

2021 Water and Wastewater Master Servicing Plan Update – Public Information Centre (P.I.C.) No. 2

Chris Hamel [00:00-03:12]

Welcome everybody. This is the Niagara Region Master Servicing Plan Update, PIC number 2. We very much appreciate your participation, so thank you for registering and being part of this evening. As you can see, we're undertaking this PIC Public Information Center virtually, so that does come with some logistics and facilitation on our part. So just before we start, just wanted to highlight a few items as you can see, it's a webinar format. We will have introductions, a presentation and a formal question and answer period. We're recording the full PIC in order to make it available for public viewing for those not able to attend.

We are focusing the audio and video on the Region and project team members, so hopefully you can see the presentation and obviously the audio that comes up while we're presenting. We're trying to facilitate the Q&A through the Q&A feature that comes with the Zoom webinar. So hopefully you see that button located at the bottom of the screen. Please feel free to type in your questions as we work through the presentation. If there's a relevant question that's sort of timely with the material being covered, we'll try to address it as we move forward. If not, we'll be logging those questions and addressing them at the tail end of the Q&A period. We do appreciate that sometimes the questions can be lengthy. We do have the ability to, if you raise your hand, we can provide an unmute feature that will allow you to ask the question directly through your audio. If that's most convenient, we will try to work with that to move that forward. So again, appreciate your coming, try to use the Q&A feature, but we'll keep this as interactive as possible as we work through the presentation.

So now I'd like to provide a quick overview of the project team panelists that are available for this evening. So again, my name is Chris Hamel. I'm the president of GM Blue Plan. GM BluePlan is the consultant working on this project. I'm the project manager for the MSPU. From our GM BluePlan team. We have Julien Bell and Jody Lee. They'll be available to address some technical questions. We also have Alice Lin, who's a communication specialist. She's also served as thing as a co-host and moderator, and she'll help facilitate the logistics with questions and answers.

From Niagara Region Project Team, we have Ilija Stetic, he's the region's project manager for the MSPU. We also have Phill Lambert, Director of Infrastructure Planning Development Engineering, he's an active sponsor for the project. We do have a number of region staff as well as stakeholders and local municipality staff that are sitting in on the PIC. So hopefully they'll stay active as we work through the materials. So with that, I'd like to pass it over to Phill Lambert, who can say a few words of introduction, before I start with the presentation.

Phill Lambert [03:12-04:25]

Thank you Chris, and thank you, everyone, for joining us this evening. It's a pleasure to have you with us as we talk about our 2021 Water and Wastewater Master Servicing Update. As part of the Official Plan work (which the Region just had it approved) proactively planning for growth to approximately just less than 700,000 people and 272,000 jobs by 2051. We did this in a coordinated approach where we took the planning, the infrastructure through the water and wastewater master plan, as well as our development charges, and made sure they were aligned. So we had growth, infrastructure and financing together such that we would be able to coordinate growth in an effective manner. As Chris mentioned, GM BluePlan is a consultant for this project, but the Region has been working with our local municipal partners throughout this project, including the planning portion, anticipating where growth will occur, as well as the local servicing component. And with that, I'd like to turn it over to Chris. Thank you.

Chris Hamel [04:30-04:50]

So I have a number of slides that will cover our presentation for this evening. I'm hoping to sort of completed in around 30 to 40 minutes. If there's questions as are moving forward, please use the Q&A or raise your hand if necessary. To start things off, what is the foundation approach to the master servicing plan?

Project Background

Chris Hamel [04:50-06:07] This is the Water and Wastewater Master Plan and we're building on the previously completed 2016 Master Plan. Now, in that last round, what we did is we did have growth out to 2041. So, one of the major updates that we're able to undertake is utilized better planning information that takes us out to 2051. The goal of a master plan is obviously to develop a long-term water and wastewater servicing strategy and capital forecast.

So it is about growth, but it is also about ensuring that our existing—as well as future residents—are experiencing a high level of service for these services. We need to consider regulatory legislative requirements and we also address a number of Regional priority elements such as climate change, energy management, infrastructure optimization, systems, security resiliency. So, there are a number of components that go into a master plan.

As you can appreciate, it's a fairly high level study which is really providing the road map for the services out to the future. While our focus is 2051, we're able to use some good planning information to make sure that we're aware of the potential infrastructure impacts even beyond 2051, as the infrastructure we're recommending will be in the ground and it will be used much beyond the 2051 horizon.

Project Environmental Assessment (EA) Process

Chris Hamel [06:07-07:04]

Master Servicing Plans are completed under the Class Environmental Assessment (EA) process. You can see the typical process here phases 1 through 5. Under a master plan, we complete phases 1 and 2, which is really focused on establishing your problem / opportunity statement, working through a number of alternative solutions and evaluating those solutions to come up with a preferred solution, leveraging the understanding of the multiple bottom lines—natural environment that social jurisdictional environments, technical and economic considerations—and the big piece is public and stakeholder consultation. There's a minimum review of 2 PICs, we had one earlier in the process and this is our second and final PIC as part of the master plan process. So again, we appreciate your participation and looking forward for comments and feedback.

Public Information Centre (P.I.C.) No. 2 Objectives

Chris Hamel [07:04-07:49]

Our PIC number 2 objectives, when we complete these PICs virtually, what ends up happening is we have a live presentation as we have tonight, but we make sure this material is available for a two-week period. From January 18 to February 2, this material will be available on the Region website and that's an opportunity for further review and to submit comments or feedback. We're looking for those responses, if not tonight, no later than February 23.

Correction: Deadline to receive feedback and comments was February 2 but has been extended to February 6 to accommodate for the time this transcript and display board was posted on the project website. The summary of responses received for PIC No. 2 is anticipated to be available via the Project Website by February 23.

But this evening, we're going to be presenting the recommended strategies for water and wastewater, hopefully providing additional clarity around the update itself, the process and any next steps, and then facilitating, receiving that feedback and answering any questions you may have to those.

Planning Context

Chris Hamel [07:50-08:33]

So the planning context, which is always a key starting point for a master plan, which is growth driven, is to look at how exciting Niagara and where we're heading into the future. So you can see it is growing. There is some significant growth, as Phill highlighted, going out to 674,000 people and 285,000 jobs up by 2051. So we need to look at the infrastructure that's going to be required to support that growth as well as maintain existing level of service for the existing residents and businesses. While 2051 is our focus, as I mentioned, we are considering growth beyond 2051 to ensure that we have a good understanding of the long term implications for infrastructure.

Key Drivers for the Master Servicing Plan Update

Chris Hamel [08:35-09:41]

Some key drivers when we enter in a master servicing plan is it's not just about growth. As I mentioned, there's compliance, there's regulatory, there's other key issues that we need to address. One key element, for example, is wet weather issues. So how do our systems manage under these higher intensity and more frequent rainstorms? Ensuring that we're thinking about the long term capital needs of this infrastructure, so it's not just the initial cost to construct the infrastructure, but our how can we manage the cost and resources needed to operate and maintain this new infrastructure to the future? A key regulatory elements like the Ministry's (MECP) F-5-5 regulations, which talks about how we manage these weather flows and if there are impacts to the environment from overflows. There are a lot of balancing issues like optimization and level of service, you know, what is our future design basis, how much water might be using into the future, how we want to manage that. So, there's a lot of elements that we need to balance and work with as we develop our solutions under this Master Plan.

