

Greater Farallones National Marine Sanctuary, Sanctuary Advisory Council Workplan FY2021 (10/1/20-9/30/21)

This is a working document; changes made throughout the year may not be reflected in this version.

GFNMS VISION: A thriving sanctuary supports a thriving community.

Sanctuary Activities	FY2021 Planned SAC Activities	SAC Planned Outputs/Outcomes
1. Tomales Bay (TB) Sanctuary Goal 1: Restore Sanctuary Habitats		
a Monitoring the health of the TB ecosystem to inform restoration activities in TB - Assessing eelgrass bed extent - Research partners providing information (Bodega Marine Lab (BML), Smithsonian) - Assessing the blue carbon capacity of eelgrass habitat in the sanctuary* (BML; see also climate) - Assessing seabirds and marine mammals through Beach Watch* (2 survey sites in TB)	SAC to receive updates on monitoring activities in TB, Beach Watch updates, and updates on climate program activities related to TB. John Largier to provide presentation on BML eelgrass study once it's published. Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.	The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of Tomales Bay.
b Restoring and protecting the TB ecosystem (SAC recommendations) - Vessel management to address harmful discharge, derelict/deserted vessels, introduction of invasive species, wildlife disturbance - Mooring permits and regulations to protect habitat (eelgrass) decrease threats to and disturbance of wildlife, minimize marine debris, and ensure safe and enjoyable water-related recreation - Passive eelgrass restoration, seagrass protection zones (SAC recommendations) - Native oyster restoration living shoreline feasibility assessment by Marin County (see also climate)	SAC to receive updates on eelgrass restoration, vessel management, and native oyster restoration living shorelines in FY21.	SAC is informed on progress toward its TB eelgrass restoration and native oyster restoration recommendations; and informed on vessel management in TB.
c Building public stewardship for TB ecosystem restoration and protection - Sanctuary Explorations* (e.g., annual bioluminescence kayak trip in TB) - Naturalist Course estuary ecosystems unit* - Eelgrass signage in TB (partnership) - Exhibits at partner locations (e.g., California Academy of Sciences (CAS), Randall Museum, and Aquarium of the Bay) - Media* (print, web, social media)	SAC to receive updates on public program activities (currently online). Rec & Tourism Subcommittee to bring recommendations to the council in FY21.	SAC is informed about public programs; prepared to advise on education and outreach efforts.
d Educating youth about the importance of the TB ecosystem	SAC is updated on youth education activities (currently online).	SAC advises on best strategies for engaging youth.
2. Bolinas Lagoon (BL) Sanctuary Goal 1: Restore Sanctuary Habitats		
a Monitoring the health of the BL ecosystem - Monitoring invasive species control efforts for green crabs in Seadrift Lagoon* - Monitoring invasive species removal efforts on Kent Island* - Assessing seabirds and marine mammals through Beach Watch* (1 survey site in Bolinas Lagoon) - Work with National Park Service for harbor seal counts (part of northern CA counts) (see also marine mammals)	SAC to receive updates as needed on the health of the BL ecosystem, Beach Watch activities, and monitoring partnerships. Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.	The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of Bolinas Lagoon.
b Restoring a healthy BL ecosystem (SAC Recommendations) - Removing invasive plant species from Kent Island in partnership with Marin County Parks* - Removing invasive green crabs from BL in partnership with UC Davis & Smithsonian Environmental Research Center*	SAC to receive updates on BL restoration activities.	SAC is informed on progress toward its BL recommendations; continues to advise.
c Enhancing resilience of the lagoon ecosystem (SAC Recommendations) - BL South End Living Shoreline project* (led/funded by Greater Farallones Association (GFA)) (see also climate) - Stinson dune restoration feasibility plan by Marin County (see also climate) - North End wetland enhancement and sea level rise adaptation project (led by Marin Co.) (see also climate)	SAC to receive updates on South End, North End, and Stinson Dunes Living Shorelines project developments.	SAC is informed on progress toward its BL recommendations; continues to advise.
d Building public stewardship for protecting BL - Engaging the community through volunteer-based restoration programs* - Sanctuary Explorations in BL* (e.g., Kent Island adventure) - Naturalist Course estuary ecosystems unit* - Engaging in community meetings* (e.g., State of the Lagoon) - Outreach materials* (brochures) - Bolinas Lagoon signage at Audubon Canyon Ranch - Media* (print, web, social media)	SAC to receive updates on public program activities (currently online). Rec & Tourism Subcommittee to bring recommendations to the council in FY21. The subcommittee will consider the topic of signage.	SAC is informed about public programs; prepared to advise on education and outreach efforts.
e Educating youth about the importance of wetland ecosystems - K-1 program curriculum (e.g., Crab Cab)	SAC is updated on youth education activities (currently online).	SAC advises on best strategies for engaging youth.
3. Kelp Forest Sanctuary Goal 1: Restore Sanctuary Habitats		

