California Marine Life Protection Act Initiative

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To: MLPA South Coast Regional Stakeholder Group

From: Marine Life Protection Act Initiative Staff

Subject: Proposals for Individual Marine Protected Areas Submitted by the Public

Date: February 25, 2009

Marine protected area (MPA) proposals for the Marine Life Protection Act (MLPA) South Coast Study Region are designed primarily by the MLPA South Coast Regional Stakeholder Group (SCRSG) in a collaborative, public process, and are based on the Marine Life Protection Act mandate to use "best readily available science" as outlined in a master plan for MPAs. To help ensure an open, transparent, public process where maximum information is made available to the SCRSG for its deliberations, members of the general public are also encouraged to submit MPA proposals for consideration.

February 18, 2009 was the due date for the public to submit proposals to the MLPA Initiative. Full, complete external proposals, those that meet the guidelines of the master plan and include the entire study region, will be evaluated alongside draft MPA arrays put forth by the SCRSG.

In addition to complete external proposals, several ideas for individual MPAs or MPA groups in localized geographies were also submitted to the MLPA Initiative. While individual MPAs do not represent complete proposals because of their limited geographic extent, they can help inform MPA planning. These individual MPA proposals are compiled and attached here for your review; these submittals were also included in the "Public Comments Submitted to the MLPA Initiative through February 19, 2009."

Any questions you may have about these individual MPA proposals should be directed to the person(s) who made the submission.

California MLPA South Coast Project Proposals for Individual Marine Protected Areas February 18, 2009

Individual MPA Proposal: Santa Catalina Island Area

February 10, 2009

MLPA Initiative c/o California Resources Agency 1416 Ninth Street, Suite 1311 Sacramento, CA 95814

Subject: Comments regarding the draft proposals for Marine Protected Areas in the South Coast Region.

To members of the South Coast Regional Stakeholders Group and interested parties.

I am writing this letter on behalf of my husband, myself and my sons as concerned individuals who live and work on the west end of Catalina Island.

My husband was born and raised here at the west end of Catalina and was taught to enjoy and appreciate the outdoors. His grandfather Al Bombard took he and his brother fishing from an early age and subsequently fishing has become quite a passion. He in turn has taught our three sons to fish and hunt responsibly and appreciate and enjoy the privileges of living in such a wild, beautiful place.

As people who love to the outdoors we of course want to be sure the diverse marine life here on Catalina is preserved for future generations to enjoy. People who really love the outdoors are all true conservationists. In considering closures for the MLPA we would hope the SCRSG uses the utmost common sense. Catalina is by far the most publicly utilized island of the Channel Islands being considered in MLPA. It is important for people living hectic lives on the mainland to be able to continue to come to Catalina and recreate with their families - fishing, kayak fishing, spear fishing, etc.

Living at Two Harbors we have watched the increasing commercial take of squid from Catalina year after year. Some nights as many as forty boats would light up, taking countless tons of a crucial part of the ecosystem. We watched as boats started arriving with numerous hoop nets and night after night taking lobster by the hundreds (and by the way selling them on the mainland). The season then goes on and on for seven months! The resource is exploited to the point where legal lobster fisherman can hardly earn a living. The continued unlimited take of squid must stop. Hoop netting must either be banned or severely limited. Lobster season itself should definitely be reduced.

The area surrounding Ship Rock has very diverse marine life and should be designated a SMR, as well as the current area surrounding Farnsworth Bank. Existing MPAs should remain as currently designated. The remaining front side of Catalina should become a SMCRA

California MLPA South Coast Project Proposals for Individual Marine Protected Areas Submitted by the Public - **Santa Catalina Island Area** February 25, 2009

allowing recreational fishing. All species should be regulated to reasonable takes in other areas for commercial as well as recreational.

Please consider the economic impact of implementing severe public MPA closures to Catalina Island residents and business owners. Tourism is the economic backbone of Catalina Island. The summer season is limited as it is - restricting recreational fishing, spear and scuba diving, etc. could severely impact us in an already downward economy. Two Harbors has a very special niche, we mainly cater to the boating public as well as campers, all whom of course enjoy the outdoors. We tread a very limited economic path and we hope the commission will keep this in mind when considering closures surrounding Catalina, especially the isthmus cove as well as Catalina Harbor.

In closing we are hopeful that **all** aspects of MPA closures are taken into account - economic, ecological and recreational. You have a very large responsibility for all; we hope you act with the utmost of care.

Sincerely,
David, Laura, James and Jeff Mc Elroy
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Individual MPA Proposal: Casa Beach Area

Submitted by Ellen Shively
Sierra Club San Diego Chapter
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February 18, 2009

- 1. MPA Name: Casa Beach, La Jolla, California SMR EMS 1
- 2. Designation: State Marine Reserve, which should be connected to the already existing La Jolla (CA) Marine Underwater Park, including parts of canyon and kelp beds to create the most diverse and richest ecosystem possible in a Marine Protected Area.

