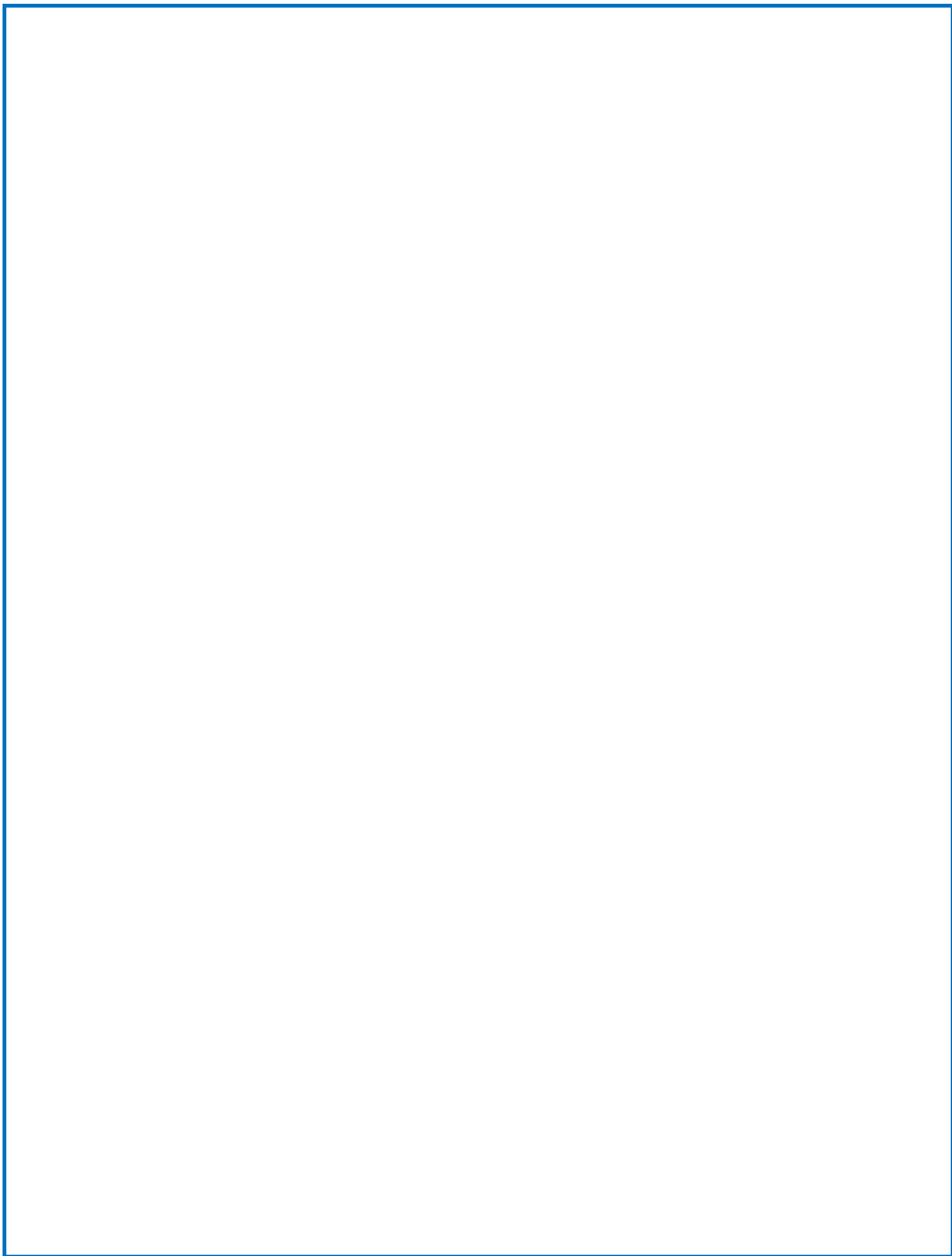


**The College of Marin in partnership with the Institute  
hosted meeting with business, government, and  
education leaders to explore how we might  
collaborate to build a Blue Economy**



**Highlights from Meeting with  
Business, Government, Community & Education Leaders  
in Marin/Bay Area/Northern California • June 9, 2025**



## How to Envision & Build a Blue Economy Workforce Development Pipeline & Eco-System in Marin/Bay Area/Northern California

On June 9 the College of Marin hosted a meeting with business, government, education leaders to explore how we might collaborate to build a Blue Economy.

