilities include bait and tackle shops, and fish cleaning areas. Anglers catch surf perch along the ocean sides of the Mission Bay jetties and kelp bass, lingcod, and mackerel on the boat channel sides of the jetties.

Although the offshore area is occasionally fished from private and charter boats, sportfishing use is relatively low and occurs mainly in the summer. Some boats stop in the area to catch baitfish

such as mackerel on their way to fishing more popular areas like the kelp beds at Point Loma and La Jolla. Although not one of their prime destinations, commercial sportfishing boats occasionally fish directly off the San Diego River and Mission Bay Channel.

According to the PEIR, the Yukon and surrounding area is expected to have resident fish populations, especially sand bass, sculpin, and sheepshead. These species are attractive to sportfishers who are expected to fish the Yukon site as they do on nearby coastal reefs that are known to be productive.

Commission Evaluation

Recreational Diving and Sportfishing

Although diving is not considered a lower-cost activity, per se, the sinking and placement of the Yukon will provide public recreational opportunities—an additional dive and sportfishing site—consistent with Coastal Act Section 30213.

Swimming and Surfing

Placement of the Yukon will not directly interfere with swimming and surfing because these activities occur shoreward of the recreation area. Sinking and placement of the Yukon will not affect sand transport or wave action in the nearshore zone (see Section 4.5.3 of this report).

Recreational Boating; Whale Watching; Kelp Harvesting and Mariculture

Placement of the Yukon will not interfere with recreational boating because it will not impose any restrictions on existing boating areas or use, and will not affect whale watching because it will not block or harass migrating whales. In addition, kelp harvesting and mariculture do not occur in the project area.

Conclusion

The Commission thus finds that the proposed project will provide public recreational opportunities consistent with Coastal Act Sections 30210 and 30213, protect the economic and recreational importance of fishing activities consistent with Coastal Act Section 30234.5, and will not interfere with existing water-oriented recreational activities consistent with Coastal Act Section 30220. The Commission thus finds the project consistent with these Coastal Act sections.

4.5.7 Commercial Fishing

Coastal Act Section 30234.5 states:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

The PEIR does not identify any adverse impacts from the proposed project to commercial fishing.

Except for crab and lobster fishing on rocky reefs, existing commercial fishing generally occurs outside the proposed Yukon area. The Point Loma kelp bed, about five miles to the south, is the major commercial fishing ground in the project area, followed by the area near the San Diego River. Fishing also occurs one and one-half to two miles north off the La Jolla kelp beds. Lobster and sea urchin rank as the area's most valuable catch. Sea urchins are harvested by commercial divers in the rocky reef areas directly offshore; the San Diego urchin fishery is concentrated in the area south of the Ocean Beach Pier and in the Point Loma kelp bed. Lobsters are caught in traps set at depths of 30 to 100 feet, out to approximately one mile offshore from the San Diego River. Crab and shrimp trapping occur in slightly deeper water.

The PEIR states that based upon the "wreck alley" experience, lobster fishers are expected to set their traps around the Yukon from October through March; approximately forty traps are expected during a typical lobster season.

Hence, the Commission finds the proposed project consistent with Coastal Act Section 30234.5.

4.6 California Environmental Quality Act

On December 7, 1999, the City of San Diego certified a programmatic environmental impact report ("PEIR") pursuant to the California Environmental Quality Act ("CEQA") that in part evaluates the sinking and placement of the HMCS Yukon approximately 1.85 miles offshore of San Diego.

The Commission's permit process has been designated by the State Resources Agency as the functional equivalent of the CEQA environmental impact review process. The Commission's permit review process identified impacts that were not resolved in the PEIR. Pursuant to Section 21080.5(d)(2)(A) of the CEQA and Section 15252(b)(1) of Title 14, California Code of Regulations ("CCR"), the Commission may not approve a development project "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment." The Commission finds that only as conditioned are there no feasible less environmentally damaging alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the activity may have upon the environment, other than those identified herein. Therefore, the Commission finds that the project as fully conditioned is consistent with the provisions of the CEQA.

APPENDIX A: STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

APPENDIX B: SUBSTANTIVE FILE DOCUMENTS

Correspondence

E-mail message from Stacey Baczkowski, RWQCB, Region 9, to Moira McEnespy, CCC, January 26, 2000, 1:33 pm.

E-mail message from Christina Fahy, NMFS, to Moira McEnespy, CCC, January 20, 2000, 1:48 pm.

Letter from John H. Robertus, Executive Officer, RWQCB, to Robert Watts, SDOF, January 4, 2000.