<p>a Assessing and monitoring the health of the kelp habitat in the sanctuary</p> <ul style="list-style-type: none"> - Assessing best monitoring practices & use of technology*; in 2nd year of unmanned aerial vehicle (UAV) surveys to map kelp canopy cover - Assessing value of beach wrack as indicator of kelp bed health through Beach Watch* - Assessing the blue carbon capacity of the sanctuary's kelp habitat* (see also climate) - Research partnerships (BML, CDFW) 	<p>SAC to receive update on findings for best use of technology for monitoring and assessment (e.g., drone, plane, satellite imagery); presentation on UAV surveys in FY21.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary kelp forests.</p>
<p>b Restore Bull Kelp (SAC recommendations) (see also climate)</p> <ul style="list-style-type: none"> - Coordinating active recovery activities in the sanctuary* (across ONMS WCR, KELPRR network, partnerships) - (Active restoration not yet started) 	<p>SAC to receive updates on kelp restoration activities in FY21.</p>	<p>SAC is informed on progress and advises on its bull kelp recovery recommendations; continues to advise.</p>
<p>c Inspiring the public to care about kelp and support efforts to recover kelp</p> <ul style="list-style-type: none"> - Naturalist Course coastal ecosystems unit* - Art & Science Soirées* (e.g., Seaweed Soirée) - Family Workshops* (e.g., Phycology Family Workshop) - Community engagement through kelp network partners* (e.g., Noyo, TNC, ReefCheck) - Sending out kelp network newsletters* - Media* (print, web, social media) 	<p>SAC is updated on kelp-related public outreach.</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs and progress toward its kelp recommendations; prepared to advise on education and outreach efforts.</p>
<p>d Educating youth about kelp habitat and why we're recovering it</p> <ul style="list-style-type: none"> - K-12 school programming* (kelp forest habitat topics) - Youth summer camps** - Linking LiMPETS rocky shore data with kelp restoration activities* 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>
<p>e Connecting with maritime and cultural heritage</p> <ul style="list-style-type: none"> - Tribal partnership through the Kelp Ecosystem Landscape Partnership for Research on Resilience (KELPRR) consortium* - Partner with local coastal tribes to better understand connections between local tribes and the ocean environment - Integrate historic and cultural knowledge into sanctuary management 	<p>Diversity & Inclusion Subcommittee to potentially bring recommendations related to cultural heritage in FY21.</p>	<p>SAC is informed on maritime and cultural heritage activities; advises the sanctuary on how best to engage with tribes.</p>

4. Shoreline Habitat
Sanctuary Goal 1: Restore Sanctuary Habitats

<p>a Monitoring the health of shoreline ecosystems in the sanctuary</p> <ul style="list-style-type: none"> - Monitoring 211 miles of sanctuary coastline through Beach Watch* (see also marine mammals and seabirds) - Monitoring rocky intertidal and sandy beach organisms through LiMPETS* - Monitoring SE Farallon Island rocky intertidal through partnerships with USFWS, Point Blue, and PISCO - Research partnerships with MARIne and PISCO - Monitoring marine debris on sanctuary beaches* (5-yr study 2013-2018 results showed plastic shotgun wads among most common plastics debris on sanctuary beaches) 	<p>SAC to receive updates on monitoring activities.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary shoreline habitats.</p>
<p>b Protecting shoreline habitat (SAC recommendations)</p> <ul style="list-style-type: none"> - Building coastal resilience through sediment management* (see also climate) - Reducing plastic shotgun debris on sanctuary beaches through outreach to local hunters* 	<p>SAC to receives updates on sediment management work.</p> <p>Presentation on behavioral change study focused on shotgun wad debris and disposal.</p>	<p>SAC is informed on progress toward its sediment recommendations and sanctuary efforts to reduce marine debris on beaches; has the opportunity to provide advice.</p>
<p>c Building stewardship for shoreline habitat through public programs and outreach to tourists</p> <ul style="list-style-type: none"> - Sanctuary Explorations* (e.g., Tidepooling Adventure) - Naturalist Course rocky intertidal and sandy beach units* - Family Workshops* (e.g., Sand Scientists) - GFNMS Visitor Center aquarium exhibits* - Beach to the Bridge Wednesday Walks* - Signage with stewardship messaging in public spaces - Media* (print, web, social media) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
<p>d Educating youth about how to be good stewards for the beach</p> <ul style="list-style-type: none"> - LiMPETS* brings students from diverse backgrounds to sandy and intertidal beach habitats to learn and collect data; they are taught about the ecology as well as impacts to the ecosystem - K-3 school programming* - Visitor Center field trips for K-college* - Youth summer camps** 	<p>SAC to receive updates on LiMPETS and K-12 program activities (currently online).</p> <p>Possible presentation from CAS Careers in Science interns working with LiMPETS to analyze data in FY21.</p>	<p>SAC advises on best strategies for engaging youth.</p>
<p>e Connecting with maritime and cultural heritage</p> <ul style="list-style-type: none"> - Kashia Band of Pomo Indians partnership with the Beach Watch program* and rocky intertidal monitoring in the sanctuary 	<p>Diversity & Inclusion Subcommittee to potentially bring recommendations related to cultural heritage in FY21.</p>	<p>SAC is informed on sanctuary maritime and cultural heritage activities; provided opportunity to advise.</p>