NOTE: The La Jolla Underwater Park spans some 6000 acres of ocean bottom and tidelands. It is situated at 32 degrees, 51 minutes and 09 seconds North and 117 degrees, 16 minutes and 03 seconds West. The Park has two other parks within its boundary: the Ecological Reserve which is 533 acres beginning at the La Jolla Cove to a point midway on the La Jolla Shores Beach. No fishing or scavenging is allowed. Another included park is the Marine Life Refuge encompassing the Scripps Pier, established as an academic research area for the Scripps Institution of Oceanography. Recreation and fishing are permitted at this location.

- 3. A: Regulations: State Marine Reserve [36700(a) PRC]A "state marine reserve," is a non-terrestrial marine or estuarine area that is designated so the managing agency may achieve one or more of the following:
- 3.1. Protect or restore rare, threatened or endangered native plants, animals or habitats in marine areas;
- 3.2. Protect or restore outstanding, representative or imperiled marine species, communities, habitats and ecosystems:
- 3.3. Protect or restore diverse marine gene pools; or
- 3.4. Contribute to the understanding and management of marine resources and ecosystems by providing the opportunity for scientific research in outstanding, representative or imperiled marine habitats or ecosystems.
- 3. B.1. Restrictions [36710(a) PRC]: it is unlawful to injure, damage, take or possess any living, geological or cultural marine resource, except under a permit or specific authorization from the managing agency for research, restoration or monitoring purposes. While, to the extent feasible, the area shall be open to the public for managed enjoyment and study, the area shall be maintained to the extent practicable in an undisturbed and unpolluted state. Therefore, access and use (such as walking, swimming, boating and diving) may be restricted to protect marine resources.
- 3.B. 2. Allowable uses [36710(a) PRC]: research, restoration and monitoring may be permitted by the managing agency. Educational activities and other forms of non-consumptive human use may be permitted by the designating entity or managing agency in a manner consistent with the protection of all

NOTE: A lifeguard spokesperson on January 14, 2009 emphasized that the ability to access areas for rescue and enforcement purposes, even with a vehicle, is important to maintain. Human rescues by lifeguards, as well as wildlife rescues by approved agencies, (NOAA designees, in this case, SeaWorld Hubbs Research facility) for matters such as entanglements, would need to continue to be allowed at Casa Beach.

Additionally, a review of the policies allowing fishing from the seawall and from the cliff below the green gazebo also needs to take place as careless fishermen casting their lines over the heads of seals, and especially pups, create a situation that is hazardous to the animals. Many line and hook entanglements have been seen at Casa Beach and rescues are not always made or even attempted.

These aspects of management need also to be assessed so as to protect the animals and the public.

- 4. Site-Specific Rationale for location:
- 4.1. The site is easily accessibility by the public, located in an urban setting (the village of La Jolla, CA) with a major coastal highway access adjacent. A paved sidewalk skirts the southern and eastern side. A seawall, which can be traversed by foot traffic, provides protection from the ocean on western side. The seawall is built upon the original Seal Rock, as labeled on the Botsford map of 1887, and on USGS maps. The beach is open to the ocean on the north-facing side. Free parking always available along Coastal Boulevard.
- 4.2. The unique land form around Casa Beach provides an excellent viewing platform to observe terrestrial and marine wild life populations, daily tidal inflows and outflows, and marine flora and fauna in their natural environment at close range in an urban environment without disturbing them.
- 4.3. For untold ages a thriving harbor seal colony has used the site as a rookery and hauling ground to rest, breed, and nurture their young while attracting over one million visitors annually.
- 4.4. Establishment of this area as a State Marine Reserve would cost the public virtually nothing in comparison to the intrinsic value as a natural resource, economic drive, and educational classroom.
- 5. Regional (South Coast) Goals and Objectives: The selection of this site would fit almost every goal and objective mentioned for the MLPA selection criteria for southern California.
- Goal 1. To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
- 1. Protect and maintain species diversity and abundance consistent with natural fluctuations,

including areas of high native species diversity and representative habitats.

NOTE: Matthew Craig, et al, in a paper entitled "Nearshore Fish Assemblage of the Scripps Coastal Reserve", Coastal Management 32:341-351, (2004) studied an area just north of the Casa Beach. They found that overall 59 marine species representing 31 families were recorded during 2002. The species were typical of soft bottom communities in southern California as well as pelagic, rocky reef and intertidal species. He concluded that the data supported the idea that incorporating habitat diversity as a variable in a reserve design may serve to increase the function of proposed reserves.

- 2. Protect areas with diverse habitat types in close proximity to each other. NOTE: Our proposal involves inclusion with the existing underwater parks, a complete pelagic, coastal and on- shore composite would be interlinked.
- 3. Protect natural size and age structure and genetic diversity of populations in representative habitats.

NOTE: Greater protections would allow the fish, mammals, birds and biotic masses to mature under much better circumstances than currently exist with very little protection provided and enforced.

