



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

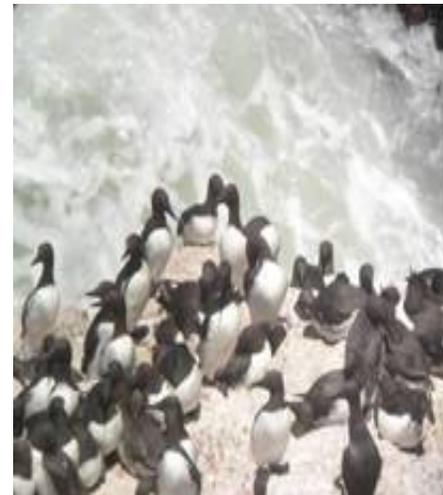
**Gerry McChesney and Sarah Allen
MLPA Master Plan Science Advisory Team**

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



Methods

Same as in Round 3 evaluations....





Evaluation Results: Marine Mammals

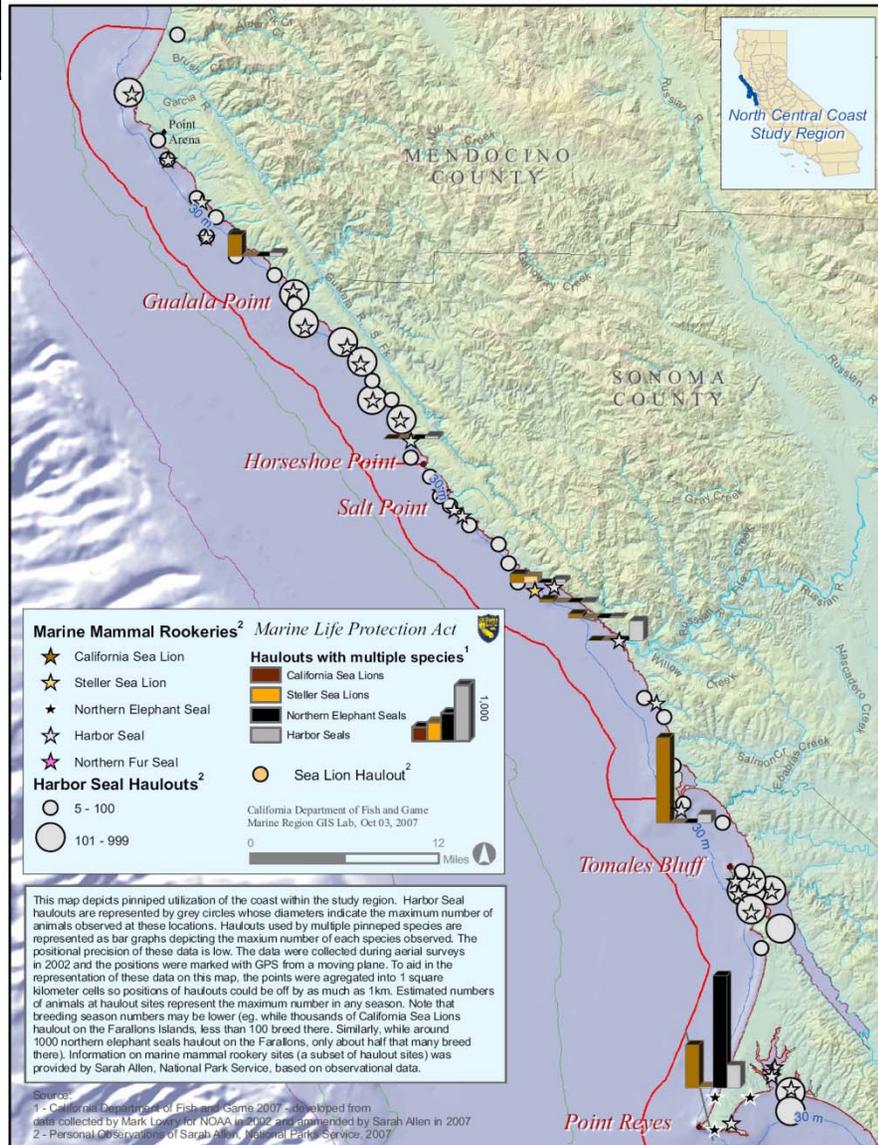


In north central coast:

5 species of pinnipeds

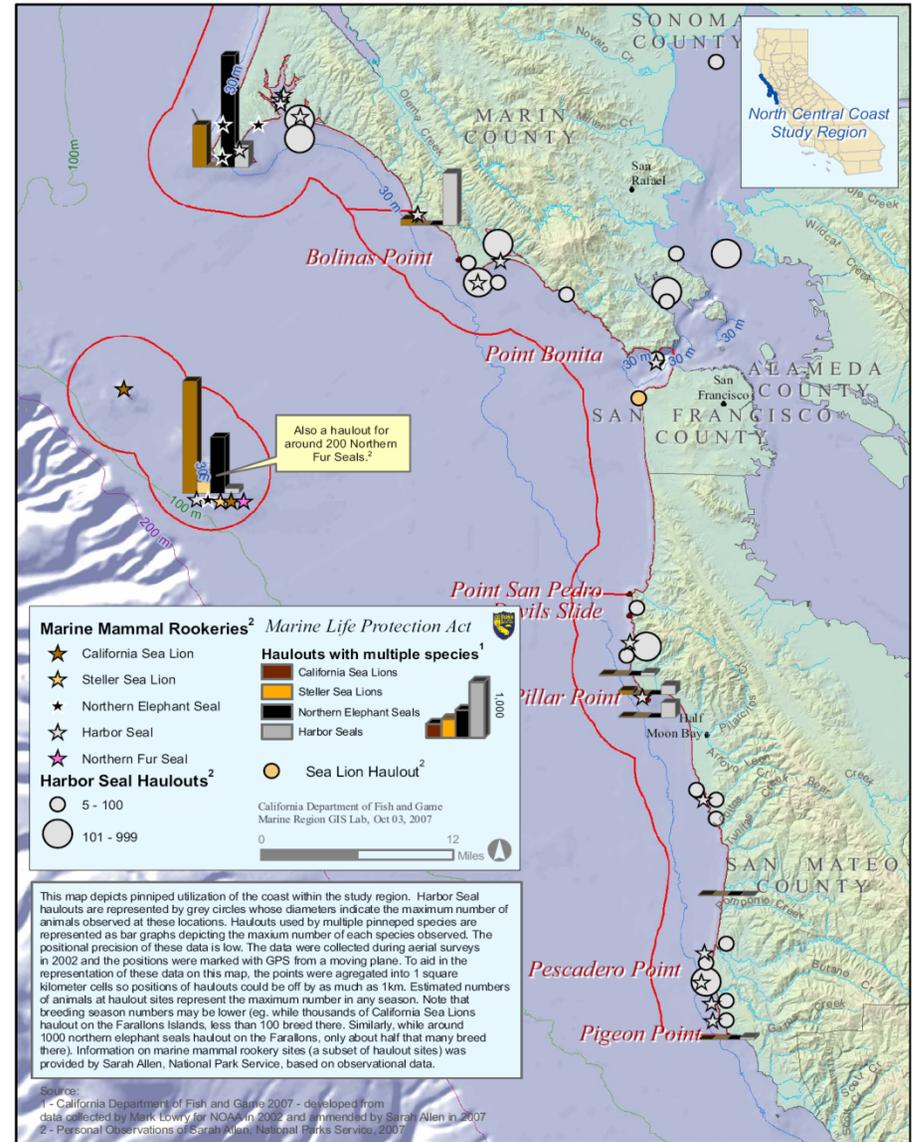
- **42 colonies**
- **76 haul out sites**
- **9,300 breeding**
- **17,900 resting/molting**

