

COASTAL CONSERVANCY

Staff Recommendation
June 16, 2005

**SOUTHERN CALIFORNIA BIGHT MARINE LIFE ENHANCEMENT PROGRAM:
CHANNEL ISLANDS MARINE PROTECTED AREAS MONITORING PROGRAM-
ROV SURVEY PROJECT**

File No. 05-049
Project Manager: Kara Kemmler

RECOMMENDED ACTION: Authorization to disburse up to \$765,000 to The Nature Conservancy for capital equipment to support the remotely operated vehicle (ROV) survey project of the Channel Islands Marine Protected Areas Monitoring Program as part of the Coastal Conservancy's Southern California Bight Marine Life Enhancement Program.

LOCATION: Channel Islands National Marine Sanctuary Marine Protected Areas, off Southern California Coast, near Santa Barbara and Ventura Counties, within the Southern California Bight (Exhibit 1).

PROGRAM CATEGORY: Integrated Coastal and Marine Resources Protection.

EXHIBITS

- Exhibit 1: Regional Location Map
 - Exhibit 2: Channel Islands MPAs
 - Exhibit 3: ROV Survey Project Sites
 - Exhibit 4: Support Letters
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed seven hundred sixty-five thousand dollars (\$765,000) to The Nature Conservancy for capital equipment to support the remotely operated vehicle (ROV) survey project of the Channel Islands Marine Protected Areas Monitoring Program, subject to the condition that prior to disbursement of funds for the project, the grantee shall submit the following for review and written approval of the Executive Officer of the Conservancy:

1. A final work program, schedule and budget for its project;
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2. The names of all contractors it intends to employ for its project;
 3. Evidence of all permits and approvals for its project; and
 4. Evidence of adequate funds and/or in-kind donations to support operations for a minimum of 3 years of the monitoring program.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the purposes and criteria set forth in Chapter 5.5 of Division 21 of the California Public Resources Code (Section 31220) regarding Integrated Coastal and Marine Resources Protection;
2. The proposed project is consistent with the guidelines and criteria set forth in the Conservancy’s Project Selection Criteria and Guidelines adopted on January 24, 2001; and
3. The Nature Conservancy is a nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

The Nature Conservancy (TNC), Marine Applied Research and Exploration (MARE), California Department of Fish and Game (DFG) and the National Oceanic and Atmospheric Administration (NOAA) are engaged in a collaborative partnership to monitor habitat and species conditions within the Channel Islands Marine Protected Areas (MPAs) off Southern California’s shores.

The Conservancy staff recommends the Conservancy approve funds to support the acquisition of capital assets to be used to support this vital nearshore marine monitoring in this critical coastal ocean area of the Southern California Bight. The coastal ocean of Southern California, and particularly the northern Channel Islands, supports a diverse array of consumptive and non-consumptive industrial, commercial and recreation and tourism activities.

This project is part of a larger program developed by regional staff of the Coastal Conservancy to create a program to address regional marine resource conservation needs. The Southern California Bight Marine Life Enhancement Program is intended to address the ecological health, as well as restoration, enhancement and stewardship of the Southern California Bight. The initial part of the program seeks to clarify goals for improving nearshore marine habitats and related coastal-draining watershed resources. This project will provide important information on the location and fecundity of areas within and adjacent to the Channel Islands Marine Sanctuary.

The Channel Islands MPAs Monitoring Program, dated February 2004, identifies shallow and deep subtidal habitat monitoring as high priorities and further identifies the ROV Survey Project as a key part of that monitoring program. The ROV scans the depths of the new Channel Islands MPAs, the largest system of reserves off the West Coast, to measure how fish populations are responding to the new sanctuaries. The ROV Survey Project team is coordinated by MARE, a

non-profit organization formed in 2003 in part to help fund and support efforts to obtain baseline data in California's new MPA system. The team includes staff from the California Department of Fish and Game (DFG) and the Channel Islands National Marine Sanctuary (CINMS)/ National Oceanic and Atmospheric Administration (NOAA).

