

“Outer Bay to Open Sea”

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Monterey Bay Aquarium

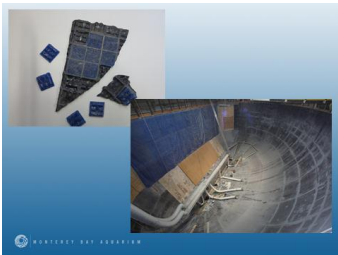
#1:



Good Everyone. I know that it has been a long day and I appreciate you all being here for these final presentations.

I'm here to talk about a relatively new exhibit wing at the Monterey Bay Aquarium, "The Open Sea," that was unveiled just a little over a year ago in July of 2011, which is a transformation of our former Outer Bay Wing that had been open since 1995.

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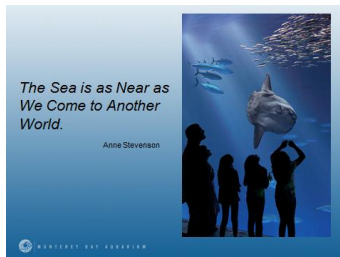
After a considerable amount of discussion about the possibility of a new exhibit, this particular project really came down to addressing needed infrastructure repairs. At the heart of the problem was a failing tank liner in the large Outer Bay Waters Exhibit, seen here drained and already under repair. What you see in the lower right is a new interior fiberglass shell; the former was lined with one-inch square glass tiles that were sloughing off from the increased flexing and general wear and tear of the shell. Not only was this a growing aesthetics issue, but it also represented a significant health hazard to the resident green sea turtles who delighted in eating them, and subsequently remained behind the scenes for over a year prior to the re-opening.

#3:



But alas, no major repair goes without opportunity for positive evolution, and indeed we embarked on an effort to enhance the overall guest experience of the entire exhibit hall, improve life support system efficiency, and also break-in the use of a new off-site Animal Care and Research Center.

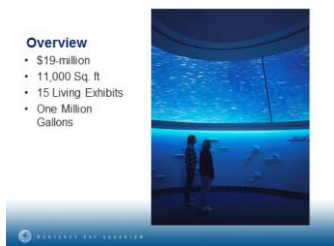
#4:



In the end the new Open Sea Exhibit aims to move beyond our initial goal of raising awareness of the ocean environment and to a much greater extent advocate and inspire ocean conservation.

The purpose of this talk is to guide you through the exhibition space, underscore some of the salient features, and mention a few of the "behind-the-scenes" upgrades that came along the way.

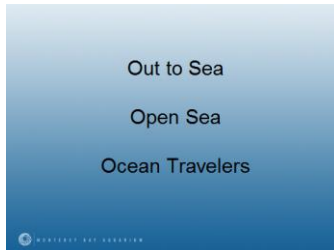
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Just a quick overview here: The \$19-million re-model focused on 11,000 square feet of exhibit space, contains fifteen living exhibits, incorporates over one million

gallons of seawater, as well as upgrading messaging, integrated artwork and new technologies..

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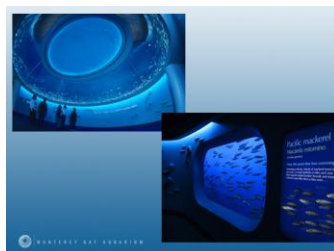
The exhibit space is divided into three conceptual “zones,” each that I will cover in detail, and include; “Out to Sea,” “The Open Sea” and “Ocean Travelers.”

#7:



As with the former Outer Bay Waters Exhibit, the Open Sea continues to interpret the vast blue world of the open ocean, focusing on the Eastern Pacific beyond our local Monterey Bay. Here you see the main message of this entire exhibit: *“Out to sea and on the go — Life is in constant motion in the open sea. We have a chance, right now, to protect this wild place.”* This message of course is not mentioned or spelled out any where in the exhibit, but is the foundation from which all of the exhibits are interpreted and graphics created.

