

Speaker 1:

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Zachary Klein:

Hello. Hello. Welcome back to season two of the National Sea Grant Law Center's Law on the Half Shell podcast. This is the seventh episode of the season, and I'm your host, Law Center Ocean and Coastal Law Fellow, Zachary Klein. This episode may feel more familiar to our audience than some from this season, because rather than looking into COVID's impact vessels offshore or on its impact on broad sectors of the economy, episode seven deals with topics that are a little closer to home, like plastics, masks and social distancing. For starters, we now know that the use of plastics, including non-recyclable single use plastics, went up during the pandemic and coastal areas can be particularly vulnerable to the impacts of plastic pollution plus much as was and remains the case in the US' non coastal regions, COVID significantly affected the ability of people in coastal areas to come together and stay within close distances for extended periods of time.

Zachary Klein:

This might jump out as a big deal to many of our audience members, but this meant that certain environmentally helpful aspects of coastal culture in the United States, such as beach cleanups were significantly impeded by the pandemic. And just as plastics use and waste started to climb, also affected where many of the beach or outdoors summer camps and other organized outdoor activities that are popular during the summer months. And all of these suddenly had to reinvent themselves while navigating the many risks that the pandemic posed for them. Law Center senior research council, Terra Bowling, is taking the lead on our tour of these issues in this episode, along the way, Terra's interviews with Jill Bartolotta of Ohio Sea Grant and Diana Burich, Director of Education for New Jersey Sea Grant will shine some badly needed light on the legal drama that COVID created along the US' coasts on a day-to-day basis, as well as how our nation's coastal communities adapted to and overcame these historic challenges.

Terra Bowling:

This is Terra Bowling, and I'm with Jill Bartolotta, who is an extension educator for the Ohio Sea Grant program. And today we're going to talk a little bit about plastic and the pandemic. Specifically PPE and how that's become more of a problem with litter during the pandemic. So worldwide COVID 19 has meant that we need to rely on personal protective equipment like masks, face shield to keep ourselves from getting sick. And in many places, those are required by governments or businesses, but as we have used those more and more, that's also led to the increased production and use of these masks that are sometimes discarded at our oceans and shorelines. You see these paper masks on the ground. They seem like paper almost, but

Jill Bartolotta:

They're actually plastic. So I know it's hard. I mean, we look at some stuff and people think, oh, it looks like paper. So it must be made out of paper, but they're not. They're actually made out of plastic fibers. And since the pandemic started a couple years ago, we've definitely seen an increase in the amount of these PPE items being found on cleanups. And also, so I don't know if you know, you've been going to

the grocery store and you just, I mean, I've seen gloves lying in parking lots. I've seen masks lying in parking, lots, wipes and wipes are also plastic fibers. That's why you can't flush them down a toilet because they don't degrade because they are made of plastic fibers. So we're definitely seeing these on beach cleanups. And the reason we're concerned is so first of all, masks they have that loop that goes around your ear.

Jill Bartolotta:

Well that creates a circle and anything that's circular in the environment, an animal can get into it really easily, but it's hard for them to get out of it. So I don't know if you remember in grade school we were told to cut the six pack rings. Well really you should be cutting anything that circular. So I've made the personal choice to use reusable masks that I can just wash every day. I feel comfortable using that. Some people don't and I fully understand, but if you are using the disposable masks, you should, first of all, make sure they're properly disposed of in your garbage can, but also cut them because yes we don't intend for our trash to end up in the natural environment. But things happen. We see stuff fly off garbage cans maybe an animal gets into your trash at night.

Jill Bartolotta:

And so just make sure you're cutting those masks before you dispose of them if you're using the single use ones. And then it's not going to happen right now, but years and years down the road as these plastic items, whether they're gloves, wipes or masks break down, they're going to become micro plastics and microfibers. And those are the plastics that we're seeing animals ingesting the fibers. We're seeing entwined in all living organisms. We're finding them in human bodies and the chemicals associated with plastic, they're cancer causing and they're endocrine disruptors. And the endocrine system is our hormones and those control all the functions within living organisms bodies. And so we aren't really sure yet how these micro plastics can negatively affect humans and wildlife, but we do know the chemicals associated with them can be harmful. It's a problem now, but then they'll continue to create problems many, many years down the road. It's important to keep them out of the natural environment.