Marine Mammal Haul Outs and Rookeries



Map 5d Marine Mammal Haulouts and Rookeries

Northern



Map 5e Marine Mammal Haulouts and Rookeries

Southern

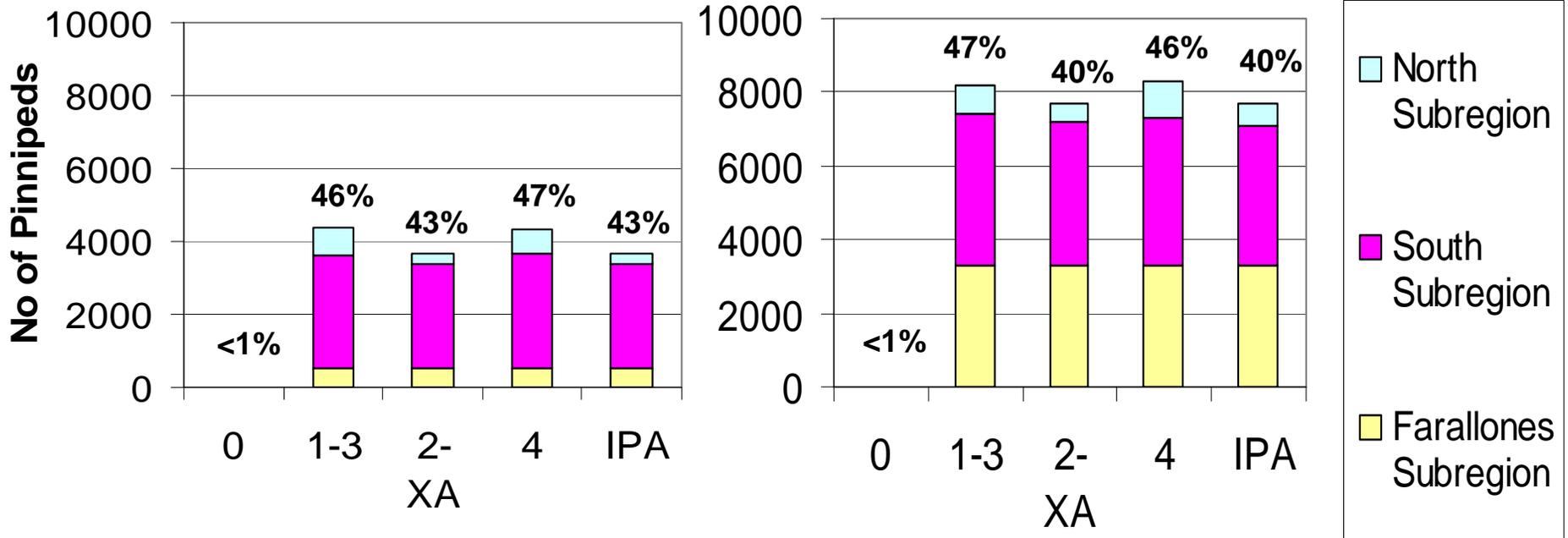


No. of Mammals at Rookeries and Haul Outs

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

Rookeries

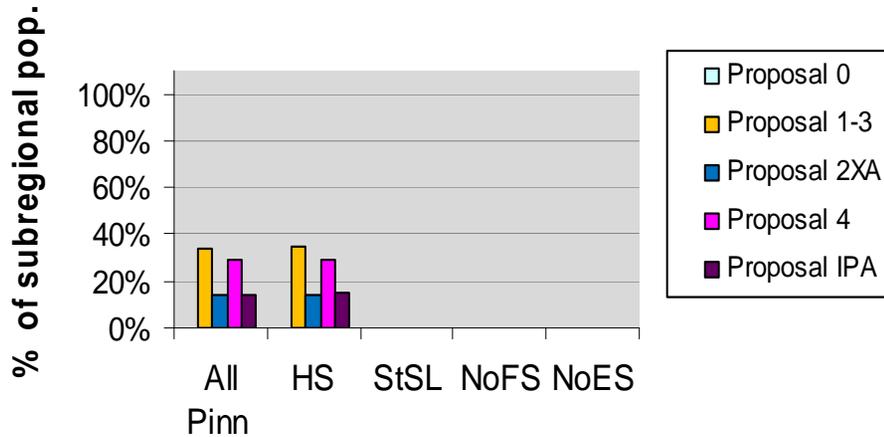
Haul outs



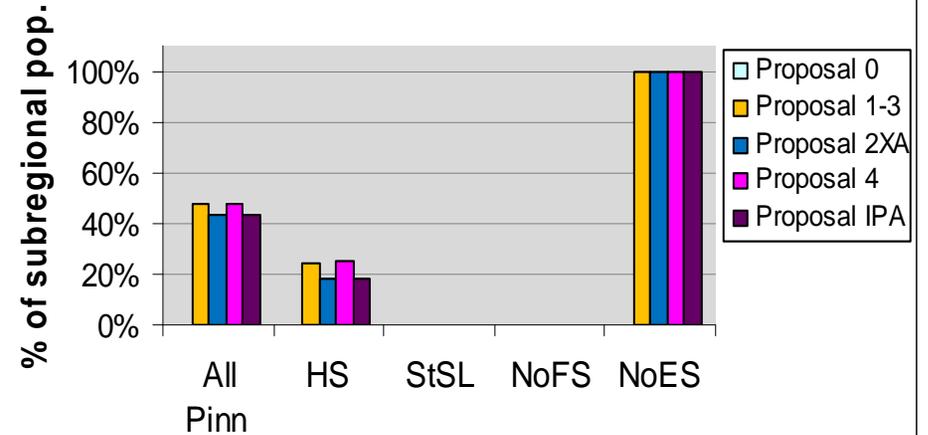
MPA Proposals

Breeding Pinnipeds in Proposed MPAs

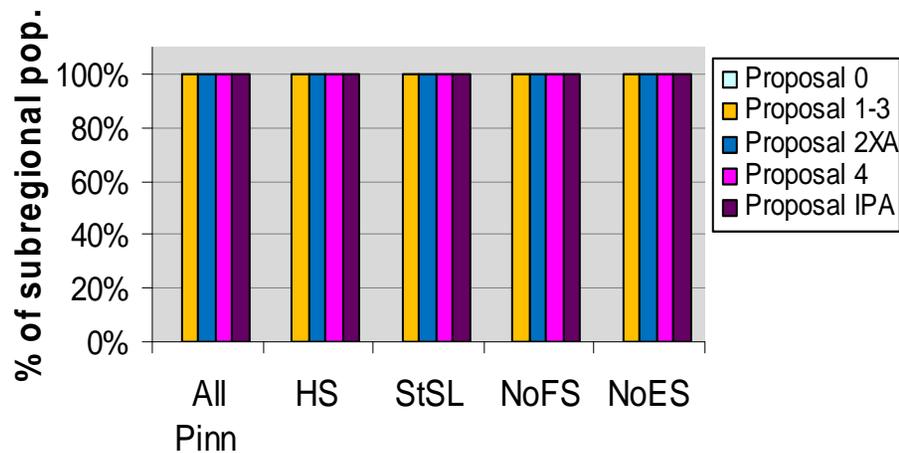
NCC north subregion



NCC south subregion

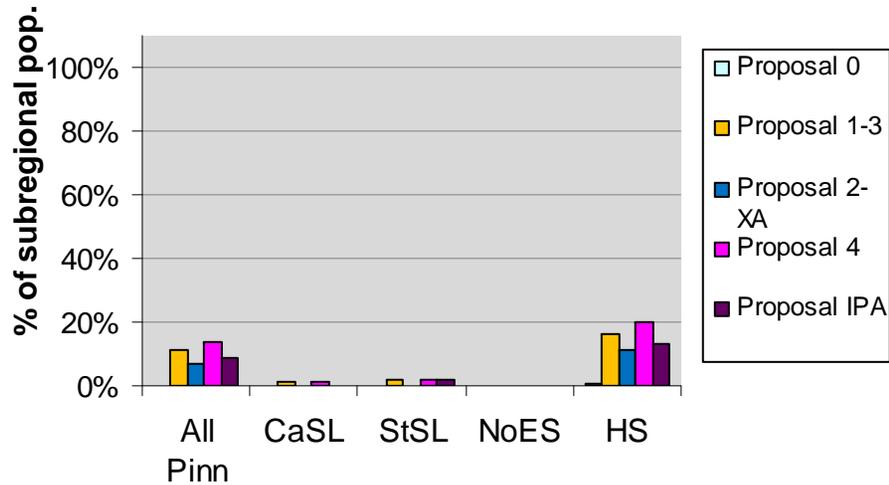


NCC Farallones subregion

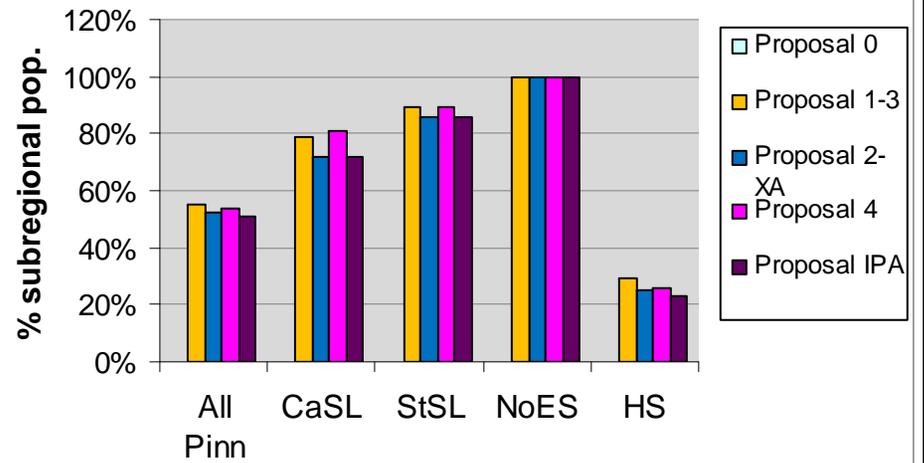


Pinnipeds in Haul Outs in Proposed MPAs

