Skagit County Planning Commission
Workshops: Rainwater Catchment (P-1); Wells on Guemes Island (P-2)
September 10, 2019

Planning Commissioners:	**Tim Raschko (absent)** **Kathy Mitchell, Vice Chair** **Mark Lundsten** **Annie Lohman (absent)** **Amy Hughes** **Joe Woodmansee** **Tammy Candler** **Hollie Del Vecchio** **Martha Rose**
Staff:	**Hal Hart, Planning Director** **Mike Cerbone, Planning Assistant Director** **Nick Schmeck, Intern**
Public Commenters:	**Ellen Bynum, Friends of Skagit County**
Others:	**Hal Rooks, Guemes Island Planning Advisory Committee/Applicant (P-1)** **Edith Walden, Guemes Island Planning Advisory Committee (P-1)** **Steve Orsini, Guemes Island Planning Advisory Committee (P-1)**

Acting Chair Kathy Mitchell: Good evening. I'd like to call a meeting to order for September 10th, 2019, for a workshop this evening. And if everybody's looked at their agenda ahead of them I would like to make one change to it and that would be to introduce our new Planning Commissioner. Josh Axthelm has stepped down and we'd like to welcome Joe Woodmansee. Would you like to tell us a little bit about yourself?

Joe Woodmansee: Sure. I've lived in Skagit County since I was – since 1977 and married a local girl. That's been her whole life. In a business in Skagit County for 38 years up until a year-and-a-half ago when I merged my company with my son's company. I had a company called Woodmansee Construction for 38 years and my sons are the owners of BYK Construction and so basically my whole career's been in home building and development and construction and that sort of thing. So I've got five grandkids and enjoy life. So happy to be here.

Chair Mitchell: Wonderful. Thank you. Were there any other changes to the agenda?

(silence)

Chair Mitchell: Everything okay? All right. In that case I'd like to ask: Is there anybody that would like to make a Public Remark? Okay, there is. Ellen?

Ellen Bynum: Good evening, Commissioners. Ellen Bynum, Friends of Skagit County, Mount Vernon. I wanted to circle back to something that we had been talking about, and that is the bigger picture. We're all down in the weeds doing the details, and so I wanted to just give a little update on some things and ask some questions.

Friends of Skagit County, for those who don't know, started in 1991 by citizens. That was right when – 1990 was the – GMA was passed, and 125 citizen volunteers worked weekly for a year to deliver the original Comp Plan. And over the years Friends has appealed 68 issues, 33 cases, before the GMHB, which is the Growth Management Hearings Board, and the courts. We won 30 of those and we settled 3 of those. So we continue to monitor and advocate for good land use decisions that comply with the GMA and the Shoreline Management Act and other laws and ordinances of Skagit County and Washington State.

But what I wanted to say is – today – is, Who is looking at and tracking the big picture in Skagit County? The short answer, from my perspective, is nobody. So let me explain my concerns that we have.

In the original Skagit County planning policies, citizens said we wanted to have 80% of new developments to go inside cities, towns, or other urban growth areas. The County hired Mark Personius in '95 to analyze rural/urban development, and again for the Skagit County Growth Management Indicators Program, which was adopted in 2002. I don't think we've updated that since. The County met the 80/20 goal only two years of the first 10 years under GMA. The County has never taken any action to correct the overdevelopment in rural areas. Because the 80/20 is a policy and it's not in code, we pretend that meeting this goal is not that important, but because we've not been paying attention in managing this growth, we have narrowed our choices for the future. The GMA requires identification, protection, and conservation of natural resource lands in the county. In our lands are farms and forests identified in separate zones and mineral lands as overlays of other zones. Before GMA, Skagit County identified prime ag soils as well as, quote, "secondary farmland," which were a major piece of the farm economy. When widening roads, for instance, WSDOT – Department of Transportation at the state level – says there are 254,000 acres of Skagit farmland, a number from before GMA was passed. Skagit County estimates we have 90,000 acres zoned Ag-NRL, which are prime ag soils, and another 56,000 acres in other rural zones, some of which are the old secondary ag with new names. When we convert farmlands or forest to other uses, like fish and wildlife habitat, widening roads, wetlands mitigation banks, expanding dikes, et cetera, we do not replace the land we convert.

(sound of timer)

Ms. Bynum: Humans are clever but we have yet to replicate the Nookachamps loam soils. So we need accurate data.

Commissioner Tammy Candler: I'm sorry, Ms. Bynum. You're out of time.

Ms. Bynum: Yeah. We need accurate data so we don't risk becoming the Kent Valley.

Chair Mitchell: Thank you, Ellen. Is there anybody else that has public remarks? Okay, seeing none, then I'd like to turn over to Mike, if he'll give us a little overview about this evening, please.

Mike Cerbone: Thank you, Chair. Mike Cerbone, Assistant Director for Planning and Development Services. So this evening the way that I had kind of set this up and chatted with you guys about this previously is what I wanted to do is provide a forum for the applicant to be able to

communicate with the Planning Commission why they solicited changes to the Comprehensive Plan and code. And so it's really designed for them to be able to communicate with you why they put their application in and, more importantly, for you to ask questions directly to the applicant. Staff is here if you have questions. We're probably not going to answer them this evening. We'll gather them and we'll go back and research them and come back. But really the intent this evening is to allow the applicant to communicate directly with you guys, the decision-makers. So you're going to be making recommendations to the Board of County Commissioners. And we'll use the same approach at our next meeting on the 24th, as well, when we have Skagit Land Trust come and represent their Blue Heron proposal, and then also a private property owner – their request to have a Mineral Resource Overlay removed from their property.

So I just wanted to kind of set the pace, explain why they're sitting in front of you where they normally wouldn't. And we purposely set the room up this way because we wanted them to come in and explain to you exactly why it is that they requested this change and, again, provide you the opportunity to directly ask them questions.

Chair Mitchell: Okay, thank you very much.

Mr. Cerbone: Thank you.

Chair Mitchell: Okay, so the next one we'll go to is Workshop for the Rainwater Catchment, P-1. And, Hal, is that you?

Hal Rooks: (unintelligible)

Chair Mitchell: All right. Would you go ahead and let us know what you'd like to tell us, please?

Mr. Rooks: Sure.

Mr. Cerbone: And if you could just, before you guys speak, say who you are and where you're from, please, for the record. Thanks.

Mr. Rooks: So is this working?

Chair Mitchell: Yes.

Mr. Rooks: All right. Good. And if you can't hear me, my wife constantly tells me – in fact, her parting words were "Speak up." So please tell me if I need to. So good evening, Commissioners, Mr. Cerbone, Mr. Hart, and Mr. Schmeck. My name's Hal Rooks. My Guemes address is 5971 Upper Hollow Lane. I and my colleagues Edith Walden and Steve Orsini are members of the Guemes Island Planning Advisory Committee, which we affectionately know as GIPAC so probably will refer to that. And we submitted the docketed code amendments P-1 and P-2, as you know. The two amendments address rainwater catchment and the permitting and drilling of new wells on Guemes. On behalf of GIPAC, I want to express our appreciation to you for allowing us this extended time to fully explain our research and concerns.

Michael, first slide. Second slide – the slide boss here is directing me. All right, the next one after that. All right. So this is Guemes Island. A number of you have accepted our invitation in the past to tour the island so you may remember of few of the following details about the general lay of the land. By the way, if any of you are interested in touring the island and haven't or would like to do it again, we would be happy to make the arrangements to do so.

This is an aerial map of the island. It's about eight square miles or approximately 5,100 acres. Next, please.

This is the 2003 map of the Comprehensive Plan Land Use Designations on Guemes. Purple is Rural Intermediate, a minimum of 2.5 acres; Cream is Rural Reserve, a minimum of 10; and orange is Rural Reserve, a minimum of 40 acres; and green is Commercial, and there's rather little of that. Next, please.

This is a current map of property parcels on the island. You'll note numerous properties, especially along the shorelines, that are considerably substandard in size to current zoning regulations. And as we were preparing this I thought of my personal case. We have a piece of land that goes right down to the coast in the northeast part of the island and our lot is 30 feet wide. So next, please.

(some discussion regarding the slides)

Mr. Rooks: I don't know if you can see it, but we'll be talking about the north end of the island, which is that pointed piece that's upright, if you like. North Beach is sort of directly under the word "Guemes," if you like. West Shore is over on the – toward the curve on the left side of the map. And Holiday Hideaway is down at the bottom in the little piece that aims down to about four o'clock on the map. Does that make sense?

Commissioner Candler: Just so I can orient, will you let me know where the ferry terminal is?

Mr. Rooks: The ferry terminal is about in the middle of that bottom piece, so maybe directly at six o'clock on the map.

Commissioner Candler: Okay, thank you.

Mr. Rooks: Okay. And north is more or less straight up. Now where are we – on "Fulltime"? Full-time population according to the 2010 census was 667 people who occupied 348 of the 754 available housing units on the island. We expect the fulltime population to increase to about 800 in next year's census, accompanied by an increase in housing units.

So you may wonder why GIPAC has been so focused on the island's water supply over the past several years, so here's a brief history of why. The County Code, SCC 14.24.380(1)(b) of the critical areas ordinance designates Guemes Island in its entirety as a seawater intrusion area. Virtually all islanders are dependent on groundwater for their potable water supply. Islanders' concerns about groundwater resources are not new. The island has long suffered from water quantity and quality issues. The State Department of Ecology, DOE, identified coastal seawater intrusion areas on Guemes Island as late as – excuse me, as *early* as the late 1980s. Chloride levels in wells, which is a bellwether for seawater intrusion, have been elevated on West Shore, North Beach, and other areas for over two decades.

In the mid-90s, as a result of islanders' research, Guemes Island was designated a sole source aquifer by the federal government, and it's the only one in Skagit County. Around this same time, DOE raised a red flag. In a May 1994 letter to the Skagit County Health department, DOE expressed strong concerns about the impact of new wells on the quality and quantity of water on Guemes and recommended limiting new well construction to the north end – excuse me, limiting it on the north end of the island. DOE also recommended that Skagit County discourage the drilling of new wells along the shoreline islandwide. Twenty-five years ago, when the DOE letter was written and Guemes was designated a sole source aquifer, there were an estimated 120

wells on the island. The County has placed no controls on the drilling of new wells since then, which is partly why we're here tonight.

In 2018 the USGS (US Geologic Survey) reported that an additional 250 wells have been drilled on the island since 1995. A number of existing wells have been affected, some going dry, others being contaminated with seawater and thus becoming unusable. Wells have failed due to seawater intrusion on North Beach and 19 residents on West Shore had to build a very expensive reverse osmosis system drawing on seawater, which is now operated by the Skagit PUD, due to chloride contamination of their wells. Senior water rights of pre-existing wells almost certainly have been impacted, which violates state law. DOE asked us recently how many wells have failed on Guemes. We have documentation that 64 residences on the island have suffered consequences of well failure.

(discussion regarding the slides)

Chair Mitchell: Could you repeat that last saying how many have failed? Sixty-four, was it?

Mr. Rooks: Sixty-four *residences* on the island have suffered.

Mr. Cerbone: I do have a pointer to help point at things.

Mr. Rooks: Okay, can we try to point out North Beach and West Shore? Okay. All right, that number of residences affected is probably low because the County has never tracked failed wells on Guemes and so there's no official source of information on this issue. Some property owners are reluctant to publicize problems with their wells and we, of course, try to and do respect owners' privacy concerns.

