

California MLPA Master Plan Science Advisory Team
Draft Summary of SAT Water and Sediment Quality Evaluation of Round 2
MPA Proposals for the MLPA South Coast Study Region
June 16, 2009 Draft

Overview of MPA Proposal Evaluations Regarding Water and Sediment Quality

While water quality is not subject to management under the Marine Liffe Protection Act (MLPA), it may be an important consideration in designing marine protected area (MPA) proposals. Living marine resources may be substantially affected where water quality is significantly compromised, and may be subject to changes in key population (e.g., abundance, growth, reproduction, and mortality), and community (e.g., energetic, diversity, structure and organization) parameters. Water and sediment quality is a concern in the MLPA South Coast Study Region (SCSR) and should be considered during the MPA planning and design process. However, it is important to remember that water quality evaluations are not mandated by the MLPA, and should therefore be considered secondary to other MPA design guidelines. Water quality considerations should be incorporated if other guidelines and criteria have been met.

The MLPA Master Plan Science Advisory Team (SAT) determined that the best way to evaluate MPAs with regard to water quality is to allocate scores based on a presence or absence scoring system. The scoring system gives a range of values with 0.0 being the least desirable and 0.75 to 1.0 considered the most desirable. The latter range is influenced by MPAs that are co-located with areas of special biological significance (ASBSs). For example, MPAs that are absent any water quality concern areas and are completely within an ASBS would score the highest, or 1.0. However, it is not always possible to co-locate an MPA with an ASBS, therefore MPAs that are absent any water quality concern areas and are not co-located with an ASBS would score a 0.75. This 0.75 score is the upper threshold that a score could get without the presence of an ASBS, or in other words, it is still a very favorable score. Any thing less than 0.75 indicates MPA placement with water quality concern area(s). Methods for these analyses are described in an associated document: *Draft Methods Used to Evaluate Marine Protected Area Proposals in the South Coast Study Region* ("Evaluation Methods Document").

This document compares evaluation results for existing MPAs (proposal 0), MLPA South Coast Regional Stakeholder Group (SCRSG) proposals (Lapis 1, Lapis 2, Opal and Topaz), and external proposals (External A and External B).

MPA Proposals Evaluated

The SCRSG finalized four Round 2 draft MPA proposals on May 21, 2009 that were advanced for evaluation; taken together with the two revised external MPA proposals, this resulted in six draft proposals. All six draft proposals plus Proposal 0 (existing state MPAs) were run through the water quality evaluation. This evaluation was based on the presence or absence of the following scoring categories:

- Cooling water intake sites for power plants
- Storm water plumes from larger watersheds
- Municipal sewage or industrial outfalls

- Co-location with an ASBS

This summary document will focus on comparisons between all seven proposals described above and their scores based on the four scoring categories.

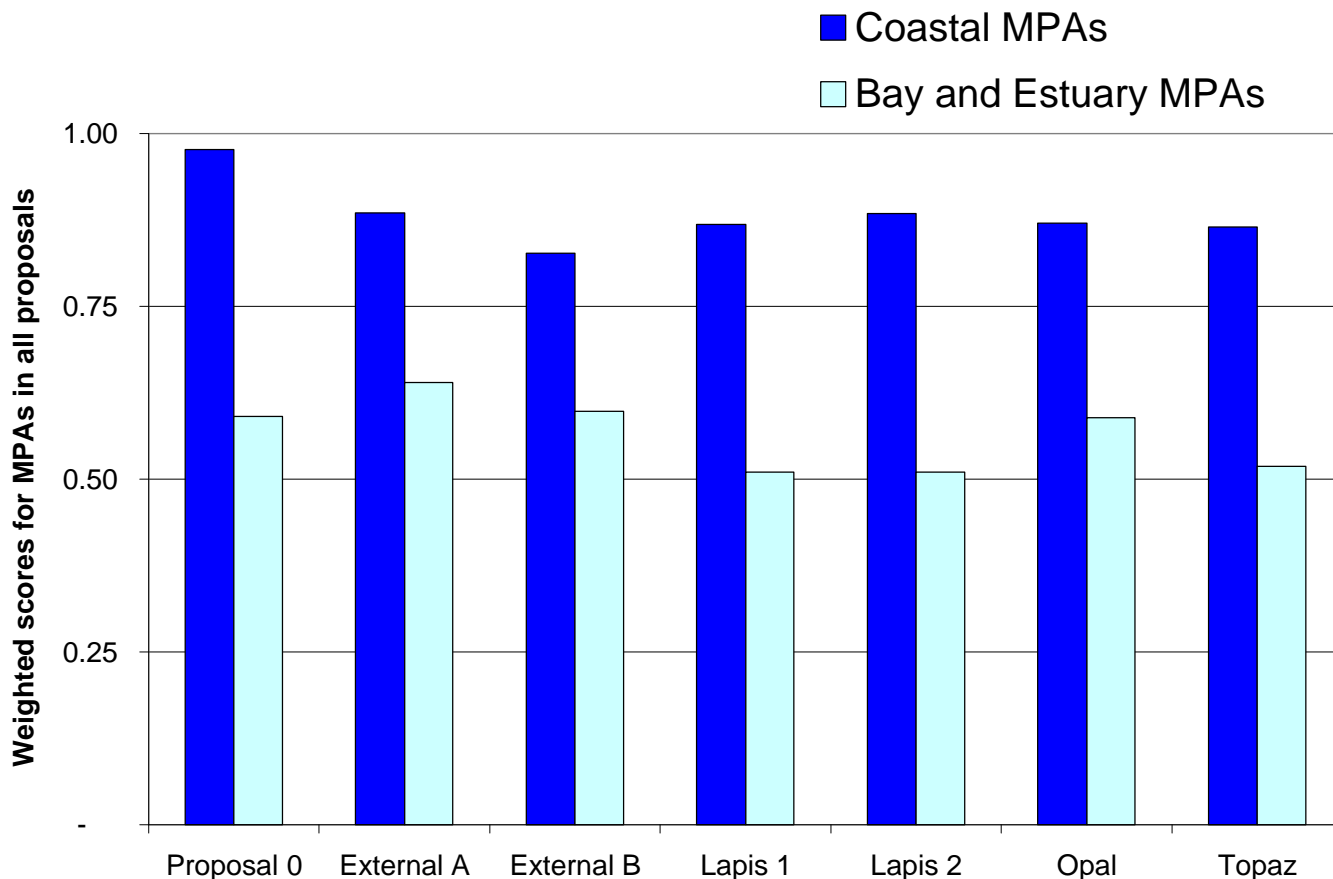
Most proposals include bays, estuaries or lagoons, likely due to the important role these systems play on the open ocean ecosystem. It would be difficult to include these areas without having the water quality evaluation score reduced because there are many bays and estuaries in the SCSR that are connected to major rivers or streams that have been identified as water quality concern areas. In addition to this, the shoreline distance of these areas used to calculate the weighted score is imprecise and using it affects the overall score of the proposal by unequally weighting the bays and estuaries. Shoreline lengths for bays and estuaries were also reduced by half to make the weighting more proportional to the actual MPA area. Therefore it would be more useful if MPAs within each proposal were segregated into two groups; MPAs proposed along the coast and MPAs proposed within bays and estuaries. Breaking the proposals into these two groups addresses the perception about each proposal's score, with the understanding that MPA placement in bays and estuaries, for the most part, would have a higher probability of having a reduced score than MPAs located along the coast.

In the water quality evaluation, all proposed coastal MPAs scored very well. However, the bay and estuary MPAs scored poorly, although this was expected (Figure 1). Of the six proposal submitted for evaluation, External A and Lapis 2 had the most favorable coastal MPAs scores while External B had the least favorable coastal MPA scores. The difference between the high and low scores was very small. The inclusion of the Northern Channel Islands MPAs helped to improve all the proposals weighted score due to the presence of large ASBSs at the islands.

There were two power plant intakes zones that influenced nearly all of the proposal's scores for the bay and estuary MPAs; 1) Encina Power Plant near Agua Hedionda Lagoon and 2) the South Bay Power Plant in San Diego Bay. Only one proposal, External A, avoided all power plant intake zones. Most proposals did a fairly good job of avoiding municipal or industrial wastewater zones with the exception of External B which scored the lowest in the municipal and industrial wastewater category. Areas where wastewater discharge zones were included in the MPA proposals include the Palos Verdes Peninsula and Dana Point. Proposal 0 scored higher than all new proposals; this could be contributed to the very small size of MPAs that had water quality concerns. All proposals had some water quality concerns within their coastal MPAs and bay and estuary MPAs.

By evaluating the individual MPA proposal charts and tables, it is possible to determine which, if any, MPA could be adjusted to include areas without water quality concerns. However, these considerations should be secondary to other SAT guidelines, such as size, spacing and habitat replication.

Figure 1. Scores for all water quality evaluation categories in a given proposal.

