## Ocean Climate Action Plan Webinar, April 29, 2020

<u>#</u>	Attendee Questions/Comments
1	What are your feelings on Warren's Blue New Deal concept?
2	Senatory Merkley - Hi from central coastal California! I hear this call for leaders to help conserve using legislation and political will. The Governors in our area are proclaiming that we need to go forward for "One Health" (of the planet) based on scientific evidence and seem to be getting a lot done. As the governors are having a moment, how should the coastal state senators (and other Senators) be involved in helping locals interact with the Federal Government? How are you working with your awesome State Governor?
3	CLAP, CLAP!!
4	I am starting a new business called Reef Quest and we are focused on helping to teach children & their parents about raising Staghorn @ Elkhorn corals in the Florida National Marine Sanctuary in the upper Florida Keys. I am looking for the Federal funding to help with gardening these corals to improve on the reefs in the Keys and worldwide. What assistance can you offer?
5	CLAP, CLAP!!!
6	Thanks, both of you in the introduction, for mentioning zoonotic diseases and the moment we are having. I understand that this "blue new deal" is economics and political will, but I am a veterinarian and marine biologist. I see diseases of ocean animals that can impact people and I think we need to hammer home the the direct link between individual health and environmental health and that scientific evidence needs to drive our actions and policies and spending - for "one health."
7	also how to promote the locally driven efforts to have influence on the international level. The Federal level at this moment is having trouble because of our orange menace, but these State elected Fedral elected officials are AWESOME! and now the international voice :-)
8	WOW! May the winds be in your favour!! (dog barks!) So - there are arguments in CITES as to whether the large ocean predators like hammerhead sharks are endangered species. (WHAT? would you question whether a tiger shark is different from a tiger going extinct?) we have a lot to do on the international level for the oceans.
9	what happened to 10 minute break?
10	At what point does raising citys
11	At what point does "raising cities" become a fruitless effort?
12	With water that is being released into the bay, is that freshwater or is it salinated to match the bay?

13	In the opening of your excellent Second Draft Report, you cite your two crucial action goals, separated by "and/or". What does this mean? Is it possible to use just "and" to remove what seems to be uncertainty, taking away from the singular power of these goals? Thank you.
14	I have heard that this project has impacted seagrass habitat in the bay, is an environmental impact assesment completed and available?
15	How much is Miami Beach spending annually - public and private money - is spent to do these upgrades?
16	Great presentation, love the historical perspective - thanks! Did you say that the addition of the vegetated dunes to the beach renourishment project allows the beach to maintain itself and even expand WITHOUT any sand mining and pumping?
17	How were/are the projects funded?
18	For these shoreline restoration/ upgrade projects where you have extended the depth of the beach or wetland, where is this new space coming from? Presumably the existing buildings are not being moved, so does that mean you have built out into the existing waterway?
19	how much did it cost to raise Sunset Harbour relative to the value of the infrastructure saved, and relative to relocating the population?
20	Would be interesting to mention the experience of the Yucutan in Mexico which combines nature based solutions and parametric insurance coverage. The policy in question covers a section of the coral reef off the coast of Cancun. The payout in case of storm would be used to restore the coral reef, which protects against storm surge and also offers other ecosystem services relatred to tourism. What is interesting is that the insurnace premiums are being paid by the hotels that depend on a healthy reef and beach to provide a draw for visitors. The same approach could be applied to other coastal ecosystems such as mangroves or wetlands where there are private sector interests that are willing to pay for the ecosystem services that have a public goods nature.
21	Regarding marsh restoration in the NE and mid-Atlantic, much restoration involved removing the invasive plant Phragmites which reduces diversity of plants on the marsh. However, this plant absorbs more CO2 than the native marsh plants, and also enables the marsh to elevate more rapidly than native species. Many marshes are not keeping up with SLR, and if they cannot migrate inland (because of roads, towns etc just landward) they risk drowning and turning into open water & mudflats. Leaving Phragmites in place would give marshes a better chance. Despite the science here, the management community refuses to change their practices. What else can we do besides writing papers and speaking out?
22	Will this entire webinar be available to re-watch to all registered viewers?
23	Does the RAA have policy stance on carbon pricing?
24	Thank you!

