Webinar

Water Wise Development Coalition Meeting - 7

Date: November 06, 2024

00:00:02 --> 00:00:04: All right, welcome everyone.

00:00:04 --> 00:00:07: This is our Water Wise Development Coalition meeting.

00:00:07 --> 00:00:12: I'm Marian Epic, Senior Director of Resilience for the Urban

00:00:12 --> 00:00:16: Land Institute and I'm excited to have a jam packed

00:00:16 --> 00:00:17: session for you today.

00:00:18 --> 00:00:21: You and I is hosting this coalition in partnership with

00:00:21 --> 00:00:25: the Alliance for Water Efficiency, the Sonoran Institute and the

00:00:25 --> 00:00:26: Water Now Alliance.

00:00:26 --> 00:00:29: And the whole point is to convene land use and

00:00:29 --> 00:00:34: real estate professionals with water professionals and policy makers and

00:00:34 --> 00:00:38: decision makers to support water wise built environments.

00:00:39 --> 00:00:43: And we have quarterly virtual meetings and you will have

00:00:43 --> 00:00:44: a say in upcoming topics.

00:00:44 --> 00:00:49: We usually have guest speakers and then group participation towards

00:00:49 --> 00:00:49: the end.

00:00:51 --> 00:00:56: Today's agenda includes A keynote presentation by Marianne Dickinson on

00:00:57 --> 00:01:00: water neutral development and resources.

00:01:00 --> 00:01:02: She is now the Director of Land and Water Policy

00:01:02 --> 00:01:04: for the Lincoln Institute of Land Policy.

00:01:05 --> 00:01:07: Previously, she was the President, CEO of the Alliance for

00:01:07 --> 00:01:08: Water Efficiency.

00:01:08 --> 00:01:11: So we're very excited to have her speak today.

00:01:11 --> 00:01:15: And then she's going to be followed by three case

00:01:15 --> 00:01:20: studies from Cambria, CA, Ipswich, MA and Santa Fe, NM.

00:01:21 --> 00:01:23: And those speakers are going to be talking about how

00:01:24 --> 00:01:27: they've implemented water neutral, neutral development

locally.

00:01:27 --> 00:01:29: So we're excited to hear from each of them.

00:01:29 --> 00:01:31: And then at the end, we'll have some updates for

00:01:32 --> 00:01:32: you.

00:01:32 --> 00:01:35: And then we hope to get your input on upcoming

00:01:35 --> 00:01:35: meeting topics.

00:01:38 --> 00:01:41: And I'm going to turn it over to our first

00:01:41 --> 00:01:42: speaker, Marianne Dickinson.

00:01:46 --> 00:01:49: Oh, and while while she's getting set up, if everyone

00:01:49 --> 00:01:52: could please introduce themselves in the chat box with your

00:01:52 --> 00:01:55: name, title, and organization and where you're calling in from,

00:01:55 --> 00:01:57: that would be so wonderful to see.

00:02:00 --> 00:02:02: Hey, thank you, Marianne very much.

00:02:02 --> 00:02:04: It's, it's fun to be on a call with you,

00:02:04 --> 00:02:06: Marianne and Marianne together.

00:02:06 --> 00:02:09: It's, it's we, we, our names aren't that common.

00:02:09 --> 00:02:11: So this is fun and thank you for inviting me.

00:02:11 --> 00:02:14: It's, it's great to be here and, and be able

00:02:14 --> 00:02:16: to kind of just give a little bit of background

00:02:16 --> 00:02:19: on the whole topic of water neutral development and why,

00:02:19 --> 00:02:22: why we're even talking about it now and, and giving

00:02:22 --> 00:02:23: you some examples of it.

00:02:24 --> 00:02:27: So I'll just jump into it right now.

00:02:29 --> 00:02:32: So here's here's the basic problem, you know, and, and

00:02:32 --> 00:02:34: you all on the call know this many cities in

00:02:34 --> 00:02:38: North America are already challenged to meet their customer demands

00:02:39 --> 00:02:42: for water and that doesn't that's independent of drought and

00:02:42 --> 00:02:44: scarcity and other issues.

00:02:44 --> 00:02:47: It's just that their systems may be a capacity they

00:02:47 --> 00:02:50: may be struggling to, to provide additional water sources.

00:02:50 --> 00:02:53: And, and it's not just in the US, it's Canada

00:02:53 --> 00:02:53: as well.

00:02:55 --> 00:02:58: And growing population and economic growth is, is part of

00:02:58 --> 00:02:59: the driver.

00:02:59 --> 00:03:01: There are communities that are growing very quickly.

00:03:01 --> 00:03:03: We'll, we'll look at a map of, of where that

00:03:03 --> 00:03:03: is.

00:03:04 --> 00:03:08: And that does place even more pressure, rapid growth places

00:03:08 --> 00:03:12: even more pressure where there is aridity and where water

00:03:12 --> 00:03:16: is scarce in in many areas, particularly in the American

00:03:16 --> 00:03:16: West.
00:03:17 --> 00:03:20: And so as as continued drought and water shortages occur
00:03:20 --> 00:03:24: all across the country, water utility residents are beginning to
00:03:24 --> 00:03:27: raise the question about, you know, the restrictions that they
00:03:27 --> 00:03:30: might be under and why, if they're saving water, why
00:03:30 --> 00:03:33: that saved water might be now going to to a
00:03:33 --> 00:03:34: development.
00:03:34 --> 00:03:36: And, and it's it's creating, you know, a little bit
00:03:36 --> 00:03:38: of political backlash in the number of communities.
00:03:39 --> 00:03:41: And that's, that's been going on for for decades now.
00:03:41 --> 00:03:45: When I first started out in water conservation in Connecticut,
00:03:45 --> 00:03:47: that was a big issue in the late 1980s.
00:03:47 --> 00:03:48: So this is not something new.
00:03:48 --> 00:03:50: This has been around for a while.
00:03:51 --> 00:03:54: And then, you know, another point is some communities just
00:03:54 --> 00:03:56: can't accommodate growth with their current water supplies.
00:03:56 --> 00:03:58: They are going to be stretched and limited.
00:03:58 --> 00:04:02: And that can be an infrastructure capacity constraint on drinking
00:04:02 --> 00:04:06: water and wastewater treatment as well as just supply availability.
00:04:06 --> 00:04:09: And so as drought intensifies, it makes it makes these
00:04:09 --> 00:04:11: issues and problems even worse.
00:04:12 --> 00:04:13: And so it's getting a fair amount of press.
00:04:13 --> 00:04:16: There have been a number of communities that have had
00:04:16 --> 00:04:18: to issue water moratoriums against new connections.
00:04:19 --> 00:04:22: And here are a couple of examples, you know, from
00:04:22 --> 00:04:26: California and Seattle, but it's not just these areas, it
00:04:26 --> 00:04:31: sometimes very small communities that aren't on anybody's radar screen
00:04:31 --> 00:04:32: go through this.
00:04:32 --> 00:04:35: And and that's where my personal experience came in because
00:04:35 --> 00:04:38: I was president of our local water district board in
00:04:38 --> 00:04:40: that small community in, in Southern California.
00:04:41 --> 00:04:43: And we were so impacted by the drought, our, our
00:04:43 --> 00:04:46: system couldn't accommodate the rapid growth we were getting in
00:04:46 --> 00:04:47: new housing construction.
00:04:47 --> 00:04:50: So we had to do a new connection moratorium.
00:04:50 --> 00:04:53: And that was a very painful political process.
00:04:54 --> 00:04:56: I don't wish that on anybody.
00:04:56 --> 00:04:59: So if we can avoid a building moratorium altogether, we

00:04:59 --> 00:05:02: need to figure out how we deal with this resource
00:05:02 --> 00:05:06: constraint issue, because we're not really growing in the places
00:05:06 --> 00:05:07: where we have water.
00:05:08 --> 00:05:12: This is a terrific analysis that's put out every number
00:05:12 --> 00:05:15: of years or so by the Watersense program at EPA.
00:05:16 --> 00:05:18: They take data from the US Geological Survey and the
00:05:18 --> 00:05:21: Census Bureau, and they map out where growth is occurring
00:05:21 --> 00:05:24: in the United States and compare it to water availability
00:05:24 --> 00:05:25: in the United States.
00:05:26 --> 00:05:29: So you look at a state like Michigan, 1% growth
00:05:29 --> 00:05:33: between the year 2000 and 2020, and Michigan's got plenty
00:05:33 --> 00:05:34: of water.
00:05:34 --> 00:05:37: And then you look at a state like Nevada, 55%
00:05:38 --> 00:05:40: growth between 2000 and 2020.
00:05:40 --> 00:05:43: Nevada's in a desert and you know, water is a
00:05:43 --> 00:05:44: lot more scarce.
00:05:44 --> 00:05:47: So we're growing in places where water scarcity is an
00:05:47 --> 00:05:51: issue and where water individual water consumption in terms of
00:05:51 --> 00:05:55: GPCD gallons per person per day, where that's actually a
00:05:55 --> 00:05:56: high number.
00:05:57 --> 00:06:00: And so the color of the state, the lighter the
00:06:00 --> 00:06:03: color, the lower the the gowns per person per day
00:06:03 --> 00:06:06: and the darker the color, the higher the levels are.
00:06:06 --> 00:06:09: So you can see that states that are growing rapidly
00:06:09 --> 00:06:11: that are in water scarce regions also have the high
00:06:11 --> 00:06:13: highest per capita water use.
00:06:13 --> 00:06:16: So we have kind of a problem because people do
00:06:16 --> 00:06:18: want to live in these areas, they do want to
00:06:18 --> 00:06:21: buy houses, they do want to have available places to
00:06:21 --> 00:06:24: live, and that's becoming more and more difficult.
00:06:25 --> 00:06:28: And so there's a second problem in addition to the
00:06:28 --> 00:06:31: scarcity issue, We've got a problem of the water utility
00:06:31 --> 00:06:34: planners and the land use planners not really talking much
00:06:34 --> 00:06:34: to each other.
00:06:35 --> 00:06:38: They've historically been in separate silos, not really well connected.
00:06:39 --> 00:06:41: And comprehensive plans are being done at the local level
00:06:41 --> 00:06:44: that often don't take into account the full water resource
00:06:44 --> 00:06:45: picture in the communities.
00:06:46 --> 00:06:49: And and there really isn't a lot of interchange between
00:06:49 --> 00:06:51: water resource planners and land use planners.

00:06:51 --> 00:06:54: That's changing now and we'll talk more about the water
00:06:54 --> 00:06:57: and planning network later that is attempting to to deal
00:06:57 --> 00:06:59: with that at the American Planning Association.
00:07:00 --> 00:07:03: And, and it comes from sort of a traditional background
00:07:03 --> 00:07:04: attitude.
00:07:04 --> 00:07:06: You know, water utility managers feel that they have a
00:07:06 --> 00:07:09: duty to serve, to provide water that the community asks
00:07:09 --> 00:07:09: for.
00:07:09 --> 00:07:12: They don't really have shouldn't have any say and, and
00:07:12 --> 00:07:14: how that water should be planned for.
00:07:14 --> 00:07:16: They don't want to get involved in what they have
00:07:16 --> 00:07:19: called social engineering, but the land use planners don't really
00:07:19 --> 00:07:23: realize that if they don't actually coordinate with their utilities,
00:07:23 --> 00:07:26: they may be designing development densities that wouldn't be supported
00:07:26 --> 00:07:28: by the existing infrastructure.
00:07:28 --> 00:07:30: So they do need to have conversations.
00:07:30 --> 00:07:33: And you know, we are working now on this disconnect
00:07:33 --> 00:07:37: and it's, it's very obvious because we've done a little
00:07:37 --> 00:07:40: bit of research to, to take a look at where
00:07:40 --> 00:07:44: it's actually occurring, where, where the disconnect is occurring.
00:07:44 --> 00:07:48: So the Lincoln Institute of Land Policy, which is the
00:07:48 --> 00:07:51: organization I now work for, hired the Alliance for Water
00:07:51 --> 00:07:54: Efficiency at one point to do a study on looking
00:07:54 --> 00:07:57: at where, what the state experiences were in requiring the
00:07:57 --> 00:08:01: water professionals and the land use professionals to talk to
00:08:01 --> 00:08:02: each other.
00:08:02 --> 00:08:06: And what we found was, was kind of remarkable and,
00:08:06 --> 00:08:07: and sad actually.
00:08:08 --> 00:08:11: Only 9 states require that water utilities incorporate their land
00:08:11 --> 00:08:14: use, land use planning for the communities into their own
00:08:14 --> 00:08:15: water plans.
00:08:15 --> 00:08:18: There are different ways that they do it, but there
00:08:18 --> 00:08:21: are only 9 states that actually say that out loud
00:08:21 --> 00:08:22: in, in their legal requirements.
00:08:23 --> 00:08:27: 10 states require that community land use plans incorporate water
00:08:27 --> 00:08:30: utility plans or water quantity or water quality concerns.
00:08:31 --> 00:08:34: So that's a little better, but it's, it's that's from
00:08:34 --> 00:08:37: the other side looking in that the land use plans
00:08:37 --> 00:08:40: must take a look at what the utility plans currently

00:08:40 --> 00:08:40: say.
00:08:41 --> 00:08:45: Three states, and only three states provide by statute or
00:08:45 --> 00:08:49: regulation funding or technical assistance to help support and improve
00:08:49 --> 00:08:53: the coordination between water utilities and land use planners.
00:08:53 --> 00:08:55: And Colorado's a real star in in that area, but
00:08:55 --> 00:08:57: California and Maryland do it as well.
00:09:00 --> 00:09:03: There are 10 states, but five of them expressly mention
00:09:03 --> 00:09:07: water supply in the statutes or regulations to specify the
00:09:07 --> 00:09:09: required content of land use plans.
00:09:10 --> 00:09:12: So in other words, it does the, does the, the
00:09:12 --> 00:09:15: master plan require a land use element for water?
00:09:16 --> 00:09:19: And you know, is that something that is, is required
00:09:19 --> 00:09:20: across the board?
00:09:21 --> 00:09:24: And so it's, that's again, not a, a very large
00:09:24 --> 00:09:28: number of states that are doing any work in this
00:09:28 --> 00:09:28: area.
00:09:28 --> 00:09:32: And only 6 states require that water utilities coordinate directly
00:09:32 --> 00:09:35: with the land use planners and their communities and specify
00:09:35 --> 00:09:37: that they must have ongoing conversations.
00:09:37 --> 00:09:39: And there are the six states that require that.
00:09:40 --> 00:09:43: So there's a detailed study that's available from the Lincoln
00:09:43 --> 00:09:46: Institute and you'll get the presentation from Marianne and, and
00:09:46 --> 00:09:49: these links will be active in the, in the PDF,
00:09:49 --> 00:09:51: but you can download the full report and you can
00:09:51 --> 00:09:54: also get more information from the Lincoln Institute on a
00:09:54 --> 00:09:56: lot of these land use issues.
00:09:57 --> 00:09:59: So water neutral development.
00:09:59 --> 00:10:01: What, what, what is this all about?
00:10:02 --> 00:10:05: And, and as I was contemplating the target on my
00:10:05 --> 00:10:08: back from my water board experience of, of doing it,
00:10:08 --> 00:10:12: a single family home moratorium, we, I thought about water
00:10:12 --> 00:10:15: offsets because I was familiar with the town of Cambria.
00:10:16 --> 00:10:19: And you'll hear from Cambria in this presentation who had
00:10:19 --> 00:10:22: started doing water offsets because they didn't have enough water
00:10:22 --> 00:10:24: even for single family homes.
00:10:24 --> 00:10:26: So we got to thinking that maybe this is a
00:10:26 --> 00:10:29: topic that we should be exploring a lot further because
00:10:30 --> 00:10:33: a water offset can allow growth within a community without

00:10:33 --> 00:10:36: meaning that the system wide water consumption has to increase.