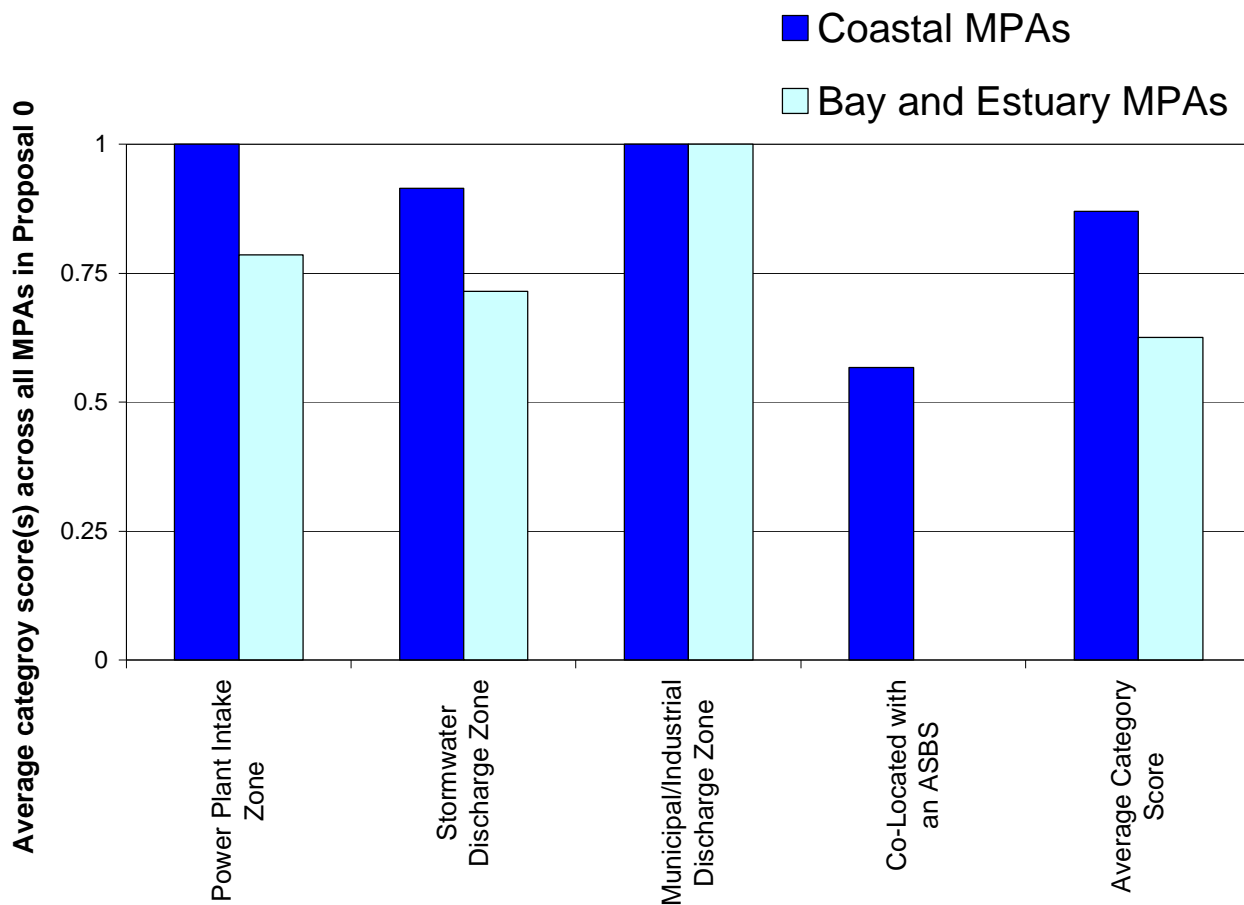


Note: Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas.

Proposal 0: Individual Summary

Proposal 0 (the existing MPAs) contains 42 MPAs. There are 35 MPAs located along the coast and seven located in bays and estuaries. Three coastal MPAs scored lower than 0.75 (all located within stormwater discharge zones), while there were 32 coastal MPAs which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concerns. Three MPAs located in bays and estuaries scored lower 0.75 while the remainder scored exactly 0.75. (Table 1, Appendix A). There is one existing MPA co-located in a bay with a power plant intake and two located in lagoons connected to major stormwater discharge zones. The existing MPAs have 21 MPAs co-located within ASBSs (Table 1), 13 of which are located at the Northern Channel Islands. It is also important to note that through out all proposals, the existing Channel Islands MPAs all are co-located within ASBSs which helped the overall score of each proposal.

Figure 2. Scores for all water quality evaluation categories for Proposal 0 (Existing MPAs). Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix A for the breakdown of these scores.



Note: Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix A for the breakdown of these scores.

Table 1. Water quality evaluation scores for Proposal 0 that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas.

Existing Coastal MPAs	Average Score
Cardiff-San Elijo	0.50
Doheny	0.50
Doheny Beach	0.50
Existing Bay and Estuary MPAs	Average Score

Agua Hedionda Lagoon	0.38
San Dieguito Lagoon	0.50
San Elijo Lagoon	0.50

Existing MPAs Co-located with ASBSs ¹	Average Score
Laguna Beach	0.77
Heisler Park	0.97
La Jolla	0.97
Robert E Badham	1.00
San Diego-Scripps	1.00
Anacapa Island SMCA	1.00
Anacapa Island SMR	1.00
Big Sycamore Canyon	1.00

Existing MPAs Co-located with ASBSs ¹	Average Score
Carrington Point	1.00
Crystal Cove	1.00
Footprint	1.00
Gull Island	1.00
Harris Point	1.00
Irvine Coast	1.00
Judith Rock	1.00
Painted Cave	1.00
Richardson Rock	1.00
Santa Barbara Island	1.00
Scorpion	1.00
Skunk Point	1.00
South Point	1.00

External A: Individual Summary

The External A proposal has 47 MPAs, 13 of which came from the already existing Northern Channel Islands MPAs, which were included by all proposals. There were five coastal MPAs with scores lower than 0.75 and three MPAs located in lagoons that had scores lower than 0.75. There were 38 MPAs in the entire proposal which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concern areas (Table 2, Appendix B). The coastal MPAs received reduced scores because they were located within wastewater discharge zones. (Figure 1). This proposal was improved by co-locating 20 MPAs within ASBSs (Table 2). It is also important to note that through out all proposals, the 13 existing Channel Islands MPAs all are co-located within ASBSs which helped the overall score of each proposal.

Figure 3. Scores for all water quality evaluation categories for External A. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

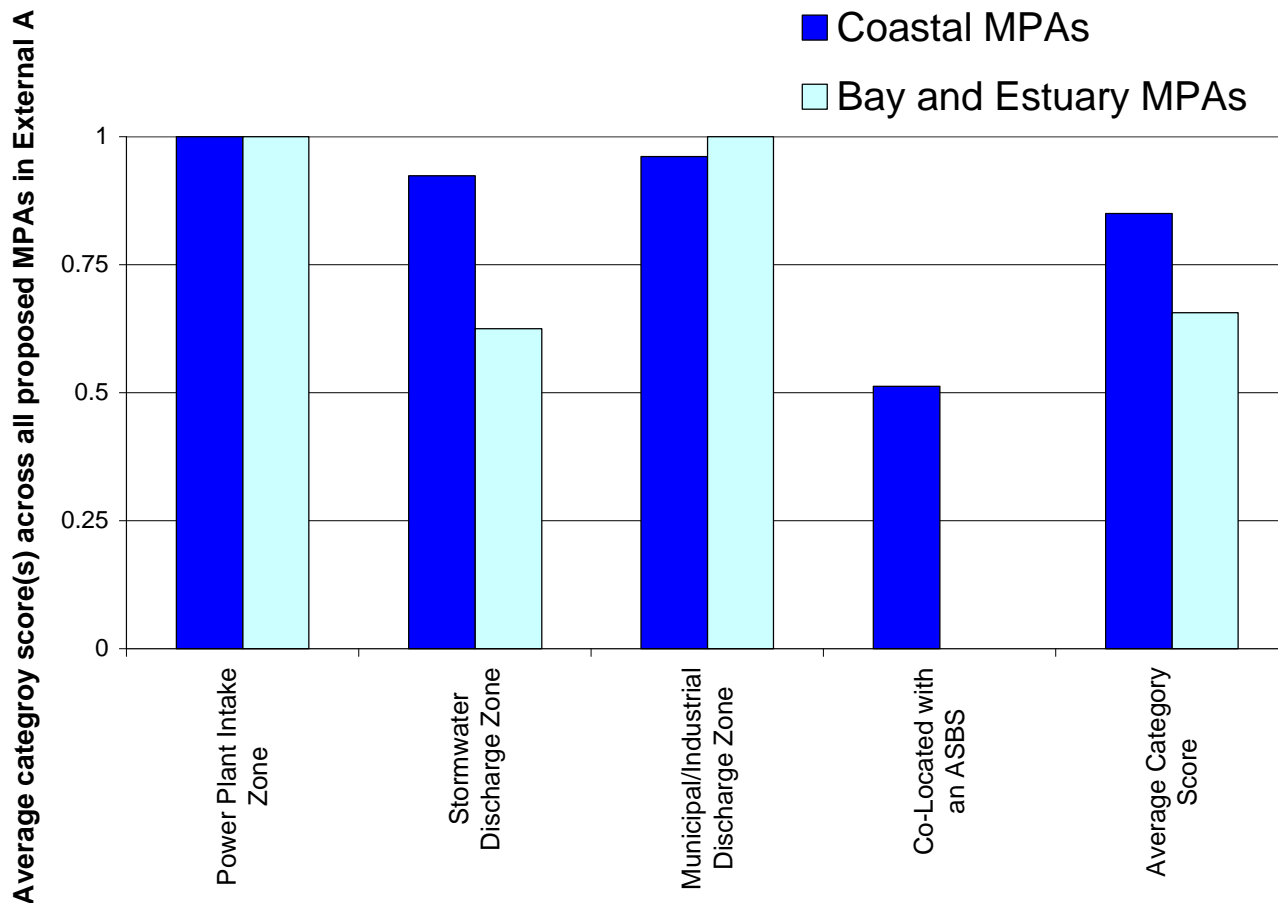


Table 2. Proposed MPAs by External A group that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

Proposed Coastal MPAs	Average Score
Doheny Beach SMCA	0.50
Sunset Cliffs SMR	0.50
Del Mar SMR	0.50
Lover's Cove_SMCA	0.63
Portuguese Bend SMCA	0.63
Proposed Bay and Estuary MPAs	Average Score
San Elijo Lagoon SMR	0.50
San Dieguito Lagoon SMR	0.50

Oneonta Slough SMR 0.50

Proposed MPAs Co-located with ASBSs ¹	Average Score
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Laguna SMR	0.67
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La Jolla SMR	0.97
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Crystal Cove SMCA	0.99
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Big Sycamore Canyon SMR	1.00
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Deer Creek SMCA	1.00
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Proposed MPAs Co-located with ASBSs ¹	Average Score
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San Clemente Pending Military Closure 1	1.00
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San Clemente Pending Military Closure 2	1.00
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Begg Rock SMR	1.00
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¹This table excludes the 13 existing MPAs from the Northern Channel Islands and only focuses on new MPAs created by the proposal.

External B: Individual Summary

The External B proposal is comprised of 50 MPAs. There were six coastal MPAs which scored lower than 0.75, and five MPAs located in a bay or lagoon which scored lower than 0.75. There were 38 MPAs which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concern areas (Table 3, Appendix C). This proposal had one MPA placed in the San Diego Bay (scored 0.13), which was identified by the SAT as an undesirable location for MPA placement in the SCSR because they contain water quality conditions that will most likely compromise MPA performance and potentially the ability of an MPA to meet the goals of the MLPA. The coastal MPAs received reduced scores because they were located within wastewater discharge zones and stormwater discharge zones. However, the score of this proposal was improved by having 24 MPAs located within ASBSs (Table 3).

