APPENDIX A

Public Scoping Documents

- **A1: INDEX TO PUBLIC SCOPING COMMENTS (Including Public Scoping Comments and Public Scoping Hearing Transcripts)**

- **A2: NOTICE OF PREPARATION**

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APPENDIX A1 - INDEX TO PUBLIC SCOPING COMMENTS

On January 19, 2018, the California State Lands Commission (Commission or CSLC), as lead agency under the California Environmental Quality Act (CEQA), issued a Notice of Preparation (NOP) and initiated a 30-day public comment period on the scope and content of the Subsequent Environmental Impact Report (EIR) for the Wheeler North Reef Expansion Project (see EIR Section 1.2.3, *Public Scoping (2018)*). On February 6, 2018, CSLC staff also held a public scoping meeting in Dana Point, to receive comments on the scope of the Subsequent EIR. Appendix A contains the comments received during public scoping, including letters and emails, transcripts of the scoping meeting, and any written comments submitted at the scoping meeting. Tables A-1 and A-2 below list the commenters and assign an identification number used to refer the reader to where the comment is addressed in the Subsequent EIR.

Table A-1. Scoping Commenters and Comment Set Numbers

Agency/Affiliation/Individual		Date of Comment	Comment Set
Agency (State)	Native American Heritage Commission	01/25/18	A1
Non-Governmental Organization	Surfrider Foundation	02/20/18	N1
Individual (in alphabetical order by last name)	Jeff Crumley	02/12/18	P1
	Merit McCrea	02/20/18	P2
	J.A. Ross	02/12/18	P3
	Craig Rothenburger	02/12/18	P4
	Brian Woolley	02/20/18	P5
Scoping Meeting (in order of appearance)	Ken Knielsen	02/06/18	M1
	Surfrider Foundation (Katie Day)	02/06/18	M2
	Jim Dahl	02/06/18	M3

Table A-2. Index to Public Scoping Comments

Comment # and Comment		Where Comment is Addressed in Subsequent EIR
Native American Heritage Commission		
A1-1	Need to determine whether there are historic resources within the area of potential effect (APE)	See Section 4.4, *Cultural and Paleontological Resources*, and Section 4.5, *Cultural Resources – Tribal*
A1-2	Information on Senate Bill (SB) 18 requirements	N/A. The California State Lands Commission (the CEQA lead agency) is a state agency; as noted, SB 18 applies to local government agencies
A1-3	NAHC recommendations for cultural resources assessments	See Section 4.4, *Cultural and Paleontological Resources*, Section 4.5, *Cultural Resources – Tribal*, and Section 7.0, *Mitigation Monitoring Program*
Surfrider Foundation		
N1-1	Request to address impacts to coastal recreation, including surfing	See Section 4.13, *Recreation*
N1-2	Request to address impacts to coastal processes, such as waves	See Section 4.6, *Geology and Coastal Processes*
N1-3	Request to address impact to coastal access	See Section 4.13, *Recreation*
N1-4	Request to address interference to marine mammals during unloading of quarry rock	See Section 4.1, *Biological Resources (Marine)*
N1-5	Request to address interference to marine mammals during quarry rock shipments	See Sections 4.1, *Biological Resources (Marine)* and 4.14, *Transportation (Marine)*
N1-6	Request to address viability of quarry rock within existing permitted quarries	See Section 4.9, *Mineral Resources*
Jeff Crumley		
P1-1	Concern that original reef failed to compensate for power plant impacts and that low relief kelp reefs have limited biodiversity	Section 2.2, *Project Objectives*, discusses Applicant requirements to supplement (i.e., increase acreage at) existing reef to meet California Coastal Commission coastal development permit performance standards
P1-2	Concern that conditions at Wheeler North Reef are not similar to those in surrounding area (e.g., high relief, incredible biodiversity and near exact habitat) and questions regarding existing monitoring program	Section 2.3.4, *Monitoring*, provides information on the existing and proposed monitoring programs (see also Section 4.3, *Biological Resources (Marine)*, which provides additional information on conditions at and monitoring of nearby reference reefs, such as San Mateo Rocks)

Table A-2. Index to Public Scoping Comments

Comment # and Comment		Where Comment is Addressed in Subsequent EIR
P1-3	Questions regarding original studies of sand flow, current effects found, and any follow-up studies or summaries	Section 4.6, *Geology and Coastal Processes,* discusses Project effects on coastal processes, including coastal sand transport
P1-4	Question regarding zooplankton in kelp curtain and species recruitment	See Section 4.1, *Biological Resources (Marine)*
P1-5	Question whether recent published paper by J.E. Granneman and M.A. Steele ("The Effects of Reef Attributes on Fish Assemblage Similarity Between Artificial and Natural Reefs") has been referenced or studied	Section 5.3.4, *Compound Reef at San Clemente*, addresses an alternative reef design (compound reef, with both high-relief and low-relief areas) to the low-relief reef proposed for the Project, such as that discussed by Granneman and Steele (2015); however, compound reefs and high-relief reefs are eliminated from consideration in the alternatives analysis as discussed in Section 5.3.4
P1-6	Concern regarding impacts to sea urchin fishery associated with lost habitat from the original construction of SONGS, subsequent destruction of inshore productive reefs associated with the Wheeler North Reef, and failure induced by short-sightedness of the reef design	The red sea urchin fishery is discussed in Section 8.3, *Commercial Fishing* (see also Section 4.1, *Biological Resources (Marine)*, regarding impacts to existing reefs)
P1-7	Support for adding high-relief structure strategically throughout existing acreage and to place the materials in a high relief (up to 2 meters) around low-relief kelp areas as the only ecologically sound solution to attract species and achieve biodiversity	A Project alternative design (compound reef, with both high-relief and low-relief areas) to the low-relief reef proposed for the Project is assessed in Section 5.3.4, *Compound Reef at San Clemente*
P1-8	Concern about cost of monitoring	Proposed Project monitoring is described in Section 2.3.4, *Monitoring*
Merit McCrea		
P2-1	Comments about location of reef expansion, suggesting that a site in deeper water and farther from shore would be preferable, and the Project objectives	Section 2.2, *Project Objectives*, discusses that the Project objectives are consistent with California Coastal Commission coastal development permit performance standards

Table A-2. Index to Public Scoping Comments

Comment # and Comment		Where Comment is Addressed in Subsequent EIR
J.A. Ross		
P3-1	Concern that 200 new acres of reef will add additional seaweed to the shoreline and request for mitigation for the seaweed so that it does not end up in and on the shoreline	Kelp wrack is discussed in Section 4.2, *Aesthetics*, and referenced in Sections 4.12, *Public Services*, and 4.13, *Recreation* (see also Appendix E for results of previous kelp wrack monitoring efforts)
Craig Rothenburger		
P4-1	Concerns that the prior plan did not work and that the Project will be irreversible, and asks if ecosystem would recover on its own now that SONGS operations have ceased	Section 2.2, *Project Objectives*, discusses that the Project objectives are consistent with California Coastal Commission coastal development permit performance standards
P4-2	Concern that Project will destroy surf breaks within its zone of influence	See Section 4.13, *Recreation*
P4-3	Request for consideration about short-term, intermediate, and long-term effects on the ocean from this reef expansion and whether it will generate unpredicted outcomes in areas not yet predicted	Section 2.3.4, *Monitoring*, discusses proposed Project monitoring, and Section 1.4, *Agency Use of Subsequent EIR/Anticipated Approvals*, discusses agency decision-making
P4-4	Request for information on agencies or parties involved in reef design and monitoring	Appendix B, *2018 Monitoring Plan for the SONGS' Reef Mitigation Project*, contains information on the scientists conducting monitoring and reviewing monitoring data, including C.V.s for the lead scientists and a summary of their qualifications provided in Coastal Commission review of the monitoring work plan.
P4-5	Recommendation about fishing industry and catch-and-release	See Section 2.2, *Project Objectives*
Brian Woolley		
P5-1	Concern that lack of fish in Wheeler North Reef area is due to the lack of high relief in this reef and the lack of current and clean water exchange in the shallow reef area, and that a high-relief reef in deeper water is needed to increase fish biomass and recruitment	Section 2.3.1, *Proposed Reef Design*, discusses the reef design and reef site selection criteria; Section 4.1, *Biological Resources (Marine)*, discusses existing conditions for marine biological resources (see also Section 2.2, *Project Objectives*)

Table A-2. Index to Public Scoping Comments

Comment # and Comment		Where Comment is Addressed in Subsequent EIR
PUBLIC SCOPING MEETING (February 6, 2018)		
Ken Knielsen		
M1-1	Suggestion about lobster season schedule and potential for Project activities to conflict with lobster fishermen laying out their traps	Section 2.3.6, *Proposed Project Schedule*, states that based on the current schedule, reef construction is expected to occur over approximately 130 days between May 1 and October 1, 2019, and that this timing would allow the Project applicant to avoid the lobster-fishing season (see also Section 4.13, *Recreation* [Impact REC-1: *Prevent Access to Recreational Sites or Disturb Users of Recreational Facilities during Times of Peak Use]*, and Section 8.3, Commercial Fishing). A note has been included in Section 2.3.6 explaining that there could be overlap between the end of project schedule and lobster fishermen placing their traps.
M1-2	Concern about cost of building and monitoring another kelp reef and spending mitigation money on piling more rocks on the bottom for a little bit of kelp	Section 2.2, *Project Objectives*, discusses that the Project objectives are consistent with California Coastal Commission coastal development permit performance standards
Surfrider Foundation		
M2-1	Recommendations to assess standing fish stock at reference reefs and consider species distribution and diversity	Section 2.2, *Project Objectives*, discusses performance standards associated with the existing reef and proposed Project (see also Section 4.3, *Biological Resources (Marine)*, for information on conditions at reference reefs)
M2-2	Question about site selection requirements and timing	Section 2.3.1, *Proposed Reef Design*, discusses the reef design and reef site selection criteria
M2-3	Requests to consider shoreline, surf rates, and marine mammal impacts, to have onboard observers during quarry rock transport and placement and to ensure vessel speed recommendations are met	See Sections 4.6, *Geology and Coastal Processes,* 4.1, *Biological Resources (Marine)*, and 4.14, *Transportation (Marine)*
M2-4	Request to address viability of quarry rock within existing permitted quarries	See Section 4.9, *Mineral Resources*
Jim Dahl		
M3-1	Statement that the existing reef is flourishing and is better than it was 5 years ago	Baseline conditions for marine biological resources are described in Section 4.1, *Biological Resources (Marine)*

Table A-2. Index to Public Scoping Comments

Comment # and Comment		Where Comment is Addressed in Subsequent EIR
M3-2	Question about Project purpose versus adding high-relief reef modules to expand existing reef	Section 2.2, *Project Objectives*, discusses that the Project objectives are consistent with California Coastal Commission coastal development permit performance standards
M3-3	Concern about cost of building and monitoring an expanded low-relief kelp reef	Section 2.2, *Project Objectives*, discusses that the Project objectives are consistent with California Coastal Commission coastal development permit performance standards; Section 2.3.4, *Monitoring*, discusses proposed Project monitoring
M3-4	Question if coordination on Project is occurring with U.S. Army Corps of Engineers and City of San Clemente beach nourishment program	Cumulative projects, including the referenced beach nourishment project, are described in Section 3 and analyzed in Section 4 for all resource areas

Comment Set A1: Native American Heritage Commission

STATE OF CALIFORNIA — Edmund G. Brown Jr., Governor
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

January 25, 2018

Sarah Mongano
State Lands Commission
100 Howe Avenue, Suite 100-S
Sacramento, CA 95825-8202

Sent via e-mail: sarah.mongano@slc.ca.gov

RE: SCH# 1998031027; Wheeler North Reef Expansion Project, City of San Clemente; Orange County, California

Dear Ms. Mongano:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE). To adequately assess and mitigate project-related impacts to cultural resources, the NAHC recommends the following actions:

A1-1

If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **SB 18 has tribal consultation requirements.** The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance SB 18 as well as compliance with any other applicable laws.**

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

A1-2

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

A1-2 (cont.)