4. Protect biodiversity, natural trophic structure and food webs in representative habitats.

NOTE: The existing food web is intact and would benefit by more protection than currently exists. Specifically, Casa Beach would contribute to the entire ecosystem, particularly if added to the existing La Jolla Underwater Reserve.

5. Promote recovery of natural communities from disturbances, both natural and human induced, including water quality.

NOTE: As a State Marine Reserve, comprehensive management standards which include these factors would be in place.

- Goal 2. To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
- 1. Help protect or rebuild populations of rare, threatened, endangered, depressed, depleted, or overfished species, and the habitats and ecosystem functions upon which they rely.

NOTE: In the case of an off shore oil spill, this protected area would be an essential resource to rebuild affected populations.

Parnell, P., et al., in a paper entitled "Effectiveness of a small Marine Reserve in southern California" Marine Ecology Progress Series, 296:39-52 (2005) found that despite 30 years of protection, only a few sessile or resident species exhibit positive effects of protection, and most

fished species have decreased inside the reserve. The results of the study reflect limited value of a small reserve.

NOTE: Our conclusion, therefore, is to broaden the existing limited underwater reserve and hopefully improve the level of species protections.

2. Sustain or increase reproduction by species likely to benefit from MPAs, with emphasis on those species identified as more likely to benefit from MPAs, and promote retention of large, mature individuals.

NOTE: The presence of a resident harbor seal population as the top predator in the food chain, which also contributes to the health of the food web, would greatly enhance the fulfillment of this goal. Many other beaches in the area of Casa are available for recreational activities, such as swimming, diving, snorkeling, kayaking, etc. Per Diane Kopec, et. al., in a study regarding harbor seals in the San Francisco area, it is stated that, "in the face of continuing urbanization, maintaining the integrity of harbor seal haul-out sites is important for protecting harbor seal populations." This would surely apply to the situation with the Casa Beach rookery.

3. Sustain or increase reproduction by species likely to benefit from MPAs with emphasis on those species identified as more likely to benefit from MPAs through protection of breeding, spawning, foraging, rearing or nursery areas or other areas where species congregate.

NOTE: This site was recognized as a harbor seal rookery by NOAA in 2001.

2. Protect selected species and the habitats on which they depend while allowing some commercial and/or recreational harvest of migratory, highly mobile, or other species; and other activities.

NOTE: There are "seasons" for harvesting certain species. The establishment of this beach as a Reserve would enhance their protection, as well as their health and the biodiversity, making them more accessible outside the boundaries of the reserve during the extractive season. As present, lobster traps are routinely set during the season. Spear fishing is also an active recreation.

- Goal 3. To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbances, and to manage these uses in a manner consistent with protecting biodiversity.
- 1. Sustain or enhance cultural, recreational, and educational experiences and uses (for example, by improving catch rates, maintaining high scenic value, lowering congestion, increasing size or abundance of species, and protection of submerged sites).

NOTE: Casa Beach is one of the most beautiful scenic venues along this coast. All development, other than the grassy park and comfort structures, are on the east side of the

coastal access roadway.

2. Provide opportunities for scientifically valid studies, including studies on MPA effectiveness and other research that benefits from areas with minimal or restricted human disturbance.

NOTE: This beach is already useful as a study area. See below.

3. Provide opportunities for collaborative scientific monitoring and research projects that evaluate MPAs that promote adaptive management and link with fisheries management, seabird and mammals information needs, classroom science curricula, cooperative fisheries research and volunteer efforts, and identifies participants.

Note: This beach is studied by classes of all types – ranging from elementary school field trips, ecology studies for middle school children, high school science, through graduate studies at UCSD and Scripps Institution of Oceanography. At the present, a "Harbor Seal Identification Study" is being conducted as a graduate thesis by a UCSD student, and a wildlife biologist is conducting a study of the behavior of the harbor seal relative to human interactions during the pupping season.

- Goal 4. To protect marine natural heritage, including protection of representative and unique marine life habitats in south coast California waters, for their intrinsic value.
- 1. Include within MPAs key and unique habitats identified by the MLPA Master Plan Science Advisory Team for this study region.

NOTE: Casa Beach is already a designated seal rookery (NMFS, 2001)). It is one of only two rookeries along the southern California coast – the next one being Carpinteria. Last year, 42 live births were observed by volunteers with an established group of docents. It is particularly well suited due to the slope of the beach from the ocean, the absence of rocks impeding access and the size of the beach (about 200 feet long) in relation to the number of the colony (estimates varies, within 200-300 members.) More studies of individual animals occupying this shoreline need to be done.

2. Include and replicate to the extent possible [practicable], representatives of all marine habitats identified in the MLPA or the California Marine Life Protection Act Master Plan for Marine Protected Areas across a range of depths.