Terra Bowling:

Yeah. Those are all great points and really not something people are really thinking about when there's a pandemic, they're just thinking, oh, I've got to protect myself.

Jill Bartolotta:

Exactly. So that's why I always encourage reusable if you feel comfortable doing that. And then if you do have to use single use, just making sure you're disposing of it properly and not just flinging it on the ground.

Terra Bowling:

Yeah. Well, okay. Well speaking of disposing of the masks, from what I understand, they're not easily recyclable, a lot of local recycling programs don't take masks. Is that correct?

Jill Bartolotta:

That is correct. No PPE equipment masks, gloves, face shields, anything like that. None of that is allowed in curbside recycling. And the reason is is they're low value plastics, so they can't be made into anything

else. And then there's also the contamination concern with biohazards and stuff like that. So when you have hospitals who are using a lot of this equipment, they're not able to recycle any of their medical equipment, it has to go to landfill or a lot of medical waste is actually incinerated at the facility because of those biohazard concerns.

Terra Bowling:

Can you talk a little bit about what you've seen doing lake cleanups, the PPE there and how you handled that?

Jill Bartolotta:

Yeah. So these were items we never found on cleanups before because they were not fortunately getting into the waste stream from hospitals. Because that's really the only place that this equipment was really being used before the pandemic. But now that it was freely being used, I found a lot of masks, and they are usually tangled up and stuff because of the circular strings and stuff like that. We've find gloves, the disposable gloves. We find those pretty often now. And then we've seen just an increase in plastic packaging in general. So this is going to be carry out containers, styrofoam containers, just because there's been a 370% increase in the amount of PPE equipment made. There's been a 40% increase in the amount of plastic packaging being used because of the pandemic. And so when you have more of these items being used, the likelihood that they'll end up in the water is greater and we see them on beach cleanups, we'll see them along the edges.

Jill Bartolotta:

And then I'm out on the lake a lot paddling and I often see gloves and masks. Gloves float pretty well on the surface, the masks, they start kind of sinking a little bit. So that makes it harder to clean up as something starts sinking. And then when we do cleanups, like I said, safety is a big part of cleanups. We do safety talks with all our volunteers. We make sure everyone, we use reusable gloves that we wash after each use so that they're clean for the next use. If people aren't comfortable with that, we do offer disposable gloves. So everyone has gloves. And then like I said, I give people scoops or the spaghetti or salad tongs, or we have those long trash pickers that people can use as well. Just if they are concerned about picking up any items and then everything goes in a garbage bag and it goes into a waste bin to go to landfill. So safety's always been important on beach cleanups now we just have a few more items that we talk to people about.

Terra Bowling:

So have you seen any local governments doing outreach about PPE litter or trying to pass ordinances or anything like that?

Jill Bartolotta:

So I have seen more local nonprofits that do the cleanups because like I said, this wasn't an item we were finding on cleanup. And then all of a sudden we pretty much started seeing them everywhere. And so a lot of local nonprofits are doing outreach. They're doing social media posts, especially with the masks and cutting masks so wildlife can't get entangled in them. They're also encouraging people to use reusable if they feel comfortable doing that. As far as local ordinances from a regulatory standpoint, I haven't seen anyone talking about cleaning these items up or anything like that. At least in my area, we tend to go the opposite direction with environmental ordinances. We just passed a plastic bag

preemption law. So we don't have any ordinances in at least the state of Ohio that are trying to reduce the amount of single use plastics being used or ending up in the natural environment.

Terra Bowling:

Well, that's interesting. Jill and I did a lot of work on plastic bag bans a couple years ago and we found that a lot of states preempt these local ordinances that ban plastic bags. So it'll be interesting to see if anything similar happens with local governments trying to regulate the use of PPE or littering.

Jill Bartolotta:

Yeah. I mean, we're seeing straws, styrofoam, I think PPE is, you have to be careful because they are a necessary item for our safety and health right now. So I think people are, I don't know. I think they're not wanting to address it because there's concerns because it is a sensitive topic.

Terra Bowling:

Some great info and advice. Thank you so much, Jill, for talking with me today. I really appreciate it.

Jill Bartolotta:

You're welcome. Thanks for asking me to talk.

Terra:

Hi Diana, how are you doing?