In this context we come back to you asking for help on two fronts: P-1 would help make rainwater catchment a welcome and viable alternative to drilled wells, and P-2 would make sure that new wells are subject to a full impact assessment before drilling. These code amendments go hand-in-hand. In our view, they're essentially two sides of the same coin. If there're difficulties drilling new wells, we would like to encourage rainwater catchment as an alternative to the wells. We've presented these issues repeatedly over the last few years. At various times and from various County representatives we've received positive assurances. We've been told by the Planning Department staff, the Planning Commission members, and/or members of the Board of County Commissioners that County policy has changed, that rainwater catchment is now accepted as a viable water source on Guemes and that new wells are indeed subject to review before drilling. Despite this, we know of Guemes wells being drilled without County review and rainwater catchment systems being actively discouraged by County code.

So that was preamble. Now I'm going to move into talking about P-1, the rainwater catchment. I think you probably have the language of it in front of you and so I'll just proceed. Our goal is to make rainwater catchment an economical and viable source of potable water on the island. To do this, we want to see catchment as easily permitted by the County as drilled wells and as inexpensive as possible. GIPAC filed a similar proposed code amendment in 2016. It was put on the Planning and Development Services work program and in 2017 a contract was signed with Western Washington University to produce a template of a potable water catchment system. The template was finished in mid-2018. To date, there's been no implementation of its use that we are aware of. As an example of how a neighboring County handles the issue, San Juan County has allowed rainwater catchment for potable use for 20-plus years. Members of GIPAC travelled to Friday Harbor in mid-2016 to talk to the officials in charge of their drinking water program about

their experiences with rainwater catchment – what worked, what didn't work. They are enthusiastic about the program and they offered to share their results and their experiences with Skagit County. In a phone conversation in late 2018, I spoke with the current head of their drinking water program and he reiterated they are pleased with the program and its results. On our trip to Friday Harbor, we met and spoke with a gentleman named Ken Blair who is the principal and founder of something called "Rainbank Rainwater Catchment Systems." We subsequently arranged for Mr. Blair to meet with PDS members to discuss rainwater catchment. Mr. Blair is a certified designer, installer, and life member of the American Rainwater Catchment Systems Association, which is the trade association for rainwater catchment in the country, and he's been installing catchment systems in San Juan County and elsewhere in the state, including on Guemes Island, for over 20 years. I mention this to show that we did our homework to learn about catchment systems before we filed our first code amendment concerning catchment in 2016 and we shared that knowledge with PDS.

Other counties including Whatcom, King, and Jefferson Counties have rainwater catchment programs as well. In our view, Skagit County doesn't need to reinvent the wheel to come up with a simple template. System designers have repeatedly told us that this is fairly straightforward plumbing. It is not rocket science. San Juan County made a conscious decision *not* to use water as a Growth Management tool and we want to emphasize that GIPAC similarly is *not* promoting rainwater catchment as a means to try to limit or alternately to promote – we've been accused of both – growth on Guemes. Let me be clear: GIPAC is absolutely not undertaking these code amendments to deny anyone the right to build on their property. We are working to facilitate rainwater catchment because we are committed to helping islanders use and develop their properties in a sustainable manner.

Under current Skagit County practice – and lacking an accepted template – each catchment system apparently is treated as unique and requires a separate engineer's approval. An example of the consequences of this is that property owners on Guemes Island hired Ken Blair's Rainbank Company to design a rainwater catchment system for their property in 2017. They had a failed well. Rainbank has a qualified engineer on staff who was fully involved in the design of their system, but when it came time for Skagit County to issue its permit the County required that one of the engineers on its approved list had to approve the plans. This additional – and in our view totally unnecessary – permitting burden added $5,000 to the property owner's bill for the catchment permit even though the engineering had already been priced into the Rainbank contract. This is – I give you these examples of why we're emphasizing some of the things we are in our code amendment proposal. In contrast, San Juan County gives homeowners the choice of who can design their system. A property covenant relieves the County of liability.

An example of why we believe there needs to be a standardized permitting process is the issue of adequate water supply, which is another in-the-weeds topic that I'll try not to make too unpleasant to listen to. Adequate water supply refers to the minimum amount of water that is needed to be produced by a catchment system. This is a critically important issue because the requirement for adequate water supply directly relates to the size and therefore the expense of a catchment system. Too large a requirement for adequate water supply will make catchment systems either too expensive or too large to be practical on small Guemes property lots. Skagit County Code requires that a *well* produce 350 gallons per day to meet the definition of adequate water supply but doesn't specify an adequate – doesn't specify what an adequate water supply is for a catchment system. For rainwater systems of 350 gallons per day requirement (i.e., the same as wells) would make the size and expense of a system unfeasible for many, many small lots.

In San Juan County, rainwater catchment systems are considered alternative sources of water. A covenant on the property titles states that the home is served by an alternative system, and this is always required in San Juan County. The County provides a formula for the homeowner to figure out for themselves approximately how much water they may want to have in their system, but the homeowner decides how much water, including storage, is needed or adequate for themselves. And San Juan County basically says, This is their baby; we're putting the responsibility on them. If they underestimate, they're going to be short of water, but you can add more tanks later. But the point is instead of – there's sort of two approaches here. You can dictate how people should do it or you can say, Here are the parameters of it. You figure out what you need.

Our research on Guemes indicates that many homeowners on the island use 100 gallons per day or less per household. Numerous island homes are used only part-time and most homeowners understand that water on the island is a limited resource that requires careful conservation.

GIPAC suggests that 50 gallons per day per person, which is the Department of Ecology's standard for rainwater catchment systems serving households that apply basic conservation measures such as low flow toilets and water efficient appliances. So basically we're saying instead of 350 gallons a day as required for wells, we think 50 gallons per day per person would be an adequate amount.

One of the reasons we are filing this proposed code amendment is to encourage Skagit County to define the standards for a rainwater catchment system, which hasn't been done to date. The lack of a simple set of standards for rainwater catchment creates uncertainty for homeowners and discourages adoption of catchment. Requirements for an engineer's stamp from one of only a limited number of firms, language in the property deed about not producing 400 gallons per day, and maintenance requirements far in excess of that for wells have happened and they're not based on Skagit County Code requirements and they create unnecessary obstacles for adoption of rainwater catchment, in our view.

Earlier in 2019, GIPAC published and shared with PDS a memo addressing what a template for rainwater catchment might look like. The message we hoped was conveyed by that memo was that we believe it entirely appropriate for the County to establish certain requirements and design standards, but we also think that in some areas the property owner could safely be given discretion to make decisions.

Before closing my comments, I want to address the issue of why we are proposing that P-1 and P-2 apply only to Guemes Island, which came up in your last meeting in late July. The issue of whether different rules should apply to islands like Guemes has been raised by this commission several times in the past. In fact, Guemes Island's water situation has been recognized as unique through regulations at the federal, state, and local levels. As previously mentioned, Guemes Island is the only federally-designated sole source aquifer in Skagit County. The County's critical areas ordinance designated the island as both a seawater intrusion area and as an aquifer recharge area. Guemes Island's differentness is also recognized in state law. Washington Administrative Code 173-503-010, which addresses the Skagit Instream Flow Rule, specifically exempts Guemes Island and all other saltwater islands by name within the lower Skagit region, which is also the Water Resources Inventory Area 3.

Earlier in this docketing process we were asked by the Board of County Commissioners to clarify with DOE and the Swinomish Indian Tribal Community whether they would have an issue with rainwater catchment on Guemes. To address the Board's concern, we spoke with responsible

officials in DOE and the environmental policy director of the Swinomish Indian Tribal Community, and they said they had no objection or concern about catchment on Guemes. Per DOE, basically they cited – and I have a quote but I won't read it to you – but basically they cited that WAC requirement and said, You're exempted from the Instream Flow Rule – nothing to worry about. A common refrain from each of the officials we spoke with was that rainwater catchment on Guemes makes good sense because of our seawater intrusion problems, but it is strictly a Skagit County decision that is of no concern to DOE or the Swinomish Indian Tribal Community.

We intend – we, GIPAC – intend to consult with the Upper Skagit and the Suittle Indian Tribes concerning rainwater catchment systems in seawater intrusion areas because they also have a stake in the Skagit River.

Of additional note – and I'm getting to the end – GIPAC completed its research and submitted rainwater catchment and well permitting code amendment proposals three years ago. This year the Board of County Commissioners formally added our rainwater catchment proposal to the 2019 docket and we are expecting action on our proposal for Guemes Island. We understand the interest in possibly expanding rainwater catchment to other parts of the county, but we frankly think doing so could be a lengthy process. We believe it would not be fair to further delay action on a code amendment for Guemes, which has achieved widespread support and has been scheduled by the BoCC for action this year.

In summary, we believe a code amendment that sets a firm deadline of no more than one year is needed to further the adoption of rainwater catchment systems on Guemes. We ask for your support on this docketed amendment. And I now thank you and I turn our presentation over to Edith Walden.

Edith Walden: Thank you.

Mr. Cerbone: Before Edith gives you a presentation on P-2, were there any specific questions on P-1? I think probably it'd be good to lay that to rest before we move on to the next one.

Chair Mitchell: Yes, we do. Tammy?

Commissioner Candler: Yeah, okay. Can I ask you specifically as to the 50 gallons that you're proposing, what type of a – I mean, you said that a 350-gallon is not feasible for some of those lot sizes. What – how big of a system are we talking about? What type of lot size would be able to use something like that? Does that make sense?

Steve Orsini: Yeah, I think –

Mr. Rooks: This is our expert witness, Steve Orsini.

Mr. Orsini: I think what the problem with 350 gallons is you end up with a rather enormous sized roof demand, because Guemes gets only 24 inches of rain a year, as opposed to, say, Sedro-Woolley, which is probably in the 30s and Seattle is 37. So when you look at 350 gallons you're looking at something on the order of a roof area of around 40,000 square foot, which would mean a building 60 by 48. So 60 feet long by – you'd need that much roof area. But what we're finding is that most of the people who are on the island historically, but particularly who are on rainwater catchment, can do with 50 gallons per person. This drops you from, if you have a family of four, to 200 gallons from 350. It markedly reduces the size of the area that you need.

Commissioner Candler: Do you know what that number would be for that building size?

Mr. Orsini: The other way I've calculated it is that you can meet this requirement and build a building with 2700 square feet of roof area. By the way, the rain doesn't care about the slant of the roof. If you have a house that's 2700 square feet on the base, you've got enough rainwater catchment area to meet a lower requirement on Guemes. So we believe that coming down from 350 gallons, which is a number that was driven by well production, to a more realistic modern number, you end up with a house that is relatively modest and can fit on many of the smaller lots. The difference is about – a building of about, well, 60 feet by 48 feet. That's a very big building roof area.

Commissioner Candler: Right.

Mr. Orsini: Down to 2700 square feet is what you find in a relatively modest three-bedroom home, for example.

Commissioner Candler: I might not be understanding you correctly but that still sounds bigger than – that still sounds pretty big. Maybe I'm not understanding. The footprint would be 27?

Mr. Orsini: Yeah, I think if you – first of all, let me clarify that the houses that are being built on Guemes now are in the 4,000 to 5,000-square foot range. People are not building the 2700-square foot house.

Commissioner Candler: Okay.

Mr. Orsini: But a 270-square foot house including the car, garage, et cetera, would be, as Mr. Woodmansee can help me here – I mean, what? 300 by – I mean –

Commissioner Woodmansee: 50 by 54 would be 2700 square feet.

Mr. Orsini: There you go: 50 by 54.

Commissioner Candler: It still sounds so large.

Commissioner Woodmansee: So 60 by 48's only 2880 square feet.

Mr. Orsini: Right, and that's going to get you to a closer number to the 350 but it's not up *to* the 350. What I'm saying here is that when you take the arbitrary 350 gallons, which came from another time and relates to wells, and then you impose it on top of what a family really can use or get by with, you've created a monster building as opposed to something that's more let's say normal-sized or affordable.