NOTE: The beach gradually slopes away to the open ocean. There is an off- shore kelp bed, and nearby underwater canyons. The adjacent La Jolla Underwater Park is home to four distinct underwater landscapes – kelp beds, shallow rocky reefs, sandy plains and a submarine canyon.

Goal 5. To ensure that south coast California 's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.

1. Minimize negative socio-economic impacts and optimize positive socio-economic impacts for all users including coastal dependent entities, communities and interests, to the extent possible, and if consistent with the Marine Life Protection Act and its goals and guidelines.

NOTE: Casa Beach is a well-known tourist draw.

2. Provide opportunities for interested parties to help develop objectives, a long-term monitoring plan that includes standardized biological and socioeconomic monitoring protocols, a long-term education and outreach plan, and a strategy for MPA evaluation.

NOTE: It is highly possible that the Scripps Institution of Oceanography would take a lead in exploring possibilities for definitive uses of this natural site.

3. Effectively use scientific guidelines in the California Marine Life Protection Act Master Plan for Marine Protected Areas.

NOTE: This is quite feasible, given the interest and qualifications of the participants in this planning stage.

4. Ensure public understanding of, compliance with, and stakeholder support for MPA boundaries and regulations.

NOTE: As a reserve designee, the appropriate agencies would be tasked with providing this type of public information. There exists an already established volunteer organization, called La Jolla Friends of the Seals which promotes education to the general public. The organization has about thirty currently active members. La Jolla already manages the existing Underwater Reserve with informational and warning signage.

Goal 6. To ensure that the south coast's MPAs are designed and managed, to the extent possible, as a component of a statewide network.

1. Provide opportunities to promote a process that informs adaptive management and includes stakeholder involvement for regional review and evaluation of management effectiveness to determine if regional MPAs are an effective component of a statewide network.

NOTE: We believe this process would fall under the authority of existing management agencies, such as National Marine Fisheries Service, California Fish and Game Agency, et al.

- 2. Provide opportunities to coordinate with future MLPA regional stakeholder groups in other regions to ensure that the statewide MPA network meets the goals of the MLPA.
- 3. Ensure ecological connectivity within and between regional components of the statewide network.

4. Provide for protection and connectivity of habitat for those species that utilize different habitats over their lifetime.

6. ADDITIONAL INFORMATION:

6.1. Boundaries of Casa Beach: From the original 1931 Statutes of California, Chapter 937, an act granting certain tide and submerged lands in the State of California to the City of San Diego, San Diego county, upon certain trusts and conditions, in effect August 14, 1931, a location description of Casa Beach (aka Children's Pool), follows:

Section 1. There is hereby granted to the city of San Diego, county of San Diego, all the right, title and interest of the State of California, held by said state by virtue of its sovereignty, in and to all that portion of the tide and submerged lands bordering upon and situated below the ordinary high water mark of the Pacific Ocean described as follows:

Beginning at the intersection of the ordinary high water mark of the Pacific Ocean with a line bearing S. 87 degrees 40 minutes W. from the monument marking the intersection of Coast Boulevard South with Jenner Street as said monument, said Coast boulevard south and said Jenner street are designated and shown on that certain map entitled "Seaside subdivision number 1712" and filed June 23rd, 1920 in the office of the county recorder of San Diego county, State of California, thence North 350 feet, thence East 300 feet, thence S. 185 feet, more or less to the ordinary high water mark of the Pacific ocean, thence in a general southwesterly direction along the ordinary high water mark of the Pacific ocean, thence in a general southwesterly direction along the ordinary high water mark of the Pacific ocean to the point of beginning, all in the Pacific ocean, State of California, to be forever held by said city of San Diego and its successors in trust

- ...
- 6.2. Biodiversity in the waters: In discussing which part of the La Jolla kelp beds to set aside in a proposed MPA (to include the existing La Jolla Underwater Reserve), the southern kelp beds (from roughly Bird Rock to Mission Beach) are by far the most valuable. Some studies have shown the southern portion of the La Jolla kelp to be richer, with more diversity, than the northern portion (from Bird Rock to Boomer Beach and connecting with the City's underwater reserve). However, the northern kelp might be more depleted of species because it is fished more heavily (a well-known fact).
- 6.3. Value of Casa Beach: In order to include the seal rookery in a proposed MPA, the northern kelp must be afforded reserve status, and the seals must be shown to be a positive contributor to the richness of the ecosystem. From almost every standpoint, protecting the northern kelp makes more sense than protecting the southern. The northern kelp gets more nutrient-rich upwelling from the La Jolla submarine canyon, creating better fish habitat which is why the northern kelp has traditionally been the area favored by fishermen. In addition, having the northern kelp protected and including the existing La Jolla underwater reserve will have the effect of expanding the City's underwater reserve, which has always been too small in its

present state to afford complete protection to mobile species (such as kelp bass and lobster). Interestingly, in the early 1990's the La Jolla Parks & Beaches Committee discussed expanding the underwater reserve to the end of the Casa Beach seawall to alleviate this problem. It was never passed.