The ROV is a non-extractive tool, for use beyond diver depths, to archivally video the seafloor, and ground truth the habitat, species and biodiversity. Continuous video from 2 cameras allow baseline MPA video documentation to be gathered and archived for future analysis and comparisons. With measurement lasers, depth, altitude, camera range to bottom and temperature are digitally recorded along with exact ROV position in DGPS coordinates. The ROV surveys obtain information on type of habitat, abundance and sizes of all non-cryptic fishes, and abundance of focal invertebrate species within and outside MPAs. Exact location and precise area (in square meters) of bottom surveyed allow this data to be input and used in a GIS database, used increasingly as a resource management tool, and permits the ROV to return to the exact same sites year after year for monitoring purposes, to detect any population changes over time.

Shallow and deep subtidal monitoring (from 0 to ~100 feet/31m and >33m, respectively) are identified as the highest priorities in the Channel Islands MPAs Monitoring Program. The shallow subtidal region includes the primary areas for consumptive uses at the islands and provides information not only on MPAs but the entire nearshore ecosystem. The suite of monitoring efforts for the shallow subtidal area includes use of a remotely operated vehicle (ROV) as a quantitative survey tool for biologic and habitat surveys on an annual basis. For shallow subtidal monitoring, ROV surveys fill in the depth range from 20-33m where SCUBA diver observation times are severely limited. SCUBA surveys are excellent for relatively shallow habitat such as kelp beds, where fish are concentrated and can be easily counted. ROVs, in contrast, are able to cover the vast expanse of deeper habitat where fish aggregations are more patchy. Considerably less sampling has occurred in deeper subtidal areas than in shallow subtidal habitats.

The ROV work is the most rapidly developing, high-tech portion of the MPAs monitoring process. Other important survey methods use submersibles, scuba divers, and other fishery-independent investigations, such as mark-and-recapture studies. All of these studies work in conjunction with one another, and are necessary to assess whether MPAs are effective. DFG biologists work closely with researchers at CSU Monterey Bay's Seafloor Mapping Lab, which produced multibeam sonar maps of the Channel Islands seafloor topography. The maps helped to identify key reef areas for exploration. Consulting the maps, survey paths (called "transects") are planned for each ROV survey.

The science team selected transect paths on the basis of three main criteria. First, they wanted sites that lie both within MPAs (areas now closed to fishing) and outside them, to serve as control sites. Second, they wanted sites that had already been mapped. Much of this area had recently been mapped using side-scan sonar, giving a relatively intuitive, aerial view-like representation of the sea bottom but without any bottom topography, and by multibeam sonar, which results in a more spatially accurate shaded-relief representation where, for example, rough rocky areas *look* like rough rocky areas, and are actually located where they appear to be. Third, they wanted the reserve and control sites to be comparable in size (approximately 500 meters across and two kilometers long, giving a survey path of about 3.5 kilometers as the ROV zigzags back and forth) and to have similar habitat. For shallow subtidal monitoring, a site is defined as

and forth) and to have similar habitat. For shallow subtidal monitoring, a site is defined as an approximately 500m stretch of primarily rocky reef habitat approximately 25 meters to 80 meters in depth.

The core group of sites consists of at least one site within and outside one MPA at each of the four northern Channel Islands. The core sites were chosen primarily because they extend into deeper water from the shallow water, historical data that continues to be collected by existing programs, and they have enough rocky reef to make quantitative assessment possible.

Focal species will be used as indicators and examples of change in the MPAs. It is desirable that these species have different life history characteristics, varying exploitation histories, and play different roles in the ecosystem in order to evaluate fully the performance of MPAs. The March 2003 monitoring workshop and other meetings identified nine species of fish, twelve invertebrates, and one alga as focal species for shallow, subtidal monitoring. The focal species include California sheephead (*Semicossyphus pulcher*), kelp bass (*Paralabrax clathratus*), cabezon (*Scorpaenichthys marmoratus*), lingcod (*Ophiodon elongatus*), kelp rockfish (*Sebastes atrovirens*), gopher rockfish (*S. carnatus*), garibaldi (*Hypsypops rubicundus*), rock wrasse (*Halichoeres semicinctus*), black surfperch (*Embiotica jacksoni*), California spiny lobster (*Panulirus interruptus*), red sea urchin (*Strongylocentrotus franciscanus*), purple sea urchin (*S. purpuratus*), red abalone (*Haliotis rufescens*), black abalone (*H. cracherodii*), pink abalone (*H. corrugata*), green abalone (*H. fulgens*), warty sea cucumber (*Parastichopus parvimensis*), bat star (*Asterina miniata*), giant-spined star (*Pisaster giganteus*), Ochre star (*P. ochraceus*), sunflower star (*Pycnopodia helianthoides*), and giant kelp (*Macrocystis pyrifera*).

