Marine Life Protection Act Initiative

Draft SAT Evaluation of Water and Sediment Quality of Coast External Proposed MPA Arrays

Presentation to the MLPA Master Plan Science Advisory Team
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California State Water Resources Control Board

Evaluation Scoring Methods

Two categories of marine protected areas (MPAs) were identified and analyzed:

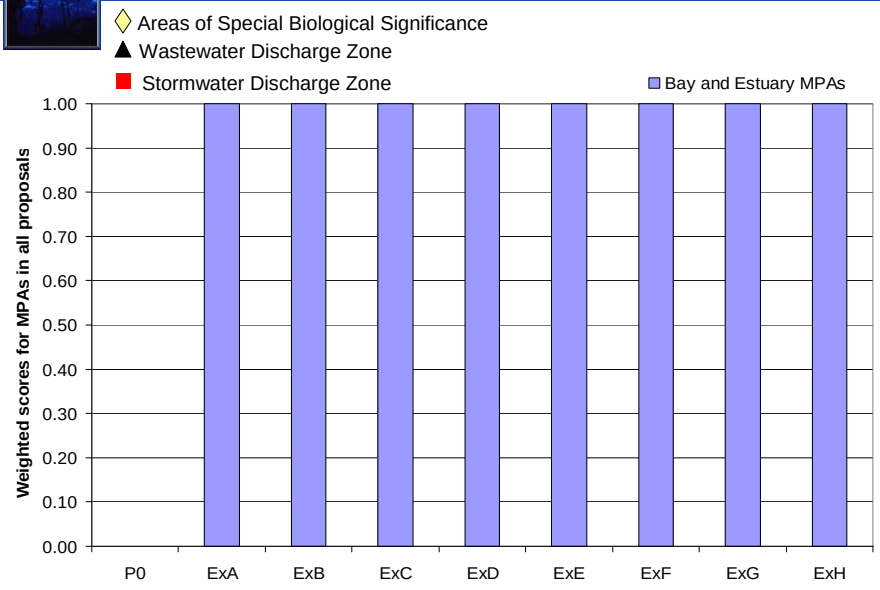
1. Bay and estuary MPAs
   - Bays and estuaries are more likely to be associated with storm-water runoff
   - No ASBS currently designated in embayments
2. Coastal MPAs
   - Mainland coast and islands

Evaluation Scoring Methods

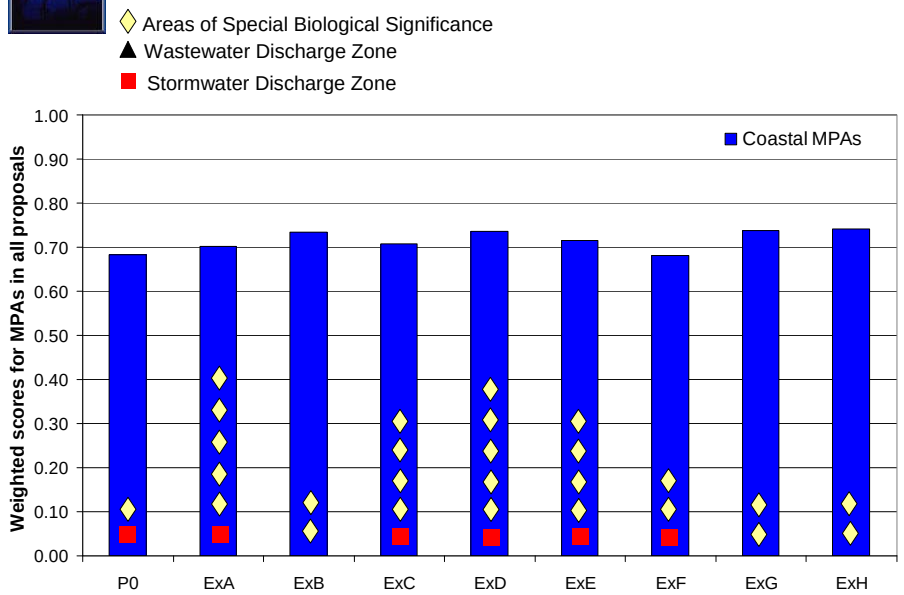
Description of Scores

- Score of 0.0 is the least desirable and has serious water-quality concerns
- For embayment MPAs, 1.00 is considered the most desirable, with no water-quality concerns
- For coastal MPAs, 0.67 is desirable, indicating no water-quality concerns
- Coastal MPAs with scores over 0.67 indicate they are co-located with an area of special biological significance (ASBS) / state water quality protection area; a score of 1.0 is most desirable