Diana Burich:

I'm good, Terra, how are you?

Terra:

I'm well, thank you for joining me today. Just to start out with New Jersey Sea Grant Consortium is a little bit different from some of the other sea grant programs. Is that right?

Diana Burich:

In New Jersey, we also function as a nonprofit organization. So we have 23 member institutions. There are colleges, universities in New Jersey that are members of Sea Grant and just like every Sea Grant program we work with all of the colleges in the state, whether they're members or not.

Terra:

The education program, y'all conduct a wide variety of programs, including field trips, camps, classes. And then I saw the in a typical year, your K through 12 field trip program serves 20,000 students. Could you just take us through pre pandemic what a typical spring or summer would look like for your education program? What are you gearing up for? What kind of events? How many events?

Diana Burich:

Like most other Sea Grant programs we get started with the education in-person programming. We plan in the winter time we have, I'm going to just take field trips. So you mentioned that we have field trips. We have scout programs. We have in-school programs. We have a summer camp program. We hold

college classes here. We have interns. We work with pre-service teachers. So there's always a lot going on in the springtime. Schools, want to bring their students for field trips in the spring, particularly after they're done with state testing. Throughout the year, we schedule field trips and at the height of our season, we can actually accommodate about 550 students a day. Ocean Fun Days is our big public outreach event. It celebrates everything ocean. We host it the weekend before Memorial Day weekend, every summer. It's a two location event. We hold the event in Ocean County, New Jersey and also in Monmouth County.

Diana Burich:

So I'm in Beach State Park and Gateway National Recreation Area, which is where Sea Grant's headquarters is. And throughout the course of the weekend, we will have approximately 10,000 visitors to the event. The exhibitors can number in more than 50 for the in-person event. It's very family friendly. We're not selling anything. We're just sharing information. It's an opportunity for researchers to showcase what they're working on. And we invite like-minded groups to have tables and to interact with the public. We offer free programs, field trip type programs, birding, seining, beach walks. And there's a lot of swag for children to collect from the exhibitors. Like I said, we don't sell anything but lots of fun, face painting and tattoos and the kids can learn how to paddle board and surf and even cast a fishing line. So that's really a fun event and a lot of work goes into it.

Diana Burich:

We go into the summertime and we have usually about five weeks of camp and we'll accommodate 30 students a week. And they range in grades from going into third grade to going into ninth grade. All of the activities for all of the programs are hands on outdoor experiential learning. The ocean and marine sciences are really taught best that way outdoors. Kids getting their feet wet and their hands dirty. I mentioned the college classes because we're not based in a university. We do have adjunct professors teaching intro to marine science here, mostly a field based course too. The location is really fantastic. We have classroom space as well. We have two classrooms. They're basic teaching classrooms with microscopes, fish tanks, and water quality kits and other things that we would utilize.

Terra:

That all sounds amazing. And I want to go to camp or a field trip now.

Diana Burich:

I know, I know. I have to admit, I wish these opportunities were available when I was a kid too.

Terra:

Well, so that sounds like an incredible amount of coordination and planning. So if we think back to the spring of 2020, when COVID first happened, everything came to a grinding halt for y'all I suppose just like it did for the rest of the world. So what were your first steps? Did y'all just go ahead and cancel everything? How long were you shut down?

Diana Burich:

If I think back we were sent home on March 19th. We had to come into the office, get our computers by that time. And everyone was working remotely just like the rest of the world. Once every, once staff got settled, the education department, I mentioned the seasonals, but we do have two full time staff

members and three part-time. And once everyone got settled and into their homes, we met right away and what's to do. Most people thought that we would be closed just for a week or two. I think that was the common idea. But once we realized that we were all going to be remote for a while, yep. We canceled all of those field trips, refunded all of those deposits. And I mentioned earlier that we're a nonprofit. So our fee-based programs serve as match for our federal dollars.

Diana Burich:

So, okay. No panic yet, but I have a fantastic staff of educators, honestly, just like the rest of the educators in the network. Everybody is really flexible, I'll say. They're quick to pivot, they're quick to learn new skills. We realized that we were going to need to, we were going to have to adapt some of our programs for the virtual sphere. We already had an ocean hazards and swimming safety program that was a presentation that we were giving to schools and to libraries. That one was the first one to go virtual because basically what we did was a lively, interactive presentation. And we had a jeopardy style game to interact with the audience. So that was really easy to go virtual. Our scout coordinator, same thing. She took the most popular program for both boy scouts and girl scouts, which is a hiker program.