Letter from Robert C. Watts, Jr., SDOF, to Moira McEnespy, CCC, January 4, 2000.

Letter from Lt. M.T. Cunningham, USCG, to Robert Watts, SDOF, December 30, 1999.

Letter from Robert C. Watts, Jr., SDOF, to Moira McEnespy, CCC, November 5, 1999.

Letter from Robert Tasto, Supervisor, Project Review and Water Quality Program, Marine Region, CDFG, to Moira McEnespy, CCC, September 20, 1999.

Letter from Lt. Mark Cunningham, USCG, to City of San Diego, July 29, 1999.

Letter from Robert C. Watts, Jr., SDOF, to Alison Dettmer, CCC, July 22, 1999.

Letter from Mary Griggs, CSLC, to Beth Murray, City of San Diego, September 10, 1998.

Submittals

"Project Yukon Sinking Safety Protocols, (Second Draft, 1-14-00)."

Darryl J. Hansen, President, Pacific Lighthouse Environmental Management Services, Inc. Letter Report entitled "Inspection of Ex-HMCS Yukon" (December 22, 1999).

Standards, Procedures, Plans, Agreements, Applications

US Navy and USEPA. "Agreement Between the Department of the Navy and the U.S. Environmental Protection Agency, Washington, D.C. Use of Naval Vessels Containing Polychlorinated Biphenyls as Targets and test Platforms Resulting in Their Sinking," (August 19, 1996).

"Clean-up Standard for Ocean Disposal of Vessels," Environment Canada, Environmental Protection Branch, Pacific and Yukon Region (February, 1998).

State Water Resources Control Board. "Water Quality Control Plan, Ocean Waters of California, California Ocean Plan." Effective July 23, 1997.

Water Resources Control Board and California Regional Water Quality Control Board Administrative Procedures, September 24, 1970, Section XI and Miscellaneous, Rev. 7-9/1/72, in *California Marine Protected Areas*, ed. by Deborah McArdle, California Sea Grant Extension Program, 1997, Publication No. T-039.

USACOE, Los Angeles District. "Notice of Application for a Letter of Permission." Public Notice/Application No. 199916503-MAT. Comment Period: 11/10/99 – 12/01/99.

Studies and Reports

Bedford, Dennis, Jerry Kashiwada, and Greg Walls. "Biological Surveys of Five Southern Artificial Reefs: Oceanside #1, Oceanside #2, Carlsbad, Pacific Beach, and Mission Bay." CDFG, Marine Resources Division, Administrative Report 95-6, 1995.

Bedford, Dennis. "A Report of Biological Observations at Oceanside #1 and #2 Artificial Reefs, Carlsbad Artificial Reef, Pacific Beach Artificial Reef, and Mission Bay Park Artificial Reef (Draft Administrative Report)." CDFG, Nearshore Sport Fish Habitat Enhancement Program. February, 1993.

Bell, Melvin, Robert M. Martore and Thomas D. Mathews. "Levels of PCBs and Heavy Metals in Biota Found on ex-Military Ships Used as Artificial Reefs." Project No. F-54 (Seg. 4), Annual Report, Marine Resources Division, South Carolina Department of Natural Resources (March, 1997).

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APPENDIX C: CORRESPONDENCE

BRIAN P. BILBRAY
49TH DISTRICT, CALIFORNIA

COMMERCE COMMITTEE

SUBCOMMITTEE ON
HEALTH AND ENVIRONMENT

SUBCOMMITTEE ON
FINANCE AND HAZARDOUS
MATERIALS

SUBCOMMITTEE ON
OVERSIGHT AND
INVESTIGATIONS

Congress of the United States
House of Representatives
Washington, DC 20515

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brian.bilbray@mail.house.gov

World Wide Web:
http://www.house.gov/bilbray/

February 17, 2000

"Do something worthwhile before you die. Leave behind a work sublime, that will outlive you and time."
-Alfred Montepert

Alison Dettmer
California Coastal Commission
45 Fremont St. #3000
San Francisco, Ca 94105

Dear Ms. Dettmer:

I would like to take this opportunity to express my support for San Diego Ocean's Foundation (SDOF) Project Yukon. The improvement of San Diego's coastal environment is, and has always been, one of my top priorities.