Proposal Comparison - Bay and Estuary MPAs (Weighted Scores)

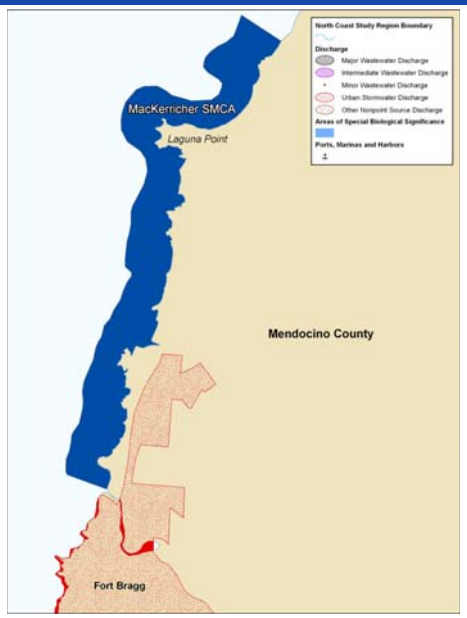


Proposal Comparison - Coastal MPAs (Weighted Scores)



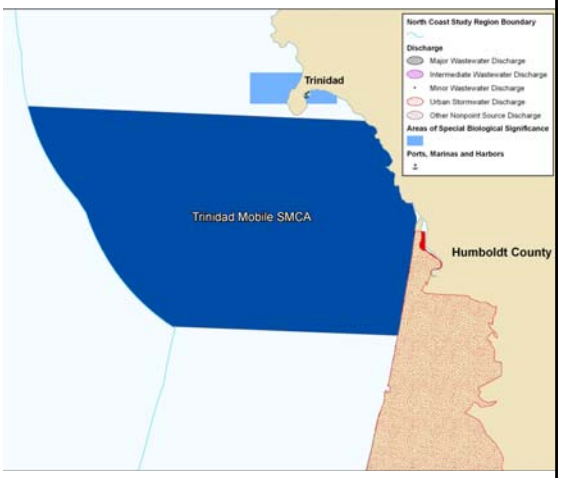
Areas of Water Quality Concern

- MacKerricher SMCA
  - Proposal 0 (existing MPAS)
  - ExC
  - ExD
  - ExE
  - ExF
- Southern boundary intersects MS4 drainage area
- Extends offshore to the 3-fathom depth contour

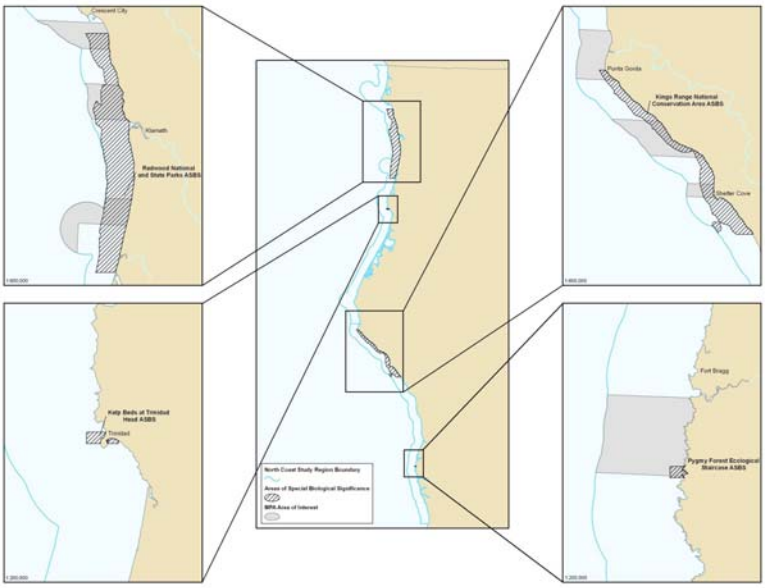


Areas of Water Quality Concern

- Trinidad Mobile SMCA
  - ExA
- Intersects stormwater drainage area
- Misses Trinidad Head ASBS to north
- Misses Trinidad harbor



ASBSs and Common Areas of MPA Placement



Round 1 Summary

- External MPA arrays did well with only two MPAs (one repeated in five arrays) containing a water quality concern area.
- Half of the external MPA arrays contained at least two ASBSs, and the other half contained more than two.
- All external MPA arrays contained MPAs within a bay or estuary free of SAT defined water quality concerns.

Round 1 Summary, conclusion

- *Water-quality evaluations are not mandated by the MLPA or master plan for MPAs, 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.*