Figure 4. Scores for all water quality evaluation categories for External B. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

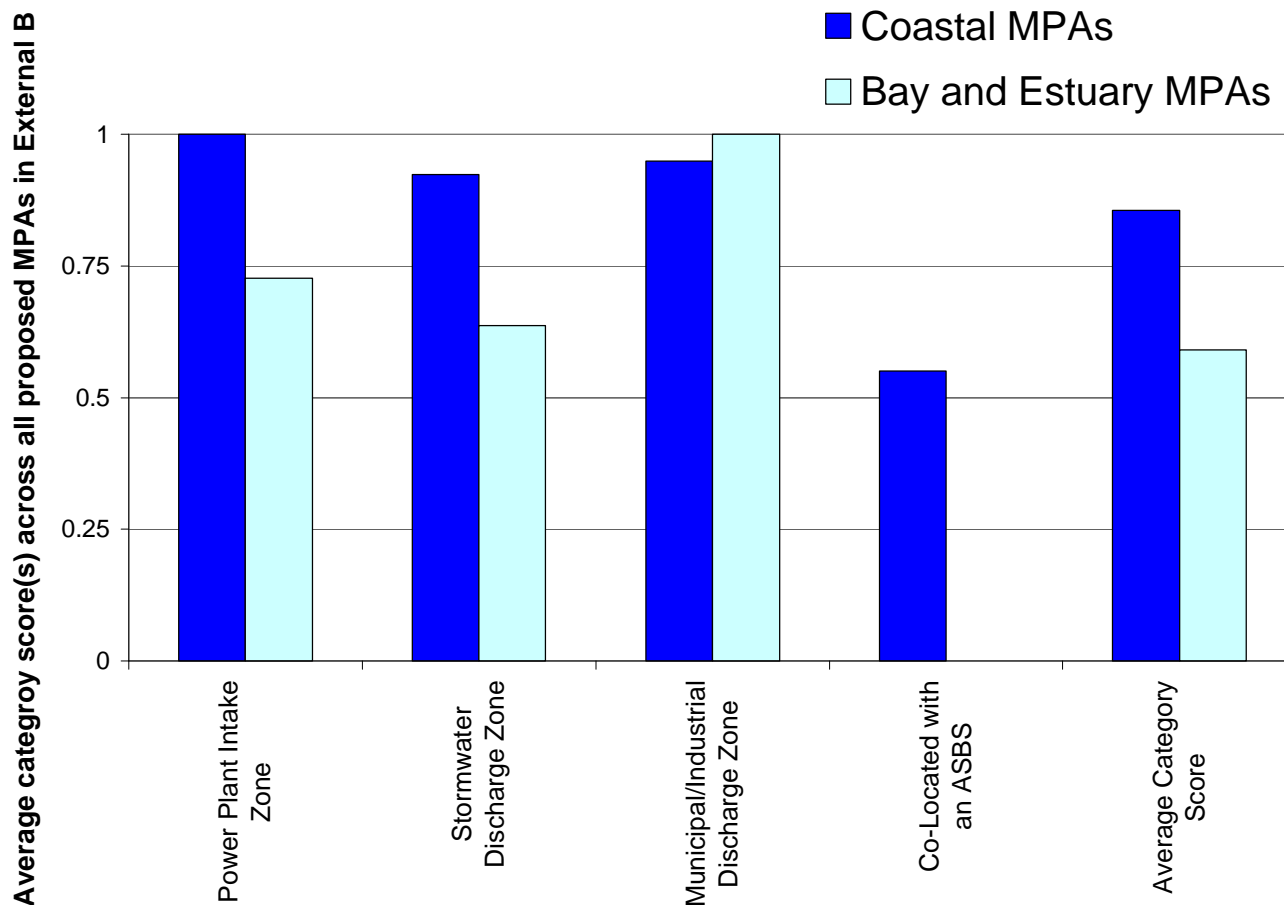


Table 3. Proposed MPAs by External B group that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

Proposed Coastal MPAs	Average Score
Sunset Cliffs SMR	0.50
Del Mar SMR	0.50
Laguna Coast SMCA	0.63
Palos Verdes SMCA	0.63
Proposed Bay and Estuary MPAs	Average Score
South San Diego Bay SMP	0.13
Agua Hedionda Lagoon SMR	0.38
San Elijo Lagoon SMP	0.50

Mugu Lagoon SMRMA	0.50
San Dieguito Lagoon SMR	0.50
Proposed MPAs Co-located with ASBSs ¹	Average Score
Big Sycamore SMR	0.75
Laguna SMR	0.66
Charles F Holder Catalina SMCA	0.73
La Jolla SMCA	0.97
San Diego-Scripps SMCA	1.00
San Clemente Pending Military Closure 1	1.00
San Clemente Pending Military Closure 2	1.00
Begg Rock SMR	1.00
Arrow Pt to Lionhead SMCA	1.00
Big Sycamore SMP	1.00

¹This table excludes the 13 existing MPAs from the Northern Channel Islands and only focuses on new MPAs created by the proposal.

Lapis 1: Individual Summary

The Lapis 1 proposal is comprised of 54 MPAs. There were three coastal MPAs and ten MPAs (located in a bay or estuary) which scored lower than 0.75, while there were 41 MPAs which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concern areas (Table 4, Appendix D). This proposal had one MPA placed in the San Diego Bay (scored 0.13), which was identified by the SAT as an undesirable location for MPA placement in the SCSR because they contain water quality conditions that will most likely compromise MPA performance and potentially the ability of an MPA to meet the goals of the MLPA. The Swamis-San Elijo SMCA also scored low (0.38) due to being located within both a stormwater discharge zone and a wastewater discharge zone (Figure 1). However, the score of this proposal was improved by having 22 MPAs located within ASBSs (Table 4).

Figure 5. Scores for all water quality evaluation categories for Lapis 1. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

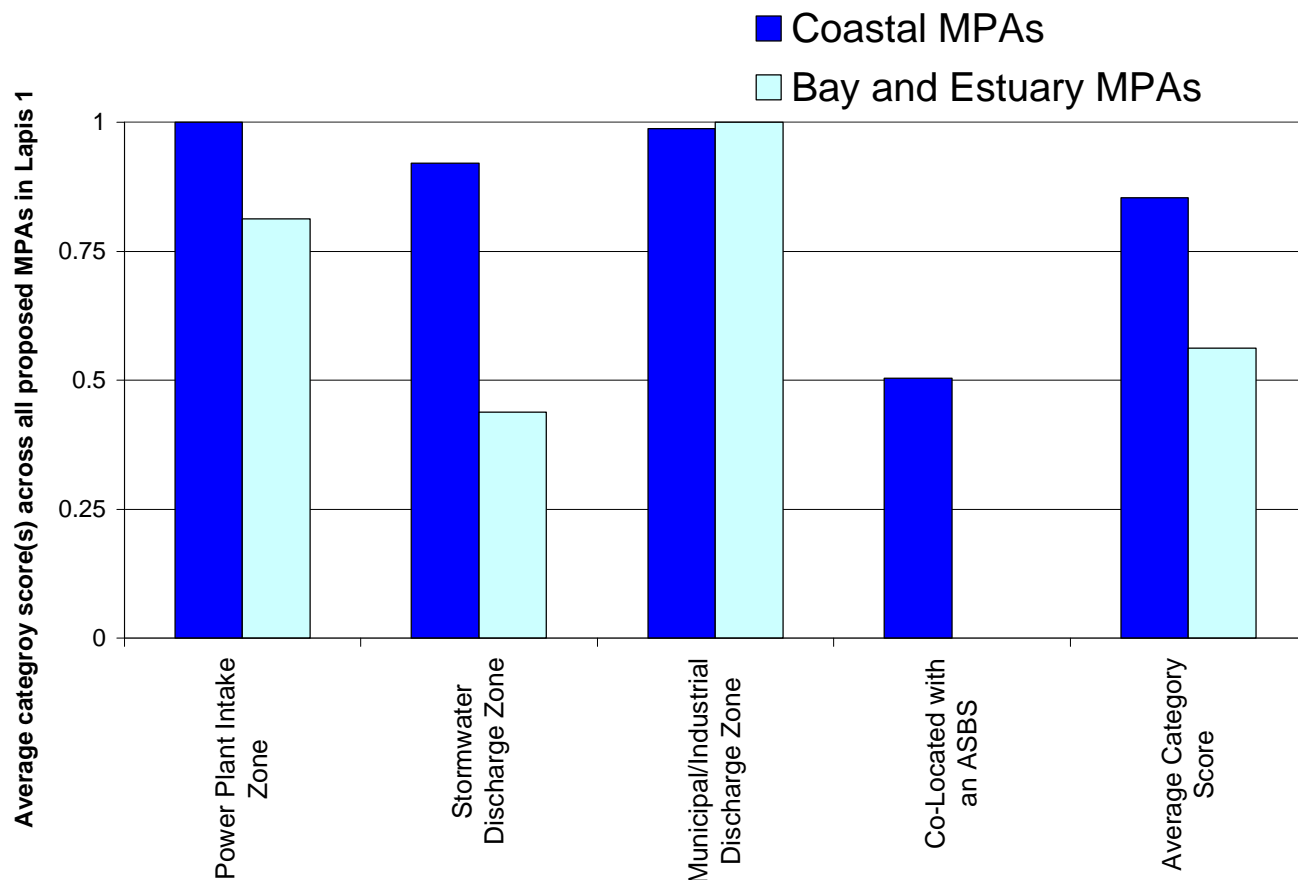


Table 4. Proposed MPAs by the Lapis 1 group that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

Proposed Coastal MPAs	Average Score
Swami's-San Elijo SMCA	0.38
Doheny SMCA	0.50
Point Loma SMCA	0.50
Proposed Bay and Estuary MPAs	Average Score
Ha Sil (South San Deigo Bay) SMP	0.13
Agua Hedionda Lagoon SMR	0.38

Famosa Slough SMR	0.50
Tijuana River Mouth SMCA	0.50
San Dieguito Lagoon SMR	0.50
Penasquitos Lagoon SMR	0.50
San Diego River SMCA	0.50
San Elijo Lagoon SMR	0.50
Tijuana Estuary SMR	0.50
Mugu Lagoon SMRMA	0.50

Proposed MPAs Co-located with ASBSs ¹	Average Score
Laguna Beach SMR	0.77
Farnsworth Bank SMR	0.83
Newport Beach SMCA	0.96
La Jolla SMR 1	0.97
San Clemente Pending Military Closure 1	1.00
San Clemente Pending Military Closure 2	1.00
San Diego- Scripps SMCA	1.00
Lachusa SMCA	1.00
Point Dume SMR	1.00
Arrow Point SMCA	1.00

¹This table excludes the 13 existing MPAs from the Northern Channel Islands and only focuses on new MPAs created by the proposal.