There is considerable interest in obtaining data for species whose depth distributions extend from the shallow subtidal. In addition, it will be important to obtain information for overfished and endangered species that occur in deeper water. Similar to shallow subtidal monitoring, species were selected that display a wide range of attributes. The focal species list consists of 14 fishes and 6 invertebrates; angel shark (*Squatina californica*), blue rockfish (*Sebastes mystinus*), bocaccio (*S. paucispinis*), copper rockfish (*S. caurinus*), cowcod (*S. levis*), olive rockfish (*S. serranoides*), pygmy rockfish (*S. wilsoni*), squarespot rockfish (*S. hopkinsi*), swordspine rockfish (*S. ensifer*), vermillion rockfish (*S. miniatus*), California halibut (*Paralichthys californicus*), cabezon (*Scorpaenichthys marmoratus*), lingcod (*Ophiodon elongatus*), California sheephead (*Semicossyphus pulcher*), abalone (*Haliotis spp.*) - especially white abalone (*H. sorenseni*), California spiny lobster (*Panulirus interruptus*), red sea urchin (*Strongylocentrotus franciscanus*), purple sea urchin (*S. purpuratus*), market squid (*Loligo opalescens*) and rock crabs (*Cancer spp.*). Specifically, these surveys will obtain abundance/density information for the above focal species, and determine species diversity within MPAs and unprotected areas

The ROV video is recorded digitally, using two cameras (forward and downward) along with GPS location, depth, temperature, date and time. This real-time marking of individual animals at known locations will be valuable for scientists studying aggregations and changing species distributions. Post-processing will allow the data to be further fine-tuned. Over time, monitoring fish and invertebrate populations in the MPAs may provide evidence of whether bottom-dwelling species such as rockfish, lingcod, and abalone respond to the no-fishing zones by repopulating areas both inside and outside of the MPAs. Going back every year and resurveying the same

transects, seeing if numbers change, we will learn more about the MPAs and their viability as havens for valuable fish species. The videotape of the transects taken by the ROV serve as permanent records of the area, which can be reviewed multiple times to provide information on the habitat types, animals, and plants at the site.

Although, the team is currently able to conduct ROV project operations with existing equipment provided by DFG, additional equipment is necessary in order to continue to implement the scope of monitoring work for multiple years,. The ROV and associated equipment used in the ROV surveys conducted thus far has been provided by DFG, however, it is not dedicated for this purpose and will be needed for other activities throughout the year. In addition, the DFG system, while competent, is aging, and any system is subject to loss or damage in the unpredictable marine environment. Without a backup ROV system in place, a machine failure or loss could result in the loss of an entire cruise, with enormous costs in time, opportunity, money and momentum. Consequently, a new, highly integrated and portable ROV system is proposed to serve as the primary survey unit going forward, with the DFG system remaining as a backup as needed. The new equipment will be compatible with the existing system. Should any major failures occur, this specification will allow the team to continue work until equipment is repaired or replaced. The useful life of an ROV is approximately eight to 10 years as a conservative estimate. For purposes of comparison, the California Department of Fish and Game ROV was purchased in 1994, has been well maintained, and is still going strong after 10 years and hundreds of dives.

This project will help carry out Conservancy goals relating to coastal and marine resource protection by providing the necessary data and coordination to help restore fish and wildlife habitat within coastal and marine waters, reduce threats to coastal and marine fish and wildlife, and diminish the impact of economic pressures on coastal and marine resources.

Site Description: In 1980, a 1,252-square-nautical-mile portion of the Santa Barbara Channel was given a special protected status with the designation of the Channel Islands National Marine Sanctuary. The sanctuary is an area of national significance because of its exceptional natural beauty and resources. It encompasses the waters that surround Anacapa, Santa Cruz, Santa Rosa, San Miguel and Santa Barbara Islands, extending from mean high tide to six nautical miles offshore around each of the five islands (see Exhibit 2). The sanctuary's primary goal is the protection of the natural and cultural resources contained within its boundaries.

A fertile combination of warm and cool currents in this area results in a great variety of plants and animals including large nearshore forests of giant kelp, flourishing populations of fish and invertebrates, and abundant and diverse populations of cetaceans, pinnipeds and marine birds. The secluded and relatively undisturbed waters of the Sanctuary also provide full or part-time homes for several endangered species including blue, humpback and sei whales, southern sea otters, the California brown pelican and the California least tern.