Diana Burich:

And she made it, we had actually two versions. She created an asynchronous version. So a prerecorded version that scouts could access. And there was also a synchronous for a live presentation. And throughout the rest of the spring, we took our newly developed microplastics program, made that virtual. And with that one, we did the activities that we would do with the students in person. We sent teachers materials, resources ahead of time to prepare the kids and asked them to come prepared to the presentation with a glass of water and a piece of plastic. And we did a density experiment with them. So we tried to really keep it interactive. So that was really the par for the course until we got into camp.

Terra:

That's really cool. Y'all were able to figure out a way to make it work. Even over Zoom. Did y'all have to figure out new technologies as you were moving through this?

Diana Burich:

We definitely did. I almost want to say that it was a shock that we weren't coming to the office and we weren't to our location and we weren't getting into the programs right away, which is what we normally do. So with that quick pivot in trying to figure out how to make virtual learning interactive and effective, the staff did a lot of research on their own, lots of video watching on YouTube. I looked for webinars that we could utilize. And one of the things that I think that was really very important was keeping in touch with colleagues, whether through professional organizations or other Sea Grant educators, it was so important to see what other people were doing, how they were handling it. So there was a lot of information sharing amongst colleagues.

Terra:

Let's move on to when things started to open back up again, and y'all wanted to move beyond the virtual sphere and think, okay, how can we safely reopen? Or can we? What kind of guided your planning and deciding to reopen?

Diana Burich:

So we are really big on needs assessments. I think they're very important for any type of program. You really you're working with your stakeholders, you're looking to see how you can be a resource for them. We sent needs assessments to educators that we work with and also to camp families. So we started with our, this past spring with our college course, most of the students that take the intro to marine bio course, they don't have Marine science as a course, a field based course in their school. So we were pretty concerned about how we were going to go about with equipment with even liability issues. So we did contact the Law Center a few times actually. Initially with the virtual programs, because we were concerned about the COPPA compliance, which is the children's online privacy protection rule. So we just wanted to make sure that we were safe with regard to utilizing another platform, a virtual platform to interact with the students.

Diana Burich:

But then when we were coming back in person, it was really important to make sure that our organization was protected from any liability. So we created a liability waiver, an illness waiver, and we utilized that for our college program. And also for the camp program. We did a lot of research. We consulted the New Jersey Department of Health Websites with regards to programs, school programs. We were really concerned about keeping people safe while they were utilizing equipment. So for instance, in all of our field trip programs, all of the students have the opportunity to seine for species diversity and we utilize waders. So we suspended wader use. We have 50 pairs of waders that would require a lot of sanitization. So the weather was getting nice. We were able to have the kids go seining in their bathing suits, which is a great thing to do in the summer, microscopes. They wipe the microscopes down. We purchased spray disinfecting apparatus so that we can utilize them in the classroom, but we really minimized indoor activities and kept most of the activities outdoor.

Terra:

I do want to of circle back to the New Jersey Sea Grant Consortium, when y'all switched to doing virtual, you had some concerns about information sharing. There are some federal laws such as the children's online privacy protection rule. That say how children can participate online. What information can be shared. So what were your concerns with that?

Diana Burich:

Of course we wanted to be in compliance. The assumption is that the schools would be, they of course need to, but when it came to program, us being able to deliver programs through our Zoom account, we did need to make sure that the school could utilize our Zoom account. And many times they couldn't. So we really learned that we needed to ask them if they wanted to set up a meeting with us and then give us hosting or co-hosting capabilities so that we could share screen with the teacher and the students. And even the nature of the virtual programs changed because what started with all of the students at home on their own devices wound up towards the end of the school year being a virtual presentation for an entire class. So really our concerns were whether or not student information was going to be collected by Zoom or Google Meets.

Diana Burich:

And we know that both Zoom and Google Meets have to comply with the COPPA laws or the rule. So we just really needed to make sure that we were like I said doing things correctly. And most times we utilized the accounts of the schools because the upgrades that the schools have have those firewalls and sort of the school district websites too. So they have a different setup than we really do. And particularly



because we're not located in the university, I would say that we have a little bit more, technology wise, we're a little bit more on the basic side.