5. Open Ocean Environment
Sanctuary Goal 1: Restore Sanctuary Habitats
Sanctuary Goal 9: Explore the Sanctuary

<p>a Understanding oceanographic and animal distribution dynamics in the sanctuary (SAC Recommendations)</p> <ul style="list-style-type: none"> - Monitoring oceanographic conditions through ACCESS surveys* (OA, temperature, etc) - Assessing the blue carbon capacity related to open ocean environment* (phytoplankton) (see also climate) - Characterizing acoustic soundscape in partnership with CBNMS (see also marine mammals) 	<p>SAC to receive ACCESS and climate program updates.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p> <p>Possible presentation from Nancy Foster Scholar on acoustics work.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary open ocean habitat.</p>
<p>b Ensuring the open ocean environment in the sanctuary is healthy</p> <ul style="list-style-type: none"> - Reducing ship strikes to whales* (see also marine mammals) - Assessing climate indicators to inform management (see also climate) - Reduce harmful debris* (identifying crab pots for removal) - Oil spill response (see also seabirds and marine mammals) (see also emergency response) - Addressing emerging offshore wind and oil/gas energy issues through the Advisory Council 	<p>SAC is updated on resource protections activities in the open ocean environment.</p> <p>SAC will be informed of any emerging issues such as offshore wind and oil and gas and given the opportunity to provide feedback. (We have a Nancy Foster Scholar working on seabird habitat and distribution. We've asked her to focus on wind energy and impacts to seabirds; possible presentation in FY21)</p> <p>Potential presentation in Feb 2021 on offshore wind energy in the sanctuaries.</p>	<p>SAC is informed and advises on offshore wind, wave, and oil and gas energy issues, as they affect sanctuary resources.</p>
<p>c Build public stewardship for our open ocean environment and wildlife</p> <ul style="list-style-type: none"> - At-sea Sanctuary Explorations (e.g., whale watching) - Naturalist Course open ocean unit* - Family Workshops* (e.g., Squid for Squirts) - Art & Science Soirées* (e.g., Humpback Whale Soirée) (see also marine mammals) - GFNMS Visitor Center exhibits* - Exhibits at partner locations - Media* (print, web, social media) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
<p>d Educating youth about the importance of open ocean wildlife*</p> <ul style="list-style-type: none"> - 3rd-5th school programming (new virtual program: Plankton! Microscopic Marvels; Whales, see also whales) - Visitor Center field trip* - Youth summer camps** - Fishermen in the Classroom* (see also fish) 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>
<p>e Connecting with our maritime and cultural heritage</p> <ul style="list-style-type: none"> - Shipwrecks in the sanctuary publication 	<p>SAC to remain updated on ONMS Maritime Heritage program; provide any maritime industry contacts.</p>	<p>SAC is informed and advises on maritime heritage topics.</p>
<p>6. Deep Sea Habitat Sanctuary Goal 9: Explore the Sanctuary</p>		
<p>a Understand the health of the deep sea environment in the sanctuary</p> <ul style="list-style-type: none"> - <i>Nautilus</i> cruise deep sea habitat exploration, mapping, sampling, characterization (see also fish) 	<p>SAC to receive updates on mapping activities. Can join the <i>Nautilus</i> Live stream online for real-time insights; Jan Roletto can provide summary presentation of cruises in FY21.</p> <p>Alayne will share <i>Oceanography</i> article with SAC when it's published.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary open deep sea.</p>
<p>b Deep sea ecosystem protection</p> <ul style="list-style-type: none"> - Providing science to inform deep sea Essential Fish Habitat (EFH) protections (see also fish) 	<p>SAC to remain updated on EFH topics.</p> <p>Point Arena South (PAS) technical report should be available to share prior to the Feb SAC meeting.</p>	<p>SAC is informed on mapping progress and how the data is being incorporated into management actions.</p>
<p>c Building stewardship for the deep sea</p> <ul style="list-style-type: none"> - Art & Science Soirées* (e.g., Extreme Marine Life Soiree; upcoming: Coral-themed) - Family Workshops* (e.g., Build an ROV) - Naturalist Course deep sea unit* - Public participation for <i>Nautilus</i> Live - Deep sea coral storymap* - Media* (print, web, social media) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
<p>d Educating youth about the importance of deep sea habitat*</p> <ul style="list-style-type: none"> - K-12 school programming (new virtual program: Deep Sea Coral Communities, 9th-12th) - Youth summer camps** - <i>Nautilus</i> Live K-12 participation - SeaSketch projects related to deep sea habitat (see also climate) 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>
<p>7. Seabirds and Shorebirds Sanctuary Goal 3: Bring Back Wildlife</p>		
<p>a Monitoring the health of seabird populations in the sanctuary</p> <ul style="list-style-type: none"> - Monitoring of seabirds through ACCESS partnership research* (CBNMS, Point Blue, GFA) - Monitoring shorebirds and seabirds through Beach Watch* (see also shoreline habitat) - Exploring uses of new technologies for research and monitoring (e.g., drones) (see also kelp) 	<p>SAC is updated on ACCESS and Beach Watch data collection activities, and new technologies for ecosystem monitoring.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary seabird and shorebird species.</p>