Existing System Understanding – Water System

Chris Hamel [09:45-10:40]

As a starting point, for those that may or may not be familiar, it's good to understand the existing systems across the Region. Under this master plan, we are focused on the lake-based systems. Those that receive their water from the lake are primarily urban centers. You can see that from a water system standpoint, the Region manages the trunk infrastructure, which are the plants, the pumping stations, the storage facilities, as well as the larger diameter watermains. In some cases, a lot of these systems are connected between municipalities. So you can see the Grimsby, Lincoln, West Lincoln. You can see the larger system that makes up St. Catherine's, NOTL, Niagara Falls, as well as some connections back into West Lincoln, the Welland system, the Fort Erie system and Port Colborne. So these are the extents across the system is a starting point on how we're building out our infrastructure.

Existing System Understanding – Wastewater System

Chris Hamel [10:40-11:18]

On the wastewater side, we have the systems across all these urban centers. Wastewater is a little more isolated as they work within the catchment areas of the wastewater treatment plants where some municipalities are connected between pumping stations, forcemains or larger sewers. So you can see the existing systems, with the diamond showing the existing wastewater treatment plants and the dots showing sewage pumping stations and similarly the regional infrastructure are these plants, the pumping stations, and forcemains, as well as a larger diameter trunk sewers that connect this major system.

Existing System Understanding – Local Servicing

Chris Hamel [11:19-11:38]

So from the trunk systems on both water and wastewater, you then have local servicing. So the smaller diameter water mains and sewers and those are located in on all streets with the services out to the homes and businesses and those are in coordination with the region manage and operated by the local municipalities.

Grimsby / Lincoln / West Lincoln

Chris Hamel [11:38-12:20]

So my intent now is to actually work through these systems and our recommendations on sort of an area by area basis. Our starting point will be Grimsby, Lincoln and West Lincoln. But before I do that, I see Albert, I appreciate that you've used the Q&A feature just to double check to see how that relates. I think we can come back to the Q&A period for that as we address our strategies as a whole, and I think you're bringing forward some interesting ideas that could support into our preferred solution, so let's come back to that, if that's okay Albert.

Chris Hamel [12:22-13:51]

So again, starting with Grimsby, Lincoln and West Lincoln, what we can see here on this chart is we do project our growth and the flows that each of the facilities out to 2051. The Grimsby water treatment plant is going to reach its capacity within that period and similarly the Baker Road Wastewater Treatment plant. In this case, we're going to need additional treatment capacity to support growth on these systems because we are seeing growth in the Smithville, Beamsville, and Vineland area. We continue to see intensification growth in Grimsby and along these corridors, particularly with the highways in future plans. What we're finding is the Grimsby, Lincoln, and West Lincoln system on the water side is the need to move water through the system, the need for additional security and resiliency of that supply to ensure that we don't have too large a pocket through single feeds as much as possible. Within the West Lincoln area and the Lincoln area, pockets such as Vineland are actually supplied through the DeCew system in St Catherine's.

And a big piece as we saw the growth out to 2051 was addressing our storage needs. So this will be a common theme as we work through all our systems, the additional water storage that was required. And in some cases, those expansions happen within 2051 and in some cases, such as the Hixon Reservoir, there's potential that the reservoir will be further expanded post 2051.

Chris Hamel [13:51-14:52]

Now, on the wastewater side, what you'll see is that there is significant impact to the pumping stations because growth needs to work its way down the chain of conveyance as it works to the wastewater treatment plant. So pumping station expansion forcemain work is all required for this additional capacity. And then another common theme that I'll continue to talk about this evening is the need to have strategic wet weather flow reduction programs. What that means is we've been looking at the opportunity—instead of just simply building bigger infrastructure, bigger pipes—is there an opportunity to try to get these peak flows when it rains as there are a number of conditions, if the flows are able to work their way through the pipes and pumping stations without much trouble, but we see greater impact under these heavy rains, we are asking if there's a way to manage and reduce those flows into our infrastructure, so we don't necessarily have to expand it? I will go into more detail, but this was flagged as an opportunity.

Grimsby / Lincoln / West Lincoln – Water Strategy

Chris Hamel [14:55-16:05]

So here is the depiction of the preferred strategy for the Grimsby, Lincoln and West Lincoln Water System. The orange lines are depicting the large trunk feeder mains that require expansion and addition to support the growth. You can see it's leading from the plant there at the Grimsby water treatment plant, which requires expansion. Those lines are able to move the water to the east and ultimately to the south, which supports at that Park Road Reservoir and Pumping Station, and our ability to provide more storage and more pumping to help move the water up to Smithville. Within Smithville itself, there's a need to sort of enhance the looping around the community with those growth areas. So, there's not just the feeder main looping, but there's additional pumping and additional storage to support that. And one key new addition to the master plan compared to previous years is that W-M-013, which is providing a further linkage to the Beamsville area with the storage to help move water into the growth areas there. This combination of infrastructure is required to meet the long term needs and to 2051 on the water side.

Grimsby / Lincoln / West Lincoln – Wastewater Strategy

Chris Hamel [16:06-17:20]

Now, on the wastewater side, we're bringing our flows back down to the Baker Road wastewater treatment plant. You can see there, particularly with the growth up in Smithville, that does trigger expansion requirements of the trunk sewer and forcemain and pumping station that brings the water to the north down the escarpment to the Grimsby system. And with the growth in the Beamsville and some of these other pockets, you can see that each of these localized sewage pumping stations require expansion, but when you require some of those expansions and they move those flows downstream, the downstream pumping stations equally need to be further expanded. So, there's a lot of triggered infrastructure requirements as we work our way down to the wastewater treatment plant. The triangles are the pumping stations. You can see the pipes there and then ultimately the expansion requirement at the Baker Road plant. But you will see on this map as well are the blue water droplets, those are reflective of some of the key

areas that we believe there's opportunity for that wet weather flow reduction. So again, this is the larger scale across for the whole wastewater strategy.

Chris Hamel [17:21-18:03]

I see a question here coming in from Dave around the cost estimates to send water to and get wastewater back from Smithville. I will talk about the overall program costs, but as we work our way, we can identify some particular project costs. For example, what you will see in ultimately our documentation for the master servicing plan is of course, yes, we costed out WW-SPS-012, we've costed out the WW-FM-011, WW-SS-013 and then ultimately its component into the treatment plant. So perhaps that's something I can just trigger our team, Jody or Julien to highlight and maybe we could come back with those costs during the Q&A period.

St. Catharines

Chris Hamel [18:04-18:30]

So moving over to St. Catharines, I see Albert has actually raised his hand. Albert, is your question relevant to the system we're talking to?

Albert [18:35-18:59]

You were talking about controlling the well, let me call it the stormwater flow into the water pollution control plants. Could you just say how that would be done? Is it a storm retention ponds or reservoirs and was controlled out for a period of time or what? How would that be done?