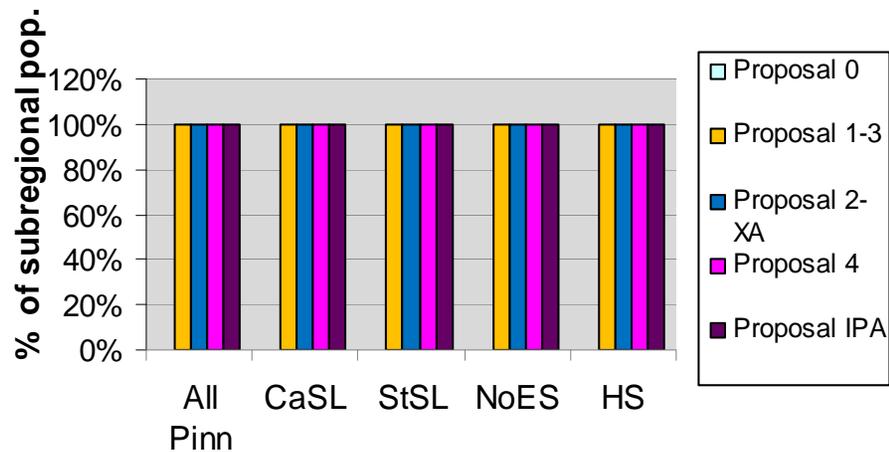
NCC north subregion



NCC south subregion

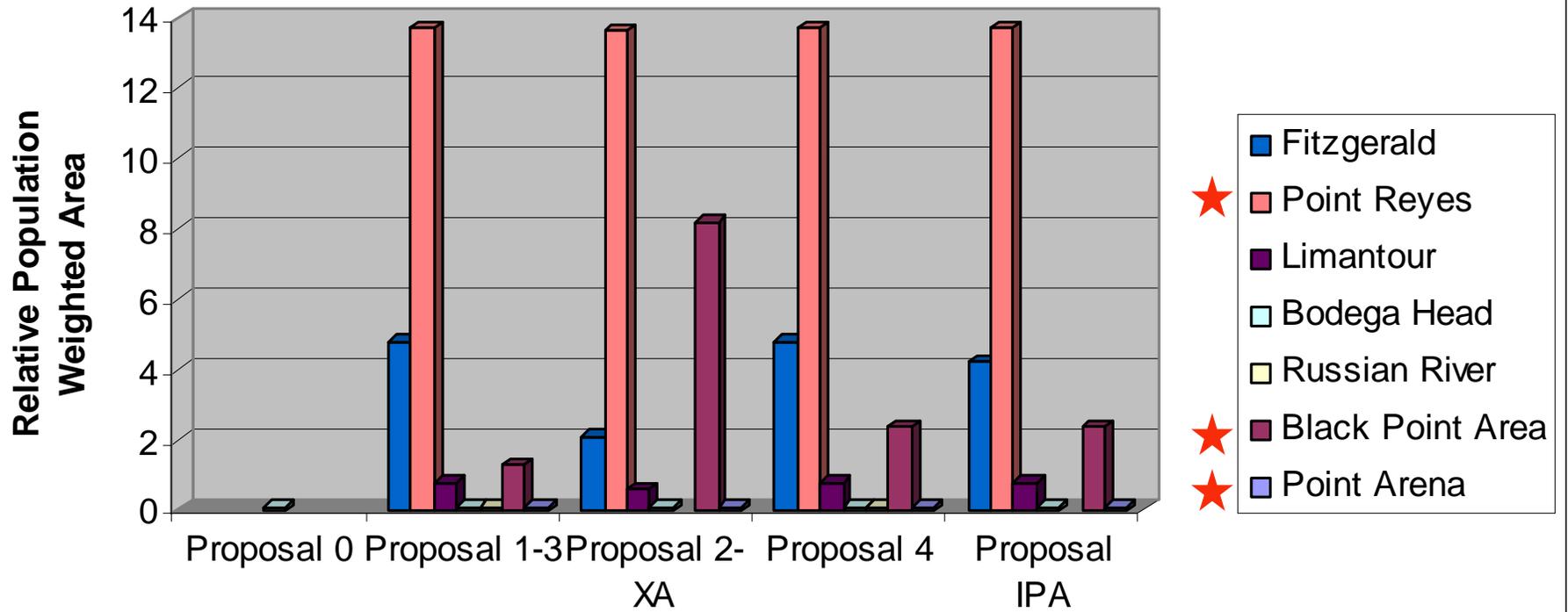


NCC Farallones subregion





Foraging Area for Harbor Seals





Marine Mammals in Special Closures



Special Closure location	Proposal 0	Proposal 1-3	Proposal 2-XA	Proposal 4	Proposal IPA
North subregion (none)					
South subregion					
Point Reyes		1000 ft 4 species	1000 ft 4 species	1000 ft 4 species	1000 ft 4 species
Pescadero		300 ft 1 species			
Farallones subregion					
North Farallon Islands		300 & 1000 ft 2 species	300 ft 2 species	300 & 1000 ft 2 species	300 ft 2 species
South Farallon Islands	300 ft 5 species	300 ft 5 species	300 ft 5 species	300 ft 5 species	300 ft 5 species