Lapis 2: Individual Summary

The Lapis 2 proposal is comprised of 55 MPAs. There were five coastal MPAs and nine bay and estuary MPAs which scored lower than 0.75, while there were 41 MPAs which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concern areas (Table 5, Appendix E). This proposal had one MPA placed in the San Diego Bay (scored 0.13), which was identified by the SAT as an undesirable location for MPA placement in the SCSR because they contain water quality conditions that will most likely compromise MPA performance and potentially the ability of an MPA to meet the goals of the MLPA. Overall, this proposal had four coastal MPAs located within stormwater discharge zones, one coastal MPA located in a municipal/industrial wastewater discharge zone and two bay and estuary MPAs located in power plant entrainment zones (Figure 1). However, the score of this proposal was improved by having 23 MPAs located within ASBSs (Table 5).

Figure 6. Scores for all water quality evaluation categories for Lapis 2. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

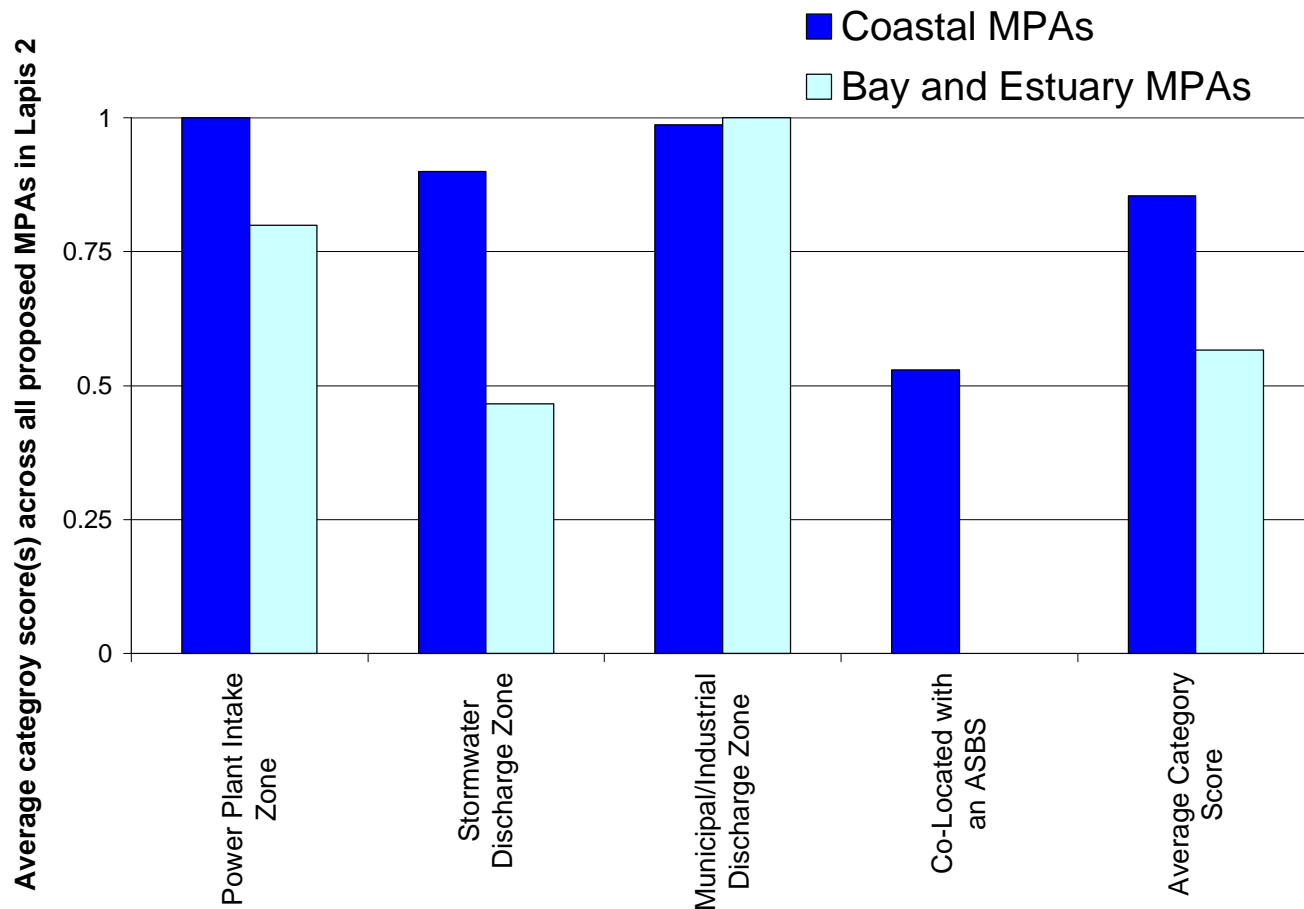


Table 5. Proposed MPAs by the Lapis 2 group that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

Proposed Coastal MPAs	Average Score
Doheny SMCA	0.50
Tijuana River Mouth SMCA	0.50
Point Loma SMCA	0.50
Del Mar SMR	0.50
Proposed Bay and Estuary MPAs	Average Score
Ha Sil (South San Deigo Bay) SMP	0.13
Agua Hedionda Lagoon SMR	0.38
Famosa Slough SMR	0.50
San Dieguito Lagoon SMR	0.50
Penasquitos Lagoon SMR	0.50

San Diego River SMCA	0.50
San Elijo Lagoon SMR	0.50
Tijuana Estuary SMR	0.50
Mugu Lagoon SMRMA	0.50
Proposed MPAs Co-located with ASBSs¹	Average Score
Laguna SMR	0.66
Farnsworth Bank SMR	0.83
Newport Beach SMCA 1	0.96
La Jolla SMR	0.97
Begg Rock SMR	1.00
San Diego-Scripps SMCA	1.00
Big Sycamore Canyon SMR	1.00
San Clemente Pending Military Closure 1	1.00
San Clemente Pending Military Closure 2	1.00
Arrow Point SMCA	1.00

¹This table excludes the 13 existing MPAs from the Northern Channel Islands and only focuses on new MPAs created by the proposal.

Opal: Individual Summary

The Opal proposal is comprised of 56 MPAs. There were five coastal MPAs and six bay and estuary MPAs which scored lower than 0.75, while there were 44 MPAs which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concern areas (Table 6, Appendix F). This proposal had one MPA placed in the San Diego Bay (scored 0.13), which was identified by the SAT as an undesirable location for MPA placement in the SCSR because they contain water quality conditions that will most likely compromise MPA performance and potentially the ability of an MPA to meet the goals of the MLPA. The four coastal MPAs were located within stormwater discharge zones, and one coastal MPA was located within a wastewater discharge zone (Figure 1). However, the score of this proposal was improved by having 23 MPAs located within ASBSs (Table 6).

Figure 7. Scores for all water quality evaluation categories for Opal. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

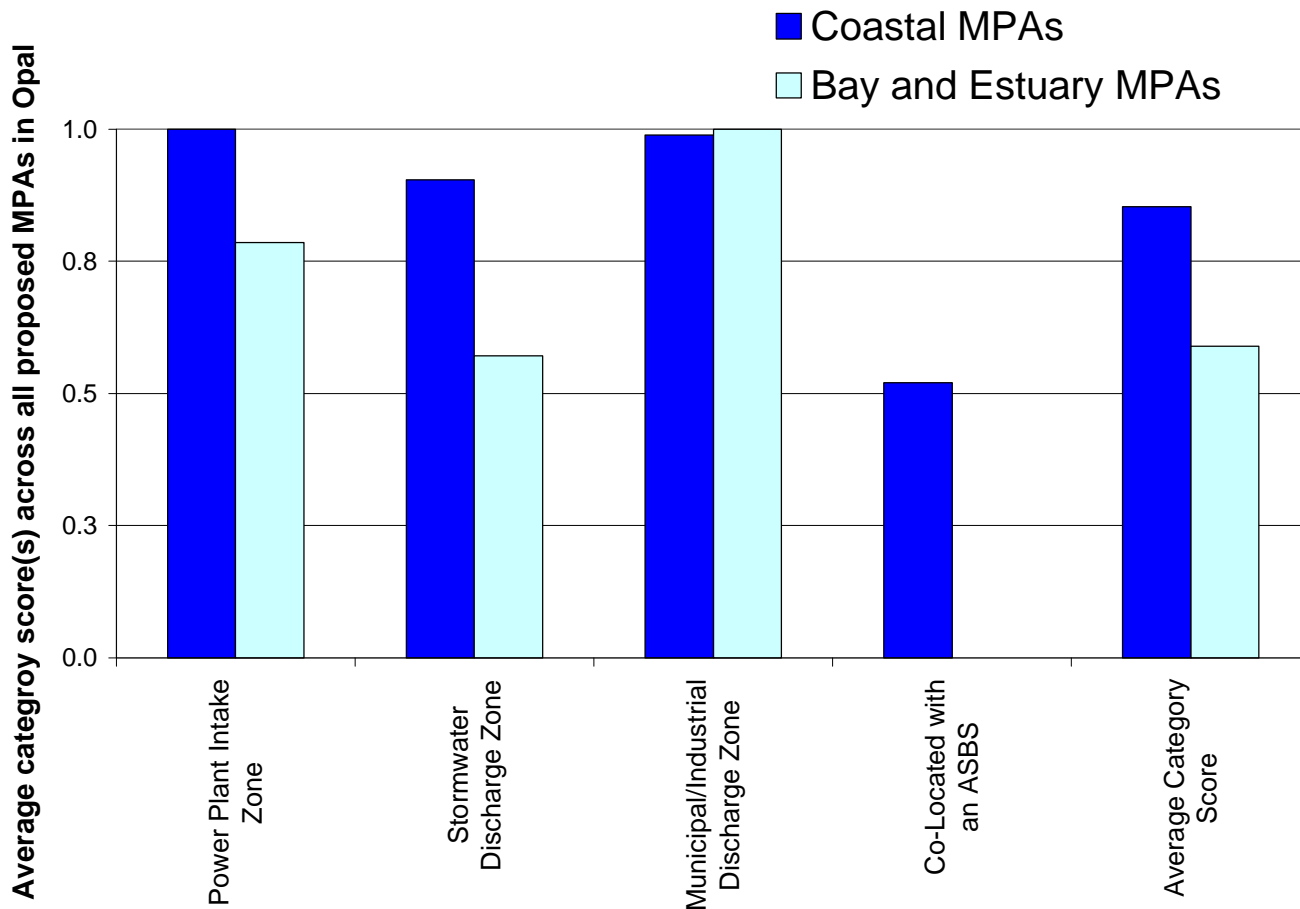


Table 6. Proposed MPAs by the Opal group that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