- **Terry Sawyer**, [Hog Island Oyster Co.](#) presented the need for aquaculture training program
- **Yvonne Harris**, Marin City [video](#)
- **Alex Loucks**: Clean Water Management [presentation](#)
- **Dr. Dana Emerson**, College of Marin Asst. Superintendent/VP of Student Learning & Success
- **Stephanie Moulton Peters**, Marin County Board of Supervisors
- **Tim Karas**, President, Mendocino Community College's [Noyo Ocean Collective](#)
- **Dirk Rosen**, MARE, [Romberg Ocean Science Center](#)
- **Graham Balch**, [ZeroMar](#)'s Marine Electrification Apprenticeship Program
- **Jack Sherwood**, Sausalito business community
- **Yuki Ueda**, Stone Soup Leadership Institute
- **Marianne Larned**, Stone Soup Leadership Institute

### Invited, Expressed Interest in Future

- **Mike Blakely**, SeaGreen Insights (& formerly Marin Economic Forum)
- **Tyla Brown**, Marin Clean Energy
- **Curtis Havel**, Sausalito Sustainable Waterfront Association
- **Aleco Katsaunis**, Marine Layer
- **Lisa Poncia**, Stemple Creek Ranch
- **Jed Smith**, Marin Water District Board of Directors
- **Rafael Cuevas Uribe**, Cal Poly Humboldt's Department of Fisheries Biology

California's Blue Economy is booming —spanning ocean exploration, sustainable aquaculture, underwater robotics, and marine-based renewable energy. The OECD projects this sector will surpass **\$3 trillion globally by 2030**. This explosive growth demands bold partnerships between academia and industry to shape a future workforce ready to meet the challenge.

The Institute presented the Blue Economy [Business Survey](#) Results and highlights from the [Report](#)

The Institute conducted an intensive 10-week paid internship with College of Marin students to explore our SustainWDN™ Platform. The interns each researched on Sustainable Career Pathways to explore entry, mid, and advanced-level jobs - projected jobs, salary ranges and education requirements. Through their research, interns were heartened to find that these careers are accessible, in demand, and offer living wages that could allow them to live and work in Marin and the Bay Area. Eager to support future students and the College's sustainability goals, they made recommendations for the College to expand its academic offerings to prepare students for green jobs.

- Marin students are seeking **green career pathways** that offer both purpose and prosperity.
- Blue Economy employers are ready to invest in **local workforce development**: they need partners
- Our highly educated community want to serve as **guest speakers, mentors, and adjunct faculty**.
- High schools stand ready to align curricula, expand **dual-enrollment**, and **career certificates**.
- California has thousands of new jobs in clean water management, thus the need for training. The College could reach out to Marin City's community to provide entry-level clean water management training. This could have a powerful ripple effect on the whole community.



Building Sustainable Career Pathways

*How Might We Build a Blue Economy  
by Empowering Young People to Become Leaders of a More Sustainable World?*



The Marine Vocation Leadership Institute's  
Crescent Ocean Initiative: Our Showcase  
Building a Blue Economy Ecosystem  
& Workforce Development Pipeline in New York

We are creating a pipeline with College of Marine students to demonstrate how  
community colleges can collaborate with companies to develop a vibrant blue economy.