We must take advantage of this opportunity to provide our coast with a new habitat for marine life, and create an accessible location for scientific research. I have been aware of the efforts of the San Diego Ocean's Foundation to secure, clean, and make safe the Canadian Frigate. The economic benefits of an artificial reef to San Diego should also be taken into account. With world renown diving sights such as La Jolla Cove and the Kelp-beds off Sunset Cliffs, the addition of Project Yukon would provide yet another reason for divers to visit San Diego. I urge you to support the completion of this worthwhile endeavor.

Sincerely,

Brian P. Bilbray
Member of Congress

BPB:jz

California State Senate

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FAX (916) 327-2188

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SAN DIEGO, CA 92101
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FAX (619) 645-3094

INTERNET ADDRESS
SENATOR.ALPERT@SEN.CA.GOV

SENATOR
DEDE ALPERT
THIRTY-NINTH SENATORIAL DISTRICT

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COMMUNITY DEVELOPMENT
CRITICAL THINKING AND PROBLEM SOLVING IN OUR SCHOOLS
ECONOMIC DEVELOPMENT

February 11, 2000

California Coastal Commission
Sara Wan, Chair
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Application # E-99-08 (San Diego Oceans Foundation and the City of San Diego)

Dear Chairwoman Wan and Commissioners:

As the State Senator who has been elected to represent the residents of the City of San Diego's coastal communities, I would like to voice my support for Application # E-99-08. I concur with the Coastal Commission staff recommendation to grant approval at your February meeting of the portion of the Coastal Development Permit Application relating to sinking and positioning the HMCS Yukon on the ocean floor. Additionally, I would urge the Commission's consideration of the San Diego Underwater Reaction Area as a separate matter.

The Commissions' approval at this time is crucial to the success of the entire project, and any delay could endanger the viability of the project itself. As you know, numerous holes have been cut throughout the ship to create access for scuba divers. With each rainstorm, additional maintenance and security personnel are required to insure the ship does take on water and sink while tied up at the dock. Factors such as weather, wave patterns and marine mammal migration were considered in selecting May 6 as the date to sink the Yukon. The next window of opportunity would not occur until November. Additionally, the Marine Technology Society has scheduled an international conference on artificial reefs in conjunction with the sinking of the Yukon.

Given the issues listed above, I urge the Commission to consider the San Diego Underwater Recreation Area as a separate issue. Further, I encourage your timely approval of the portion of the Coastal Development Permit Application relating to the sinking of the Yukon.

Thank you in advance for your favorable consideration.

Sincerely,

Dede Alpert

SENATOR DEDE ALPERT
39th District

DA/mam

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howard.wayne@assembly.ca.gov

Assembly
California Legislature

HOWARD WAYNE
ASSEMBLYMEMBER, 78TH DISTRICT

CHAIR:
NATURAL RESOURCES

MEMBER:
HEALTH
INSURANCE
WATER, PARKS AND WILDLIFE
VETERANS AFFAIRS

February 11, 2000

Alison Dettmer
California Coastal Commission
45 Fremont Street, Suite 3000
San Francisco, CA 94105

Dear Ms. Dettmer:

I support the efforts of the San Diego Oceans Foundation to create a "Shallow Water Economic Zone" approximately 1 and ½ miles off of the coast of Mission Beach in San Diego. This 200-acre area is being designated as a site to place vessels on the sea floor to serve as an attraction for divers and fisherman.

The Yukon is an ex-Canadian destroyer, that has been made contaminant-free and diver friendly. When sunk the vessel will become a self-sustaining ecological system with a wide variety of marine-life that would not normally exist at that site. Project Yukon will also provide an important resource for San Diego, as it is expected to generate approximately $1 million a year from expenditures by divers and fishermen.

As Chair of the Assembly Natural Resources Committee, I wholeheartedly support the San Diego Oceans Foundation in its efforts to bring Project Yukon to fruition. I urge your strong consideration of this project, as it will benefit San Diego and provide a new environment for learning along our coastline.

Thank you for your consideration. Please do not hesitate to call me with any questions or concerns at 619-234-7878.

Sincerely,

Howard Wayne

HOWARD WAYNE
Assemblymember
78th District

Environment Canada
Environnement Canada

Environment Canada
Environmental Protection Branch
Ocean Disposal Control Program
224 West Esplanade
North Vancouver, BC V7L 1K1

22 February 2000

File: 4540-1

Ms. Alison Dettmer
Manager, Energy and Ocean Resources
California Coastal Commission
45 Fremont Street Suite 2000
San Francisco, CA 94105-2219

Dear Ms. Dettmer,

It has come to my attention that at a recent meeting of the California Coastal Commission there was some uncertainty as to the role and authority of Environment Canada in matters relating to disposal at sea, particularly disposal of vessels, within the internal waters and territorial sea of Canada. I am pleased to provide you with some clarification on this matter.

