Update: Climate-Smart Adaptation Working Group

Sara Hutto, GFNMS staff to working group
Anne Morkill, Working Group Chair

1. Identify Conservation Target(s)
   - Species
   - Habitats
   - Ecosystems

2. Assess Vulnerability to Climate Change
   - Sensitivity
   - Exposure
   - Adaptive Capacity

3. Identify Management Options
   - Reduce Sensitivity
   - Reduce Exposure
   - Increase Adaptive Capacity

4. Implement Management Options
   - Changes in Policy
   - Changes in Practice
   - Institutional Changes

Monitor, Review, Revise

Glick et al. 2011 Scanning the Conservation Horizon
Project Timeline

**Phase 1**
- Decision Support Workshops
- Vulnerability Assessment Reports
- Phase 1 Summary Report

**Phase 2**
- Convene Climate-Smart Working Group
- Scenario Planning
- Adaptation Planning
- Adaptation Plan
- Phase 2 Summary Report
Use assessment results to develop management strategies that will...

...in a variety of plausible future climate scenarios
Working Group Membership

**Federal:** USFWS, CA LCC, National Park Service, GGNRA, NMFS, BLM, USGS

**State:** Coastal Commission, State Parks, State Coastal Conservancy, CDFW

**Local:** San Mateo and Marin Counties

**NGOs:** Point Blue, BAECCC, Greater Farallones Association

**Academia:** Bodega Marine Lab, Stanford University
Working Group Accomplishments

April 22:
• Selected vulnerable resources for focus of adaptation planning: beaches/dunes, rocky intertidal, outer coast estuaries
• Developed climate scenarios for the region

May 27:
• Finalized scenarios
• Developed management goals for habitats

Diagram:
- 1. Cold and Dry
- 2. Cold and Wet
- 3. Warm and Dry
- 4. Warm and Wet
- Weak Runoff
- Strong Runoff
- Weak Upwelling
Sept 15:
• Developed initial management recommendations for each habitat under each scenario to reduce vulnerabilities and accomplish habitat goal

Oct 16:
• Further developed and refined management recommendations
Working Group Next Steps

December 3: Final meeting
• Prioritize actions and develop final recommendation report

February 2016 Council meeting
• Present final recommendations for Council vote
Phase 2: Adaptation Planning

Approval of recommended actions
• Forwarded to Sanctuary Superintendent
• Made available to other management agencies

Sanctuary Adaptation Plan
• Summary of approved and/or modified adaptation actions
• Implementation prioritization and schedule
• Estimated cost and potential funding sources
• Participating partners
Thank you!

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