- 6.4. Another possibility: An obvious competitor for MPA status in San Diego County will be the Point Loma coastal area with its rich, sewage-fed kelp beds. It is important to keep the focus first and foremost on the most pure and naturally protectable near-shore area, which again is the northern kelp bed and seal rookery area. Having more than one MPA is, of course, desirable, and a second MPA off Point Loma is something we no doubt can support. The higher need now for Casa Beach use is for ecosystem protection/enrichment and public involvement with ocean wildlife.
- 6.5. Biodiversity: "The biologists tell us that every species has an essential and unique role to play in the food chain that supports us all." The harbor seals have evolved here and are specifically adapted to this place and climate. They are a productive, vital link in the ocean eco-system. The claim that this rookery attracts sharks is unsubstantiated, as large sharks prefer deeper offshore waters. There has not been a documented shark attack in this boundary since the 1950s.
- 6.6. Top Predators: As Ian Boyd, Sarah Wanless and C.J. Camphuysen point out in the introduction to their 2006 book, Top Predators in Marine Ecosystems, Their Role in Monitoring and Management, "the creation of marine protected areas based upon the distribution of marine predators is a management procedure that has a wider-ranging effect upon ecosystem sustainability than might be possible with procedures targeted at the exploited components of an ecosystem. This is underpinned by the principle that maintaining healthy top-predator populations is closely linked with maintaining a healthy ecosystem." Harbor seals are, obviously, top predators in the area.
- 6.6. Providing a healthy Ecosystem: A currently ignored clue about the role of the La Jolla seals in the nearshore ecosystem can be found in the conclusions reached by a student working under Pam Yochem and Brent Stuart to complete her masters thesis on scats collected in the La Jolla rookery. (Greenslade, V. R., 2002, Master's Thesis, "Comparative foraging ecology of Pacific harbor seals (*Phoca vitulina richardii*) and California sea-lions (*Zalophus californianus*) in the Southern California Bight".)

The thesis concludes that the seals are feeding on species found predominantly in the kelp beds and further offshore. Feeding offshore and defecating inshore provides a potential mechanism for mass nutrient transport, from offshore to inshore, which could provide mass inshore/nearshore nutrient enrichment. Regardless, seal fecal matter introduced into inshore/nearshore waters from any ingestion-source provides food for scavenger species and invertebrates, which then travels on up a rather short food chain.

One important possibility related to seal-induced nutrient-enrichment inshore is an increased blue-mussel biomass in the vicinity of the seal rookery. Blue mussels are a food source for

spiny lobsters. Since divers and others of our species like to eat spiny lobster, we should examine carefully how lobsters might benefit from seal poop, either by eating blue mussels or through some other food-chain source. Anecdotally, we know that the vicinity of Children's Pool is a hot lobster diving and commercial trapping area. (Jim Hudnell, La Jolla resident.)

- 6.7. Economic impact: Revenue from tourism is projected in the millions. Lifeguards estimate that on average, 95,000 tourists visit the seals each month from all over the world. If each tourist spent just \$5 for food, lodging, souvenirs, shopping, etc., revenue to the City would be \$5,700,000 annually. This is, of course, a gross underestimation.
- 6.8. The City of San Diego would benefit if the beach were utilized as an opportunity to install an ecotourism center and program. This could benefit the local economy and enhance the tax base for the city. The seals are listed number six in the top reasons people visit San Diego and are depicted in publicity pamphlets and brochures that attract tourists here. Visitor brochures depict a line of seals dozing at the sparkling waters edge. Habituated to our presence, they haul out to rest, undisturbed by delighted crowds watching as mothers interact with their pups.
- 6.9. A Special Place to Enjoy Nature: Casa Beach and the harbor seals were on the front page of Night and Day during the 2008 Buick Open. Numerous surveys and polls show that the majority of people want the seals protected. A 2007 survey of 400 school age children in La Jolla found that 90% would rather watch seals than swim there. In a 2007 Zogby poll, 80% of 602 San Diegans and 85% of La Jollans want the beach used for educational seal watching, not swimming and support having the rope line up year round to protect the seals. In a 2009 survey done by The La Jolla Light, a local newspaper, 80% wanted Casa Beach to be declared a Marine Protected Area.

7. Objectives

- 7.1. Casa Beach, with its intact, healthy unique coastal, marine interface would provide an opportunity to learn about the importance of nature, to appreciate the marine ecosystem and to understand the need to preserve the environment for future generations. Many local families from less affluent neighborhoods have never been to the beach or the waters edge let alone have had the experience of a close encounter with nature. This is an opportunity for children and the public to observe, learn about and connect with a local, accessible marine-coastal ecosystem.
- 7.2. Some of the ultimate goals of a protected area at Casa Beach could include: the establishment of an education and inter-institutional research program, restoration and rehabilitation of degraded habitat, provision of a monitoring site for general protection of environmental resources, enforcement of existing laws, identification of compatible uses and buffer zones, adaptive inter-agency management, partnerships enabling funding opportunities, construction of a visitor serving facility with offices for staff, and the establishment of docent and coastal marine training programs.
- 7.3. Marine Reserve status would provide a unique opportunity for cooperation and

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communication between elected officials, agency professionals, the research community, educators, non-governmental organizations and the general public to better understand the role of human beings in protecting the environment and the species dependent upon it both now and in the future.