25 climate resilience to be built? Is this from property tax base or some kind of public finance bonds or other instruments? Frank, Have those in the reinsurance industry in the US listened to Mark Carney's address to Lloyds of London 26 in Sept. 2014? He cautioned all in the finance and insurance industries to acknowledge the "tragedy of the horizon"—to price in the risk of climate change. Larry Fink of BlackRock said something similar. Frank laid out very rational solutions that would send the right signals about flood risk, including with respect to additional risk from sea level rise and increased storm surge resulting from climate change. What are the 27 politics behind making the reforms to the national flood insurance program happen? Who are the main opponents to such reforms? How best can academics engage with coastal planners and managers to identify and implement adaptation 28 strategies? Follow up on the questions about costs/spending. What is the source of the funding for various measures, 29 including the beach replenishment/dune-building and the parametric insurance program. How much funding is local versus state and federal? For Miami Beach: Do you consider the GHG impact/energy demands of your adaptation strategies - when 30 compared to other possible adaptation alternatives? OCAP YAC Q: buildings are not the only critical properties subject to risk of flooding. How can we also evaluate 31 risk to the transportation sector, especially with respect to public transit options, and how can we encourage them to grow with respect to climate resilience? 32 Does the Reinsurance Association/Industry have a position on "managed retreat" of communities? While nature based and living shorelines have been successfully applied in Miami (and beyond), greening the 33 gray solutions for environmentally friendly seawalls breakwaters and piers are still far from being a norm. Any steps with regulations to promote such solutions that are applicable for our urban marine environment? A new report funded by FEMA and HUD found that the U.S. could save more than \$1 trillion over th elong trm 34 by removing roughly 1 million homes from floodprone areas. Did Miami Beach consider acquiring and relocating floodprone structures rather than elevating the city piece by piece? I see a lot of "This question has been answered live", when those questions have not been answered or 35 addressed. A question from the OCAP Youth Advisory Council: In point four of the OCAP's suggested changes to the NFIP, 36 property buyouts with marginalized communties having the priority are mentioned. Will these buyouts be subsidized to allow for affordable prices for said communities at risk? 37 What role could/should private insurance play in supporting relocation from high flood risk areas? YAC- If protecting infrastructure requires this degree of funding, what are some ways to fund projects like this 38 in communities that can't afford tax increases?

For Elizabeth Wheaton, where did/does the money come from that enabled your innovative solutions to

- Would really love to hear about the panels thoughts on the Blue New Deal that was presented by Elizabeth 39 Warren For Mr. Nutter: What are your thoughts on funding of relocation in advance of projected sea level rise rather 40 than past repetitive losses due to storms? Strange that living shorelines are more difficult to permit than regular infrastructure because they are 41 "untested", when in fact living shorelines have been protecting shorelines for millions of years. Following up on Nutter's last answer, do you expect 'new' coastal states such as those in the Great Lakes to 42 become more supportive of water-Ireated actions as their states experience more flooding and issues with water quality (e.g. e.coli outbreaks)? Will it be really possible to adapt the whole area (Miami) discussed until the end of the century? Or do we have 43 to move at large scale? Do you know of any examples of a city getting blue carbon funding from voluntary or compliance carbon 44 markets to fund the restoration of carbon-rich coastal ecosystems for the purpose of shoreline protection, like mangroves? For Hilary - Frank mentioned the example from Mexico. What he didn't emphasize was the fact that it is the private hotel companies that are paying the premiums for the parametric insurance. That is the unique aspect 45 and could be extended to other cases where there are private sector beneficiaries of ecosystems that also have a public goods nature. Please address more specifically how you would change MSA and NEPA to allow in-season fishery 46 management response on a climate change time-frame? Whats your opinion on plastic in the ocean, and long until the severity gets to a point where aquatic 47 ecosystems very damaged? 48 Noah, what is the best way to seek out US harvested seafood? Are there sources you recommend? Noah - does the current COVID crisis present an opportunity to create the foundation of more localized seafood supply chains by directing some of the trillions of dollars in economic relief monies that Congress has 49 approved toward rapid development of small businesses that can market and deliver fish directly to consumers?
  - 1/2 A few questions concerning this section from the OCAP YAC: 1) If we make changes to the Magnuson-Stevens act and don't create new MPAs, it is important to protect threatened and endangered species and make sure that bycatch is reduced. A potential solution is targeted, more sustainable fishing gear. Will OCAP include a grant program to aid in the development of such gear? New gear is also oftentimes difficult to afford, will there be subsidies to help fisherman transition to newly developed gear types? These questions should be addressed in point one of OCAP's recommendations for this section. 2) The aquaculture industry and localized fishing industry are competitors. How can we effectively balance these two industries so neither goes out of business? This is especially important to protect small fishing towns that are reliant on the fishing industry for their economy. 3) Will there be firm regulations on aquaculture to prevent impacts from farms on the natural ecosystems these farms are located in?