Commissioner Woodmansee: Sure. So what is the square feet needed to establish the 350-gallon mark? Do you know that number?

Mr. Orsini: Well, on Guemes, 350 – I can tell you what I built – 350 gallons a day – I don't have my calculator with me – times 360. If you can figure that number, then you divide it by – you divide it by – so 350 times 360 days a year, you need 126,000 gallons of water. And each square foot on Guemes produces 14 gallons. Okay? So you divide that by 14, you'd have to have a building with an area of 9,000 square feet.

Chair Mitchell: Could you repeat that? Each square foot of roof – is that what you're saying?

Mr. Orsini: Yes.

Chair Mitchell: Provides how much?

Mr. Orsini: It provides on Guemes 14 gallons in a year. I can go into the math for that, but that's a good number.

Chair Mitchell: You can always send it to us later.

Mr. Cerbone: Well, we can double-check it for you as well.

Chair Mitchell: Martha?

Commissioner Martha Rose: I have a comment, and that is water conservation is a big deal nowadays and we used to have toilets that flushed 3.5 gallons and now they're at .8 gallons. And we used to have lab faucets that spewed out 2½ gallons a minute. Now they're at – you can easily get .5 gallons a minute, kitchen faucets that are 1. I mean, this is what I do in my business, is use these super energy efficient and water efficient fixtures. And I've noticed that my average consumption per person in my household is 30 gallons a day. So the 50-gallon a day proposal leaves a lot of cushion and people that live with rainwater harvesting are very good at conserving. They're mindful of not leaving the tap open while they're brushing their teeth and stuff like that. So I just wanted to point that out, that maybe that original amount of 350 gallons or whatever it was a day was based on old thinking and an old value system that doesn't exist anymore. And so I think that what you guys are proposing seems very reasonable that has a cushion built into it. Like I said, it's easy to – and this is with a teenager. I mean, I was monitoring my bills when my teenager lived with me and it was 30 gallons a day.

Mr. Orsini: Yeah, I have 10 years of data – more than 10 years of data – and we average about 30 gallons per person per day. So when we picked this number 50, we were trying to be somewhat – to provide a cushion.

Commissioner Rose: Generous.

Mr. Orsini: Generous, yeah.

Chair Mitchell: Mark, did you have a question?

Commissioner Mark Lundsten: I do. So in 1994 you had 120 wells on the island?

Mr. Rooks: Yes.

Commissioner Lundsten: Since then – 25 years – 250 have been added?

Mr. Rooks: Yes.

Commissioner Lundsten: And you have had 64 reports of wells going bad? Is that right? At least?

Ms. Walden: 64 *residences* impacted, some of those residencies dependent upon a single well.

Commissioner Lundsten: Oh, I see. Okay. There's a – I just want to comment. I don't know what to make about this so I'm just going to add this as an aside. You seem to be really careful to state that you don't want to use water as a Growth Management tool, but water *is* a growth management tool whether you want it to be or not. Because if you run out, no one's going to build. The question is, Do you address the external costs of a well before you drill or after it's too late? And that's, I think, the question that we're having to face here. And I'm not criticizing your use of Growth Management tool one way or another. I'm – you know, land use politics is complicated, as we all know.

I'd like to – but also, what is this 350? Where's it come from? Where's this 350 gallons, and is it – where is it?

Unidentified male voice: It's in the code.

Commissioner Lundsten: It's in the code and – in the County Code? It says that we have to have rainwater catchment or wells?

Mr. Rooks: It says – and I don't have the citation in front of me. I'd have to find it. But basically it says a well must produce 350 gallons a day to be considered usable, and that's the definition of an adequate water supply.

Commissioner Lundsten: Okay. I live on a well. I have a well I share with three other households and I should know that. And I guess it cleared the bar so we didn't even think about it. On Fidalgo Island. And you're just assuming that that would be transferred over to a rainwater catchment system or have you been told that?

Mr. Rooks: Somewhere in the middle there. It's being used because there's no other figure. I've also seen use of the 400 gallons per day, which is the reference I had in the paper. So it's sort of all over the place, but the point is there is nothing – we're asking the County to define it so that we can start moving forward with planning catchment systems and so on. In other words, right now it's just an unknown.

Commissioner Lundsten: Does San Juan County define it? Or do they say it's up to the owner?

Mr. Rooks: They basically – it's a totally different – interestingly to me – different way of doing things. They simply say, Look, you want to have water? Here's a formula you can use to say how many gallons a day do you think you're going to need, and then from that you can figure out your roof size and your storage and so on. But they will say or they'll send you to the state formula, which says about 50 gallons a day, but they don't require you to use it.

Commissioner Lundsten: Okay, one more question. You say that there have been a lot – these new wells: Have they met the criterion of 350 gallons a day, or are you saying that they ***haven't*** been certified properly? Have they been – of all these wells – these 250 new ones – have they met the 350-gallons a day? All of them?

Mr. Rooks: I presume so.

Mr. Orsini: Yes, they have to undergo a pump test and that pump test is done over not a day but over several hours. And then the well driller certifies that at that rate over that pump test time the well will meet the criteria.

Commissioner Lundsten: Okay. Okay, so that *has* been followed with these wells?

Mr. Orsini: Yes, to the best of my knowledge it has.

Ms. Walden: Through DOE. Because what we have discovered is *not* happening – and I'll be getting into that in P-2 – what is *not* happening, although it is required, is that Skagit County is also supposed to permit a well.

Commissioner Lundsten: And that hasn't happened, you say?

Ms. Walden: No, that is not happening.

Commissioner Lundsten: I see.

Chair Mitchell: Tammy?

Commissioner Candler: You also mentioned that – I think you were talking about San Juan County. I may have missed part of it, but these rainwater catchment systems are considered an alternate – are considered alternate systems. So I didn't understand what that meant in terms of – does that mean that they also have to have a well, or it means what you're proposing, which is that it just gets an option?

Mr. Rooks: I'll give you my answer, and I don't know where that term comes from but it's used as the signal or to flag that this is not a water system. You're buying a house, let's say, and then in the deed it'll say this house depends on an alternative water system. That's sort of in a sense a flag that says don't just think you can turn on the tap and run it forever like you can in Seattle.

Mr. Cerbone: I'll interject just for a sec. So the alternative system is it's basically a way to rely upon a different source of water. So in this instance to be able to justify or permit development of the home, instead of having potable water through, like, a municipal system if you're hooked up to the city or the PUD, or having a well where you get your water source from, like Commissioner Lundsten, these homes would actually rely upon rainwater catchment and that would be their primary source of potable water for their home, if it's an alternative system. You could also use rainwater catchment – lots of people do – just to collect water for irrigation purposes – you know, gardening and things like that. But in this instance, that term "alternative system" refers to the potable water source for the home.

Commissioner Candler: Okay, so it's not that you have ____.

Ms. Walden: Tammy, I think it's basically they're saying it's not a well and it's not a public water system.

Commissioner Candler: So that's what they mean. Okay. And you also mentioned that the research that you guys – I think GIPAC, you're saying – did showed some of the households use 100 gallons a day or less. Can you tell me a little bit about – or tell us a little bit more about that? What type of research you're talking about?

Mr. Rooks: Well, we had people like Steve who has had a 10-years' experience and keeps records. We talked to Holiday Hideaway, which is the biggest cluster of homes on the island. Sorry?

Commissioner Candler: Down on the point there?

Mr. Rooks: Down in the lower right, yeah. I think there's several – maybe more than a hundred or so. And they keep – it's a public water system and they keep records. We talked to them about how much water is used and I think it was under 100 gallons a day. So, in other words, we didn't just kind of just pull this out of the air.

Commissioner Candler: No, I wasn't suggesting that. I was just wondering if – what Martha said made me think of it because if people are using newer fixtures maybe that, you know, is or is not part of that research and I just wasn't sure.

Mr. Rooks: Well, when we – you know, everyone will give you an opinion on this. One of the things we've run into when we've been talking about this with some people is that, well, you know the people that are going to be buying the houses on Guemes come from Seattle and they're used to having unlimited amounts of water and, you know, oh my God, what are they going to do if they can't have unlimited amounts of water? Partly, to me, the answer is maybe you should think about that before you move on an island, maybe you should find out what kind of water system you have before you buy the house. But if you take that frame of reference of I'm used to having as much water as I want to use and wash my car and water my grass, then you might need much more than 100 gallons a day. But if you live on an island, as I think one of you said, you know, you pretty quickly become conscious, especially if you have a catchment system and you sit there and watch that gauge start to go down as you get into August and early September and you say, Hmm, we better be very careful. And the other thing that I think – I don't have a catchment system, which is a regret, but I don't – a potable water system, that is – you know, you can always add more storage too. People who have them – and I think Steve has talked about this, is even with his, which is a significantly sized system, there's extra water if there's a wet enough winter and then the water just overflows that out on the ground. So you could add another 5,000-gallon tank if you felt you were running low on water.

Chair Mitchell: John?

Commissioner Woodmansee: Yeah, a couple more questions. Do you have data that tracks that you can share with us – that tracks the rainfall or the average number 14 or whatever that number was you said. Is that –

Chair Mitchell: He said 14 gallons per _____

(several people talking at the same time)

Commissioner Woodmansee: Is that – trending down, trending up, trending even?

Mr. Orsini: Well, the 14 gallons is based on the following: The island averages, over the last 25 years, about 24 inches of rain a year, okay? This year we're drier. We're probably 25% lower than that. And it fluctuates. In the last five years we've seen drier times than we had in the previous times. But we have extensive rain catchment, rainwater data. The formula is that a cubic foot of space will give you seven gallons, okay? So again, I just want to emphasize that the cant of the roof isn't a big determining factor. What's the determining factor is the amount of area that's exposed to the rainfall.

Commissioner Woodmansee: That's catching it. Sure.

Mr. Orsini: Yeah. Okay. So what it means is that – a cubic foot is 12 inches high and we get 24 inches, so we've got 7 plus 7 – we get about 14 inches per square foot –

Commissioner Woodmansee: Gotcha.

Mr. Orsini: Now it's cubed per year – based on the – and we can get you the data on the rain.

Commissioner Woodmansee: Would it be fair to say then that if you – if you cut – we did the example and it was 9,000 square feet was to do the 350 gallons. So if you cut that in half you still need 4500 square feet to get to half of that much?

Mr. Orsini: Well, I think you – I have – I think the number that you should look at that drives the square footage is – if you ask me based now on my experience – is the 30 gallons per person per day. I have had teenagers, we have regular showers, and we have low flow faucets but they're now older, and we also use low flow dishwasher and washer/dryer. So if you say a family of four is going to consume 30 gallons a day or 50 gallons a day, that's 200 gallons a day, and then we do the math, you – I think what I'm trying to get at here is that the problem that we have with rainwater catchment is the imposition of the 350 gallons a day onto a catchment system.

Commissioner Woodmansee: I agree. I agree with that.

Mr. Orsini: And what we're trying to propose is something that's more realistic based on what people actually are using – the 30 gallons a day, for example.

Commissioner Woodmansee: Sure. And you beat me to my next comment, which was I think 50 maybe is too aggressive as far as a requirement. And so when you're counting 50 gallons per person, are you proposing that the amount of water available in a catchment system would restrict the amount of people living in that home?

Mr. Orsini: No. It would be – I think the exercise you go through is not to restrict the people that live in the home but to pick an adequate supply for a family of four or six and then you design your system to do that. And then if you find later that you want more, the way to address that is through storage. Because for example, I have a roof area now that's 2880 square feet. When I designed my system I was thinking that I needed 70 gallons per day per person for a family of four, and then I put 10,000 gallons of storage in it, and I'm wasting water. I have to overflow water through part of the year. I could add more storage. And I can tell you, I'm not going to add more people in my family but I really could.

