

Bethlehem Climate Action Plan

Public Meeting #1: Community Objectives

Session 1: 12:00pm – 1:30pm, June 17, 2020

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Meeting transcript:

9:42

OK, well, we're gonna get started, Welcome, everyone, to the first public meeting on Bethlehem's Climate Action Plan. Today's public meeting is going to focus on what the plan is and how we're going about developing it. And we're hoping to get your feedback on some of the broader community objectives for the plan, and to help you understand what the process is going to be, to develop it over the coming months. So, I'm joined by my colleague, from the Nurture Nature Center, Kate Salmon's, and at the city's public Works Department, Matt Dorner. And if you go to the next slide here, will talk you through the agenda for today.

10:22

So we're really trying to address four points here, with, with the meeting today. First, we're going to talk to you about why the city is developing a climate action plan. And so, that's going to include the climate change impacts projected for the Lehigh Valley and Pennsylvania, more broadly, both the ones that were already experiencing and those projected to change in the future. And then we're going to talk about what a climate action plan is and how it addresses some of those climate impacts.

10:50

Next, we're going to talk through some of the logistics of the project, including the schedule, and how you can stay engaged and help inform the development of the plan in the coming months. And then lastly, we want to start that process. So we're going to have a series of poll questions asked on the webinar here today to get your input about principles and objectives that you have, that should inform the development of the plan and talk about how we can continue that discussion and provide input over the coming months as we develop the plan.

11:22

So if you go to the next slide.

11:25

I just wanted to make a point that Bethlehem wants to make sure that we hear from all of the city's residents. So if Spanish is your primary language, today's webinar is going to be in English, but there will be a Spanish translation of the presentation made available afterwards. Additionally, we have a survey to provide input on the plan, which is available in both Spanish and English, and you can see the URL up there. All of this information is also up on the city's website, under the Public works section of the website, and you can reach that page directly by typing in the address, Bethlehem ... dot org.

12:04

And so if you move to the next slide, I'm going to hand it off to Matt Doerner with the city who's going to provide a brief introduction and welcome and talk a little bit about what the city has done already to address climate change.

12:18

Alright, thank you Jeff, and hello everyone.

12:20

I'm Matt Doerner, Deputy Director of Public Works for the City of Bethlehem. And on behalf of Mayor ... City Council, Councilman Reynolds and Public Works Director Mike Alcohol. Like thank you all for joining us today for our first public meeting, on the development of our City of Bethlehem Climate Action Plan.

12:38

We know you all have a lot going on right now and we appreciate you giving us some of your valuable time today.

12:43

This is not something the city can do alone. So we sincerely appreciate your input and help.

12:49

The city took the first step in this process and signed on to the compact of mayors along with several other climate protection commitments.

12:56

Since then, we've been calculating our greenhouse gas emissions from our municipal operations for the last 15 years.

13:04

We've also made a lot of changes and improvements to reduce those emissions.

13:07

I'd like to talk now about some of the progress we've made to reduce greenhouse gas emissions.

13:12

Next slide, please.

13:18

So energy efficiency and conservation efforts undertaken by the city include LED conversions of all of our traffic signals and non decorative streetlights improvements to city equipment and facilities, such as installing more efficient boilers, chillers, cooling towers, windows, and lighting.

13:37

Our ...

13:38

and wastewater treatment facilities we've made efficiency improvements that include installation of variable frequency drives on our pumps.

13:45

Use of bio gas generated by waste treatment to run boilers, and dewatering of sludge to reduce trucking and disposal.

13:54

In recent years the city had been purchasing 50% of its electricity from green renewable sources and in 2018 we made the move to purchasing 100% of our electricity from those green renewable resources.

14:07

Through these efforts, we have reduced the greenhouse gas emissions from our municipal operations by 37% since 2005.

14:16

As part of the climate action plan we're talking about today, we'll come up with ways to further reduce those emissions.

14:22

And besides municipal operations, the other component of this puzzle is community-wide Greenhouse gas Emissions. In that regard, we've made some improvements over recent years as well.

14:33

In 2017 and 2018, we were collecting about 14,000 tons of recyclables per year and in 2019, we collected over 15,000 tons of recyclables.

14:44

This reduces the amount of waste we send to landfills which reduces greenhouse gas production.

14:49

And we continue to work on increasing recyclable collections each year through education and advertising.

14:57

And transportation is the largest generator of greenhouse gas emissions.

15:02

Trails promote walking and bicycling, Reduce the miles vehicles travel, reduce greenhouse gas emissions, improve air quality, reduce traffic congestion, and improve safety for pedestrians and bicyclists.

15:16

We completed Phase four of the south Bethlehem Greenway a few years ago. And later this year, we're going to begin the connection of the Greenway to the Southside, Little League area of Soquel Park.

15:27

We also have a grant to improvement accuracy way, and we're working on that design right now.

15:34

Well planned communities. With a balance of housing, jobs, shopping, schools, and recreation can reduce the length and frequency of trips. And give people the option of walking, biking, using transit rather than driving their cars.

15:48

This results in lower greenhouse gas emissions and promotes physical activity and more vibrant, healthy, and sustained sustainable communities.

15:56

We continue to improve our walkability and bike ability.

15:59

The city received high scores on sidewalks When we have valid planning commission's walk, LV sidewalk inventory.

16:06

Through planning and zoning regulations, development is guided and used and uses are balanced throughout the city.

16:13

I'm sorry, I covered that.

16:15

So, at this point, I'd like to thank everyone again for participating, and I'll turn it back to WSP and Nurtured Nature to continue the meeting. Thank you.

16:27

Thank you, Matt.

16:30

So, if we go to the next slide here, we just wanted to give a sense of everybody who is involved in this effort, starting with the city. We're really grateful to have the support of the Public Works department and the city as a whole. In this development process, the City contracted WSP where I work, along with our, with our partners at the Nurture Nature Center to help develop the plan throughout 2020. And so WSP, just as a little background, is one of the world's leading engineering and professional services consulting firms. We have international scale, but we're dedicated locally including an office here in Bethlehem where I'm based out, of, that office is focused on sustainability, energy, and climate change. And our partners at the Nurture Nature Center are based in Easton. They were founded in 2007 in the wake of flooding of the Delaware River and have done great work over the years as a flood outreach and education center, but have since expanded that work to include.

17:30

Whole ton of great programming on science, artwork, documentary films, gardening, community, dialog, and science education. And so, we're really grateful to have their participation in this process. And then I want to thank Councilman William Reynolds for helping to bring together a great group of organizations. And institutions from Bethlehem and the Greater Lehigh Valley as part of a stakeholder group. And you can see some of their logos down there below WSP and Nurture Nature Center. These institutions and organizations represent the diversity of Bethlehem and are going to be critical players, not just in developing the plan, but also an implementation. So, we're really trying to forge partnerships that Once the plan is developed. We have partnerships in place to help implement the plan down the road. And then, of course, our most important stakeholder is you, those on this webinar and the broader, general public. We're going to be holding a series of these webinars. We wanted to do this in person.

18:25

But obviously, with Coronaviruses Cove at 19, that's not possible right now. But we want to make sure that we're doing everything. We can to get broad community input. To make sure that this, this Bethlehem Climate Action Plan reflects your values, and your goals, and makes, it makes it really a community wide team effort.