Chris Hamel [19:00-20:37]

So, actually, Albert, I'm going to address that in specific detail as we work our way through the presentation. We'll park that. But I will come back and explain that in more detail.

So looking forward, I'm going to work our way. As I said, through all the systems and then talk about some bigger picture costs as well as weather and those elements. So if we look at St Catherine's, what we see in that community is actually continued intensification. So it is really focused on intensification with a pocketed eye greenfield opportunities as you can see from DeCew, which is the main water source and then the two systems on the wastewater side, which is Port Weller in Port Dalhousie. All these facilities do have sufficient capacity to support the growth. What we're seeing on the water distribution side is the need to provide some additional conveyance capacity or distribution capacity, particularly as we move the water out to some of the extremes and to some of the neighboring pockets. What we are looking at is, as we continue to grow, that there are going to be supporting facilities required to support these additional flows. So, for example, at the DeCew Water Treatment Plant, the reservoir itself will require some expansion. At this time, we're identifying it as post 2051, but it's important to be aware that that is out there. And then as we work our way through the wastewater system, there will be some wastewater pumping station upgrades to support the growth. And again, a lot of strategic weather flow production to make that program work.

St. Catharines – Water Strategy

Chris Hamel [20:38-21:28]

So you can see here the larger group of projects for the water system. You can see, as I mentioned, this is a much more interconnected group. So it's not just for St Catherine's. You can see the storage ultimately identified at DeCew plant in the middle there. The watermain itself, WM-022 helping move the water out from the plant. Some of these alignments I should highlight will ultimately be refined through more detailed study, but the concept of moving the water is required. And then you can see as we work our way to the west WM-016 and the additional storage facility to help move that water over to the Lincoln service areas. And then we will talk about NOTL and Niagara Falls shortly. But this is the extent of the upgrades required for the St Catherine's growth.

St. Catharines – Wastewater Strategy

Chris Hamel [21:28-22:08]

As we work our way through the wastewater system, you can see it's not as much infrastructure based on the location of where that growth is. The south end Port Dalhousie, you can see we do have some isolated pumping station and of course main upgrades, but you will see a number of those blue water droplets throughout the system which is critical for us to maintain our capacity and able to support those growth flows. Similarly, on the east side for Port Weller, we do have some pumping station upgrades with some forcemains, but there is a lot of wet weather reduction to ensure that our infrastructure is able to meet capacity.

Chris Hamel [22:15-22:21]

So we do see a number of questions coming in. And again, if we haven't addressed it as we move forward, we will come back and get them at the tail end of the presentation.

Niagara Falls / NOTL / Thorold

Chris Hamel [22:21-24:18]

Now for Niagara Falls, NOTL, and Thorold, again, this is an integrated system. We are seeing particularly for Niagara Falls we are seeing significant growth across that city with a large portion of that growth located in South Niagara Falls. So, there's going to be additional water storage, there will be distribution system looping required to support that growth. The water treatment plant reservoir expansion similarly required post 2051. But because of the supply that's available through the DeCew Water treatment plant, the treatment plant itself is a good position to support that growth for water. However, on the wastewater side, some of you may be aware there is significant strategy determined through what we're calling the South Niagara Falls Wastewater Solutions. That was a separate study class here that was undertaken built on the recommendations that were part of the 2016 master servicing plan. So we were able to leverage the detailed work undertaken through that Class EA to include that detailed program. So that includes the provision of a new wastewater treatment plant in South Niagara Falls, which frees up capacity in the existing Stanley Avenue plant and allows growth through infill,

intensification and other connections to use that available capacity. What's exciting to see and some interesting opportunities that presented themselves as we brought in that strategy out to 2051, we have introduced a long term servicing strategy that connects the Chippawa area directly to the Niagara Falls plant. Instead of pumping that to the north with some of its high wet weather flows, we're able to bring those directly to the new plant within the long term solution. And then, as I mentioned, common theme, we'll see some strategic wet weather flow reduction programs.

Chris Hamel [24:19-24:53]

Specifically for Niagara on the lake in the Queenston area, we do see some infill growth. So there is some additional storage and distribution trunk looping required to support that growth. Obviously a little more stretched out into these areas as some localized pumping station and on the wastewater side as well. Now what we will show is you'll see in the map that's upcoming is for Queenston, we're still showing the program that was reflected in the DC, the development charge study at this time. But there is a separate class here that is looking at tweaking that program moving forward. So we'll highlight that in one second.

Niagara Falls / NOTL / Thorold – Water Strategy

Chris Hamel [24:54-25:38]

So here we are for the water strategy again, you saw the similar map which was focus on St. Catherine's that's needed to support moving the water out into these areas. For Niagara Falls. You can see the trunk main and that's down at the south end, which will help water move water through that area and those growth areas to the south. Additional storage required to support the supply needs. There are some interconnection mains such as WM-007 that helps move water between the trunks. And then of course, the larger connection in NOTL WM-008 there with the storage facility. With these pieces of infrastructure in place, the ability to move water between the facilities and between the systems as provided out to 2051.

Niagara Falls / NOTL / Thorold – Wastewater Strategy

Chris Hamel [25:39-27:00]

On the wastewater side, the South Niagara Falls is the most dramatic infrastructure requirements that are being identified under this master plan. And again, consistent with what was carried in the class EA. So you can see the provision of the new wastewater treatment plant to the south with the new trunk sewer working its way down Montrose Road and over to the plant. What that does is it provides everything south of Lundy's Lane or close to Lundy's Lane will now move south to the new plant. It also provides now the opportunity for WW-SS-008 and related sewers to help bring the flows across to the West and to that new plant. And then there's also integrated the plan related to Thorold South. So, you can see right now is the Thorold area was previously pumping north through Port Weller by turning it to the south were able to pump the WW-SPS-058 and WW-SPS-028 using WW-FM-006 and then the new WW-SS-007. We can now move those wastewater flows to the south and to the new wastewater

treatment plant at South Niagara Falls and free up capacity in the Port Weller system. And that really helps that infrastructure maintain capacity in the St Catherine system.

Chris Hamel [27:01-27:13]

In NOTL, there are some localized sewage pumping stations that require some additional expansion to support the pockets of growth that the infill that are happening in those communities.

Fort Erie

Chris Hamel [27:14-28:05]

So now moving down over to Fort Erie, we are continuing to see infill growth and a lot of growth in those urban centers. There is a significant land use that could provide potential greenfield growth just outside the Fort Erie urban area. From the water treatment plant side, we do have sufficient capacity out to 2051, but there will be some trunk water system upgrades required for growth. On the wastewater side, you can see that we're starting to approach capacity at the treatment plants, but we're able to manage out into the 2051 horizon. But there is consideration post 51 that we'll need to keep an eye on. And in that system, there are pumping station upgrades required for capacity and again, strategic wet weather flow reduction for these areas.