Proposed Coastal MPAs	Average Score
Ocean Beach SMCA	0.50
Tijuana Reef SMCA	0.50
Sunset Cliffs SMR	0.50
Del Mar SMR	0.50
Proposed Bay and Estuary MPAs	Average Score
South San Diego Bay SMCA	0.13
Agua Hedionda Lagoon SMR	0.38
Tijuana River Mouth SMR	0.50

Tijuana River Estuary	0.50
Penasquitos SMR	0.50
Point Mugu Estuary SMRMA	0.50
San Digueito SMR	0.50
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Proposed MPAs Co-located with ASBSs ¹	Average Score
Laguna SMR	0.66
Laguna North SMCA	0.96
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Proposed MPAs Co-located with ASBSs ¹	Average Score
La Jolla SMR	0.97
San Diego-Scripps SMCA	1.00
San Clemente Pending Military Closure 1	1.00
San Clemente Pending Military Closure 2	1.00
Lechuza SMR	1.00
Point Dume SMCA	1.00
Begg Rock SMR	1.00
Arrow Point-Lion's Head SMCA	1.00

¹This table excludes the 13 existing MPAs from the Northern Channel Islands and only focuses on new MPAs created by the proposal.

Topaz: Individual Summary

The Topaz proposal is comprised of 66 MPAs. There were eight coastal MPAs and seven bay and estuary MPAs which scored lower than 0.75, while there were 47 MPAs which scored between 0.75 and 1.0, the threshold at which MPAs do not contain water quality concern areas (Table 7, Appendix G). This proposal had one MPA placed in the San Diego Bay (scored 0.13), which was identified by the SAT as an undesirable location for MPA placement in the SCSR because they contain water quality conditions that will most likely compromise MPA performance and potentially the ability of an MPA to meet the goals of the MLPA. The Swamis SMCA also scored low (0.38) due to being located within both a stormwater discharge zone and a wastewater discharge zone. This proposal had six coastal MPAs located within stormwater discharge zones, which significantly impacted the overall score for the proposal along the coast (Figure 1). However, the score of this proposal was improved by having 25 MPAs located within ASBSs (Table 7).

Figure 8. Scores for all water quality evaluation categories for Topaz. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

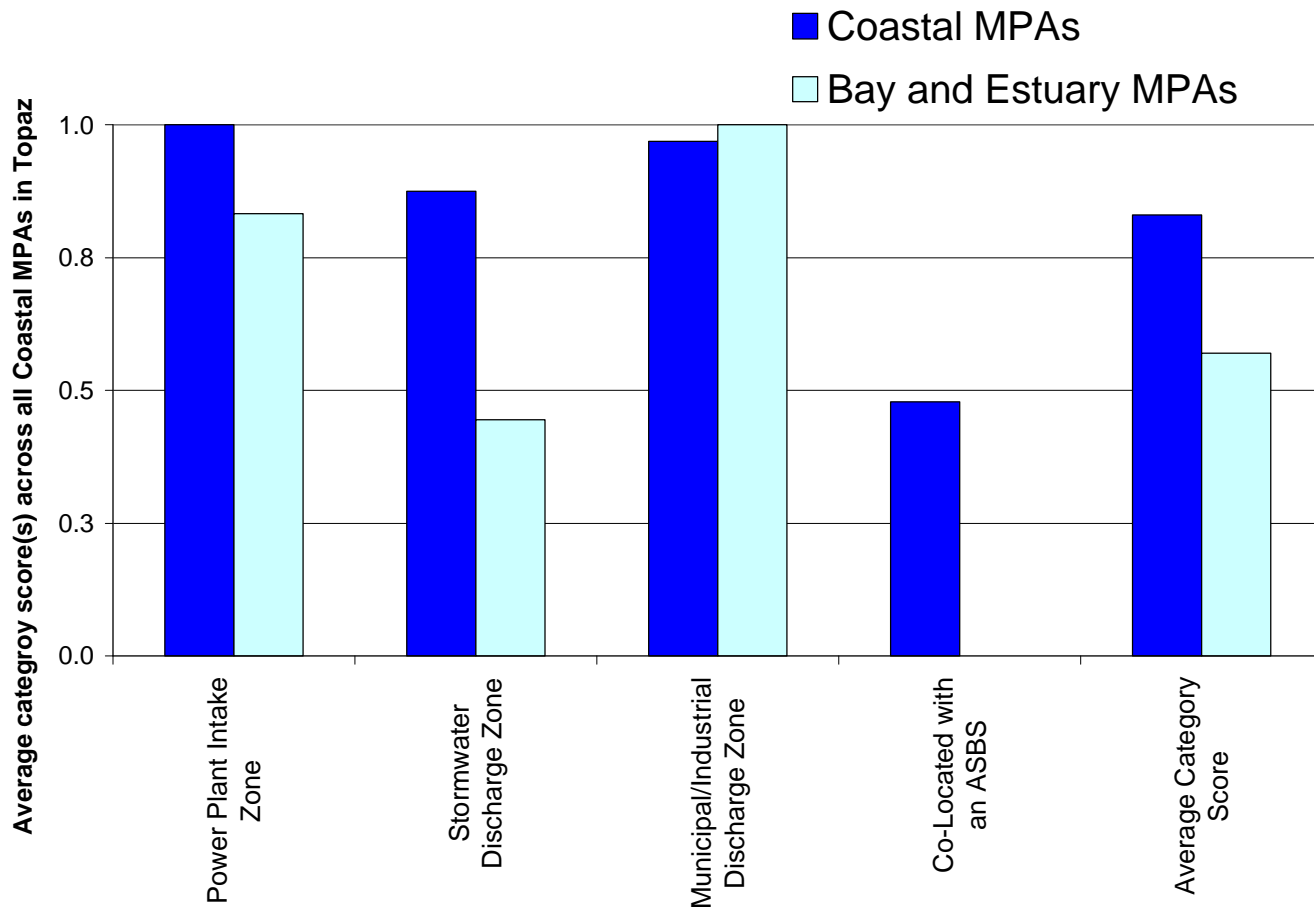


Table 7. Proposed MPAs by the Topaz group that either had water quality concerns and/or were co-located with ASBSs. Scores between 0.75 and 1.0 indicate MPA placement without water quality concern area. Scores less than 0.75 indicated placement of MPAs within water quality concern areas. See appendix B for the breakdown of these scores.

Proposed Coastal MPAs	Average Score
Swamis SMCA	0.38
Ocean Beach SMCA	0.50
Doheny Beach SMCA	0.50
Imperial Beach SMCA	0.50
Ocean Beach SMR	0.50
Del Mar SMR	0.50
Lover's Cove SMCA	0.63
Bays and Estuaries MPA	Average Score

*California Marine Life Protection Act (MLPA) Initiative, South Coast Study Region (SCSR)
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South San Diego Bay SMCA	0.13
Agua Hedionda Lagoon SMR	0.38
Penasquitos SMR	0.50
Point Mugu Estuary SMRMA	0.50
San Digueito SMR	0.50
San Diego River/ Famosa Slough SMR	0.50
Santa Clara Rivermouth SMCA	0.50
<u>Bays and Estuaries MPA</u>	<u>Average Score</u>
San Elijo Lagoon SMR	0.50
Magu/Muwu SMRMA	0.50
Kendal Frost SMCA	0.50
Tijuana River Estuary SMR	0.50
<u>Proposed MPAs Co-located with ASBSs¹</u>	<u>Average Score</u>
Laguna SMR	0.68
Crystal Cove SMCA	0.96
La Jolla North SMR	0.97
La Jolla North SMR	1.00
Begg Rock SMR	1.00
Emerald Bay SMCA	1.00
Point Dume SMCA	1.00
Point Dume SMR	1.00
San Clemente Pending Military Closure 1	1.00
San Clemente Pending Military Closure 2	1.00
Deer Creek SMCA	1.00
Sequit SMCA	1.00

¹This table excludes the 13 existing MPAs from the Northern Channel Islands and only focuses on new MPAs created by the proposal.