<p>b Reducing threats to seabirds (SAC Recommendations)</p> <ul style="list-style-type: none"> - Seabird Protection Network* (SPN) outreach to pilots and boaters to reduce seabird disturbance (currently virtually) - Expand SPN* to recycle used fishing line on charter vessels to reduce seabird entanglement - Enforcement of low overflight and boat regulations, and permitting (see also enforcement) - Planning for oil spill emergency response (see also emergency response) - Responding to boat groundings 	<p>SAC to review and provide guidance on the SPN Action Plan when complete.</p> <p>SAC to receive updates on fishing line recycling program efforts.</p>	<p>SAC is updated on progress towards and advises on overflight recommendations and seabird protection efforts.</p>
<p>c Enhancing shorebird habitat</p> <ul style="list-style-type: none"> - See Tomales Bay ecosystem restoration - See Bolinas Lagoon ecosystem restoration 	<p>SAC is updated on TB and BL restoration activities.</p>	<p>SAC is informed and advises on its TB and BL recommendations.</p>
<p>d Inspiring the public to help protect seabirds</p> <ul style="list-style-type: none"> - Sanctuary Explorations* (e.g., Alcatraz Island of Seabirds) - Naturalist Course wildlife in the sanctuary unit* - GFNMS Visitor Center exhibits* - Art & Science Soirées* (e.g., the Albatross Soirée) - Family Workshops* (e.g., Seabird Sleuthing) - Media* (print, web, social media) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
<p>e Educating youth about seabirds and why we protect them</p> <ul style="list-style-type: none"> - 2nd-3rd grade school programming* (e.g., Seabird Shuttle) - Visitor Center field trip curriculum* - Youth summer camps** 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>