Fort Erie – Water Strategy

Chris Hamel [28:06-28:35]

So you can see here in the water system recommendations, you can see the linkage on some of the key trunk feeder mains on Gilmore Road, we are tweaking the storage facility strategy by decommissioning the existing facility, providing the new storage facility W-S-001, as well as W-M-001 across. And I will come back to the Stevensville-Douglastown area more so on the wastewater side that you can see there, some work at that reservoir and pumping station to support the overall strategy.

Fort Erie – Wastewater Strategy

Chris Hamel [28:36-30:04]

From a wastewater perspective in the Anger Avenue Fort Erie system, you can see some localized pumping station upgrades and forcemain upgrades to help move the wastewater flows to the Anger Avenue facility. In the Crystal Beach area, it's really localized sewage pumping station upgrades to ensure there's sufficient capacity with that new growth. Now, with respect to Stevensville-Douglastown, this has been a topic that was addressed to a certain degree at a high level in the last master plan but does require further attention because as you can see, as we've increased the planning horizon out to 2051, we are seeing that those lagoons will reach capacity.

What we're highlighting at this time is that there is a need for a focus study for the eventual preferred solution as it's related to these lagoons. That solution is approaching in terms of its timing, but really what we thought made sense is to integrated solution with the better

understanding of the growth planning for this community, how it relates to some of the economic corridor growth that could be happening in the long term, along the QEW corridor, the proximity to Fort Erie and Anger Avenue system versus the proximity to the South Niagara Falls with the new treatment plant. All these issues need to be layered in within a focus study to determine the optimal solution.

Chris Hamel [30:05-30:35]

One thing we are seeing that we do continue to monitor the flows in the Stevensville-Douglastown Lagoon system. So, while there is growth that has continued to happen over the last few years, we're actually seeing even in 2022 with our most recent data that the existing flows aren't necessarily ramping up, but it's definitely something we need to keep tabs on it and that will be an input into this future study that we'll be doing to determine the optimal solution

Port Colborne

Chris Hamel [30:35-31:30]

As we work our way down the Port Colborne, you can see again there is some infill and greenfield growth. In this case, both the water treatment plant and the wastewater treatment plant have sufficient capacity to deal with that growth out of 2051. On the water side, there is a key trunk watermain, which is recommended to increase the flow, provide some security of supply across the canal. There's additional storage that will be required, particularly post 2051. And on the wastewater side, it's really some isolated pumping station upgrades as well as our strategic wet weather flow reduction. What we do need to be aware of with the potential land use in this area, there is some long term growth potential that needs to be factored in as we implement this infrastructure. So, you can see those diamonds on the on the plots to the right that's reflecting what's potentially out post 2051.

Port Colborne – Water Strategy

Chris Hamel [31:31-31:49]

So you can see from the water system, we've got our key trunk working its way basically across Barrick Road, across the canal, which connects back to the existing distribution system and the provision of the new storage facility. And that's essentially the extent of the upgrades there for water.

Port Colborne – Wastewater Strategy

Chris Hamel [31:50-32:14]

On the wastewater, you see a number of the orange triangles which reflect the pumping station upgrades as development happens in those catchment areas. This is a sort of a good indicator of the potential growth, as I was referring to. You can see on these on these boards with the sort of pre 2051 target area, some post 2051 land use and these are really all lands that we need to consider as we plan our infrastructure out.

Welland / Pelham

Chris Hamel [32:15-32:52]

For the Wellington Pelham system, similarly continued infill greenfield growth. We are aware of the treatment plants will require some additional capacity. So the water treatment plant is already underway and we're showing that future plant capacity on the graph there and the wastewater treatment plant as a future consideration will need to be linked in to make sure the capacity is there in place as we monitor the rate of growth that's happening in the system. So for water, we do need some additional storage and trunk water mains on the wastewater, more pumping station forcemain work with strategic wet weather flow reduction.

Welland / Pelham – Water Strategy

Chris Hamel [32:53-33:15]

So you can see here a number of extensions of the water system across, providing resiliency out of the Welland water treatment plants and across the canal and river extending out and connecting to some of the existing trunk water mains in the system, as well as working their way out to the pumping and storage facilities to the northwest there in Font Hill.

Welland / Pelham – Wastewater Strategy

Chris Hamel [33:15-33:38]

On the wastewater side, it's really an extension of some of the key systems, some connectivity on the sewer side, and providing additional sewage pumping station capacity and of course, main work. And you can see particularly out in Fenwick, they need to ensure that we bring those flows back to the existing system and ultimately to the Welland plant.

Wet Weather Flow Reduction Program

Chris Hamel [33:40-34:10]

So as you highlighted earlier, Albert, we can provide a little more detail regarding this wet weather flow reduction program. This is really a strategic process which the Region and the local municipalities have already been fairly active in implementing. There's currently a funded program that is managed by both the Region and the local area municipalities to get some of those projects moving. So to get that water out of the system, it could range from a number of different types of projects.

Chris Hamel [34:11-34:33]

So firstly, there's a flow monitoring and hydraulic analysis: the ability to target where we believe some of these higher flows are within the system and it's important to have flow monitoring before so we know where the problem is and after the implementation of the solution so we can see the benefit that's been derived.

Chris Hamel [34:34-35:34]

It's important to do further testing so there can be inspections, there could be condition assessments. You might see this smoke and dye testing out at the facility to make sure we

understand where it's going, because a lot of things that contribute to these wet weather flows are cross connections. Basically, pipes that are going in the wrong direction or are being brought in from certain flows that should be staying in the stormwater versus the separated. Which ties into our ability to consider sewer separation, or are we seeing leakage in the infrastructure where we're getting groundwater into the pipes or the manholes. So, there could be sewer rehabilitation, there could be just infrastructure upgrades. So, do we need to twin areas with new sewers? And then there could be some work related to the private side as well as the public side. So is there an opportunity to disconnect roof leaders or elements such as that and ensure that some pumps are working and connected properly out through the system? So there's a wide range of solutions that get involved in wet weather flow reduction. What we are seeing is that each area is going to be unique in what needs to be implemented.

Chris Hamel [35:34-36:30]

So we're not anticipating that, you know, one size fits all, that it's going to be the same solution in each pocket. But there's definitely been some priority areas done through our modeling to date that highlights there's an opportunity to get these flows out of the system. Our thoughts are if we can get the removal of the wet weather flows as much as possible, that can free up capacity in the system. And that really provides two sides of benefit. It supports growth. So, we have capacity to feed the new growth, but it also improves the level of service. It's providing an added level of protection on our existing pipes so that we're not seeing the overflows into the environment. It's a really positive approach and is something that many neighboring municipalities are addressing as well, and something that's building on an already relatively successful program with the Region and the openness of policies. And we'd like to see that continue and continue to be supported and invested in.

Water Capital Program

Chris Hamel [36:31-36:44]

So there was a talk of cost and what this program looks like. I'm first going to summarize the overall program, and if there's a specific question on particular pieces of infrastructure, we can come back to that.