Commissioner Woodmansee: I don't blame you.

(laughter)

Mr. Orsini: Again, I think that the point here is the struggle that we're having to try to address Mark Lundsten's comments is that we're continuing to drill wells into an aquifer that we have yet – we keep struggling to quantify. We can show you now where the aquifer or the aquifers are failing, okay? And they're failing because – these aquifers, you can think of them as lenses in the permeable soil that float on the edges on the seawater. It takes – if you reduce the head height, they naturally dome up and they always weep out to the sea. Water in them continuously moves – not quickly, it depends on the soil. But if you reduce the head height one foot, seawater at the edges comes vertically up 40 feet. The reason is that's the difference in density between fresh water and seawater. And over thousands of years these lenses have formed, okay? Now we're

in a situation where we're pulling a lot of water out of these aquifers. We don't know exactly how much. But it's wiping out the wells that are closer to the sea because that 40 feet is coming up. And there's kind of two answers. One is you continue to drill wells until you collapse the aquifer. When an aquifer collapses it never stops producing water. It just produces seawater. You've infected the whole aquifer with seawater. And when that happens you'll have a major problem on Guemes because a lot of houses will no longer be able to have potable water. And then – a microcosm of this happened on West Beach when they had two wells that serviced 19 hookups at that time fail. They were shut down because of seawater intrusion and they had to go to very expensive reverse osmosis.

So what we're proposing here is that – two things: One is when you build a new house, because we're flying blind on the amount of water we have, let's encourage that person to look at rainwater catchment and make it viable and affordable – okay? – and understanding the drivers behind it, rather than say you first have to drill a well and then prove it doesn't work, which is kind of where the code leads you now. And then you can look at alternate systems. And we're saying that, you know, we're flying blind. And the other subpart of that is that if you have water rights as we did for 50 years, and a viable well, and then within a three, four-year period seven new wells went in within half-a-mile of our well and they were all inland, and guess what? Our well went to seawater intrusion. Well, effectively I had to do something or get off the property and in the process I did something. It's not cheap. But my water rights went away, didn't they?

Chair Mitchell: I've got – a couple more Commissioners are asking questions.

Commissioner Amy Hughes: Along with the aquifer, how is it charged and recharged?

Mr. Orsini: Solely by rainwater. It's the rain that falls on the island. That's what charges the aquifers.

Commissioner Hughes: So if you're storing water, it's not going back into the aquifer until you use the water.

Mr. Orsini: That's correct.

Commissioner Hughes: Is that a problem?

Mr. Orsini: No. There's been a study of this done actually at the state level. What happens in the storage is that when you have a lot of water coming on the island in the winter, a lot of it's running off, so the rainwater catchment storage is storing it.

Commissioner Hughes: Like running off into the ocean.

Mr. Orsini: Yeah. Yes, exactly. So when you store the water then you use it during the dry time. It's going into the aquifer ultimately but you're leveling it out. You're taking the water and you're storing it and you're using it when it's drier. So you're not – you know, you're not robbing the aquifer. Eventually – I think the effect is, and a paper's been written on this at the state level, is what happens is you – instead of, you know, bailing water out when you have too much you hang onto it and then you use it when you've got a dry summer, which is what we have.

Commissioner Hughes: Okay. Can I follow that up with one question? So can one area of the island affect another by holding the water up – inland versus outer, north versus south – if enough of this becomes popular _____?

Mr. Orsini: There isn't a – the water that you're catching and storing is ultimately going back into the aquifer through your septic system.

Commissioner Hughes: Later.

Mr. Orsini: But what you're doing by doing rainwater catchment is that you're able to level out when you use that water. So you take it when it's plentiful and you store it and you use it when it's not. The total amount of water that you use in the years doesn't change.

Chair Mitchell: Okay, Tammy.

Commissioner Candler: I essentially have the same question, just whether or not if there had been studies done. You know, 250 additional wells since '94, it's easy to see that they're drawing on the aquifer, but would a rainwater catchment draw as well? I didn't know.

Mr. Orsini: No, the rainwater system doesn't at all depend on the aquifer.

Commissioner Candler: No, but the question was basically, Does the aquifer depend on *not* having the water held elsewhere. And I think you've answered it. I appreciate it. But you held up an article. Could you tell me what that article is?

Mr. Rooks: Sure. This is not the full article. This is just a couple of pages. I have it in a PDF which I can send. I can send it to PDS and so we could have it forwarded to you. Fred Unger was a PhD and an attorney who worked for the Department of Ecology back in, I think, the '90s and he wrote – he took this upon himself to do this study and the study is what has moved the acceptance of rainwater catchment to whatever level it is now. And so this is about 80 pages of rather scientific analysis which I will try to distill into very simple short form.

Basically this was not for the Skagit Valley. It was for the Water Resources Area 17 which I think was on the Kitsap, but the point is he said, Okay – and this is my language – take an acre of land. And so you're out in the woods so you have fir trees and cypresses and whatever else but it's just native forest, one acre. How much water falls on that acre and how much of that gets back into the streams and the water table? You take that same acre of land and you put a house on it but that house is supplied by a well and it uses septic to have the water go back out. The third scenario is you have that same acre of land and you have that same house, but that house gets rainwater catchment as the source rather than the well and the water goes back via septic. So of those three scenarios – same land, so on – which one returns the most water to the ground? Now you can answer it yourselves. To me, totally counterintuitively, the one that returns the most water to the ground is the catchment system and the one that returns the least is no house, just forest, because trees absorb the water.

So he says in the beginning of his paper – and this is not a proposal to clear-cut Washington state so we'll have more water, but that is, in theory, what you'd do and you'd have more water because you'd be stopping the fir trees from taking all the water.

So anyway, if you're interested in this and you have nothing else to put you to sleep at night, I'll send it to you.

Mr. Cerbone: Well, I think it's right here and I'll make sure you guys get a copy also.

Ms. Rose: Mark, I just wanted to make a quick comment, and that is the little bit that I did while we were talking here is for 200 gallons a day, if you have a 20,000-gallon tank, that provides enough water for 100 days. So basically it gets you through the dry months. And a 100-gallon tank is about 8 feet in diameter by about 33 feet long – just so you can have a picture in your mind. So a lot of these tanks are put under the foundation or in a crawl space or a daylight basement or a basement of sorts. At any rate, somebody was asking, Well – nobody asked that specific question but to me that *is* the nut – about how many days do you allow for in the summer, and I think 100 is the minimum. I think you might even want to go 120 but that's what we're talking about – is 20,000 gallons of storage for that 200 gallons a day, or if you want to be really conservative, have 30 gallons – or 30,000 gallons of storage.

Chair Mitchell: Mark, did you still have something?

Commissioner Lundsten: No.

Chair Mitchell: Okay, anybody else?

Commissioner Lundsten: It's been answered. Thank you.

Chair Mitchell: No. Okay, I think we've handled P-1 then. Oh, one more question for you. This applies to both P-1 and P-2. If you can make sure that you forward that PowerPoint, along with any of the other pieces, to us we'd appreciate that.

Mr. Cerbone: Yep. Yeah, I have a copy of the script that Hal was reading off so I can forward that along with the PowerPoint and I'll make sure I forward this article. I've got it there for you as well.

Chair Mitchell: Thank you. And, Edith, if you'd go ahead and state your full name for the record, please.

Ms. Walden: Yes. My name is Edith Walden. I live at 6203 South Shore Road and I also want to express my appreciation both to Michael and to the Commissioners for this opportunity to present extended descriptions of our thinking regarding these proposed amendments. I think we've already seen what a benefit this is to be able to get your questions answered and for us to be able to be thorough rather than having a three-minute chance to get our ideas across.

I'm going to address the well drilling issues and summarize GIPAC's current code amendment proposal. Michael, I'm going to need for you to get the next slide up.

Mr. Cerbone: Yeah, we'll – bang! There you go. Magic!

Ms. Walden: Great. Terrific. And first I want to credit GIPAC board member Nancy Fox who used her lengthy experience as a professional planner for the City of Seattle, King County, and other local jurisdictions in the state to do most of the research for this proposed amendment. Because of some serious health concerns, Nancy cannot be here tonight.

As with rainwater catchment, we are focusing exclusively on Guemes Island because it is unique in the county owing to its designation as a sole source aquifer. And it also faces particular challenges as a designated seawater intrusion area. So Guemes Island is both – the entire island is both a seawater intrusion area and an aquifer recharge area, and those both are part of the critical area ordinance, chapter 14.

Our goal is to ensure that new wells do not undermine the senior water rights of 360 existing wells on Guemes Island that we are aware of. This is not an academic exercise. As Hal mentioned, well failures impacting at least 64 residences due to seawater intrusion are well documented on the island. If our aquifers become contaminated, the water supply for the entire island would be threatened.

Some of you may have seen the front page article on Sunday's *Skagit Valley Herald*, which featured some of the rainwater catchment issues on the island. And in the article my colleague and board member here, Steve Orsini, describes his experience of losing his well to seawater intrusion as a disastrous nightmare. And I think all of you can imagine what would happen if tomorrow you discover that you can no longer get potable water out of your tap.

Our second code amendment proposal, P-2, would do three things. It would require the County to review and approve all new wells *prior* to drilling, not just new wells that are linked to a development permit, as is currently the practice.

It would require assessment of hydrogeological impacts of *any new well* as part of that review process.

And thirdly, it would clarify that on Guemes Island rainwater catchment systems can be built without first drilling an expensive test well to prove that a well is not feasible.

Two years ago we proposed a code amendment to clarify that well drillers must get County approval prior to drilling a new well. While the seawater intrusion code already establishes such a requirement, we were aware that this is not being enforced and so we asked for clearer language in the code. We understand that well issues are complex in Skagit County and the state, so we considered it reasonable in 2016 when PDS added our issue to a 2017 work program rather than endorsing our specific code language. Upon doing their own research, PDS staff determined that existing code did indeed require County approval prior to drilling any well and conducted (sic) that no further amendment was needed. This conclusion, however, did not result in any noticeable increase in enforcement. We ended up where we started. We then took a step back to look more closely at all of the existing code requirements related to well drilling to make sure we understood what the code currently says. As you know, there are many overlapping codes affecting water and critical areas, so it was quite a project to sort and untangle these requirements, as Nancy Fox did. Our analysis shows that there are indeed many protections for Guemes Island groundwater already built into the code, but key requirements are not being enforced or implemented. We provided a copy of our analysis to PDS and the bureau of County Commissioners last year, which we would gladly share with Planning Commissioners if you desire.

Our code analysis shows that the critical areas ordinance, SC (sic) 14.24.310 and .330, specifies a hydrogeological review for any development action including wells in a sole source aquifer and in seawater intrusion areas. Guemes is both. To the best of our knowledge, this review does not occur, partly because some wells are drilled with no notice to the County at all, and partly because the County does not conduct it.

So we are proposing adding a new section to chapter 14, the critical areas ordinance – 14.24 – that we are proposing would be 14.24.335, to further protect aquifer recharge areas and senior water rights, as you can see on the slide. Are you able to read the first –

Several Commissioners: No.

Ms. Walden: All right. Let me read it for you then. "If the County hydrogeologist determines that a proposed well in an aquifer recharge area is likely to have negative impacts that cannot be avoided on the aquifer and/or neighboring wells, the administrative official shall not approve the proposed well."

So basically this is just kind of adding very clear language that a hydrogeological study needs to be done, as required by code already in this section.