Crescent Ocean Initiative  
Blue Ink Blackout Day - Video  
Blue Economy Companies  
Blue Economy Case Studies  
Blue Economy Business Survey  
Business Survey Analysis  
Report for College of Marine President



Sustainable Career Pathways

Aquaculture  
Blue Finance  
Blue Tech  
Clean Water Management  
Environmental Engineering  
Green Building  
Marine Biology  
Marine Electrical  
Supernative Agriculture  
Renewable Energy  
Other Pathways



Alexandra Tardieu  
Clean Water Management Pathway/Designation



Thanks Harbormaster Curtis Bazel  
for the enlightening tour of the  
Saville harborfront in the Clipper's new chronic road

I've loved them all my life, but  
I've only seen it from the water  
and it's changed here. I  
see my home. I've especially  
grateful for your personal  
perspective on the working  
harborfront,  
and I'm giving thanks thought  
to becoming part of it one day.



Harbormaster Curtis Bazel  
Saville Harborfront

**The Institute's Sustainable Career Pathway Series**

Environmental Management is a  
dynamic and ever-evolving field that  
is essential to the future of our planet.  
The Institute's Sustainable Career  
Pathway Series is designed to provide  
students with the knowledge and skills  
needed to succeed in this field. Through  
this experience, I will learn how to  
effectively communicate with the  
community and be a successful  
leader. I am extremely  
grateful for the resources,  
mentorship, and inspiration.  
Being able to learn from the development of the  
Sustainable Career Pathway Series and help others is a better  
way to experience and achieve the skills for students  
pursuing a career in this field.

Alexandra Tardieu  
Clean Water Management Pathway/Designation

**The Institute's Sustainable Career Pathway Series**

The resources and  
mentorship I made through  
the Institute's Sustainable Career  
Pathway Series is the most  
valuable and I am grateful for  
the resources and mentorship.  
Through this  
experience, I will learn how to  
effectively communicate with the  
community and be a successful  
leader. I am extremely  
grateful for the resources,  
mentorship, and inspiration.  
Being able to learn from the development of the  
Sustainable Career Pathway Series and help others is a better  
way to experience and achieve the skills for students  
pursuing a career in this field.

Michelle Gaudin  
Environmental Engineering Pathway/Designation

**The Institute's Sustainable Career Pathway Series**

Environmental Management is a  
dynamic and ever-evolving field that  
is essential to the future of our planet.  
The Institute's Sustainable Career  
Pathway Series is designed to provide  
students with the knowledge and skills  
needed to succeed in this field. Through  
this experience, I will learn how to  
effectively communicate with the  
community and be a successful  
leader. I am extremely  
grateful for the resources,  
mentorship, and inspiration.  
Being able to learn from the development of the  
Sustainable Career Pathway Series and help others is a better  
way to experience and achieve the skills for students  
pursuing a career in this field.

Alexandra Tardieu  
Clean Water Management Pathway/Designation

The Institute's [Showcase on Building a Blue Economy Ecosystem & Workforce Development Pipeline](#) highlights how Blue Economy companies can collaborate with academic institutions to cultivate a strong pipeline of sustainable workforce talent. [Case Studies](#): Martha's Vineyard Boston, New Bedford, Massachusetts, Newport, RI, Hawaii; Vieques, Azores, Portugal, British Virgin Islands, and The Philippines.