Environment Canada is responsible for administering the *Canadian Environmental Protection Act* (CEPA) which is the cornerstone of Canadian federal environmental legislation. It provides the framework for protection of Canadians from pollution of all kinds, particularly that caused by toxic substances.

CEPA Part VI regulates the disposal of substances at sea through a system of permits and inspections administered by Environment Canada. The Act also controls the loading of substances on ships, aircraft, platforms or other man-made structures for disposal at sea and the deliberate disposal at a sea of a ship or aircraft. Disposal at sea is permitted only in cases where the disposal meets the regulatory requirements, and is the environmentally preferable and practical alternative. As signatory country to the London Convention (72) and the 96 Protocol, the legislation reflects the international objectives of prevention of pollution at sea by wastes and other matter.

Over the past two decades, several organizations in Canada have applied for permits to dispose of vessels, some of which were intended to serve as diving attractions. Although Environment Canada does not promote or endorse the creation of artificial reefs or SCUBA diving attractions, the provisions of CEPA require that a permit be obtained for this type of activity. To date, Environment Canada has issued 11 permits for disposal of vessels in the Pacific and Yukon Region. The review and inspection of vessels proposed for ocean disposal, prior to the issuance of and Ocean Disposal permit, was rigorous and costly. However, prior to 1998, there was no absolute standard available that could be applied to the cleanliness and condition of the vessels before sinking.

Considerable research into existing criteria and standards for vessel disposal indicated very little in global literature. Based on our regional experience, it was decided in 1996-1997 that a definitive cleanliness standard was possible, and Environment Canada initiated a project for this purpose. The "*Clean-up Standard for Ocean Disposal of*

Vessels" and a guidance document for organizations or individuals "*Clean-up Guidance for Ocean Disposal of Vessels*" were drafted in 1998. Both were intended to be working documents, to be amended as needed, and as our knowledge base increased. These documents can be viewed on our regional website: http://www.pyr.ec.gc.ca/ep/ocean-disposal/.

Waste specific guidance for international standards for the disposal of ships and platforms is currently being drafted by the London Convention Scientific Group, US delegation, headed by Craig Vogt of the USEPA. Environment Canada has provided the above guidelines to the delegation for consideration. The waste specific guidance will be tabled at the London Convention Consultative Meeting in November 2000 in Australia.

I hope this information will be helpful to you. Should you require anything further, please contact either myself or Mr. Jim Osborne, Head, Marine Environment Division, Environment Canada, Headquarters Region (jim.osborne@ec.gc.ca).

Yours truly,

Dixie L. Sullivan
Ocean Disposal Control Program
Environment Canada

cc: R. Watts, San Diego Oceans Foundation
R. Long, Diving Unlimited International Inc.

DCI
Dive Connections!

Dive Connections Inc.
1845 Quivira Way Suite B-6
San Diego, CA 92040
619.523.9282
Dive @GottaDive.com

March 22, 2000

Alison J. Dettmer
Manager
Energy and Ocean Resources Unit
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, California 94105

Dear Alison:

By way of this letter, I would like to address any question regarding the established protocol involved whenever fishing and diving activities occur together on common sites.

As a current dive boat operator in the San Diego area, let me state that such occurrences have seldom been the case off Mission Bay. In Fact, fishing vessels typically prefer deeper waters for their best yields.

If however this does happen, the proper procedure would be:

- Make radio contact between Captains;
- Discuss and understand each others intentions, and
- Agree upon a course of action amenable to both parties.

In most cases fishing vessels and dive boats drift or anchor for only short periods; therefore, the waiting time is at a minimum. This has been a fundamental way to approach these situations, our San Diego based fishing, and diving charter operators have developed a good rapport and an ongoing working relationship.

If you have any further question, please feel free to call me at 619.523.9282, or e-mail at Jay@GottaDive.com.

Sincerely,

Jay Ferland
President

MISSION BEACH TOWN COUNCIL
P.O. BOX 9842, SAN DIEGO, CALIFORNIA 92109

September 16, 1999

Ms. Sherilyn Sarb, District Manager
California Coastal Commission
San Diego District
3111 Camino Del Rio No. Ste 200
San Diego, Ca. 92108

Dear Ms. Sarb,

At the Sept. meeting of the Mission Beach Town Council, a motion was passed unanimously, to support the artificial reef project of the San Diego Oceans Foundation, Project Yukon. We feel that the careful sinking of the HMCS Yukon as planned by the Foundation will be a welcome addition to this reef off the coast of San Diego. It will provide additional habitat for marine life in the area, as well as benefit fishing and diving activities for San Diegans and Tourists. We wholeheartedly support the Project Yukon, and urge that the Commission and Staff also support Yukon when it is presented for consideration.