- 7.4. Finally, with the outstanding opportunity that this rookery presence provides for the public to learn about marine mammals and their needs and ecology first hand, and the importance of coastal protection and conservation, it seems that preserving this rookery and its habitat coincides exactly with the goals and intent of the MLPA.
- 7.5. Decisions made by the MLPA participants will impact the ocean resources and value to the public for generations. A compelling opportunity exists with this extraordinary site and its rich and unique wildlife presence as a vehicle to educate and engage the public about the importance of coastal conservation. In addition to the educational impact, making Casa Beach an MPA, as an extension of an already existing protected area, would help to preserve an important, much needed habitat.

Individual MPA Proposal: La Jolla Area

South Coast Region SINGLE MPA PROPOSAL and Geographical Area of Interest

Submitted by James Hudnall February 18, 2009

Excluding from consideration the very important nursery estuaries and lagoons which still exist in the South Coast Region, an overview of the coast from Palos Verdes Point to the Mexican border reveals very few options for broad-based ecosystem-oriented coastal MPA's capable of protecting rock-reef-associated fish, mollusks and crustaceans as well as flatfish such as California Halibut and Diamond Turbot. Suitable geographical areas would include habitat comprised of extensive shallow, mixed rock-reef interspersed with coarse-sand area habitat, as well as fine sand "plain." Four general areas having this type of habitat come to mind:

- 1. Palos Verdes to Point Fermin
- 2. Corona del Mar to Dana Point/San Juan Rock, or, more generously, to San Mateo Point south of San Clemente
- 3. The La Jolla area from approximately offshore of the Southwest Fisheries Center at Scripps Institution of Oceanography through Bird Rock to Tourmaline Surfing park at the north end of Pacific Beach
- 4. South Ocean Beach to the tip of Point Loma.

Of these four, one area stands out above all of the others due to the breadth of the ecosystems represented and the diversity of species present. This is the La Jolla area. A marine-resources core portion of the La Jolla geographical area can and should become a "crown jewel" in the South Coast MPA system.

The marine-resources core portion of the La Jolla area being proposed as an MPA can be delineated and defined as a "package" of diverse but ecologically interrelated resources unequaled in richness by any other similarly-sized area along the South Coast mainland. With simple boundaries, it will include

- 1. A portion of major submarine canyon, the La Jolla Submarine Canyon, with upwelling and abundant squid egg-laying area at its head, located off La Jolla Shores Beach.
- 2. A shark and other cartilaginous-species breeding and nursery area also inhabited by sheep crab, located in shallow water south of the Marine Room Restaurant (at the south end of La Jolla Shores Beach) and northeast of the La Jolla Caves.
- 3. A resting area and possible spawning area for Giant Black Sea Bass, located in shallow water east of Goldfish Point and adjacent to the easternmost cave of the La Jolla Caves.
- 4. Seven large, partially-flooded sea caves, the La Jolla Caves, with extensive cormorant and

pelican roosting on the cliffs above.

- 5. A formerly abalone-rich rock-reef area with potential for regeneration of the species, located in shallow water adjacent to an area known as Devil's Slide" east of the La Jolla Caves and south of the south-end of La Jolla Shores Beach.
- 6. A rich juvenile and adult spiny lobster habitat which will continually replenish adjacent commercial and sport lobster harvesting areas, located throughout the marine-resources-core rock-reef areas but especially in the near shore area adjacent to the La Jolla harbor seal rookery.
- 7. An extensive offshore fine-sand-bottom "plain" with resultant habitat for such species as surf perch, turbot, halibut and sting rays, which also contains a repository for ancient Native-American artifacts, located offshore from La Jolla Shores Beach, with the Native-American artifacts zone primarily offshore from the La Jolla Beach & Tennis Club.
- 8. A series of coarse-sand pocket beaches with associated offshore coarse-sand areas interspersed with submerged rock-reef, home to halibut, lobster, potentially abalone, octopus, perch, opal-eye and numerous other species, located from Whale View Point and continuing northward and eastward to the southern end of La Jolla Shores Beach.
- 9. Extensive kelp beds with their numerous associated species, including sea urchins, sheephead, kelp bass and other canopy species, and pelagic species such as bonita, barracuda and yellowtail, located offshore from Whale View Point and continuing northward and eastward around Point La Jolla to the vicinity of Goldfish Point.
- 10. Top-predator, top-of-food-chain marine mammals, including a traditional and unique harbor seal rookery (with 44 pups born last year) and an established sea lion haul-out, the former located at Casa Beach/Children's Pool, and the latter located on the northern side of Goldfish Point.
- 11. Occasional-use gray whale resting habitat, located offshore from Whale View Point northward and eastward to offshore from the southern end of La Jolla Shores Beach.