18:45

When we get to the implementation stage, if you move to the next slide, We're now going to get into the that section talking about why we're developing a climate action Plan for the city and we're going to start with some climate science and some of the climate impacts projected for here in the Lehigh Valley. So, I'm going to hand it off to Kate now to talk through this next section.

19:06

Hey, everybody, I'm Kate ..., Nurture Nature Center, just a quick logistic before I jump into my presentation. There should be an option for you to raise your hand Right now Everybody's in listen only mode, but towards the end of this presentation, if you raise your hand, we can unmute you. And you could talk, you can also submit a question in the box, that should be there on your interface. And So, if you have questions, please feel free to reach out throughout the presentation, but we're not going to address the raised hands until the end.

19:45

Alright, so because we're talking about climate action, we wanted to give a primer on climate Change. For those of you who are not familiar, for those of you who are, this will just be a refresher. It's certainly not comprehensive, I'm just giving a really brief overview, and so to start, I really just wanted to establish the difference between climate and weather, because this is always an area of confusion. For some people.

20:12

Climate is average conditions over a period, a long period of time for a certain place, whereas weather, is you sort of your day to day conditions at a particular time. You can think of this as your wardrobe, so your wardrobe has everything from Winter Coats to T-shirts, but it's going to look different if you live in a name versus if you live in Arizona, and so that's your climate. Now, if you wake up and it's raining, and you decide to wear a raincoat, that's weather, so, it's what you're doing on that one day. And so, what this means, in terms of what we observe, in terms with conditions, you can see there on the, right? This is a curve. And, so, on average, most of the temperature is going to be in that middle range, that's where most states will occur now. That doesn't mean you can't have an extremely hot day, or an extremely cold day.

21:11

What happens with climate change is that we're actually moving that average. We're moving that whole bell curve to the right. So, the average is warmer. And the concern there is that when we do have that extreme hot day, it's going to be much more extreme hot, then maybe less of a concern, but still concern is that there's a less extreme cold day, and so that could impact agriculture and other industries.

21:40

So, what have we been seeing globally? April of this year was about almost two degrees Fahrenheit above the 20th Century average, that's usually how we talk about things is different from average. So, you're seeing this plot there of the global land and ocean temperature anomalies, and not only just means different things from average, so you're not going to be different. If you're at that zero Y, the blue lines below are just showing its than cooler than average. And the red lights are showing warmer than average, and anybody can see that the past several years have been much warmer than average. We've been keeping records for the last hundred and 41 years. Both the NOAA and NASA government agencies have been keeping separate records, and they say the same thing.

22:34

I just wanted to go to a couple of interactive things, just to illustrate this a little bit more.

22:43

So, this is NASA's website and we're seeing the global depiction of temperatures since the record keeping began. And so, blue is cooler than average, and I just wanted to show this so you could see the spatial distribution of the temperature differences. And then it's a little bit more apparent when we get towards the end of this timescale. How much warmer the whole globe is.

23:12

Compare to that average.

23:15

Now may was the planet's warmest May since we've been keeping records. And we keep hearing this in the news. We are having more warmer days on average.

23:28

More former years on average right now, in northern Russia and Siberia. They're having a really extreme, warm temperatures, which leads to things like a big oil spill. Because the infrastructure is affected by permafrost, by the permafrost, thaws. the infrastructure breaks and we have things like oil spills.

23:54

So, I'll just click people show you a little bit more then I'm going to show up more for Bethlehem, but I just wanted to give you this global context.

24:06

So, there's another tool called the Climate Explorer, which is a good tool to see the differences. And you can put in your city, the city of Bethlehem.

24:20

Just wanted to assume and a little bit more.

24:27

And so, what you can do here?

24:31

Sorry.

24:37

You can look at different variables. You can look at max, temperature, you can look at precipitation.

24:45

Um, you can look at days over 90, So let's look at theft and this is comparing the 1961 to 19 99 average there on the left with this projection from all the way up to 20 90 on the right.

25:06

And so, you can see the difference Sorry.

25:12

Here we go.

25:13

We're going from roughly somewhere between 40, 50 days per year above 90 degrees Fahrenheit, maybe 40 a year or less to anywhere from 90 to 100 So that's a big change and I don't know about you, but I'm not a fan of, you know, 90 plus under a great temperature. So, you can also see this chart.

25:43

Which says it in a different way, because you can see the change over time, instead of just comparison.

25:50

And as with all modeling, there are uncertainties. So that's why you're seeing the shading around those. And the red is a higher emission scenario, and the blue is the lower emission scenario.

26:02

I'll get a little bit more into that later.

26:05

So, just wanted to quick show that, and if anybody wants more information or links to these tools, and be happy to share that you can just message me.

26:19

So, what have we seen in Pennsylvania specifically? There on the left, it's from the Pennsylvania Climate Impact Assessment That was done in 20 15, and they've also updated it, I think, just last year, for specific segments, agriculture, and forest. And so, we're seeing the black line is the observed temperature anomaly. Again, that's just the difference from the average. And then the red shaded area is looking based on historical models and then the blues, looking conscious, natural levels. And I'll get into a little more detail about that in a second.

26:53

But I wanted to point out here on the right, what we've been observing is decrease in very cold nights. So, that really corresponds to that bell curve, moving over an increase in warm nights. So, these are nights that are above 70 degrees Fahrenheit, and this is a concern for human health, because if you are not able to cool down the body, if you don't get below 70, it can cause heat, stroke, and other health, conditions related to heat.

27:26

So, we're not just seeing changes, in temperature, we're also see changes in precipitation.

27:31

So, this is across the whole, but particularly in the north-east where we are, we're seeing an increase in heavy precipitation. So, you can see the change of the past several decades there on the left. This is the relative number of extreme events. So, an increase in percentage is what we're seeing in that.

27:51

Then, the one on the right, that spatial one is really showing how much more the north-east is changing. So, from 1958 to 20 12, we saw a 71% increase in very heavy precipitation events.

28:10

This is showing this specifically for Pennsylvania, so we're having an increase in total annual precipitation.

28:17

So, this is in inches, and you can see the past several decades, we have had an increase, and also in the number of extreme precipitation events. And this has concerns for flooding, flash flooding, stormwater runoff, water quality.

28:33

And the like.

28:35

The thing I want to point out here is that this person to increase in, precipitation is because there's more moisture in the atmosphere for every one degree Celsius increase, in temperature, the atmosphere can hold about 7% more moisture, which leads to more precipitation.

28:52

So, this data set is showing the observed and projected temperature change for Pennsylvania specifically. You're seeing that thin, orange line is the observed, and there is some uncertainty. So that's why you see this shaded area behind it.

29:09

But then what I really want to point your attention to is these higher and lower emissions. So, we can assume several different things.

29:16

We can assume cities are going to take action on climate action, reduce their emissions, and we could have a lower emissions outcome, or we can assume business as usual, and it will be a higher emissions outcome.

29:30

But the guidelines by the end of the century, we can see anywhere from 3 to 4 degrees Fahrenheit, all the way up to 14 15 degrees Fahrenheit change from the average that we have.

29:48

So this is just a brief summary about the climate change that we have seen in Pennsylvania and are projected forward. So since last century, you've had almost a two degrees Fahrenheit increase in temperature.

30:01

And it's projected by mid century, which isn't too far away. We will be about 5.4 degrees Fahrenheit warmer than it was in 2000. So it's hard to really understand what those mean. If we put it in context of climate that we know in other cities, that would mean Philadelphia would have the climate of Richmond in Virginia and Pittsburgh would be closer to Washington DC.