00:10:36 --> 00:10:40: It can stay flat and level across the service area

00:10:40 --> 00:10:43: of the water utility or the water supply service area

00:10:43 --> 00:10:47: because the offset from the development is it's it basically

00:10:47 --> 00:10:49: taking care of that new water use.

00:10:50 --> 00:10:52: And so it can be a combination of improved on

00:10:52 --> 00:10:55: site water efficiency, which reduces the amount of new water

00:10:56 --> 00:10:59: demand that would occur, and then off site water efficiency,

00:10:59 --> 00:11:01: which could provide additional offset credits.

00:11:02 --> 00:11:05: And by doing this, you can reduce or completely eliminate

00:11:06 --> 00:11:10: the impact of new development on the water supply constraints

00:11:10 --> 00:11:11: in a community.

00:11:11 --> 00:11:15: And most importantly, can help, you know, avoid building moratoriums

00:11:15 --> 00:11:19: and avoid the economic dislocations that come from building moratoriums

00:11:19 --> 00:11:22: where you're in a resource constrained area.

00:11:23 --> 00:11:26: So at the Alliance, we came up with a project

00:11:26 --> 00:11:27: that we called Netblue.

00:11:27 --> 00:11:30: We did get some funding from it for for it

00:11:30 --> 00:11:32: from the Sherman Foundation in New York.

00:11:32 --> 00:11:35: And it was a three-year project to take a look

00:11:35 --> 00:11:37: at where offsets currently existed.

00:11:37 --> 00:11:40: And so we looked at Santa Fe, you'll hear from

00:11:40 --> 00:11:40: them today.

00:11:40 --> 00:11:42: And we looked at Cambria and we looked at a

00:11:43 --> 00:11:46: number of other communities across the country and we wanted

00:11:46 --> 00:11:48: to come up with a, a tool, an, an ordinance

00:11:48 --> 00:11:51: tool that that could be used, It could be customized

00:11:51 --> 00:11:54: at the local level and an offset strategy that could

00:11:54 --> 00:11:57: help people calculate what those offsets could be composed of.

00:11:58 --> 00:11:59: And we have partners in this.

00:11:59 --> 00:12:02: In addition to the Alliance for Water Efficiency, we had

00:12:02 --> 00:12:04: the Environmental Law Institute, who did a lot of the

00:12:04 --> 00:12:07: legal work in constructing the ordinance and the Research and

00:12:07 --> 00:12:09: River Network who helped us a lot with the outreach.

00:12:10 --> 00:12:13: And we worked with seven different partner cities in the

00:12:13 --> 00:12:15: United States to vet the approach.

00:12:15 --> 00:12:17: It got some attention, as you can see from National

00:12:17 --> 00:12:21: Geographic, because this was something that we we hadn't been

00:12:21 --> 00:12:22: seeing on a national basis.

00:12:22 --> 00:12:25: We've been seeing offsets for air quality and for wetlands

00:12:25 --> 00:12:29: mitigation, but not for direct drinking water itself.

00:12:30 --> 00:12:32: So here were the partner communities that we worked with.

00:12:34 --> 00:12:38: Bozeman, San Francisco, Albuquerque and Austin were sort of western

00:12:38 --> 00:12:40: area states that we work with.

00:12:40 --> 00:12:43: But on the East Coast we and central part of

00:12:43 --> 00:12:46: the country, we work with Madison, WI, Acton, MA and

00:12:46 --> 00:12:48: Cobb County in Georgia.

00:12:48 --> 00:12:53: And we wanted very different communities, different hydrological characteristics, different

00:12:53 --> 00:12:57: legal constraints, different growth patterns so that we could show

00:12:57 --> 00:12:59: them what we were doing and have them give us

00:12:59 --> 00:13:02: some feedback on what they thought might work for them.

00:13:03 --> 00:13:05: And so we were very grateful to the partner communities

00:13:05 --> 00:13:07: for their help in that.

00:13:07 --> 00:13:09: And so at the end of the three-year.

00:13:09 --> 00:13:10: We launched the program.

00:13:10 --> 00:13:13: We called it Net Blue because we didn't think calling

00:13:13 --> 00:13:16: it Net 0 was such a good idea because Net

00:13:16 --> 00:13:19: 0 implies you might be off grid and we didn't

00:13:19 --> 00:13:21: want anybody to be off grid where there was a

00:13:21 --> 00:13:23: available water and sewer.

00:13:23 --> 00:13:26: We wanted connections, but we still wanted to manage the

00:13:26 --> 00:13:28: demand from those new connections.

00:13:29 --> 00:13:31: And so we decided to call it the Netblue program.

00:13:31 --> 00:13:34: And so there's a part of the Alliance for Water

00:13:34 --> 00:13:37: Efficiency website that talks all about the Netblue program and

00:13:37 --> 00:13:40: explains that the toolkit itself has seven different pieces in

00:13:40 --> 00:13:40: it.

00:13:41 --> 00:13:44: And you can request a toolkit from AWE.

00:13:44 --> 00:13:45: It's all free of charge.

00:13:45 --> 00:13:48: There's no cost connected with any of this, and with

00:13:48 --> 00:13:51: the tool kit, you'll get a model ordinance worksheet and

00:13:51 --> 00:13:53: I'll show you how that works.

00:13:53 --> 00:13:56: There's a user guide that goes along with it and

00:13:56 --> 00:13:58: helps explain what kinds of options to choose from.

00:13:59 --> 00:14:01: Then we give you 3 different examples of how the

00:14:01 --> 00:14:02: ordinance can be applied.
00:14:03 --> 00:14:07: Then we give you a offset methodology workbook, which is
00:14:07 --> 00:14:10: an Excel workbook spreadsheet and I'll show you some snapshots
00:14:10 --> 00:14:13: of that and then a user guide that shows you
00:14:13 --> 00:14:17: how to calculate those offsets and then three different offset
00:14:17 --> 00:14:20: examples that match the ordinate examples from #3 above.
00:14:20 --> 00:14:23: So we show you how that that all works in
00:14:24 --> 00:14:29: specific examples, you know, single communities or, you know, county
00:14:29 --> 00:14:30: applications or.
00:14:31 --> 00:14:33: And, and so we designed it so it can be
00:14:33 --> 00:14:36: applied to whatever the land use options are that are
00:14:36 --> 00:14:36: available.
00:14:37 --> 00:14:40: And then lastly, there are outreach materials that are available
00:14:40 --> 00:14:44: to help with, with the public discussions with the developer
00:14:44 --> 00:14:46: conversations and, and all of all of this in the
00:14:46 --> 00:14:48: toolkit is available free of charge.
00:14:49 --> 00:14:51: So real quickly, I just wanted to walk you through
00:14:51 --> 00:14:54: the pieces of the, the toolkit since again, this is
00:14:54 --> 00:14:56: completely free to anybody who wants to use it.
00:14:57 --> 00:15:01: The, the model ordinance is not a cookie cutter ordinance.
00:15:01 --> 00:15:03: It's actually a worksheet where you choose the kinds of
00:15:03 --> 00:15:06: options that are important for your community.
00:15:07 --> 00:15:09: So it, it deals with a variety of, of settings
00:15:09 --> 00:15:13: like the what, what legal constraints you might have in
00:15:13 --> 00:15:16: your community, what your governing structure is and, and what
00:15:16 --> 00:15:19: the entities are and what kind of enabling laws that
00:15:19 --> 00:15:22: you might have or need at the local level.
00:15:23 --> 00:15:25: And we know that there will be a number of
00:15:25 --> 00:15:28: people who will use this ordinance tool, not just lawyers,
00:15:28 --> 00:15:30: but developers might want to take a look at it.
00:15:30 --> 00:15:32: You know, planners are obviously going to take a look
00:15:32 --> 00:15:34: at it and and citizens will take a look at
00:15:34 --> 00:15:34: it as well.
00:15:35 --> 00:15:37: And so the tool can be used in as part
00:15:37 --> 00:15:40: of your outreach program because it really kind of explains
00:15:40 --> 00:15:43: why you would want to add this particular element to
00:15:43 --> 00:15:44: your ordinance.
00:15:44 --> 00:15:48: And it asks a series of questions because it's intended
00:15:48 --> 00:15:51: to help a community identify and think about what kinds

00:15:51 --> 00:15:54: of tools they need to address the critical issues in
00:15:54 --> 00:15:55: their own communities.
00:15:56 --> 00:16:01: So the ordinance has the following kinds of sections and
00:16:01 --> 00:16:05: their standard legal sections that are are addressed in every
00:16:05 --> 00:16:09: ordinance that's adopted at the local level.
00:16:09 --> 00:16:13: So you make sure that you withstand lawsuits because you
00:16:13 --> 00:16:16: have all the legal pieces that are necessary to justify
00:16:16 --> 00:16:17: its passage.
00:16:17 --> 00:16:21: So establishing a legal basis, you know what the ordinance
00:16:21 --> 00:16:24: conditions are, how it's going to be enforced, how the,
00:16:24 --> 00:16:27: the, the actual offset is going to be applied.
00:16:27 --> 00:16:28: There are different ways.
00:16:28 --> 00:16:31: It can be an offset credit bank, it can be
00:16:31 --> 00:16:33: an in lieu fee, it can be an administrative fee.
00:16:33 --> 00:16:37: It can be other types of modifications where the the
00:16:37 --> 00:16:40: developer and the utility work together to get the the
00:16:40 --> 00:16:44: offset implemented and then how it's going to be administered
00:16:44 --> 00:16:48: in terms of appeals, severability, effective date, etcetera.
00:16:48 --> 00:16:51: So all of those sections are in the ordinance and
00:16:51 --> 00:16:54: when you open it up, this is the purpose section.
00:16:54 --> 00:16:57: You can see that there are a number of different
00:16:57 --> 00:17:00: options here and you can check the ones that apply
00:17:00 --> 00:17:00: to you.
00:17:01 --> 00:17:04: Maybe you know, all of them will, maybe maybe all
00:17:04 --> 00:17:07: of them will, but you check which ones you want.
00:17:07 --> 00:17:10: Then when you get to the end, here's the last
00:17:10 --> 00:17:13: page, the effective date section, there's a little button that
00:17:13 --> 00:17:15: says press me or our programmer had a sense of
00:17:15 --> 00:17:16: humor, right?
00:17:17 --> 00:17:18: So it says press me.
00:17:18 --> 00:17:20: And when you press it, you get then a Word
00:17:20 --> 00:17:24: document that has everything you've checked formatted in a way
00:17:24 --> 00:17:26: that you can then, you know, send around for, for
00:17:26 --> 00:17:27: public review.
00:17:28 --> 00:17:31: So it's, it's really a, a worksheet tool for creating
00:17:31 --> 00:17:33: your own local ordinance.
00:17:34 --> 00:17:37: The offset methodology workbook is an Excel workbook that is
00:17:37 --> 00:17:39: on the same sort of principle.
00:17:39 --> 00:17:41: It, it gives you options for how you can construct
00:17:41 --> 00:17:44: an offset and gives you ideas for what the offset

00:17:44 --> 00:17:45: could be composed of.

00:17:46 --> 00:17:49: And there are many different ways to construct an offset.

00:17:49 --> 00:17:53: There are water conservation, water efficiency strategies that are listed

00:17:53 --> 00:17:54: in the, in the Excel file.

00:17:54 --> 00:17:59: There's a rainwater harvesting calculator, a stormwater capture calculator, if

00:17:59 --> 00:18:02: you want to use stormwater as, as part of your

00:18:02 --> 00:18:03: irrigation offset.

00:18:03 --> 00:18:06: And then there are other ways to create custom offsets

00:18:06 --> 00:18:09: and the, the tool that you do that as well.

00:18:09 --> 00:18:12: And then there's a worksheet that indicates, well, here are

00:18:12 --> 00:18:15: the ones I've selected and does it equal what I'm

00:18:15 --> 00:18:17: required to provide in terms of an offset.

00:18:17 --> 00:18:19: And then there are supplemental sheets.

00:18:19 --> 00:18:22: You know, you can find out if your community actually

00:18:22 --> 00:18:24: still has inefficient toilets that need to be replaced.

00:18:24 --> 00:18:28: And so we give you information that's that's fairly current

00:18:28 --> 00:18:33: about inefficient toilet stock that's available and, and what the

00:18:33 --> 00:18:36: housing data shows that bass and have bass are for

00:18:36 --> 00:18:38: the housing stock in your community.

00:18:40 --> 00:18:43: So here's here's what the offset strategy looks like.

00:18:43 --> 00:18:46: And you can see that in the column here where

00:18:46 --> 00:18:47: it says offset strategy.

00:18:48 --> 00:18:50: There's a list of all kinds of options that can

00:18:50 --> 00:18:51: be chosen.

00:18:51 --> 00:18:54: And we give you the actual samples.

00:18:55 --> 00:18:59: Example savings user can specify additional savings or or change

00:18:59 --> 00:19:03: the savings number if they wish and it gives a

00:19:03 --> 00:19:07: useful life for what the offset would be and ask

00:19:07 --> 00:19:10: you do you want to include it in your table

00:19:10 --> 00:19:10: or not.

00:19:11 --> 00:19:14: And in this particular example, what they're trying to offset

00:19:14 --> 00:19:17: is 500,000 gallons per year in that development, which is

00:19:17 --> 00:19:19: a projected new potable water demand.

00:19:20 --> 00:19:22: And so they have to come up with offsets to

00:19:22 --> 00:19:25: the equivalent for that if it's a 1 to 1

00:19:25 --> 00:19:26: offset requirement.

00:19:27 --> 00:19:31: So here's, here's the selected offsets table that shows that

00:19:31 --> 00:19:34: they they met their 100% of, of reaching that.

00:19:34 --> 00:19:36: And here were the options that they chose.

00:19:36 --> 00:19:39: And again, a lot of it was toilet replacements because

00:19:39 --> 00:19:41: those are fairly straightforward to do.

00:19:42 --> 00:19:46: Appliance retrofits are are pretty predictable, but there's also rainwater

00:19:46 --> 00:19:49: harvesting in there as well and a couple of of

00:19:50 --> 00:19:50: CI options.

00:19:51 --> 00:19:53: So this shows you how the the offsets table is

00:19:53 --> 00:19:57: is constructed and then this is what you would provide

00:19:57 --> 00:19:59: to the local land use entity to show that 100%

00:19:59 --> 00:20:02: of your projected new water use would offset.