Agencies should be aware that SB 18 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

A1-3

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

2

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

A1-3 (cont.)

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst
(916) 373-3714

cc: State Clearinghouse

Comment Set N1: Surfrider Foundation

California State Lands Commission
Submitted Electronically

Re: Wheeler North Reef Expansion Project NOP Comments

February 20, 2018

Dear State Lands Commission,

The Surfrider Foundation (Surfrider) appreciates this opportunity to provide comments to the State Lands Commission (SLC) regarding the proposed expansion of Wheeler North Reef.

Surfrider is a nonprofit environmental organization that engages a vast volunteer network of ocean users to protect the ocean, waves and beaches through conservation, activism, research, and education. We represent ocean recreation users from surfing to seabird watching and beach going, as well as the coastal communities and economies that rely on them nationwide. In addition to general enjoyment and health benefits, the coastal recreation and tourism sector directly contribute over $107 billion in national Gross Domestic Product and provide over 2.2 million jobs annually.[1] These recreation opportunities and economic contributions depend significantly on the preservation and protection of coastal and ocean ecosystems.

N1-1

As mitigation for the loss of kelp forest and fish biomass due to the construction and operation of the San Onofre Nuclear Generating Station, Southern California Edison (SCE) was required to build an artificial reef able to meet a range of environmental thresholds. Due to the inability to provide for adequate fish stock, SCE is proposing this additional expansion. We request that the next phase of reef expansion consider the following impacts:

- Any change, both temporary and long-term, to nearby surf breaks
- Any loss, both temporary and long-term, to coastal access
- Any interference to marine mammals, including the consideration of an onboard spotter to ensure that no marine mammals are in the area during the unloading of quarry rocks from barge
- Any interference to marine mammals during quarry rock shipments from the Channel Islands or Ensenada as a result of ship strikes
- Any terrestrial impacts in the event that a quarry expands in order to accommodate the demand for this project's requested rock

N1-2 to N1-6

Thank you for your consideration of Surfrider's comments regarding the necessity of adequate review of impacts associated with the Wheeler North Reef Expansion Project.

Sincerely,

[1] National Ocean Economics Program. "Ocean Economy Tourism and Recreation 2014". *Middlebury Institute of International Studies at Monterey Center for the Blue Economy.*

Katie Day
Staff Scientist
Surfrider Foundation

Comment Set P1: Jeff Crumley

On Feb 12, 2018 8:44 PM, "Jeff Crumley" <jeffroebodine@gmail.com> wrote:

"Wheeler North Reef Expansion Project NOP Comments"

Statement of:
Jeff Crumley - Commercial Sea Urchin Harvester
po box 2742
Capistrano Bch, CA.
92624

Note: in a February 13, 2018, follow-up email, Mr. Crumley requested that the word "biology" be changed to "biodiversity" on the third paragraph, last sentence.

Purpose:

Wheeler North Reef inception and design was sold to be a benefit to the environment, resources and compensate for degradation caused by the construction of SONGS. Not only has it failed to produce the proclaimed benefits, it has, in reality, caused more damage than the construction of SONGS did in the first place.
The real kicker in this conundrum... the means to produce a required amount of "fish." Well, to do this, why would the reef admittedly be designed low relief only to grow kelp? This is as myopic as can be. There is limited bio-diversity in a low relief kelp forest. **P1-1**

Example:
Place yourself in the forest of the eastern Sierra Nevada range. It's mostly a dirt floor with tree stalks, very little undergrowth if any. Then Place yourself in the forest of the Cascades in southern Oregon... Undergrowth, bio-diversity.... geeze, you can barely walk through it. This is what is lacking....Bio-diversity. There should be no difference to the surrounding biosphere. Crystal Cove, Laguna, Salt Creek, Poche, San Mateo. They all have the same high relief, incredible biology and near exact habitat.
Not at Wheeler North.
How can an ecosystem be measured for trophic dynamics when there are no trophic levels?...can't, there is no ecosystem. No biodiversity. **P1-2**

Environment:

Notice of preparation of draft for EIR:
SCOPE OF SUBSEQUENT ENVIRONMENTAL IMPACT REPORT-
section 4.2.1. Biological Resources.

There are several natural reefs inshore from the site. We have harvested urchins from these reefs for decades (documented). These reefs were prolific producers and teaming with biodiversity. Since the construction of the reef and subsequent kelp canopy, things began to change. These reefs are now deserted skeletons of their former glory. Very sad.

I am in the water observing the site more than anyone. More than the monitors. I see the monitors come out for an hour or two and survey their quadrant, count fish and leave. Why is no one monitoring the surrounding reefs? Did anyone survey the surrounding areas, take notes and compare observations? **P1-2 (cont.)**

Now, to be fair, there are oceanic conditions occurring that are unprecedented in recent history. There has been a sand issue in San Clemente since the storms of '83. A couple years ago the city imported tons of sand to their beaches and it all disappeared. I know where it is, I've seen it. The original cause for mitigation was presumptions of sand effect on bottom structure from the outflow....kinda ironic. What were the original studies of sand flow and current effect?...where is the follow up study and summary? **P1-3**

I have dubbed this reef as "the curtain of death." Such a magnificent canopy of kelp. How much zooplankton can penetrate this curtain and provide species recruitment for existing ecosystems inshore from the reef? **P1-4**

There is a recent published paper,
Granneman, J. E., and Steele, M. A. Effects of reef attributes on fish assemblage similarity between artificial and natural reefs. – ICES Journal of Marine Science, 72: 2385–2397.
Has this paper been referenced/studied? Sure doesn't appear so. **P1-5**

Collateral Damage:

Section 5.3.- Commercial Fishing

There is notation of the lobster fishery. I have found no mention of the sea urchin fishery. In fact, the urchin fishery has taken the biggest hit from all this. The taking of habitat from the original construction of SONGS, the subsequent destruction of inshore, productive reefs associated with the progress of Wheeler North Reef. The failure induced by shortsightedness of the reef design (one of my teachers used to talk to Dr. North, I am well read on AR's).
I have estimated the direct loss, just to my sea urchin landings, over the last five and into the next fifteen years will be around half a million dollars. This does not include the dozens of jobs economically connected....fish handlers, processor, fish markets, ect. **P1-6**

Summary:

I have raised several points that should require investigation/study before any production begins. I have shown failure to mitigate. Simple deduction should dictate alternatives. The simplest and most obvious alternative is to move forward on the requested time schedule. Only, divert the destination. **P1-7**

The only ecologically sound solution is to add high relief structure strategically throughout existing acreage. To place the materials in a high relief (up to 2 meter) around low relief kelp areas. This will attract species with habitat. I'll bet my livlihood within a couple years the tonnage and biodiversity would surpass expectations. What has been done, has been done. To double down is to repeat failure....Insanity(?).

P1-7 (cont.)

My final concern is monitoring. There seems to be a real issue with this. 1.5 million a year for insufficient surveys? Is this to double with the expansion?
Shoot, I'll do it for a third of that and provide three times the data... re-diculous!!
We know the political implications for SCE to have UCSB "study" the reef.
My opinion...the monitors know what I speak of and discard the obligation of truth in science. If they don't know, how are they qualified? Appearance indicates an economic fruit tree...proof is a grad student writing a thesis. This project is being touted as the most studied artificial reef in existence. The results make one wonder the quality of science.

P1-8

Cordially, Jeff Crumley

Comment Set P2: Merit McCrea

From: Merit McCrea [mailto:meritmccrea@hotmail.com]
Sent: Tuesday, February 20, 2018 3:10 PM
To: Comments, CEQA@SLC <CEQA.Comments@slc.ca.gov>
Subject: Wheeler North Reef Expansion Project NOP Comments

"Wheeler North Reef Expansion Project NOP Comments"

The project as proposed will be a widely distributed low relief reef in relatively shallow water. Its proposed design will avoid concentrating gamefish in such a way as to avoid enhancing local fishing opportunities, enhance the ability for divers to do scientific surveys by being in relatively shallow waters, with the likely cost of being in inshore waters which tend not to have as favorable water conditions (poor clarity, low circulation, yet high wave turbulence) for fish, fishing and recreational diving.

It is my perspective that the offshore edge of the reef contain several high relief components located as far offshore as the project area will allow. The objective would be to support recreational fishing opportunity lost at San Onofre reef, offer better scuba diving opportunities in more frequently clear water and thereby build additional public value and appreciation into the project.

P2-1

Best Regards,
Merit McCrea

Comment Set P3: JA Ross

From: JA Ross [mailto:reef_lover@hotmail.com]
Sent: Monday, February 12, 2018 12:12 PM
To: Comments, CEQA@SLC <CEQA.Comments@slc.ca.gov>
Subject: SCE Reef in San Clemente

I am very concerned about the impact of adding 200 acres to the existing artificial reef. The shoreline has been littered with dead, stinky, bug infested seaweed since the reef was laid down. Additionally, there has been so much seaweed in the water which is very unpleasant as well. There needs to be a solution that does not destroy the citizens of San Clemente's beach experience. I've lived here for over 30 years and until this reef was mandated the beach was pristine. Since the reef has not done what's been required, I don't see how doing more of the same thing is going to fix the problem. Please explore other options that will not result in more seaweed on our shores and mandate that SCE must include mitigating the seaweed that does end up in and on our shoreline. **P3-1**
Regards,
The Ross's

Comment Set P4: Craig Rothenburger

From: Craig Rothenburger [mailto:crothenburger@IBIGroup.com]
Sent: Monday, February 12, 2018 1:17 PM
To: Comments, CEQA@SLC <CEQA.Comments@slc.ca.gov>
Subject: SCE Artificial Reef expansion off San Clemente

I have the following comments:

1. If the Coastal Commission approved the prior plan and it didn't work, what makes anyone think that there is new capability that the now proposed plan will work? Whatever is done, will be irreversible. Did anyone consider that now that the nuclear plant is closed, that the ecosystem could possibly recover on it's own? **P4-1**
2. The construction of Dana Point Harbor eliminated the finest surf break on the west coast to park a bunch of wealthy people's boats, who rarely use them. Perverse motivations have destroyed what is best about Southern California. What gives anyone any confidence that this proposal will not destroy the surf breaks within it's zone of influence? **P4-2**
3. While no one argues that fish need a break from human impact, and that perhaps a reef does help fish repopulate, does anyone have any certainty about that the short, intermediate and long term effects on the ocean from this reef expansion will not have knock-on unpredicted outcomes in areas not yet predicted? Predicting the effects of objects in the ocean is more complex than humans can currently claim success on. **P4-3**
4. Who on the Coastal Commission, or in any of the agencies or parties involved, has a proven track record, qualifications and credibility on such activities? How is the public assured that an accountable party is producing the design, and if it fails will remove it? Something like this needs international scrutiny from experts in countries experienced in such endeavors. No sense in having the butcher, baker and candlestick maker arrive at a decision. **P4-4**
5. If the fish population is the suffering party here, perhaps reducing the fishing industry is the way to go. It has worked in the northeast where there has been a lot of overfishing. Worldwide the fish populations are collapsing, yet fishing for sport and commercial venture seems to have claimed the high ground in some perverse, short foresighted way. **P4-5**
6. I don't know who has the greatest influence among the stakeholders, but it seems the general public and their access to the beach, with surf breaks should have priority. Maybe make all fishing catch and release.