### Alex Loucks, Sustainable Career Pathway Intern: Presentation

- Clean water management has two things going on: 1. People who are in the field are trying to incentivize more students into getting certification because they have a lot of jobs opening, but not enough people with the certification to go into the jobs. 2. There's the silver tsunami, where a lot of the older workforce is retiring. We need people who have the experience to step in, but that just isn't there. I think a lot of it is due to people just not knowing about it. There's a lot of students here that I think if they knew about this, they would get into it. There's a lot of opportunity here that's just untapped, a lot of potential. Hearing that you could, right out of high school, make \$40,000-\$60,000 a year. A lot of people are going to be interested in that!
- The Clean Water Management Pathway that I researched has a lot of opportunity, especially for people who are graduating from high school or people who have only gotten a high school diploma, because that's all you need to get started! Any certification you get at any colleges would just help cut down the number of years of experience you need. Anybody can get into clean water management, especially the job I specifically was learning about, which was wastewater operation. All you need is a high school diploma and a year of experience and to take a certification and you're in. The wages you get paid are really good especially considering a lot of people don't even breach \$20,000 once they get out of college or high school.
- Sharing experiences can motivate people to show you, like, "Oh, people like me can actually do it." But I think outside of just money motivation, it's beneficial to the community. I have a water lifestyle, so I'm going to be interested. Other people might like to know that you're helping agriculture, knowing that you're helping people feel safe. When you get people who may have not experienced water insecurity -- like my partner, they live in an area where they will just get that mass text that says: "You've got to boil the water, because if you don't, you could die." Knowing that you can play a part in ensuring that those kinds of messages don't happen is motivating. People can then feel a bit more secure about even just drinking straight from the faucet - so no more plastic water bottles! This kind of impact can motivate someone, knowing that you're helping people can make you feel better about what you're doing.
- What's good about clean water management is that it's needed here. People who have lived here their entire lives can stay here. If they want to, they can, because clean water management is needed everywhere, and at least in California, in clean water management here, you get paid more than most states.
- To provide a little context as to what Yvonne Harris is talking about, she was specifically talking about this age range of people who live in Marin City that are around 25 years old, and they either don't have jobs, they're just working the average fast-food job, and not really any job that pays them well. A lot of people, at least in my generation, instead of going to normal jobs, we usually just end up in service work, and we're not actually pursuing any of the degrees we get.



**Yvonne Harris, Marin City**

- My involvement with Stone Soup Leadership Institute has been one of exuberance in that the idea that young people could be trained for jobs in clean water management is astounding! The thought of an innovative profession being introduced to the young folk in Marin City with the possibility of a certificate in clean water management excites me. This would cultivate personal pride and even home ownership for those able to take advantage of it just as technology afforded me a career. Clean water management is going to be what technology has done for the world, providing life-saving measures for generations to come.
- It could provide a tremendous amount of incentive for people ages 25 to 35. This group has been kind of lost. The majority graduated from high school, and that's it, absolutely nothing else. As a result, they're lost. They haven't a clue as to how they could make a decent living. So they don't. The Clean Water Management could provide years of incentives for these people, a pathway for their future. If they were able to get in and realize they could have a career and retire, they can realize that they have the capacity to learn something new. It would definitely be totally innovative. For this age group, and for those even younger, who haven't a clue as to what they want to do, it can provide them a pathway. It's got a lifetime of sustainability, if it's implemented properly, and it can be, it can be.



**Stephanie Moulton-Peters, County Supervisor, Southern Marin**

- I have an environmental science background. My territory covers Marin City, Sausalito, Mill Valley, Tam Valley, Tiburon, and Belvedere. We have properties like the Romberg Center and in Sausalito that I long thought could adopt a blue economy ecosystem of business and research the way the Buck Center generated science research in the biosciences and aging. So, I'm keenly interested in being a part of this and supporting it and developing blue jobs for young people.
- Marin County has 15 different water treatment plants. Steve Morse, in Sausalito, runs the Ross Valley treatment plant -- very interested in "one water", recycling water and using water as a system. We've talked with him a little bit. It wouldn't be hard to put a network together. Mill Valley Sewage Treatment District just hired a new manager - it was difficult to find people. Jobs right here locally. Dennis Rodoni, the West Marin supervisor, has taken on a new community and economic development goal for the Board of Supervisors that focuses in part in West Marin and what we can do.