Sincerely,

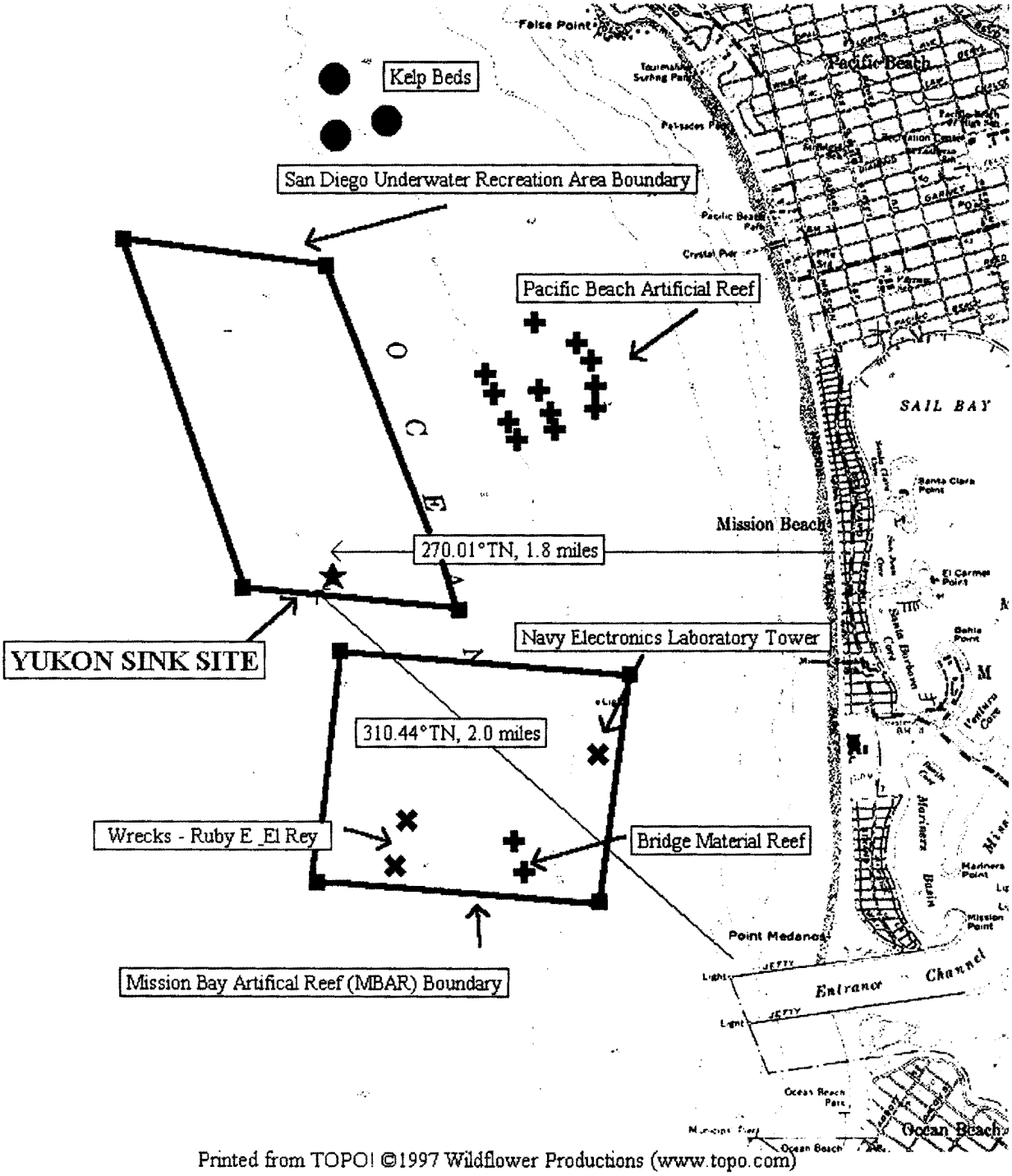
Richard Mitchell

Richard Mitchell, Pres.