00:20:03 --> 00:20:07: So here's an example from the Parker County Council where

00:20:07 --> 00:20:10: we made-up a community named for Parker County.

00:20:10 --> 00:20:13: And this is an example of a county government that

00:20:13 --> 00:20:17: that has an anticipated surface water shortage and is worried

00:20:17 --> 00:20:20: about future future demand and and inability to supply that.

00:20:20 --> 00:20:23: So they were going to require offsets of all site

00:20:23 --> 00:20:27: plan approval requests and compliance proof had to be required

00:20:27 --> 00:20:31: 90 days after the application would be approved but before

00:20:31 --> 00:20:34: you would get your certificate of occupancy and there would

00:20:34 --> 00:20:37: be monitoring required to validate those savings.

00:20:37 --> 00:20:40: They chose an offset amount of 100%, which is 1

00:20:40 --> 00:20:41: to 1.

00:20:41 --> 00:20:43: You can choose 50% point 5 to 1 or you

00:20:44 --> 00:20:47: can choose 200 percent 2:00 to 1:00 depending upon how

00:20:47 --> 00:20:49: serious your resource constraint is.

00:20:50 --> 00:20:53: They decided not to do an in lieu fee option,

00:20:53 --> 00:20:56: but to actually require that the the offset be implemented.

00:20:57 --> 00:21:00: So here were the offsets that were chosen that the

00:21:00 --> 00:21:03: new beer brewery was the applicant and they had a

00:21:04 --> 00:21:07: projected new annual water demand of of 1.75 million gallons

00:21:07 --> 00:21:08: a year.

00:21:08 --> 00:21:12: And so with a wide required offset amount of 100%,

00:21:12 --> 00:21:15: the offset has to equal 1.7 million gallons a year.

00:21:16 --> 00:21:19: So the offset strategy that's in this example would be

00:21:19 --> 00:21:23: on site rainwater harvesting project to flush toilets on in

00:21:23 --> 00:21:27: within the building itself and single family toilet replacements off

00:21:27 --> 00:21:27: site.

00:21:29 --> 00:21:32: And so the offset amount would be 100% of the

00:21:32 --> 00:21:36: toilet flushing with rainwater on site and then off site

00:21:36 --> 00:21:37: replacements.

00:21:37 --> 00:21:41: And then that would yield 330,000 excess gallons per year

00:21:41 --> 00:21:45: to be used as off site credit and would involve

00:21:45 --> 00:21:48: 129 single family toilet replacements.
00:21:48 --> 00:21:52: So that would be the offset that would allow that
00:21:52 --> 00:21:55: brewery to move forward on a on 100% offset requirement.
00:21:56 --> 00:21:59: So that's just an example just to show you how
00:21:59 --> 00:22:00: that might work.
00:22:00 --> 00:22:04: It's completely customizable for the community and the outreach materials
00:22:04 --> 00:22:07: that are available from the Alliance for Water Efficiency talk
00:22:07 --> 00:22:09: about how it's customizable.
00:22:09 --> 00:22:13: They're frequently asked questions and materials answer all of that.
00:22:14 --> 00:22:15: The outreach items are all online.
00:22:15 --> 00:22:19: You can download those, but the request for the toolkit
00:22:19 --> 00:22:23: you just write EWE and the simple e-mail is www.net
00:22:23 --> 00:22:26: dash blue dot org and that takes you to a
00:22:26 --> 00:22:30: place where you fill in that you would like the
00:22:30 --> 00:22:33: material sent to you and then it's sent to you.
00:22:34 --> 00:22:37: And the reason you don't download it directly is that
00:22:37 --> 00:22:39: those materials will be updated.
00:22:39 --> 00:22:41: I mean, at this point we probably need to update
00:22:41 --> 00:22:46: anyway the the efficient inefficient toilet estimator, because there has
00:22:46 --> 00:22:48: been, you know, activity since this was launched.
00:22:49 --> 00:22:52: And so everybody who gets a tool kit will automatically
00:22:52 --> 00:22:54: get any updates that are done on Netblue.
00:22:54 --> 00:22:56: And so that was the reason to set it up
00:22:56 --> 00:22:59: this way so that we had a record of who
00:22:59 --> 00:23:02: got the tool kit and who is actually actively using
00:23:02 --> 00:23:02: it.
00:23:03 --> 00:23:06: So I just want to conclude with just giving a
00:23:06 --> 00:23:09: promotion for the Water and Planning network.
00:23:10 --> 00:23:12: Bill Sesnick and I Co chair that it's a free
00:23:12 --> 00:23:16: network of water and land use professionals that was initially
00:23:16 --> 00:23:19: created by the American Planning Association, but we've been working
00:23:19 --> 00:23:22: with lots of other organizations since then.
00:23:22 --> 00:23:24: You don't have to be an APA member or a
00:23:24 --> 00:23:26: member of any organization to join it.
00:23:26 --> 00:23:28: You just send us an e-mail and you're part of
00:23:28 --> 00:23:28: the group.
00:23:29 --> 00:23:32: We have about 550 network members in the US and
00:23:32 --> 00:23:32: Canada.

00:23:33 --> 00:23:35: We do bimonthly newsletters, regular updates.
00:23:35 --> 00:23:38: We have a webinar next Friday on the issues on
00:23:38 --> 00:23:40: maintaining green infrastructure.
00:23:41 --> 00:23:43: So please sign up and we'd love to have you
00:23:43 --> 00:23:43: join that.
00:23:44 --> 00:23:46: And all you have to do is e-mail water at
00:23:46 --> 00:23:49: planning.org and then you'll get an e-mail from me saying
00:23:49 --> 00:23:49: welcome.
00:23:51 --> 00:23:53: So we'd love to have you be part of this
00:23:53 --> 00:23:56: because I think the work that the Urban Land Institute
00:23:56 --> 00:23:58: is doing as well as a lot of the other
00:23:58 --> 00:24:02: organizations is, is helping to promote a better connection between
00:24:02 --> 00:24:06: land use planners and water resource planners, because that's been
00:24:06 --> 00:24:08: lacking for, for way too long.
00:24:10 --> 00:24:13: So here's my contact information, my my new e-mail.
00:24:13 --> 00:24:16: And thank you, Marianne for inviting me.
00:24:17 --> 00:24:18: Thank you so much, Marianne.
00:24:18 --> 00:24:19: This is so exciting to hear.
00:24:19 --> 00:24:22: And I just want to say Netblue was a real
00:24:22 --> 00:24:25: inspiration to you and I when we set about working
00:24:25 --> 00:24:26: on our Water Wise initiative.
00:24:26 --> 00:24:28: So thank you for all the work that you've done
00:24:28 --> 00:24:29: in this space.
00:24:30 --> 00:24:34: It does seem like Netblue is more municipality focused so.
00:24:34 --> 00:24:35: County.
00:24:35 --> 00:24:36: That's why I gave the county example.
00:24:36 --> 00:24:37: It can be.
00:24:38 --> 00:24:39: Totally.
00:24:39 --> 00:24:42: So I just wanted to pitch to the group that
00:24:42 --> 00:24:45: if you're in the private sector and also want some
00:24:45 --> 00:24:48: guidance in order to meet those types of rules and
00:24:48 --> 00:24:52: regulations that are coming down the Pike from municipalities and
00:24:52 --> 00:24:53: counties and states.
00:24:54 --> 00:24:56: I'm putting in the chat box the link to our
00:24:56 --> 00:24:57: Water Wise report.
00:24:57 --> 00:25:00: And this is all about providing guidance to more private
00:25:00 --> 00:25:03: sector people to how to implement this stuff into your
00:25:03 --> 00:25:03: projects.
00:25:04 --> 00:25:08: We do want to have questions and answers for each
00:25:08 --> 00:25:08: speaker.

00:25:08 --> 00:25:12: But since Marianne had a longer presentation, if you don't
00:25:12 --> 00:25:16: mind putting your questions for her in the chat box,
00:25:16 --> 00:25:18: Marianne, do you mind responding?
00:25:18 --> 00:25:19: To That's fine, we're happy to do that.
00:25:20 --> 00:25:22: And then maybe we'll have time at the end for
00:25:22 --> 00:25:23: a group Q&A.
00:25:24 --> 00:25:25: OK, great.
00:25:25 --> 00:25:28: Dana has a question already in the chat box.
00:25:28 --> 00:25:29: Marianne, if you want to take a.
00:25:29 --> 00:25:29: Look at that.
00:25:29 --> 00:25:30: OK, take a look.
00:25:31 --> 00:25:32: OK, great.
00:25:32 --> 00:25:36: Our next speaker is Tristan Reaper from Cambria, CA.
00:25:38 --> 00:25:39: Good afternoon.
00:25:39 --> 00:25:40: Thank you all for having me.
00:25:40 --> 00:25:46: Let me share my screen here and you guys all
00:25:46 --> 00:25:48: see that.
00:25:49 --> 00:25:50: All right, that's great.
00:25:52 --> 00:25:52: Good afternoon.
00:25:52 --> 00:25:53: I'm Tristan Reaper.
00:25:53 --> 00:25:56: I'm the program manager for the Utilities and Engineering department
00:25:56 --> 00:25:59: at the Cambria Community Services District, and I manage, among
00:25:59 --> 00:26:01: other things, the water conservation program.
00:26:02 --> 00:26:05: So a little bit of background on us, We are
00:26:05 --> 00:26:11: located in the Central Coast of California, about midway between
00:26:11 --> 00:26:14: Los Angeles and San Francisco.
00:26:15 --> 00:26:17: I put this in here just to illustrate how we're
00:26:17 --> 00:26:19: kind of kind of off on our own a little
00:26:19 --> 00:26:19: bit.
00:26:19 --> 00:26:23: We're not the opportunity to intertie to the larger system
00:26:24 --> 00:26:27: water system in San Lucifer County is somewhat limited.
00:26:29 --> 00:26:31: We experience a Mediterranean climate.
00:26:31 --> 00:26:36: We got a relatively brief, sometimes relatively intense winter period
00:26:37 --> 00:26:41: and then a long dry period throughout the summer and
00:26:41 --> 00:26:41: fall.
00:26:43 --> 00:26:46: Just a little bit on our water supply reliability.
00:26:47 --> 00:26:50: Just to give a little more background information, in the
00:26:50 --> 00:26:53: last couple of years we've diverted in the low 500
00:26:53 --> 00:26:54: acre foot a year.

00:26:54 --> 00:26:57: So it's in the grand scheme of things pretty small.

00:26:58 --> 00:27:01: We have two main aquifers we draw from with a

00:27:01 --> 00:27:03: well filled each aquifer.

00:27:04 --> 00:27:08: The walkers themselves are relatively small, relatively constrained.

00:27:09 --> 00:27:10: We're lucky that they refill every year.

00:27:11 --> 00:27:15: However, about on every about every 20 years we get

00:27:15 --> 00:27:19: one year with incomplete recharge, which is the release to

00:27:19 --> 00:27:22: the our water reliability supply reliability issues.

00:27:26 --> 00:27:28: So this gives an idea of our, our, our service

00:27:28 --> 00:27:29: area.

00:27:31 --> 00:27:32: So just a little bit a bit about us.

00:27:32 --> 00:27:34: We're a California special district.

00:27:34 --> 00:27:38: We provide water and sewer service, Fire Protection, Rexy's collection,

00:27:38 --> 00:27:39: a small amount of St.

00:27:39 --> 00:27:41: lighting and some parks, recreation, open space management.

00:27:42 --> 00:27:46: An important consideration for us is that we're located in

00:27:46 --> 00:27:49: a urban wildlife interface and part of our community is

00:27:49 --> 00:27:52: located inside a native Monterey pine forest.

00:27:55 --> 00:27:58: So just a little bit of background on the land

00:27:58 --> 00:28:01: use that kind of drives the the how we how

00:28:01 --> 00:28:02: we do things.

00:28:03 --> 00:28:04: We're a part of San Francisco County.

00:28:04 --> 00:28:07: They are the land use authority.

00:28:09 --> 00:28:11: And though we do not have land use authority, we

00:28:11 --> 00:28:14: have an influence development obviously as our authority is the

00:28:14 --> 00:28:16: water and sewer service and Fire Protection providers.

00:28:17 --> 00:28:23: The California Coastal Commission also has jurisdiction over our entire

00:28:23 --> 00:28:27: service area and they any land use decision made by

00:28:27 --> 00:28:29: Saint Louis, St.

00:28:29 --> 00:28:32: Louis Obispo County can be appealed by the to the

00:28:32 --> 00:28:36: Coastal Commission for an additional hearing and either approval or

00:28:36 --> 00:28:37: denial.

00:28:37 --> 00:28:39: And this will be important later on.

00:28:41 --> 00:28:44: So we have had a moratorium on all new water

00:28:44 --> 00:28:47: connections since November of 2001.

00:28:48 --> 00:28:50: So this I mean effectively halted development.