30:27

Of course, that means more days with temperatures over 90 degrees Fahrenheit. That's that bell curve that I showed you. So those extremes are going to be more extreme.

30:36

What they are predicting is that precipitation will increase most in winter and spring, not so much summer and fall. So we could still have a chance of drought in summer and fall.

30:48

But the increase in winter is not going to be to snow cover. That will be declining. It'll probably be an increase in rain.

30:57

So, of course, as I mentioned, this leads to a risk of flooding and increased runoff.

31:02

There's also the possibility that storms will be stronger with a heavier rainfall, and that we'll have more rainfall events that aren't necessarily associated with storms and tropical systems.

31:15

So, really briefly, why is this happening? We're getting one of the primary causes, greenhouse gasses, and carbon dioxide is the big one, Carbon dioxide stays in the atmosphere, for a fairly long time, hundreds of years. The other greenhouse gasses don't stay in the atmosphere as long, even as they can be a little bit more potent.

31:36

But carbon dioxide, as a result of human activity, there is some natural sources. But the rapid increase that we're seeing is most likely, due to human activity, based on our fossil fuel emissions, from power plants that generate electricity to cars, and all of the transportation needs that we have.

31:56

So to put this in context, down here, at the graph, at the very bottom is showing historical carbon dioxide levels, and we can get this from ice cores and other paleontological, paleontological records that we are finding throughout the world. And so, since the last 400,000 years, and then farther back than that, we really only see about 300 parts per million. Now, way way back in Earth's history was a little higher, but we also didn't see life like we see today.

32:31

So, in 19 50, is when we really started to see an increase when human activity really started, producing fossil fuel emissions, and then this rapid increases. What we're seeing at the top is the current gears, and so, you can see, compared to that, you know, average of the maximum, it's about 300. And now, we're all the way up above 410.

32:54

So, this is what we're really concerned about because this could cause massive changes to the way that we live life and are able to predict the Systems' tour.

33:05

Oh, so this is an important side. A lot of people say, well, you know, wouldn't this be due to the sun or other natural causes?

33:17

And those are good considerations, but we have already done this analysis, and we're able to see, this is why we know that human activity is really affecting this temperature change. So, this is that temperature difference from average. The black line is what we have observed. And the graph up here at the very top is showing these other lines which are natural drivers. So, this is volcanic drivers. solar drivers, the orbital patterns for Earth.

33:47

All of those could contribute to changes in temperature. And all of this together do not match that black observed Y.

33:53

If we look at human attribution so this has greenhouse gasses, but it can also, it's also ozone. It's also land cover changes and aerosols.

34:03

Air pollution actually have a cooling effect and all of those together or that dark red line on the graph on the right, And there's uncertainty there. So that's why you're seeing the shading, and that doesn't, it matches it a little closer, a little closer to the observed line, but not exactly if we consider them altogether.

34:24

That's when I really matching that up certified.

34:27

So this is why we know that human influences are really playing a critical role in the temperature changes ever seen.

34:38

And so how does this lead to those extreme temperatures, and changes in weather patterns? Hopefully this graphic that makes sense, I'll quickly run through it, but as we have rising global temperatures, and the ocean temperatures, increase as well, more water evaporates. So that's why, you may have heard that drier areas will get drier because there's more evaporation and they already, you don't have a lot of water there to evaporate. And wetter areas will get wetter, because you're evaporating the water there and basically super charging the water cycle. So, more water in the atmosphere, and warmer atmosphere, you're gonna get a change in weather patterns to more storm activity, more heavy precipitation events.

35:26

So, this leads to several impacts. This is, of course, is not exhaustive, There's more flooding and extreme weather events, more heat, and no. Human health impacts related to that, but also more increased disease and pests. Pennsylvania is leading the nation and line cases in 20 17.

35:49

There are 12,000 cases, which is three times more than 2010, and there is some research to indicate that this increase in temperature as lead to increase in texts, which leads to transmission of lime.

36:03

So, also, increased and mosquitoes can disrupt agriculture systems for certain crops, like apples.

36:10

You need a certain amount of cold nights in order for them to grow and fruit. So that could disrupt that industry, as well as cows don't produce as much milk if they have heat stress. And there can also be more allergy causing pollen and mold.

36:31

And then this graphic here on the right is from the CDC, and I just outlined some more of the human health impacts. And so, of course, this is global.

36:40

But especially here, we're seeing increases in asthma, allergies, and then air pollution as well.

36:50

Wow.

36:51

However, we do have technology, and the ability to change behaviors, to help solve this challenge of climate change, And that's what we're doing here, with this climate action plan, and that's why we're involving you.

37:05

This is a community effort, the city can't do it alone. There are technologies out there for renewable energy, energy efficiency, solar, there's wind, there's hydro.

37:17

None of these are silver bullet, They cannot solve the problem in their own, it's going to take a combination of efforts and technology and support by the public. Changes in behavior may be driving fuel efficient cars, or using public transportation or biking. And it may also require, technology used to capture the carbon dioxide that's already in the atmosphere, if we want to reach the goals that are, will keep the levels of carbon dioxide low enough to mitigate the worst impacts.

37:50

And so with that, I'm gonna turn it over to Jeff to talk a little bit more about the plan and the process.

37:59

Thank you, Kate.

38:01

So you know, Matt talked a little bit about what the city of Bethlehem has already committed to do. And I just wanted to re-iterate that, after Kate has talked about some of the potential impacts, the city and the broader community in the world, are facing it from climate change. So, Bethlehem's commitment to climate change goes back to 2006, when the city signed on to the three City proclamation, which committed Allentown East and in Bethlehem to helping to uphold the Kyoto Protocol. And the US is commitment there since then. More recently. The city's committed to we are still in the Global Covenant of Mayors and some of these other initiatives that you see up here, which commit the city to helping to uphold the US. Commitment under the 2015 Paris Agreement and show the city support for its 100% clean energy.

38:55

So, these are important commitments, They've really set us on a pathway to developing the Climate Action Plan. And I just include them here, as context for what we're trying to do, that this has been an ongoing effort by the city over many years, but really, what we're trying to do now is involve the full community in addressing those community wide emissions. So going beyond just the municipal operations, and really tackling the full communities contribution to climate change. And also preparing the community for the impacts that Kate talked about.

39:23

You can go to the next slide.

39:27

So we've talked about what the impacts of climate change are and why the city is developing a climate action plan. But what is a climate action plan and how is it going to address them.

39:37

So really a climate action plan or a cap as we, we sometimes abbreviate it, is the cities, Citywide comprehensive roadmap to addressing the two big pieces that Kate talked about. So one is reducing greenhouse gas emissions, so that's the, the city's contribution to carbon dioxide and other gasses that are contributing to global climate change. And the other is increasing our adaptive capacity and resilience to those impacts to extreme temperatures, to droughts, flooding, and so on. And so it's really critical that the plan address both of these because climate change is a global problem, as Kate talked about. And Bethlehem can do its part to reduce its own emissions, but, addressing climate change at a global scale, is going to require a global effort. So, we need to be prepared for potential impacts from climate change and in the future. And also, to have approaches to address the impacts that we're already facing today, which Kate talked about.