*California Marine Life Protection Act (MLPA) Initiative, South Coast Study Region (SCSR)
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June 17, 2009*

Appendix A- Raw scoring table for Proposal 0 based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/Industrial Discharge Zone	Co-Located with an ASBS	Average Category Score	Weighted Score
	<u>Coastal MPAs</u>					
Cardiff-San Elijo	1.00	0.00	1.00	0.00	0.50	0.01
Doheny	1.00	0.00	1.00	0.00	0.50	0.01
Doheny Beach	1.00	0.00	1.00	0.00	0.50	0.01
Abalone Cove	1.00	1.00	1.00	0.00	0.75	0.01
Catalina Marine Science Center	1.00	1.00	1.00	0.00	0.75	0.01
Dana Point	1.00	1.00	1.00	0.00	0.75	0.01
Farnsworth Bank	1.00	1.00	1.00	0.00	0.75	0.01
Lover's Cove	1.00	1.00	1.00	0.00	0.75	0.00
Mia J Tegner	1.00	1.00	1.00	0.00	0.75	0.01
Niguel	1.00	1.00	1.00	0.00	0.75	0.02
Point Fermin	1.00	1.00	1.00	0.00	0.75	0.00
Refugio	1.00	1.00	1.00	0.00	0.75	0.02
South Laguna Beach	1.00	1.00	1.00	0.00	0.75	0.00
Encinitas	1.00	1.00	1.00	0.00	0.75	0.00
Laguna Beach	1.00	1.00	1.00	0.09	0.77	0.05
Heisler Park	1.00	1.00	1.00	0.88	0.97	0.00
La Jolla	1.00	1.00	1.00	0.88	0.97	0.02
Anacapa Island SMCA	1.00	1.00	1.00	1.00	1.00	0.03
Anacapa Island SMR	1.00	1.00	1.00	1.00	1.00	0.05
Big Sycamore Canyon	1.00	1.00	1.00	1.00	1.00	0.03
Carrington Point	1.00	1.00	1.00	1.00	1.00	0.07
Crystal Cove	1.00	1.00	1.00	1.00	1.00	0.04
Footprint	1.00	1.00	1.00	1.00	1.00	0.06
Gull Island	1.00	1.00	1.00	1.00	1.00	0.04
Harris Point	1.00	1.00	1.00	1.00	1.00	0.10
Irvine Coast	1.00	1.00	1.00	1.00	1.00	0.04
Judith Rock	1.00	1.00	1.00	1.00	1.00	0.02
Painted Cave	1.00	1.00	1.00	1.00	1.00	0.03
Richardson Rock	1.00	1.00	1.00	1.00	1.00	0.08
Robert E Badham	1.00	1.00	1.00	1.00	1.00	0.01
San Diego-Scripps	1.00	1.00	1.00	1.00	1.00	0.01
Santa Barbara Island	1.00	1.00	1.00	1.00	1.00	0.01
Scorpion	1.00	1.00	1.00	1.00	1.00	0.05
Skunk Point	1.00	1.00	1.00	1.00	1.00	0.03
South Point	1.00	1.00	1.00	1.00	1.00	0.06
Average Score	1.00	0.91	1.00	0.57	0.87	0.98

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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/Indu strial Discharge Zone	Co-Located with an ASBS	Average Category Score	Weighted Score
<u>Bays and Estuaries MPAs</u>						
Agua Hedionda Lagoon	-0.50	1.00	1.00	0.00	0.38	0.01
San Dieguito Lagoon	1.00	0.00	1.00	0.00	0.50	0.04
San Elijo Lagoon	1.00	0.00	1.00	0.00	0.50	0.09
Batiquitos Lagoon	1.00	1.00	1.00	0.00	0.75	0.08
Upper Newport Bay	1.00	1.00	1.00	0.00	0.75	0.17
Goleta Slough	1.00	1.00	1.00	0.00	0.75	0.18
Bolsa Chica	1.00	1.00	1.00	0.00	0.75	0.03
Average Category Score	0.79	0.71	1.00	0.00	0.63	0.59

*California Marine Life Protection Act (MLPA) Initiative, South Coast Study Region (SCSR)
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Appendix B- Raw scoring table for the External A proposal based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/ Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
	<u>Proposed Coastal MPAs</u>					
Doheny Beach SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Sunset Cliffs SMR	1.00	0.00	1.00	0.00	0.50	0.01
Del Mar SMR	1.00	0.00	1.00	0.00	0.50	0.01
Lover's Cove_SMCA	1.00	1.00	0.50	0.00	0.63	0.00
Portuguese Bend SMCA	1.00	1.00	0.50	0.00	0.63	0.03
Laguna SMR	1.00	1.00	0.50	0.16	0.67	0.02
Point Vicente SMR	1.00	1.00	1.00	0.00	0.75	0.00
Casino Point_SMR	1.00	1.00	1.00	0.00	0.75	0.00
Point Fermin SMP	1.00	1.00	1.00	0.00	0.75	0.00
Farnsworth Bank_SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Cabrillo SMR	1.00	1.00	1.00	0.00	0.75	0.01
Bird Rock SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Malibu SMR	1.00	1.00	1.00	0.00	0.75	0.02
Laguna Coast SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Dana Point SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Campus Point SMR	1.00	1.00	1.00	0.00	0.75	0.02
Ocean Beach SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Blue Cavern SMR	1.00	1.00	1.00	0.00	0.75	0.02
Point Conception SMR	1.00	1.00	1.00	0.00	0.75	0.03
La Jolla SMR	1.00	1.00	1.00	0.88	0.97	0.02
Crystal Cove SMCA	1.00	1.00	1.00	0.94	0.99	0.03
Begg Rock SMR	1.00	1.00	1.00	1.00	1.00	0.03
Footprint	1.00	1.00	1.00	1.00	1.00	0.04
Richardson Rock	1.00	1.00	1.00	1.00	1.00	0.06
Santa Barbara Island	1.00	1.00	1.00	1.00	1.00	0.01
Deer Creek SMCA	1.00	1.00	1.00	1.00	1.00	0.01
Pending Military Closures SCI 1	1.00	1.00	1.00	1.00	1.00	0.01
Judith Rock	1.00	1.00	1.00	1.00	1.00	0.02
Anacapa Island SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Skunk Point	1.00	1.00	1.00	1.00	1.00	0.02
Painted Cave	1.00	1.00	1.00	1.00	1.00	0.02
Gull Island	1.00	1.00	1.00	1.00	1.00	0.03
Big Sycamore Canyon SMR	1.00	1.00	1.00	1.00	1.00	0.03
Scorpion	1.00	1.00	1.00	1.00	1.00	0.03
Anacapa Island SMR	1.00	1.00	1.00	1.00	1.00	0.04
South Point	1.00	1.00	1.00	1.00	1.00	0.04
Carrington Point	1.00	1.00	1.00	1.00	1.00	0.05
Pending Military Closures SCI 2	1.00	1.00	1.00	1.00	1.00	0.05

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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/ Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
Harris Point	1.00	1.00	1.00	1.00	1.00	0.07
Average Score	1.00	0.92	0.96	0.51	0.85	0.88
<u>Proposed Bay and Estuary MPAs</u>						
San Elijo Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.06
San Dieguito Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.06
Oneonta Slough SMR	1.00	0.00	1.00	0.00	0.50	0.11
Cat Harbor SMCA	1.00	1.00	1.00	0.00	0.75	0.04
Bolsa Chica SMP	1.00	1.00	1.00	0.00	0.75	0.07
Batiquitos Lagoon SMR	1.00	1.00	1.00	0.00	0.75	0.10
Upper Newport Bay SMCA	1.00	1.00	1.00	0.00	0.75	0.11
Goleta Slough SMR	1.00	1.00	1.00	0.00	0.75	0.11
Average Score	1.00	0.63	1.00	0.00	0.66	0.64

Appendix C- Raw scoring table for External B proposal based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
<u>Proposed Coastal MPAs</u>						
Sunset Cliffs SMR	1.00	0.00	1.00	0.00	0.50	0.01
Del Mar SMR	1.00	0.00	1.00	0.00	0.50	0.01
Laguna Coast SMCA	1.00	1.00	0.50	0.00	0.63	0.01
Palos Verdes SMCA	1.00	1.00	0.50	0.00	0.63	0.01
Laguna SMR	1.00	1.00	0.50	0.16	0.66	0.01
Charles F Holder Catalina SMCA	1.00	1.00	0.50	0.42	0.73	0.25
Big Sycamore SMR	1.00	0.00	1.00	1.00	0.75	0.02
Lover's Cove SMCA	1.00	1.00	1.00	0.00	0.75	0.00
Mia J Tegner SMCA	1.00	1.00	1.00	0.00	0.75	0.00
Point Fermin SMP	1.00	1.00	1.00	0.00	0.75	0.00
Bird Rock SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Farnsworth ptB SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Goleta SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Del Mar SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Goleta SMR	1.00	1.00	1.00	0.00	0.75	0.01
Farnsworth ptA SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Ocean Beach SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Catalina Marine Science Center SMR	1.00	1.00	1.00	0.00	0.75	0.01
Portuguese Bend SMCA	1.00	1.00	1.00	0.00	0.75	0.02
La Jolla SMCA	1.00	1.00	1.00	0.88	0.97	0.01
Begg Rock SMR	1.00	1.00	1.00	1.00	1.00	0.02
Footprint	1.00	1.00	1.00	1.00	1.00	0.03
Richardson Rock	1.00	1.00	1.00	1.00	1.00	0.03
San Diego-Scripps SMCA	1.00	1.00	1.00	1.00	1.00	0.00
Santa Barbara Island	1.00	1.00	1.00	1.00	1.00	0.01
Pending Military Closure SCI 1	1.00	1.00	1.00	1.00	1.00	0.01
Judith Rock	1.00	1.00	1.00	1.00	1.00	0.01
Anacapa Island SMCA	1.00	1.00	1.00	1.00	1.00	0.01
Skunk Point	1.00	1.00	1.00	1.00	1.00	0.01
Big Sycamore SMP	1.00	1.00	1.00	1.00	1.00	0.01
Painted Cave	1.00	1.00	1.00	1.00	1.00	0.02
Gull Island	1.00	1.00	1.00	1.00	1.00	0.02
Arrow Pt to Lionhead SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Scorpion	1.00	1.00	1.00	1.00	1.00	0.02
Anacapa Island SMR	1.00	1.00	1.00	1.00	1.00	0.02
South Point	1.00	1.00	1.00	1.00	1.00	0.03
Carrington Point	1.00	1.00	1.00	1.00	1.00	0.03