00:28:50 --> 00:28:53: They were projects going on at the time that we're

00:28:53 --> 00:28:58: allowed to continue and those projects were required to use
00:28:58 --> 00:29:02: retrofit or could continue the retrofit to build program that
00:29:02 --> 00:29:04: it was already in place.
00:29:05 --> 00:29:07: Despite the moratorium, we do allow a limited amount of
00:29:07 --> 00:29:08: development.
00:29:08 --> 00:29:09: We allow tear downs and rebuilds.
00:29:09 --> 00:29:12: We allow active service transfers so you can tear a
00:29:12 --> 00:29:15: house down to one location, move it to another location
00:29:15 --> 00:29:17: within town and then rebuild.
00:29:17 --> 00:29:20: We allow remodels and there have been a limited number
00:29:20 --> 00:29:23: of public use buildings that have been constructed since the
00:29:23 --> 00:29:24: moratorium.
00:29:26 --> 00:29:29: So this the the our water wise development practices.
00:29:46 --> 00:29:48: So the the points and the points bank system.
00:29:49 --> 00:29:52: It was great to hear kind of before this presentation
00:29:52 --> 00:29:56: started a little bit of the background and how Cambria's
00:29:56 --> 00:29:59: model was kind of a little bit of an inspiration
00:29:59 --> 00:30:03: for creating this kind of water offset demand system.
00:30:04 --> 00:30:07: We've had a version in place of this since about
00:30:07 --> 00:30:08: 1989.
00:30:08 --> 00:30:11: So the late 1980s it wasn't, it was definitely it's
00:30:11 --> 00:30:15: methodology was called into question at times.
00:30:15 --> 00:30:19: And so that resulted in an update in 2013.
00:30:20 --> 00:30:24: Our system allows either direct retrofits or you can pay
00:30:24 --> 00:30:27: in lieu fees and the fees would be used by
00:30:27 --> 00:30:31: the CCC to retrofit properties and add points back to
00:30:31 --> 00:30:33: the points bank.
00:30:37 --> 00:30:40: The the purchase of in lieu fees is something that
00:30:40 --> 00:30:44: will be subject to approval by the by the board
00:30:44 --> 00:30:47: of directors and then again, retrofit points will be added
00:30:48 --> 00:30:51: back to the bank when retrofits were completed either upon
00:30:52 --> 00:30:54: resale, expansion of use or remodels.
00:30:56 --> 00:30:59: So I was looking through and again, it has, it
00:30:59 --> 00:31:03: hasn't been minimally utilized since the 2013 update and this
00:31:03 --> 00:31:06: has largely been due to the book Commission of the
00:31:06 --> 00:31:10: moratorium and the pressure of the Coastal Commission on new
00:31:10 --> 00:31:11: development.
00:31:12 --> 00:31:14: There's a couple of examples here.
00:31:14 --> 00:31:17: We did have an affordable housing project go through which
00:31:17 --> 00:31:20: the Coastal Commission approved, but we believe their approval was

00:31:20 --> 00:31:23: due to the project being an affordable housing project and
00:31:23 --> 00:31:26: therefore exempt from resource constraints considerations.
00:31:28 --> 00:31:32: In 2019, a private resident a used the retrofit point
00:31:32 --> 00:31:34: system to attempt to build a residence.
00:31:35 --> 00:31:37: It was approved by San Luis Visible County.
00:31:38 --> 00:31:40: The Coastal Commission did not approve it.
00:31:45 --> 00:31:46: So then a little bit more about the other water
00:31:46 --> 00:31:49: stuff we have, conservation stuff we have going on.
00:31:50 --> 00:31:54: Our water code a little more strict than the Calgreen
00:31:54 --> 00:31:57: code with bathroom faucets being limited to .5 where Calgreen
00:31:57 --> 00:32:00: allows up to I think it's even 2.2 gallons per
00:32:00 --> 00:32:01: minute.
00:32:03 --> 00:32:03: Yeah.
00:32:03 --> 00:32:06: And so we've done a lot of work to try
00:32:06 --> 00:32:09: to retrofit the properties to these new standards.
00:32:09 --> 00:32:12: It can sometimes cause problems because the contractors might not
00:32:12 --> 00:32:15: realize that our standards are more strict than Calgary.
00:32:15 --> 00:32:18: So they go install all new faucets and now we
00:32:18 --> 00:32:20: have to tell them, oh by the way, you have
00:32:20 --> 00:32:24: to modify those new faucets you just installed so they
00:32:24 --> 00:32:25: meet our flow requirements.
00:32:30 --> 00:32:33: So again we have also have a retrofit upon resale
00:32:33 --> 00:32:35: remodeling, expansion of use program.
00:32:36 --> 00:32:38: This was a way of kind of reducing water use
00:32:39 --> 00:32:42: whether there was going to be development or not.
00:32:43 --> 00:32:46: Properties must verify that the fixtures meet their current code.
00:32:46 --> 00:32:49: This is inspection done by a plumber who then attest
00:32:49 --> 00:32:52: to the fact that those retrofits were performed and then
00:32:52 --> 00:32:55: the water the savings would be added to the to
00:32:55 --> 00:32:56: the points bank.
00:32:59 --> 00:33:02: The other requirement we have to kind of minimize our
00:33:02 --> 00:33:06: water, our water impact is the requirement for properties with
00:33:06 --> 00:33:09: with a a lot size of greater than 8000 square
00:33:09 --> 00:33:09: feet.
00:33:11 --> 00:33:13: They must install a rainwater cistern.
00:33:13 --> 00:33:17: The minimum size for that cistern will be 3000 gallons
00:33:17 --> 00:33:20: and it must have an attached distribution system so that
00:33:20 --> 00:33:23: that water can be used for irrigation.
00:33:23 --> 00:33:28: We don't have any provisions allowing indoor use of that
00:33:28 --> 00:33:30: water at the at this time.

00:33:35 --> 00:33:36: And this has had kind of a limited effect.
00:33:36 --> 00:33:38: Most of the lots in Cambria are on the smaller
00:33:38 --> 00:33:38: side.
00:33:38 --> 00:33:41: There's usually quite a bit smaller than 8000 square feet.
00:33:41 --> 00:33:44: So there haven't been a lot of citions installed under
00:33:44 --> 00:33:44: this program.
00:33:46 --> 00:33:48: So I guess a couple of takeaways.
00:33:48 --> 00:33:51: The points bank was a was kind of a after
00:33:51 --> 00:33:54: the moratorium was visualized as a way of maybe development
00:33:54 --> 00:33:57: could continue despite the moratorium by offsetting water use.
00:33:58 --> 00:34:03: However, the Coastal Commission and the the resource constraint issues
00:34:03 --> 00:34:07: of Cambridge Water supply have that that has really not
00:34:07 --> 00:34:08: been the case.
00:34:08 --> 00:34:12: The Coastal Commission does not view it as a vital
00:34:12 --> 00:34:15: means of reducing water demand and they they made that
00:34:15 --> 00:34:19: statement very clear in the staff report for the the
00:34:19 --> 00:34:22: book out Singapore residents when they stated the CCS CS
00:34:22 --> 00:34:26: program does not appear to actually offset water use and
00:34:26 --> 00:34:31: applicants participation will have no discernible effect on the above
00:34:31 --> 00:34:32: water supply.
00:34:32 --> 00:34:36: This is in reference to the the act the realities
00:34:36 --> 00:34:39: of Cambria's constrained water supply.
00:34:44 --> 00:34:48: So as you imagine, there haven't been many takers of
00:34:48 --> 00:34:51: the of you trying to use our retrofit point system
00:34:51 --> 00:34:54: because nobody wants to pay money and time and go
00:34:54 --> 00:34:58: through the whole retrofit process only to have their project
00:34:58 --> 00:35:02: denied when it came to the to the Coastal Commission.
00:35:04 --> 00:35:06: And so with that, I'm open for questions.
00:35:10 --> 00:35:10: Thank you so much.
00:35:10 --> 00:35:14: Tristan, I'm just going to start with the question I
00:35:14 --> 00:35:17: think might be on many people's minds of what did,
00:35:17 --> 00:35:21: did the Coastal Commission have data to come to that
00:35:21 --> 00:35:25: decision or what was what was the reasoning behind that,
00:35:25 --> 00:35:26: that decision?
00:35:30 --> 00:35:34: Sort of you know, we still haven't seen the really
00:35:34 --> 00:35:37: concrete data that they have yet to provide on, on
00:35:38 --> 00:35:40: why they've come to this decision.
00:35:41 --> 00:35:44: They to be fair our with water withdrawals used to
00:35:44 --> 00:35:45: be a lot more.

00:35:46 --> 00:35:49: There was I think the highest was 799 acre feet.
00:35:49 --> 00:35:51: So we've come down quite a bit since then.
00:35:51 --> 00:35:54: The drought of 20/13/2015 was a big driver.
00:35:55 --> 00:35:58: I think we'd, we'd reduced our demand 40% in that
00:35:58 --> 00:35:59: year alone.
00:36:01 --> 00:36:03: So I don't know if there's, there hasn't been much
00:36:03 --> 00:36:05: of A re evaluation of that stance since then.
00:36:06 --> 00:36:09: They're basing a lot of it on a in stream
00:36:09 --> 00:36:13: flow assessment that was performed actually during that drought.
00:36:14 --> 00:36:17: That then kind of demonstrate, Oh well, we, there isn't
00:36:17 --> 00:36:20: sufficient water to provide for the environment and for the
00:36:21 --> 00:36:24: people and you have this kind of just reliability issue.
00:36:24 --> 00:36:27: And at the, again, at the time we what Cambria
00:36:27 --> 00:36:29: was using significantly more.
00:36:29 --> 00:36:32: We had a year the 20/13/2014 when there when the
00:36:32 --> 00:36:34: aquifers did not completely recharge.
00:36:34 --> 00:36:37: And so there was the very real chance that Cambria
00:36:37 --> 00:36:38: would have actually run out of water.
00:36:38 --> 00:36:40: And so that I feel like that's a lot of
00:36:40 --> 00:36:42: what they're basing that decision on.
00:36:45 --> 00:36:46: Thank you.
00:36:47 --> 00:36:50: Looks like Jay Alstrom had a similar question to what
00:36:50 --> 00:36:52: I just asked and Randall Hanson has a question.
00:36:52 --> 00:36:54: Randall, do you want to unmute and ask?
00:36:56 --> 00:36:57: Sure.
00:36:57 --> 00:37:01: I was just wondering what your requirements are for Sigma
00:37:01 --> 00:37:05: and whether you've developed AGSA with respect to the Bullet
00:37:05 --> 00:37:08: 118 designations in your area?
00:37:08 --> 00:37:11: And are you using any kind of an integrated hydrologic
00:37:11 --> 00:37:15: model to assess the entire hydrologic cycle in your area?
00:37:18 --> 00:37:21: You know, we haven't, we are in the process of
00:37:21 --> 00:37:25: getting a regular coastal development permit for our advanced water
00:37:25 --> 00:37:26: treatment facility.
00:37:27 --> 00:37:30: And as part of that we developed a hydrologic model
00:37:30 --> 00:37:33: to kind of show what the effect of that was
00:37:33 --> 00:37:35: going to be on the on the groundwater.
00:37:36 --> 00:37:40: But we haven't had like a really comprehensive one done
00:37:40 --> 00:37:41: to my knowledge.
00:37:45 --> 00:37:47: So you were not required to to form AGSA or
00:37:47 --> 00:37:49: anything under Sigma at all.

00:37:49 --> 00:37:51: Do you have some exemption to that?
00:37:52 --> 00:37:55: I think it's, I think it has to do with
00:37:55 --> 00:37:58: the fact that our groundwater levels are stable like year
00:37:58 --> 00:38:01: like at year over year like we're not at the
00:38:01 --> 00:38:04: because of the aquifer recharge occurs every year.
00:38:05 --> 00:38:09: We haven't had to be regulated under Sigma.
00:38:09 --> 00:38:12: I know there is a like basement management plans and
00:38:12 --> 00:38:16: a little bit a certain amount of coordination between US
00:38:16 --> 00:38:20: and the agricultural users just like not quite that hasn't
00:38:20 --> 00:38:22: gotten quite to the formality of of Sigma.
00:38:26 --> 00:38:27: OK, thanks.
00:38:29 --> 00:38:31: Dave Elstrom, do you want to follow up on your
00:38:31 --> 00:38:31: question?
00:38:34 --> 00:38:36: No, you asked exactly what I was going to ask,
00:38:36 --> 00:38:36: so thank you.
00:38:39 --> 00:38:41: Any other questions for Tristan?
00:38:44 --> 00:38:46: OK, I'm not seeing any right now.
00:38:46 --> 00:38:47: So if you if they occur to you later, please
00:38:48 --> 00:38:50: put them in the chat box and Tristan can address
00:38:50 --> 00:38:50: them directly.
00:38:50 --> 00:38:52: Thank you so much, Tristan.
00:38:52 --> 00:38:53: Thank you for having me.
00:38:53 --> 00:38:57: Our next speaker is Rachel Belisle Toller.
00:38:57 --> 00:38:59: I hope I'm saying that correctly, but you can correct
00:38:59 --> 00:38:59: me if I'm wrong.
00:38:59 --> 00:39:03: Rachel from Ipswich, Massachusetts.
00:39:03 --> 00:39:03: Go ahead, Rachel.
00:39:05 --> 00:39:06: Hello everybody.
00:39:07 --> 00:39:08: Good afternoon.
00:39:09 --> 00:39:16: Just going to share my screen and OK, can everybody
00:39:16 --> 00:39:17: see that?
00:39:17 --> 00:39:17: Everything good?
00:39:19 --> 00:39:19: Excellent.
00:39:21 --> 00:39:24: Such a pleasure to be here with you all virtually
00:39:24 --> 00:39:26: today across the country.
00:39:28 --> 00:39:29: My name is Rachel Lyle Toller.
00:39:29 --> 00:39:31: You said that perfectly.
00:39:31 --> 00:39:35: And I am the water Resources Manager in Ipswich, Massachusetts,
00:39:35 --> 00:39:38: a tiny little town in Northeast Massachusetts.
00:39:39 --> 00:39:43: And my role for the utilities department here is lots
00:39:43 --> 00:39:49: of different things, but primarily thinking creatively about our

efficiency

00:39:49 --> 00:39:55: programs, our outreach, education, science communication, how to make our

00:39:55 --> 00:40:01: infrastructure projects participatory, how to help manage developments and also

00:40:01 --> 00:40:05: research and confront threats to our water supply.

00:40:06 --> 00:40:10: If you don't know anything about Ipswich, Massachusetts, it's again,

00:40:10 --> 00:40:14: tiny little town, just under 14,000 folks living in Ipswich.

00:40:15 --> 00:40:19: And although we're small, we are on the commuter rail

00:40:19 --> 00:40:21: train line to to Boston.

00:40:21 --> 00:40:26: And so there's been several statewide initiatives to really promote

00:40:26 --> 00:40:31: zoning changes that would allow for affordable housing and multi

00:40:31 --> 00:40:35: family housing in general that are close to those areas

00:40:35 --> 00:40:37: of transportation.

00:40:38 --> 00:40:42: Because of that, development is a really hot topic in

00:40:42 --> 00:40:46: our community, in addition to the fact that we have

00:40:46 --> 00:40:50: been struggling with our supply due to the historic droughts

00:40:50 --> 00:40:52: that we've been having.

00:40:52 --> 00:40:55: No, I know you don't think droughts when you think

00:40:55 --> 00:40:59: of Massachusetts, but for whatever reason, our little town does

00:40:59 --> 00:41:03: not get the adequate weather patterns needed to recharge our

00:41:03 --> 00:41:04: supplies.

00:41:04 --> 00:41:06: We rely on two different river basins.

00:41:07 --> 00:41:11: We have two reservoirs and five wells and we have

00:41:11 --> 00:41:16: repeatedly, more so than a lot of surrounding communities, in

00:41:16 --> 00:41:21: fact really struggled with having adequate water in a water

00:41:21 --> 00:41:22: ban right now actually.

00:41:23 --> 00:41:27: So development being a hot topic politically in our area

00:41:27 --> 00:41:32: and also environmentally, the town has charged me with trying

00:41:32 --> 00:41:36: to respond with what we call our water use mitigation

00:41:36 --> 00:41:41: program or our lump, but I'm still workshopping that name.

00:41:41 --> 00:41:44: I don't think it's going to stay that way because

00:41:44 --> 00:41:47: it's not the not the catchiest name, but a WAMP

00:41:47 --> 00:41:51: is very similar to your traditional water bank program.