### **Terry Sawyer, Hog Island Oyster Company: The Need for Workforce Development Training**

- We've been in business over 40 years. We have shellfish operations in Tomales Bay and in Humboldt Bay -- from brood and stock all the way to plate. We have five restaurants and over 300 employees.
- There is no aquaculture training program in Marin, we hire people from Cal Poly/Humboldt County or Santa Monica Community College. Then we face the challenge of a lack of affordable housing.
- The interesting part of my business is connecting people to their food, and that connects them to place, this connects the constituents when we have to go to policy discussions on the hill.
- There's another component besides a plant, and that's management services. So for instance, we have a district in along Tomales Bay that we're struggling to really find a way, not only with technology, but also to keep it running as it's been built, because of funding aging of infrastructure, just as running a restaurant, clog testing, just pats and grease management and its impact on these systems, which are in some cases very sensitive. We have outside contracts with organizations that manage these systems.
- I have five children -- two went to four-year colleges, one is working on her doctorate. The biggest burden is the financial burden from their education. I think these pathways should have as an integral part of this discussion.

### **Dirk Rosen, MARE Center: Marine Applied Research and Exploration**

- yes - it would be great to better utilize the Romberg Center! I have an office that overlooks the bay. I don't know why it's not fully populated. There is great workspace. It's easy access to the water. There's a ramp to put boats in. We have the Smithsonian. People working on living sea walls. There is a sea water intake system. They're growing eel grass up on the bottom level. It's a beautiful location. It has access to Duxbury reef right there. There's fishing. It's a very healthy environment right out there.
- I founded and run Marine Applied Research and Exploration, at the Romberg Center in Tiburon. We're also in the Humboldt area, where we have our center for Marine Biology and Engineering. We survey the ocean floor at depths beyond where divers can go. We start at about 60 feet. Divers can go deeper, but they can't stay as long at 60 feet. We deploy deep diving robots to survey the sea floor so we go down to 3000 feet and assess the fisheries on the West Coast, Gulf of Mexico, and small nations.
- I grew up in Mill Valley. I went to Tam. We've been in business for 22 years. John and Terry, Hog Island Oyster Co. have been fantastic supporters of different events that we've held and even participated in a climate ride that we did a number of years ago.

- We have had quite a few interns come through our organization. I think that students need to look at themselves first. Terry talked about hard work and passion – those are central to figuring out what it is you want to do and how you how you could ultimately get there. My three cents are: Attitude, Aptitude, and Awareness. Follow that passion and work really hard - and do the grunt work. Do whatever it takes, because that's what's going to get you forward, and from that experience you gain at whatever workplace, that'll transfer to your next job, and so the whole thing will mushroom over time.
- I started MARE when I was in my mid-40s. I had the experience of building manned submarines and robotic submarines, being a scuba diver, working with fantastic people, and then noticing a problem. This is the other thing that I learned in engineering school. Any problem you see out there is an opportunity to make something better. If it's a problem that really interests you, go for it! Figure out what experiences you might need to help you find some mentors. We have the experience that you might benefit from, because we made a lot of these same mistakes. So, get your network around you, your parents and others, friends, and then people in the industry, do informational interviews.



#### **Graham Balch, ZeroMar's & Marine Electrification Apprenticeship Program**

- I really want to appreciate all the work The Institute is doing to raise awareness of the Blue Economy workforce development. When I was at the Institute's Blue Job Shadow Day, a lot of students came up to me and say, "I really care about the environment!" and I think Alex presentation takes that awareness to very practical next steps. I really want to applaud you, because you're going from "I really care" to "Here's a high skill job that a community college is perfect for preparing students for".
- The evolution in thought, there is a huge difference this meeting versus the Blue Job Shadow Day - trying to find a way to focus on these high skilled blue-collar jobs and advertise that you can come here, and you don't just have to transfer to UC Berkeley. There are other high skilled pathways directly out of this community college to stay in the community and do good work. Folks can go to community college and get a high paying, high skilled job without having to go to a 4-year college.
- Many students come to CoM and don't know what to study. There are so many high skilled jobs like what Alex has discovered. There's a lot of people studying what I studied back in the 1990's: Ecology, Environmental Studies. It would be great if there was a way for community colleges to say, "We will prepare you. We have 10 different courses of study that result in a \$60,000 a year starting job." They might be attracted to the high pay, understandably, but it's the high skill that our community needs.
- ZeroMar converts vessels from diesel to electric. To develop a workforce, we created a division of apprenticeship standards-approved apprenticeship to train folks to do marine electrification. It's a significant commitment to train folks for the higher-skilled workforce jobs. Our apprenticeship is two and a half years and 12 courses and 3000 hours of training. This is really hard for us to support in any kind of sizeable numbers.