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2/2 4) There should also be a protocol to address abnormal migration. If an endangered or threatened species
 is displaced and seems to be abundant in one area, how should the local fisheries act? Especially if the typical catch has also been displaced to another area?

- Another OCAP YAC Question: Should we really fish down the food chain? We should try to prevent trophic cascades at all costs, as the collapse of an ecosystem couldr esult in the collapse of the whole industry.

  Understandable with regulations, but wouldn't it be best to leave lower food chain links to farms?
- Noah, aquaculture has faced challenges gaining traction within the US in past years. How do you see US aquaculture interacting with MPAs and US wild caught fisheries in an effort to increase a localized seafood supply?
- Bill shellfish farming seems like a relatively benign form of aquaculture, but isn't the growing edge of the industry fed finfish culture, which has larger negative impacts on fisheries, biodiversity, and water quality? Do you have a vision for sustainable aquaculture in the US as Congress considers legislation to regulate and promote offshore aquaculture?
- Inland communities care deeply about the ocean and healthy fisheries and a strong Magnuson Act. How do you suggest those communities better engage with coastal communities and policy initiiatives?
- Noah: when you speak about EFH, especially in mixed-species fisheries, the ocean bottom quickly all becomes EFH for one species or another. How do you specifically think about using EFH to help drive sustainability?
- With the lack of resources out there to improve the reef environments in a major way what can be done to get the reefs back from disaster and coral bleaching as the global warming continues to destroy the reefs. It has been clear there needs to be many more hands to continue to complete the gardening and replanting of reefs because of the time it takes for them to grow. Do you feel there is enough people on hand to grow the reefs before its too late.
- Many sectors are doing risk assessments and developing adaptation plans to try and reduce impacts under changing climate and ocean conditions. Should fisheries managers and communities be doing this? What do they need to do it? Most fisheries management only look out one or two seasons based on historic information.
- The shellfish growing industry is now well organized around climate/OA impacts and legislative action.

  Fisheries are much more diverse in their gear types, species, ecosystems, history, etc. What do you suggest to get the larger fishing / processing sectors organizing to take legislative action on climate/OA?
- 60 Is there any organizing going on with the Seafood Restaurant industry?
- Given the option, from a sustainable and health POV, should we eat sustainably-raised fish/shellfish or wild caught?
- How can we find better alignment betwen the traditional fishing industry and aquaculture? Especially following COVID-19, all industries are goig to have to pivot in directionis we may not even realize yet. Seems we need more cooperation. What are both of your thoughts on finding a pathway to collaboration?
- 63 Can Mr. Dewey speak to the impacts that some shellfish aquaculture facilities have on seagrass and eelgrass habitat, and what he is doing to prevent these harms?
- Marine heat waves are becoming more frequent and intense does NOAA and other organizations provide forecasts of these damaging events? Are there robust projections of ocean and fish stock conditions say 2, 5 even 10 years out and if not what is needed to do provide this information?
- Bill are prices for fishmeal and fishoil high enough to incentivize the feed innovations you've mentioned? Or do we need a tax or some other incentives to promote these innovations that reduce impacts on wild fisheries, the climate system, and biodiversity?

66	Aquaponics is interesting but doesn't provide the restorative aspects of seaweed and shellfish farming. Can you address that?
67	The blue food movement advances the message that seafood is the animal protein with the lowest carbon impact. This aligns very well with climate change mitigation. Do you have approaches in mind for capitalizing on that?
68	Bill, thank you for your years of advocacy for sustainable shellfish development.
69	How do you deal with teh issue of teh relatively short life span of a turbine (less than 30 years) and challenges in disposing of old turbine structures?
70	What is the "average" kWh price for power in MA?
71	Seth Weinfield, Heirs to Our Oceans, Youth Advisory Council: There are approximately 1.4 million US jobs in the oil industry. What plan, if any, is there in place to retrain those oil workers into renewable energy jobs such as wind power?
72	Can offshore wind structures be built so that they create artificial reefs / habitat that enhance ocean fisheries and diversity?
73	Alaska has a lot of 'stranded' wind resources. What legislative changes are needed encourage development of the enormous class 6 & 7 resources offshore in Alaska?
74	Are there any sites in California that are active sites for developing an offshore windfarm?
75	YAC Question: An important part of OCAP included establishing a moratorium on offshore drilling. Could we please discuss this? Can we retrain those oil workers for offshore wind projects? Political challenges associated with offshore drilling moratoriums? ++
76	Thank you all for these presentations! There seems to be a big difference in wind projects off the East Coast and projects off the West Coast. Is that true, and if so, why? Regulatory issues, environmental issues, etc.?
77	Are the economics of renewable energy aligned with expansion of this sector because of subsidies? If so, will more subsidies will be needed to help the sector recover from massive disruption due to the COVID pandemic?
78	How would the fact that there are large national marine sanctuaries off our coasts - especially in CA - affect decisions to approve offshore wind projects? Are they allowed in any of the Sanctuaries? If the wind towers themselves are not allowed in a Sanctuary what about the transmission lines, etc?
79	Peter Blair, Attorney with Clean Ocean Action - Is there any work being done at the federal or state level to create a strategic plan for identify future offshore wind areas in a systematic way given the large committments states have made? New York and New Jersey are seeking a combined 16.5 GW of offshore wind within a relativley small space.