00:41:52 --> 00:41:56: When a new development goes through the permitting process, it

00:41:56 --> 00:42:01: gets triggered to us and residential and commercial projects need

00:42:01 --> 00:42:05: to pay a fee that goes into balancing and mitigating
00:42:05 --> 00:42:06: the water supply.
00:42:07 --> 00:42:09: So that happens in a couple of different ways.
00:42:09 --> 00:42:12: It funds part of my salary and it also funds
00:42:12 --> 00:42:16: a lot of the outreach programs and educational programs that
00:42:16 --> 00:42:19: I'll get a little bit more into in a minute.
00:42:19 --> 00:42:22: So we are again a small town.
00:42:22 --> 00:42:26: So I know these numbers might not be super shocking
00:42:26 --> 00:42:29: to you, but our one since it was just implemented
00:42:29 --> 00:42:32: a few years ago has generated just under 300,000.
00:42:33 --> 00:42:36: We don't actually have a ton of new, massive new
00:42:36 --> 00:42:38: development projects in Ipswich.
00:42:39 --> 00:42:41: Like I said, they're really quite controversial.
00:42:41 --> 00:42:44: And so it's a very long process and the community
00:42:44 --> 00:42:46: is really involved.
00:42:46 --> 00:42:49: The majority of lumps that I see and improve on
00:42:49 --> 00:42:54: the residential side are really single family homes being built
00:42:54 --> 00:42:57: or remodeled to include additional bedrooms.
00:42:57 --> 00:43:00: And so I can sort of explain to you what
00:43:00 --> 00:43:01: that looks like.
00:43:02 --> 00:43:07: We charge developers $1500 per additional bedroom, whether it's a
00:43:07 --> 00:43:09: new build or a remodel.
00:43:10 --> 00:43:13: And then on the commercial side, we charge based on
00:43:13 --> 00:43:17: our Title 5 here in Massachusetts, which governs law about
00:43:17 --> 00:43:21: septic use and includes projections for gallons per day for
00:43:21 --> 00:43:25: different types of commercial establishments.
00:43:25 --> 00:43:29: So we have some commercial presence in Ipswich, not a
00:43:29 --> 00:43:33: ton of new commercial development going on.
00:43:34 --> 00:43:37: We do have a significant, relatively significant amount of agriculture,
00:43:37 --> 00:43:39: which could be completely different presentation.
00:43:40 --> 00:43:43: But the best example I can give would be maybe
00:43:43 --> 00:43:47: a new restaurant going in downtown and that's typically, depending
00:43:47 --> 00:43:50: on the size of the restaurant, going to be between
00:43:50 --> 00:43:51: 3:00 and $5000.
00:43:51 --> 00:43:53: So it looks like a big number, but not a
00:43:53 --> 00:43:57: massive price tag compared to the other fees associated with
00:43:57 --> 00:43:57: development.
00:43:58 --> 00:44:00: And I'll talk a little bit about how we work
00:44:00 --> 00:44:02: with developers a little bit later.
00:44:02 --> 00:44:06: The way that I conceptualize our water use mitigation

program

00:44:07 --> 00:44:10: and all of the rebates also that you may have

00:44:10 --> 00:44:13: seen on the last slide that we also offer in

00:44:13 --> 00:44:17: conjunction with that for Watersense labeled products is this whole

00:44:17 --> 00:44:23: philosophy of mitigating for programming and through funding modernizing through

00:44:23 --> 00:44:27: trying to encourage developers even when they're not adding a

00:44:27 --> 00:44:28: bedroom.

00:44:28 --> 00:44:31: If I get a permit coming through the system where

00:44:31 --> 00:44:35: there's plumbing work going on, any kitchen renovations or bathroom

00:44:35 --> 00:44:39: renovations, I give that plumber a call or give the

00:44:39 --> 00:44:41: the developer a call and say did you know there

00:44:42 --> 00:44:45: are some options to consider for what are since label

00:44:45 --> 00:44:49: projects, products that are partially refunded by our department and

00:44:49 --> 00:44:51: to measure we do use AMI in Ipswich.

00:44:51 --> 00:44:55: I am working really hard to sort of move that

00:44:55 --> 00:44:59: towards more of the cutting edge on demand metering technology.

00:45:00 --> 00:45:03: We're sort of in the very beginning stages of exploring

00:45:03 --> 00:45:06: that data is power and we really want our customers

00:45:06 --> 00:45:09: to make sure that they have that power of being

00:45:09 --> 00:45:11: able to track their use.

00:45:11 --> 00:45:16: And that's a very well supported method of of reducing

00:45:16 --> 00:45:19: residential consumption.

00:45:19 --> 00:45:22: So we're eager to explore that more and additionally exploring

00:45:22 --> 00:45:24: the things that we're not metering.

00:45:24 --> 00:45:27: As you know, the data that we collect only tells

00:45:27 --> 00:45:31: part of the story and it's only telling the story

00:45:31 --> 00:45:35: of our connections and certainly not the other folks who

00:45:35 --> 00:45:38: exist in our town who may not be having the

00:45:38 --> 00:45:41: meter run through and measure that for us.

00:45:41 --> 00:45:43: So that's a really big part of what I do

00:45:43 --> 00:45:44: as well.

00:45:45 --> 00:45:47: So why whomp?

00:45:47 --> 00:45:51: Besides the fact that it is what we think a

00:45:51 --> 00:45:56: really important response to the values of our community saying

00:45:56 --> 00:46:01: that they are very concerned about development in Ipswich, We

00:46:01 --> 00:46:04: also have data to suggest that it really works.

00:46:05 --> 00:46:10: Even though Ipswich's population has gone up slightly but steadily

00:46:10 --> 00:46:16: throughout the years, consistently our water use on the residential

00:46:16 --> 00:46:19: side and total has gone down overall.

00:46:19 --> 00:46:21: So we're really, really proud of that.

00:46:22 --> 00:46:27: Our residential gallon per per capita per day is about

00:46:28 --> 00:46:29: 41 this year.

00:46:30 --> 00:46:34: And in general, for total consumption, based on the connections

00:46:34 --> 00:46:37: that we have, we do see a downward trend even

00:46:37 --> 00:46:39: as growth is happening.

00:46:39 --> 00:46:42: So we we see this as a as partially contributing

00:46:42 --> 00:46:46: to that effective response to concerns about developments.

00:46:47 --> 00:46:49: And it also helps us shift the narrative, which is

00:46:49 --> 00:46:51: something that's really important to me.

00:46:52 --> 00:46:55: If you've seen me talk about this before, I apologize

00:46:55 --> 00:46:56: for going on the spiel again.

00:46:56 --> 00:47:00: But when we're talking about concerns about development, it's a

00:47:00 --> 00:47:03: very easy get to get to this place of scarcity

00:47:03 --> 00:47:03: panic.

00:47:03 --> 00:47:07: And we really believe that this sort of effective measure,

00:47:07 --> 00:47:12: you can shift the narrative to abundancy through efficiency, abundance

00:47:12 --> 00:47:15: of water, not scarcity, not that there's not enough for

00:47:15 --> 00:47:20: you, but with the right stewardship, with the right practices,

00:47:20 --> 00:47:23: there's enough for everybody to A to a point, certainly

00:47:23 --> 00:47:25: at a sustainable rates.

00:47:25 --> 00:47:28: And we really think that the lump supports that theory

00:47:28 --> 00:47:30: and supports shifting that narrative.

00:47:33 --> 00:47:35: So this is just a couple graphs to show you

00:47:35 --> 00:47:37: that our consumptions going down.

00:47:37 --> 00:47:41: We're really proud of this figure here.

00:47:41 --> 00:47:45: I'm having in 2022 actually as low as 40 gallons

00:47:45 --> 00:47:49: of per capita per day on the residential side.

00:47:51 --> 00:47:56: Additionally, the lump allows utilities to have the capacity to

00:47:57 --> 00:48:02: dedicate staff time to community engagements and community education.

00:48:04 --> 00:48:07: Science communication, I think is more important than ever.

00:48:07 --> 00:48:11: And doing so in a participatory way that is community

00:48:11 --> 00:48:15: based, that is spending time in person as a representative

00:48:15 --> 00:48:18: of your, your utility with people goes along with this
00:48:19 --> 00:48:20: narrative shift.
00:48:20 --> 00:48:24: But in my opinion and experience, very, very, very crucial
00:48:24 --> 00:48:30: to an effective reciprocal conversation about conservation and inefficiency and
00:48:30 --> 00:48:33: behavior around water usage in your community.
00:48:34 --> 00:48:37: This is a very value driven effort.
00:48:38 --> 00:48:40: We spend a lot of time with our youth in
00:48:40 --> 00:48:40: town.
00:48:40 --> 00:48:43: We spend a lot of time with our seniors, with
00:48:43 --> 00:48:44: our Housing Authority.
00:48:44 --> 00:48:47: I part of the reason I've been able to have
00:48:47 --> 00:48:51: some success with this approach is because of our incredible
00:48:51 --> 00:48:51: partners.
00:48:51 --> 00:48:54: I see there's a couple of representatives on the call
00:48:54 --> 00:48:58: today from Massachusetts Department of Conservation, Recreation, the Office of
00:48:58 --> 00:48:59: Water Resources.
00:48:59 --> 00:49:03: Having state agencies supportive of what I've been doing and
00:49:03 --> 00:49:07: partnering with them on what they've been doing has been
00:49:07 --> 00:49:11: absolutely central to being able to roll out successful community
00:49:11 --> 00:49:16: engagement and making sure that our residents feel that government
00:49:16 --> 00:49:20: on multiple scales is really, really responding and therefore their
00:49:20 --> 00:49:21: concerns.
00:49:21 --> 00:49:25: So just a couple snapshots of the stuff that we
00:49:25 --> 00:49:30: do, lots of different education about water and wastewater infrastructure,
00:49:30 --> 00:49:32: about native plants.
00:49:32 --> 00:49:36: If you don't know about mass.gov/plant Palette, please go check
00:49:36 --> 00:49:36: it out.
00:49:36 --> 00:49:40: It's all about drought tolerant and native planting and there's
00:49:40 --> 00:49:44: some excitement around that nationwide and, and hope to sort
00:49:44 --> 00:49:45: of expand that.
00:49:45 --> 00:49:49: That was a partnership between lots of folks and primarily
00:49:49 --> 00:49:51: DCR and EEA in Massachusetts.
00:49:52 --> 00:49:54: We're on tons of regional committees.
00:49:55 --> 00:49:58: And the last thing I'll I'll talk about in terms
00:49:58 --> 00:50:01: of engagement is what the the lump really funds is

00:50:01 --> 00:50:05: this push towards rainwater harvesting, which I understand may be

00:50:05 --> 00:50:08: popular in many of your committees and has been for

00:50:08 --> 00:50:09: a long time.

00:50:09 --> 00:50:12: But New England is sort of new at this whole

00:50:12 --> 00:50:14: drink management thing to an extent.

00:50:14 --> 00:50:16: I mean, it's been going on for a long time,

00:50:16 --> 00:50:19: but on the local scale, we've been confronted with this

00:50:19 --> 00:50:20: in a new way in the last few years.

00:50:20 --> 00:50:23: So we have been really been pushing rainwater harvesting.

00:50:23 --> 00:50:25: We offer a rebate for rain barrels.

00:50:25 --> 00:50:29: We offer actually support for residential folks to come and

00:50:29 --> 00:50:32: have us come out with an expert to give them

00:50:32 --> 00:50:36: personalized suggestions for their outdoor water use and how Ringwater

00:50:36 --> 00:50:39: can support all of their needs and and surpass their

00:50:39 --> 00:50:41: needs and give them an actual site plan.

00:50:42 --> 00:50:45: We work with agriculture to see how Rainwater can support

00:50:45 --> 00:50:45: that.

00:50:46 --> 00:50:49: And I'm also working on a project right now to

00:50:49 --> 00:50:54: retrofit 13 multi family buildings in our Housing Authority with

00:50:54 --> 00:50:58: not just rain barrels, but all of the equipment that

00:50:58 --> 00:51:03: you need, diverters, bases, hoses, everything with installation support, with

00:51:03 --> 00:51:09: workshops, with brochures and that communities primarily elderly and disabled.

00:51:09 --> 00:51:13: So we are really pushing this because we believe it's

00:51:13 --> 00:51:16: not just a conservation method, but a way of life

00:51:16 --> 00:51:20: and a way of interacting with water consumption that is

00:51:20 --> 00:51:21: life changing.

00:51:22 --> 00:51:25: So that's sort of just a quick overview of our

00:51:25 --> 00:51:28: community engagement and over the last few years.

00:51:28 --> 00:51:31: And again, just to end on what I said about

00:51:31 --> 00:51:35: shifting this narrative, we do see a lot of people

00:51:35 --> 00:51:39: who are worried about conservation and who are making behavior

00:51:40 --> 00:51:43: changes because they are already worried about it.

00:51:43 --> 00:51:46: We're very lucky that that's a primary value in our

00:51:46 --> 00:51:48: community in Ipswich.

00:51:48 --> 00:51:52: However, we feel strongly that we need to expand that.

00:51:52 --> 00:51:54: We need to really think about the language that we're

00:51:54 --> 00:51:55: using.

00:51:55 --> 00:51:57: We're talking about conservation, which is why we talk more

00:51:58 --> 00:51:59: about efficiency these days.
00:52:00 --> 00:52:04: And we try to really, really, really prioritize accessibility, make
00:52:04 --> 00:52:08: sure that we're really careful about technical language and that
00:52:08 --> 00:52:12: we're really listening a lot and really kind of governing
00:52:12 --> 00:52:13: through kindness.
00:52:13 --> 00:52:16: And that's a huge value of mine.
00:52:16 --> 00:52:18: I'm grateful if, which has been supportive of that, grateful
00:52:18 --> 00:52:19: our partners have been.
00:52:20 --> 00:52:22: We really believe that efficiency is for everybody.
00:52:23 --> 00:52:28: And with the right approach, right programming, it's really possible
00:52:28 --> 00:52:31: to have this type of mitigation plan and this type
00:52:31 --> 00:52:35: of outreach plan a part of a successful solution for
00:52:35 --> 00:52:37: mitigating development.
00:52:37 --> 00:52:39: I know that we're on a very different scale than
00:52:39 --> 00:52:42: many of your your scenarios, So take that with a
00:52:42 --> 00:52:42: grain of salt.
00:52:42 --> 00:52:45: And we are still in a water emergency right now.
00:52:46 --> 00:52:49: But as far as mitigating this particular concern from a
00:52:49 --> 00:52:52: suppliers perspective, we found a lot of success and hope
00:52:52 --> 00:52:53: in this program.
00:52:54 --> 00:52:56: So that's it for me and I'd love to take
00:52:56 --> 00:52:59: questions or wait till the end, whatever works.
00:53:01 --> 00:53:02: Thank you so much, Rachel.
00:53:02 --> 00:53:03: That was great to see.
00:53:03 --> 00:53:07: I love seeing the consumption graph of everything going down
00:53:07 --> 00:53:08: despite the growth.
00:53:08 --> 00:53:09: That's wonderful.
00:53:09 --> 00:53:11: Does anyone have any questions for Rachel?
00:53:18 --> 00:53:19: I'm not seeing any.
00:53:20 --> 00:53:21: We can move on.
00:53:21 --> 00:53:23: If you do have questions for Rachel, please put them
00:53:23 --> 00:53:25: in the chat box and we might have some time
00:53:25 --> 00:53:26: at the end to discuss as well.
00:53:28 --> 00:53:28: All right.
00:53:29 --> 00:53:33: Our final speaker today is Alan Hook from Santa Fe,
00:53:33 --> 00:53:33: NM.
00:53:36 --> 00:53:47: Hello, everyone share here Yeah, I'll see that Great everyone
00:53:47 --> 00:53:51: can you hear me clearly?
00:53:53 --> 00:53:54: Good.
00:53:54 --> 00:53:54: Thank you.