Craig Rothenburger AIA, LEED AP

Comment Set P5: Brian Wooley

From: Brian Woolley [mailto:brianwoolley@cox.net]
Sent: Tuesday, February 20, 2018 4:44 PM
To: Comments, CEQA@SLC <CEQA.Comments@slc.ca.gov>
Subject: Wheeler North reef

Attn: Sarah Mongano

My name is Brian Woolley and I am a captain at Dana Wharf Sportfishing in Dana Point, CA. I have been working at Dana Wharf Sportfishing since 1997. During this time I can tell you that I have spent over 200 days a year operating a CPFV and fishing the waters directly off of San Clemente and Dana Point. I'm an very familiar with the naturally occurring hard bottom reefs and the reef created as part of the Wheeler project in 2008. I've seen the kelp come and go from both areas as the years have gone by and as water cycles have evolved.

One thing that has been very noticeable has been the lack of fish in the Wheeler North reef area. I believe it is due to two key factors, one being the lack of high relief in this reef and the other reason being the lack of current and clean water exchange in the shallow reef area. Clearly the end goal of the 28tons of fish per year will never be met with the current state of the reef. No matter how much kelp is planted and re-planted. The key to the fish biomass is the high relief in deeper water. I strongly believe that a high relief reef built out in waters over 60' and closer to 100' would show a much better recruitment of fish. Not only will you see a diverse mix of common shallow water kelp forest fish like your kelp bass, sand bass and sheephead for example but you'd also recruit the deeper water species such as rockfish, ocean whitefish, sculpin and lingcod.

With regard to the current and clean water exchange...I can tell you that the downhill current inside the Capistrano Bight is very slight if not non existent on most days. The times we have big water movement inside the bight is during large tidal movements or strong swells. Out deeper in water close to 90' however there is an almost constant movement of water downhill. If you were to draw a straight line on a chart from the Dana Pt headlands down towards the persistent kelp bed off San Mateo Pt you would have a demarcation line of where the prevailing current pushes. Outside the line is where you'd find the good water movement. Inside the line is where the water is typically untouched inside the bight by the current. And obviously inside that line is where the Wheeler reef is. It's no wonder the kelp in the reef always looks unhealthy and encrusted. Without the water exchange the kelp isn't growing to its potential, the fish aren't moving in and the reef isn't going to ever meet its required criteria. And quite honestly if the whole premise of the Wheeler Reef is to mitigate damage from the SONGS outflow over the years I find it troubling since the outflow was pushed DOWN the coast with what little current there was. The real winner of a kelp forest has been the San Onofre kelp bed. This bed is almost always being pushed and moved by good current. But it's not in deep water. Just over 60 feet in the deeper spots. The amount of kelp bass in this bed is amazing. The fish live in this bed because there is just about always good downhill current.

P5-1

I realize that the end goal is to establish an artificial reef system that that duplicates what was lost due to SONGS outflow. But without the current moving water in and around the reef nothing will ever take. Simply put, the proposed extension to the Wheeler Reef in the shallow water won't work. Even with the high relief. Again both the high relief and the current in deeper water is what's necessary.

Thank you allowing me to share my concerns and provide my practical input.

Regards,

Capt. Brian Woolley
Dana Wharf Sportfishing
40 year San Clemente resident

As a side note: There is a wreck of the bait seiner boat ACE out in 20 fathoms off San Clemente that went down in 2005. The amount of fish on this thing is staggering. It's deep, it has high relief if you will because the ship is on its hull side, and the current that runs over it keeps this thing alive!

https://www.google.com/amp/www.latimes.com/socal/weekend/news/tn-wknd-et-0927-dana-point-boat-accident-20150927-story.html%3foutputType=amp

https://cadivingnews.com/dive-spot/ace-becomes-southern-californias-newest-dive-site/

Comment Set M: Meeting Transcripts/Speakers

SCOPING MEETING

FOR CALIFORNIA STATE LANDS COMMISSION EIR

WHEELER NORTH REEF EXPANSION PROJECT

SAN ONOFRE NUCLEAR GENERATING STATION MITIGATION MONITORING PROGRAM; WHEELER NORTH REEF EXPANSION SEIR NOTICE OF PREPARATION HEARING

FEBRUARY 6, 2018,

CALIFORNIA STATE LANDS COMMISSION.

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REPORTER'S TRANSCRIPT OF PROCEEDINGS, taken Tuesday, February 6, 2018 at Ocean Institute, 24200 Dana Point Harbor, Dana Point, California, beginning at 1:34 p.m. and ending at 2:20 p.m. on Tuesday, February 6, 2018, before EVE M. JAMES, Certified Shorthand Reporter No. 9934.

Ocean Institute

Dana Point, California

Tuesday, February 6, 2018

1:34 p.m. - 2:20 p.m.

MS. MONGANO: Okay. Good afternoon. At this time I'm going to start the public hearing for the Wheeler North Reef Expansion Project. It's Tuesday, February 6, 2018 at 1:30 p.m., roughly.

I want to welcome and thank you all for coming. We appreciate your interest in the environmental review of this project. My name is Sarah Mongano. I'm a senior environmental scientist with the California State Lands Commission, Division of Environmental Planning and Management, and I'll be overseeing the preparation of the subsequent Environmental Impact Report, EIR, for this project in compliance with the California Environmental Quality Act or CEQA.

With me from the State Lands Commission is project manager Ben Johnson from our legal division, and then we have Mike Henry, Joe Monaco, and Candice Disney Magnus representing the consulting firm of Dudek & Associates for the State Lands Commission.

The California Coastal Commission is assisting in the preparation of the EIR, and we also have representatives from So Cal Edison today. The purpose of this meeting is for the public to provide input and comment on the scope and content of the analyses of the California State Lands Commission EIR. The secondary purpose is to ensure that all oral comments presented today are recorded in the transcript, and we have a court reporter here for that purpose. Written comments are to be provided by February 20, 2018 and there will be more information on exactly how to do that.

First, I want to go over a couple logistics and details. We have sign-in sheets on the back table so that we can have a complete record of the attendance at this meeting and so you can be added to our mailing list to receive any notices. We also have speaker slips on our table for anyone who would like to speak on the scope and content of the proposed EIR. You can use the back of those slips to provide a brief written comment and you can hand those to me or you can email, fax, or mail your comments to the address that's in the Notice of Preparation. Additional copies of that are also on our table in the back of the room.

Before we open the meeting to public comment, Dudek and the Coastal Commission have a presentation to share with you describing the project and the CEQA process that will follow. And when the presentation is complete, I'll open the public comment session. Thank you.

MR. SCHROETER: Good afternoon, everybody. My name is Steve Schroeter and I am one of three research biologists at UCSB. My colleagues Dan Reed and Mark Page are working with me on the San Onofre Nuclear Generator Station monitoring project, and what I'd like to do today is just briefly go over our monitoring project and some of the results and talk a little bit about that.

Okay. So the SONGS generators are cooled by a single-pass seawater system. This diagram shows the location of SONGS 2 and 3, which are no longer operating. The nuclear reactors of SONGS 2 and 3 took in a large amount of sea water, about 24 billion gallons a day, equivalent to a mile square, 12 feet deep, and they discharged them via to approximately a mile long diffuser system offshore.

The recent mitigation that I'll be discussing today is linked to the adverse effects of the SONGS cooling water system on the marine environment. The discharge created a turbidity plume associated with the diffusers, which has been indicated as a cause for substantial reduction in the size of the San Onofre kelp forest and the associated fish, plants, and invertebrates.

The California Coastal Act requires mitigation from marine impacts and the California Coastal Commission is responsible for implementing the Coastal Act. In 1997, as mitigation for the impact of the San Onofre kelp forest caused by SONGS, the Coastal Commission required two things from Southern Cal Edison or SCE.

The first was to construct an artificial reef that creates a minimum of 150 acres of kelp forest habitat to compensate for the losses of kelp, kelp bed fish, and invertebrates, and algae. And the second is to provide funding for scientific oversight and monitoring of the mitigation project that is independent of Southern California Edison.

This slide is a schematic of the mitigation reef as it is now. The yellow rectangle shows the location of the artificial reef, which was constructed in two phases. The first phase was an experiment to determine combinations of coverage and material on the development of the reef. It's about 22 acres. It was completed in October of '99 and there was a five-year monitoring to determine what it did. And the second phase is about 152 acres, completed in September 2008. Together, Phase 1 and Phase 2 combined are called the Wheeler North Reef.

As shown on this are the locations of the San Mateo kelp forest just south of the artificial reef, and the Barn kelp forest, which is about two and a half kilometers south, and the location of the power plant SONGS is also shown there.

The diagram on the left gives a little bit more detail. The green polygons are the Phase 2 reef, the purple squares are the Phase 1 reef, and the black lines are the location of our sampling areas, which are 50 meters by 20 meters, where we take all of our measurements.

There is a total of 93 sampling stations on the Wheeler North Reef and there are 82 stations on each one of the reference reefs that are arrayed in a similar fashion to the stations on the Wheeler North Reef.

There are two kinds of performance standards that we measure. There are absolute standards that are measured only on the artificial reef, the Wheeler North Reef, and these standards include measurements of area kelp and hard substrate and of fish standing stock and, also, there's another one that's looking at invasive species. And then there are a number of relative standards that we measure both on the artificial reef and the Wheeler North Reef and the two reference reefs, and these standards encompass measurements of the algae, invertebrates, and a number of parameters for the fish and food chain support of the density of the fish population.

SONGS Reef Mitigation Compliance. The goal of the SONGS reef mitigation compliance is to replace kelp forest resources lost by the SONGS operation. One year of mitigation credit is given for each year that Wheeler North meets the performance standards. Fulfillment of the SONGS reef mitigation requirement will occur when the number of years accrued of mitigation credit equals the total years of operation of SONGS.

This slide summarizes the mitigation monitoring through 2016, from 2009 to 2016. And some of the salient features here are the green means that the performance standards were met and the red means the performance standards were not met.

On the top row you can see all green and that means that the Wheeler North Reef has met all the relative standards. So it is performing like a natural reef, which is good news.