40:30

And so some people might say, you know, if Bethlehem is just a, you know, it's a small city here, in the US, it's a global problem, You know, why take this action? If it's gonna require a global effort, And, you know, in addition to just aren't doing our own part, there are additional benefits that come with taking actions to address climate change. And so we broadly characterized these into three categories of additional benefits, and so that there could be social benefits, which include some of the health outcomes that Kate alluded to. So if we're reducing greenhouse gas emissions and increasing our adaptive capacity, we can reduce local air pollution, which can have better health outcomes locally. We can also increase the, the equity of those outcomes. Traditionally, people of color, immigrants, and low-income communities have faced a disproportionate burden from local air pollution and climate impacts.

41:23

And so one thing that we really hope that this climate action plan can do is help to mitigate some of those disparities and create more equitable outcomes. In terms of environmental benefits, in addition to local, cleaner air that results from reducing greenhouse gas emissions, we can also take actions that help to clean up our water, and have other environmental benefits, like more green space and trees and parks, and just a more livable community.

41:49

And then, lastly, economically, many of the the actions that will be taking as part of this plan, will help to create jobs and help to train people for new jobs in new sectors, such as solar and wind, where, which are really growing nationally, in terms of their importance in the job market. And so all of these additional benefits are categories of criteria that we want your input on it, in terms of how we should be prioritizing actions that achieve those two broader goals of reducing the city's impact on climate change and preparing to be more resilient to the future impacts of climate change. So, if you go to the next slide.

42:31

This is what's in a typical climate action plan. And I want to emphasize that the plan is a roadmap. So, in the development of the plan, we're going to be developing strategies to address those two goals of reducing our emissions and increasing our adaptive capacity, but the actual implementation. So, the voting on policies and voting on ordinance changes, and so on, that happens after the release of the plan. The plan is not a policy document, it's a roadmap of how to implement policies to achieve our broader, community wide, climate related goals.

43:02

So, how do we get there? We start with principals. And so, examples of principles that inform the climate action plan development include equity, inclusiveness, outcome oriented, cost effectiveness. These are the principles that are going to inform the prioritization of actions that we take and how we structure the plan to make sure that it's really achieving the community's objectives more broadly, not just reducing our emissions, but doing so in a way that that really addresses the community's broader challenges environmentally. So once we've set our principles, we need to know where we're starting from.

43:40

So that's that baseline piece there. And so the city has developed a community wide greenhouse gas inventory, which looks at all of the emissions from residents, from businesses, from transportation, and so on, so that we know where we're starting from, and then we can set a goal or a target to reduce those emissions in line with science to avoid the impacts that Kate talked about.

44:03

Once we've set a target in the plan, we will develop a set of actions and strategies to achieve that target. And so I'll talk a little bit more about these strategies in a moment, but they could be things like increasing access to public transportation, increasing our sourcing of renewable electricity, and reducing our waste. So, all of these go towards reducing emissions, and will help to achieve whatever target the city ends up setting.

44:29

Then, lastly, the last two pieces there are really get to the point I made about this being a roadmap. So, this is going to be a starting point. But achieving the city's climate goals is going to be an ongoing process, even after this plan is released. And so, a key part of the climate action plan is having an implementation approach. And this goes to the stakeholder group and the public engagement, that we're doing now, that we want to form partnerships and identify the people and the groups that are going to be taking the lead on executing those actions and strategies once the plan's released.

45:02

Then lastly, any good plan is going to be dynamic and flexible and have a process in place to measure progress and make sure that we're on track to meet those goals and also make sure that there's a process in place to have accountability. And if we're not on track to meet our goals, that we can make adjustments as needed in the future. So, those are the six pieces of a climate action plan, And those are going to be what we're going to be developing over the course of 2020 to build into this plan.

45:28

Next slide.

45:33

So, I wanted to give a snapshot of the baseline that I talked about. So, this is a snapshot of the city's community-wide Greenhouse Gas Inventory.

45:40

And, again, this is for all city emissions, not just the city operations, but residents, like you and me, businesses here, And if we break it down into four broad categories. So, about half of our citywide emissions are from electricity consumption, so that could be in your home. Or it could

be a business, or for manufacturing. About a quarter of them are from fuel use, like natural gas, so that could be for, for heating, for example.

46:04

Then, about 20% or one fifth are for transportation, which includes our cars, public busses like Atlanta, and other transportation vehicles out there on the roads.

46:15

Then, lastly, the remainder is emissions associated with the disposal of our waste and the transportation to landfills and decomposition of waste and so on. So those are the four broad categories of emissions that we're looking to reduce with this plan.

46:31

You can go to the next slide.

46:36

So getting into the strategies in action, so this is really the meat of the plan. What are the actions that we're going to be taking to actually reduce that baseline level of emissions that I just talked about?

46:48

And so, we divide this up into categories, and you can see the green ones. There are categories of sectors where we can reduce emissions. And then, the blue one is a broad category of increasing resiliency and increasing adaptive capacity. Which, really, we want to focus on protecting the most vulnerable populations here in Bethlehem. And also addressing any vulnerabilities are risks to critical infrastructure that we all rely on. Whether that's, you know, dykes to prevent flooding, or the city's transportation infrastructure and so on. We want to make sure that we have a plan in place to mitigate any potential risks, resulting from climate change. And to give a couple of examples here in the building sector, that could include energy efficiency initiatives. Transportation sector could include, access to, to electric vehicle charging, or increased access to Atlanta and Public Transportation. Waste, includes recycling initiatives, and diverting, and reducing the amount of waste that we create as a community electricity.

47:46

Sourcing is related to build things, but it's a little bit different. So buildings would be reducing the amount of energy that we're using, whereas electricity sourcing addresses where that energy is coming from. And so really trying to move from a mixed grid that we have currently, which includes electricity from coal, natural gas, nuclear, and some renewables to more of a low carbon mix of mostly renewables and low carbon sources.

48:10

Then, those last 2, 2 categories are actually really important ones. Outreach, and education ties together, all of these different strategies, and it's going to be critical to implementing any one of them. And so our outreach is really starting with this webinar, But we want to create the infrastructure in place to help keep the community informed about progress here, and let you know what you can do to do your own part here.

48:31

And then lastly, land space, a green space is an important one, not just for reducing emissions, but also Livability. Really making sure that everyone in the community has access to parks, and trees and green space. That, not only is nice to, to participate in, but can actually mitigate some

of the impacts that Kate talked about. So having more trees can help reduce local air temperatures and mitigate some of what they call the urban heat island effect, which means that if you have a lot of pavement and cement, it actually increases the temperature locally. So, having a good plan in terms of access to parks and green space, can help to reduce our emissions. And also make the city much more resilient and livable at the same time.

49:10

So, if you can go to the next slide. I want to give an example of one of these in detail. So, each one of those action areas that I just mentioned will have its own detailed section like this, and I'm just giving electricity sourcing as an example here, to illustrate what it might look like.

49:26

So, for the category of electricity sourcing, we would have one or more goals within that category to reduce emissions. So, for example, we might set a goal to have 100% of our electricity that we consume, community wide come from renewable sources.

49:40

Now, we're currently a ways away from that, so we would develop a set of actions and strategies to help us get there. And so the example up there is just one of many actions that could lead to an increase in renewable electricity. But one example is reducing the what they call soft costs of rooftop solar PV. And so soft costs are essentially the cost of permitting and paperwork and red tape involved with getting solar panels up on your roof. And it's actually a surprising percent of the total cost of a solar rooftop system nationally. And so, one action that a typical climate action plan might have would be to reduce those costs to streamline permitting.