00:53:56 --> 00:54:00: So those are great presentations and I'm, I'm going to
00:54:00 --> 00:54:03: apologize for Christine Chavez.
00:54:03 --> 00:54:05: She's our water conservation manager.
00:54:05 --> 00:54:08: She could not be here today, but she did ask
00:54:08 --> 00:54:12: me to talk about our water development process as it
00:54:13 --> 00:54:15: relates to our water bank.
00:54:15 --> 00:54:18: So it's, I'm going to talk a little bit more
00:54:18 --> 00:54:22: policy then sort of an overview of how the processes
00:54:22 --> 00:54:24: worked and our utility itself.
00:54:25 --> 00:54:28: This is a photo of Santa Fe, downtown Santa Fe.
00:54:28 --> 00:54:30: We are in northern New Mexico.
00:54:31 --> 00:54:35: We're the capital city of New Mexico and we're settled
00:54:35 --> 00:54:39: in the southern Rockies known as the Sangre de Cristo
00:54:39 --> 00:54:40: Mountains.
00:54:41 --> 00:54:45: And this picture kind of looks to the southwest where
00:54:45 --> 00:54:49: the Rio Grande River runs through the center of northern
00:54:49 --> 00:54:51: New Mexico, which is one of our supplies.
00:54:52 --> 00:54:56: We get 90% of our water supply, 50% of our
00:54:56 --> 00:55:01: demand is provided by federal water through the Rio Grande.
00:55:02 --> 00:55:05: So it's actually the headwaters of the Colorado gets transferred
00:55:05 --> 00:55:06: to the Rio Grande.
00:55:06 --> 00:55:10: We divert there and then the other 40% or so
00:55:10 --> 00:55:16: comes from the watershed above the city, the San Cristos.
00:55:16 --> 00:55:18: We have a couple reservoirs.
00:55:18 --> 00:55:22: So that's our cheapest source and that's where the Santa
00:55:22 --> 00:55:24: Fe River eventually runs to the Rio Grande.
00:55:24 --> 00:55:28: And our city, which is older than 400 years, more
00:55:28 --> 00:55:31: than 400 years old, grew up around the Santa Fe
00:55:31 --> 00:55:32: River.
00:55:32 --> 00:55:35: And then we have various wells that we rely on
00:55:35 --> 00:55:37: about 10% of our demand.
00:55:38 --> 00:55:39: It's kind of our savings account.
00:55:41 --> 00:55:44: So again, I'm going to talk about development and how
00:55:44 --> 00:55:46: it relates to our established water bank.
00:55:52 --> 00:55:54: So the purpose of the water bank was to ensure
00:55:54 --> 00:55:56: adequate water for increased water use.
00:55:57 --> 00:56:00: So water demand tied to newer construction.
00:56:00 --> 00:56:05: So on the demand side, it's water conservation results in
00:56:05 --> 00:56:07: demand capacity on our system.
00:56:08 --> 00:56:12: And on the supply side, the code requirement required new
00:56:12 --> 00:56:16: water rights allowing for increased supplies.

00:56:16 --> 00:56:19: So this really started in about 2005.

00:56:19 --> 00:56:22: We had a code requirement law that said all new

00:56:23 --> 00:56:25: development in 2005 needed water rights.

00:56:25 --> 00:56:29: So the water rights come from the Middle Rio Grande.

00:56:29 --> 00:56:33: So, so new development had to bring in water rights.

00:56:33 --> 00:56:37: And typically that's going to come from either a groundwater

00:56:37 --> 00:56:41: well, another municipality, mostly farmers in the middle Rio Grande

00:56:41 --> 00:56:43: that are willing to sell water rights.

00:56:44 --> 00:56:48: And again, this is regulated policy by the state engineer

00:56:48 --> 00:56:50: of New Mexico.

00:56:50 --> 00:56:53: So they have to transfer water rights up to our

00:56:53 --> 00:56:53: municipality.

00:56:55 --> 00:56:58: So then there was a code change with the land

00:56:58 --> 00:57:01: use department in 2016 because the city realized if you

00:57:01 --> 00:57:05: just needed to build a, a casita or small accessory

00:57:05 --> 00:57:08: dwelling unit, it was kind of overbearing to ask you

00:57:08 --> 00:57:12: to bring water rights from a farmer because it takes

00:57:12 --> 00:57:13: quite a bit of time.

00:57:13 --> 00:57:18: And at the time it wasn't price constricted, but now

00:57:18 --> 00:57:23: the price is actually become greater And so that became

00:57:23 --> 00:57:24: a burden.

00:57:26 --> 00:57:29: So this is kind of the code language, you know,

00:57:29 --> 00:57:30: approved water budget.

00:57:30 --> 00:57:35: So we have calculations for different types of development, single

00:57:35 --> 00:57:41: family home, multi family developments, apartments, townhomes, commercial businesses, a

00:57:41 --> 00:57:42: whole spectrum.

00:57:42 --> 00:57:45: And that was based on a 2008 survey of all

00:57:45 --> 00:57:49: the different types of water uses throughout the city of

00:57:49 --> 00:57:50: Santa Fe.

00:57:51 --> 00:57:53: And again, there's two types of programs.

00:57:54 --> 00:57:57: There's what is now 1 branch of it is called

00:57:57 --> 00:58:01: water conservation credit program or there's the water right transfer

00:58:01 --> 00:58:02: programs.

00:58:02 --> 00:58:05: So to offset the development, so you can either bring

00:58:06 --> 00:58:09: a new water rights to the bank to offset their

00:58:09 --> 00:58:09: demand.

00:58:10 --> 00:58:14: And again, that's that's a state engineer transfer process or

00:58:14 --> 00:58:18: now if you're under what we call thresholds, so smaller

00:58:18 --> 00:58:22: developments you can offset the demand or we had an

00:58:22 --> 00:58:26: older program which was a toilet retrofit program.
00:58:26 --> 00:58:31: So the retrofit program kind of started where the city
00:58:31 --> 00:58:35: had a bulk purchase and giveaway with the low flow
00:58:35 --> 00:58:36: toilets.
00:58:36 --> 00:58:39: We were trying to replace much older 5 gallon per
00:58:39 --> 00:58:40: flush toilet.
00:58:40 --> 00:58:45: But that savings credit was banked as a water conservation
00:58:45 --> 00:58:45: credit.
00:58:46 --> 00:58:51: And so eventually developers started purchasing low flow toilets and
00:58:51 --> 00:58:55: we would track credits of toilet retrofits, but that is
00:58:55 --> 00:58:57: slowly faded out.
00:58:58 --> 00:59:02: And so there's, there's kind of barely a few retrofit
00:59:02 --> 00:59:03: credits left.
00:59:04 --> 00:59:08: The byproduct of the toilet retrofit program was there was
00:59:08 --> 00:59:12: a lot of developers who were hoarding toilets, you know,
00:59:12 --> 00:59:17: re refurbishing them, replacing them, had all these retrofit credits
00:59:17 --> 00:59:18: to cash in.
00:59:19 --> 00:59:22: And so it kind of created this alternative market for
00:59:22 --> 00:59:23: retrofit credits.
00:59:24 --> 00:59:27: So that's slowly been tapped out as as they've used
00:59:27 --> 00:59:29: those for newer developments.
00:59:30 --> 00:59:34: Final point to this affordable housing, we as the water
00:59:34 --> 00:59:39: division provide affordable housing the offset to their demand.
00:59:39 --> 00:59:41: So we do that by our own water rights that
00:59:42 --> 00:59:45: the city of Santa Fe traditionally had or that we
00:59:45 --> 00:59:48: sometimes go out every once in a while, usually about
00:59:49 --> 00:59:49: a decade.
00:59:50 --> 00:59:55: And if there's any available water rights or somebody comes
00:59:55 --> 00:59:59: to us with available water rights, we try to purchase
00:59:59 --> 01:00:00: those, so.
01:00:01 --> 01:00:05: Water offsets the city's always continuing efforts in water conservation.
01:00:05 --> 01:00:07: We've becoming nationally recognized.
01:00:07 --> 01:00:12: Our GPCD for us is below 9090 gallons per person
01:00:12 --> 01:00:15: per day per capita per day.
01:00:17 --> 01:00:20: And again we use a dual track approach to growth
01:00:20 --> 01:00:24: management related to water demand, water conservation at home and
01:00:24 --> 01:00:27: through schools and progressively scaled rate pricing.
01:00:27 --> 01:00:31: So we have different rates for different usage and those

01:00:31 --> 01:00:35: and the usage you're allowed changes in the summer season
01:00:35 --> 01:00:40: versus the winter season because it's covering both outdoor use
01:00:40 --> 01:00:41: and indoor use.
01:00:41 --> 01:00:45: Winter season is much less because obviously not not as
01:00:45 --> 01:00:50: much outdoor use, but it also includes community advertising.
01:00:50 --> 01:00:55: We do replacement of older water, wasteful household fixtures and
01:00:55 --> 01:00:59: then also targeted community advertising, education, going out to the
01:00:59 --> 01:01:03: schools, elementary schools to get the message out about water
01:01:03 --> 01:01:07: conservation and then finally the transfer of water rights.
01:01:07 --> 01:01:10: The new and as I mentioned before, the new residential
01:01:10 --> 01:01:15: commercial development must be offset by anticipated water use unless
01:01:15 --> 01:01:17: you have conservation credits themselves.
01:01:18 --> 01:01:23: So since 1995, the city's overall annual water consumption decreased
01:01:24 --> 01:01:27: by 25%, while the population is increased by 33%.
01:01:30 --> 01:01:34: So I just wanted to jump into this development water
01:01:34 --> 01:01:35: budget process.
01:01:35 --> 01:01:39: So a developer brings it a proposed project to our
01:01:39 --> 01:01:43: land use department, which is separate from the water division,
01:01:43 --> 01:01:47: but we are integrated into the land use approval process.
01:01:48 --> 01:01:50: And then they come to us with what's called a
01:01:50 --> 01:01:51: development water budget.
01:01:52 --> 01:01:56: So they, you know, depending on the type of development
01:01:56 --> 01:02:01: they have single family residential, commercial, you know, could be
01:02:01 --> 01:02:04: a church institutional project.
01:02:04 --> 01:02:08: Then they determine the water usage based on a kind
01:02:08 --> 01:02:11: of a schedule or, or a fee schedule that we
01:02:11 --> 01:02:11: have.
01:02:12 --> 01:02:15: They also try to determine their outdoor irrigation budget.
01:02:15 --> 01:02:19: So those two items make up their development water budget.
01:02:20 --> 01:02:23: They can subtract out affordable housing waivers.
01:02:23 --> 01:02:27: So there is a sort of mandatory 20% for residential
01:02:27 --> 01:02:30: developments of affordable housing.
01:02:30 --> 01:02:34: Now we also have a fee in lieu of into
01:02:34 --> 01:02:37: our affordable housing program.
01:02:37 --> 01:02:41: So certain developments can actually just pay off that 20%

01:02:41 --> 01:02:42: instead of being required to.

01:02:43 --> 01:02:47: We found over time that some developers said, hey, that

01:02:47 --> 01:02:50: 20% is just too much to get housing units out

01:02:50 --> 01:02:53: there to be marketable, but it's also allowed the affordable

01:02:54 --> 01:02:58: housing department to actually buy properties and create affordable housing.

01:03:00 --> 01:03:03: And then eventually you get to the sort of your

01:03:03 --> 01:03:07: subtotal and you add a 9.8 contingency fee.

01:03:07 --> 01:03:11: Reason for this is for any non ribbon water leakage.

01:03:11 --> 01:03:13: Also for fire flows.

01:03:13 --> 01:03:16: That gives us a little a little bit of revenue

01:03:16 --> 01:03:19: to cover that part of our utility system.

01:03:20 --> 01:03:24: And so this is kind of the breakdowns or examples

01:03:24 --> 01:03:26: of how much we charge.

01:03:27 --> 01:03:32: You'll see a single family house .15 acre feet and

01:03:32 --> 01:03:34: we speak in acre feet terms.

01:03:34 --> 01:03:38: If you don't know what that means, if if you're

01:03:38 --> 01:03:41: a farmer and you have one acre, you flood your

01:03:41 --> 01:03:44: field 1 foot deep, it's about 325,851 gallons.

01:03:45 --> 01:03:49: So typically one acre foot could be about four to

01:03:49 --> 01:03:53: six single family residential homes depending on your efficiencies.

01:03:55 --> 01:03:57: And then the price next to it on the fee

01:03:57 --> 01:03:59: is what you would pay if you were under the

01:03:59 --> 01:04:00: threshold.

01:04:00 --> 01:04:04: So I'll talk next about the above threshold process.

01:04:05 --> 01:04:08: So again, this requires state recognized water rights.

01:04:09 --> 01:04:12: Somebody has to bring in water rights from somewhere along

01:04:12 --> 01:04:13: the middle Rio Grande.

01:04:14 --> 01:04:15: It's a little more onerous now.

01:04:15 --> 01:04:17: It's become more expensive.

01:04:18 --> 01:04:22: We do the administration process with the waterite transaction, and

01:04:22 --> 01:04:27: then eventually when the applicant gets their waterite transferred through

01:04:27 --> 01:04:31: the state engineer process, they come back to us.

01:04:31 --> 01:04:34: They do what's called a special warranty deed.

01:04:34 --> 01:04:38: They deed it over to us and then that offsets

01:04:38 --> 01:04:39: their demand.