All right, the second thing: An application for well review and approval must be submitted to the County before well drilling. This is Skagit County Code 14.24.380, also in the critical ordinance chapter. What we see on the ground, however, is that this does not always happen. Late in 2018, for example, two new wells were drilled on the north end of Guemes. You know that this is the north end of Guemes that DOE 20 years ago said we should not be drilling any more wells on. So these two new wells were drilled in an area where the aquifer is most vulnerable, apparently without prior approval by the County. These wells were not necessarily attached as a building permit, which is usually where wells are decided whether they are going to provide the adequate water supply, et cetera. So one of the problems is that if a homeowner, a property owner, decides, Well, I know that someday I'm going to build on here, I'm going to go ahead and put my well in now. If they do that, there is no critical areas review whatsoever and they just put it in without County approval. Now they do go to DOE, but without County approval.

Chair Mitchell: So to reiterate what you just said, they got the permission from DOE.

Ms. Walden: Yes, they do get permission with DOE but DOE is not responsible for reviewing the surrounding geology of the situation of that particular well to know whether it is likely to have a negative impact on surrounding wells or if it *is* in the area where surrounding wells have already experienced seawater intrusion, et cetera.

So we are proposing adding a new section to the seawater intrusion area section of the critical areas ordinance, 14.24.380, as you can see on the slide – or, rather, as you *cannot* see on the slide – so let me read to you – pardon? Can you read it now? All right. Shall I read it out-loud to you? Yes? Okay. Okay, so this again would be a new section.

(mostly unintelligible comments from Commissioners and others)

Ms. Walden: No, it's 2. It's section 2. It's 14.24.380. He was right. Okay, so section 2 would be titled "Well Predrilling Review and Approval Requirement in Sole Source Aquifer Areas." A permit issued by the County Department of Planning and Development Services is required before drilling a well for any purpose in any area designated as a sole source aquifer area. Under the federal Safe Water Drinking Act, well drilling shall not be commenced before a county permit has been issued. A permit may not be issued until the site assessment required by SCC 14.24.330 for aquifer recharge areas is completed."

And so basically this is to make it very clear that any well needs to have a *County* permit prior to being drilled.

And then a code provision added in 2017 into SCC 14.24.383 states that where a known seawater intrusion problem exists alternative sources of water, such as rainwater catchment, are encouraged. We were very happy when this got added. But it immediately undercuts itself when it continues "but must comply with the requirements of SCC 12.48.250," which is the drinking water chapter, because that says the Skagit County Public Health Department *discourages*

alternative sources. Furthermore, SCC 12.48.250 requires an applicant to provide written documentation about why either an improved public drinking water system or a drilled well cannot be used. And "documentation" basically means they have to drill a test well to prove that they can't get water. Our proposal would eliminate this contradiction by exempting alternative water sources in seawater intrusion areas from the documentation required to prove a well is not feasible.

So our proposal then is that we change the wording in 14.24.380 and add an exception for seawater intrusion areas that does not require drilling a test well before an alternative source can be installed, as you can see on the slide. So basically we're just basically saying that alternative water systems still must comply with the requirements of all the other requirements of 12.48.250 *except* that a test well is not going to be required before they can do an alternative source.

Presumably, based on this contradictory directive, County staff in 2016 told one Guemes property owner that even though his property already had a rudimentary catchment system on it that he sought to upgrade, he would have to drill a test well at a cost of over $10,000 to prove that potable water could not be provided by a well before he would be allowed to upgrade the system on his property.

Michael, next slide, please. What is not in P-2 but in doing our research came to our attention is our proposed amendment does not address the remaining contradiction where alternative water systems are encouraged in chapter 14, critical areas ordinance, and discouraged in chapter 12, individual and public drinking water systems. We offer the solution of simply adding "except in seawater intrusion areas" to the first sentence in 12.48.250 with a reference to 14.24.380, and that would eliminate that contradiction. And we are hoping that this could be an administrative change.

We reiterate that our focus is to protect Guemes Island's groundwater supplies and to make sure that existing wells and senior water rights are not undermined when new wells are drilled into aquifers. We do not want to place onerous requirements on people who want to drill new wells. In conversation with the County's critical areas staff we have learned that many or even most new wells could be reviewed hydrogeologically based on what is already known of geology in the area and the condition of existing wells and would not require an in-depth review. Most wells, the hydrogeologist thinks, can just be done by looking online at the data that already exists. But where there is a history of well failures and the potential for further negative impacts to existing wells, we think that careful and thorough review should be a mandatory practice. In the long run, we think this practice protects the development rights not only of those with senior water rights but also those who wish to put a new tap into the aquifer and who assume that a County well permit assures them of access to an adequate supply of water in perpetuity.

You know, we've talked already about people who are coming from metropolitan areas who are used to turning on the tap, who have no experience even with wells and who are putting in a well and not understanding what needs to go wrong – or what can go wrong and how important it is to maintain the well and conserve water and all those kinds of things. Ultimately more research is needed on our aquifers and how they are recharged, and it would make much more sense to do this research island-wide rather than case by case. For that reason, GIPAC is partnering with the US Geological Survey on a proposal for a new hydrogeological study of the Guemes aquifers to identify recharge areas and estimated rates of recharge. This refers back to what was already discussed about the baseline study that was done in 1994. So they have a baseline. Amazingly the same researcher who did that study in '94 is still with the Survey and she's very excited about the idea of being able to do another study – to actually – particularly since the technology has

changed so much that they will be able to definitely quantify things that they were only able to estimate in 1994. GIPAC will be looking for additional funding partners for this work. We need to come up with $80,000 to co-fund with the USGS, and we hope that the County will see the benefit in providing some support. In the meantime, existing County code legally requires the County to undertake a hydrogeological impact assessment on a case by case basis on any new well on Guemes Island.

In conclusion, we understand that code enforcement in Skagit County is complaint-driven and that enforcement resources are limited. We know that education is needed for well drillers, realtors, and residents on saltwater islands and we hope to partner with PDS to assist in some educational efforts. Making code requirements clear and non-contradictory for staff, contractors, and property owners is a much needed step in preventing further well failures and degradation of our only source of drinking water on Guemes Island. We hope you will agree.

Thank you for your time and attention, and I'd be happy – or *we'd* be happy to answer any further questions.

Chair Mitchell: Does anybody have any questions?

Commissioner Candler: I do, but I'm also aware that you guys have a ferry to catch. What time to you have to be on the road?

Ms. Walden: We need to leave at about ten to eight.

Commissioner Candler: Okay. All right. Could anybody give me a good reference for somewhere – literally anybody – to look at senior water rights law and how it applies to this? You're nodding your head, Nick.

Nick Schmeck: We can send you something.

Commissioner Candler: Okay, thank you.

Chair Mitchell: Would you send us all?

Mr. Cerbone: Yeah. No, what we'll do is we'll gather information and we'll present it back to you and we'll give you the opportunity to ask those questions about the information we gather.

Commissioner Candler: Can I ask one more question? And this sort of goes more to P-1, but you just mentioned the sort of investigatory well costing $10,000. Does anyone have an idea of how much a 50-gallon catchment like we were talking about – does anyone know, like, what the economic feasibility of those are, like, compared to a well?

Ms. Walden: Steve's the one to do that.

Mr. Orsini: Well, you know – yes, I'll give you some very, very rough numbers. But in recent experience – remember when you could drill a well on Guemes in one area and go down 75 feet and get water. Recently a well was drilled on the – what we call Mount Guemes, but nobody else would call it a mountain. Had to go down 140 feet. So that massively affects the cost of the well, but in just round numbers you can probably figure that a new well will cost somewhere between 10 and 15,000, and the most recent permitted system for catchment on the island was about 25,000.

Ms. Walden: Actually, let me add something because I talked to the person who had the rudimentary rainwater catchment system and was required to drill a $10,000 well. He decided to – he had an adjoining property – he decided then rather than upgrade the catchment system or drill the well that he would drill a well on his other property and then he would have a two-well, shared system. So he did drill a well there. I believe, Steve, that's the one that you were talking about – 140 feet down. And he said, yeah, you can drill a well but you also have to count in the pump house, the electrical stuff, and so the well that he drilled cost about $35,000 to have it completely working.

___: So your figures were for the catchment system __?

Ms. Walden: Yeah.

Mr. Rooks: Remember 5 of that in our view was just unnecessary second engineer's stamp on the study.

Chair Mitchell: So you're saying more likely 20-ish?

Mr. Rooks: Yeah. The figure I have heard when we asked this back when we were going to Friday Harbor – and, again, it's very ballpark – but was that catchment was perhaps 50% more than a well. And all this varies on how deep you have to go and all those kinds of things. But basically catchment is – we're not going to believe that catchment's cheaper than a well but I don't think it should be massively more expensive either. Plus you're sure it's going to rain.

Mr. Orsini: So this is one example. The gentleman that was sitting behind me put in – bought a piece of property. It had a well on it. When he put the pump down the well had no water in it. He ended up deciding to go to catchment rather than to drill another well in that area. And he ends up with a system that stores 13,000 gallons a year and it's been adequate ever since. He said the original cost was 45,000. He believes that if he did it today, because of the learning curve of the people that he worked with, it would be about 20,000.

Commissioner Candler: One more, and this is for anyone also, the Department or the speakers. Does anyone know why – the reasons why Skagit County Public Health Department discourages alternative sources? I can assume some things, but –

Mr. Cerbone: I will make sure I get you an accurate answer on that.

Commissioner Candler: Thank you.

Mr. Cerbone: I'd hate to make one upon the spot right now.

Commissioner Candler: Got it.

Commissioner Lundsten: Thank you for asking.

Mr. Orsini: I would take a stab at that, and maybe your answer will be more correct. But historically the sense is that if you have a well you're down in the ground and it's an anaerobic situation and bacteria cannot grow. That's been the great – the longstanding philosophy behind wells from the ground. And so in rainwater catchment you're exposed maybe more to debris and the classic fear is, well, the birds will maybe poop on it. And the answer to both of those in modern technology is a UV light.

Commissioner Candler: For your tank?

Mr. Orsini: No. What you do is – you can do a UV light for tank but the best way to do it is that you pull from your tanks and then you go through a filter system. I mean, anybody would filter the water. And then you have a UV light so all of the water that's potable exposed to the UV light before it goes into the house. And by the way, that's the same system that is used in areas now where there's high nitrates or high contamination of the water resource from the drilled wells.

Commissioner Candler: What do you do – is there a concern about the tanked water – like, say, it goes all year or whatever. Some of it's still in there. Any kind of problems within the tank once the water's in there? Or is there something similar that can be done?

Chair Mitchell: Like algae or something?

Mr. Orsini: No, there is one interesting study that says a certain amount of just debris on the bottom tends to eat up anything in the water. But I have four 2500-gallon tanks. I've had them in operation now for 16 years, and they don't grow anything. They're inside a building, and I pre-filter and then they just sit there in the tank. Now the tanks are – you know, I mean the water eventually gets used and then is recharged with fresh rainwater. But there isn't an algae problem as such inside the tanks.

Commissioner Candler: How much space do you need for your four 2500-gallon tanks?

Mr. Orsini: Each tank is – now I went on the very conservative side, but each tank is 8 feet in diameter.

Commissioner Candler: Oh, they're round? Are they round?

Mr. Orsini: They're round. They're round tanks, 8 feet and roughly by about 8 feet tall, and they hold 2500 gallons each. That's 10,000 gallons in storage because I calculated that the longest drought that showed up on the rainwater rainfall charts was 90 days. And then I back-calculated the amount I was using per day and 10,000 gallons would get me through the longest drought that we had in record. So 17 years later I haven't exceeded that. I have – it's working.

Commissioner Woodmansee: And part of the algae question, isn't the plastic made for potable water?