50:18

That can actually increase the number of jobs locally by helping to increase the solar industry locally within the community. So, there are some impacts and co benefits there, as well as the broader goal of reducing our emissions and increasing the amount of renewable electricity that we consume. And then we would include a number of implementation steps to help kickoff that strategy. So, that could include a taskforce to streamline the permitting process, and it could include, you know, other subsequent steps are key contacts and partnerships that the city can use to help move the ball forward toward that goal.

50:56

So, you can go to the next slide.

51:00

So, that is a little bit about what will go into a climate action plan, And each one of those sections is going to have a detailed list of strategies and actions. And we're gonna want the community's input on that as they get developed, but I wanted to step back and just illustrate what the overall schedule and approach is for the development process here. We've divided it into broadly two phases. The first phase is just concluding now, So that's laying the foundation, and it includes the development of the greenhouse gas inventory that I talked about. And making sure that we have that baseline in place.

51:32

As well as doing some detailed climate hazard assessments. To assess what specifically are the number of extreme heat days that Bethlehem will be facing or the amount of extreme precipitation that Bethlehem will face in the future. So that we can identify vulnerabilities and address those within the plan. So we're just now finishing up, laying that groundwork with this

public meeting now, and are going to start to develop strategies. And actually build out the plan over the rest of 2020. And we have additional public meetings planned for the fall and into the winter to get feedback on those strategies and to help review the plan. Once it, once it's developed, The actual timeline for publishing the plan will be in early 2021. And although those, next meetings will not be until the fall, there are many opportunities for you to participate in. The meantime that, that Kate's going to talk about in a moment.

52:27

So if we go to the next slide, Kate, I'll hand it off to you to talk a little bit about those engagement opportunities.

52:35

All right, so he, in our new, normal world, we were originally going to have these meetings in person. And it's still, we haven't made official determinations on those meetings for later this year. But in the meantime, we developed a public survey so that we could get your input. And that is available in English and Spanish. And if you visit bethlehemcap.org, there are updates. There are resources and more details about what kind of action plan is, some links to other climate action plans, and just a wealth of information.

53:15

If you're curious about this process and climate change in general, there's a link to submit an idea, our questions. And we have an online forum. That you can also submit some just general things. You could e-mail me or Jeff and then participate in these public meetings. Raise questions, give us feedback. But for right now, in this virtual world that we're living in, it's gonna be mainly, you know, we'll have to get this through e-mail and survey and through these virtual meetings until we can meet them in person.

53:53

We ask you, in a while we invite you to follow the city of Bethlehem, can follow Nurture Nature Center on social media. We're on Facebook and Instagram and Twitter. So you can follow us for staying up to date.

54:09

And we might push out seven questions here and there to get input as we develop the same Action plan more fully. We ask you to talk to your friends and families and neighbor. You know your city best. We need to hear from you to know what is we should be prioritizing, what we should be focusing on. Educate those around you who are not knowledgeable about climate change and why it's so important for us to consider it in our operations and in our behaviors, and about our climate action plan process.

54:47

You can also look more individually at your actions. There's lots of, they call them carbon footprint calculators that are out there so you can kind of see where you're making the most impact And you can try to make your home more energy efficient. There's lots of benefits to this. It saves you money, but it's also helping the environment.

55:09

And there's lots of different behaviors that you can take to help push the needle towards that, eating more of a plant based diet. You know, biking, more than considering any of your actions.

55:24

That this is a world that we are moving very rapidly towards, and, and we need to be considering our day-to-day actions in keeping that in our mind.

55:39

So, again, you know, your community, that the form speak up. Nurture Nature Center is hosting a youth climate summit, the first annual Lehigh Valley Youth Climate Summit that will be July eighth and ninth, and it's fair to all, of course. It will be from 3 30 to 6 0 PM each day. And if you're interested in that, you can follow Nurture Nature Center, visit our webpage, share it with any youth that you know that might be interested. So, there's lots of ways to stay involved. There's also, the EAC is actively involved in the city and, if you are interested in more about that, we can reach out to and Rothman. Too, is part of that and she could give you some more details.

56:26

But, we wanted to move on to the next part of the presentation, which is a little more interactive.

56:31

And, what we're asking you to do is to either go on your Smartphone or open up another browser on your computer, and what we need you to do is go to menti dot com and enter this Code 415664, Or, you can go to the link that I'm posting in the Chat.

57:01

It can't get it to work.

57:06

And that should take you directly to a website, I'm called ... dot. menti dot com, and we have a number of questions that you can directly in touch to, and we'll see the responses in real time.

57:26

Hmm.

57:28

Before I get to that, let me just talk about the first, what Jeff, do you want to introduce, this question, and kind of an example? Sure, yeah. Thanks, Kit. So, we have a number of questions, but we felt like this one, especially at this moment in time, was a really critical question, to address first, dealing with equity, accessibility and justice. And so, the question that we have is that, you know, starting with the premise that we are striving to embody, Equity Accessibility and Justice into Bethlehem's Climate Action Plan. And this is an open question for, for your responses. Do you have ideas about how we can successfully do this? And really make sure that we are addressing some of the equity and accessibility issues that have traditionally existed. So I talked before about how low-income communities, communities of color and vulnerable communities have traditionally.

58:26

Born a disproportionate share of the burden of pollution and climate impacts. And so we want to make sure that the plan is addressing those and really embedding climate justice into all of the strategy. So, an example of that is that when reducing the carbon intensity of the city's electricity mix, so trying to move more towards renewable electricity, You know, it's, if there are, any associated cost increases for low-income households, we want to make sure that that is mitigated. and that energy burden of low-income houses does not go up. So either that could be through subsidies. It could be through energy retrofits, or reducing the amount of electricity that

they consume to help offset any changes in electricity bills. So, that's just one example here. And we're putting the question out there, broadly to the, to the group here on the call to see if you have other suggestions, or thoughts, or any other feedback on how we can best accomplish this with the Climate action plan.

59:35

OK, so we are getting a lot of really great responses.

59:50

Oh, one right Darwin's.

59:52

We need more diet related initiatives.

59:59

Affordable housing, subsidized transport.

1:00:08

That's given to warehouse manufacturing companies and how they're managing their carbon footprint.

1:00:15

Reducing traffic volumes.

1:00:21

Access to fresh, healthy, sustainable maybe having the city partners by fresh buy local subsidized sanitation.

1:00:33

These are all really great if anybody would like to speak to us just raise your hand and we can unmute you.

1:00:56

Marina, I see your hand is raised, so I'm going to unmute you.

1:01:00

Well, you need to unmute yourself.

1:01:13

Sorry, I was trying to, I was worried that, I needed to unmute myself in order for my question to get here in the question screen. Because I wasn't, sure I got that right at the beginning. And that was why I raised my hand.

1:01:31

Oh, no, no, no, it, yeah, you're here.

1:01:36

Your question came through, we'll address that, I think a little neater.

1:01:41

OK, so, um, but to the point about the, the question of equity and accessibility, I just think that it's pretty hard to get participation by the impacted communities in these kinds of events. And so, I guess my comment would be that it's important to, to try to find a different way than just sort of announcing, and translating, like, actually going out into communities and talking to people in their homes.

1:02:11

Good point, Kim.