01:04:40 --> 01:04:43: And where the water rate goes, it doesn't go into

01:04:43 --> 01:04:47: our reservoirs, it doesn't go to the Rio Grande, but

01:04:47 --> 01:04:50: it does go into our well field, which is if

01:04:50 --> 01:04:54: it's almost like our savings account, if our surface water
01:04:54 --> 01:04:59: supplies, let's say, through continuous drought really drop and we
01:04:59 --> 01:05:02: have to lean on our wells to be pumped more,
01:05:02 --> 01:05:06: we have to provide offsets for pumping to surface water
01:05:06 --> 01:05:08: rights on the Rio Grande.
01:05:08 --> 01:05:11: So we're basically putting all those water rights into our
01:05:11 --> 01:05:12: savings account.
01:05:13 --> 01:05:17: And so this chart kind of shows our breakdown for
01:05:17 --> 01:05:18: commercial use.
01:05:18 --> 01:05:21: If you're under 5 acre feet, you can just again
01:05:21 --> 01:05:24: pay into US providing those water rights.
01:05:25 --> 01:05:28: If you've got mixed-use, it's 7 1/2 acre feet and
01:05:28 --> 01:05:30: then residential is 10 acre feet.
01:05:33 --> 01:05:36: So below the threshold, you're able to pay the city
01:05:37 --> 01:05:38: to dedicate conserved water.
01:05:38 --> 01:05:42: So the way we kind of see ourselves, we're offsetting
01:05:42 --> 01:05:45: water conserved through our conservation programs.
01:05:45 --> 01:05:49: So we track all of our conserved water programs.
01:05:50 --> 01:05:53: A lot of that is retrofit programs, especially for commercial
01:05:53 --> 01:05:53: usage.
01:05:53 --> 01:05:54: Restaurants.
01:05:55 --> 01:05:57: We've done a lot of residential programs.
01:05:57 --> 01:06:02: We've done conserved water through city infrastructure itself, so that
01:06:02 --> 01:06:06: could serve water helps us offset a lot of the
01:06:06 --> 01:06:08: small development demand.
01:06:09 --> 01:06:12: If we cannot actively offset from year to year because
01:06:12 --> 01:06:16: we found, you know, since this program started O5 with
01:06:16 --> 01:06:19: water rights, then the water bank started in 2009.
01:06:20 --> 01:06:22: We found the low hanging fruit.
01:06:22 --> 01:06:24: We've kind of we can serve as much as we
01:06:24 --> 01:06:24: can.
01:06:24 --> 01:06:28: So if conservation is not offsetting the small demand, then
01:06:28 --> 01:06:31: we actually have to account for out of our water
01:06:31 --> 01:06:32: rights from the well field.
01:06:33 --> 01:06:37: And again the administration is pretty much within the city
01:06:37 --> 01:06:40: of Santa Fe and our water division itself.
01:06:41 --> 01:06:45: And so we tracked these through what's called application to
01:06:45 --> 01:06:49: construct dedicate that's typically larger projects.
01:06:49 --> 01:06:53: Applications for metered service usually is like a one off
01:06:53 --> 01:06:56: for a person who wants to add an accessory dwelling

01:06:56 --> 01:06:57: unit.
01:06:57 --> 01:06:59: Now they need a single meter.
01:06:59 --> 01:07:03: So these those are the usually the small, small development
01:07:03 --> 01:07:05: projects that go along.
01:07:05 --> 01:07:08: And then all water offsets from the water bank must
01:07:09 --> 01:07:12: be paid prior to the approval of a construction building
01:07:12 --> 01:07:12: permit.
01:07:12 --> 01:07:15: So that's the way we kind of our stick or
01:07:15 --> 01:07:20: it's kind of our regulatory process is that we communicate
01:07:20 --> 01:07:23: with the land use building permitting section.
01:07:23 --> 01:07:27: They make sure that we approve that they've already offset
01:07:27 --> 01:07:31: their demand and then from there we approve their meter
01:07:31 --> 01:07:35: installation to get their water utility account active.
01:07:35 --> 01:07:40: And so kind of final slide development equals increased water
01:07:40 --> 01:07:44: demand in Santa Fe and it's supported by water resource
01:07:44 --> 01:07:50: perspective, by conservation as I've mentioned before, also the purchase
01:07:50 --> 01:07:52: of water rights in the Rio Grande.
01:07:53 --> 01:07:57: Those three things, that one more pumping, what we call
01:07:57 --> 01:07:59: our buck and well field, that well field is right
01:07:59 --> 01:08:01: near the Rio Grande.
01:08:01 --> 01:08:05: So any any strong pumping or increased demand there in
01:08:06 --> 01:08:10: that well field, we have to offset with the state
01:08:10 --> 01:08:15: engineer with with groundwater rights to impacts on surface water
01:08:15 --> 01:08:20: and permanent transfer of water right from agricultural usage is
01:08:20 --> 01:08:23: going to again our municipal usage.
01:08:23 --> 01:08:27: That's just a reality of of how development has worked
01:08:27 --> 01:08:28: around Santa Fe.
01:08:29 --> 01:08:33: Conservative purchased water is tracked in the water bank.
01:08:33 --> 01:08:36: And so this is a breakdown of kind of our
01:08:36 --> 01:08:37: portfolio.
01:08:38 --> 01:08:42: The Santa Fe River itself provides around 4300 acre feet.
01:08:43 --> 01:08:46: We have water rights to a total of 5040 acre
01:08:46 --> 01:08:49: feet from the Sangre de Cristo Mountains.
01:08:50 --> 01:08:52: In this photo, kind of look past our Plaza and
01:08:52 --> 01:08:55: the church in the background you can see the Sangre
01:08:55 --> 01:08:57: de Cristo Mountains under those clouds.
01:08:58 --> 01:09:02: San Juan Chama is the name for our federal project
01:09:02 --> 01:09:02: water.
01:09:03 --> 01:09:06: Again, that's the headwaters of the Colorado, which get

transferred

01:09:06 --> 01:09:09: all the way down to the Rio Chama to which

01:09:09 --> 01:09:09: we diverted from.

01:09:10 --> 01:09:13: And then we have wells within the city and then

01:09:13 --> 01:09:16: the Buckman well area is near the Rio Grande.

01:09:16 --> 01:09:21: The reason why I have the question marks is there

01:09:21 --> 01:09:27: is a state hydrologic model that the state engineer uses.

01:09:27 --> 01:09:31: We've also used more modern hydrologic models to say, well,

01:09:31 --> 01:09:35: what is the actual kind of renewable supply and in

01:09:35 --> 01:09:40: other words the sustainable supply of drawing down year to

01:09:40 --> 01:09:41: year that well field.

01:09:42 --> 01:09:45: So we put question marks because it depends on what

01:09:45 --> 01:09:48: model you're you're actually discussing.

01:09:48 --> 01:09:53: And so 3500 acre feet from the city wells approximately

01:09:53 --> 01:09:57: about just under 1900 from the well field near the

01:09:57 --> 01:09:58: Rio Grande.

01:09:59 --> 01:10:03: I highlighted this because this is primarily where we are

01:10:03 --> 01:10:09: depositing those transferred water rights into that well field, not

01:10:09 --> 01:10:10: our other supplies.

01:10:11 --> 01:10:14: So that's a total of, you know, on paper, paper

01:10:15 --> 01:10:18: water we can get 1500 acre feet, but we we

01:10:18 --> 01:10:22: don't go over that again right now our demand is

01:10:22 --> 01:10:26: 9000, but years ago and in 1995 we were over

01:10:26 --> 01:10:30: 12,000 acre feet per year, which was really pushing up

01:10:30 --> 01:10:33: on our idea of sustainability.

01:10:33 --> 01:10:36: We've come down quite a ways to be consistently below

01:10:36 --> 01:10:37: 9000 acre feet.

01:10:39 --> 01:10:43: So that's kind of our water development process as it

01:10:43 --> 01:10:47: relates to, you know, development and land use department.

01:10:47 --> 01:10:51: We are always continually communicating about new developments that are

01:10:51 --> 01:10:54: coming in, what types of developments are occurring.

01:10:55 --> 01:10:58: And right now we're actually going through a code rewrite

01:10:59 --> 01:11:00: of the land use department.

01:11:01 --> 01:11:03: And if it's also kind of forced us in the

01:11:03 --> 01:11:07: water utility to do a code rewrite of our process

01:11:07 --> 01:11:10: also to kind of make it more efficient.

01:11:11 --> 01:11:14: Again, the audit of our water use throughout the city

01:11:14 --> 01:11:15: was done in 2008.

01:11:16 --> 01:11:19: So we're looking at our numbers and seeing where development

01:11:20 --> 01:11:24: is really occurring and how developments actually become more water

01:11:24 --> 01:11:28: wise and more efficient and are our calculations really reflecting

01:11:28 --> 01:11:29: that.

01:11:30 --> 01:11:32: So I want to say thank you for the chance

01:11:32 --> 01:11:35: to present on our water development and how that's linked

01:11:36 --> 01:11:38: to land use and I'll stand for any questions.

01:11:39 --> 01:11:41: Thank you so much, Ellen.

01:11:41 --> 01:11:43: I see some questions in the chat box already.

01:11:43 --> 01:11:46: Randall, do you want to unmute and ask your questions?

01:11:47 --> 01:11:47: Sure.

01:11:47 --> 01:11:48: Thanks, Alan.

01:11:50 --> 01:11:52: I've New Mexico Tech alum and I've modeled quite a

01:11:53 --> 01:11:55: bit of New Mexico, so forgive me for these detailed

01:11:55 --> 01:11:58: questions, but how does impairment get assessed by the New

01:11:58 --> 01:12:01: Mexico State Engineer with respect to the water rights transfers

01:12:01 --> 01:12:03: or new water rights is my first question.

01:12:04 --> 01:12:05: Yeah.

01:12:05 --> 01:12:08: So that's a very good question because we do a

01:12:08 --> 01:12:10: third party analysis.

01:12:10 --> 01:12:13: So let's say there's a, there's a farmer in the

01:12:13 --> 01:12:17: middle of Rio Grande below Albuquerque, which is to the

01:12:17 --> 01:12:17: South of us.

01:12:17 --> 01:12:19: And they say, you know, we've got 10 acre feet

01:12:19 --> 01:12:21: of water we'd love to sell you.

01:12:22 --> 01:12:23: We do an analysis.

01:12:23 --> 01:12:27: We try to see the viability of, of that water

01:12:27 --> 01:12:30: right, with a specialist, a hydrogeologist.

01:12:31 --> 01:12:33: But there's also a transfer cost.

01:12:33 --> 01:12:36: There's typically the, the OC calls the like a, as

01:12:36 --> 01:12:40: you're saying, is there going to be an impairment on

01:12:40 --> 01:12:43: other water rights up and down the middle of Rio

01:12:43 --> 01:12:44: Grande?

01:12:44 --> 01:12:47: But there's also a conservation cost of transferring that up

01:12:47 --> 01:12:48: to us.

01:12:49 --> 01:12:53: The impairment part is, is a very touchy subject because

01:12:53 --> 01:12:57: there's called the Middle Rio Grande Conservancy District.

01:12:57 --> 01:13:01: They're big farming community of irrigators.

01:13:01 --> 01:13:03: There's also the tribes.

01:13:03 --> 01:13:08: So the Pueblos of New Mexico have prior, prior water

01:13:08 --> 01:13:08: rights.
01:13:09 --> 01:13:14: So they have protested before some of our purchases, the
01:13:14 --> 01:13:16: direct purchases of water rights.
01:13:17 --> 01:13:21: There is a legal administrative process through the OC that
01:13:21 --> 01:13:22: occurs to address that.
01:13:23 --> 01:13:26: So I would say, you know, it's, it's kind of
01:13:26 --> 01:13:30: a, a legal process of whether that our transfer of
01:13:30 --> 01:13:33: water rights from, let's say a farmer to us is
01:13:33 --> 01:13:37: creates an impairment or if it actually still keeps the
01:13:37 --> 01:13:41: Rio Grande whole because there's still enough native water rights
01:13:41 --> 01:13:43: to keep the Rio Grande whole.
01:13:44 --> 01:13:47: Well and and the, the, the other element of impairment
01:13:47 --> 01:13:50: is whether where it's transferred to is impairing any nearby
01:13:50 --> 01:13:51: wells.
01:13:51 --> 01:13:52: True, yes.
01:13:52 --> 01:13:53: And my.
01:13:53 --> 01:13:55: My other question if I may real quick is it
01:13:55 --> 01:13:58: seems like your water budget thresholds are below the required
01:13:58 --> 01:14:02: reporting threshold for monthly pumpage that's been lost since 2009.
01:14:02 --> 01:14:05: Is that does that still get reported somehow or what?
01:14:05 --> 01:14:06: What's your your sorry?
01:14:07 --> 01:14:09: Can you say that again?
01:14:09 --> 01:14:13: It seems like your water budget thresholds are below the
01:14:13 --> 01:14:17: required reporting threshold for monthly pumpage reporting that's been lost
01:14:18 --> 01:14:18: since 2009.
01:14:18 --> 01:14:21: How are you keeping track of that information?
01:14:21 --> 01:14:25: So we do keep track of our pumping rates.
01:14:26 --> 01:14:29: So every year we have to actually well the beginning
01:14:29 --> 01:14:32: of January on every calendar year we have to provide
01:14:32 --> 01:14:35: the state in G or what we think we're going
01:14:35 --> 01:14:38: to pump and then we actually have to you know,
01:14:38 --> 01:14:41: report what we are pumping and then we have to
01:14:41 --> 01:14:42: provide offsets to that.
01:14:43 --> 01:14:45: And so right now we do have enough water rights
01:14:46 --> 01:14:48: in the in the Buckland whale field near the rear
01:14:49 --> 01:14:52: Grande to offset what we have been pumping or if
01:14:52 --> 01:14:55: there's other impacts, we do have the flexibility to provide
01:14:55 --> 01:14:58: that salmon Chama water on the Rio Grande where we
01:14:59 --> 01:15:00: have storage of San Juan Chama.

01:15:02 --> 01:15:03: Great.
01:15:03 --> 01:15:03: Thanks.
01:15:04 --> 01:15:04: Sure.
01:15:04 --> 01:15:04: Thank.
01:15:05 --> 01:15:08: You, Jessica also has a great question for all of
01:15:08 --> 01:15:09: the speakers.
01:15:09 --> 01:15:12: Jessica, if you want to unmute, and I'm just going
01:15:12 --> 01:15:14: to add to her question, like what have you done
01:15:14 --> 01:15:17: to address any pushback you've seen?
01:15:18 --> 01:15:18: Yeah.
01:15:18 --> 01:15:18: Thanks, Marian.
01:15:19 --> 01:15:22: Yeah, my question is really for anyone that spoke today.
01:15:22 --> 01:15:23: Thank you all very much for that.
01:15:24 --> 01:15:27: And my question is, do you receive pushback from general
01:15:27 --> 01:15:32: community members, especially those that don't like the growth that's
01:15:32 --> 01:15:34: happening in your communities?
01:15:34 --> 01:15:38: Do you receive pushback from them for using water saved
01:15:38 --> 01:15:43: through existing rebate programs to support that growth?
01:15:49 --> 01:15:50: So I'll jump in.
01:15:50 --> 01:15:53: As I mentioned during my presentation, I, I, I've seen
01:15:53 --> 01:15:57: that since the 1980s, it has been a consistent message
01:15:57 --> 01:16:00: when customers are on restrictions or in, in water short,
01:16:00 --> 01:16:03: you know, being told to, to do a lot of
01:16:03 --> 01:16:07: conservation activity and then they see, you know, major development
01:16:07 --> 01:16:09: going in, in their service area.
01:16:09 --> 01:16:12: They complain, but the only way to, to get around
01:16:12 --> 01:16:16: that is to actually get them involved in, in the
01:16:16 --> 01:16:16: solution.
01:16:16 --> 01:16:19: I think if you go through a more moratorium as
01:16:19 --> 01:16:21: we did, and you learn how painful it is and
01:16:21 --> 01:16:25: how disruptive and vituperative it is, it, it really splits
01:16:25 --> 01:16:26: and polarizes the community.
01:16:26 --> 01:16:29: And this is one way to get everybody to, you
01:16:29 --> 01:16:32: know, sort of collaborate on solutions that will work for
01:16:32 --> 01:16:32: everyone.
01:16:33 --> 01:16:36: And making them part of the design of the solution
01:16:36 --> 01:16:39: in an outreach process is probably the best way to
01:16:39 --> 01:16:42: diffuse that they they they need to feel like they're
01:16:42 --> 01:16:43: being listened to.
01:16:48 --> 01:16:50: Tristan, I think you commented also that you've been seeing

01:16:50 --> 01:16:51: it.

