

John Boccacino:

Lydia Knox:

I would say sustainability encompasses a lot, but I think in the most basic sense it's trying to, as you mentioned, really have a positive impact on the community and on the environment and just make sure that the practices that we're putting forth each day, they are sustainable. It's not something that we're not going to be able to continue in a year from now or say 10 years from now. It's benefiting us now at this current moment, but also will have a benefit to future generations to those future students and the faculty and staff here at Syracuse University, and of course on a larger level. So the whole Syracuse community as well.

John Boccacino:

And when it comes to implementing that culture of sustainability. I want to start with before we go into the state of our efforts on campus. I know when I was a college student, I really didn't think too much about sustainability, but it's really been a movement that's been taking over and rightfully so, because we only have one Earth, we need to take good care of it and protect it all. Have our students been receptive to the efforts of the sustainability management office?

Lydia Knox:

Students have been extremely receptive. In fact, I'm more encouraged than ever because similar to you, I think I thought about this when I was in my undergraduate schooling, but it wasn't always top of mind. I think as you grow up, you mature a little bit and think about some other things, but I'm really encouraged the students seem excited, they seem passionate about sustainability, about this planet. They want to have a positive impact inside the classroom and outside. And I think especially the student association, they have a sustainability forum. They have a ton of students that have gotten involved, and we meet with

projects that have already been completed since I've been here. We've already started to see some of the benefits, some of the energy reductions on campus, the reduction in greenhouse gas emissions as well, which is one of the biggest focuses of our department. So it's exciting. It's like I said, exciting and definitely accelerating.

John Boccacino:

Well, speaking of accelerating, Chancellor Syverud has been a major champion when it comes to our sustainability efforts, and he made news during the University Senate meeting last year, last April, when he announced that Syracuse University was committed to achieving carbon neutrality by 2032. Now that is eight years from now, and it's also eight years earlier than the previously stated goal for the university. What does it mean for a university to achieve carbon neutrality?

Lydia Knox:

We have a lot of plants in the works, and in order for a university to be carbon-neutral, this means that whatever carbon emissions we're emitting into the atmosphere, we're going to have to counteract them by reducing or offsetting them in some way. So that could be through sequestering carbon through our forest, this could be through carbon offsets, renewable energy credits, other things like that.

John Boccacino:

And when it comes to then those ways of aiming to be carbon-neutral, how ambitious is the goal of reaching that in only eight years from now?

Lydia Knox:

It's definitely ambitious, but I'm happy to say that we do have a plan in place. We just updated our climate action plan within the past month or so, and now we have this two-phase approach. And right now our biggest focus is on energy efficiency projects. We've looked at our buildings and particularly our buildings because heating and cooling are big buildings actually accounts for the biggest source of greenhouse gas emissions. So this is through steam and chilled water used to heat and cool our buildings. And by focusing on those projects, we are going to... we've already calculated what the emissions reductions will be like in the future years, and we're going to combine that with some of our phase two strategies, which includes, as I mentioned earlier, forest sequestration potentially on-site renewable generation.

There's going to be some external influences through the state. There's the Climate Leadership and Community Protection Act, which has a lot of plans for the future to have a transition to zero emission vehicles. So we're going to see our fleet on campus hopefully change as well, and that'll help us reduce emissions. So it's going to be a combination of things really getting us to that goal of carbon neutrality by 2032.

John Boccacino:

And it really does take all of us to achieve that goal and to reach that milestone. How important has it been, and are there any campus partners in particular you would like to shout out in having played a key role so far in some of those key initiatives?

Lydia Knox:

I would say it really has been a combination of people with those projects that we're working on, we have to coordinate with building supervisors, with facilities, the people in those buildings as well, so we're not

disrupting them majorly. And a lot of this work that we're doing with these projects, it's not always flashy, it's not always putting those solar panels on the roofs, but it's mechanical changes that really have a more significant impact and are going to help us reduce those emissions. So I don't know if I can shout out anyone in particular because it has been a lot of people in general, but definitely our students and especially the student forum, the sustainability forum with SA.

John Boccacino:

I'm glad you brought up what people could view as a flashy attempt at sustainability in the solar panels. I mean, that's an amazing effort when you can see those taking place on a campus, but there's little efforts too that lead to big change. And I want to spotlight, if you will, literally outside by the Lally Athletics Complex and the light work that's been done on the exterior. Can you give our audience a little background as to why this project was so important? And if they walk by the facility, how they're going to notice a difference when it comes to the lighting and the impact on our sustainability footprint?