There are red circles. Two red circles for kelp. So initially when the reef was first put in, there wasn't time enough for kelp to recruit. Subsequently there was a lot of kelp recruitment. Most of the area in the Wheeler North Reef had the required density of adult kelp, but in 2016 it did not. But from the standpoint of remediation, the most important are always fish standing stock and fish standing stock has not been met in any of the years since 2009. The fish standing stock requirement is for 28 tons of kelp bed fish.

So the number of years of credit needed are 30. The number of years of credit earned so far has been zero. So that's why we're considering remediation.

This outlines it a little bit in more detail. So the graph on the right shows the fish standing stock and the dash line shows the 28-ton level. The fish standing stock has varied from about 6 tons to a maximum in 2014, during warm water, to about 25 and a half tons and then subsequently it's actually gone down.

So if you look at this time series, you can see that there's really been a reduction and there's no reason to expect that without doing some remedial action it would ever make the 28-ton standard.

There was an extensive analysis that we did based on our monitoring data and we came to the conclusion that the reason Wheeler North Reef has failed to meet the performance standard for fish standing stock is that it's too small to sustain 28 tons of fish.

The executive director of the CCC required Southern California Edison to remediate Wheeler North by building additional reef acreage to support a fish standing stock of 28 U.S. tons. And this is a little bit more detail on the requirement to remediate. In May of 2016 the executive director informed Southern California Edison that it would be required to remediate Wheeler North Reef by adding additional acreage, and there are several configurations, based on our analyses, that we put forth. All of the additional acreage is low relief, similar to the present configuration of Wheeler North Reef and the two reference reefs and the San Mateo kelp forest.

One option is 41 percent low relief, which is similar to the existing reference reef in Wheeler North Reef, and that would require an additional 200 acres of reef. The intermediate cover of 63 percent would require 125 acres, and the high cover option would require 81 percent cover and it would require 105 acres, about half of the low cover option.

Southern California Edison is proposing the project described in the NOP to satisfy the requirement. And for more information, as part of our mandate, we've been holding public technical workshops. The next workshop is on Monday -- that is wrong. It's actually April 9th. Okay. So it's April 9th and it's going to be held here at the Ocean Institute. And for more information you can visit our website and we have a plethora of information in our documents and workshop results and annual reports.

Thanks for your attention.

MR. HENRY: Thank you, Steve. So as I mentioned, my name is Mike Henry. I'm a senior ecologist with Dudek and we were brought on by State Lands Commission to provide an independent evaluation of the effects of the project that So Cal Edison is proposing to expand the Wheeler North Reef to meet the Coastal Commission's requirements.

So Steve already went over some of the material here. We talked about the purpose of the hearing is to provide a brief primer on the project and to take in your input on the project and what you believe subsequently we should be analyzing.

We will provide a brief history of San Onofre and the need for the original Wheeler North Reef, and then also the purpose for the current proposed project, which is basically to meet the unmet criteria on the standing fish stock.

So the other things I'm going to go through is a brief overview of the previous CEQA process that was done for the project back in 1999; the proposed project description now to expand Wheeler North Reef; a brief overview of project alternatives, and then we'll just talk about the overall CEQA process schedule and opportunities for future comment on the project.

At the close of this we will receive our oral comments. We have a court reporter here to transcribe anything that is said and she can take that down. I only have one speaker slip so far. So if you do wish to speak, please fill one of those out and turn one in toward the end of the process here.

So the previous EIR was prepared and certified in 1999 and covered the Phase 1 and Phase 2 reefs as they're known, and that's the portion that Steve discussed, and adds up to 174 total acres. Our subsequent EIR is from that earlier 1999 document. It's a similarity of project and a similarity of project area and the design is similar to a lot of analyses that was done for that 1999 EIR. It was actually quite a good document for its time and we incorporated information from that document. However, time has moved on. The baseline conditions are different partly because of the existence of that Phase 1, Phase 2 Wheeler North Reef. There are resource areas that weren't looked at in 1999, for example, greenhouse gases and some other ones that are looked at differently now than then. That document also considered extensive transportation of rock by roadway. Whereas the current project and all the alternatives only look at margin for construction. So the 1999 program EIR is available on the State Lands Commission website right now. It also will be included in any future CDs that are made of the project and the subsequent EIR that is distributed will be distributed along with it.

So Cal Edison has applied to State Lands to amend their existing lease number, which is PRC 8097, and that's the lease that covered the existing Wheeler North Reef to expand it to an additional 200 acres of new reef.

The purpose and need for the project was, as I said, previously described by Steve. All of the alternatives that are being discussed at this point are low relief quarry rock, so not looking at high relief reefs. The reefs in the area are low relief reefs, the Wheeler North Reef is, and the San Mateo rocks and the San Onofre kelp reef is low relief.

So Cal Edison at this point is proposing similar construction methods used in 2008. They worked well at the time. The technology has moved on somewhat, but not dramatically, so it is proposing to use similar methods. Construction is proposed to occur over two different seasons, starting in late 2018 and then picking up again in 2019, and I'll provide some additional detail and schedule later.

So when trying to identify the location to place the new reef area, So Cal Edison's engineers went through a fairly extensive siting process. I listed the criteria they used here. Some of the key ones are the water depth had to be between 11 and a half and 15 meters. If you go outside that range, it's not suitable for kelp growth. It's not suitable for ideal levels of kelp growth and improvement. They want it to be near the existing kelp to make it more likely that kelp would recruit to the new reef. Sand thickness needed to be fairly thin so as to not bury the quarry rock as soon as it's dropped on the seafloor. They want to also cover a minimum of existing hard substrate. They didn't want to be dropping rock on top of existing hard rock and substrate, so a combination of thin sand with a minimum of exposed hard substrate. And, also, looking at areas that had kelp in them. They want to avoid any areas that had kelp present for more than a year. And finally they also wanted to avoid existing reef areas. So they spaced it away from the existing Wheeler North Reef and a good distance from areas of special

interest, such as known fishing sites, and this is similar to previous criteria they had used.

In order to do a proper process of siting, they needed to collect some data. So they collected multibeam and side scan sonar, sub-bottom profiling and jet probing to get at things like water depth, the depth of the sand, areas of any hard substrate; that's the type of data collection they needed to do to get that. And also they conducted diver-based biological surveys to characterize the existing bio that was present on that same bottom bed.

So this is some of the results of the site studies. The one on the left shows the bathymetry. You can see the ideal kelp growth is in green. So you can see that a lot of the existing reef in red there falls within that zone, but the new proposed reef is even, I'd say, more ideally suited within that ideal zone. So the new reef areas are proposed in white here. There's a little segment east of the existing Wheeler North Reef near the shore and then the bulk of it stretches north of the pier area. The figure on the right shows the historical record of kelp and you can see how the proposed kelp polygons in red there avoided the areas of existing kelp coverage.

This is the list of species that were observed on the existing sandy bottom area where they propose to put the rock. If you look at the list, you'll note there are not any species on this list that are particularly unusual or subject to any special protection as far as like sand dollar beds and things like that. These are the characteristic sandy bottom primary species in that area and as you can see sea fans is a basic species in this area.

So this diagram is similar to what you'll see over on the poster board, showing again the location of the new reef in relation to the existing Phase 1 and Phase 2 reefs. The black outline you see around it is sort of a conservative estimate of the action area where there can be disturbance to the seafloor.

As you'll see a little bit later, the barges have to anchor to the seafloor and so we wanted to establish an outer parameter of where impact temporarily occurs to the seafloor during construction, a 250-meter buffer around the outside of the proposed reef polygons.

As you can see, that area extends into the existing reef on the southern portion and that is shoreward of the existing Wheeler North area and this is a buffer around the edges.

This is schematic diagram of the construction methods that are used. I wish I had a pointer, but I don't think I do. So the larger square or rectangle on top is the derrick barge and that will be anchored out at the site and will remain at the site for the duration of the construction.

The barge has a derrick crane on it and that's where the bulk of the crew remains while doing construction operations and that will be anchored to the seafloor by six anchors. A differential GPS anchor system allows you to precisely place that on the project area. Just below that you'll see another rectangular piece that is the supply barge that has the quarry rock placed on it and then a front loader will push the quarry rock off of it in what looks almost like a pattern on the seafloor. And so the barge will move very carefully, piece by piece, making line after line after line of quarry rock to form those polygons that are shown on the figure. So it's a slow and careful process to put the rock exactly where

it needs to be. The derrick crane moves the front loader on and off the supply barge that bears the rock. Once the rock is exhausted, they have to lift the front loader off of it and back on the derrick barge and a new supply barge is brought in and attached to the derrick barge and then the front loader is placed back on the new barge to begin again.

These are some pictures that were taken of that process and this is from 2008. Again, like I said, the same construction methods are being proposed for this process. You can see in the upper left a supply barge that's actually a supply barge being kept waiting to be swapped in. You can see the derrick barge in the distance.

The next one is a closer shot of a derrick barge with the crane down. The next one shows the front loader being lifted onto a new supply barge for the rock, and then the last one shows a front loader pushing the rock off of the supply barge onto the seafloor.

Most of the quarry rock is proposed to be sourced from Catalina quarries. Two quarries on Catalina, they have extensive reserves. And in doing the analysis for the EIR, we have spoken to the manager of those quarries and they have very extensive reserves. However, in order to stockpile a large amount and have it ready to begin construction this season in 2018, a limited amount of rock will need to be brought up from Ensenada. So that's not shown on this figure, but it's shown on the figure over there. Ensenada is about, I believe, 50 nautical miles or so south of the U.S. border. So it makes for a slightly longer barge trip, but only four to six barges will be brought from Ensenada, where the bulk, 24, 26, something like that, will be coming from Catalina. So the location, you can see where the lines are converging and that's the project site just south of Dana Point Harbor, and here is Empire quarry and Pebbly Beach quarry to the west on Santa Catalina.

The Port of Long Beach is shown on here because it may work as a stopover point. When barges are transiting from Catalina to the project site, they may go to the Port of Long Beach first. Loaded barges move very slowly, about four knots. Depending upon how the crew timing works out, they may stop by Port of Long Beach for the night before continuing on to the project site. They may also go straight between the quarry and the project site. It is to be determined. The PEIR impact analysis, assuming the worst-case scenario, is that they go through the Port of Long Beach and make that longer trip.

So the project schedule is proposed to begin construction this year. It's a very aggressive, fast schedule, so wanting to start August 1st, 2018, continuing through September 30th, 2018 and stopping to avoid the beginning lobster season and also when increment weather makes construction difficult. The second construction season is scheduled to begin June 1st, 2019 through September 30th, 2019.

A brief description of the project alternatives. Steve mentioned the three different action alternatives.

On the left there you have the project that is proposed. The next three panels there show different scenarios with a different amount of coverage of the seafloor. So basically more tightly packed ones where within the polygons a greater amount of seafloor is being covered and so you wind up seeing smaller and smaller polygons with the alternatives having greater and greater coverage within the polygons. So there's

three different reconfigurations being looked at in addition to the proposed project within the same general location. You can see some of the polygons are shifted, but within the same general area.