8. Marine Mammals
Sanctuary Goal 3: Bring Back Wildlife

<p>a Monitoring marine mammal activity in the sanctuary to inform conservation efforts</p> <ul style="list-style-type: none"> - Offshore monitoring of marine mammals through ACCESS cruises* (see also open ocean) - Shoreline monitoring of marine mammals through Beach Watch* (see also shoreline habitat) - Characterizing acoustic soundscape (in partnership with CBNMS) (SAC Recommendation) - Assessing the blue carbon capacity related to marine mammals* (see also climate) - Work with National Park Service for harbor seal counts (part of northern CA counts) (see also BL) 	<p>SAC to receive updates on ACCESS and Beach Watch activities; is updated on ocean conditions as they relate to whale mortality.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p> <p>Possible presentation from Nancy Foster Scholar on acoustics work.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary marine mammal species.</p>
<p>b Protecting endangered and threatened whales in the sanctuary (SAC Recommendations)</p> <ul style="list-style-type: none"> - Reducing ship strikes to whales* - Reducing risk of whale entanglement* by identifying crab pots for removal through ACCESS (see also open ocean habitat) 	<p>Sanctuary to update SAC on progress toward VSR program goals; issues related to whale entanglement (Dung, Crab Working Group)</p> <p>SAC to potentially form a working group in FY21 in partnership with the Harbor Safety Committee on best practices for increasing VSR cooperation. (Julian volunteers to chair this working group if it's formed)</p> <p>SAC would like to have more discussion around barriers to mandatory VSR zones.</p> <p>Recommendation to coordinate with the Benioff Group's Whale Safe program out of UCSB (possible presentation to SAC in FY21?)(SAC contacts: John B/Julian)</p> <p>Kathi to share information from TMMC on partnership with Cascadia Research Collective and SR3 conducting boat surveys in 2021.</p>	<p>SAC is updated on progress and advises on vessel strike recommendations.</p>
<p>c Protecting marine mammals from disturbance</p> <ul style="list-style-type: none"> - Coordinating enforcement activities in the sanctuary related to motorized personal watercrafts (MPWC), special wildlife protection, and low overflight zones (see also enforcement) 	<p>SAC is updated on enforcement activities in the sanctuary through sanctuary staff, OLE and USCG reports.</p>	<p>SAC is informed on resources protection/enforcement activities in the sanctuary.</p>
<p>d Building stewardship for marine mammals and awareness of sanctuary protection efforts</p> <ul style="list-style-type: none"> - Sanctuary Explorations* (e.g., Whale watching, Elephant seal walk) - Marine mammal-themed family workshops* (e.g., Simply Sea Otters, Wonderful World of Whales) - Naturalist Course marine mammal unit* - Media* (print, web, social media) (e.g., VSR cooperation ceremonies) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
<p>e Educating youth about marine mammals and why we protect them</p> <ul style="list-style-type: none"> - At Your School K-3 school programming* (new virtual program: Soundscapes of Wonderful Whales and Playful Pinnipeds) - Visitor Center field trip curriculum* - Youth summer camps** 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>