Chris Hamel [36:44-38:25]

One of the big pieces and the big changes, obviously, from our last master plan is the fact that we have growth out to year 2051 and not 2041. So with that is going to come new projects is going to come trigger for capacity at facilities that we didn't previously have before 2041. We saw that there is a significant impact to our storage requirements. A lot of these Regional transmission mains and the looping resiliency and connectivity that we needed across our water system. In many cases projects that hadn't been built yet, as you can appreciate with inflation and cost indexing that's happening out in our marketplace, we needed to update our cost estimates for some of the existing or previously identified projects. And then, of course, there is a number of new projects that were needed up to 2051. So, you can see here the level of investment that's needed at the treatment plants, most of that needed in the near term to support long term growth. Investment out in the pumping stations. Similarly, the storage

facilities, the pipes are staged as the growth comes online. There are a number of other programs that are related to sort of Regional benefits, whether that's required at a facility when you implement new growth projects, those are captured. There is some post period. So it was important to identify the level of investment that we think is sitting outside just at the 2051 mark. And then there's going to be additional studies such as the future master plans that would be required throughout the period out to 2051. So with that, our total program that we're flagging from a growth perspective is just over 800 million for the water system itself.

Chris Hamel [38:25-38:30]

I see your hand up Albert, but maybe I'll just cover wastewater first and then we'll address your question if we could.

Wastewater Capital Program

Chris Hamel [38:30-40:11]

So similarly, when we are looking at the wastewater program out to 2051, we did see the opportunity and the need to increase the capital requirements around the wet weather program. When you do implement new projects, particularly in existing urban areas, there's some region wide projects that need to go along with that. So ensuring that there's sufficient odor control on the wastewater side, the impacts to the overall ECAs, we've got flow monitoring and data collection to ensure that we're seeing the benefits that we're expecting with the implementation. We were seeing significant increase in costs related to the South Niagara Falls program, the plant itself as well as some of the new trunk sewers that we were able to connect to the south. And similarly, we saw some increase in cost estimates from previously identified project as well as the new infrastructure out to 2051. So you can see here that the wastewater treatment plant, there is a level of staging of those upgrades over the next 20 years. Similarly, the wastewater pumping stations, the linear program focused within the next 20 years, the wet weather program. You can see the level of investment that we're proposing to 2051. And again, the other projects such as the odor control, flow monitoring and other implementation and then the studies as well. So the wastewater program is a larger program, partly triggered from the capacity required out to 2051, but it's almost a \$1.7 billion program, which is relatively significant.

Chris Hamel [40:11-]

I will pause here. Albert, did you want to provide a comment?

Albert [40:35]

Just a question about the values listed. Are those in 2023 dollars?

Chris Hamel [40:37]

That's correct. Those are in current dollars.

Albert [40:35]

Okay. And it may be helpful on your display there to state that somewhere.

Chris Hamel [40:11]

Oh, the current year dollars. Yeah, that's a fair statement. Thanks, Albert!

Albert [40:55]

Thank you. Okay.

Integrated Program with Sustainability Initiatives

Chris Hamel [41:02-43:02]

Okay. So that is the focus of the growth related program. One thing we wanted to highlight as we work through this information is what's called the sustainability or state of good repair program. And that's really the focus that's needed on the existing pipes and pumping stations and facilities that are out there because it's essential that that existing infrastructure is maintained with good condition and continues to perform for us to be able to expand, to add on our new infrastructure. So, we need the existing systems to be working and to be in a state of good repair. The Region has continued to evolve in its level of detail to understand impact of what that sustainability program needs to look like. And in many cases, which is common to a lot of municipalities across Ontario and across Canada, is that need is usually fairly significant and fairly imminent. And it's really a balancing of financing and delivery to be able to tackle that level of program. What we were able to do is have a look at the sustainability program, some of the intent of the Region and what they were hoping to invest it. When we want to ensure that we eliminated any duplicate projects, if there was an opportunity to align our growth related work with sustainability, work to bring efficiency to the program we did that. And if there is alignment around the timing...so we didn't want to have happen is that we recommend a project at a facility and then three or four years later they come back with sustainability upgrades. It was really a good process of trying to align overall capital that gets delivered from the Region's perspective. But you can see at the long term and particularity, this is this is what was been highlighted as a needs-based, on the needs in the next ten years under that sustainability program can be greater than \$1.5 billion on itself. So again, this is something that needs to be work within the financing side to see what can be funded of that \$1.5 billion and what can be coordinated with our growth related works.

Ilija Stetic [43:03-43:20]

Chris, sorry. Just to let you know, we have another raised hand from Dave and he had quite a few questions earlier. So I'm just wondering if he has some sense of urgency or raising his hand.

Chris Hamel [43:21-43:23]

Thanks Ilija. Go ahead, Dave.

Dave [43:24-43:32]

Thanks so much. I just wanted to ask those questions that I put into the chat, some of them. So whenever it's appropriate, I'd like to do that.

Chris Hamel [43:35-43:45]

That'll be great, I've got about a handful of slides, Dave, if we could work through it and then we've got a lot of time to work through all those questions and we can go back to slides as necessary.

Key Considerations

Chris Hamel [43:45-44:35]

So just a few things we wanted to highlight around the program itself. So as I was highlighting, particularly with the sustainability upgrades, it's important that we take into account and consider that these strategies are based on maintaining the appropriate level of service throughout the system. So level of service, which means pressure on the water side, appropriate flows and velocities in the pipe on the wastewater side, understanding what level of capacity needs to be pumping and storage. So that was taken into consideration as we develop these strategies, again, that sustainability side, there's going to be investment needed not just for the growth program but on the existing system. And then that investment come in the way of funding the operations, the maintenance. But let's not forget staffing and other resources that's required to deliver these large programs.

Chris Hamel [44:36-45:54]

So with growth related project comes resourcing requirements. So additional staff, the content construction industry, the consulting industry to help to deliver that. The one big piece that we think that when we talk about those groups is we see the development community as a partner and I think it's really important for them to similarly commit to that level of service. So we need these new developments to be built in such a way that the pipes are performing, that we're minimizing external flows into our system, that those construction practices need to help support and reduce the capacity impacts on our systems. I think it's important to note, as I highlighted earlier, that the master plan is a high level study. So in many cases there's future studies that are required and that can refine the recommendations. So that may tweak the alignment of certain pipes and may sort of tweak the capacity needed as more detail is reviewed, say, for pumping station or even a storage facilities. And in some cases, we need to meet the larger requirements of a more detailed class EA study. And in some cases, some of those are underway and or some will need to be completed as part of the upgrade. So what we have done and in the detail that you would see under the master plan is we've flagged with projects, require more study before they move forward into detailed design and construction.

Chris Hamel [45:55-47:28]

And then as I mentioned, as we talk about expanding into some of the greenfield areas or urban areas, continue to grow. So the development of the servicing strategies that's going to require thoughtful coordination with the local municipalities to ensure that the local servicing and the local infrastructure is there and in place coordinated with our infrastructure to help support servicing to those areas. And in some cases when we talk about the local strategies that could include smaller local wastewater pumping stations that may not show up on our maps at a regional level. And there was some discussion around the you know, are these current dollars

and yes, they are current dollars. So but we have to remember that that cost estimating is done at a conceptual level. So in while we do our best to understand the location of the infrastructure, we do have a good feel for some of the construction impacts that would be facing deliver and implement this. We need to understand that it's difficult to have a level of precision in some of those cost estimates at this stage, but we keep doing our best to educate and understand where that sits. So particularly over the recent years, we've seen a lot of fluctuations in project costs so that the markets are a little more volatile, supply chain issues. There's other variables that are contributing to the cost of these projects. So we need to be balancing what those costs may look like in the future, as well as where we think we sit today. So we've used our best available information, but we need to understand that as we move forward, those costs could change.