We're also looking at an alternative where all the construction would occur in 2019 in case all the hurdles cannot be jumped in time to begin construction in 2018, so a scenario where all 200 acres will be built in 2019. This is not necessarily an exhaustive list of alternatives. We're open to receiving additional suggestions on alternatives to evaluate the EIR.

So based on our preliminary review of significance, we identified resource areas in the SEIR and some that could be discarded from further analysis. Ones that are shown in bold on this list are the ones that we're paying particular attention to because of public sensitivity regarding them and a potential for significant impacts in the resource areas. Those are marine biological resources, air quality, greenhouse gas emissions, recreation, and marine transportation. So the list of resource areas to be examined generally parallels the 1999 program EIR but is not substantially different.

You have new things to the resource areas. For example, tribal cultural resources are to be considered and cultural resources. Greenhouse gas emissions was not a resource area examined back in 1999, and our transportation section focused solely on green transportation because of the trucking law.

You'll notice some typical CEQA areas that are missing here. Agricultural and forestry resources are not particularly relevant to this project six miles offshore. Terrestrial biology, the project is entirely offshore so the effects are not on terrestrial biology.

So a brief overview of the CEQA process. Notice of Preparation was released on January 22nd. Hopefully you received notice if you were on the list, and if you were not noticed with that and would like to be added to the list, please put your contact name on the sign-in sheet. NOP hearing is today. We're all here. The close of Notice of Preparation period is February 20th. That's when all comments need to be received, postmarked by and received, written comments and email comments.

The draft SEIR, subsequent EIR, is expected to be released March 2018. As I said, this is a very fast process to prepare this in order to meet the targets for construction scheduling. There is a 45-day public review because this is a coastal project. The public review is expected to occur during March and April 2018.

We expect to release the final subsequent EIR, hopefully with response to comments that were made to the draft, in May of 2018. And the proposed statement on the CSLC meeting on the project is scheduled for June 2018. These are all subject to change, but that is the schedule as proposed right now. And I believe the Coastal Commission is proposing to conduct a simultaneous meeting with the Coastal Commission hearing at the same time as the State Lands Commission's.

Now, comment on the Notice of Preparation. The easiest way is by email, either putting the text or comment in an email or attaching it to an email. Please make sure you write "Wheeler North Reef Expansion Project NOP Comments" in the subject line. It makes it a lot easier for the State Lands Commission to sort things because that serves all of their projects.

Comments can also be received orally at this meeting, we do have a court reporter to take your oral testimony, and by snail mail as well.

The address to send things is in the NOP and I believe I also stuck it at the end of this, but the Notice of Preparation has all the addresses that you need.

So I believe at this point we're going to open up the oral comments for those that wish to. Please try to limit your oral comments to three minutes. We're not going to be here with a band playing you off, but if you have more extensive comments than those, it's easier to put those in writing.

Here's the address to send the comments to by mail and it's the same address that's in the Notice of Preparation, so if you have that, or you can download that and you don't need to write this down separately. Is anybody writing it down? Would you like me to leave it up there? I see somebody writing. I'll leave it for just a second.

MS. MONGANO: I can collect the comments, so if anybody would like to speak.

MR. HENRY: I have a few tips for making good comments on the Notice of Preparation. This is kind of a different way of making comments on an EIR, different stage of the process. So to be most effective, comments on the NOP should focus on the potential impacts that you feel the subsequent EIR should analyze and potential alternatives you think the SEIR should evaluate and any mitigation measures you think should be considered if there are significant impacts. We're not taking questions right now, but we're open for comments at this time. I have one speaker slip up here and a microphone that I can hand off to you if you'd like. Ken Knielsen and Katie Day. I have Ken's first.

MR. KNIELSEN: Okay. I'm Ken Knielsen. I'm a 70-year resident of San Clemente. I'm a commercial fisherman, a diver and I've done a lot of work with biologists at San Onofre. Now, one thing I wanted to comment on was when they built the last three, everything went well. They stayed out of the way and didn't run over people's gear. Everybody was happy with the construction crews, the way it went. They did what they said they were going to do and they played by the rules and everything went well.

I think one thing you should look at is the lobster season. I believe now you can put gear out ten days before the season and the season opens on the first Wednesday of the month. So I think you're stretching it out a few days. That's a hectic time with thousands of traps coming out and you might be right in the middle of crisscross. So you might consider that. **M1-1**

Now, the old reef has worked wonderful. It was built as a kelp reef. I don't think I missed any meetings of this since day one, before you built the reef. And at every single meeting I brought up the fact aren't we going to do something for the fish? And the comment was this is supposed to be a kelp reef, not a fish reef. I have been told that -- I can't tell you how many times I've been told it's a kelp reef, not a fish reef. It's a great kelp reef and it supports the kelp unbelievably, but now we're going to build another kelp reef. What is the cost to monitor that kelp reef? It's going to double to monitor both of those reefs. How much is that going to cost? What's the cost of building this reef? I think this mitigation money could be spent for something better than piling more rocks on the bottom for a little bit of kelp. I don't know how much kelp they missed in 2016 or how **M1-2**

much in 2017. I don't know, I really don't. Do you know, Steve? Okay. So it didn't meet the criteria for two years in a row, so we do need a little bit more help, but do we need 175 acres hard bottom to create that kelp? And personally, when I want to fish in the area for fish, I don't go to low relief, I go to high relief. And there's three major high relief areas in this area that we've fished since I was 10 years old. I haven't seen any high reliefs being built and I think it should be done. And I think there are some other biologists that suggested that, also. I don't know how much kelp we really missed this year, so Steve would have to tell you that. How much rock do we need to make up for the kelp?

Plus, as I said, from day one, when God wants kelp to grow, it grows on everything. The rocks are already there. It isn't as much as it used to be apparently, but it'll be back in my lifetime. I've seen kelp go away and totally come back three times, totally gone and totally back. Even during when San Onofre was ordered to do this was after they did the study that decided they had destroyed the kelp, the kelp was so thick you could walk on it. It's a cyclical thing and ratepayers are paying for this and I think you should pay attention to that and be aware of it and try to cut the loss a little bit. Do something for the fish and a little bit for the kelp if you have to, but let's not monitor it, because it looks like you're going to be monitoring it for another 100 years or 300 years, because if things aren't working and you get one mistake, it starts over, 30 more years. And anyway, I don't want to be rude. I'll pass it on. **M1-2 (cont.)**

MR. HENRY: Thank you.

The next one is Katie Day.

MS. DAY: Hi, I'm Katie Day. I'm a staff scientist with the Surfrider Foundation. And unlike Ken I'm new to this project, so I'm kind of getting up to speed, but I am curious or I'm -- I just want to express that I think it's important to consider where the standing fish stock may be currently on the basis of the reference reefs in the area so you get an idea of the species and the amount of fish, but I don't see any references to species distribution or diversity. I don't know if that's something that needs to be considered when it comes to meeting requirements, but it sounds like it isn't. **M2-1**

And I'm curious as to why one of the requirements for the location selection in building the new reef is no more than one year and that time period is through 2012. So for the past five years if there hasn't been any kelp in that location, is that still considered a spot that you can build a reef in and it will be what is called a new addition even if kelp currently exists there? So I'm curious why that doesn't fall in the update for that requirement. **M2-2**

Obviously I want to make sure that all impacts to shoreline and surf rates are totally considered, and then if there's any potential harm to marine mammals. I don't know if there's going to be any spotter on board for like any interference when knocking the rocks off the boat or even to prevent whale collisions when you're shipping the quarry rocks from Catalina across the channel. I know that could be an issue. I know that fully loaded the tanker moves pretty slowly, but obviously you want to make sure it meets the recommendation for vessel speed. **M2-3**

And then also there might be a potential to consider the impact if the quarry, as it collects rocks from either Catalina or Ensenada, that they have to expand in any way in order to create the supply that we need of rocks. So any impacts caused by the expansion to supply the rocks should be considered in your EIR. That's all. Thank you very much. **M2-4**

MR. HENRY: Thank you.

And the last speaker slip I have is Jim Dahl.

MR. DAHL: Hi. Jim Dahl of San Clemente. I'm a 60-year-plus resident. I look out on the Wheeler North Reef from my truck window every single day and it's pretty obvious this last year, year and a half or so ago, we lost a lot of the kelp because of the extreme water temperatures. Now it's come back and the reef is just flourishing. It's back to better than it was five years ago. **M3-1**

My biggest concern is the fish count. It's never met the fish count. So why didn't the project just add some high relief reef to the already standing reef that was there, that was put in and when Wheeler North was built? It's pretty obvious, also, that the fish population of the reef is incredible. You can go out there any day and sit there and catch calico bass and reef fish all day long. Although many of them are short now because they have changed the bag and length limits, but the fish population is great and it has increased over the years. It's obvious, as you can see, every day the commercial sportfishing boats are working the reef every single day, probably four or five boats a day. So I'm just concerned about the fish stock, will it ever be met? **M3-2**

As a ratepayer I worry about the cost of the long-term evaluation of the reef itself. So by adding another so many acres, are you going to actually increase the fish count or is it going to stay the same? So a lot of money is being spent on this project and if you don't get the results you want, what's the next step? Are we going to be monitoring this for the next 50 or 60 years? As I say, it's a lot of money for the ratepayers. **M3-3**

And I also wonder if you've coordinated with the Army Corps of Engineers, because right now the city is working on its program in the next couple of years. So I'm wondering if any coordination with them has been done. Thank you. **M3-4**

MR. HENRY: Thank you.

Is there anyone else that wanted to speak that hasn't submitted a slip? So that brings the formal NOP hearing to a close. I'll linger around for a few minutes if anyone wants to chat over by the poster board. And we have the room for a while, so if anyone wants to discuss some project basics, I'd be happy to. Thank you.

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Established in 1938

January 19, 2018

NOTICE OF PREPARATION OF A DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING

File Ref: SCH No. 1998031027
CSLC EIR No. 685
PRC 8097; W30105.1

NOTICE IS HEREBY GIVEN that the California State Lands Commission (Commission or CSLC), as lead agency under the California Environmental Quality Act (CEQA), will prepare a Subsequent Environmental Impact Report (Subsequent EIR), and that CSLC staff will hold a public scoping meeting pursuant to CEQA and the State CEQA Guidelines* for the Project listed below.

Project Title:	Construction and Management of an Artificial Reef in the Pacific Ocean near San Clemente, California: Wheeler North Reef Expansion Project
Applicant:	Southern California Edison (SCE)
Project Location:	Submerged lands offshore of San Clemente on State sovereign land, Orange County (Figure 1)
Meeting Information:	**Tuesday, February 6, 2018; 1:30 PM** **The Ocean Institute** **Samueli Conference Room/Auditorium** **24200 Dana Point Harbor Drive** **Dana Point, CA 92629**

The CSLC staff has prepared this Notice of Preparation (NOP) to obtain agency and the public's views, in writing or at the public meeting, as to the scope and content of the environmental analysis, including the significant environmental issues, reasonable range of alternatives, and mitigation measures to include in the Subsequent EIR. Applicable agencies will need to use the Subsequent EIR and original Programmatic EIR (PEIR) that the Commission certified in 1999 (State Clearinghouse No. 1998031027), when considering related permits or other Project approvals.