Mr. Orsini: Yeah, these tanks are potable water tanks. They're built in the – well, it's an inert plastic material.

Commissioner Candler: Thank you.

Mr. Orsini: By the way, 16 years we've used this system. I pre-filter before it goes into the tanks and then I filter assiduously – a lot – before it goes into my house. I also have 100% carbon filter because all of Guemes is downstream from the refineries. And the refineries, when they have an upset, blow off a lot of what's called VOC – volatile organic carbons. They're stuff that goes into the atmosphere and if it's raining that tends to come down on Guemes, and the carbon filter takes all of that out. And then it goes – all of that then goes to the UV light and my house is a whole-house system. And we really like this water and we've never gotten sick from it.

Commissioner Candler: Is it expensive to maintain that carbon filter you're talking about?

Mr. Orsini: I change that filter – it's a $50 filter and I change it four times a year, which is probably more than I need to but I'd rather err on the – it cost in filters for me – and a new UV – I put a new UV light in each year. That's not a requirement. But my bill runs about $230 a year for the filters and the new UV light.

Commissioner Candler: Thank you. Thank you for sharing that. You know, it's helpful.

Mr. Orsini: Yep.

Chair Mitchell: Anybody else? Joe?

Commissioner Woodmansee: Is there anywhere on the island – this is sole aquifer, right? – so is there anywhere on the island that you *can* drill a well and it won't impact this aquifer in a negative way?

Mr. Orsini: Yeah. Let me clarify a couple things. One is that when we say "sole source aquifer" you think it's just one giant aquifer, but there's actually main aquifers. What the sole source means is that the only way those aquifers get recharged is rainwater. The main aquifer on the island, you can drill a well in there inland and you're probably not going to affect anything, although we've studied it for about 20 years now – 25 years – and even the biggest aquifer, which occupies the major part of the island, maybe has dropped about a foot. But you could drill a well there and there's no effect. It's a big lake. Where we're in trouble is on the north end. You see the amount of coastline versus that peninsula, and there there is a separate aquifer and it's much smaller and it's shallower. It doesn't have – we don't know the exact volume – and that's where we're in trouble. And now we're seeing some other places. But, yes, there are a number of areas where you can drill and probably not affect anything.

Chair Mitchell: What about the third aquifer that they found in 2010 that said there were more wells coming up than they expected – from that study from the University of Washington?

Mr. Orsini: Yeah. Well, we're getting into the – these maps are very important here but the aquifer that they kind of – I'm not very clear on what that study found, but on the rocky end of the island there is a series of crevices and cracks and the water gets down in there and ends up in some kind of an aquifer that's more confined to that end of the island.

Mr. Cerbone: So which end of the island is that?

Mr. Orsini: That's on the southeast tip, right there. Yeah. That's, again, what we refer to euphemistically as "Mount Guemes." It would be a hill here in Skagit Valley, but it's an area where there are a number of wells that have been drilled and they're tapping into water that's accumulating because it's coming down through the cracks in the rock.

Commissioner Hughes: But rainwater still?

Mr. Orsini: Just rainwater, yes.

Chair Mitchell: Anybody else have any more questions?

Commissioner Candler: Can I just ask a clarifying question? It sounded like what you were saying at the beginning, on P-1 again, was that you were just asking that the code be amended to allow this as an alternative, not to limit – not to remove any language about a well. Is that accurate?

Ms. Walden: Correct.

Mr. Rooks: Yeah, but to be clear too, what we're trying to get to is that you don't have to go drill wells to be able to use it and that if somebody comes in and says I want to build a home up in the north end of the island, ideally somebody in the County permitting process – the hydrogeologist, perhaps – would say, Yeah, you can drill a well but you may run into the problems that Steve's family ran into and rainwater catchment is an alternative, and if we're not ___ hurdles other than just ____. So that's a slightly more complicated answer but _____.

Commissioner Candler: Right, that's P-2, I think. Speaking to Mark's point, would affect more rights more than what I understood you to be saying about what you're asking for on P-1. You're just asking for that alternative to be added, not removing any options. Okay.

Ms. Walden: *And* – I mean, that alternative does exist now. We do have this one permitted rainwater catchment system on Guemes Island that we've talked to you about, you know, the additional costs of basically having to pay for two engineers' stamps, so we're asking not only that it be encouraged but that there are some modifications that need to be made to make it easier: the adequate supply of water and the cost and the engineer's stamp and those kinds of things.

Commissioner Candler: Understood.

Chair Mitchell: Mark?

Commissioner Lundsten: Michael, can we get a summary of the San Juan County program?

Mr. Cerbone: You can. We're actually in the process of drafting a summary of the San Juan County program. We also looked at Whatcom and Island. Island, I don't think, has as much useful information for you but Whatcom and San Juan are different approaches. And so we anticipated you are going to want that information so we've been gathering that and trying to describe that. So, yeah, we just need to ground-truth that with the actual agencies to make sure that we're accurately reflecting their system and program, and that is something that we had planned on sharing with you for sure.

Commissioner Lundsten: I knew you were one step ahead of me.

Mr. Cerbone: A quarter of a step!

Commissioner Hughes: Along with that – whoops.

Commissioner Lundsten: I have one more question. Does the San Juan system – and any of the three of you may answer this – does it use catchment as an auxiliary system? You have a well, you have some rainwater catchment, the wells have good – do people use both? Is it up to the – and you said that San Juan County puts the onus for certain things on the owner and not on the County, so it's up to you to figure out if it's going to work.

Ms. Walden: Yes, exactly. I talked to the head of their drinking water system just a couple of days ago to kind of understand what they do. They don't require a permit for a well. So they just depend on, you know, DOE's until you want to build something, and then they have permitting that has to happen. But then they – for rainwater catchment they basically say, Here's our guidelines, you know, and you can design your own system. It's basically up to you – as what you're saying. And

then they also have that requirement that goes in on the title that says this property has an alternative system on it so that any future buyers know that it has rainwater catchment.

Mr. Rooks: So going back to 2016 when I went up there with some of us to talk to them, the sense we got was that probably much more than in Skagit and maybe even more than – it might even be the case on Guemes – people in San Juan County realize that wells are not a very good option for them, that there are too many failures of the wells or they come up dry. And so there's sort of a broader, I think, acceptance of looking to rainwater as a catchment. So I don't think – my sense wasn't that people would voluntarily want to put in both because it's just a double cost, but that you could do one and if it doesn't work out you can go to the other one. But a lot of people perhaps are just going straight to catchment and saying _____ well.

Ms. Walden: This person also described that – exactly that situation where there are a number of people who, because they didn't have to get a permit to drill a well – they drilled the well; they already have the well – and then they come to the County because now they're going to build and so they need to prove that they've got an adequate water system. And they *do* do a hydrogeological study on San Juan Island, and –

Commissioner Lundsten: So they have the enforcement there –

Ms. Walden: They have the enforcement.

Mr. Lundsten: But they don't seem to –

Ms. Walden: Well, what they do is they contract out with a hydrogeological company who does the initial assessment, and then if that assessment comes back – and they have seven criteria that make a well required to have a hydrogeological assessment. They're really simple, like – and you only have to meet two of those before that hydrogeological assessment is required. One of them is, like, your well is within a thousand feet of a shoreline. There's another – I can't remember what the other one was but basically it looked to me like pretty much *any* well is going to have to have that initial assessment. So then if that company comes back with things that would have to be mitigated in order for this well to happen, then the County starts talking to the owners, explaining that they're going to have to hire their own hydrogeologists and they're going to have to do this in-depth study, and he said 60 to 70% of the owners at that point decide to go to rainwater catchment.

Chair Mitchell: Okay, Amy?

Commissioner Hughes: I don't have a question. I just have a request from the Department, so if people have questions let's use their time.

Commissioner Woodmansee: I have a question.

Chair Mitchell: Okay.

Commissioner Woodmansee: So and basically in San Juan County if you want to do catchment you get to do it if – if that's your choice.

Ms. Walden: Yes.

Commissioner Woodmansee: Just like if you want to buy a Ford instead of a Chevy, you buy the Ford.

Ms. Walden: Yes. And the responsibility – San Juan County doesn't take – doesn't have any liability to it. They transfer that liability completely to the property owner.

Mr. Rooks: To go maybe one step further too, at least – again, in 2016 when this was explained to us – and I also when I spoke to a man in 2018 and said, Has much changed, or What have you changed on it? And they said not much, so I'm assuming what we heard in 2016 is pretty valid. And they said the package of – you come and you say, I want to build something and I need to know about water. They give you a package of information. It's all on the website if you want to look at it, too. So they say, Okay, you can – this is our general suggestion for a rainwater catchment system and here are people that know what they're doing – Rain Bank and others. If you want to build your own system and you take the liability for it then it's your business. You can size it any size you want. If you make it too small, guess what? You're going to have to come back and get it bigger or make it bigger yourself. But the point is they don't dictate what has to be done. They just sort of basically say, You do it; you're going to sign this piece of paper that lets us off the hook but you can legally __. It's up to you.

Chair Mitchell: Another question that's really kind of tangential but still figures into all of this. I remember on the tour that you guys took us on seeing where the fire department well was and that kind of business. How do they figure into something like this? Do they get exempted from water use or wells and things like that, or not?

Ms. Walden: They have access to other public water systems so that they can go and fill their trucks and stuff up from other water systems.

Chair Mitchell: A desalination plant, or something else?

Ms. Walden: No, no. It'd be, like, the store, you know, has storage. There's one on Totem Trails. I think there are four or so.

Mr. Orsini: They have required in certain areas of the island an installation of a 10,000-gallon storage tank so that if there's a fire on the north end they go – the closest one is Potlatch. They can recharge right there. They also have 10,000 gallons at the fire station and then I think there's a couple more towards the south and southeast. So they've covered themselves by planting caches of water.

Ms. Walden: And during the big fire that we had in 2010, 2011, which was a huge fire, then basically all the fire departments from Skagit County were ferried over with pumper trucks.

Chair Mitchell: Okay, part B of the question – again, it's not directly but it's tangential: What about the businesses? Does this cover businesses as well? They could do rain catchment if they chose to?

Mr. Cerbone: We would have to look into that and get back to you. I mean, they're going to need to be able to demonstrate a potable source to be able to permit their development. I'm not quite sure if that's something used for residential. We'll look into – or for commercial, rather – we'll look into it.

Chair Mitchell: Okay.

Mr. Rooks: This raises other interesting questions in my mind and that is sort of, again, Washington state law in a way seems to have been built on something that I don't understand in today's world. But today what you run into is that first of all you cannot by Washington state law – and this is my understanding so it __ perfectly correct, but basically you cannot build a structure just to catch water. The structure has to serve some other purpose, like a barn or garage or something.

Chair Mitchell: I see.

Mr. Rooks: So, you know, you see sometimes people put up solar panels out in the field and there's no – they're not on a roof. Apparently, whether anybody enforces this or not, but on the books it says you can't just put up a roof to catch water. It has to have some other purpose. Secondly, I think the rule is that catchment can be used for private water systems, meaning one or two houses – so you could have one and your neighbor could be off of it. I don't think they're allowed on public water systems, which would be Class B or Class A water systems.

Chair Mitchell: Okay.

Mr. Rooks: So when you start getting into the business, I don't know what – like the store I think is a Class A water system on Guemes, so that gets into – there are those kinds of issues.

Chair Mitchell: Well, I guess in general to the staff, just anything like that that helps our understanding – when you come across it.

Mr. Cerbone: Yeah, I think we've got just a time check: six minutes before the pumpkin changes.

Chair Mitchell: Okay. Anybody else?