- There's a lot of workforce development that is low skill, it's low investment. "I've trained 50 people for \$5,000" - looks good on paper, we in California are losing those jobs to Texas. The jobs we're not losing to Texas are the wastewater management jobs, because they're higher paying and they can't go somewhere.
- I recently learned that high skill blue collar jobs create four indirect jobs for every job created, whereas low skill blue collar jobs only create one job for every indirect job created. Think about the Silicon Valley effect on the Bay Area. We could have a skilled labor effect on the Bay Area, and as we move into AI, it's these high skilled jobs that are going to be incredibly relevant and still in demand no matter what AI does, they need to turn a wrench that fills the wastewater pond.
- My daughter is graduating from San Rafael High School where students can take Mandarin or calculus -- "academic-y" classes. Guidance counselors place San Rafael students at College of Marin as a supplement to what the high school offers. No one in the San Rafael community knows that there are all these technical opportunities at College of Marin. The high schools need to know that these great opportunities exist.

#### **Jack Sherwood, Sausalito Business Community**

- I joined the Institute's Blue Job Shadow Day - so just a few months ago I didn't know about the Blue Economy. It's clear that the need for these jobs are tremendous, and you have students, or the majority of the population not knowing about any of this.
- We need to somehow get this information to the students at different grade levels and then bringing them on field trips -- like Hog Island or Spaulding Boat Works to seeing that there are opportunities.
- We also need to work with businesses so they will hire these students. Certificates that are going to be adaptable and always changing with the current needs. It goes on and on. It's fantastic!



#### **Dr. Dana Emerson: Career Development: How We Might Change the Narrative**

- We really are talking about creating a new narrative around the workforce development pipeline. Part of this challenge is our K-12 system and what happens with the high school guidance counselors and the types of conversations they have with their students as they are putting their first foot onto their career pathway. Currently, their focus is primarily encouraging their students, that they have to go to a four-year institution if they want to get a good job. As opposed to, "Oh, there are also many jobs and opportunities and even a career pathway that the College of Marin or any community college in the state of California can actually prepare you for."

- One of the things that I know we have struggled with in the state of California, particularly in the community college system, is, how do we get students to tell us what it is that they really want to do? Because it's one thing to say that you're passionate about it, but do you want to have a career? And if you do, what does that mean? We've started asking different questions. As opposed to asking questions like, "What do you want to major in?" We don't say major anymore. We say pathways.
- I used to start asking students like, "Do you work inside or outside? Do you want to wear shorts to work or do you want to wear a suit? Would you like to wear sneakers or leather soled shoes?" This started to then frame out what it would look like, and then we could start directing students to appropriate pathways based on what they were familiar with, that they knew about themselves. And then offer that into the pathway of their choice. But if I tell you, "Oh, do you want to work outside?" And then say, "Okay, be a forest ranger, but now you got to go through all this training, and then you got to wear this uniform that might not be comfortable 104-degree days", and they get there, like, "Ah, this isn't what I signed up for!" Well, maybe you signed up for something else, right? And then let's just figure out how that narrative gets framed out, so that we can offer students the pathways that are meaningful for them, and that they can see themselves crossing that finish line, because they can see themselves in that career.
- There's a college orientation that all students go through, and then we are mandated to make sure that students have an Ed Plan, meaning that they have something mapped out for them that says, "This is where you're starting. This is how long it's going to take you to get to wherever it is that you want to finish." And that's always in flux. Back in the day, we used to say, "change your major three times and you'll be successful. If you never change it, you're never going to finish college." Now it really is a different framing of how we welcome students into the educational fold, because they have to also see this as their career unfolds. They're closely linked -- they're braided together. You cannot pull them apart. We probably need to do a better job with that.
- The Guided Pathways came out years ago. We're on our second or third iteration of it. We are trying to frame out the pathway. What does it look like? And what are those triggers that a student goes, "Yes, yes. That's what I want to do." What does it look like? What does it look like outside work? Does it look like, you know: SPF, 50, 70, 150. You know, straw hat, baseball cap, you know, maybe it looks like a suit. Maybe you really want to dress up. If so, I might not send you out to the coast, but I might send you to the office that's overlooking the bay, but you're still within the field. We just need to know how to position the student based on the career that they would like to have.