Located within the marine-resources core of the La Jolla area being proposed as an MPA is an existing Area of Special Biological Significance (ASBS) known as the San Diego-La Jolla Ecological Preserve (or Reserve), which is referred to Statewide as the La Jolla State Marine Conservation Area ("LJSMCA"). Adjacent to the Ecological Preserve is the small San Diego-Scripps ASBS known as the San Diego Marine Life Refuge, which is included within the land and water boundary of the Scripps Coastal Reserve. Both of these areas lie within the outer boundary of the 6000 acre San Diego-La Jolla Underwater Park, the western boundary of which extends northward to Torrey Pines State Park.

The San Diego-La Jolla Ecological Preserve, or LJSMCA, also a designated California Critical Coastal Area (CCA), is located along approximately 1.6 miles of coast just north of Point La Jolla and has a depth range of 0 to approximately 280 feet. GIS acreage is 458.9, or, using the

Area of Special Biological Significance (ASBS) boundary, is 488.5. The legal basis for establishment of the site is the Ecological Reserve Act of 1968, 14 Cal. Code of Regs., Section 630.0. Site regulations can be found at 14CCR 630.0 (a), (b) (97). Legal authority and protective regulations for this site do not have any set expiration time.

Habitat within the existing LJSMCA includes course sandy bottom with rocky reefs and outcrops, boulder reef, giant kelp forests, seven partially-flooded sea caves, surf grass and an extensive fine sand "plain." The site also includes the shallow head of the La Jolla Submarine Canyon and a minimally-isolated California sea lion haul-out rock-complex. In a 2006 California Sea Grant College Program Research Completion Report entitled Effects of the San Diego-La Jolla Ecological Reserve on the Abundance Diversity and Population Structure of Reef Fishes, authors Phillip A. Hastings and Paul K. Dayton conclude, in their Summary:

"Our quantitative surveys demonstrate a significant positive impact of the San Diego-La Jolla Ecological Reserve on the reef fish populations of Southern California. These results add to a growing literature documenting the beneficial effects of marine protected areas. These results are especially important because these beneficial effects are apparent and demonstrable even for such a small reserve. Finally, our results indicate that the San Diego-La Jolla Ecological Reserve encompasses relatively unique habitat within the San Diego region, providing a sound scientific basis for its continued protection."

The LJSMCA has been the subject of other studies including one related to design and management of marine reserves. In a 2004 California Sea Grant College Program Research Completion Report by P.E. Parnell, Paul K. Dayton and Cleridy Lennert-Cody entitled The San Diego-La Jolla Ecological Reserve: Implications for the Design and Management of Marine Reserves, the authors state in their Abstract that "The kelp forests of California are an important habitat for many species of economically important fish and invertebrates." Further, they state that "There has been an alarming downward trend for many of these [economically important fish and invertebrate] species over the last two decades to the extent that the kelp forests resemble ghost towns." In the body of their paper, the authors report the following: "The entire La Jolla kelp forest, which is approximately 8 km. long and 1.5 km wide, was mapped using sonar and surveyed by scuba divers to determine the distribution of habitats and the animals associated with those habitats. Our results indicate that the Reserve has been effective for some species that do not venture far during their lifetimes. Of the fishes, these include the Vermillion Rockfish and Sheephead, and for invertebrates a reserve effect was only unambiguous for Green Abalone. We also found that the oceanographic climates differ between the northern and southern halves of the La Jolla kelp forest, and the most diverse habitats were located in the southern half of the forest. Discussions with stakeholders and observations on the use of the kelp forest by fishers indicate that the northern half of the bed is most values by stakeholders due to the presence of pelagic fish and the high recruitment of urchins. Taking into consideration the ecological finding that the southern half of the forest encompasses the most diverse habitat for non-migratory species, and that there would be greater opposition to the establishment of a reserve in the northern half of the forest, we recommend that a 'no-take' reserve be established in the southern half of the kelp forest from

Northern Pacific Beach to Wind'n'Sea."

[This writer (Hudnall) does not agree with the recommendation of the above authors. Many years of residence in La Jolla with hundreds of hours of snorkeling, scuba diving and fishing in the northern La Jolla kelp beds in the 1950s offer a clear recollection of extremely heavy use of the northern kelp beds by fishermen and divers taking non-migratory species. In those years, the northern La Jolla kelp beds were preferred over the southern La Jolla kelp beds for non-pelagic fishing and diving "take" due to the richer "take" resources present in the northern kelp. It is this writer's conclusion that the northern La Jolla kelp beds have been "fished out" from years of over fishing since the early 1950s, and that inclusion of the northern kelp beds in a MPA would restore an ecological richness and diversity far greater than that currently found in the southern La Jolla kelp beds. The "high recruitment of urchins," and proximity of the La Jolla Underwater Canyon and the LJSMCA to the northern kelp beds testify strongly to the potential for species replenishment here.]