* CEQA is in Public Resources Code section 21000 et seq.; the State CEQA Guidelines are in California Code of Regulations, title 14, section 15000 et seq. The public scoping meeting will be held pursuant to CEQA (§ 21083.9, subd. (a)(2)) and the State CEQA Guidelines (§§ 15082, subd. (c), and 15083).

Where appropriate, the Subsequent EIR incorporates information from the 1999 PEIR (see http://www.slc.ca.gov/Info/CEQA.html), and provides new descriptions and analyses for resources where baseline conditions or Project impacts may be substantially different than what was analyzed in the 1999 PEIR.

This NOP, along with additional background information and the Project description included as Attachment A, is also available online at www.slc.ca.gov (under the "Information" tab and "CEQA Updates" link). **Written comments must be received or postmarked by** February 20, 2018.** Please send your comments at the earliest possible date to:

Sarah Mongano
Senior Environmental Scientist
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Email: CEQA.comments@slc.ca.gov
Phone: (916) 574-1890

PROJECT SUMMARY

SCE has applied to the Commission to amend Lease No. PRC 8097 to expand the Wheeler North Reef. Construction, long-term monitoring, and evaluation of the Wheeler North Reef is required under a Coastal Development Permit (CDP) issued by the California Coastal Commission (CCC) for the operation of San Onofre Nuclear Generating Station (SONGS) Units 2 and 3. To ensure that Wheeler North Reef will meet all absolute and relative performance standards under the CCC's CDP, the proposed Project would supplement the existing Wheeler North Reef by creating approximately 200 acres of additional kelp reef on low-relief quarry rocks.

PUBLIC SCOPING MEETING

The CSLC staff will begin the scoping meeting noticed above with a brief presentation on the proposed Project. Staff will then receive comments on the potential significant environmental issues, Project alternatives, and mitigation measures that should be included in the Subsequent EIR, until all persons present who wish to provide oral comments have done so, at which time staff will close the meeting. A court reporter will be present to record oral comments. A 3-minute time limit on oral comments may be imposed. No Commission action on the Subsequent EIR or Project will occur at this time; any such action will occur at a separate noticed public meeting after the Subsequent EIR is finalized.

IMPORTANT NOTES TO COMMENTERS

1. If you submit written comments, you are encouraged to submit electronic copies by email to CEQA.comments@slc.ca.gov and write "**Wheeler North Reef Expansion Project NOP Comments**" in the subject line of your email.

** Pursuant to State CEQA Guidelines section 15103, Responsible and Trustee Agencies shall provide a response to a NOP within 30 days after receipt of the notice.

2. Before including your mailing or email address, telephone number, or other personal identifying information in your comment, please be aware that the entire comment—including personal identifying information—may become publicly available, including in the Subsequent EIR and posted on the Internet. The CSLC will make available for inspection, in their entirety, all comments submitted by organizations, businesses, or individuals identifying themselves as representatives of organizations or businesses.

3. If you represent a public agency, please provide the name, email address, and telephone number for the contact person in your agency for this Subsequent EIR.

4. If you require a sign language interpreter, or other reasonable accommodation to conduct business with CSLC staff at the scoping meeting for a disability as defined by the Federal Americans with Disabilities Act and California Fair Employment and Housing Act, please contact the CSLC staff person listed in this NOP at least 48 hours in advance of the meeting to arrange for such accommodation.

5. Please contact the staff person listed in this NOP by phone at (916) 574-1889 or by email at sarah.mongano@slc.ca.gov if you have any questions.

Signature: _____ Date: _____

Sarah Mongano
Senior Environmental Scientist

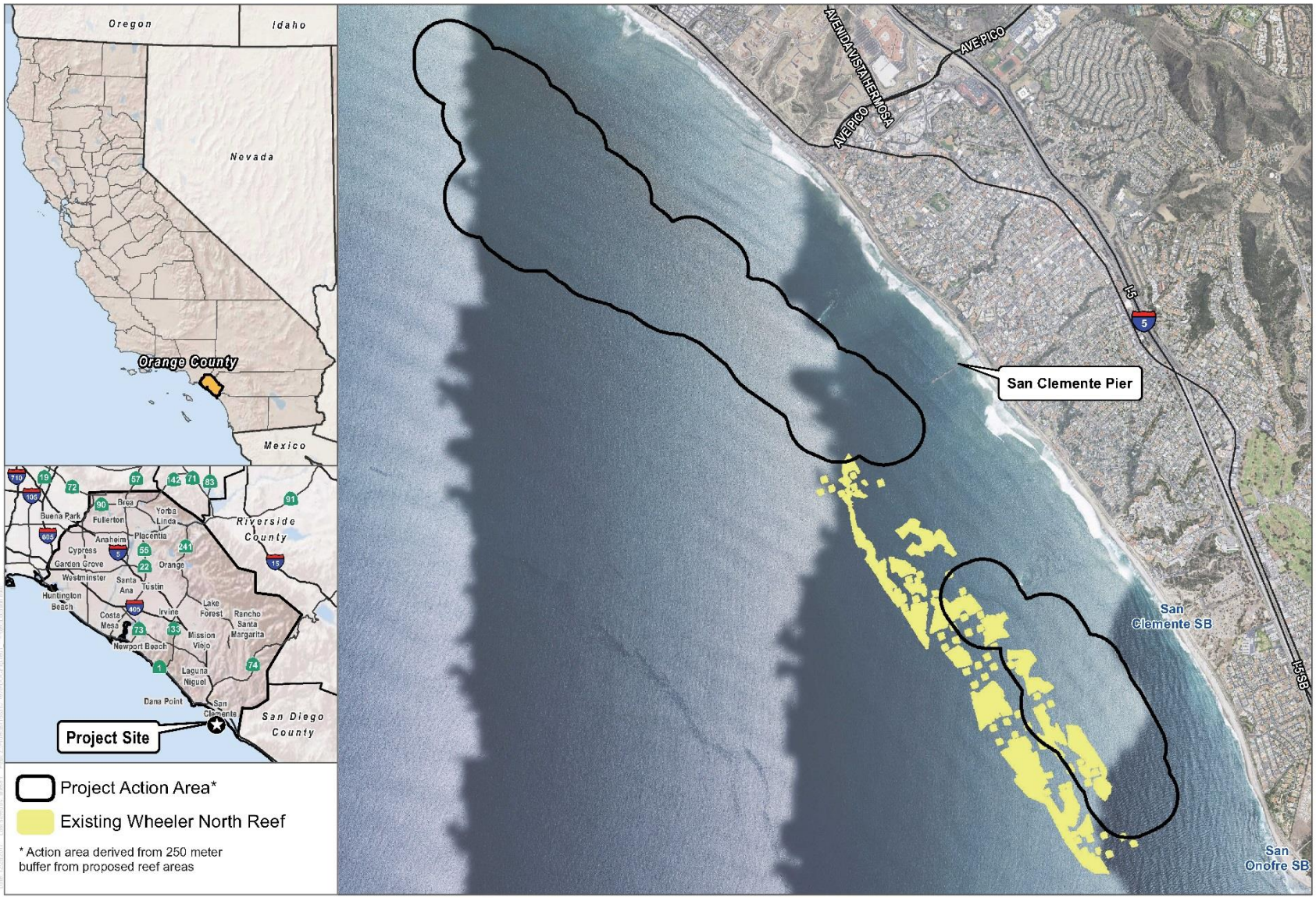

FIGURE 1
Project Location
Wheeler North Reef SEIR

ATTACHMENT 1

PROJECT DESCRIPTION

Construction and Management of an Artificial Reef in the Pacific Ocean Near San Clemente, California: Wheeler North Reef Expansion Project

1.0 PROJECT BACKGROUND AND LOCATION

The Wheeler North Reef Expansion Project (Project) proposed by Southern California Edison (SCE) is located on submerged land in the Pacific Ocean near the city of San Clemente and San Mateo Point, Orange County, at and near the existing Wheeler North Reef (Figure 1). Directly onshore of the proposed Project area are San Clemente City Beach, San Clemente State Beach, and Calafia Beach Park. Doheny State Beach and Dana Point Harbor are north of the Project site. Rock used in reef construction would be sourced primarily from existing quarries on Catalina Island; up to 25 percent of the rock material may also be barged from existing quarries in Ensenada, Mexico. These quarries would also serve as the rock stockpile location prior to and during construction.

The California Coastal Commission (CCC) required construction of the existing Wheeler North Reef as a condition of a Coastal Development Permit (CDP) that required SCE to mitigate the adverse impacts of the operation of San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 on the marine environment, including to the adjacent San Onofre kelp community.[1] In 1997, the CCC amended the CDP to require, among other conditions, a two-phase reef project that would sustain 150 acres of medium-to-high-density kelp and the associated biota. Phase 1 (Experimental Reef) included an experimental reef with a minimum of 16.8 acres and a 5-year monitoring program to provide guidance on how to design the full reef. Phase 2 (Mitigation Reef) included an additional 133.2 acres, taking into account lessons learned from the Phase 1 reef.

In 1999, the California State Lands Commission (Commission or CSLC) prepared a Programmatic Environmental Impact Report (PEIR) analyzing the potential significant impacts associated with construction and management of the mitigation reef and subsequently certified the PEIR and issued a general lease (Lease No. PRC 8097) to SCE for Phase 1 of the reef (Item 72, June 14, 1999).[2] The lease was amended in 2006 to implement Phase 2 (Item 37, November 21, 2006).[3] The original 862-acre lease area was reduced to the boundary of the constructed reef in September 2008. Table 1 summarizes key events associated with reef construction and operation.