1:02:17

Just on that point, we are trying to work with some of our stakeholder group members to engage some of those communities. And so, you know, we can talk more about that. But we're really hoping that, you know, we can go beyond just these types of webinars through some of the the existing organizations and community groups within the city that work with marginalized communities, to make sure that we're hearing those voices, because I think it's a really important point.

1:02:47

Thanks.

1:02:53

Sir, anyone else, who would like to speak to, what they put in, that's our response.

1:03:06

See, we're getting a lot about energy efficiency, mean, please.

1:03:15

Can I say something else, if nobody else is going to.

1:03:19

Sure, Before I put up some point earlier about traffic on third and fourth streets, which I know, you know plenty about, Kate, but, um, that's the sort of, one of the things that I think is happening with the new FedEx terminal over by the airport, is that when traffic is really bad at rush hour, all the trucks, the huge 18 wheelers are coming through the south side, and going on cutting from 22 over to 78.

1:03:52

I mean, it's remarkable if you stand out there, Russia, or how many huge truck CC, which is right, you know, when a lot of kids are walking around, coming out from school and things. And so the idea of trying to actually get, you know, some of your changes, addressing other issues, I think, Jeff was talking about at the beginning, This would be something that would be a hugely important. If we could try to limit truck truck traffic through that area, and have that be something that comes out of it. I don't know how else it would ever possibly get done.

1:04:27

But it would have a huge impact on the quality of life, and that multiple environmental burdens that are faced by people on the South side.

1:04:37

That's really good thing to be able to, to consider: I'm Jon Dicer, you came, you can speak now. Sorry, I didn't hear

1:04:54

You should be unmuted.

1:04:59

John, are you there?

1:05:13

Whoops.

1:05:22

While we're waiting for John, lameness, you would like to speak.

1:05:28

Yes, I just have a comment.

1:05:32

Regarding, once the plan is completed, that it would be really important to have a sustainability officer as a permanent position in the city. Not, not necessarily under a certain department but, as its own department so that they could oversee the implementation of the policies of recommendations, The plan, There would be able to co-ordinate all the different departments in the cities and co-ordinate with LDP see on their initiatives.

1:06:01

And once the plan is written, it seems that that extra staff would be needed to ensure that we can make these changes.

1:06:10

And I'm speaking on behalf of the EAC.

1:06:17

Alright, John, sorry about that. You should be unmuted now.

1:06:20

There's no worries. Thank you. I would just like to thank you finally at the end, you mentioned, you know, more plant based diet. I run a digital health and wellness company here in the Valley that focuses on employers and individuals on improving health and health care costs.

1:06:37

But what we also do is calculate environmental footprints by the individual as they improve their plate. You know, everything from a half pound hamburger contributes the same greenhouse gas emissions as a car driving 10 miles in New York Stock like that over a year, and it's a pretty large that, So we're doing pretty neat stuff.

1:06:55

And I think just going into the socio economic questions and the social benefits of teaching people how to cook a pot of lentils, or make a smoothie, goes a much longer way than we think.

1:07:09

So I'll just request that the diet and nutrition schedule of we, I value gets included in the action areas and the in the foundation. I'd be happy to talk more offline about this.

1:07:25

Because everything, water usage, the pesticide runoff to CO two, but including methane, along with CO two, you know, improving the power of the plate, or introducing the power of the plate to, to all of us, just one time of day is much bigger than we all think, and we can talk offline.

1:07:50

Great, Thank you.

1:07:54

Yeah, See.

1:08:01

Rudi: Yes?

1:08:09

Hear me?

1:08:11

Yes, I can Yeah, yeah, OK.

1:08:14

I'm really sharing her with Lehigh University.

1:08:21

Quite clearly, that sourcing of electricity is a big issue in contribution of greenhouse gasses and switching to renewables should have a pretty modest plan as far as converting to renewables.

1:08:40

What is really exciting is the onset of community solar farms.

1:08:47

No, which makes it a little more equitable for people to participate as owners and users of solar.

1:08:55

And there's a little bit of social equity, too, because not all roofs are built for solar, even though it may have a favorable position and everything else.

1:09:06

And, I think this can grow and exceed, know, what our target goals are, in the State of Pennsylvania, but I'm suggesting that perhaps being advocates of community solar, you could have benefits, and obviously benefits and reaching the climate action.

1:09:33

Great, Thank you.

1:09:35

Oh.

1:09:39

Michael, do you have a response?

1:09:44

Yeah, I'm reading, you wanted to make a comment.

1:09:49

I'm not sure if that was a hammock before He wanted to say something. Now, I would like to ask a question, can you hear me OK?

1:09:58

Yes.

1:09:59

OK, great. I'm Michael Harrington. I'm on the board of Democracy Creek Watershed Association, my question. I appreciate first of all, I had trouble getting on online, so I missed most of what Matt said in the beginning and I regret that because I would have found that really interesting.

1:10:19

one question I have is, know, in reference to your plan, it looks like it will be a operational in 20 21. So there's a lot of pieces that have to fall into place for it, to be finalized. But in the interim, are you looking at the Martin Tower site in terms of construction and the related environmental impacts of that construction? And I'm specifically focused on stormwater runoff because we, as managers of the ... Creek, see the already impacts of stormwater friendly deconstruction. And you know we're concerned about you know plans around the new bill will then are there are there are people sort of involved? To make sure that there are good? Sustainable best practices. being incorporated into that new building or new construction site.

1:11:13

I see it as an opportunity for the city. It's certainly happening probably sooner than when the plan will be finalized.

1:11:20

So I'm hoping and asking is is that something that you are looking at Knowing that it's happening probably quicker than the formal action plan will be created.

1:11:36

Right well we will certainly be looking at that.

1:11:38

We haven't detailed plans that would give us those answers yet but as far as the stormwater goes, the city definitely reviews that against the Act 167 Plan and the Planning Commission will also be reviewing stormwater for compliance as well. So, those things, we don't have all the details yet, but we will be looking at that.

1:12:02

one thing I would add is, just, that, as part of this plan development process, we are doing some downscaling of climate projections that will look at extreme precipitation. Specifically in Bethlehem under different emission scenarios.

1:12:15

So we'll have some additional data that can inform that process, and that could possibly be incorporated into some of the city's guidelines and specifications as well.

1:12:29

Um, there is a question before we move on. John, could you just write in the chat box? What is the name of your organizations, and maybe a way to get in touch with you? There's a lot of people who wanted to get in touch.

1:12:52

All right, Let me go checking to see if there's any more routines.

1:13:22

All right. So, we're going to move on to the next question.

1:13:27

Um.

1:13:30

Hmm.

1:13:33

Jeff, do you want to?

1:13:38

Yes. I can introduce this question while we get the. So this will be another one that appears up on the menti dot com website. And so this is getting to some of those principles that I talked about on an earlier slide, and really, what we're trying to get at is what do you hope to achieve out of the climate action plan? And what do you hope that it will achieve. And we're looking for just kind of, you know, one word, or 1 or 2 sentence here, Just a short summary of what you would consider to be a success, and some of the outcomes that you, you hope to achieve here. And so we had asked this question to our our stakeholders, and partnerships, and collaboration was one of the big responses that we got. But that's just one example. So we leave this as an open question to participants here today for you to provide input on what you think are the most important objectives and priorities for the plan.