In order for the existing LJSMCA to become an effective MPA for the propagation and replenishment of various resident marine species, it must be enlarged from its current size and extended to the south, around Point La Jolla, and to the west, to encompass the thick northern La Jolla kelp beds and the unique harbor seal rookery located at Casa/Children's Pool Beach. The protection of the harbor seal rookery, known as the La Jolla Harbor Seal Rookery (LJHSR) requires special consideration due to its uniqueness and the resulting extremely high educational and recreational values inherent in it, as well as the here-to-fore unconsidered ecological value to species diversity in the kelp beds and ecological enrichment of near shore habitat.

The LJHSR is located on a small (approximately 180-ft. long) coarse-sand beach protected by a seawall constructed in 1931. The seawall was constructed on top of an isolated nearshore rock-complex known on the oldest maps of La Jolla (1887 and 1894) as Seal Rock. Old photos indicate that small beach existed at certain times between Seal Rock and the mainland bluff prior to seawall construction. Although the City of San Diego has referred in recent years to another offshore rock in the vicinity (between Casa Beach and Shell Beach) as seal rock, today's U.S.G.S. map of the area also denotes the rock-complex under the seawall as Seal Rock.

The harbor seals of the LJHSR use this rookery every 24-hour day of the year, with less daylight use during the hot summer months. The rookery seals are somewhat habituated to human presence, especially to human presence on the sea wall and the walkways above the beach, which causes the seals to remain hauled out and doing their natural behaviors under conditions of human presence not tolerated by harbor seals anywhere else on the Pacific Coast. Pupping season occurs in this rookery earlier than in harbor seal rookeries farther north, occurring from approximately February 1 through April 15. Forty-two pups were born in the LJHSR during the last pupping season.

Harbor seals began recolonizing this rookery in the early 1990's as their population in the Southern California Bight expanded. Although the historical record is incomplete, the naming

of the rock now under the seawall suggests that harbor seals were seen using Seal Rock in the late 1800s. No mention of seals is made in records of 1931 seawall construction, however in 1928 one scientist (Bonnot) estimated that, due to hunting, only "a few hundred" harbor seals remained "in a few isolated areas" along the entire California coast. With the inception of the Marine Mammal Protection Act ("MMPA") in 1972, the California harbor seal population began to expand after its decimation, possibly reaching an "Optimum Sustainable Population level ("OSP" as defined by the MMPA) of approximately 31,000-34,000 animals by 2005. Approximately 80,000 to 120,000 people come to view the La Jolla harbor seals in their rookery every month, thus providing ecotourism dollars to San Diego and the La Jolla community as these people experience a recreational and educational opportunity unavailable anywhere else on the Pacific Coast. (Harbor seal behavior in the LJHSR has no similarity to California sea lion behavior in haul-outs such as Pier 39 in San Francisco, or even to sea lion haul-out behavior in the LJSMCA.)

The ecological benefits of a harbor seal rookery presence to nearshore waters are not well understood, but harbor seals, as top-of-the-food-chain predators, encourage species diversity in the kelp beds, according to California Fish & Game, and enrich waters immediately adjacent to the rookery through net transport of nutrients from offshore to inshore. The latter is suggested by the results of a scats study conducted with scats collected in the LJHSR, coupled with observations of seal defecation on the rookery beach (usually in the intertidal zone) and in the shallow adjacent waters. The conclusion of the scats-study researcher, Valerie R. Greenslade, who examined and identified otoliths in the seal scats, is that the La Jolla harbor seals forage well offshore, even beyond the kelp beds. With defecation on the rookery beach intertidal zone and in proximate waters, nutrients from offshore are introduced near shore to be utilized by invertebrates such as blue mussels and other scavenger species on up the food chain, enriching the nearshore ecosystem for the ultimate benefit of such species as the spiny lobster.

For a MPA of adequate size to be created in the La Jolla marine-resources core area, the MPA southern boundary should be located south of the La Jolla harbor seal rookery, extending westward 1.5 miles from Whale View Point (south of Casa Beach/Children's Pool) in La Jolla, the western boundary then continuing due north outside the seaward edge of the northern La Jolla kelp beds to a position directly west of Point La Jolla, the northwestern boundary then continuing approximately northeast to the northwestern corner of the San Diego Marine Life Refuge. The area shoreward of this boundary should be a no-take zone with rules identical to those of the LJSMCA.

With respect to the lists of fish and invertebrates to be found within the proposed boundaries above, there are many available references. The species listed, the behaviors noted, and the locations given in this proposal are the result of many years of personal underwater exploration by the author using snorkel, scuba, surfboard and boats of various sizes.

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