San Diego Oceans Foundation

AREA MAP

Project Yukon



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E–99–08
EXHIBIT 1

(O-2000-87 COR.COPY)
12/02/99

ORDINANCE NUMBER O-18741 (NEW SERIES)

ADOPTED ON JAN 10 2000

AN ORDINANCE AMENDING CHAPTER VI, ARTICLE 3, DIVISION 3, OF THE SAN DIEGO MUNICIPAL CODE BY AMENDING THE TITLE OF DIVISION 3 TO READ SAN DIEGO UNDERWATER RECREATION AREA AND BY AMENDING DIVISION 3 BY ADDING SECTIONS 63.0301 THROUGH 63.0305 RELATING TO THE SAN DIEGO UNDERWATER RECREATION AREA.

BE IT ORDAINED, by the Council of The City of San Diego, as follows:

Section 1. That Chapter VI, Article 3, Division 3, of the San Diego Municipal Code is amended by amending the title to read as follows:

DIVISION 3

SAN DIEGO UNDERWATER RECREATION AREA

Section 2. That Chapter VI, Article 3, Division 3, of the San Diego Municipal Code is amended by adding Sections 63.0301 through 63.0305, to read as follows:

SEC. 63.0301 Purpose and Intent

The Council of The City of San Diego finds that the ocean floor within the jurisdictional limits of the City of San Diego is a natural resource which deserves protection and enhancement for the benefit and recreational enjoyment of the citizens of San Diego. Creation of the San Diego Underwater Recreation Area will provide an opportunity for the City to place ships, vessels or other appropriate objects on the ocean floor to create places for divers to explore and sea life to

inhabit and proliferate. Creation of the San Diego Underwater Recreation Area is expected to provide an economic stimulus to the City's tourist industry by creating a tourist destination point and attracting divers from around the country, and around the world.

SEC. 63.0302 Boundaries

The boundaries of the San Diego Underwater Recreation Area are as illustrated in Appendix A and further defined as follows:

Corner	Latitude-North	Longitude-West
Northwest	32 deg. 47.83'	117 deg. 17.90'
Northeast	32 deg. 47.75'	117 deg. 17.15'
Southeast	32 deg. 46.68'	117 deg. 16.65'
Southwest	32 deg. 46.74'	117 deg. 17.46'

SEC. 63.0303 Eligibility

Only those ships, vessels, or other objects which meet all the following criteria shall be eligible for placement within the San Diego Underwater Recreation Area:

(a) Objects which can be placed upon the ocean floor and be no closer than thirty feet Mean Low Water to the surface; and

(b) Objects that meet all Environmental Protection Agency, Regional Water Quality Control Board, and other state, federal, and local regulations; and

(c) Objects fully open and freely accessible to divers and sea life; and

(d) Objects of sufficient size, shape and design to remain in place during severe storms; and

(e) Objects of sufficient integrity to last a least fifty years; and

(f) Objects which the California Department of Fish and Game and California Coastal Commission have recognized or approved through official action or past permits as being known to be appropriate for underwater recreation or habitat for sea life.

SEC. 63.0304 Placement and Locational Criteria

Objects which are eligible for placement in the San Diego Underwater Recreation Area pursuant to Section 63.0303 may be authorized for placement by the City Council only after all the following requirements are satisfied:

(a) The sea floor where the object is proposed for placement is surveyed and documented to the satisfaction of the City to assess the nature and extent of existing structures, historic resources, biological resources, and the composition of the sea floor; and

(b) The object shall be proposed for location a sufficient distance from other objects placed on the ocean floor to discourage any subsurface swimming from one to another; and

(c) Objects shall be mapped so that their precise location and aerial extant is known; and

(d) Objects shall be proposed for a location so that any environmentally sensitive resources on the ocean floor are avoided to the maximum extent feasible; and

(e) Necessary environmental review has been conducted and all appropriate permits have been obtained from state and federal agencies prior to placement.

SEC. 63.0305 Management of the San Diego Underwater Recreation Area

The City Manager shall cause appropriate buoys or markers to be moored and maintained to mark the perimeters of the San Diego Underwater Recreation Area and the City Manager shall be further authorized to promulgate any necessary rules and regulations regarding the use and operation of the San Diego Underwater Recreation Area.

Section 3. That a full reading of this ordinance is dispensed with prior to its final passage, a written or printed copy having been available to the City Council and the public a day prior to its final passage.

Section 4. This ordinance shall take effect and be in force on the thirtieth day from and after its passage.

APPROVED: CASEY GWINN, City Attorney

By _____
Richard A. Duvernay
Deputy City Attorney

RAD:lc
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