#8:



Guests first enter the Open Sea wing at the beginning of the first conceptual zone “Out to Sea,” and are greeted by an overhead school of Pacific sardines, followed by

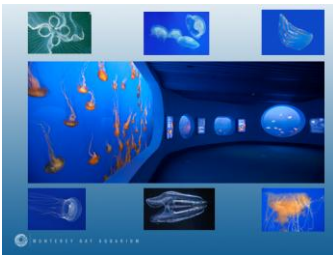
and endless school of Pacific mackerel. Here begins the story of an adventure away from shore and out to sea.

#9:



Next, jellyfish and ctenophores play ambassadors to a world where life is adrift, riding the currents to become an integral part of the open ocean.

#10:



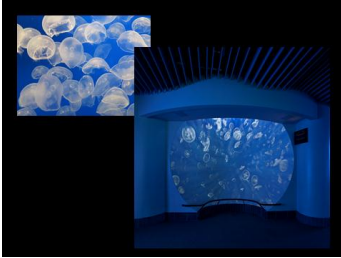
Numerous species indigenous to the Eastern Pacific include gelatinous animals we have displayed in the past as well as those that we collect opportunistically.

#11:



...and our largest, over 2000 gallons, jelly kreisel displaying sea nettle, *Chrysaora fuscescens*

#12:



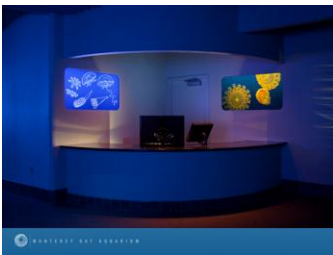
Next, guests encounter this immersive jellyfish explosion projected onto a concave video screen as well as a densely populated living moon jelly display (not shown here). Together these two exhibits underscore the notion that human activity resulting in overfishing, climate change and pollution play significant roles in upsetting the ocean's natural balance.

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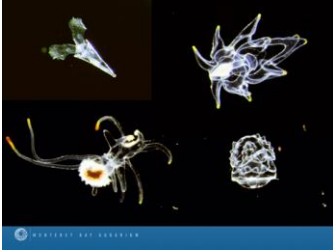
It is at this juncture where a very dramatic change takes place relative to the former "Outer Bay Waters." Here guests enter an area dedicated to the interpretation of the microscopic world, the plankton, the building blocks of the food web to which we are all connected and part of.

#14:



A Plankton Lab, staffed by volunteer interpreters, uses a microscope and camera to project high-definition images of living plankton onto a video monitor.

#15:



Numerous forms of plankton are collected multiple times throughout the week by our Aquarists, sorted daily, and made available as a diverse assemblage of specimens.

#16:



A multimedia wall includes a “touch interactive allowing guests to choose and manipulate 3D images of plankton. This dimly lit area is piped with ethereal music that makes for a very space-like environment.

#17:



Along this wall is also a video, one of numerous art installations present throughout this entire exhibit. This piece was commissioned by a sand painting artist, Llana Yahav.

#18:



VIDEO

#19:



Transitioning from “Out to Sea,” our guests encounter the main “Open Sea” Exhibit, close to one million gallons in capacity. Here is where the new, more robust, gel coated liner designed and installed by Kreisler and Associates exists. And now, far away from shore, the sea is home and highway to a rich diversity of life — an environment facing many threats from human activity.

#20:



Behind the scenes we were able in this re-model to:

1. Add more theatrical lighting.
2. Isolate three of our schooling fishes exhibits on to their own life support system providing more flexibility.

3. Combine the functions of heating and cooling systems to increase operating efficiency which in part now gives us an ability to reclaim formerly lost heat that is used to support both HVAC and life support function.
4. We also added exotic treatment to our outflow, aligning ourselves with local California Fish and Game requirements, allowing us to house “exotic” or at least species less common to our local waters.

All of the species familiar to our guests from the former Outer Bay are here. The blue and yellow fin tuna, scalloped hammerhead sharks, mahi mahi, ocean sunfish, etc. This is also where we seasonally display white sharks, which Randy Hamilton will speak in detail in a latter session tomorrow.