MSPU Process Overview

Chris Hamel [47:28-48:02]

So just quickly, a recap and overview of the process for the master plan. We did work our way through assessing the existing infrastructure, understanding where we're starting from. That triggered our first PIC in April of 2021. We did then go through baseline modeling where we updated those tools to support our analysis and then really through 2021 and 2022, is the development of our strategies getting a better understanding of those multiple bottom line considerations, the environmental factors that are influencing our decision making.

Chris Hamel [48:02-48:21]

That period also allowed us to coordinate with the development charge process. So we did provide presentation in support of the program that went into the DC's in May of 2022. And then for the last few months we've now been refining those programs and starting into our final documentation.

Chris Hamel [48:22-48:37]

So we're here now in January 2023 with our second and final PIC number two. But right now following the PIC and the comments received, we are looking to work through the final documentation to make the master plan available in April of this year (2023).

Thank You for Participating – Please Stay Engaged

Chris Hamel [48:38-49:14]

So with that, what's important as we come out of this PIC, is that we continue to hear from you. So not just the Q&A today, but if there's an opportunity to provide feedback through the process, it's appreciated. All this material, the recording, the presentation itself and supporting materials will be available on the website itself. We are looking for feedback from this PIC by February 2 **(Deadline to submit comment and feedback has been extended to February 6)**. And then if you do wish more detailed information, you can make, you're on our contact list so you get some different study notifications. And of course you can always contact Ilija and his number and email there.

Chris Hamel [49:15-49:49]

So again, we're looking at today's PIC, February-March for validation of our work, our documentation being prepared for April, and then we'll be looking for the public review period for the master plan reported in the April and May period. So that was the information we want to make sure we provide it to the group. So we appreciate that. And then now we can go back to an open Q&A session. And I appreciate, Dave, that you've got your hand up and I think we are working well with the audio, so let's go about it that way and you can jump in first!

Live Q and A Session

Dave [49:50-50:45]

Thanks so much. I really appreciate it. And thanks for the comprehensive presentation. One of my questions is about the water storage facility in the Font Hill area. When it was at the PIC before, it appeared that it was going to be built on the protected lands of the Font Hill Kame. I was trying to tell it from the map, and it went by very quickly. I think it's W-S-003. Can you comment on that particular piece as it's going outside of the urban boundary into the greenbelt and on protective lands that are in ANSI (areas of natural and scientific interest). Can you comment on that, or can you someone get back to me about that?

Chris Hamel [50:45-51:01]

Sure. And this is one of those types of projects that's going to require further refinement as that location is finalized. I know there may be some on our project team that might have a little better idea. I don't know if Julien or Phill wanted to jump in on that location.

Julien Bell [51:02-51:40]

So I can provide a comment on that and perhaps Phill for further details. But that that site has gone through a fairly extensive process with the Region. And so what we've carried forward in the master servicing plan is the recommended location and the structure in the Pelham area specifically. And I believe that the EA documentation outlines the opportunities and constraints, the rationale for the selection of that site and any impacts and appropriate mitigation measures to address any of those concerns. And I believe that has been completed.

Dave [51:50-52:10]

Okay. Well, if someone can get back to me about that, because I did participate in that EA and I haven't heard anything since that participation and I don't know, 18 months ago? So I'd appreciate that. I know you said Phill's on the line, so maybe some Regional staff can get back to me about that please.

Dave [52:10-53:20]

Another question then is that if you can go to the Thorold area, the South Thorold south area. There's a half used wastewater treatment facility in the old Abitibi plant. It's only had half capacity, a use it and it puts the water into the canal. It's clean water. And I wondered if you will look at or have you looked at using that facility instead of using all these forcemains and taking it...I don't know how many kilometers that is to the new Niagara Falls plant. I mean that's a lot of money and a lot of transmission to get that there, when there's a half used piece of

infrastructure, albeit it's private. So I don't know if anybody can comment on that in a piece of infrastructure and that whether you've looked at that or can look at that in this study.

Chris Hamel [53:20-53:22]

I believe Phill might want to jump in on that and I'll provide a few comments.

Phill Lambert [53:22-54:15]

Yeah, sure. And thanks for the question, Dave. Good to hear from you and glad you're participating in this! When we looked at the Abitibi or former Abitibi facility, that wastewater that was an industrial wastewater treatment facility and it did it really hasn't been used that much in a number of years. My understanding of it is that it's not in good shape per se, and that there really hasn't been a detailed assessment necessary to determine if that would be an appropriate use. And then again, as you mentioned, it is private. There's a new owner on that as well. So there really hasn't been much in the way other than an initial sort of review and considered that it wasn't a good option moving forward.

Dave [54:16-54:38]

Okay. I appreciate that. I was just speaking with somebody last week who said that they work in that facility and it is being used...so, I just ask you to maybe look at that again and compare the costs? And if it needs improvement? Maybe the costs are cheaper than all of this transmission [pipes] through the countryside!

Dave [54:39-55:00]

With that transmission, is there the idea that the entire area that's now the industrial lands and the Black Horse corner area south in Allanburg...would the idea be that, that would be picked up and now turn those industrial lands would be turned so that wastewater could go into those areas or from those areas?

Chris Hamel [55:01-56:05]

Yes Dave you are correct. So part of the strategy isn't just simply to have the pipes there. They've actually been located in a way that supports access to the existing lands to service and take those flows to South Niagara Falls. But it's also been located in a way, that WW-SS-007 is located in a way that it supports those future growth areas in the south-west Niagara Falls area. So a lot of that area would need to be service pipes would need to be in place. And a lot of those locations anyways were able to leverage that. But you are correct that that existing for Old South Service area would then be connected to this new infrastructure. Now some of the further southern limits may require some localized pumping to get back up to that alignment, but we were able to figure out sort of the best combination of location alignment and depth to make best use of what can get service. So yes, the growth in that sort Thorold South area will work its way into this infrastructure.

Dave [56:05-57:00]

Okay, thank you. Two more two more questions. Different areas. The other one I did ask about the Vineland to DeCew. I'm not sure if that's the current path that Vineland gets its water from already, but just as you said in the Thorold area, again, if one puts that it's a new pipe, one puts

it along Fourth Avenue, there's going to be pressure to, pardon the pun, to use that and develop in that area. And that area as I was trying to look at the maps is certainly in the Greenbelt and possibly in or just on the edge of the Niagara Escarpment lands. Any comment on that and how you kind of balance that with environmental protection, which is so important, you know, these days even more than it was 15 years ago?