9. White Sharks
Sanctuary Goal 3: Bring Back Wildlife

a	<p>Increasing our knowledge about white sharks in the sanctuary</p> <ul style="list-style-type: none"> - Permitting shark research (Point Blue, Tagging of Pelagic Predators (TOPP)) 	<p>SAC is updated on research as needed. Possible presentation from TOPP (ideally during a joint GF/MB meeting). SAC members also invited to participate in the Naturalist Course shark TOPP training.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary white sharks.</p>
b	<p>Protecting white sharks from human disturbances (SAC Recommendations)</p> <ul style="list-style-type: none"> - Coordinating enforcement efforts to reduce disturbance to white sharks from boats - Permit program for white shark tour boats (see also enforcement) 	<p>SAC will remain updated on white shark tour boat permitting.</p>	<p>SAC will remain informed about shark attraction permits related to its shark conservation recommendations.</p>
c	<p>Building public stewardship for sharks</p> <ul style="list-style-type: none"> - Sharktoberfest™* - Family Workshops* (e.g., Build a Shark) - Naturalist Course white shark material incorporated into fish unit* - Shark conservation message for outreach materials on tour boats - Media* (print, web, social media) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
d	<p>Educating youth about the importance of sharks in the ecosystem and how we protect them</p> <ul style="list-style-type: none"> - 4th-6th grade school programming* (new virtual program: Underwater World of Sharks and Rays) - Visitor Center field trip curriculum* - Youth summer camps** 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>
10. Fish			
a	<p>Understanding the health of fish populations and habitats in the sanctuary</p> <ul style="list-style-type: none"> - <i>Nautilus</i> cruise deep sea habitat exploration (see also deep sea habitat) - Provide data to NMFS, CDFW and/or PPMC for fisheries plans affecting fish in sanctuary - Understand distribution of forage species and ocean climate impacts that affect fish populations (e.g., ocean acidification, ACCESS) in partnership with CBNMS, Point Blue, and GFA* 	<p>Annual updates on annual climate indicators, ACCESS activities, research partnerships, and <i>Nautilus</i> cruises.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the health of sanctuary fish species and habitats.</p>
b	<p>Protecting, enhancing important fish habitat</p> <ul style="list-style-type: none"> - Consultations with National Marine Fisheries Service on fish habitat protections (see also deep sea habitat) - Participation in Marine Life Protection Act (MLPA) leadership team - Kelp recovery program (see kelp section) 	<p>SAC is updated on sanctuary efforts to protect fish habitat in the sanctuary.</p>	<p>SAC is informed on fish habitat protection efforts in the sanctuary.</p>
c	<p>Building public awareness of sustainable fishing and protecting fish habitat</p> <ul style="list-style-type: none"> - GFNMS Visitor Center aquarium* - Art & Science Soirée* (e.g., Salmon Soirée) - Family Workshops* (e.g., Dissect Salmon) - Naturalist Course fish unit* - Partnering with fishermen for public programs; and engaging with commercial fishermen, recreational fishing groups through the Advisory Council - Participation in CA Marine Protected Area (MPA) collaboratives* - Media* (print, web, social media) 	<p>SAC to receive updates on public program activities (currently online).</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is informed about public programs; prepared to advise on education and outreach efforts.</p>
d	<p>Educating youth about fish ecology and sustainable fishing</p> <ul style="list-style-type: none"> - 6th-8th grade school programming* (e.g., new virtual program: Salmon in the Sanctuary; Fishermen in the Classroom during regular programming) - Visitor Center field trip curriculum* - Youth summer camps** 	<p>SAC is updated on youth education activities (currently online).</p>	<p>SAC advises on best strategies for engaging youth.</p>
11. Ocean Climate			
Sanctuary Goal 4: A Resilient Coast and Ocean			
a	<p>Understanding climate impacts in the sanctuary (SAC Recommendations)</p> <ul style="list-style-type: none"> - Understanding climate change impacts to sanctuary resources to inform adaptation strategies* - Monitoring ocean indicators* (ACCESS in partnership with CBNMS, Point Blue, GFA; and Beach Watch in partnership with GFA) - Prepping for GFNMS next Condition Report (status of sanctuary health) - Developing blue carbon inventory for the sanctuary* (see also various habitat and animal sections) 	<p>SAC to receive presentations during the retreat on updates toward their climate recommendations, ocean indicators, and new blue carbon initiative.</p> <p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p>	<p>The SAC makes informed recommendations to the sanctuary by keeping abreast of monitoring efforts and findings on the effects of climate change on the health of sanctuary.</p>
b	<p>Building coastal resilience (SAC Recommendations) (see also various habitat and animal sections)</p> <ul style="list-style-type: none"> - Implementing Climate Adaptation Plan* - Implementing Coastal Resilience Sediment Plan*; leading the NCCSCC (see also Bolinas Lagoon, shoreline habitat) - Implementing TB native oyster restoration (Marin County is taking the lead), eelgrass restoration recommendations (see also Tomales Bay) - Implementing kelp habitat recovery recommendations* (see also kelp) - Building agency support for projects related to the most vulnerable habitats - Training MPA managers on how to plan for climate change impacts* 	<p>SAC continue to receive regular updates on progress toward its recommendations in Sup reports and presentations.</p> <p>Update on the Tomales Living Shorelines feasibility study in Nov Sup Report. GFNMS to report back on Stinson dune restoration feasibility plan.</p>	<p>SAC is informed and advises on implementation of its climate and sediment recommendations.</p>

c	Mitigating climate impacts (SAC Recommendations) <ul style="list-style-type: none"> - Implementing green operations recommendations (see also GFNMS Facilities) - Assessing VSR emissions reductions* (see also marine mammals) - Investigating blue carbon as a mitigation method* (restoring and conserving habitats and processes that sequester and store carbon) 	<p>SAC to receive updates on climate mitigation activities in the sanctuary and through GFNMS green operations.</p>	<p>SAC is informed on implementation of its climate recommendations.</p>
d	Building public awareness about climate impacts to the ocean and how the public can help reduce impacts <ul style="list-style-type: none"> - Producing outreach materials* (e.g., climate storymap) - Integrating climate change into Naturalist Course curriculum* - Integrating climate change into Sanctuary Explorations, Family Workshops, and Soiree lectures/discussions* - Engaging stakeholders, agencies, and research community through Ocean Climate Summits* 	<p>SAC to receive NNOCCI training from California Academy of Sciences partners at the retreat.</p> <p>Rec & Tourism Subcommittee to bring recommendations to the council in FY21.</p>	<p>SAC is prepared to communicate effectively about the sanctuary's ocean climate initiative.</p>
e	Educating youth about the climate change and inspiring action <ul style="list-style-type: none"> - Delivering 7th-12th school programming* (new virtual program: Ocean Acidification: A Sea of Change) - Delivering climate change message in Visitor Center field trip curriculum* (climate related topics including plankton, OA) - Delivering climate change information in summer camp programming** (various climate topics) - Developing new deep sea coral curriculum with climate change content* (see also deep sea) 	<p>SAC is updated on youth education activities (currently online).</p> <p>SAC members to review the blue carbon white paper when it's ready (suggested by Bibit).</p>	<p>SAC advises on best strategies for engaging youth.</p>