#21, #22, #23:



New to the exhibit are sandbar sharks and the largest school of Pacific Sardines ever displayed at the Monterey Bay Aquarium. The inclusion of over 18,000 sardines was inspired by many factors, not the least of which are our friends in Japan including Aquamarine Fukushima, Nagoya Port Aquarium, and Enoshima who we have visited in past and who display similar schools. These fish have been a huge “hit” with our visitors:

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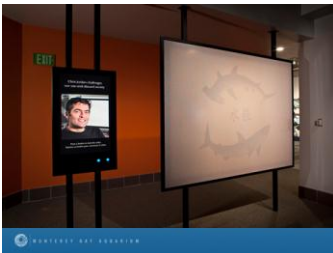
The final section of the Open Sea wing, “Ocean Travelers,” features a new sea turtle exhibit.

#25:



As well as a diving bird exhibit featuring tufted and horned puffins, pigeon guillemots, and common murrets.

#26:



These have been paired with a number of permanent art installations that seeks to add to the emotional engagement of our guests and endorse conservation minded action. Some examples include this photograph by Chris Jordan depicting 270,000 shark teeth representing the number of sharks killed every year for their fins.

#27:



We have an example of the Murals by the Mexican turtle conservation group, El Grupo Tortuguero, who display their artwork in public places along the Baja peninsula to help raise awareness and inspire conservation.

#28:



Whale photography by Bryant Austin along with a video in which he speaks passionately about a close encounter experience with a humpback whale...

#29:



Lastly, but not completely -- in the spirit of brevity I have left out a number of exhibits and art pieces -- is an assemblage of artwork reusing plastic garbage and representing the concepts of re-use, recycle, re-think and re-shape.

#30:



Ocean Travelers is all about breeding and feeding and the anthropogenic threats that migratory animals face along their epic journeys out at sea. More, or just as important, are simple tips on ways that we as individuals can help.

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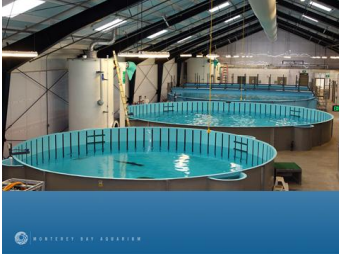
Before I closed, I wanted to briefly introduce you to a new off-site Animal Research and Care Center, the planning and building of which was on a parallel track to the development and installation of the Open Sea project. This might feel like a bit of a non sequitur, but I mention here because one; it is a new and significant component of our operations that we are very excited about, and because it was paramount to the successful decommissioning the Outer Bay and opening Open Seas.

It is located in Marina, just over ten miles north of Monterey. It is a 15,000 square foot facility, built with sustainability in mind — both the sustainability of our long-term operations as well as in a “green” sense.

1. The building is partially lit by skylight.
2. The foundation is made from a more environmentally friendly high-volume flyash concrete.
3. The pre-engineered building uses post-consumer recycled steel structural members.
4. And the landscaping is with native draught resistant plants.

I should also mention that unlike our main facility, this is a closed system operation, and water is transported to and from our main facility multiple times a week using a truck fueled by bio-diesel!

#32:



Inside are three tanks on two separate systems, close to 300,000 gallons total, and include a thirty-foot (45,000 gal), forty-foot (75,000 gal) and sixty-foot long oval (145,000 gal) tanks. It is here that we housed the vast majority of specimens from the former Outer Bay Waters exhibits, and where we staged many of the new arrivals.

#33:



Back to the main theme: So was it all worth it? We think so. After the initial five months of being open to the public, our attendance figures were better than expected, guest survey information showed that 78 % of our visitors rated the exhibit as “Excellent (19% good)” — the second highest rating any new exhibit has ever received.

Additionally, during this time, the proportion of guests who said they learned new conservation information during their visit is 90%, higher than ever before.

In the words of one guest, “I am blown away. The experience was highly emotional. And, I learned a lot!” In the spirit of complete transparency, I have to tell you that it was my other who said that, but my mother never lies.

#34:



And — the turtles are back!

Thank you.