Chris Hamel [57:00-57:47]

That is a good point, Dave. So in some cases, particularly with the land orientation across the Region and with some of the policy that's out there across the province, you are allowed to bring the infrastructure through some of those protected areas, but not necessarily service in, say, the Greenbelt or a protected countryside even though it's located there. This is Regional infrastructure so it's not intended to have direct connections to those areas. And the alignment is partly needed to take advantage of the existing booster station and to continue those flows out there. So we don't believe that it's a trigger. You're right. Sometimes it's perceived with a pipe in that area that it necessarily means that people right adjacent to it are connected, but that's not the case with this regional infrastructure.

Dave [57:49-58:20]

Okay. And it'd be interesting to see that, because if we look at other green belt areas, for example, the Grimsby area that was just expanded by the provincial government into the Greenbelt, one of their excuses was, well, the pipes are right here. So, I think it's something to seriously consider. And maybe it's something for Regional council to consider that pipe and is there a different way to do it? So, thank you for that.

Dave [58:21-59:24]

And then the final is the whole Smithville costs. I had asked it and you alluded to it earlier, the costs of pumping the water from a much lower area, Lake Ontario, up to Smithville in this new growth area, and then taking all the effluent from that area and bringing it back down the escarpment. Did you ever look at wells? I know you started the entire process Chris. Just if you can comment on that and whether you looked at wells as a possibility for the full area and what are the capital costs of all of this? In the in the Smithville area, in particular, with those thousand acres that were added by Regional Council to expand the urban boundary into agricultural lands. Thank you.

Chris Hamel [59:24-01:00:00]

So just to wrap that up, and there's no question that, you know, a service area of that size is significant enough and to have a groundwater supply and capacity sufficient to take us long term into 2051 and beyond, there is some limitation with that availability. So, the focus was we've got an existing lake-based system or already there. We're trying to expand upon that. And it was felt that this was the most secure and sustainable long term solution. What we can do, Dave, is I know we have a few follow up items so we can provide the capital cost estimates for those long range projects.

Ilija Stetic [01:00:00-01:00:24]

We have one more raised hand from Don.

Don [01:00:24-01:00:58]

Good evening, gentlemen. I have a couple of things that I noticed...Baker Road: Is there sufficient land at the Baker Road plant to handle the increase in sewage coming from West Grimsby? Plus the development in Beamsville and Vineland? Are we looking at a three or four story plant because as I recall, the site is right full at the moment.

Chris Hamel [01:00:58-01:01:24]

No, you're correct on that. It is a fairly constrained site, but it is something that working with the region staff and, some of the site planning, there is an opportunity to achieve that capacity. There's one thing we have been seeing is some efficiency in the technology to support additional capacity within existing footprint. But this isn't one of those cases where, you know, that detailed site plan will need to be prepared as they start planning the additional capacity of that facility.

Don [01:01:24-01:04:20]

And this is something that gets me to I think do see you've got the Lake Street pumping station ready for some major work, too, because that is that picks up all of west, basically the old town of Grimsby, also West Grimsby, including what was a Biggar Lagoon. I have no difficulty with that. But I'm wondering, with what's going on, are we getting to the point where we have to start thinking of another plant maybe to serve Lincoln like Beamsville, Lincoln, and Jordan Station?

And I realize that we've got this big, huge area coming in Smithville as part of the urban boundary expansion that's being proposed. They just got finished redoing the forcemain and water main from Grimsby to Smithville. And I think that's probably within the last ten years. And yeah, another 30 years maybe it's going to have to be rebuilt again. That's, that's something that'll come out. And I think you're probably right on that one.

The other thing that that gets me...the majority of the trunk systems water and sewer the region currently owned were probably constructed in the mid-sixties to the mid-seventies, so it makes them about 50 years old. Are a lot of these facilities, existing facilities getting to the end of their life cycle? It doesn't matter, especially I'm looking at St Catherine's at the Port Dalhousie / Port Weller trunk, and I'm looking there's a huge growth area being proposed around the Glendale area...will they still be taking sewage from the Glendale area through the Queeston siphon? At Homer Bridge? And is that going to have that growth area going to have a very large impact on the on the Port Weller Trunk? Just a few questions I have...I've been keeping trying to keep track of what's been going on for the past 20 years.

These are the few questions I have and one more question: when we are designing new facilities, are we looking strictly at the planning horizon 2051? Are we looking for these larger structures to be in operation for at least 100 years? And third quest part of this, when we're building new storage facilities in the water system, are we designing these facilities about as balancing storage facilities or are they going to be balancing storage and fire flow? And that's

that those are some of my questions. And it's more on the design rather than actually what you're proposing as far as pipelines.

Chris Hamel [01:04:20-01:06:03]

I appreciate that, Don. So I think we'll I'll answer as best I can a number of those and we'll move on to the next group. But you highlighted a number of points that I tried to bring into the presentation. So you're correct. We're talking about long life cycle infrastructure. You talked about the age of the existing system, and that's why we felt it was important to highlight that state of good repair and sustain a sustainability program. So when I talked about that extra \$1.5 billion need that's sitting there to ensure that the existing facilities could maintain and meet the needs to connect to. So, the region is very much aware of that and we're coordinating both plans, which is the growth related as well as the existing system investment to make sure this plan works.

I did highlight earlier that while this is a 2051 master plan, we're able to look at sort of some long term servicing visioning to see if what impact it could have on the infrastructure. So you're right, we're trying to size and plan for works that are going to take us beyond 2051. So strategically where it's appropriate, what we do in the development charge environment is if we do oversize infrastructure, that's going to have capacity beyond 2051. We do call that out of by-law over sizing. So that'll get funded by the future growth. So all those elements that you highlight there are taken into consideration as we plan our master plan now. So potential impacts, the future sizing, not just sizing for 2051, where is it appropriate to make something bigger versus what might get twinned or what have you in the future, so all of those are layered in to our strategies.

Chris Hamel [01:06:04-01:06:35]

What am I try to do right now is address a few of the questions that have come in the chat and we appreciate those that have been using that feature. I do see one from Barbara around the connection timing for the Chippawa, that trunk sewer that's coming down to the wastewater treatment plant. That will need to be a project that's coordinated with the region as well as the local municipality. Julien, I don't have the table in front of me or Jody. You guys have that potential timing handy?

Julien Bell [01:06:35-01:07:04]

So the provisional timing right now is in the 2031 to 2041 timeframe. It's somewhat tied to the timing and magnitude and speed of growth in the local Chippawa area, as well as timing of the Southside low-lift pump station and when its capacity gets utilized or in need of major upgrades. But it's currently planned for the 2031 to 2041 time.

Chris Hamel [01:07:04-01:07:41]

All right. Thank you. I see a question from David around connection to the trunk water main that's going up the road. So I think I addressed that comment around the ability to connect directly to regional infrastructure. However, we'll make note of your comment, David, and maybe that's something we could follow up with to get a better understanding your location and how the local infrastructure might be able to support your property moving forward. So that's just

something that we need to look into, with a little more detail and we can provide a response to you through this process.

Julien Bell [01:07:41-01:08:05]

I'd maybe just add to that, Chris, is that for that watermain, we did flag the need to complete an environmental assessment to confirm the future alignment of the watermain. So the alignment shown may not be the ultimate alignment and there will certainly be opportunity to have that input review through the EA process.