[1] A recent CCC staff summary is at https://documents.coastal.ca.gov/reports/2017/11/w16a/w16a-11-2017-report.pdf.
[2] The CSLC staff report and voting record is at http://archives.slc.ca.gov/Meeting_Summaries/1999_Documents/06-14-99/Items/061499R72.pdf
[3] The CSLC staff report and voting record is at http://archives.slc.ca.gov/Meeting_Summaries/2006_Documents/11-21-06/Items/112106C37.pdf

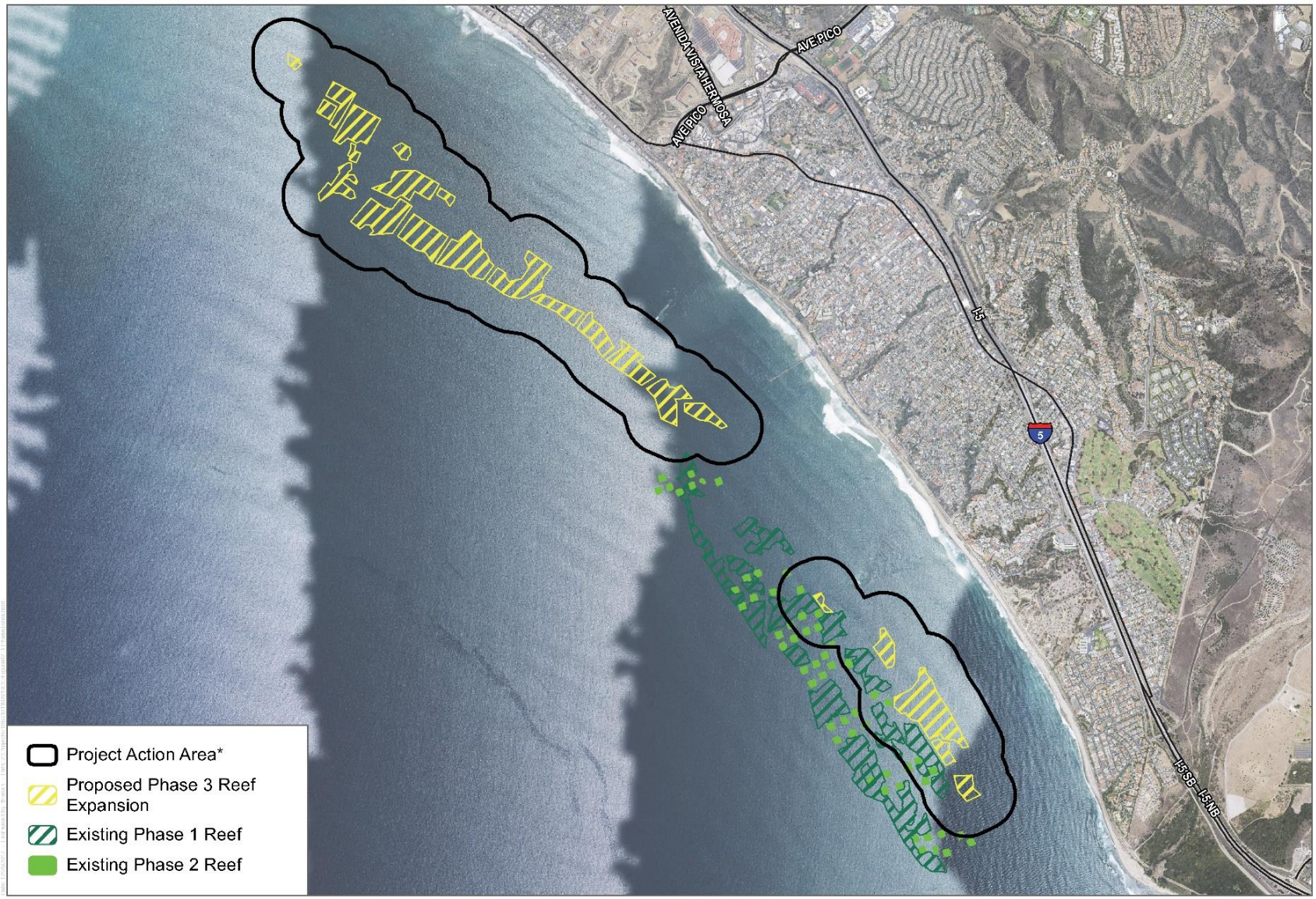

FIGURE 2
Proposed Phase 3 Wheeler North Reef Expansion
Wheeler North Reef SEIR

Table 1. Key Events Related to Wheeler North Reef Construction and Operation

1974	The CCC issues CDP for SONGS Units 2 and 3 construction and operation.
1983 and 1984	SONGS Units 2 and 3 began operating using seawater for once-through cooling (OTC) in 1983 and 1984, respectively.
1991	CCC adopts permit conditions requiring 300 acres of compensatory kelp bed mitigation after studies by an independent Marine Review Committee (created as a condition of the original CCC CDP) found adverse impacts to the San Onofre kelp forest community were occurring due to turbid plumes generated during the mixing of OTC water discharged through diffusers located approximately 1.5 to 2 miles offshore, near the kelp forest.
May 1997	Subsequent studies determine that resource losses at the San Onofre kelp reef were less than originally estimated. The CCC amends the CDP to require construction of an artificial reef that will sustain 150 acres of medium-to-high density kelp bed.
March 1999	CSLC releases Final PEIR.
August 1999	CSLC certifies PEIR and issues lease for Phase 1 and 2 to create the artificial reef near San Clemente (Lease No. PRC 8097).
September 1999 to December 2004	Construction of the 22-acre Phase 1 experimental artificial kelp reef is completed and monitored for 5 years to determine the optimal materials and design specifications for the Phase 2 reef.
September 2008	Construction of the 152-acre Phase 2 artificial kelp reef is completed. CSLC amends the lease to a smaller area after completion of Phase 2 of the artificial kelp reef.
November 2008	The artificial kelp reef is dedicated to pioneering environmental scientist Wheeler J. North hence becoming the Wheeler North Reef.
2008 to present	The Phase 1 and Phase 2 reefs are monitored annually by independent scientific staff to determine whether the reef is meeting the absolute and qualitative performance standards established in CCC permit conditions.
January 2018	SCE requests amending the Wheeler North Reef lease's area to expand the Wheeler North Reef to meet all absolute and qualitative performance standards established in the CCC permit conditions.

2.0 PROJECT DESCRIPTION

The proposed Project, referred to as Phase 3 or the Wheeler North Reef expansion, would expand the existing 174-acre Wheeler North Reef. Phase 3 would create up to 200 additional acres of kelp reef by placing 150,000 tons of quarried rock in a low-relief fashion adjacent to the existing Wheeler North Reef (Figure 2). The reef would be constructed using quarry boulders placed on the seafloor within 23 polygonal areas, totaling 210.6 acres, that were established based on the following criteria:

- Sited within the proposed CSLC lease area
- Near an existing kelp bed to facilitate recruitment of kelp and other species
- Water depth between 11.5 and 15 meters, suitable for kelp recruitment and growth
- Sand thickness of 0.75 meter (± 20 percent) to minimize burial of quarry rock
- Less than 30 percent exposed hard substrate so that a minimum of existing hard substrate is covered

- No kelp present for more than 1 year in the historical database from 1967 to 2012 (California Department of Fish and Wildlife [CDFW]) to ensure that the kelp reef is truly new
- At least 50 meters from areas of special interest, such as fishing sites
- At least 7 meters from existing reef areas
- Retention of adequate navigation channels so that vessels do not become entangled in kelp canopy when navigating through the area

The quarry rock would be placed in these polygons to assure a low profile (height above the seafloor, also termed "low relief"), and distributed at a low-coverage density (42 percent, 790 tons per acre). The anchor sites used for the barge transporting the quarry boulders would avoid areas of special interest or hard substrate, such as the large areas of hard substrate at the northern edge of the San Mateo kelp bed.

The 210.6 acres of polygons include approximately 10 acres of contingency areas for reef construction and potential future remediation areas. The contingency polygons would serve as an alternate reef-construction location if site-specific issues dictate termination of construction at any of the primary locations. Some of the 10 acres may be used as areas of "high-relief" reef, with heights between 2 to 3 meters.

2.1 Project Equipment and Schedule

A "push off" construction method using a front-end track loader would be used to place the quarry rock on the seafloor in the Project area. All rocks used for this Project would conform to CDFW material specification guidelines for augmentation of artificial reefs with surplus materials.[4] The front-end track loader would be lowered via crane from the derrick barge to the flat-deck supply barge so that boulders could be pushed over the side. The winch operator would maneuver the edge of the flat-deck supply barge to the selected location by winching "in" or "out" on six anchor cables connected to their respective anchors. The derrick-barge winch operator would use two differential Global Positioning System receivers and a computer monitor displaying the triangulated data to keep the barge accurately positioned and assist in locating the edge of the supply barge at the exact line of deployment.

As proposed, Project construction would occur over two seasons, from August 1 through September 30, 2018, and June 1 through September 30, 2019. This construction timing would allow the Project applicant to avoid the lobster-fishing season and to use the calm weather conditions that are typical of that time of year in southern California. Construction would be carried out during daylight hours 6 days a week (Monday through Saturday), except on holidays and during inclement weather (no construction would be performed if wave heights were larger than 4 feet). On-site work would begin no earlier than 7:00 a.m. and would be halted no later than 7:00 p.m. The

[4] Bedford, W.D. 1997. *Material Specification Guidelines and Notification Procedure for Augmentation of Artificial Reef with Surplus Materials*. Long Beach, California: California Department of Fish and Game, Marine Resources Region. 2 pp.

average work day for placing quarry rock at the Project site is expected to be about 10 hours. Based on these factors, at least 100 days of construction would be required to place 150,000 tons of rock.

2.2 Long-Term Monitoring

The CCC CDP requires monitoring by independent scientists to: (1) determine whether the performance standards established for the Wheeler North Reef are met; (2) determine, if necessary, the reasons why any performance standard has not been met; and (3) develop recommendations for appropriate remedial measures. University of California, Santa Barbara scientists produced a monitoring plan for the Wheeler North Reef that contains:

- a description of the process that will be used to evaluate condition compliance, including a list of 13 performance standards by which the mitigation reef will be judged and the general approach that will be used to determine the overall success of the mitigation project
- descriptions of the specific sampling methods and analyses that will be used to evaluate each of the 13 performance standards
- an explanation of how project data will be managed and archived for future use
- a description of how the results from the monitoring program will be disseminated to the CCC, SCE, and all other interested parties

Because the Project is designed to meet the same CCC mitigation requirements, the "Monitoring Plan for the SONGS' Reef Mitigation Project[5] would be updated to account for the additional area. (For more details, please see the monitoring plan or 2016 annual report.[6]) A summary of the existing monitoring methodology is provided below.

- Eighty-two monitoring transects, each defined by a fixed 50-meter by 20-meter area, are sampled at Wheeler North Reef in the primary polygons, and at San Mateo and Barn in areas known to support persistent kelp. Ten additional monitoring locations are sampled in two "contingency polygons" at Wheeler North Reef. Data collected from these additional 10 transects are used with data from the 82 transects when evaluating absolute performance standards pertaining to giant kelp and fish standing stock. Transects on each reef are arranged in pairs, with the two transects in each pair spaced 25 meters apart. Exceptions to this are the single locations on 12 of the Phase 1 modules of Wheeler North Reef.
- Each transect acts as a sampling station on which divers measure several factors using various methods. For fish, the divers record the species, number of individuals, and approximate size of each fish. Adult giant kelp, large understory algae, and large mobile invertebrates are counted in five 10-meter by 2-meter rectangular quadrats positioned perpendicular to the main transect at 10-meter

[5] http://marinemitigation.msi.ucsb.edu/documents/artificial_reef/ucsb_%20mm_reports/mitigation_ phase/monitoring_plan4reef_mitigation_project_rev-032010.pdf

[6] http://marinemitigation.msi.ucsb.edu/documents/artificial_reef/annual_monitoring_reports/2016_ annual report-SONGS_kelp_reef_mitigation.pdf

intervals. The percent cover of invertebrates, algae, and bottom substrate are estimated by quantifying cover within five 1-meter quadrats spaced evenly along each transect. Smaller mobile invertebrates and small cryptic fish are counted in similar sized or smaller quadrats, depending on their size and abundance.

- The results from monitoring Wheeler North Reef are compared to two reference reefs, one at San Mateo Rocks (adjacent to the southern end of the existing Wheeler North Reef) and one at Barn kelp bed (approximately 12 kilometers south of San Mateo kelp bed). Maps of kelp persistence and hard substrate were used to strategically distribute the 41 transect pairs at San Mateo and Barn across areas of reef known to support giant kelp. Transects at Wheeler North Reef were allocated to the polygons and the existing experimental reef modules in proportion to their area. Sampling of the Wheeler North Reef, San Mateo, and Barn occurs concurrently from late spring to early autumn each year. Divers access the sites using small boats.