The twelve state of California designated Channel Islands MPAs form a network covering about 142 square nautical miles within the Channel Islands National Marine Sanctuary. Together, they cover the full span of the three biogeographic zones of the islands. The MPA network consists of ten no-take “marine reserves,” with no fish or kelp harvesting allowed; and two “conservation areas” where limited recreational fishing and lobster harvesting are permitted. Non-consumptive

activities such as diving, swimming, and boating are allowed. The no-take areas represent approximately 132 square nautical miles, or approximately 19% of the State waters within the Sanctuary. The limited take areas represent an additional 10 square nautical miles of area. The ROV Survey Project targets areas in and adjacent to the MPAs within the Sanctuary (Exhibit 2).

Project History: In 1998 the Channel Islands Marine Resources Restoration Committee, a group of concerned citizens, requested the Fish and Game Commission to establish a network of Marine Protected Areas around the northern Channel Islands. This request preceded the Marine Life Protection Act by nearly one year. As a result of the request, the Fish and Game Commission directed the California Department of Fish and Game (DFG) and the Channel Islands National Marine Sanctuary (CINMS) to jointly support a process to discuss MPAs in the Channel Islands area. After more than 2 years of meetings involving a broad based constituent group, DFG and CINMS drafted a recommendation for Channel Islands MPAs.

California implemented its first large MPA in the Santa Barbara Channel Islands in April 2003. The goals of California MPAs are to:

- Protect natural diversity and abundance of marine life and structure
- Help sustain conserve & protect marine life populations including those of economic value
- Improve recreational, educational & study opportunities-expose to minimal exposure areas
- Protect marine natural heritage including representative and unique marine life habitats
- Ensure MPAs have clearly defined objectives, effect management measures and adequate enforcement and based on sound scientific guidelines
- Ensure that the state's MPAs are designed and managed as a network.

More than 70% of U.S. commercial stocks are considered fully exploited, overfished or collapsed. In September 2003 the Pacific Fishery Management Council closed most of the West Coast groundfish fishery because four rockfish were declared overfished. As a result commercial and recreational fishing have been severely curtailed. Accurate fish stock assessment and habitat information are essential. The Pew Oceans Commission report, published in May 2003, recommended establishing a network of MPAs and using advanced mapping and remote sensing technologies to expand the ability of policy makers and the public to compare alternative uses of these areas. (Pew Oceans Commission, America's Living Oceans: Charting a Course for Change, p. 31). In today's climate, collaboration is essential to filling the data gaps needed to better manage our marine resources. Currently, the Channel Islands MPAs present a time-sensitive opportunity to explore and document the effects of this bellweather MPA.

An important part of the long term management of MPAs is establishing programs to monitor biological, social, and economic changes in areas that are within, nearby, and distant from the MPAs. Together, these monitoring programs will help managers determine the impacts and effectiveness of the MPA network. CINMS, DFG and NOAA convened a Channel Islands MPA monitoring workshop in March 2003 where over 100 representatives from recreational and commercial fisheries, the scientific community, businesses, conservation groups, government agencies, and the general public developed preliminary biological and socioeconomic monitoring recommendations.

One of the key components of the monitoring plan is collection of baseline monitoring data, especially in the deep subtidal areas (30+ meters) in and adjacent to MPA no-fishing zones. DFG identified priority areas to be surveyed, inventoried and monitored. Deep subtidal monitoring using visual surveys (ROV or submersible) will occur at the following sites, within and outside MPAs: San Miguel Island: Harris Point, Richardson Rock, and Wilson Rock; Santa Rosa Island: Carrington Point, South Point, and Rodes Reef; Santa Cruz Island: Gull Island, and Scorpion; Anacapa Island: West Anacapa, East Anacapa, and the Footprint area (see Exhibit 3). USGS and California State Monterey Bay Seafloor Mapping Lab completed high-resolution acoustic maps in most of these areas.