12. Sanctuary Operations and Management

a	Covid-19 Pandemic and Fire Impacts: Operations & Programming	<p>SAC to remain informed on how the sanctuary is adjusting to operations and programming during Covid-19 and California fires; provide input on moving forward.</p>	<p>Provide input on moving forward with SAC meetings virtually now during the pandemic, and moving forward after Covid-19.</p>
b	GFNMS Facilities (SAC Recommendations) <ul style="list-style-type: none"> - Goal: carbon neutral operations by 2028 (see also climate) - Install electric car charging station at the sanctuary campus (see also climate) - Implement the phased plan to renovate the sanctuary campus. The next phase is rehabilitating the shop/garage building into a wet lab/dry lab for education programs and public outreach 	<p>SAC receives updates on annual operations emissions reports, and green operations activities.</p> <p>SAC to be engaged on sanctuary campus location and renovations.</p>	<p>SAC advises on plans for achieving carbon neutrality.</p> <p>SAC advises on location of sanctuary office.</p>
c	GFNMS Management Plan <ul style="list-style-type: none"> - Preparation for next GFNMS Condition Report and Management Plan (MP) Update - Research symposium planning in FY21 (used to inform MP) 	<p>Research symposium in FY21 (volunteers needed to help fundraise and plan). If anyone is interested, contact Alayne.</p> <p>SAC SF-Pacifica Exclusion Area Subcommittee to bring recommendations to the council in FY21 (planned for Nov 2020).</p>	<p>SAC assists with planning for the Research Symposium.</p> <p>SAC advises on sanctuary management activities.</p>
d	Enforcement in the Sanctuary <ul style="list-style-type: none"> - Improving communication and strengthening partnership with emergency response and enforcement agencies - Reviewing permit applications - Successful settlement of 3 pending enforcement cases and develop restoration plans for affected habitat (in progress) 	<p>SAC to receive regular updates on enforcement actions from sanctuary staff, NOAA Office of Law Enforcement (OLE) and USCG members; and continue to receive quarterly permit updates before each meeting and updates in Sup Reports.</p> <p>SAC to provide input on the new Permit Dashboard in Nov 2020.</p> <p>SAC to potentially provide input on and/or support for use of USCG planes for monitoring activities (e.g., for kelp monitoring, crab pots). (TBD depending on outcomes of the kelp monitoring assessment report underway.)</p> <p>New USCG member coming on FY2021.</p> <p>Sanctuary and USFWS to update SAC on activities related to the USFWS Farallon Islands proposed mouse eradication project.</p>	<p>SAC is informed on enforcement activities in the sanctuary, has opportunity to consider actions related to enforcement; SAC receives updates on vessel incidents, staffing, and permits.</p>
e	Emergency Response (GOAL 2: Keep Our Ocean Waters Healthy) <ul style="list-style-type: none"> - Assessing impacts from vessel spills - Increasing knowledge about alternative emergency response technologies 	<p>SAC to receive updates on vessel groundings; use of alternative response technologies.</p> <p>Sanctuary will aim to report back to the SAC on their oil spill/emergency response recommendations in FY21.</p> <p>Possible presentation from OPSR (Office of Spill Prevention and Response) at some point.</p>	<p>SAC is informed on emergency response planning and actions, and is updated on progress toward recommendations.</p>
f	International Collaborations (GOAL 10: Serve as an international model on marine stewardship) <ul style="list-style-type: none"> - California-Mexico sister sanctuary project on strategies to protect shared marine wildlife - Developing a plan to promote the sanctuary as an international marine tourist destination through the United Nations Biosphere Reserve Program - Participating in the International MPAs and Climate Change Working Group - Advising the Commission on Environmental Cooperation on integrating climate change into MPA management* 	<p>SAC to receive updates on international partnerships in Sup Reports.</p>	<p>SAC is informed on international partnerships.</p>