3.0 PERMITS AND PERMITTING AGENCIES

In addition to action by the Commission, the Project may also require permits and approvals from other reviewing authorities and regulatory agencies that may have oversight over aspects of the proposed Project activities, including the following:

Regional	South Coast Air Quality Management District (SCAQMD)
	San Diego County Air Pollution Control District (SDCAPCD)
State	California Coastal Commission (CCC)
	California Department of Fish and Wildlife (CDFW)
	California State Historic Preservation Officer (SHPO)
	San Diego Regional Water Quality Control Board (RWQCB)
Federal	U.S. Army Corps of Engineers (USACE)
	U.S. Coast Guard (USCG)
	U.S. Fish and Wildlife Service (USFWS)
	National Oceanic and Atmospheric Administration - Fisheries (NMFS)
Tribal	CSLC staff will coordinate its review with local tribes consistent with the Commission's Tribal Consultation Policy (www.slc.ca.gov/About/Docs/Tribal.pdf), Executive Order B-10-11, and Tribal Consultation requirements under CEQA.

4.0 SCOPE OF SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

The proposed expansion of the Wheeler North Reef would occur only on sovereign land under the CSLC's jurisdiction and would require an amendment to the CSLC's lease. Under the State CEQA Guidelines (§ 15162, subd. (a)(1)), when an EIR has been certified or negative declaration adopted for a project, no subsequent or supplemental EIR shall be prepared for that project unless several conditions exist, based on substantial evidence in light of the whole record, including:

> *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects….*

A Subsequent EIR is given the same notice and public review as required under State CEQA Guidelines sections 15072 or 15087, and must state where the previous documents are available and may be reviewed. A preliminary list of environmental issues and alternatives to be discussed in the Subsequent EIR is provided below. Additional issues and alternatives may be identified at the public scoping meeting and in written comments as part of the Subsequent EIR process. The CSLC invites comments and suggestions on the scope and content of the environmental analysis, including the significant environmental issues, reasonable range of alternatives, and mitigation measures that should be included in the Subsequent EIR.

The CSLC uses the following designations when examining the potential for impacts.

Potentially Significant Impact	Any impact that could be significant, and for which feasible mitigation must be identified and implemented. If any potentially significant impacts are identified but cannot be mitigated to a less than significant level, the impact would be *significant and unavoidable*; if any potentially significant impacts are identified for which feasible, enforceable mitigation measures are developed and imposed to reduce said impacts to below applicable significance thresholds, the impact would be *less than significant with mitigation*.
Less Than Significant Impact	Any impact that would not be considered significant under CEQA relative to the applicable significance threshold, and therefore would not require mitigation.
No Impact	The Project would not result in any impact to the resource area considered.
Beneficial Impact	The Project would provide an improvement to the associated environment in comparison to the baseline information.

The estimations of impact levels used for this NOP are based solely on preliminary documents. Impact levels may change, and additional impacts may be identified during preparation of the Subsequent EIR as more information is obtained.

4.1 Alternatives Analysis

In addition to analyzing the potential impacts associated with the proposed Project, in accordance with the State CEQA Guidelines, an EIR must:

> *…describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (§ 15126.6).*

The State CEQA Guidelines also require that an EIR evaluate a “no project” alternative and, under specific circumstances, designate an environmentally superior alternative from among the remaining alternatives. The Subsequent EIR will:

- identify alternatives based on the environmental analysis and information received during scoping

- provide the basis for selecting alternatives that are feasible and that would reduce significant impacts associated with the proposed Project
- provide a detailed explanation of why any alternatives were eliminated from further analysis
- evaluate a reasonable range of alternatives including the No Project alternative

Examples of possible alternatives, or combinations of alternatives, to be evaluated in the Subsequent EIR, or discussed and eliminated from further consideration based on criteria set forth in the State CEQA Guidelines (e.g., infeasibility), include the following:

- The No Project alternative
- Variations in coverage involving changes to the size and spacing of polygons to increase the footprint and the perimeter-to-area ratio of the reef for optimal kelp persistence and fish biomass, including:
    - A 200-acre low-coverage reef
    - A 150-acre medium-coverage reef
    - A 105-acre high-coverage reef
- Construction of the reef within a single work window (e.g., Fall 2019) enabling only one mobilizing effort but requiring a larger portion of the quarry rock to be sourced and barged from Ensenada, Mexico, to the Project area
- Use of recycled or waste concrete or non-quarry rock to construct the reef

4.2 Currently Identified Potential Environmental Impacts

Based on initial internal scoping, the Project is not anticipated to affect the following environmental factors identified in State CEQA Guidelines Appendix G (Environmental Checklist Form), which could therefore be eliminated from consideration in the EIR.

- Agricultural and Forestry Resources
- Transportation/Traffic (onshore)
- Hydrology and Water Quality (Onshore)
- Population and Housing
- Biological Resources (Terrestrial)
- Utilities and Service Systems

The following provides information on the currently identified issues that may have potentially significant environmental effects.

4.2.1 Biological Resources (Marine)

The Subsequent EIR will assess potential direct and indirect impacts of Project construction activities and vessel mooring on offshore biological resources, including federal- and state-listed species, species proposed for listing, and areas of biological significance, such as local MPAs (e.g., the Dana Point State Marine Conservation Area is located approximately 3.5 miles to the northwest). This section will also describe marine resources found in the immediate vicinity of the Project site as these resources would be most vulnerable to Project impacts. Impacts of underwater noise due to construction activities on marine life will also be analyzed in this section.

4.2.2 Ocean Water Quality

The Subsequent EIR will address potential impacts on ocean water quality resulting from Project activities. The environmental setting will focus on relevant characteristics of existing marine resources in the Project vicinity. Issues such as offshore currents and marine water quality are important in understanding the effects of potential turbidity or hazardous materials releases during placement of quarry rock at the Project site.

4.2.3 Aesthetics/Light and Glare

The Subsequent EIR will examine the Project's potential visual impacts from offshore construction and marine vessel activities. The visual intrusion from such activities would be temporary, but could include light impacts from potential nighttime activities.

4.2.4 Air Quality

The Subsequent EIR will summarize current air quality conditions in the Project vicinity and analyze the potential Project-related air quality impacts using guidelines provided by the SCAQMD and SDAPCD. Potential air quality impacts would result from quarry rock transportation and offshore construction operations since the Project would generate criteria air pollutants. If proposed emissions exceed SCAQMD or SDAPCD emissions thresholds, the analysis will evaluate the feasibility of mitigation measures to reduce these emissions to a less-than-significant level.

4.2.5 Cultural Resources and Tribal Cultural Resources

These issue areas will be addressed in separate sections consistent with 2016 changes to the State CEQA Guidelines addressing Tribal cultural resources. The Subsequent EIR will analyze the potential for Project activities, which involve some level of seafloor disturbance during placement of quarry rock and barge anchoring, to adversely affect cultural resources, including shipwrecks (if applicable), and Tribal cultural resources.

4.2.6 Geology/Soils and Coastal Processes

The Subsequent EIR will evaluate the potential for Project impacts associated with coastal sand transport/retention within the littoral cell, and wave propagation and wave shape as it passes over the new reef and approaches the shore.

4.2.7 Greenhouse Gas (GHG) Emissions

The Subsequent EIR will address GHG emissions that would occur during transportation of quarry rock and construction-related activities. The GHG emissions analysis will follow guidelines provided by the SCAQMD and SDAPCD.

4.2.8 Hazards and Hazardous Materials

The Subsequent EIR will address potential conditions during construction that could result in the release of hazardous materials, fire, explosion, and other conditions that

could be hazardous to the public, workers, and environment. This includes the handling, storage, and disposal of hazardous materials. For this Project, hazardous materials are related to the transport and disposal of potentially hazardous materials, which may include quarry rock, oil, and fuel.

4.2.9 Land Use and Planning

The Subsequent EIR would evaluate whether the proposed activities could conflict with any applicable land use plan, policy, regulation, habitat conservation plan, or Marine Protected Areas (MPAs).

4.2.10 Mineral Resources

The Subsequent EIR will analyze the Project's use of boulders for reef construction, characterizing the existing supply and determining whether the Project could affect availability for other area projects. The impacts related to covering the existing seafloor with hard substrate will also be analyzed to determine whether access to any important mineral deposits will be blocked by the presence of the new reef area.

4.2.11 Noise

The Subsequent EIR will examine the Project's potential noise impacts from offshore noise sources on recreationists (e.g., park users, beachgoers, and surfers) and residents. As noted in Section 4.2.1, potential impacts of underwater noise from construction activities on marine life will be analyzed in the Biological Resources (Marine) section of the Subsequent EIR.

4.2.12 Public Services

The Subsequent EIR will describe the various public services that may be impacted by the Project. In addition to a potential increase in beach maintenance from kelp washing ashore, offshore emergency response agencies may be impacted in the event of an accident during construction-related activities.

4.2.13 Recreation

The Subsequent EIR will provide details on existing recreational activities in the Project vicinity, such as surfing, passive beach use, and recreational fishing, and summarize potential recreation and public access impacts associated with the Project.

4.2.14 Transportation (Marine)

The Subsequent EIR will analyze potential impacts of offshore Project activities on marine vessel traffic, including transit of barges to and from Catalina Island and Ensenada, Mexico, if needed.

5.0 SPECIAL IMPACT AREAS

5.1 Cumulative Impacts

The State CEQA Guidelines require an EIR to discuss the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable" (§ 15130). A cumulative impact is created through a combination of the project being analyzed in an EIR and other projects in the area causing related impacts. The Subsequent EIR will:

- define the geographic scope of the area affected by cumulative effects ("Cumulative Projects Study Area"), which for the proposed Project is presently defined as:
    - The Project Area plus a radius of 2 nautical miles, excluding on-shore projects
    - The barge shipping route between the site and Port of Long Beach including Port of Long Beach projects
    - The barge shipping route between Ensenada and the site
- discuss the cumulative impacts of the proposed Project, in conjunction with other approved and reasonably foreseeable projects in the study area; and
- identify, if appropriate, feasible measures to mitigate or avoid the Project's contribution to cumulative effects.

5.2 Growth-Inducing Impacts

The CEQA requires a discussion of the ways in which a proposed project could foster economic or population growth, including the construction of additional housing, in the project's vicinity. Under State CEQA Guidelines section 15126.2, subdivision (d), a project is growth-inducing if it fosters or removes obstacles to economic or population growth, provides new employment, extends access or services, taxes existing services, or causes development elsewhere. The Subsequent EIR will contain a discussion of the potential growth-inducing impacts of the proposed Project.

5.3 Commercial Fishing

The construction activities are proposed to take place in summer and fall of the construction year(s) to avoid the lobster-fishing season and to take advantage of the calm weather conditions that are typical of that time of year in southern California. The Subsequent EIR will contain a discussion of the potential impacts of the proposed Project on commercial fishing.