1:14:34

And while answers come in, I just want to note that we've received a number of questions in the goto Webinar interface and have been trying to respond to those during the meeting. And if we, if we don't get to your question during the meeting, we'll try to follow up with those answers as well. So please keep questions coming in there. And then also, you know the contact that Kate mentioned earlier, on the city website. There's an opportunity to submit questions and feedback. They're up on the City website.

1:16:50

So, we're receiving a lot of great responses here. You can see it changing in real time, as more additions are added. You know, a lot of themes emerging here, including, you know, equity, sustainability, education, accessibility.

1:17:06

So we wanted to give folks the opportunity to explain their responses here. So it's similar to the last question. If you'd like to just talk and expand about what you've input into the box there and talk about what it means to you, we would be grateful. And so just raise your hand in the goto Webinar interface, and Kate will unmute you and allow you to speak.

1:17:43

Rachel, I have you unmuted. You want to speak now? I didn't get to.

1:17:53

Nest her hand on the last one.

1:17:58

Rachel, you're unmuted, if you Yep. I can hear you now. So may, I had a couple of Windows open. Thank you. Um, my question was actually, or my statement is actually related to the previous question, but I guess I can relate it here as well.

1:18:14

You know, I saw a lot of words coming up related to equity and justice and the word that I had put up was Justice.

1:18:26

And, I put that up because we're in a moment right now, where we're not able to really have the full list conversation with the whole community, given a lot of the recent events that have happened. And the ongoing process in dealing and, and working through them.

1:18:47

Um, so, I just kinda wanted to put out the idea, has the, as the team thought about.

1:19:00

Really sort of having considerations or flexibility for adjusting the timeline of the cap process, Kevin, national, local, you know, regional events that are occurring on a daily basis at this moment, on that are probably taking folks, no take taking folks out of the ability to be able to participate.

1:19:32

Will we have part of the conversation?

1:19:36

Thanks. That's a really good question. And so it is something that we've talked about a little bit, and I've had internal discussions on and, you know, I think in terms of the city funding that's allocated to this effort, there are some aspects of it that are kind of tied to the current fiscal year. But we are taking every effort that we can to try to figure out ways to engage communities, especially those that are less able to access the internet. And some of these virtual collaboration opportunities in a time of ... were in person. Connections and meetings are more difficult, if not impossible, for safety reasons. And so, no.

1:20:23

I don't want to speak for the city in this regard, but it is something we've thought about and are trying to figure out the best approach on, given how quickly no events across the country in the world have been changing over the last weeks and months.

1:20:40

Yeah, yeah, If I could just follow that up.

1:20:42

I think, you know, that a lot of my concern at the moment, is to do more to the fact that those communities are dealing with a lot of a lot of difficult things at this moment. Where climate, and, you know, participating in, and public meetings like this, may not be the top priority, or may not be possible.

1:21:07

And so, I'm just kind of trying to get a sense of whether there's a consideration for a pause, or a slowing of the process.

1:21:15

Because by the next meeting, those folks may not have been able to be engaged.

1:21:26

Yes.

1:21:27

Yeah, so, basically, we, we have looked at adjusting the schedule and, You know, so, that's something we're still considering, and but, you know, trying to do so within the constraints we have about the funding that's available for the project at the moment.

1:21:43

And so, in the meantime, we have been working, as I said, to try to expand and modify our outreach capabilities and approaches to, to address some of those concerns. Could definitely

totally hear you, Rachel, about that. There are other priorities right now, for not just certain populations, but really, everybody right now, And trying to balance that, Obviously, with the, the urgency of climate change, as Kate talked about earlier, there's, obviously, Urgency for action on climate. that impacts many of the other social issues that are going on right now, in terms of inequities and injustice.

1:22:30

Jeff, do you want to move on to the next question?

1:22:32

Yeah, I think our time, That sounds good.

1:22:47

So, the next question that we have is, is getting to, into more detail about principles, and this is really sort of a question about priorities for the climate action plan. So, it's related to the previous two questions that we just asked, then. We have a number of different principles and criteria that could inform a prioritization and development of strategy. So you can see, reduce greenhouse gas emissions at the top of the list there. But in terms of creating some of the positive co benefits, and reducing some of the negative externalities from pollution and from climate impacts, we want to make sure that we're getting community input on what some of these additional priorities are. And how we should be weighting them, as we think about the development of strategies to achieve our broader goals of reducing bethlehem's impact on climate. So.

1:23:42

The, the options here, you can kind of select them. And, Kate, maybe you can talk more about the mentee system here for providing input on the list of the 12 options below.

1:23:56

Yeah, and, apologies.

1:23:58

I can enlarge the text, but there are, basically, you can move them, and you're basically ranking the priorities. So, you would say your top.

1:24:18

And then, all the way down to the top one, um.

1:24:24

I apologize for the text on this.

1:24:43

And as we're waiting for the responses to come in.

1:24:47

I just had a quick question for Matt Acumen, the question, if the plan, the CAAT Plan will be put the short Council for about, I believe that's correct, right?

1:25:01

Justin, it will certainly be presented to them.

1:25:06

Yes.

1:25:24

Can I ask a question while we're waiting?

1:25:26

Sure. It's somewhat related to putting this before Council for a vote.

1:25:34

Know, a lot of times, like, the plans that we ended up pursuing are not the ones that sort of do the things that citizens feel most strongly about.

1:25:45

And so, I've been thinking, you know, one way, places addressed, this is through things like participatory budgeting. But I'm wondering if you've thought anything about, like, carving off a section of this plan. that would allow some, some subset of the suggestions to be determined by citizens, rather than by, like either the consultants or approval by city council. It's just a thought. No.

1:26:13

But I feel frequently, like we don't have enough control over decisions and even when there is a rather mobilized group of people, sometimes you feel like you get sort of patted on the head. And we're going to do its best. And so, I think it would be fantastic if you could all think about ways in which citizens might be able to have not just input, but some control over some sort of part of the plan.

1:26:38

Where if you show up to the meetings, people agree with you. There is consensus on things that need to be done, some part of that ends up going into the plan.

1:26:47

Burma comment probably because you haven't thought about it much, but.

1:26:52

Yeah, I think that's a really good piece of feedback. So thank you for for raising it. Yeah. We've talked a little bit about different participatory methods of collaboration and community input. But that's just the specific idea you had there about having the community kind of vote on or collaboratively develop a specific part of the plan. To make sure those priorities are reflected, I think, is a good one. So, thank you.

1:27:22

Rachel Rosenthal, to do you have your hand raised? I don't know if you add an additional comment, I think yourself muted.

1:27:33

Now, actually admit it, and it just didn't realize, well, what way to click, click and move on to someone else.

1:27:41

Sure, So it looks like reduce greenhouse gas.

1:27:44

Emissions is a top priority, and then a long term investment and benefits, reduced local air pollution, and then improving equitable outcomes before we move on to the next question. And if anyone to speak to this question.

1:28:01

If so, you can just raise your hand at all.

1:28:07

Yeah.

1:28:20

Done. Let's look yourself Canadian, so if you want to just speak, because Yeah, I think I'll go down the same road a little bit. But then there is a lot of red tape which is not my strong suit of being able to move that around and actually take time to do it the right way.

1:28:38

But I just do want to emphasize the power of tomorrow and starting to move things along with priority, prioritizing the things that we can do, and really, really, I guess, recognizing what will take longer, and what we can change tomorrow, so we don't get hung up on the wrong stuff. Meanwhile, we can have solutions that start tomorrow.

