Marine Birds and Mammals Evaluation for the April 2008 North Central Coast Marine Protected Area Proposals

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MLPA Master Plan Science Advisory Team

Presentation to the MLPA Master Plan Science Advisory Team
May 30, 2008

Methods

Same as in Round 3 evaluations....
Evaluation Results: Marine Mammals

In north central coast:
5 species of pinnipeds
- 42 colonies
- 76 haul out sites
  - 9,300 breeding
  - 17,900 resting/molting

Marine Mammal Haul Outs and Rookeries
No. of Mammals at Rookeries and Haul Outs

% = % of mammals in study region included within MPA proposals

### Rookeries
- No. of Mammals
  - North Subregion
  - South Subregion
  - Farallones Subregion

### Haul outs
- No. of Mammals
  - North Subregion
  - South Subregion
  - Farallones Subregion

Breeding Pinnipeds in Proposed MPAs

#### NCC north subregion
- % of subregional pop.
  - All Pinn
  - HS
  - SISL
  - NoFS
  - NoES

#### NCC south subregion
- % of subregional pop.
  - All Pinn
  - HS
  - SISL
  - NoFS
  - NoES

#### NCC Farallones subregion
- % of subregional pop.
  - All Pinn
  - HS
  - SISL
  - NoFS
  - NoES
Pinnipeds in Haul Outs in Proposed MPAs

NCC north subregion

% of subregional pop.

0% 20% 40% 60% 80% 100%

All Pinn CaSL SisL NoES HS

Proposal 0 Proposal 1-3 Proposal 2- XA Proposal 4 Proposal IPA

NCC south subregion

% of subregional pop.

0% 20% 40% 60% 80% 100% 120%

All Pinn CaSL SisL NoES HS

Proposal 0 Proposal 1-3 Proposal 2- XA Proposal 4 Proposal IPA

NCC Farallones subregion

% of subregional pop.

0% 20% 40% 60% 80% 100% 120%

All Pinn CaSL SisL NoES HS

Proposal 0 Proposal 1-3 Proposal 2- XA Proposal 4 Proposal IPA

Foraging Area for Harbor Seals

Relative Population Weighted Area

0 2 4 6 8 10 12 14

Proposal 0 Proposal 1-3 Proposal 2- XA Proposal 4 Proposal IPA

Fitzgerald Point Reyes Limantour Bodega Head Russian River Black Point Area Point Arena
Marine Mammals in Special Closures

<table>
<thead>
<tr>
<th>Special Closure location</th>
<th>Proposal 0</th>
<th>Proposal 1-3</th>
<th>Proposal 2-XA</th>
<th>Proposal 4</th>
<th>Proposal IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>North subregion (none)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South subregion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point Reyes</td>
<td>1000 ft 4 species</td>
<td>1000 ft 4 species</td>
<td>1000 ft 4 species</td>
<td>1000 ft 4 species</td>
<td></td>
</tr>
<tr>
<td>Pescadero</td>
<td>300 ft 1 species</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farallones subregion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Farallon Islands</td>
<td>300 ft 2 species</td>
<td>300 ft 2 species</td>
<td>300 ft 2 species</td>
<td>300 ft 2 species</td>
<td></td>
</tr>
<tr>
<td>South Farallon Islands</td>
<td>300 ft 5 species</td>
<td>300 ft 5 species</td>
<td>300 ft 5 species</td>
<td>300 ft 5 species</td>
<td></td>
</tr>
</tbody>
</table>

Summary for Marine Mammals

Areas of similarity amongst the proposals
- North & South Farallon Islands for breeding and haul out sites
- Point Reyes Headland SMR for breeding and haul out sites
- Limantour Estero SMR for breeding and haul out sites
- All covered 43-48% of rookeries in south region

Areas of difference
Proposals 2-XA and IPA included 14% of rookeries in north region versus 34% - 29% for proposals 1-3 and 4

Other observations
- No proposals included the Steller sea lion rookery at Fort Ross
- Special closures only benefited Farallon Islands and Point Reyes
- Half of marine mammal hot spots fall within SMRs or SMCAs
- Harbor seal foraging area only significant for Point Reyes and Fitzgerald for all proposals
- Proposal IPA is similar to Proposal 2-XA in most evaluations
All Seabird Colonies in NCCSR