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

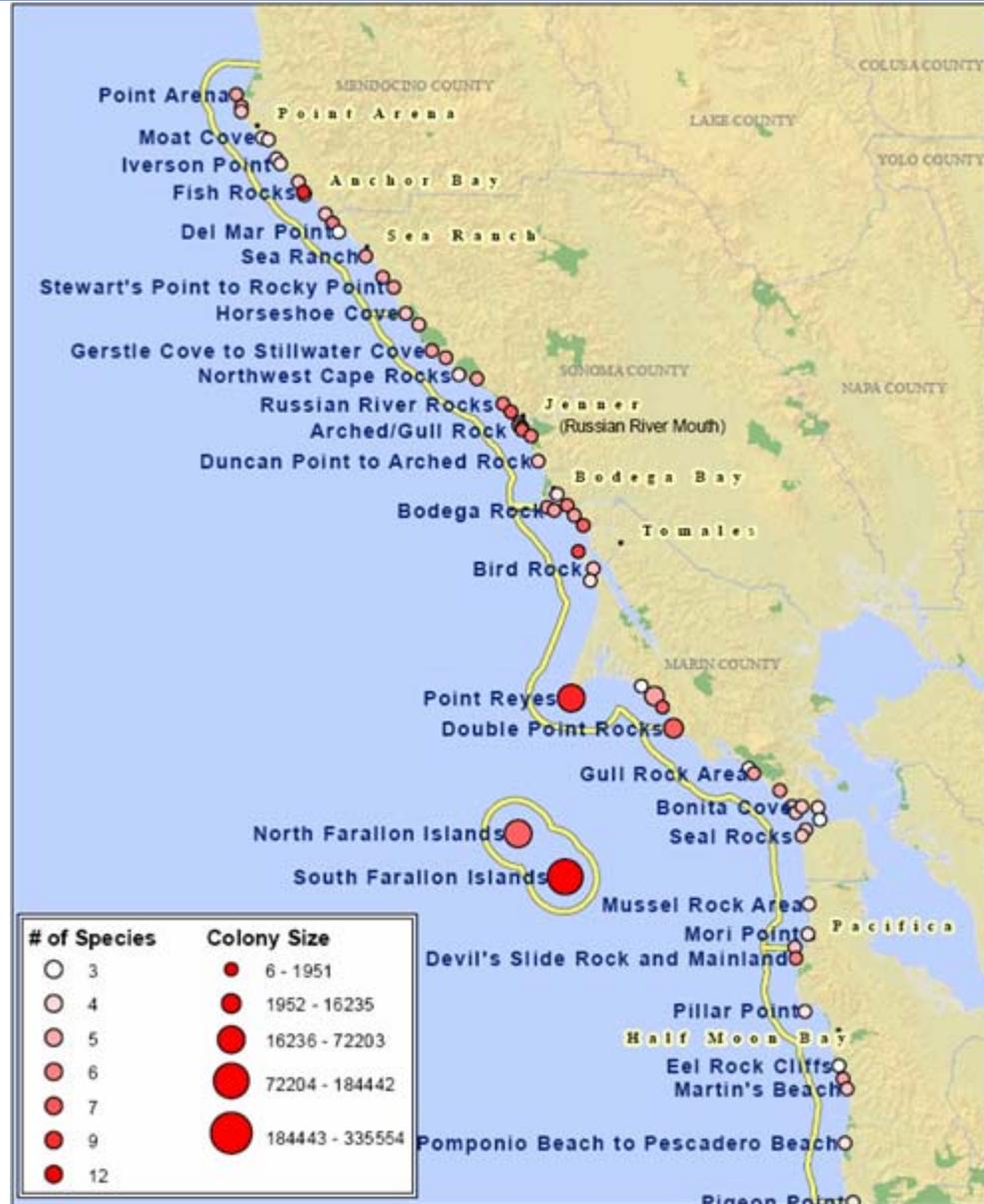
Other observations

- 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

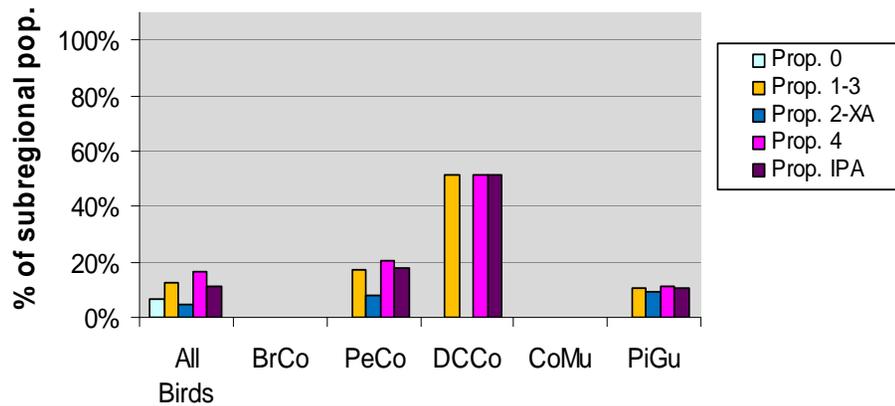
- 66 colonies
- 12 species
- > 335,000 birds