Lydia Knox:

Yeah. We've done a lot of lighting projects just in the past year and a half that I've been here. So in Lally we did the interior lighting and then also the exterior ones and the parking lots and some on south campus and others on south campus. And this has already reduced emissions by, we measured in metric tons of carbon dioxide equivalent. It's a long name, but we've already seen benefits, I think reducing over 100 metric tons of CO2 equivalent just in Lally alone. And we have more data on our website as well. I don't know if I can recall those numbers just off the top of my head, but it is significant.

And the more that we do it, I know that lighting is sometimes referred to as low-hanging fruit, but it's cost-effective, and you already start to see improvements yes, in just that lighting quality, but it is energy efficient. And it usually makes for, at least for those exterior areas, it's safer for our students as well. So I think it really encompasses sustainability in general because you check all those boxes, it's helping the environment, but it's also helping the people that are going to be walking under those lights and appreciating those facilities.

John Boccacino:

Oh, for sure. I mean, every time if you happen to go to see one of our soccer teams playing outside by the Lally Complex, I mean, it really makes a difference, that effort. And it could be low-hanging fruit, but that adds up over time and that's really the goal of reaching this carbon neutrality state is having small projects as well as the big ones lead to sustained change.

Lydia Knox:

Exactly. I really echo that. I know that we say it regularly, but it is true that those smaller projects, but also those smaller behavioral changes that you can make in your everyday life. I know that some people maybe have a hard time remembering their reusable bag to the grocery store, but it does show something by. You can make those changes over time, it just takes a little bit of effort.

John Boccacino:

Now I know recently there's a story I want to highlight that you actually put together for the Syracuse University News website, and it was highlighting how improvements made to the mechanical systems at the Center for Science and Technology yielded terrific energy savings. Just how did those improvements help reduce natural gas consumption and related emissions, and why is a project like this such a great example of an energy efficiency strategy?

Lydia Knox:

Yeah. So I'll say with CST, we've already seen a reduction in our steam use by 25%, which is pretty significant. And as I mentioned earlier, steam is used to heat our buildings on campus. Steam is also our biggest source of greenhouse gas emissions on campus. And natural gas is burned to then create that steam and it's used at the steam and chilled water plant just near campus to then heat and cool our buildings on campus. So by reducing our steam usage, that's really what's reducing our natural gas usage and resulting in that reductions in emissions, which is really great. We're happy to see the benefits already. We use an energy software, and online I have this dashboard, I can look at every single building on campus and see the utility usage. So it's interesting to see over the past month how things might've changed compared to a year ago, and that's exactly what we did with CST.

You can already see the changes from those projects and of course you do have to factor in the weather that is going to have an impact, whether it's been abnormally warm or cool, but we've already noticed that reduction in steam use at CST. The second half of your question, we have been focusing on buildings like CST because they are some of our biggest energy users on campus, and we have a spreadsheet that actually details all of the campus buildings, their carbon footprint or their energy use intensity, I should say. So how much energy they're using per square foot. And as you might expect, it's those bigger lab and science buildings on campus. So physics, life sciences, CST, those are the ones that we are focused on right now to see if we can make some mechanical upgrades, reduce our steam use and therefore reduce our emissions on campus.

John Boccacino:

I now have this really cool visual in my head of you at mission control monitoring all the different usage of steam and heat being produced and adjusting things. It's so cool though to think that with a push of a button, with the tap of a keyboard, you can make those adjustments real time. I mean, that seems like a perfect marriage of technology and convenience to help yield these results.

Lydia Knox:

Yes. And we work with a good team that is proficient in the control system. So whether I have an idea, I might speak to someone or my boss might speak to someone on the controls team and they'll actually go in and mainly change those settings. I might be the ones who pinpoint something looks off, "This room seems abnormally hot or cold," or even just going into a room. And if you hear the air on, this is why we encourage people to reach out to us too. Don't be shy if you want to report anything because we're happy to assess it, see if there are some changes that could be made.

John Boccacino:

And if someone does happen to notice or observe something, how is the best way for them to get in touch with you in your office to report something like that?

Lydia Knox:

They can either go to our sustainability website and email us at sustain@syr.edu. They can do that. I know that BFAS also has a reports section on their website where they can go in and click whether a room if it's extremely uncomfortable. If you notice that you're constantly opening the window, say, in your building, I know that when I drive around campus, I see that often in the wintertime, and that's just heat going right outdoors when we really... We don't want that happening.

John Boccacino:

No, we definitely want to conserve and watch our energy usage for sure to again reach our goal of carbon neutrality by 2032. You mentioned there's been a bunch of initiatives we've covered here so far on the podcast and you've only been on the job for roughly 18 months. What are some other initiatives or

achievements that you've really been proud of that you and your team have been able to work on and accomplish so far during the early part of your tenure?