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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
Pending Military Closure SCI 2	1.00	1.00	1.00	1.00	1.00	0.03
Harris Point	1.00	1.00	1.00	1.00	1.00	0.04
Average Score	1.00	0.92	0.95	0.55	0.86	0.83
<u>Proposed Bay and Estuary MPAs</u>						
South San Diego Bay SMP	-0.50	0.00	1.00	0.00	0.13	0.01
Agua Hedionda Lagoon SMR	-0.50	1.00	1.00	0.00	0.38	0.00
San Elijo Lagoon SMP	1.00	0.00	1.00	0.00	0.50	0.05
Mugu Lagoon SMRMA	1.00	0.00	1.00	0.00	0.50	0.06
San Dieguito Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.06
Devereux Lagoon SMR	1.00	1.00	1.00	0.00	0.75	0.03
Sweetwater Marsh SMR	1.00	1.00	1.00	0.00	0.75	0.04
Bolsa Chica SMP	1.00	1.00	1.00	0.00	0.75	0.07
Batiquitos Lagoon SMP	1.00	1.00	1.00	0.00	0.75	0.09
Upper Newport Bay SMP	1.00	1.00	1.00	0.00	0.75	0.10
Goleta Slough SMP	1.00	1.00	1.00	0.00	0.75	0.10
Average Score	0.73	0.64	1.00	0.00	0.59	0.60

Appendix D- Raw scoring table for the Lapis 1 proposal based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/In dustrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
<u>Proposed Coastal MPAs</u>						
Swami's-San Elijo SMCA	1.00	0.00	0.50	0.00	0.38	0.01
Doheny SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Point Loma SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Begg Rock SMR	1.00	1.00	1.00	0.00	0.75	0.02
Footprint	1.00	1.00	1.00	0.00	0.75	0.03
Richardson Rock	1.00	1.00	1.00	0.00	0.75	0.04
Avalon Dive Park SMR	1.00	1.00	1.00	0.00	0.75	0.00
Lover's Cove SMR	1.00	1.00	1.00	0.00	0.75	0.00
Point Fermin SMP	1.00	1.00	1.00	0.00	0.75	0.00
Dana Point SMR	1.00	1.00	1.00	0.00	0.75	0.01
Palos Verdes SMR	1.00	1.00	1.00	0.00	0.75	0.01
Blue Cavern SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Coal Oil Point SMR	1.00	1.00	1.00	0.00	0.75	0.02
Blue Cavern SMR	1.00	1.00	1.00	0.00	0.75	0.02
La Jolla SMR 2	1.00	1.00	1.00	0.00	0.75	0.02
SoLag Dana SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Point Conception/Humqaq SMR	1.00	1.00	1.00	0.00	0.75	0.03
Laguna Beach SMR	1.00	1.00	1.00	0.07	0.77	0.04
Farnsworth Bank SMR	1.00	1.00	1.00	0.33	0.83	0.02
Newport Beach SMCA	1.00	1.00	1.00	0.86	0.96	0.04
La Jolla SMR 1	1.00	1.00	1.00	0.88	0.97	0.01
San Diego-Scripps SMCA	1.00	1.00	1.00	1.00	1.00	0.00
Santa Barbara Island	1.00	1.00	1.00	1.00	1.00	0.01
San Clemente Pending Military Closure 1	1.00	1.00	1.00	1.00	1.00	0.01
Judith Rock	1.00	1.00	1.00	1.00	1.00	0.01
Anacapa Island SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Skunk Point	1.00	1.00	1.00	1.00	1.00	0.02
Painted Cave	1.00	1.00	1.00	1.00	1.00	0.02
Lachusa SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Gull Island	1.00	1.00	1.00	1.00	1.00	0.03
Scorpion	1.00	1.00	1.00	1.00	1.00	0.03
Arrow Point SMCA	1.00	1.00	1.00	1.00	1.00	0.03
Anacapa Island SMR	1.00	1.00	1.00	1.00	1.00	0.03
South Point	1.00	1.00	1.00	1.00	1.00	0.04
Point Dume SMR	1.00	1.00	1.00	1.00	1.00	0.04
Carrington Point	1.00	1.00	1.00	1.00	1.00	0.05
San Clemente Pending Military Closure 2	1.00	1.00	1.00	1.00	1.00	0.05

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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/In dustrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
Harris Point	1.00	1.00	1.00	1.00	1.00	0.07
Average Score	1.00	0.92	0.99	0.50	0.85	0.87
<u>Proposed Bay and Estuary MPAs</u>						
Ha Sil (South San Deigo Bay) SMP	-0.50	0.00	1.00	0.00	0.13	0.02
Agua Hedionda Lagoon SMR	-0.50	1.00	1.00	0.00	0.38	0.00
Famosa Slough SMR	1.00	0.00	1.00	0.00	0.50	0.01
Tijuana River Mouth SMCA	1.00	0.00	1.00	0.00	0.50	0.01
San Dieguito Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.01
Penasquitos Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.02
San Diego River SMCA	1.00	0.00	1.00	0.00	0.50	0.02
San Elijo Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.03
Tijuana Estuary SMR	1.00	0.00	1.00	0.00	0.50	0.06
Mugu Lagoon SMRMA	1.00	0.00	1.00	0.00	0.50	0.11
Malibu Creek Estuary SMR	1.00	1.00	1.00	0.00	0.75	0.01
Batiquitos Lagoon SMR	1.00	1.00	1.00	0.00	0.75	0.03
Carpinteria Estuary SMR	1.00	1.00	1.00	0.00	0.75	0.03
Bolsa Chica SMP	1.00	1.00	1.00	0.00	0.75	0.04
Goleta Slough SMR	1.00	1.00	1.00	0.00	0.75	0.06
Upper Newport Bay SMP	1.00	1.00	1.00	0.00	0.75	0.06
Average Score	0.81	0.44	1.00	0.00	0.56	0.51

Appendix E- Raw scoring table for the Lapis 2 proposal based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/ Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
<u>Proposed Coastal MPAs</u>						
Doheny SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Tijuana River Mouth SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Point Loma SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Del Mar SMR	1.00	0.00	1.00	0.00	0.50	0.01
Laguna SMR	1.00	1.00	0.50	0.13	0.66	0.02
Point Vicente SMR	1.00	1.00	1.00	0.00	0.75	0.00
Avalon Dive Park SMR	1.00	1.00	1.00	0.00	0.75	0.00
Lover's Cove SMR	1.00	1.00	1.00	0.00	0.75	0.00
Point Fermin SMP	1.00	1.00	1.00	0.00	0.75	0.00
Dana Point SMR	1.00	1.00	1.00	0.00	0.75	0.01
Newport Beach SMCA 2	1.00	1.00	1.00	0.00	0.75	0.01
Blue Cavern SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Malibu SMR	1.00	1.00	1.00	0.00	0.75	0.02
Coal Oil Point SMR	1.00	1.00	1.00	0.00	0.75	0.02
Blue Cavern SMR	1.00	1.00	1.00	0.00	0.75	0.02
SoLag Dana SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Abalone Cove SMCA	1.00	1.00	1.00	0.00	0.75	0.03
Point Conception/Humqaq SMR	1.00	1.00	1.00	0.00	0.75	0.03
Farnsworth Bank SMR	1.00	1.00	1.00	0.32	0.83	0.02
Newport Beach SMCA 1	1.00	1.00	1.00	0.83	0.96	0.04
La Jolla SMR	1.00	1.00	1.00	0.88	0.97	0.02
Begg Rock SMR	1.00	1.00	1.00	1.00	1.00	0.02
Footprint	1.00	1.00	1.00	1.00	1.00	0.04
Richardson Rock	1.00	1.00	1.00	1.00	1.00	0.05
San Diego-Scripps SMCA	1.00	1.00	1.00	1.00	1.00	0.00
Santa Barbara Island	1.00	1.00	1.00	1.00	1.00	0.01
San Clemente Pending Military Closure 1	1.00	1.00	1.00	1.00	1.00	0.01
Judith Rock	1.00	1.00	1.00	1.00	1.00	0.01
Anacapa Island SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Skunk Point	1.00	1.00	1.00	1.00	1.00	0.02
Painted Cave	1.00	1.00	1.00	1.00	1.00	0.02
Gull Island	1.00	1.00	1.00	1.00	1.00	0.03
Scorpion	1.00	1.00	1.00	1.00	1.00	0.03
Big Sycamore Canyon SMR	1.00	1.00	1.00	1.00	1.00	0.03
Arrow Point SMCA	1.00	1.00	1.00	1.00	1.00	0.03
Anacapa Island SMR	1.00	1.00	1.00	1.00	1.00	0.03
South Point	1.00	1.00	1.00	1.00	1.00	0.04

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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/ Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
Carrington Point	1.00	1.00	1.00	1.00	1.00	0.05
San Clemente Pending Military Closure 2	1.00	1.00	1.00	1.00	1.00	0.05
Harris Point	1.00	1.00	1.00	1.00	1.00	0.07
Average Scores	1.00	0.90	0.99	0.53	0.85	0.88
<u>Proposed Bay and Estuary MPAs</u>						
Agua Hedionda Lagoon SMR	-0.50	1.00	1.00	0.00	0.38	0.00
Ha Sil (South San Deigo Bay) SMP	-0.50	0.00	1.00	0.00	0.13	0.02
Famosa Slough SMR	1.00	0.00	1.00	0.00	0.50	0.01
San Dieguito Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.01
Penasquitos Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.02
San Diego River SMCA	1.00	0.00	1.00	0.00	0.50	0.03
San Elijo Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.03
Tijuana Estuary SMR	1.00	0.00	1.00	0.00	0.50	0.06
Mugu Lagoon SMRMA	1.00	0.00	1.00	0.00	0.50	0.11
Malibu Creek Estuary SMR	1.00	1.00	1.00	0.00	0.75	0.01
Batiquitos Lagoon SMR	1.00	1.00	1.00	0.00	0.75	0.03
Carpinteria Estuary SMR	1.00	1.00	1.00	0.00	0.75	0.03
Bolsa Chica SMP	1.00	1.00	1.00	0.00	0.75	0.04
Goleta Slough SMR	1.00	1.00	1.00	0.00	0.75	0.06
Upper Newport Bay SMP	1.00	1.00	1.00	0.00	0.75	0.06
Average Scores	0.80	0.47	1.00	0.00	0.57	0.51