#### **Yuki Ueda, Stone Soup Leadership Institute**

- The Institute's Sustainable Career Pathways Interns at the College of Marin are passionate about sustainability. I was eager to cheer them on as they took their first steps in blue and green careers. One of the deliverables for the internship was the creation of a video explaining their specific pathway. Several interns were doubtful that their work would have an impact on the College and community decision makers since they aren't content experts. I stressed to them that while those things might be true, their voices still have value, and not to let perfection stand in the way of taking small steps forward.
- On June 9th, community leaders in the private and public sector gathered to discuss ways to collaborate and build pathways from college to blue/green industries. Among county supervisors, business leaders, and college leadership, sat Clean Water Management champion Alex Loucks, a student representing what the interns had accomplished over the last months. It was heart-warming to see that each of the participants had questions for Alex about the students' perspective and what strategies might be effective in building appealing apprenticeships and college certificates. I wish that the other interns and students at College of Marin can appreciate just how valued their knowledge and perspective can be.



<https://noyooceancollective.org/>

**Tim Karas, President, Mendocino Community College**

- I'm happy to be here in Marin County, learning about the Blue Economy, kernels you're starting to grow. We've been working in that space on the Mendocino Coast for three years, working with other agencies.
- My most my career has been the Bay Area. I went up to Mendocino, about five years ago. Our activity in the Blue Economy is our coastal part of our county, as we serve Mendocino and Lake counties. We're a giant district. It takes us an hour and a half to drive from Ukiah - our main campus, over to the coast where Fort Bragg Center, which is called Coast center. We're trying to build out the Blue Economy coast side.
- We have a little coalition around Fort Bragg, we call it the Noyo Ocean Collective. It's five agencies: the City of Fort Bragg, Mendocino Community College, West Business Development Center for Business, the Noyo Harbor, and the non-profit Noyo Center for Marine Science. We're all looking to the Blue Economy to help energize the coast side. Its economy has suffered greatly with the collapse of the ocean and timber going away. They need something other than hospitality to make the economy really work there for people who live there. For the working folk, they need a little bit more. The ocean and mountains are what it's all about. We're all trying to work together to find ways to do that, usually through grants and projects.
- Two of the agencies, myself, and the Harbor were part of a three-year grant through the Nature Conservancy. They got a grant from NOAA about doing all along California's coast stuff on bull kelp, abalone, the sunflower sea star, and urchin. Part of the grant is workforce training. We'll be working on curriculum to do a certificate of achievement in some type of marine restoration science conservation realm. If it all goes how it should, also a Marine Diving certificate program in training for scuba first, and then for scientific and marine research diving, all out of the Fort Bragg area.
- We have another great with the Noyo Harbor trying to figure out about a seawater intake that's holding back any aquaculture in that area. They were building an icehouse, which was huge for the fishermen.
- I serve Lake County, with Clear Lake in the middle of Lake County in a habitat that has been misused over time. If we can have a program that can adapt to both types of water environments, at some point, we can pivot from a seawater/saltwater to a freshwater ecosystem to help both our large bodies of water on both sides of our district that we serve. It's always learning what to do, and always partnerships is the only way to do it. We're too small, too rural, to do it any other way.



Stone Soup Leadership Institute  
[www.stonesoupleadership.org](http://www.stonesoupleadership.org)  
[www.SustainWDN.com](http://www.SustainWDN.com)