Mr. Orsini: I just want to clarify that what we're talking about is *new* construction. We're not asking to go back to somebody who has an operating well or system or whatever and mandating anything. This is the new construction coming in. We want them to have actually the choice to put in water catchment if that's the way they want to go.

Chair Mitchell: But this would also – this goes to only you guys – but this would also allow for people that were having ____ and haven't spoken up to do rain catchment now. Yes?

Mr. Rooks: Correct.

Mr. Orsini: I'm sorry. People who?

Chair Mitchell: That were marginal. They may not be speaking up and telling you they're having water issues.

Mr. Orsini: Okay. Yeah, yeah, yeah.

Commissioner Candler: Well, that was my issue. This is code for *new* development but how would it affect existing? That was kind of my question.

Mr. Cerbone: So anything that was lawfully permitted, if there are change in standards – and this goes with anything – would be considered legally nonconforming so it'd be allowed to continue. And then typically when you change whatever that use is, if you wanted to alter it you would need

to, you know, address whatever the current standards are. So if somebody went through and developed their house with a well (and) the well was drilled and followed the rules at the time, it should be fine. But if they wanted to come through and build an ADU out there, they would have to meet whatever the current standards are at the time. Anything that we change, any code that you look at that we're going to change, once that's changed that use would be considered nonconforming, legally nonconforming if it was permitted.

Chair Mitchell: Anybody else have any questions before they have to run?

(silence)

Chair Mitchell: Okay, thank you very much.

Commissioner Hughes: I'd like more information from the Planning Department.

Mr. Cerbone: Yeah, and what I had hoped was that you guys got all your questions from them and then if there's additional things you want us to research, we've already got a list of things that you've been talking about this evening that we'll dig into, but if there's other things we'll certainly look into those as well.

Commissioner Hughes: I'd like a summary of all the possible water systems used on Guemes, which means the well systems, the rain catchment possibility, but also the reverse osmosis system.

Mr. Cerbone: Okay.

Commissioner Hughes: History, how it's working, the success, its potential.

Mr. Cerbone: I will do my best to find as much information as I can. It should – there is information. We have the Coordinated Water System Plan, which has information about all the different water systems in the county that's updated on a regular basis, so I can take a look there. And then I can reach out to our friends at DOE as well.

Commissioner Hughes: Well, and maybe even PUD could be helpful on this.

Mr. Cerbone: They would certainly be helpful. Yeah, because they operate the reverse osmosis system.

Commissioner Hughes: Thank you. Total education. I'll add one more thing. I don't know a lot about it so total education is what I'm looking for.

Chair Mitchell: Like we're brand new!

Mr. Cerbone: Yeah. Yeah. So the article that I put up for you, you know, that's something we can email out. We'll probably email out some additional information for you so that you have some more things to read before the 24th. Don't want to bury you. But we probably won't come back to this topic until October. So that gives us enough time to finish our memos that we were working on and address any of the questions that you guys popped up here this evening.

Chair Mitchell: Yes, Hollie?

Commissioner Hollie Del Vecchio: The things that are being emailed out, are those also uploaded to the website?

Mr. Cerbone: We can, yes. I can make sure that I get them uploaded to the website, yes. Thank you.

Chair Mitchell: And thank you very much for seeing that the past information had been loaded onto the – where the agendas and the meeting information was. Really appreciate that. Okay, so is everybody ready for the Department Update?

Mr. Cerbone: So I am going to turn this over to Mr. Hart. Do you have a PowerPoint?

Hal Hart: Okay, so as promised I'm going to give you a monthly update from the Department. And in this update I will also bring you some news from the Commissioners' office. So the first is positive news. This is our Assistant Director now, and so that, like, quadruples my capacity so that is excellent. And that also means that we are going to backfill for the position that he has vacated behind us. So look for that if you see that out there. And that gives us additional ability to provide assistance to you and to work on initiatives that the Commissioners want us to do, as well as just working through our Comprehensive Plan and doing the things in our Comprehensive Plan that were brought up, that we ought to be doing tonight. And so there's a long list of policy issues that we need to discuss as a team, and that includes you, that we should be tackling.

The Commissioners are primarily seeing two really big issues hitting us and one is housing and I've talked a little bit about that before. And the other one is the opioid issue. And you would say, well, you know, How does that impact Planning and Development? Well, it's a compliance issue. And so if you want to clean up derelict farms that are out there that are serving as shooting galleries and other kinds of things, it's a very expensive proposition. So our compliance staff is involved in that kind of work right now. That means our building official is involved in setting that work up and contracting for those cleanups, and working with the landowners to try and clean up those derelict properties in the county. And so this is all kind of feeding into a larger set of social issues that we are trying to coordinate with the Cities.

But I think one of the key components of that, too, is housing. And if you think of a continuum of housing need, you know, on the one hand you have people that have addiction issues and they need someplace to call their own and work on those addiction issues. And then you have the low- to moderate-income community. You have another emerging, really tough problem to solve that a lot of people in the community wanting to solve – the senior housing issues. And there's a lot of seniors approaching poverty that need assistance and that are on fixed incomes. So even today I was in a meeting with a group of really well-meaning residents wanting to address that. And to do that in a small county means that – means with a number of cities that aren't huge either means you have to work collaboratively. And it means we need to continue to build those bridges between the building community, the nonprofit community, the banking community, and everybody else to pull together and do real housing projects that address these parts of the housing continuum

So I'm just kind of giving you a background of priority, and so what I'm now going to show you here is kind of just setting – so talking a little bit about __ talk about I'm setting the table – Michael's word that I use all the time now – the demographics and growth and expansion. And the first thing I would say is I've been around, you know, about 60 years and seen a number of expansions and expansion periods. This one is unlike any other that I remember in that the Seattle region is such a dominant force in, I would say, all the counties around it, I would say. I would say in driving transportation policy, driving housing costs, driving everything. And why is that?

So I have some numbers but I think you know and you've heard a lot of these. That Seattle itself has seen unprecedented growth, everybody knows that. You can see that with the buildings that are going up. But that also means that – when I talked to Ralph Black of Black Brothers in Whatcom County they are actually seeing people commute from their new subdivisions down to Seattle. And I heard some more of those stories today. And so that skews the market. That does weird things to markets, and that means some people are going to get priced out. And just today it was announced that Amazon passed Microsoft in the state of Washington with total employment. So, you know, they were created in – what? – '94, I think, Microsoft in '77, and we all remember what that did to Redmond. It blew up Redmond and stuff. But Amazon is doing it faster, quicker and blowing up South Lake Union, and what that means is that I can primarily say that that has made Seattle, you know, the number one place for investment and it has also had an impact on surrounding areas. And today there was a call for all the surrounding Cities to start putting density in their – I think it was PSRC – Puget Sound Regional Council – telling another 40 Cities in that region, Hey, you've got to step up. You need to start connecting the dots and putting density in your downtown to address the housing issues because it's having a regional impact. And so some are stepping up and doing a good job.

And I like to always look at Woodinville, so if you were to go to Woodinville this morning there's actually a big crane – a couple of cranes out over Woodinville, a town of 13 or 14,000 and it's continuing to grow in partnership with the most recent growth – a couple hundred housing units in the downtown. And a lot of those communities have worked on housing and they have a 20% set-aside, and that is for low- to moderate-income in some way and they actually get credit for that. So it's important just to kind of look down to the couple counties – and I'm just starting at King County – and say, Okay, what's going on? And it's driven – I think the key piece that I want to say is it's just driven by employment, which is a good thing. You know, it's not a – that isn't a bad thing that's driving it but it's how they respond to it that has all the impacts that I'm looking at, and the things they do and don't do impacts, you know, our rural place far to the north. But it's all, you know, elongated. I think the circle is elongated by the I-5 corridor so that people do the commute. And all across every newspaper this week is also reporting – I think there was a new study that was done that, Hey, guess what? – and we *have* seen this before – people are driving to qualify and they're looking for quality of life. That will impact us and that *is* impacting us because we talk to people on the front counter and we say, Hey, where you from, what are you doing, why are you investing here? And it's quality of life, it's open space, it's they want to move out of the Seattle area – over and over again. That part isn't new. It's just how much is going to be driven in this direction. It is stunning.

And so let's take a quick look at Seattle just for a second that – just to kind of blow you away. The stats I'm going to give you are from the Seattle Downtown Association. And I attended a housing meeting – which I'll talk a little bit more – down there, so I met everybody in the Seattle region. So right now they have – 88,000 people now live in downtown. It gives you an example: When I lived, worked, and played downtown on First Hill I had two grandmothers there and a business there that our family worked within, and everybody was still leaving downtown in the '60s and '70s, right? But now there's 88,000 people living there. There are 313,589 working there. So when I look at our cities I ask, How many people are working in downtown Mount Vernon and how many people are living in downtown Mount Vernon, and how can we change that scenario? How can we make that the live/work, you know, mini – let's increase the density there and be collaborative in any way we can. And that would take the pressure off of our rural lands in theory, and that goes to the 80/20 rule that we want to be looking at because that's in our Comprehensive Plan. Eighty percent of the future growth is to go into the cities. So how can we flip that and make those things happen? What collaborative relationships can we create, can we think of that will make cities successful?

There's also 500,000 square feet of new retail going into Seattle; 7100 apartment units are under construction; 1,000 condos are under construction – this is from July or late June – and currently – let's see. In the past 18 months, 52 new buildings have been completed in the downtown area. It's incredible. It puts Seattle leading – the number of cranes is equal to the cranes that you would see in LA combined with San Francisco. You know, only Toronto is seeing that kind of increase anywhere in North America. Very rare market. Investors from all over the world want to be there and are there.

And so I was talking to a software engineer last night from India. He has moved here to work in that industry in the east side, and many more are coming and their businesses are following them as well. So the big startup that was announced was a – in a first initial public offering out of Bellevue, in 24 hours or 48 hours I think it got $2 billion worth of growth capital. That's why people want to be here. It's because there's money here to invest and more. So it's concentrating wealth, technology, brilliance, and education that's almost found nowhere else. And that's why more companies will be here and in Vancouver to the north, as well. So you're seeing some of those same things roll out further north. And we are sandwiched between those two, you know, big cities with these big advances in growth right now. And so that will have a market impact locally.

So we'll – now I have been way too long on that. Let's just quickly go to –

Chair Mitchell: Can I just ask you a quick question on that?

Mr. Hart: Yes, go ahead.

Chair Mitchell: So obviously you're going somewhere with that, so how are we preparing to try to tap into that – is what I'm assuming you're getting to.

Mr. Hart: Yes. Yes. Very much so. This is an example up here that we have, and what's the name of that one called? And Mike says he likes _____.

Mr. Cerbone: It says "Project Hero Art Space Everett Lofts," Reid Middleton.

Mr. Hart: So Everett is quite a different town, and it's interesting. You don't have to go very much far – you don't go very far to see quite a different growth scenario. And in some places and in articles I've read they say, Oh, there's really three Washingtons, right? There's some of the micro areas that are doing really well outside of Seattle. There's the Seattle area. And then there's everybody else. And to some extent I think that's true. But I think commuting and what cities do to make themselves excellent places to invest is also important too.

So Bellingham is doing some great things in downtown Bellingham. It's walkable, it's a fun place to be. And kids, when they come – we have jobs in this area. People look in two directions. They look in Snohomish County and they look in Bellingham. And so they're not looking here because – and I heard this story today from a number of local developers – because of the quality of what we offer isn't very good and the kinds of offerings we have in the rental market just aren't there. So they can get a better deal essentially – even though we have created a job here, they are finding places elsewhere to live and so we're not getting the full benefit of the job being located here, which would then be the home – you know, the checkbook is being spent in the local economy and stuff like that.