Appendix F- Raw scoring table for the Opal Proposal based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/ Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
<u>Proposed Coastal MPAs</u>						
Ocean Beach SMCA	1.0	0.0	1.0	0.0	0.50	0.00
Tijuana Reef SMCA	1.0	0.0	1.0	0.0	0.50	0.00
Sunset Cliffs SMR	1.0	0.0	1.0	0.0	0.50	0.01
Del Mar SMR	1.0	0.0	1.0	0.0	0.50	0.01
Laguna SMR	1.0	1.0	0.5	0.1	0.66	0.02
Casino Point SMR	1.0	1.0	1.0	0.0	0.75	0.00
Lovers Cove SMCA	1.0	1.0	1.0	0.0	0.75	0.00
Point Fermin SMP	1.0	1.0	1.0	0.0	0.75	0.00
Encinitas SMCA	1.0	1.0	1.0	0.0	0.75	0.00
Cabrillo SMR	1.0	1.0	1.0	0.0	0.75	0.01
Little Bird Rock SMR	1.0	1.0	1.0	0.0	0.75	0.01
Long Point SMR	1.0	1.0	1.0	0.0	0.75	0.02
Coal Oil Point SMR	1.0	1.0	1.0	0.0	0.75	0.02
Point Vicente SMR	1.0	1.0	1.0	0.0	0.75	0.02
Long Point SMCA	1.0	1.0	1.0	0.0	0.75	0.02
Point Conception SMR	1.0	1.0	1.0	0.0	0.75	0.03
China Point SMR	1.0	1.0	1.0	0.0	0.75	0.04
Laguna South SMCA	1.0	1.0	1.0	0.0	0.75	0.04
Farnsworth Bank SMCA	1.0	1.0	1.0	0.0	0.75	0.04
Santa Catalina Marine Science Center SMR	1.0	1.0	1.0	0.0	0.76	0.02
Laguna North SMCA	1.0	1.0	1.0	0.8	0.96	0.03
La Jolla SMR	1.0	1.0	1.0	0.9	0.97	0.01
Begg Rock SMR	1.0	1.0	1.0	1.0	1.00	0.02
Footprint	1.0	1.0	1.0	1.0	1.00	0.03
Richardson Rock	1.0	1.0	1.0	1.0	1.00	0.05
San Diego-Scripps SMCA	1.0	1.0	1.0	1.0	1.00	0.00
Santa Barbara Island	1.0	1.0	1.0	1.0	1.00	0.01
Lechuza SMR	1.0	1.0	1.0	1.0	1.00	0.01
San Clemente Pending Military Closure 1	1.0	1.0	1.0	1.0	1.00	0.01
Judith Rock	1.0	1.0	1.0	1.0	1.00	0.01
Anacapa Island SMCA	1.0	1.0	1.0	1.0	1.00	0.02
Anacapa Island SMR	1.0	1.0	1.0	1.0	1.00	0.02
Skunk Point	1.0	1.0	1.0	1.0	1.00	0.02
Painted Cave	1.0	1.0	1.0	1.0	1.00	0.02
Gull Island	1.0	1.0	1.0	1.0	1.00	0.02
Arrow Point-Lion's Head SMCA	1.0	1.0	1.0	1.0	1.00	0.02
Scorpion	1.0	1.0	1.0	1.0	1.00	0.03
South Point	1.0	1.0	1.0	1.0	1.00	0.03

*California Marine Life Protection Act (MLPA) Initiative, South Coast Study Region (SCSR)
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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/ Industrial/ Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
Point Dume SMCA	1.0	1.0	1.0	1.0	1.00	0.04
Carrington Point	1.0	1.0	1.0	1.0	1.00	0.04
San Clemente Pending Military Closure 2	1.0	1.0	1.0	1.0	1.00	0.04
Harris Point	1.0	1.0	1.0	1.0	1.00	0.06
Average Score	1.0	0.9	1.0	0.5	0.85	0.9
<u>Proposed Bay and Estuary MPAs</u>						
South San Diego Bay SMCA	-0.5	0.0	1.0	0.0	0.1	0.01
Agua Hedionda Lagoon SMR	-0.5	1.0	1.0	0.0	0.4	0.00
Tijuana River Mouth SMR	1.0	0.0	1.0	0.0	0.5	0.01
Penasquitos SMR	1.0	0.0	1.0	0.0	0.5	0.02
Point Mugu Estuary SMRMA	1.0	0.0	1.0	0.0	0.5	0.03
San Digueito SMR	1.0	0.0	1.0	0.0	0.5	0.04
Tijuana River Estuary SMR	1.0	0.0	1.0	0.0	0.5	0.08
Devereux Lagoon SMR	1.0	1.0	1.0	0.0	0.8	0.02
Catalina Harbor SMCA	1.0	1.0	1.0	0.0	0.8	0.03
Sweetwater Marsh SMR	1.0	1.0	1.0	0.0	0.8	0.03
Bolsa Chica SMP	1.0	1.0	1.0	0.0	0.8	0.05
Batiquitos Lagoon SMR	1.0	1.0	1.0	0.0	0.8	0.08
Upper Newport Bay SMP	1.0	1.0	1.0	0.0	0.8	0.08
Goleta Slough SMR	1.0	1.0	1.0	0.0	0.8	0.08
Average Score	0.8	0.6	1.0	0.0	0.6	0.59

Appendix G- Raw scoring table for the Topaz Proposal based on SAT Water Quality Evaluation Methods.

	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
<u>Proposed Coastal MPAs</u>						
Swamis SMCA	1.00	0.00	0.50	0.00	0.38	0.01
Ocean Beach SMCA	1.00	0.00	1.00	0.00	0.50	0.00
Doheny Beach SMCA	1.00	0.00	1.00	0.00	0.50	0.00
Imperial Beach SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Ocean Beach SMR	1.00	0.00	1.00	0.00	0.50	0.01
Del Mar SMR	1.00	0.00	1.00	0.00	0.50	0.01
Lover's Cove SMCA	1.00	1.00	0.50	0.00	0.63	0.00
Laguna SMR	1.00	1.00	0.50	0.21	0.68	0.03
Casino Point SMR	1.00	1.00	1.00	0.00	0.75	0.00
Point Ferman SMP	1.00	1.00	1.00	0.00	0.75	0.00
La Jolla South SMR	1.00	1.00	1.00	0.00	0.75	0.00
La Jolla South SMCA	1.00	1.00	1.00	0.00	0.75	0.00
Silver Canyon SMR	1.00	1.00	1.00	0.00	0.75	0.01
Cabrillo SMR	1.00	1.00	1.00	0.00	0.75	0.01
Naples SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Catalina Isthmus SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Refugio SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Farnsworth SMCA	1.00	1.00	1.00	0.00	0.75	0.01
Dana Point SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Three Arch Bay SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Blue Cavern SMR	1.00	1.00	1.00	0.00	0.75	0.02
Palos Verdes SMR	1.00	1.00	1.00	0.00	0.75	0.02
Long Point SMR	1.00	1.00	1.00	0.00	0.75	0.02
Helo SMR	1.00	1.00	1.00	0.00	0.75	0.02
Point Conception SMR	1.00	1.00	1.00	0.00	0.75	0.03
Crystal Cove SMCA	1.00	1.00	1.00	0.85	0.96	0.02
La Jolla North SMR	1.00	1.00	1.00	0.89	0.97	0.01
Begg Rock SMR	1.00	1.00	1.00	1.00	1.00	0.02
Footprint	1.00	1.00	1.00	1.00	1.00	0.03
Richardson Rock	1.00	1.00	1.00	1.00	1.00	0.05
Santa Barbara Island	1.00	1.00	1.00	1.00	1.00	0.01
San Clemente Pending Military Closure 1	1.00	1.00	1.00	1.00	1.00	0.01
Judith Rock	1.00	1.00	1.00	1.00	1.00	0.01
Sequit SMCA	1.00	1.00	1.00	1.00	1.00	0.01
Anacapa Island SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Point Dume SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Skunk Point	1.00	1.00	1.00	1.00	1.00	0.02

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	Power Plant Intake Zone	Stormwater Discharge Zone	Municipal/Industrial Discharge Zone	Co-Located with an ASBS	Average Score	Weighted Score
Point Dume SMR	1.00	1.00	1.00	1.00	1.00	0.02
Deer Creek SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Painted Cave	1.00	1.00	1.00	1.00	1.00	0.02
Gull Island	1.00	1.00	1.00	1.00	1.00	0.02
Emerald Bay SMCA	1.00	1.00	1.00	1.00	1.00	0.02
Scorpion	1.00	1.00	1.00	1.00	1.00	0.03
Anacapa Island SMR	1.00	1.00	1.00	1.00	1.00	0.03
South Point	1.00	1.00	1.00	1.00	1.00	0.03
Carrington Point	1.00	1.00	1.00	1.00	1.00	0.04
San Clemente Pending Military Closure 2	1.00	1.00	1.00	1.00	1.00	0.04
Harris Point	1.00	1.00	1.00	1.00	1.00	0.06
Average Score	1.00	0.88	0.97	0.48	0.83	0.86
<u>Proposed Bay and Estuary MPA</u>						
South San Diego Bay SMCA	-0.50	0.00	1.00	0.00	0.13	0.02
Agua Hedionda Lagoon SMR	-0.50	1.00	1.00	0.00	0.38	0.01
Santa Clara Rivermouth SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Los Penasquitos Marsh SMCA	1.00	0.00	1.00	0.00	0.50	0.01
San Elijo Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.03
San Diego River/Famosa Slough SMCA	1.00	0.00	1.00	0.00	0.50	0.03
San Dieguito Lagoon SMR	1.00	0.00	1.00	0.00	0.50	0.03
Tijuana Estuary SMR	1.00	0.00	1.00	0.00	0.50	0.05
Magu/ Muwu Lagoon SMRMA	1.00	0.00	1.00	0.00	0.50	0.07
Devereux Lagoon SMR	1.00	1.00	1.00	0.00	0.75	0.01
Cat Harbor SMCA	1.00	1.00	1.00	0.00	0.75	0.02
Carpinteria Salt Marsh SMR	1.00	1.00	1.00	0.00	0.75	0.03
Bolsa Chica SMP	1.00	1.00	1.00	0.00	0.75	0.03
Batiquitos Lagoon SMR	1.00	1.00	1.00	0.00	0.75	0.05
Upper Newport Bay SMP	1.00	1.00	1.00	0.00	0.75	0.05
Goleta Slough SMR	1.00	1.00	1.00	0.00	0.75	0.05
Ventura River Mouth SMCA	1.00	0.00	1.00	0.00	0.50	0.00
Kendal Frost SMCA	1.00	0.00	1.00	0.00	0.50	0.01
Average Score	0.83	0.44	1.00	0.00	0.57	0.52