Lydia Knox:

Yeah. I would say it's been great here at SU so far. Like you said, there's been so much going on, and I love it. It's exciting. But I guess updating the climate action plan has been rewarding to see what our thought is, how we're going to see things in the future, and we are going to make changes. I know that's going to happen, especially as things evolve and adapt. One thing I worked on last year was actually we worked with a forester who surveyed our campus trees on main and south campus and I quantified and used the spreadsheet with the help of some data from Colgate to see how much our forest can sequester, how much carbon it can sequester and how we can account for that in our climate action plan. So that was pretty cool. Another thing I would say is 'Cuse Collection. This is a new initiative that we just restarted about a year ago and we are working with students to collect their items at the end of the year.

So when students move out, there's a lot of times waste things that people are disposing of or just don't have the time maybe to donate, whether it be a TV, a mini fridge, or cloths. So we actually at the end of this semester, we're going to have three storage containers, two on main campus, one on south for students to come drop off their items. And we are working with, I think it's about seven non-profits in the Syracuse community. Each day, one is going to come up and collect those items and then bring them to the people who really need them. It's going to be great.

I would hope to take things off of the curb to reduce the amount of items sent to our waste energy facility, but also bringing those items to people who really need it. So overall, that's going to be a fun initiative, and I can also thank students that we've been working with. One student in particular, she designed our logo for that 'Cuse Collections event that's going to be at the end of this year, so I'll be writing up an article shortly about that. That's one thing that we're very excited to see, I guess, come to fruition in a little over a month.

John Boccacino:

Yeah. Students are often in a hurry or a haste to move out and to embark on their summer internships or to start their new career once they graduate, but that's a great effort to make sure that we're not just mindlessly wasting putting product out there. It's going to get taken and not properly sorted or properly recycled. I love to hear all about the 'Cuse Collections, the climate action plan efforts. There's really a lot that your office is cooking up when it comes to our sustainability. Besides that effort you just mentioned right there, what are some other ways that our campus community can really get involved and take advantage of helping out when it comes to sustainability?

Lydia Knox:

The biggest thing I would say, I mentioned it earlier, but it is truly reporting those problems. So don't be silent. If you really are passionate about something or feel that there's something wrong, let us know because at least we can address it, work through it with you. I know someone reached out recently as something as simple as recycling. They noticed they didn't have recycling bin, something like that. It's just sometimes when people don't bring things up, it goes unnoticed or time passes away and nothing gets fixed. So please bring it to our attention, reach out to us. And those little efforts, I know we say it all the time, but just making sure that the windows aren't open. If we are heating the building or the lights, make sure you're turning the lights off. And I always say this, I try to practice it in my everyday life, but just make a conscious effort when you're packing a lunch, hopefully bringing your own silverware. Little things like that I do think can make an impact too.

John Boccacino:

It just seems like it's really important to gain momentum with an effort, and little changes lead to positive results down the road. I guess that's a really important message to emphasize, to try to focus on a mentality of do one thing, then it builds and accumulates. And before you know it, you've made more headway than you ever probably thought possible.

Lydia Knox:

Yes. And I know I could fall victim to that because sometimes it doesn't seem like those little changes maybe are doing much, but it also, I think, it's nice to know if you are taking a step in the right direction each and every day, you can know that you're at least making a positive effort and having an impact on your own life and hopefully those surrounding you as well. Like you said, it does take a lot of people, it takes a lot of hands and it's going to be a collaborative effort. But all of those small efforts are going to help in the end.

John Boccacino:

There's one thing I know about Syracuse University students, faculty, staff, and alumni. We love a good challenge. This is a great way to really show off our orange spirit when it comes to saving our Earth. And speaking of that, we mentioned earlier that Earth Month is taking place all this month even though it should be a 24/7, 365 initiative. We really are highlighting some cool efforts here in April. How is the university community really coming together this month to both celebrate our planet and advocate for those sustainability initiatives on campus?

Lydia Knox:

Yes. We have a number of events scheduled for this month. I know we are going to have some volunteer hours at Pete's Giving Garden. We are also going to have a composting event. One of our students, she reached out to me. She wants to highlight how we compost in the dining halls, how compost is used, and I think there's even going to be an opportunity for people to repot their plants at this little tabling event that we're going to have on the promenade at the end of the month. We're going to have an online webinar talking about greenhouse gas emissions and reduction strategy, so you can use both at home and our plants on campus. And then I think the last one is we're going to have a tabling event about bats as pollinators and the importance of them as well. So variety of things.