So anyway, there's a ton of growth coming. That's why I put that on. Snohomish County is one of the fastest growing counties while Seattle grew 22% in the last – since 2010. You know,

Snohomish County is just moving a lot, and Arlington and Marysville are going. They have stunning numbers being projected for their urban growth area and especially in the job creation area. So I believe the combined for the next 20 years is 25,000 jobs in that area. So that will again have an impact on us. Now that's much closer than the other impacts I talked about so it will have a significant impact upon us one way or another. So it's up to us to figure out what's going on in the big picture. How do we leverage that? How do we take advantage of that? Or, you know, how do we protect what we love the most about the county through policies and growth scenarios?

So let's go to the next one. And then this is Skagit County and I think I can read that here _____. So as a total county, in 2010 we were 116,000. In 2019 we're at 129,300. That's the April 1 number that is confirmed usually in July by the Office of Financial Management. And they always say that their furthest-off is probably 2019 until we do the census in 2020 and then they correct it. But this is the number that they have and so – now let's look at that unincorporated number of 48,112 in 2010 going to 52,565, and then just beneath that compare that with the incorporated number – in _____.

At that point, I'm going to let Mike say anything. Mike has looked at the numbers in greater detail. And the question is the 80/20 issue, Mike. Do you want to speak to that for just a second?

Mr. Cerbone: Yeah. I mean, so what I did is I checked the – I took the numbers that we got from the state and I just looked at them to see where we were in terms of that 80/20 split. And, you know, we're not there when you look at it in terms of the total population growth, right? We still have more population than 20% (that target). But if you look at it in terms of what we've projected what was going to happen in the Comp Plan, you know, we are closer to that 20% of that growth. But that's because overall as the county we're not meeting the growth that we had projected in the Comp Plan, if that makes sense.

So, you know, one could look at that and say, you know, the county is meeting the 20% or near the 20% and some of the cities are not doing that, and I think he's got Mount Vernon up here as one example. Certainly when we look at it like over the last 10 years it's a pretty even split between, you know, what's happening in the city and what's happening in the county, but then when you look at it as a percentage of growth in the last two years, you know, there has been less development in the county and more development in the cities. But it was back – I want to say it was 2012 is where you'd have to go back to find kind of something close to that 80/20 split. In 2012 it was relatively close to that. And then we had kind of an outlier in 2017 where we actually had more development in the county than in the cities.

Mr. Hart: So the other thing that I was listening to people talk about today in a meeting was – I was trying to pin them down – because we need to tell a story to our larger communities, right? So if you *don't* build housing, what's the impact? Hey, I got mine. Say I'm a senior, 65, and I moved into the city and I got – what's the impact of, you know? So the impact will show up in other ways, would be what I would say. The impact is going to be: Hey, we've found out that we've got a lot of homeless children and are we going to do anything about that? Not doing something about that – and then the large number of homeless children that are showing up has a financial impact on everybody at some level probably – school district; the state of Washington; later on in juvenile issues or you know. There's a social impact to not having additional housing as people need it. And so that was the discussion; I'm reflecting the discussion. What's the impact of a poor selection of housing? They go elsewhere? What's the impact –

Mr. Cerbone: Or it kind of pushes the pricing up for everything. If you have – you know, that's basic economics – if you have less stock, then the stock you have is going to be more valuable. So, again, increase the cost of housing.

Mr. Hart: So the other thing, and not that I'm going to belabor it but I was just doing the flip discussion, and these are just bullet ideas at this point. I think the data supports it but if you want I can find the data. If you have more housing – and I'm watching the places that I have been director in that have put more housing. What they are seeing is greater economic opportunity because that housing was – created wealth for a lot of people in some ways, but it also created wealth for the City. And by that I mean they have taxable – new taxable projects that then go into rebuilding infrastructure and doing other things that benefit everybody in town. And so, you know, my key one I always go back to is Woodinville, and I mentioned that, I think, last time. But I think that's a pretty accurate statement that if you have built mixed use projects or single use projects even, you have more taxable property that is there and that's more wealth for the City to then reinvest in infrastructure that's needed to make it more walkable, as an example. And that was one of the things we recognized in Woodinville, and to make it walkable *had* to go hand-in-hand with higher density and to look for other public amenities as well. So hopefully communities are doing that. I think they are across the east side.

So not to go on and on, but just to give you an idea of – I think there's a larger story. The Commissioners are very interested in that collaborative effort.

Let's go to the next slide. Okay, so along these lines, July – okay, so on July 8th I attended the housing summit. Out of that housing summit I – it was interesting, you know. I met the first guy I ever worked for, and his name's Kim Herman from the Washington – he's in his last hurrah at – he's going to retire this year – at the Washington State Housing Finance Commission. And I gave him a call afterwards and said, Hey, you know, we're really interested in housing, and the first thing he did was offer a $500 sponsorship for the upcoming housing summit here. And so he wants to help us. He, you know, takes a few thousand dollars to put that on. The Health Department's leading the effort. Today we're putting invitations out – today or tomorrow. I saw a draft today. And Kayla and myself are on the housing summit to invite everybody to come to that housing summit. And I just got a call from a developer here in town and he wants to be there too. Small guys, large guys, out-of-town folks – we want to invite people for that dialog, for that discussion to talk about, you know, what should we be doing to focus new investment in our cities consistent with the County's big picture plan, and take the heat off of our rural areas and protect our farms in that process – is generally the way we're going to go. So July 8th – or, excuse me. Sorry about that. It's October 15th, 2019, 3 to 7 p.m. in the evening. And I'm just going to assume – I've got to ask the question: If they were all to go, as long as they don't – they can go, right? I believe it's not a meeting if they go. But we may have to notice it if there are more than _____.

Mr. Cerbone: I'll double-check with legal, but as long as they don't travel as a pack and try and operate on County business while they're there, I think it's probably fine because they'd be there for educational purposes.

Mr. Hart: We'll send you an agenda, then you can decide.

Commissioner Candler: Any idea on the location yet?

Mr. Hart: Yes. It's going to be at the college.

Commissioner Rose: I've already signed up so –

Mr. Hart: Excellent. Thank you.

Commissioner Rose: – there you go.

Mr. Hart: Was it difficult?

Commissioner Rose: Nope.

Mr. Hart: Okay, good.

Commissioner Lundsten: What day of the week is it?

Mr. Hart: I want to say it's on a Monday.

Commissioner Lundsten: Oh, it's on – so it is a – it's a weekday.

Mr. Cerbone: I bet it's a weekday.

Unidentified male voice: October 15th is a Tuesday.

Commissioner Lundsten: Tuesday.

Mr. Cerbone: And it is not a Tuesday where we have a meeting.

Commissioner Lundsten: That would be my next one. Thank you.

Mr. Cerbone: We have a meeting the week before and the week after.

Mr. Hart: And then the other thing that came up and I skipped over it was the WSDOT – we had brought it up last time – but WSDOT now has a 400-page report talking about the trains between these – between Portland, Seattle, Seattle to – and I have not had time to dive into that sucker because it *is* 400 pages, but I will because I'm worried about – it cuts through, you know, the most beautiful valley in North America. So we need to think about what are the impacts of that, of course, and these regional forces that are larger than we are. What's our role and what kind of mitigation do we want to see when something comes through our community like this? They say, in the article that I read on it this morning, that it will supercharge their economy, of places that are already supercharged, right? So it's interesting. It's – $24 billion is the low number and there's a higher number like almost twice that, I think.

Anyway, so it's big dollars but it has – it could be coming sometime in the next 20 years – so just to be aware of that. There's plenty of other things. There's probably another 20 things I could say, Oh, yeah, well, be aware of these. But I think sometimes those big things can just kind of be hidden in front of us and we can it won't happen, but then who would have thought that Seattle would see – there's still as many buildings that have been built – there's still 133 more that are proposed right now. Right? And the last 18 months have been the highest since probably the Alaska Yukon rush. So it has come down a little bit with just, you know, not quite as many being proposed the next 18 months, but 133 total in some pre-development stage or another is another stunning number. And so people have made money off of that and they're looking for reinvestment opportunities. And so when I reached out to a couple developers that were down there and just brought them through the area they were stunned that, oh, there's really great opportunities in Mount Vernon, as well. So I just wanted to check my ideas out. And so we should be thoughtful

as we go forward in thinking, How can we help the City and what are the ways that we can get some housing going in this town? That's really all I have to say, but go ahead.

Commissioner Lundsten: I have a question about the numbers of the growth of Skagit County. What is the breakdown between urban and rural? Was it anything like 80/20? _____, that 2010 to 2019, it doesn't look to me like it's an 80/20 split on the new growth.

Mr. Cerbone: No. It's – it is more like 60/40.

Commissioner Lundsten: Yeah. I was going to – yeah, it's so – I think we have discussed this at the start of the meeting and now we're discussing it towards the end.

Mr. Cerbone: It's a full circle ___. _____.

Commissioner Lundsten: Pardon me?

Mr. Cerbone: Oh, I think Hall would say, "Great minds think alike."

Commissioner Lundsten: I have one – may I have one more? Do we play – what role do we play in public housing?

Mr. Hart: That's a great question.

Commissioner Lundsten: Does the County – does the Board of Commissioners have a – do they make decisions about public housing in the county? Like in Anacortes – Anacortes Housing Authority or the –

Mr. Hart: The Commissioners play – they have a significant role in guiding money towards those projects. So they could – and it's really the Health Department that's the lead and I could definitely have the Health Department come in and give – provide a tutorial with different kinds of housing projects that we are involved in. So when I talked about addiction level housing issues, we're heavily involved in that. We're working with the tribes to come up with solutions over there at the Swins, and I think we're looking for other facilities. So we're kind of specialized in the health response to housing and we have a big role to play. We play the regional role – the Big C, I tell our staff. We play that role. But we also could think out of the box – and we could have a whole hour talking about financing – so if you were to think out of the box for a second and say, Wow, what do we use our economic development money for? Is it for good – every once in a while maybe you want to put a good public/private partnership together if a housing project is going to have a region-wide impact of some kind. And maybe you could say, Wow, if they ever got the first big 100-plus unit housing proposal into downtown Mount Vernon or into downtown Burlington, maybe that – or Sedro-Woolley – maybe that would be a reason why you would push for some regional dollars to go in there. And should we be looking for more funding too? So there's that role too. And it's not really on our daily mission but it could be, and so I don't want to do mission-creep but I do want to help address what I think is part of everybody's comprehensive plan and one of the Growth Management goals, which is housing. And so how do we do it when it's that acute, when, I think, across the region people are recognizing it's a big deal? So looking for money, the components that we're responsible for, and then joining in public-private partnerships. And the other one could be you could leverage a County facility which had been discussed before. I think it was a County parking lot and then –

Commissioner Woodmansee: Library.

Mr. Hart: Library, and then housing on top of that. Yeah, parking garage. So there's all sorts of things that could be done.

Chair Mitchell: Okay, anybody else?

Mr. Cerbone: Real quick before we adjourn: I did get posted, or I lied – Brian Young, our assistant here, got posted on the web today the 2020 docket, so what was submitted for consideration. So if folks are interested and for folks watching in TV land, that is on our website, so you could go and look to where the 2019 docket is and right above it it says "2020." And so the materials we've received from the public are all up there. All the different projects are up there. We won't be talking about them in this meeting until the formal docket process is determined, but if you as citizens are interested or your friends are, that information is up there so you can take a look and see what the community thought was important for you guys to be considering this coming year.

Chair Mitchell: Thank you very much. I appreciate that. So the next-to-the-last item on the agenda is Planning Commissioner Comments and Announcements – One of the things I'd like to thank Josh Axthelm –

AUDIO RECORDING ENDS HERE.