Terra:

Thanks for addressing those. Those are things we wouldn't have considered pre pandemic.

Diana Burich:

Well I think about the reasons why we reached out to you guys in the first place. And so there was the issue about being vaccinated also. And we realized that we can't ask our employees to be vaccinated. I know things are starting to change in the country now, but we're talking months ago. So I shared vaccination site information with staff because people were trying to get appointments. And most of the staff was pretty amenable. They wanted to protect themselves. And that was great, but you do always have people that are not interested in getting vaccinated for whatever reason. And the concern with us is if they're interacting with children. So I almost want to say that because we were so heavy on the virtual side in the spring and the summer that it wasn't a concern yet.

Diana Burich:

We here at New Jersey Sea Grant, we had the opportunity to opt out initially of wearing a mask in the building by providing a copy of a vaccine card. But with the emergence of the new variants, we've reverted back. We're also in a national park. So we do take guidance from the National Park Service. I feel sometimes I feel like we're under so many different umbrellas.

Terra:

So what are some of the takeaways from this experience?

Diana Burich:

One of the things is that I find most important is to know what your stakeholders want. And it's so important to keep up your networks, to keep the interaction with your stakeholders. Like I said earlier, we utilize needs assessments. We asked for of course, very honest feedback. People were very honest with how they wanted to go forward. For instance, last summer, when we were planning for camp, we reached out to our camp families and asked, did they want in person for their children or not? And 93% of them said, "Nope." They did not want to have in person interaction. We did almost the same needs assessment to them this year. And we have a few hundred people on our contact list and the response was overwhelmingly no virtual interaction. They wanted their children outside. So I think it's so important to not only know how to serve your stakeholders, but also not to waste resources.

Diana Burich:

You can take so much time developing something to present online and then nobody wants it. So that's really important. I mentioned earlier, too, that interaction with colleagues was invaluable. I attended a number of open forums that were sponsored by the Alliance for New Jersey Environmental Educators. And there was a lot of talk. There were environmental educators from all over the state from nonprofits, from county, from State Parks. And it was interesting to see how people were moving forward, how they were adapting. Some groups had more research sources than others, but the idea sharing was just great and people were very accessible to each other. And with regards to meeting your stakeholders needs, you have to try to accommodate them the best that you can. You might be limited in resources or you



might be limited in skills. So hopefully if you have a great staff, like I do, they're watching videos or they're reading online articles or they're attending webinars to make themselves better at their jobs.

Diana Burich:

And it's important to be able to provide those opportunities for them too. Every time I find something that would benefit our program, I encourage the staff to attend. Another one with regard to employees, I was very concerned with, with staff. Some people might be struggling at home during this time or alone and feeling isolated. We continued to meet on a weekly basis. We zoom met. I called people just really to give them the opportunity to let them know that Sea Grant or their management cared about them and what they were going through and were available. And if they needed anything and occasionally dropping off cookies didn't hurt either. I bet people were dropping off bread at their neighbors, like crazy. And luckily very soon after the lockdown funding opportunities became available.

Diana Burich:

So I felt at one point it was so overwhelming to look in your inbox and see the opportunities that came along. And I absolutely was grateful for that because it was able to supplement either technology or projects. So I think that was helpful as well. I think open communication is really key whether it's with your staff or your stakeholders.

Terra:

Thank you so much, Diana, for talking with me today. I really appreciate it.

Diana Burich:

Thanks for the opportunity. It was a pleasure discussing this.

Speaker 7:

This episode has been a prescient reminder that COVID, hasn't just impacted coastal communities in all the unique ways that we've discussed on the podcast this season. In addition to the radically disruptive impacts, coastal communities are dealing with, to the cruise industry, to the seafood industry and to fisheries among others, that coastal communities must still deal with the fallout of how COVID has disrupted everything around the cruises, the seafood and fisheries too. And the cruel irony of beach cleanups needing to be canceled while more plastic entered circulation and largely ended up being improperly discarded is not lost on us either. Yet, there are clearly some glimmers of hope on the horizon, the Law Center's immense, thanks to our guests on today's episode. And thanks to all of you for tuning in to yet another episode of the Law On The Half Shell podcast until next week, everyone.