The first phase was a three (3) week ROV survey of prioritized areas as defined in the monitoring plan. The baseline exploratory ROV surveys were performed in and adjacent to the priority areas at depths between 20 and 80 meters in November 2003 and May 2004 by a team composed of personnel and marine equipment from a range of sources using a combination of funds and in-kind support from various sources. DFG provides personnel (biologists, ROV pilots and post processing) and the ROV. CINMS/NOAA donated the ship, the *Shearwater*, its crew and local knowledge of the area. Deep Ocean Engineering (DOE) supplied the first ROV, operations personnel and support. MARE brought the various collaborators together for this project, raised funding and support, and supplied ROV technical advice and operational supervision. The Nature Conservancy was a major supporter of the project along with Commonweal, KingFisher, NOAA and National Resources Defense Council who all supplied keystone funding.

The team's first cruise, in November 2003, surveyed almost 10 miles (16 km) of linear transects in eight sites during good weather over the course of a one-week cruise. The May 2004 cruise was surpassed initial efforts: in four days, the team surveyed over 11 miles (18 km) within six sites despite blustery weather, proof of the rapid synergy between government and private agencies, and the refinement and improvement of ROV survey methods. The baseline, archival video and data collected were analyzed for locational tracking accuracy, and post-processed into habitat characterization maps. The fish species of commercial/recreational significance were post-processed into species maps. Perhaps most importantly, these surveys began an archival record in areas where fishing was banned, for comparison with future studies. The overall cost of each weeklong survey, including the acquisition of habitat maps and post-processing to place five key species on species maps, was approximately \$125,000.

PROJECT FINANCING:

Coastal Conservancy	\$765,000
NOAA, DFG: In-kind Donations (July 2005-June 2006 commitment)	\$414,800
TBD	<u>\$1,819,690</u>
Total Project Cost (Capital + 3 Years Operation)	\$2,999,490

The anticipated source of Conservancy funds is an appropriation to the Conservancy from Proposition 40, the "Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Bond Act of 2002" to implement integrated coastal and marine resource protection. Proposition

40 funds may be used for deployment (appropriate utilization), rehabilitation, restoration, and protection, of land and water resources in accordance with the provisions of the Conservancy's enabling legislation, Division 21 of the Public Resources Code. The proposed project serves to assist in the evaluation of the appropriate utilization and necessary protection of the Channel Islands MPAs consistent with Chapter 5.5 of Division 21. Proposition 40 also requires the Conservancy to give priority to grant projects with matching funds (Public Resources Code Section 5096.651). The Conservancy grant for capital equipment will contribute toward and is based upon a partnership with various state and federal agencies, non-profit and private organizations to finance and support the ROV Survey Project long term.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 5.5 of the Conservancy's enabling legislation, Public Resource Code Sections 31220, regarding coastal and marine resources protection. Pursuant to §31220, the Conservancy may award grants to protect coastal and marine habitats. Under Section 31220, the Conservancy may undertake projects that meet any of the objectives specified in subsection (b) of that section. Consistent with Section 31220(b), the proposed project will provide for monitoring and mapping of marine habitats and marine wildlife in order to facilitate protection and enhancement of resources within the coastal zone in consultation with the Department of Fish and Game.