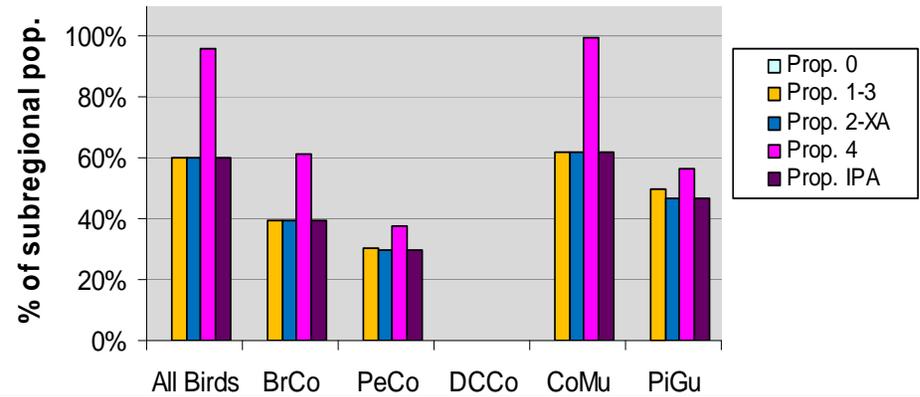


Breeding Seabirds in Proposed MPAs

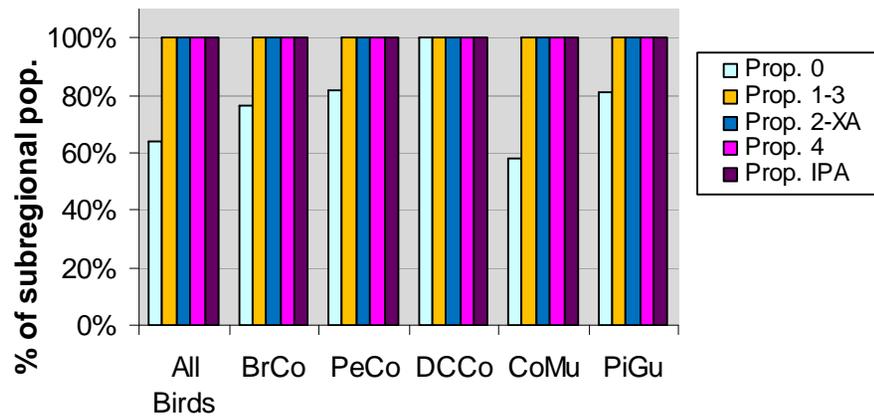
NCC north subregion



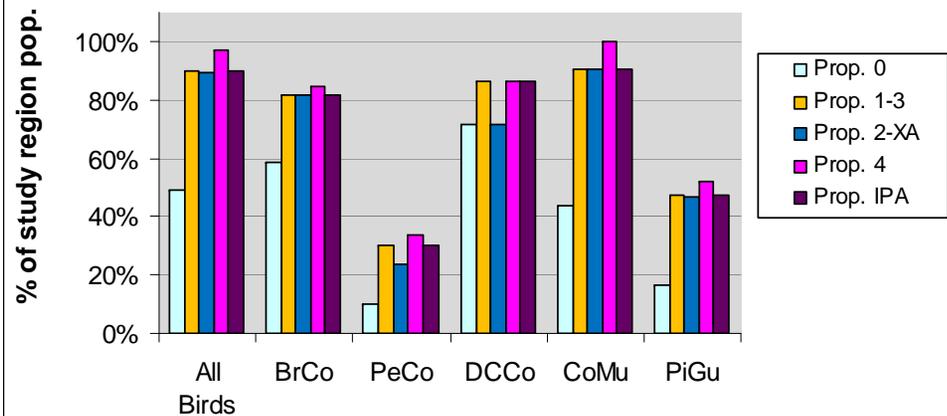
NCC south subregion



NCC Farallones subregion



NCCSR total





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

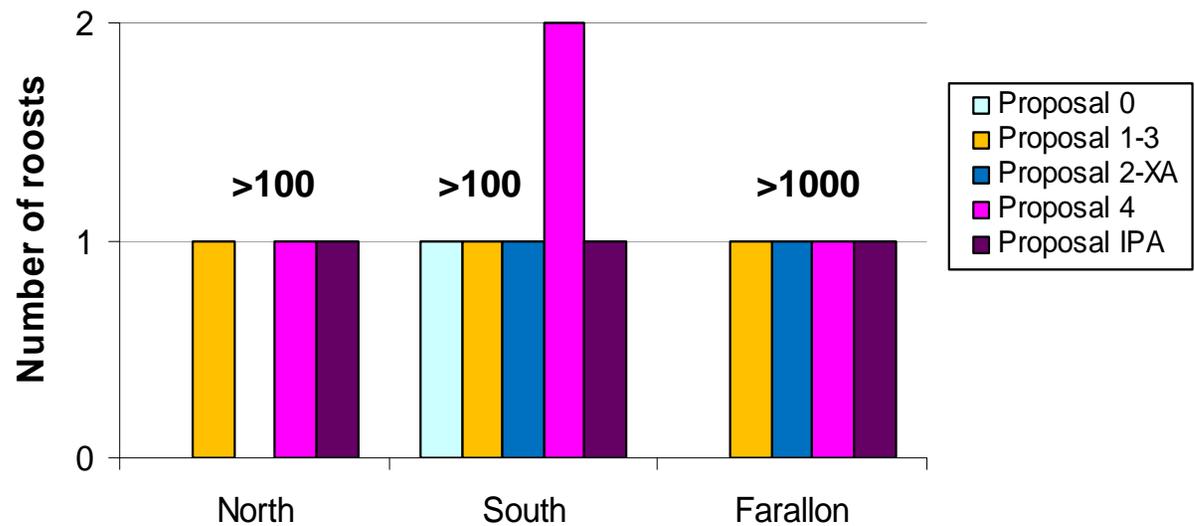




Major Brown Pelican Roosts by Subregion



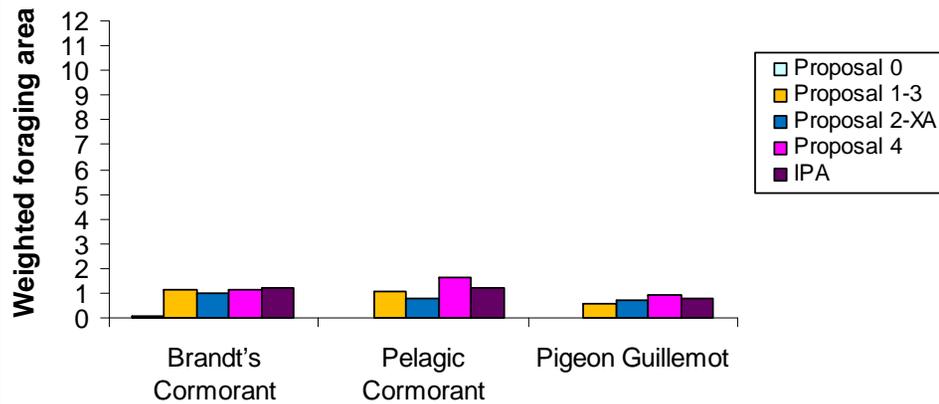
Pelican Roosts within MPAs



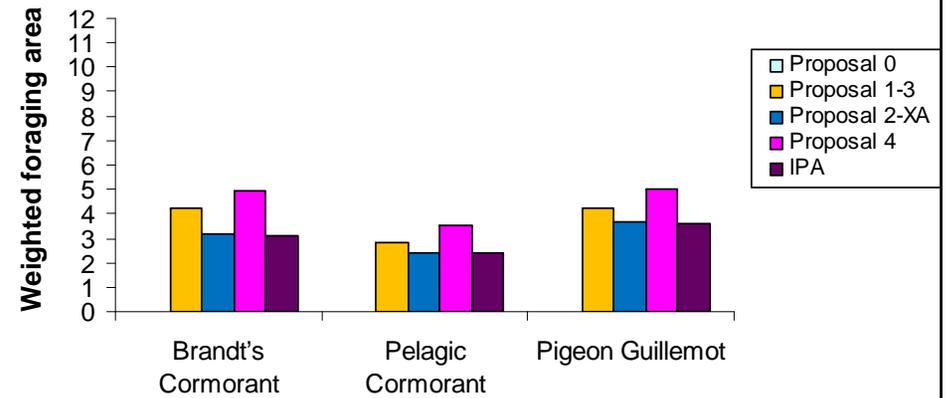


Seabird Foraging Areas in NCC Study Region

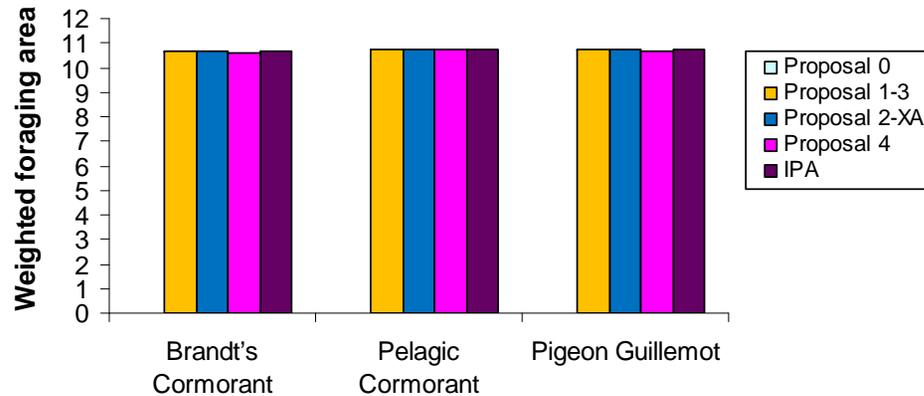
North subregion



South subregion



Farallones subregion

