



November 30, 2021

David Witherell, Executive Director  
North Pacific Fishery Management Council  
1007 W. Third Avenue, Suite 400  
Anchorage, AK 99501-2252

Dear David,

We appreciate the important work of the North Pacific Fishery Management Council to prepare future management of our fisheries for climate change and ocean acidification.

The Alaska Ocean Acidification Network is working to understand the changes taking place in our waters, and how marine species may respond. We share results with the seafood industry and coastal communities, and engage in discussions around future adaptation strategies. When our collaborating scientists present their findings in coastal communities, the most common question is, "What can we do?" The network's fisheries working group suggested we promote learning about solutions. How can we address the root cause? That discussion was the genesis for a new podcast called *The Future Ocean: What Can Carbon Policy Do for the Ocean and Our Fisheries?*

We would like to share the 6-episode podcast with you. It is accessible on [www.thefutureoceanpodcast.com](http://www.thefutureoceanpodcast.com). Here you can find links to all the episodes as well as more information about topics covered in the podcast. You can also listen by searching for *The Future Ocean* on Apple Podcasts or Spotify.

Enclosed is an article describing *The Future Ocean* podcast published in the November issue of Pacific Fishing.

We hope *The Future Ocean* podcast and its exploration of our changing oceans and carbon policy will be a useful compliment to the Council's focus on maintaining the sustainability of our fisheries. Please feel free to share widely!

Sincerely,

A handwritten signature in black ink, appearing to read "Darcy Dugan".

Darcy Dugan  
Alaska Ocean Acidification Network director

# 'The Future Ocean' podcast explores solutions to warming and acidifying oceans

**T**he energy is free. As long as it rains and the wind blows, we're in good shape."

These are words from longtime fisherman Stosh Anderson about the transition that Kodiak Electric Association has made to generating electricity nearly 100 percent by renewable energy. Hydro, wind power, and novel flywheel technology satisfy the community's entire energy needs, ranging from moving seafood containers to keeping lights on and buildings heated. Kodiak is a showcase for renewable energy infrastructure. The result? One of the lowest power costs in the country to process seafood in the nation's No. 3 fishing port and zero carbon emissions.

Since ocean acidification and ocean warming share the same root cause – that is, the building up of carbon emissions from the use of coal, oil, and natural gas – the promise of renewable energy is a key part of the answer to growing concerns within the seafood industry.

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"The Future Ocean" is a six-episode podcast featuring marine scientists, economists, and Alaska leaders in renewable energy. Episodes explore policy options, how they work, what the terms mean, and what action is happening regionally and nationally. Kodiak's renewable energy success is one important way forward that could be duplicated elsewhere. But decarbonizing the global economy? That's a tall order that requires public policy to drive sufficient investment and scale up success.

**In the first two episodes**, guest scientists describe changes happening in the Bering Sea and Gulf of Alaska. They discuss how ocean acidification works, and why Alaska's cold, high-latitude waters may be among the first places altered by an acidifying ocean. They explore the intersection between acidification, warming, and events such as harmful algal blooms. Meanwhile, as global carbon emissions have increased over time, the ocean is also absorbing and storing much more heat from the atmosphere. Guest scientists explain how warming is transforming Alaska's oceans, with consequences for fisheries and fishery-dependent economies.

In episodes 3, 4, and 5, the podcast turns to economists who explore policies that put a price on carbon emissions. As they explain, such a price applied to carbon emissions is a powerful incentive to reduce emissions. Such a market signal can accelerate the emerging transition to clean energy across the economy and generate considerable revenue that can be put to good use.

The Intergovernmental Panel on Climate Change (IPCC) has delivered strong advice that global emissions must be reduced 45 percent by 2030 and we must achieve net zero emissions by 2050. "The Future Ocean" podcast explores carbon pricing as a policy approach, its momentum nationally and internationally, and its



Research on ocean acidification and warming is underway in Alaska with research and data collection efforts spanning state and federal agencies, industry, tribes, and local communities. This buoy, known as GAKOA, documents ocean chemistry in Resurrection Bay near Seward. UAF photo

potential role in sharply reducing emissions in the time frame advised by the IPCC.

In episode 6, leaders in Alaska's expansion of clean energy talk about progress in rural Alaska and along the Railbelt. Listeners can hear about the future of financing renewables through an innovative proposition called a "green bank." Finally, we hear from leaders of Kodiak Electric Association about what motivated them to make a clean break from diesel generators.

**No one said the transition** to a lower-emission society would be easy. Fishermen, processors, and seafood buyers may be wondering how a price on carbon emissions will increase costs for harvesting, processing, and transporting seafood. How much retooling is necessary? The message from scientists and economists on "The Future Ocean" podcast is that the cost of doing nothing to address acidification and warming is much higher than the cost of transitioning to clean energy. If we put a price on emissions at the front end, we have a chance to throttle back on emissions and avert the worst consequences. If we wait, continuing with emissions as they are, we pay the price downstream in the form of reduced fisheries and disrupted food webs. Clearly innovation, investment, and willingness are called for – an all-hands-on-deck undertaking, now.

"The Future Ocean" podcast is a conversation that highlights the challenges we face, as well as the opportunities. We welcome coastal Alaskans, everyone in the seafood industry, and anyone concerned about the future ocean to listen.

You can find the podcast by visiting [thefutureoceanpodcast.com](http://thefutureoceanpodcast.com), or you can subscribe to "The Future Ocean" on Apple Podcasts or Spotify. ↴

Darcy Dugan is director of the Alaska Ocean Acidification Network, a program of the Alaska Ocean Observing System. "The Future Ocean" podcast is a project of the Alaska Ocean Acidification Network and coproduced by Dorothy Childers and Maggie Wall.