- 66 colonies
- 12 species
- > 335,000 birds

Breeding Seabirds in Proposed MPAs

NCC north subregion

- % of subregional pop.
- Prop. 0
- Prop. 1-3
- Prop. 2-XA
- Prop. 4
- Prop. IPA

NCC south subregion

- % of subregional pop.
- Prop. 0
- Prop. 1-3
- Prop. 2-XA
- Prop. 4
- Prop. IPA

NCC Farallones subregion

- % of subregional pop.
- Prop. 0
- Prop. 1-3
- Prop. 2-XA
- Prop. 4
- Prop. IPA

NCCSR total

- % of study region pop.
- Prop. 0
- Prop. 1-3
- Prop. 2-XA
- Prop. 4
- Prop. IPA
Major Brown Pelican Roosts

23 roosts

Pelican hot spots

- South Farallon Islands
- Devil's Slide / San Pedro Rock
- Seal Rocks
- “Drakes Bay” area
- Point Reyes
- Bird Rock (off Tomales Point)
- Dillon Beach Rocks
- Bodega Rock / harbor
- Russian River area
- Gualala Point Island

Major Brown Pelican Roosts by Subregion

Pelican Roosts within MPAs

North
- Proposal 0
- Proposal 1-3
- Proposal 2-XA
- Proposal 4
- Proposal IPA

South
- Proposal 0
- Proposal 1-3
- Proposal 2-XA
- Proposal 4
- Proposal IPA

Farallon
- Proposal 0
- Proposal 1-3
- Proposal 2-XA
- Proposal 4
- Proposal IPA
Seabird Foraging Areas in NCC Study Region

North subregion

South subregion

Farallones subregion

Wintering Waterfowl in NCC Study Region
Top 20 Seabird Colonies in NCCSR

- 99% of regional population

Hot spots:
- Farallon Islands
- Devil's Slide
- Point Reyes
- “Drakes Bay” colonies
- Bird Rock (off Tomales Point)
- Bodega Rock
- Russian River area
- Gualala Point Island
- Fish Rocks

Proposed Special Closures

<table>
<thead>
<tr>
<th>Proposal</th>
<th>0</th>
<th>1-3</th>
<th>2-XA</th>
<th>4</th>
<th>IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arched Rock</td>
<td></td>
<td></td>
<td></td>
<td>300 feet</td>
<td></td>
</tr>
<tr>
<td>Gull Rock</td>
<td></td>
<td></td>
<td></td>
<td>300 feet</td>
<td></td>
</tr>
<tr>
<td>Point Reyes</td>
<td>1,000 feet</td>
<td></td>
<td>1,000 feet</td>
<td>1,000 feet</td>
<td></td>
</tr>
<tr>
<td>Point Resistance</td>
<td>500 feet</td>
<td>300 feet</td>
<td></td>
<td>300 feet</td>
<td></td>
</tr>
<tr>
<td>Stormy Stack</td>
<td>300 feet</td>
<td>300 feet</td>
<td></td>
<td>300 feet</td>
<td></td>
</tr>
<tr>
<td>Devil’s Slide Rock</td>
<td>1,000 feet</td>
<td>300 feet</td>
<td></td>
<td>1,000 feet</td>
<td></td>
</tr>
<tr>
<td>Pescadero *</td>
<td>300 feet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Farallon Islands</td>
<td>300 feet</td>
<td>1,000 feet</td>
<td>300 feet</td>
<td>1,000 feet</td>
<td>1,000 feet</td>
</tr>
<tr>
<td>South Farallon Islands</td>
<td>300 feet</td>
<td>300 feet</td>
<td>300 feet</td>
<td>300 feet</td>
<td>300 feet</td>
</tr>
</tbody>
</table>

* Little benefit to seabirds
<table>
<thead>
<tr>
<th>Summary for Marine Birds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breeding colonies</strong></td>
</tr>
<tr>
<td>– North subregion: Relatively little coverage (4 &gt; 1-3 &gt; 2-XA / IPA).</td>
</tr>
<tr>
<td>– South subregion: Greater coverage (4 &gt; 1-3 &gt; 2-XA / IPA).</td>
</tr>
<tr>
<td>– Farallon Islands subregion: Greatest coverage (all =)</td>
</tr>
<tr>
<td><strong>Seabird roosts:</strong> Few roosts covered</td>
</tr>
<tr>
<td><strong>Seabird foraging areas:</strong> Same as breeding colonies</td>
</tr>
<tr>
<td><strong>Waterfowl</strong></td>
</tr>
<tr>
<td>-- (4 &gt; 1-3 / IPA &gt; 2-XA)</td>
</tr>
<tr>
<td>-- Lack of coverage in Tomales Bay = largest concentrations</td>
</tr>
<tr>
<td><strong>Special closures:</strong> Largest colonies in NCCSR covered between all proposals. North subregion under-represented.</td>
</tr>
</tbody>
</table>