John Boccacino:

Yeah. It's a lot to digest, but really again, it's something for everybody and there's activities that meet every different level of interest and passion when it comes to this topic. And I feel like that's a good segue. Our audience should know a little more background, Lydia, about you. If you're from the central New York area, chances are probably good. You saw Lydia on television as a meteorologist, but she's been here at Syracuse now for the last 18 months in this current role. What was your thought process in changing careers from TV weather reporting to climate change and sustainability?

Lydia Knox:

Yeah. It was a tough change for me. I had worked as a TV meteorologist for about five years at the time, my second station was here in Syracuse. But I decided that while I liked TV, I wanted to have, I think, a greater impact just on the environment and on the community, whether that be in Syracuse or somewhere

time I knew that it was going to be sustainability. I didn't know what the name was going to be. I just knew that it was going to be something related to weather, the environments, and I'm glad this is where I am now.

John Boccacino:

We are very glad to have you on our team too because again, the efforts and initiatives that are being led are just... they're real game changers when it comes to putting us at the forefront of sustainability efforts. I do want to make a logical, what I think is a logical question for you. And when you were doing all that work in meteorology and on TV reporting on the weather, how did that time really influence your thinking and impact your thinking when it came to sustainability and climate change?

Lydia Knox:

I would like to say I've always been passionate about the weather. And being on-air, my focus was communicating the weather in the most effective way, but also making sure that we're keeping people safe so when there's severe weather, when there are, I know Syracuse, we're not getting hurricanes, but when you're getting those hurricanes and especially those more severe hurricanes more frequently as temperatures continue to rise, it really motivated me, I would say, to want to change my career. Like I said, I didn't know if it was going to be in sustainability, but that's really what motivated me to want to have a more positive impact in this whole environmental movements.

John Boccacino:

And when it comes to... you mentioned always having an interest in our Earth and our planet. Were you one of those kids who was into composting when you were younger, or how involved were you as a youth when it came to this movement?

Lydia Knox:

John Boccacino:

There's people that maybe don't believe the correlation between what we're seeing with weather patterns and the correlation to climate change. What would you say to convince or sway some of those people that maybe are wondering, "Is climate change real?" Well, it's just as hot as it was when I was a kid. How would you kind of maybe sway their opinion or sway their mind?

Lydia Knox:

Yeah. I would say you have to acknowledge that you're not going to change everyone's minds. People are going to have their own opinions, and that's okay. I guess that's what makes us all unique and diverse. But the one thing is just, I think you mentioned it earlier, we have one planet and I don't see why we wouldn't want to preserve it and protect it and make it a great place to live. We're only here for so long and we want to have a positive impact on it. And if you have kids yourself, you want to make sure that they're able to live and enjoy it just as much as you did.

John Boccacino:

I did want to shine a little bit of light on your educational career as well, because I love the fact that we're not just talking to someone who has a background in meteorology or a passion for sustainability. You're also an alum. You earned that master's degree in environmental science from the SUNY College of Environmental Science and Forestry. What are some of those valuable lessons that you learned while pursuing that master's degree?

Lydia Knox:

I would say one of the biggest, and we do say this I think a lot in our department, is that one solution isn't going to fix everything. It's going to take a lot of hands, it's going to take a lot of different efforts, but it's also every solution and every action that we take, it's going to have its trade-offs too. So I just think that's important to keep in mind that there's not one fix all and know that we're all human, we're all doing our best, and sometimes we don't really know what those consequences are going to be for certain things down the line.

Others, we've already seen how certain things have impacted us in the past. So that's why we are not always focused, say, on these new emerging technologies either here at the university, we like to, I guess the facts, see how things have evolved over time to see what we can implement and, hopefully, have a positive impact on our campus. So that's probably the biggest thing. It's just that it's not one fix all. It's going to take a lot of people and there's always going to be some trade-offs too.

John Boccacino:

And when it came to the degree study that you actually earned from SUNY ESF, how has that program benefited you when it comes to your career with sustainability?

Lydia Knox:

It's been extremely beneficial. I had some great professors and my most useful classes were the ones probably focused on energy since I didn't realize that was an interest of mine, I would say, until I actually did that program. But I took a couple of classes. I learned about all different types of renewable energy technologies, and I'm still learning every day here, which is great. I have a great mentor, a great department. I'm very happy to be here, and I'm still learning every day.

John Boccacino:

Well, and again, as I said earlier, we really are blessed to have you and your team doing the work on sustainability here at the Syracuse University campus. She is Lydia Knox, the sustainability project manager here in the sustainability management office at Syracuse. Again, there's a slew of activities taking place as we celebrate Earth Month, but really it's a