Phill Lambert [01:08:06-01:08:55]

Yeah. And then if I could just add a comment about that we heard earlier, this is really a master servicing plan for urban areas where urban services are planned. So if you're outside the urban area, expectation is that you're going to exist on rural services or systems. Well, and then the stewards, private septic systems and there's a whole bunch of policy requirements. You know, the Greenbelt was one of the ones mentioned. But lastly, anything to do with truck filling station, that's really a local municipal responsibility. So the town of Grimsby would have to be the best place to start about any future truck filling station for water. Thank you.

Chris Hamel [01:08:55-01:10:10]

Thank you, Phill. So, David, again, I appreciate the comments. And we will get back to you around some specifics. I do see another comment now regarding the weather programs, particularly in the Port Colborne area and the concern that they haven't been moving forward. There's no question that this is something that we actively are trying to pursue and enhance on a go forward basis. So, there's been really good communication through the master servicing plan with Region and the local municipalities to try to identify these priority areas and ensure that the attention is placed and that those programs start moving forward. And that's something that needs to happen in coordination with the local municipalities. So, it's both the region making it a priority and the local making it a priority and ensuring we get the right projects in there. So we appreciate you highlighting this as a concern, and I think it's a good takeaway to ensure that that gets addressed moving forward. It's probably the best I can say at this time, but there's no question that that's the intent here through these master plans is really to get some action on these wet weather flow areas.

Ilija Stetic [01:10:10-01:10:51]

So if I may, we need to keep in mind that this is a two-tier system. And basically most of the wet weather reduction relies on the municipal side and what the region tries to do is to help local area municipalities to deal with those problems. The initiation of the project and the municipality is up to them entirely. So the region tries to help out at a building local municipality and at the same time the region takes care of regional trunks and the regional infrastructure as well.

Phill Lambert [01:10:51-01:11:35]

And Chris, if you mind if I just add one more note is that you talked about the wet weather management program and the need for inflow and infiltration removal. And one of the projects for Port Colborne is actually jumping into now in partnership with the region is a pollution prevention control plan that's really the focus of, you know, looking at your infrastructure and

finding out where your inflow and infiltration is coming from and coming up with the best way to deal with these projects. So that is a project that's going to be initiated very soon and so there'll be more on that front.

Ilija Stetic [01:11:35-01:12:15]

And the wet weather management, the issues will be present constantly so they will not go away. So 30 or 60 years, 100 years after this, they will be present. So the water migrates. So one hole being blocked from extraneous flows will most likely help the other hole down the road. So it's a constant program and the region and the local area municipalities are dealing with inflow and infiltration (I&I) issues all the time.

Chris Hamel [01:12:15-01:13:47]

I think we're all highlighting the importance of that component of our program moving forward. So thanks for that Ron. There's another question around the inflation percentage or indexing that's being used to project the future construction costs. One thing that's important to note is our master plan, to a certain degree, stops at the existing or current dollars. So, our intent is that we need to make sure we're presenting what we believe these projects would cost to construct today. What we do then is we then work with the Region team in the finance department, takes premier dollars and projects that out into the future. So, the idea is exactly what is that plant is going to cost in 2030 or even beyond. What they do look at is historical construction and price indexing. It's not just simply based on what's happening last year, but it's looking at the rolling averages year over year, back five, ten plus years. So that's a responsibility for the Region finance to undertake. I can say that I know some recent indexing that's been done in Niagara as well as other municipalities is using 4% or even greater. And in some cases you do have to understand that it's not just about next year, but it's about what's an appropriate rate to be using 10, 20 and 30 years moving forward. So it's not always as high as some might expect it to be. But again, that's something that the Region finance team is well in-tuned to address.

Chris Hamel [01:13:47-01:13:56]

So then I think, David, we have talked to and we will have some follow up with you. Oh, I think Phill wants to jump in again in there.

Phill Lambert [01:13:56-01:14:18]

Sorry, yeah, just David on the one for 226 and 228 Main Street. We have been working with your consultant on this one and I know transportation has been providing some updates. So you know, this is about stormwater and the regional road project on that. So we'll continue to provide updates as it becomes available.

Chris Hamel [01:14:18-01:15:00]

Thanks Phill. So I'm not seeing any more in the Q&A at this time. So I see, Albert, you have your hand up again. We'll give you an opportunity to have the talk.

[technical difficulties]

Albert [01:15:15-01:15:57]

Just a follow up on comments about the age of some of the regional facilities and infrastructure...the Welland water plant is rather interesting and that the pumping station (high lift and low lift) and the original fillers that are still in use with the mixing and settling basins and so on are now 100 years old or older so...that's what you keep building on, and I'm not sure that's a that's a really good idea. I think that was your only comment I, I had at this moment.

Chris Hamel [01:15:57-01:16:50]

That's great, I appreciate that. And, and you're absolutely right that it's a it's a constant review of the existing infrastructure and ensuring that there is a program in place that, you know, is there a functional service life in our facilities to continue to add capacity in a lot of cases when it's combined with the sustainability and state of good repair, if we're providing additional capacity the opportunity then to be able to rehab, some of that existing facility is needed to support our program. So we have taken a conscious effort, but it'll be a continual moving forward to align those programs and ensure that, you know, to your point is, is it worth moving it? Is it worth staying where it is and what level of investment is needed to keep it operating, to support our growth capacity.

Closing

Chris Hamel [01:16:51-01:17:15]

So with that, I appreciate how this has gone. I think it actually worked well. Normally we keep it to the Q&A section, but I think we were able to facilitate some of the direct comments, questions and answers through the audio. So with that, we're very thankful. So I'll just sort of bring us back to the presentation again to remind everyone of the process.

Chris Hamel [01:17:15-01:18:20]

So again, this, this recording will be made available on the project website along with the PowerPoint slides. We are looking for additional feedback between now and February 2nd **(Deadline to submit comment and feedback has been extended to February 6)**. For those where we made a commitment for follow up, we will do so. You can always reach out to Ilija to ensure that your contact information is available for us so that we can get in touch and provide some of these. But there was insightful comments. It was greatly appreciated, and it always helps us as we develop these long term plans for this type of local involvement and feedback. So, it's greatly appreciated! So, before I pass it back to Phill to just say some final thank you, I just wanted to say thank you on behalf of the Region and the GM BluePlan Project team.

This was good to get as part of PIC number 2. We look forward to dealing with the comments. And then of course, this will be integrated into our documentation and that will be available for your review in the coming months. So with that, thank you. And maybe a last word from Phill.

Phill Lambert [01:18:22-01:18:50]

Yes. Thank you, everyone, for joining us today. We appreciate all your questions. As Chris mentioned, it's time to provide other questions as you have and are intended to have the report provided in April, and that that's where you're going to get really the meat and potatoes of that in

a little bit more detail for you to review. And with that, I'd like to say thank you again for all of your participation and your engagement and have a wonderful night.

Chris Hamel[01:18:50-01:18:55]

Great. Thanks. So with that, I will close the meeting and thank you to everybody, and good night!