1:29:04

OK, Thank you.

1:29:07

Yeah.

1:29:11

Well, in the interest of time, we will move on to the next question.

1:29:22

So this is one where we really would like to hear from you in terms of setting a goal for the climate action plan.

1:29:34

We are looking to see if there's more strong support for setting aspirational goals with greater ambition, even if the ability to achieve them is less certain.

1:29:45

Or have a goal with a high degree of competence achievement goal based on the latest climate science and setting, the ambition of the goal based on current economic and technical feasibility.

1:30:01

This was a question that somebody raised in the question box, and it's something that we want to make sure that we're getting community input on for making sure that we're setting goals that reflect the communities, objectives, and interests.

1:30:28

And, of course, there are just four options here that reflect for broad approaches, but we know with the remaining time we have here, we wanted to make sure that we're also hearing from you to explain your answer. So just like with the prior questions, if you would like to explain the selection you've made or have any comments, please raise your hand in the webinar interface, and Kate will call on you.

1:30:56

We only have a little less than 10 minutes, so if there is a question that you have about the process in general, feel free to raise your hand, as well.

1:31:11

All right, Dan?

1:31:15

I have, you have to do that yourself muted, so if you, can you hear me?

1:31:22

Yes.

1:31:24

OK, so, I'm an engineer, and I love a good, clever application of technology to solve the problem.

1:31:34

But in terms of the, speaking of the carbon in the atmosphere, we already have a solution that's already designed trees, and, uh, I don't really hear a lot of talk about, let's display on a lot of trees.

1:31:54

Do we have ideas on where that could take place, and I think that's an immediate thing we can do, very short-term.

1:32:05

Probably cheap solution, visible, and people will realize that this is something that we're taking seriously.

1:32:17

Yeah, that's a really good point, and it was actually a number of people asked questions related to trees.

1:32:24

Judith asked about the Martin Tower site, and if they are required to replace an increased number of trains on that site because they took down.

1:32:37

Then asking more in general, sure that the entire city plan for the number and variety of trees, if, if that would, if there's a plan for that.

1:32:50

Then grant also spoke to trees wondering if the city was thinking of ways to encourage residents our businesses to take actions Like replacing lawns with planting some native trees or or plants.

1:33:03

So they're kind of all related to that, but I know that if you wanted to speak to that, we do certainly have a city forester who keeps track of those types of things.

1:33:16

We have ordinances that require planting of trees and replacements, for new developments, if they remove trees from a site, the required to replace them. And the city also, every year, we plant a number of trees ourselves. Various locations were benign, Tricity USA for many years. So it is something that's definitely important to us.

1:33:42

And we'll continue to see that trees are planted. And we continue that.

1:33:51

Thank you.

1:33:59

Cool.

1:34:10

All right. Brian, I sent you a pen. I can unmute you until you connect to that pen.

1:34:16

Um, konner, you are self muted, so if you unmute, you should be able to talk.

1:34:25

Can everyone hear me?

1:34:26

Guess, that's awesome. So, yeah, so kind of going off of what was just last said, on a kind of smaller scale, there's like a national program from like an environmental non-profit called Climate Victory Gardens. So I would just like ask that in the plan, that you kind of look into that. Um, and consider the potential for planning perennials, or even people planning just basic things in their yard instead of planning lawns. And stuff like that in the city actually providing resources for people to know, have these climate victory gardens in their houses and lawns.

1:35:09

Also just emphasizing, too, that when we're talking about resilience, social resilience is a big part of that right, and so when we talk about social resilience, making stronger neighborhoods and bringing people together. Community gardens definitely play a strong role in being able to do stuff like that.

1:35:31

So, in the past Bethlehem City has supported creating community gardens and provided the resources, compost and stuff like the seeds for Community Gardens and backyard Gardeners. So, that's a possible thing to revisit in the future and for anyone in the call who is interested in this kind of work. There's the Southside Garden Alliance which is part of Community action in Bethlehem. And also the Bethlehem EAC is working on doing food waste composting. That's another way that we can really easily reduce our waste by doing kitchen composting instead of just yard waste which the city right now only has yard waste. The city of Eastern has implemented kitchen waste composting, they saved over £80,000 of food waste in the last year. So that's like a really easy, low hanging fruit that the city can just implement for a small amount of money, and it's already being done in eastern.

1:36:32

That's all.

1:36:34

Cool.

1:36:37

All right, Brian, you should be able to speak now.

1:36:41

Hello, can you hear me?

1:36:44

OK, great, I'm Brian, I'm on the Lam Environmental Advisory Board member 7 7. And I just wanted to reference a little bit more about discussion about trees. The city is moving we've been working with the city forester recently. We've, we've helped him.

1:37:04

He has gotten funding for a tree inventory of the city, which is going to start in July. So, basically, that street trees, Lehigh University isn't the process of doing their tree inventory, as well. And Moravian College has done there's. So, basically, that's going to give us a baseline of some trees. City Forester has also recently walked the north side. There's a project called North Side, 20 27, and there's gonna be a lot more trees on some disadvantaged neighborhood, lower economic neighborhoods on the north side. So treated a huge part, and to me, it's a low hanging fruit item. You're going to see more, more work with trees as well. We recently revived the green committee on the EAC. And so that is open to any volunteers that want to help. So I just want to put that out there.

1:37:57

Thank you, Thank you.

1:38:01

All right, just have a couple more minutes.

1:38:03

So then, if you wanna speak, well, you should, you hear me?

1:38:13

Yes. I just wanted to point out, just to be careful that trees and vegetation were doing carbon accounting. Because remember, plant, something trees are long term if they're new trees.

1:38:23

It's good, but you plant perennials or whatever things grow and they decompose and put carbon back into the atmosphere. So just when doing that, accounting, be clear about it.

1:38:34

And trees itself are not going to make up for all the emissions that we're putting out so they could help, but they're not enough, so.

1:38:47

Yeah, that's a really good, good point. So thank you for, for raising that. It is something that we consider when we put together that greenhouse gas emissions inventory. and I think speaking just to trees that we're also considering their adaptive and resiliency benefits as well as their benefits of sequestering carbon. So you know, as I mentioned before, trees can also provide those benefits of reducing some local heat impacts, and so on. So, it's really, really good points. And thank you for everyone for all of your, your feedback today. So, we're just at 130 now, and are gonna wrap up this webinar, but, you know, this is just the start of the process. And so, we are collecting information via all the methods that Kate outlined previously, all accessible on the city's website. There's a survey up there that, that you should fill out, if you have not already.

1:39:40

It's available in both Spanish and English. And as mentioned before, we're going to be creating a Spanish language translation of the transcript of this meeting for distribution after afterwards. And if anyone that, you know, would be interested in this meeting, we're going to be holding another one of these sessions today at at 5 30. The content will be the same. So there's no

need to attend twice. But we encourage you to help get the word out and spread the word to the community, and hopefully participate in the coming months throughout this process. So, thank you everyone. We know there's a lot going on right now in the world, and in your life. So, thank you for taking so much time out of your day to help contribute to making this planet success. We really appreciate it.

1:40:33

And I see there's still some questions coming in on the webinar. So if you have any other questions, if you don't get them in and answered on the webinar, please, again, feel free to reach out via the forums on the city website, and we'll try to get back to you with answers to your questions. We've answered a bunch in the chat box throughout the meeting. Thank you, everybody. I hope you have a good rest of your day.