01:16:53 --> 01:16:54: Yes.

01:16:54 --> 01:16:59: So we definitely have an active contingent of our community

01:16:59 --> 01:17:02: who are very anti growth and very and very vocal

01:17:02 --> 01:17:03: about it.

01:17:04 --> 01:17:09: They have comprised the majority of the appeals to the

01:17:09 --> 01:17:15: Coastal Commission for various projects within our jurisdiction and they

01:17:15 --> 01:17:19: haven't been so vocal about the using kind of saved

01:17:19 --> 01:17:23: water to just promote development as much as it's just

01:17:23 --> 01:17:28: anti development of of any kind that could that impact

01:17:28 --> 01:17:32: the water supply and could possibly make it a precarious

01:17:32 --> 01:17:33: situation worse.

01:17:39 --> 01:17:42: I might add in Santa Fe, we've had that, you

01:17:42 --> 01:17:46: know, that we've had a lot of vocal resistance from

01:17:46 --> 01:17:50: folks and they're, and they're very clear about it that

01:17:50 --> 01:17:54: they saw Santa Fe is this great small city, you

01:17:54 --> 01:17:57: know, we're only 87,000 or less than 100,000.

01:17:57 --> 01:17:59: And they're like, we don't want to see this new

01:17:59 --> 01:18:00: development.

01:18:02 --> 01:18:05: But they also realize, you know, we're short at least

01:18:05 --> 01:18:08: by 6000 units for existing population.

01:18:08 --> 01:18:12: I mean, more than 40% of our workforce.

01:18:12 --> 01:18:16: It's a lot of federal agencies, state agencies, city, our

01:18:16 --> 01:18:20: our municipality are living somewhere else and then commuting in.

01:18:22 --> 01:18:24: So that, you know, that's not an ideal situation either.

01:18:24 --> 01:18:29: So residents understand that our water portfolio is actually quite

01:18:29 --> 01:18:32: good for New Mexico and the fact that we're using

01:18:32 --> 01:18:35: a lot of renewable surface water supply.

01:18:35 --> 01:18:39: So we have room to grow into development, but it's

01:18:39 --> 01:18:41: also interesting to see.

01:18:43 --> 01:18:44: I would say it's kind of back to the future.

01:18:44 --> 01:18:49: There's there's a lot of reuse of older buildings.

01:18:49 --> 01:18:53: Again, we're we've got older Pueblo design housing.

01:18:54 --> 01:18:58: Pueblos were supposed to be kind of centralized homes with

01:18:58 --> 01:19:00: like a central Plaza.

01:19:01 --> 01:19:05: You kind of build almost like a multi family and

01:19:05 --> 01:19:09: keep open space around you instead of like singular family

01:19:09 --> 01:19:10: ranchets.

01:19:11 --> 01:19:15: So that's kind of happening in a more modern technique.

01:19:15 --> 01:19:20: And so I think architects and developers are getting more

01:19:20 --> 01:19:25: creative to not just create a large suburb or subdivision
01:19:25 --> 01:19:27: in the process.
01:19:27 --> 01:19:30: And that also helps in the water footprint that we
01:19:30 --> 01:19:30: have.
01:19:31 --> 01:19:34: So it's kind of getting education of the public to
01:19:34 --> 01:19:37: understand what kind of develops are are occurring and that
01:19:37 --> 01:19:41: they're actually having less of an impact than more traditional
01:19:41 --> 01:19:43: subdivision developments.
01:19:47 --> 01:19:49: I'd love to also jump in.
01:19:49 --> 01:19:52: Obviously our program is quite different because we're not using
01:19:52 --> 01:19:54: actual water, it's a water bank.
01:19:55 --> 01:19:58: So dealing with money and we do have a lot
01:19:58 --> 01:20:03: of anti development rhetoric, but it this program is seen
01:20:03 --> 01:20:06: as something that helps respond to that.
01:20:06 --> 01:20:08: So it's generally something that people support.
01:20:09 --> 01:20:12: In terms of pushback from developers, which is the most
01:20:12 --> 01:20:16: common question I get because we're charging the developers money,
01:20:16 --> 01:20:19: I don't receive almost any any pushback from them at
01:20:19 --> 01:20:20: all, surprisingly.
01:20:20 --> 01:20:25: They typically are very accepting an understanding of the fee
01:20:25 --> 01:20:29: and in the tiers I've been managing the program have
01:20:29 --> 01:20:35: gotten almost no really significant complaints from developers.
01:20:39 --> 01:20:40: That's great to hear.
01:20:40 --> 01:20:41: Thank you all for your responses.
01:20:42 --> 01:20:45: Are there any other questions for our speakers?
01:20:48 --> 01:20:50: OK, I'm not seeing any, so I'm going to just
01:20:50 --> 01:20:51: wrap up.
01:20:51 --> 01:20:52: Oh, go ahead and.
01:20:52 --> 01:20:54: I I put it in the chat, but I just
01:20:54 --> 01:20:56: wanted to say that because I forgot to say it
01:20:56 --> 01:20:57: in the presentation.
01:20:58 --> 01:21:00: The Netblue program doesn't have to be done as a
01:21:00 --> 01:21:02: land use ordinance on the city or county level.
01:21:02 --> 01:21:05: It can be done as a new connection program.
01:21:05 --> 01:21:08: So especially if a utility serves a number of different
01:21:08 --> 01:21:12: communities and in doing land use ordinances in each of
01:21:12 --> 01:21:14: the communities would be a a pain, a royal pain
01:21:14 --> 01:21:15: to coordinate.
01:21:16 --> 01:21:18: They can do it as a new connection requirement and
01:21:18 --> 01:21:20: there is at least one utility that has done that

01:21:20 --> 01:21:20: with NIPLU.
01:21:21 --> 01:21:23: So I just offered that as an option as well.
01:21:24 --> 01:21:26: It's much more similar to what you've been hearing about
01:21:26 --> 01:21:27: from others today.
01:21:28 --> 01:21:28: Wonderful.
01:21:28 --> 01:21:29: Thank you, Marianne.
01:21:30 --> 01:21:33: OK, Before we all take off, I've got some updates
01:21:33 --> 01:21:36: and resources for folks and I just want to take
01:21:37 --> 01:21:39: a moment to thank our all of our speakers.
01:21:39 --> 01:21:41: Again, you guys are amazing.
01:21:41 --> 01:21:43: It's so great to learn from all the work that
01:21:43 --> 01:21:44: you guys are doing on the ground.
01:21:44 --> 01:21:45: So thank you.
01:21:47 --> 01:21:50: So just to share some final things, we have some
01:21:50 --> 01:21:51: updates.
01:21:51 --> 01:21:55: We started based on all of our meetings that we've
01:21:55 --> 01:21:59: been doing with the coalition, we started resource lists for
01:21:59 --> 01:22:04: landscape templates and codes, public policies and ordinances and affordability
01:22:05 --> 01:22:05: resources.
01:22:05 --> 01:22:08: So how do we retain affordability when the prices are
01:22:08 --> 01:22:09: going up?
01:22:09 --> 01:22:12: So I'm in the chat box, I'm going to share
01:22:12 --> 01:22:13: these resource lists.
01:22:13 --> 01:22:15: These are open and editable.
01:22:15 --> 01:22:18: So we really hope that members of the coalition help
01:22:18 --> 01:22:21: add to these resource lists so that they're a true
01:22:21 --> 01:22:23: resource for everybody in the coalition.
01:22:23 --> 01:22:26: If you, if you're looking for templates for something, for
01:22:26 --> 01:22:28: example, you can find them in these resource lists.
01:22:29 --> 01:22:30: It's very low tech.
01:22:30 --> 01:22:34: It's just, you know, Word, Word online documents that you
01:22:34 --> 01:22:36: can go in and edit.
01:22:37 --> 01:22:41: Also, Joel Benson from Buena Vista, Co, he asked that
01:22:41 --> 01:22:45: we share this survey with you all if you don't
01:22:45 --> 01:22:47: mind clicking on it.
01:22:47 --> 01:22:49: I also just put it in the chat box.
01:22:49 --> 01:22:50: It shouldn't take too long to fill out.
01:22:50 --> 01:22:54: This is to help him with his research on water
01:22:54 --> 01:22:56: and land use resilience.
01:22:56 --> 01:22:58: So if you don't mind filling that out, he would
01:22:58 --> 01:22:59: greatly appreciate it.

01:23:00 --> 01:23:03: And then finally, I'm going to turn it over to
01:23:03 --> 01:23:05: my oh, thank you for letting me know, Liesl.
01:23:05 --> 01:23:08: I will in my follow up e-mail, I'll make sure
01:23:08 --> 01:23:10: you guys have links that work.
01:23:11 --> 01:23:12: Thanks, Liesl.
01:23:13 --> 01:23:16: And then I'm going to turn it over to Meryl
01:23:16 --> 01:23:17: Corbin.
01:23:17 --> 01:23:17: One second.
01:23:18 --> 01:23:19: Marianne, do you have something you want to add?
01:23:21 --> 01:23:21: No.
01:23:21 --> 01:23:25: OK, so my colleague from Sonoran Institute is going to
01:23:25 --> 01:23:28: talk about the growing Water smart network.
01:23:30 --> 01:23:30: Thank you.
01:23:31 --> 01:23:33: So just to introduce myself, my name is Merrill Corbin.
01:23:33 --> 01:23:36: I'm with the Snoring Institute and I help manage the
01:23:36 --> 01:23:40: Growing Water Smart program throughout the Colorado River Basin.
01:23:40 --> 01:23:43: And just a quick, very brief plug.
01:23:43 --> 01:23:47: So Growing Water Smart is a training and assistance program
01:23:47 --> 01:23:51: that empowers local leaders to implement plans and policies to
01:23:51 --> 01:23:54: support community and Regional Water resilience.
01:23:54 --> 01:23:57: And one of the key components of our program is
01:23:57 --> 01:23:58: our peer network.
01:23:59 --> 01:24:02: And that peer network is really an opportunity for interested
01:24:02 --> 01:24:06: professionals in that sort of land use water resource space
01:24:06 --> 01:24:09: to advance some integrated water resource management policies.
01:24:09 --> 01:24:12: And one of the ways that we do that is
01:24:12 --> 01:24:13: through webinars.
01:24:13 --> 01:24:17: And so I just wanted to plug our upcoming webinar,
01:24:17 --> 01:24:21: which is December 12th from 12:00 to 1:30 Mountain time.
01:24:22 --> 01:24:25: And this webinar is an opportunity for water and land
01:24:25 --> 01:24:29: use professionals to learn from each other's and, and share
01:24:29 --> 01:24:32: examples about how to maintain momentum as we start to
01:24:32 --> 01:24:35: embark on some of these big policy changes.
01:24:35 --> 01:24:39: And, you know, talking about water budgets and just what
01:24:39 --> 01:24:42: kind of hurdles are you facing to, to implement these
01:24:42 --> 01:24:44: integrated plans and policies?
01:24:44 --> 01:24:46: And so we'll have 3 panelists.
01:24:46 --> 01:24:51: We'll have Joaquin Maruffo from the Environmental justice Coordinator of

01:24:51 --> 01:24:56: the Arizona Department of Environmental Quality and then Environmental Quality

01:24:56 --> 01:25:00: and Environment, and he's also the water committee delegate for

01:25:00 --> 01:25:02: the Arizona Mexico Commission.

01:25:03 --> 01:25:07: We'll also have Kelly Kopp and Joanna Interwada from U

01:25:07 --> 01:25:09: Utah State University.

01:25:09 --> 01:25:12: They managed the Utah Growing Water Smart program and then

01:25:12 --> 01:25:15: Chris Cross, who's the city administrator from the city of

01:25:15 --> 01:25:17: Fort Lupton here in Colorado.

01:25:17 --> 01:25:19: And they'll just speak to their successes and some of

01:25:19 --> 01:25:22: the hurdles that they found push back from community members,

01:25:22 --> 01:25:24: kind of all those things that we're dealing with.

01:25:24 --> 01:25:27: So they'll present a little bit about how they've maintained

01:25:27 --> 01:25:29: momentum and then we'll have some Q&A.

01:25:29 --> 01:25:31: So I hope you all can join us and I

01:25:31 --> 01:25:34: will put the link in the chat.

01:25:34 --> 01:25:36: Yeah, 'cause it doesn't work from the screen.

01:25:36 --> 01:25:36: Yeah.

01:25:38 --> 01:25:38: Thank you.

01:25:38 --> 01:25:40: Thank you so much Meryl.

01:25:40 --> 01:25:42: I registered for it and I'm looking forward to it.

01:25:44 --> 01:25:47: Just before everyone leaves, we love having your input into

01:25:47 --> 01:25:49: upcoming coalition meeting topics.

01:25:50 --> 01:25:53: The current plan is to cover a water and land

01:25:53 --> 01:25:58: use forecasting and data-driven planning that incorporates water using data

01:25:58 --> 01:26:01: to right size taps and water infrastructure.

01:26:01 --> 01:26:04: We hope to have someone from the Babbitt Center present.

01:26:04 --> 01:26:07: If you have anyone else who you think would be

01:26:07 --> 01:26:10: a good fit as a speaker for that session, please

01:26:10 --> 01:26:11: send me an e-mail.

01:26:11 --> 01:26:14: My e-mail address is listed on my face, so you're

01:26:14 --> 01:26:16: welcome to just shoot me an e-mail.

01:26:16 --> 01:26:18: You can also reply to the calendar invite if you

01:26:18 --> 01:26:19: would like.

01:26:20 --> 01:26:23: We're also planning on having water reuse as an upcoming

01:26:24 --> 01:26:27: Topic 1 water and also the an update on the

01:26:27 --> 01:26:30: Colorado Water Wise Guide book on best practices.

01:26:31 --> 01:26:34: If there are any other ideas or speakers or topics

01:26:34 --> 01:26:37: that you would like to share or speak on, or

01:26:37 --> 01:26:40: do you have thoughts that you'd like to just share
01:26:40 --> 01:26:43: with the group, please put them in the chat or
01:26:43 --> 01:26:43: e-mail me.
01:26:43 --> 01:26:49: We'd love to hear them and that is all.
01:26:49 --> 01:26:51: Here's my e-mail address.
01:26:51 --> 01:26:54: We'd love to hear from you and we want to
01:26:54 --> 01:26:56: just thank you all so much for attending today.
01:26:56 --> 01:26:59: And a huge thank you to our speakers for sharing
01:26:59 --> 01:27:02: their expertise and experience with us as a group.
01:27:02 --> 01:27:05: Many of you have asked for the links and we
01:27:05 --> 01:27:05: will.
01:27:05 --> 01:27:08: I'll share those with you in a follow up e-mail
01:27:08 --> 01:27:11: along with the recording and slides from this session.
01:27:11 --> 01:27:13: So thank you all so much for joining and we
01:27:13 --> 01:27:15: hope to see you again soon.
01:27:16 --> 01:27:18: Thank you, the webinar was excellent.
01:27:19 --> 01:27:19: Oh, great.
01:27:19 --> 01:27:20: Thank you so much.
01:27:20 --> 01:27:20: Thanks.