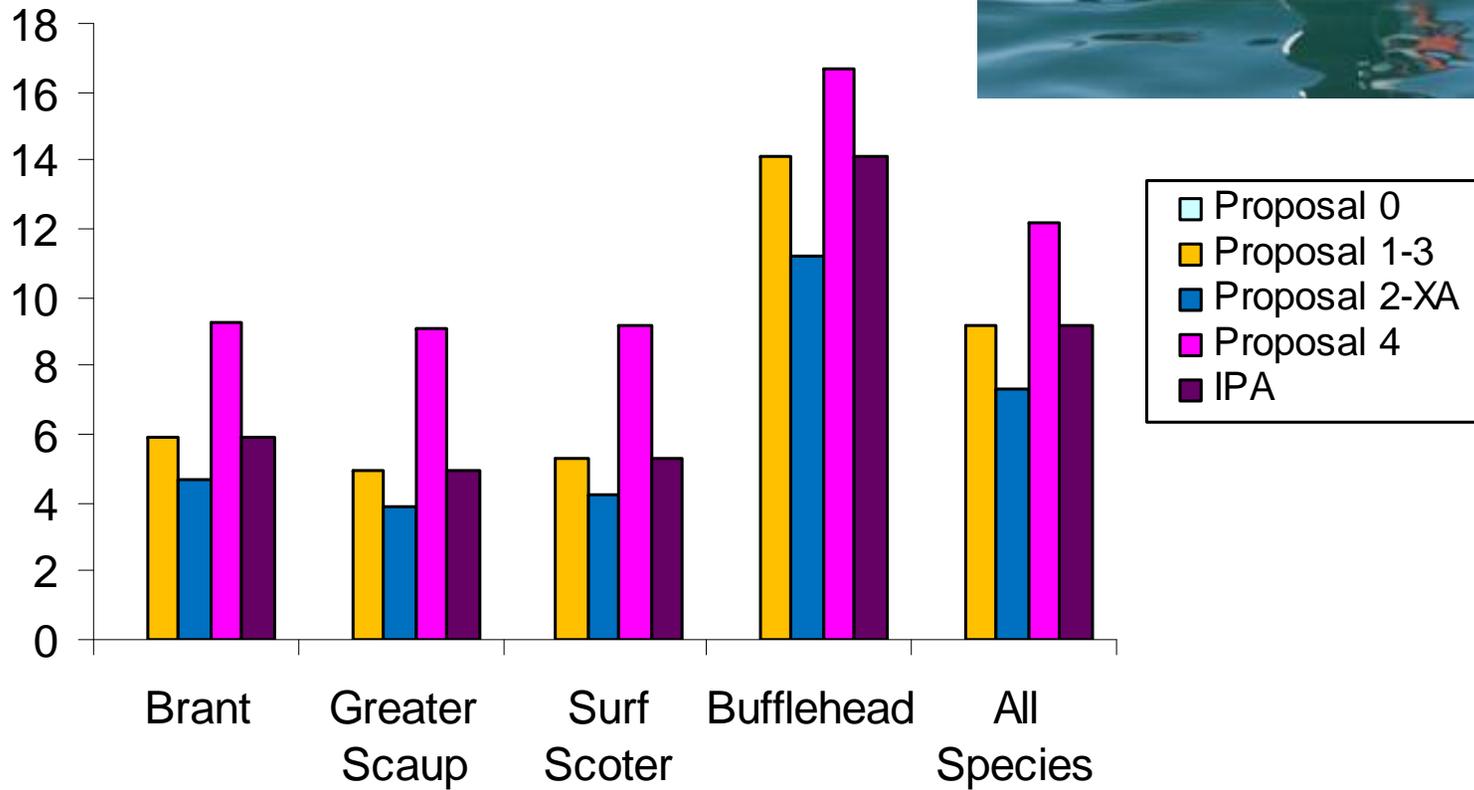




Wintering Waterfowl in NCC Study Region



Percent of wintering waterfowl in MPAs



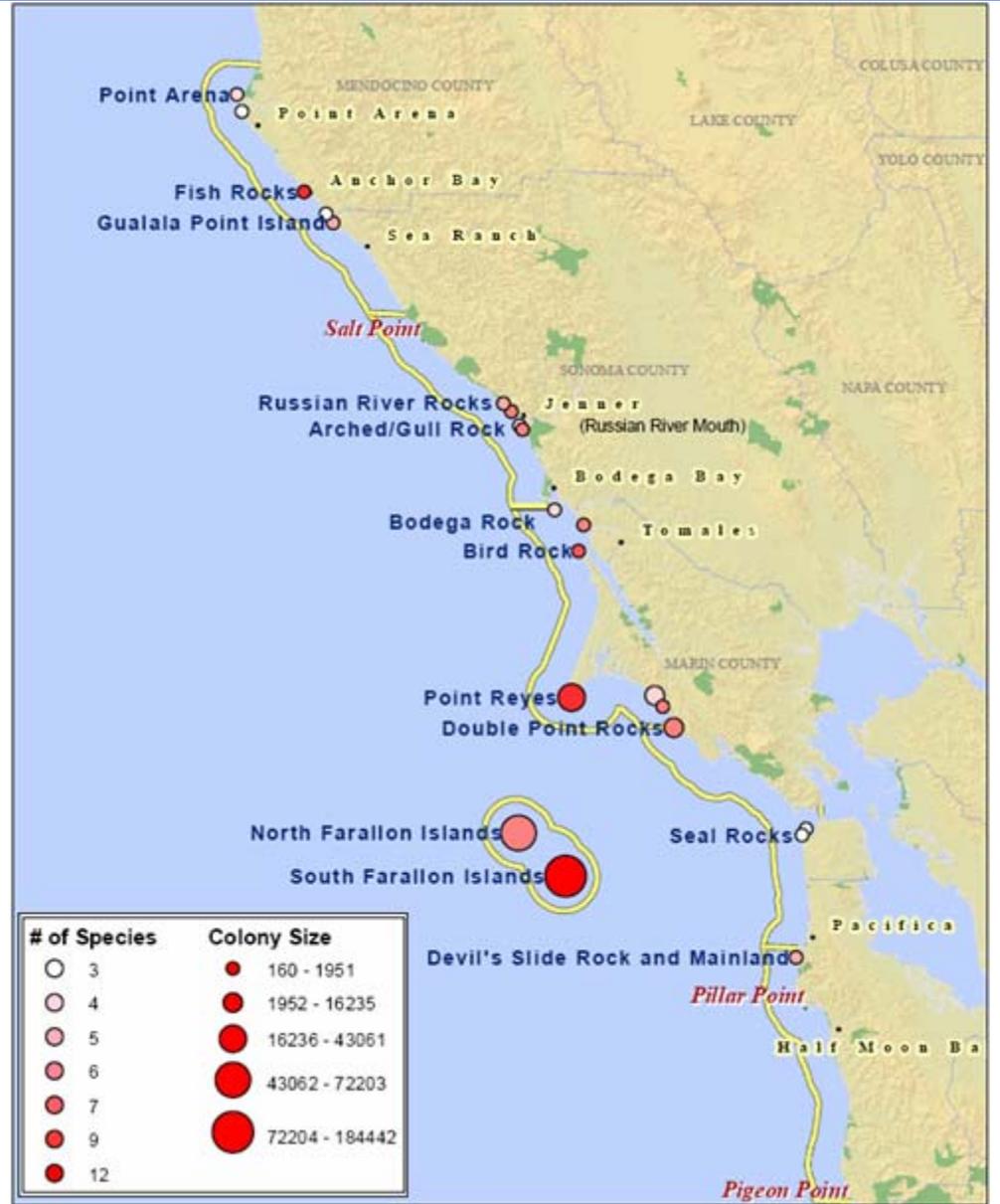


Top 20 Seabird Colonies in NCCSR

- 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

Proposal	0	1-3	2-XA	4	IPA
Arched Rock				300 feet	
Gull Rock				300 feet	
Point Reyes		1,000 feet		1,000 feet	1,000 feet
Point Resistance		500 feet	300 feet		300 feet
Stormy Stack		300 feet	300 feet	300 feet	
Devil's Slide Rock		1,000 feet	300 feet	1,000 feet	
Pescadero *		300 feet			
North Farallon Islands	300 feet	1,000 feet 300 feet	300 feet	1,000 feet 300 feet	1,000 feet 300 feet
South Farallon Islands	300 feet	300 feet	300 feet	300 feet	300 feet

* Little benefit to seabirds



Summary for Marine Birds

- **Breeding colonies**
 - North subregion: Relatively little coverage (4 > 1-3 > 2-XA / IPA).
 - South subregion: Greater coverage (4 > 1-3 > 2-XA / IPA).
 - Farallon Islands subregion: Greatest coverage (all =)
- **Seabird roosts:** Few roosts covered
- **Seabird foraging areas:** Same as breeding colonies
- **Waterfowl**
 - (4 > 1-3 / IPA > 2-XA)
 - Lack of coverage in Tomales Bay = largest concentrations
- **Special closures:** Largest colonies in NCCSR covered between all proposals. North subregion under-represented.