Do the speakers see the covid19 crisis providing as an impetus to the development of offshore wind or could it 80 slow it down because of limited budgets/resouces? 81 Has the panel looked into underwater compressed air energy storage? How can we increase transparency in the development process (in terms of regulation and permitting) for not 82 only researchers and developers but also for the general public? What do you see this process looking like a few years down the road? Can you give an update on the floating offshore wind potential in the Gulf of Maine? Enabling and limiting 83 What has your experience with environmental groups been? Environmentalists want clean energy but maybe 84 not in our ocean? Are you seeing a difference in that attitude between the east and west coast? What percentage of total US energy demand could renewable ocean energy supply in 10 years, given 85 reasonable assumptions about technology development, economic growth, etc? And how much carbon can be kept out of the atmosphere by a fully scaled US ocean renewable energy sector? 86 Congratulations on moving offshore wind to reality with very well crafted policies & legislation. Seth Weinfield, Heirs to Our Oceans, Youth Advisory Council To Mr. John Downey, 87 Do your hybrid powered ships have a restructured engine to reduce cavitation in order to mitigate ocean noise pollution? If not, would you consider it? How is Hurtigruten pressuring other cruise ships either directly or indirectly to follow its lead? What are the 88 barriers for getting other cruise ship companies to follow foot?

It is difficult to hear the various environmental actions cruise ships are taking - at least that some of the companies in the industry are doing - but how do you justify continuation of an industry whose ships are essentially petri dishes. In the past it was primarily noroviruses - nothing life threatening. But, in the corona 89 world, we've seen cruise ships being breeding grounds, which we have to think contributed significantly to the global spread of COVID-19 - especially considering how infected passengers were allowed to disperse throughout the world once ports finally agreed to let ships dock. How would you respond to this development and is it even possible to put measures in place to ensure th eindustry doesn't spread future pandemics? OCAP YAC Question from Ida: Since January 1st (2020) the IMO, International Maritime Organization, set new limits for Sulphur used in heavy fuel oil. Outside the ECA, the emission control area, the new limit for HFO is 90 0.50% m/m (mass by mass) from 3.50% m/m. Are you willing to create bigger restrictions on fuel standards for American flagged vessel? OCAP YAC Question from Ida: OCAP states that "vessel speed reduction programs" need to be created for ocean going vessel to a maximum 10kts when entering sensitive areas. NOAA and the USCG already enforce these standards on the East Coast of the United States, for the endangered North Atlantic right whales. The 91 fuel used by the ships in the ECA, emission control area, is LSHFO and the limit for Sulphur is 0.10% m/m, allowing emissions to be reduced. What other areas on the coast of the United States do you want to implement a vessel speed reduction program? Jason Giffen - have you been able to earn carbon credits to help pay for your salt marsh and eelgrass 92 restoration projects? For Dr. Giffen - Did you have to go through a permitting process for your aquaculture operations and if yes, 93 how difficult was that? 94 Jason, How active has the US Navy been as a partner? '@Jason - can you share a little bit more about how the Port of SD is working with carriers to standardize and 95 proliferate shore power infrastructure adoption? '@John - Was the move to hybrid-drive purely driven by the business case for this transition? Or were there 96 government incentives in Norway that enabled this transition? 97 '@Jason - has COVID-19 impacted the EV landbridge developement you just presented on? 98 John are you working with commercial fishing boat builders?

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Thank you all to all participants and organizers!