13. SAC Administration

a	SAC Charter Renewal	The SAC Charter is due for renewal in FY21 (within the next ~6 months). SAC will discuss during the Nov-2020 Feb 2021 meeting and hear public comment on any proposed changes. Members are encouraged to bring forth any suggested edits ahead of time (contact Alayne for details)	The SAC charter is updated and aligned with the best practices and procedures of the council
b	Meetings - Conduct four meetings and one retreat - Maintain council resolution documentation and correspondence - Maintain updated annual workplan	Four meetings will be held (Doodle polls for dates will be distributed in Oct. 2020). Meetings are typically held in Feb, May, Aug, & Nov; and a retreat in October. The SAC will be updated on meeting protocols.	SAC engaged in advising sanctuary management.
c	Virtual Meetings	SAC to discuss use of webinars for SAC meetings going forward in light of Covid-19 pandemic. It's unclear when we will be able to return to in person meetings. SAC to weigh in on protocols for webinars going forward.	Have a plan in place for virtual meetings going forward. Be familiar with the technology and SAC webinar protocols.
d	SAC Subcommittees and Working Groups	3 subcommittees that were active in FY20 will report their recommendations back to the SAC in FY21: San Francisco-Pacifica Exclusion Area (SFPEA), Recreation & Tourism, and Diversity & Inclusion Subcommittees Possible working group with Harbor Safety Commission in FY21 (see also Resource Protection, Whale Protection)	
e	West Coast Region SAC Collaborations - Hold joint council meetings with Monterey Bay/Cordell Bank councils in alternating years - Receive standing updates from the Cordell Bank and Monterey Bay Superintendents	FY20 would have been a Cordell Bank year, however, we did not have a joint meeting with Cordell Bank in FY20. Potential joint meetings in FY21 will be dependent on staff resources and Covid-19 limitations.	The SAC is informed on CBNMS and MBNMS activities.
f	Annual National Chairs and Coordinators Meetings	SAC Coordinator will continue to participate in bimonthly National SAC Coordinators meetings and bring insights back to the council. The SAC Chair and Vice Chair will participate in the annual National SAC Chairs Summit (FY21 date TBD)	SAC informed and engaged in national priorities
g	SAC Executive Committee	Executive Committee election scheduled for the February 2021 meeting (2 year terms are up). Hold a joint meeting with Monterey Bay and Greater Farallones Executive Committees in FY21?	The Executive Committee continues to represent council interests
h	Member Recruitment as Needed	Current recruitment will conclude in FY21 for the vacant Education alternate seat. The SAC Coordinator will hold two recruitment periods per year to fill vacant seats. Seat terms expiring in FY21 (members may serve three 3-yr terms in one seat; this applies to the seat, not the position of primary/alternate): - Dominique Richard: 3rd term in the CAL Marin seat expiring 8/1/21 - Richard Charter: 3rd term in the Conservation seat expiring 8/1/21 - Bruce Bowser: 3rd term in the Conservation seat expiring 8/1/21 - John Largier: 3rd term in the Research seat expiring 8/1/21 - Jaime Jahncke: 3rd term in the Research seat expiring 8/1/21 - George Clyde: 2nd term in the CAL Marin seat expiring 8/1/21 - Abby Mohan: 2nd term in the Maritime Recreational Activities seat expiring 8/1/21 - Josh Russo: 2nd term in the Maritime Recreational Activities seat expiring 8/1/21	SAC members advise on new members through participation on Preliminary Review Panels; Engaged in recruitment outreach.
i	Member Training and Support	SAC to receive refresher on meeting and resolution protocols during the 2020 retreat. Alayne to plan New Member Training for FY21. Seat virtual coffee talks in FY21?	SAC has clear understanding on roles, seats, and are engaged in council management.
j	Diversity and Inclusion	SAC Diversity and Inclusion Subcommittee to bring recommendations to the full council in FY21.	Provide guidance to the sanctuary on how best to hear diverse perspectives on sanctuary issues and ensure an inclusive Sanctuary Advisory Council membership and meetings.
k	Partner Engagement - Keep track of groups or individuals who may be interested in speaking to the council on issues related to the sanctuary.	Presentation from GFA Executive Director Deb Self at FY21 retreat on fundraising/partnerships. Alayne added a column for potential external speakers on the recommendation of the Application Review Panel. Council members are encouraged to recommend people to add. Other sources may be applicants applying for a seat who are qualified and have relevant experience/connections but were not selected, sanctuary program partners.	SAC has a clear understanding of the role of GFA and aware of GFA activities. People interested in sanctuary activities and in the council are engaged. SAC is informed on issues relevant to the sanctuary. The council has a list of experts to draw from for meetings, symposiums, retreats, working groups, etc.
j	Youth Engagement and Involvement	Education seats will support mentoring and educational opportunities for youth members, and develop strategies to further engage youth within the Sanctuary. SAC Youth seat members to offer insight into how best to engage young people with the sanctuary.	SAC is informed about youth engagement opportunities and youth are involved in events
Emerging Issues			
	Shipwreck cleanup along sanctuary shoreline (agency partnerships) (Cea, Kris, George interested in this topic)	Possible meeting topic, subcommittee, or working group	TBD

*Shared GFNMS-GFA program work

**Summer camps are in partnership with Seven Tepees, San Francisco Parks and Recreation, Randall Museum, Mission YMCA