Consistent with Section 31220(a), the Conservancy has consulted with the State Water Resources Control Board in the development of this project to ensure consistency with Chapter 3 (commencing with Section 30915) of Division 20.4 of the Public Resources Code. As required by Section 31220(c), the project inherently includes an evaluation and monitoring component. Section 31220(c) also requires consistency with state and regional watershed planning. No Integrated Watershed Management Program or local watershed management plan exists for the Channel Islands area, however, the proposed project is consistent with the Channel Islands National Marine Sanctuary Management Plan and the State Water Resources Control Board's California Ocean Plan. The project involves non-extractive ROV surveys only and does not have the potential to impact water quality or supply and is proposed by and identified as a high priority component of the Channel Islands Marine Protected Areas Monitoring Program.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 5, Objective A**, the proposed project will increase Coastal Resources Conservation being an integral part of a monitoring program that informs the management of the Channel Islands MPAs. The MPAs were established in an effort to protect and restore nearshore coastal marine resources, notably marine fisheries species vital to our economy and the ecological integrity of the Channel Islands area.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** These projects will be funded with monies appropriated to the Conservancy from Prop.40 for restoring coastal resources, including nearshore marine resources.
3. **Support from the public:** Implementation of the Channel Islands MPAs Monitoring Program and specifically, the ROV Survey Project enjoys widespread support from elected officials including: Assemblymember Pedro Nava; public agencies including the Department of Fish and Game and NOAA; environmental organizations, such as Commonweal; universities, such as UC Santa Barbara; and the general public. Letters of support are included in Exhibit 4. Additional letters will be hand-carried to the Conservancy meeting.
4. **Location:** The proposed project is located off the coast of Southern California within the Channel Islands National Marine Sanctuary, which is an important coastal resource area of regional, statewide and national ecological and economical significance. As discussed above, this project is part of a larger program to create a program to address regional marine resource conservation needs in the Southern California Bight. Surveying this area will provide important information on the location and fecundity of areas adjacent to the Channel Islands Marine Sanctuary
5. **Need:** An important part of the long term management of MPAs is establishing programs to monitor biological, social, and economic changes in areas that are within, nearby, and distant from the MPAs. Together, these monitoring programs will help managers determine the impacts and effectiveness of the MPA network. CINMS, DFG and NOAA convened a Channel Islands MPA monitoring workshop where over 100 representatives from recreational and commercial fisheries, the scientific community, businesses, conservation groups, government agencies, and the general public developed preliminary biological and socioeconomic monitoring recommendations and monitoring of the shallow subtidal area was identified as the highest priority. The ROV Survey Project fills a niche where other methods fail to be as cost-effective or provide enhanced data. The ROV and associated equipment used in the experimental surveys thus far has been provided by DFG, but is not dedicated to this purpose and will be needed for other activities throughout the year. The DFG system, while competent, is aging, and any system is subject to loss or damage in the unpredictable marine environment. Without a backup ROV system in place, a machine failure or loss could result in the loss of enormous costs in time, opportunity, money and momentum. Consequently, the proposed ROV system will serve as the primary survey unit, with the DFG system remaining as a backup in case of need.
6. **Greater-than-local interest:** The Channel Islands National Marine Sanctuary was established as an area of national significance because of its exceptional natural beauty and resources. The Sanctuary is a very important nearshore coastal marine environment, home to important commercial and recreational fishery resources, as well as non-consumptive recreational and educational resources of regional and national importance, which the MPAs were created to protect and restore. Information developed with this ROV will have statewide importance in developing, monitoring and managing other MPAs.

Additional Criteria

7. **Urgency:** Since fishing was banned upon the establishment of the MPAs in April 2003, time is of the essence in gathering baseline data and sustaining surveys in order to illustrate any changes over time, which is key to evaluating the effectiveness of the MPAs.
8. **Resolution of more than one issue:** The ROV Survey Project will serve to inform a variety of management issues, including resource needs, commercial fishing industry concerns, and recreational uses of ocean resources and selection of future MPAs.
9. **Leverage:** See the “Project Financing” section above.
11. **Innovation:** The ROV introduces an innovative approach with many advantages over traditional survey and sampling methodologies, such as, the non-extractive nature of the survey eliminates the risk of accidental take of protected species or damage to habitats; the ROV system works for extended periods beyond diver depths; digital, archival video imagery is produced, which is geospatially indexed, thereby reducing or eliminating several sources of error inherent in other approaches; and it is a highly cost-effective method. Additionally, the collaborative effort among NOAA, DFG, TNC, MARE and others to coordinate management and policy decisions based upon sound science is an innovative approach to resolving historic problems that have contributed to the degradation of ocean resources.
12. **Readiness:** The ROV Survey Project team is formed and presently conducts ongoing surveys. The project team is ready to continue its efforts with additional equipment and funding.
13. **Realization of prior Conservancy goals:** The Coastal Conservancy has been involved in resource protection, enhancement and restoration projects within the coastal nearshore waters of Southern California for the past several years, funding habitat mapping and selected habitat restoration projects, including kelp restoration efforts within Santa Monica Bay.
15. **Cooperation:** The Channel Islands MPA Monitoring Program ROV Project is a cooperative venture involving University scientists, non-profit organizations, private groups, and state and federal agencies.

COMPLIANCE WITH CEQA:

The proposed program is categorically exempt from review under the California Environmental Quality Act (CEQA), pursuant to 14 Cal. Code of Regulations Section 15306(data collection , research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource). The ROV Survey Project is part of a monitoring program designed to non-destructively collect data for resource management purposes. The proposed project activities will not result in disturbance to the nearshore marine bottom environment or its wildlife. Staff will file a Notice of Exemption upon approval.