MANITOBA PUBLIC UTILITIES BOARD

Re: CITY OF WINNIPEG
WATER AND SEWER HEARING

Before Board Panel:

Susan Proven	- Board Chairman
Monica Girouard	- Board Member
Raymond Lafond	- Board Member

HELD AT:

Public Utilities Board
400, 330 Portage Avenue
Winnipeg, Manitoba
December 19, 2011
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APPEARANCES

Bob Peters	) Board Counsel
Denise Pambrun	) City of Winnipeg

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--- Upon commencing at 9:35 a.m.

THE CHAIRPERSON: Good morning, ladies and gentlemen. Welcome to the Public Utilities Board's inaugural hearing with respect to the City of Winnipeg's water and sewer utilities. The origin of this hearing extends back to the city's initial and published interest in establishing a separate water and util -- and sewer utility and in having this Board establish rates.

While the City's plans apparently have changed, or at least been deferred, its initial expression of interest in this Board's involvement led to discussions between the City and the Board and the exchange of information.

The purpose of this hearing is for the Board to increase its understanding and obtain additional information about the way the City of Winnipeg structures and manages its affairs with respect to water and sewer utilities. And when I refer to the City's water utility as separate from the wastewater or sewer utility this Board will be interested to hear from the City as to both its operations and, as well, the financial accounting aspects with respect to those two (2) utilities.

This hearing is somewhat unusual for this Board as it does not originate with a rate application, which is the case for all other monopoly water and sewer utilities in the province. The Public Utilities Board has a history that extends back ninety-nine (99) years. Next year, the Board is going to celebrate a centennial.

And the Board serves as surrogate for competition towards ensuring the public interest is served when a monopoly is in place, particularly when the monopoly relates to a basic service where its use by ratepayers is more or less mandatory. That is, the ratepayer or customer has no choice but to use the monopoly.

The Board is a quasi-judicial administrative tribunal. While its members are appointed by way of orders in council, the Board's decisions are made independent of government. And, in fact, each Board member has signed declarations to

ensure decision making is free of any real or perceived conflict of interest.

The Board's interest is the public's interest. And in its various areas of practice the Board generally goes beyond that of acting as an economic regulator but also concerns itself with environmental and socioeconomic matters. Unlike other monopoly water and sewer utilities in this province, the City of Winnipeg sets rates for its water and sewer utility independent of this Board. Pursuant to the City of Winnipeg charter, in short, the Board has and presently plays no role in rate setting with respect to the City and, as such, no rate order will flow from this hearing.

Nonetheless, as this Board is interested in the big picture with respect to the City of Winnipeg, according to the view it takes with respect to all matters that come before it, the big picture, of course, includes rates and how those rates are set.

This hearing has been scheduled for up to three days if needed. And I understand that part of today will be for presentations from the City of Winnipeg. Following those, we will do -- designate the rest of the hearing to be taken up by questions from Board counsel and the panel of Board members.

We will be providing an opportunity for presenters to provide brief, no more than ten (10) minute, perspectives of their concerns and comments with respect to the City's water and sewer monopoly utilities.

And now I'll finally introduce myself. My name is Susan Proven. And in the absence of the Board Chairman, Graham Lane, I am chairing this hearing. Joining me on this panel are my Board colleagues, Monica Girouard to my right and Raymond Lafond to my left.

While I was tempted to refer to my colleague, Mr. Lafond, as a rookie his having been relatively newly appointed to the Board, I quickly realized that we are all rookies with respect to considering the City of Winnipeg's monopoly water and sewer utilities. However, we are certainly not rookies with respect to the regulation of water and sewer utilities throughout this province.

The Board has, and continues to regulate all other utilities in the province, which currently and in total represent a caseload of approximately three hundred (300) municipal,

cooperative, and private water and sewer systems, systems located throughout the province. Regulation by this Board of those other three hundred (300) water and sewer utilities goes beyond the requirement for this Board's approval, or rates charged to consumers by the utilities.

Approvals are based on the -- are based on the fact that we're looking at rate schedules and rates, they have to be just and reasonable, and that the revenue generated is sufficient to allow the utilities to meet their economic and environmental objectives.

For those utilities, the Board also reviews and approves deficits, seeks to assure itself that provincial water and sewer guidelines are being met, considers the utilities approach to providing service connections beyond its borders, and reviews the utilities approach to the connections and disconnections within its boundaries.

To provide some guidance to both the City of Winnipeg and to Board counsel, while the Board has wide-ranging jurisdiction through legislation, the Board has identified in the public notice for this hearing some general areas of interest. Of course, there will probably be other issues that pique our interest as the hearing progresses, but I'll just run through those areas that we hope to delve into in the next two (2) days.

Firstly, the Board is interested in the regulatory regime applicable to the City of Winnipeg's water and sewer utility, particularly the -- with respect to the federal and provincial water and wastewater standards.

Secondly, the Board would like to have an overview of the organizational aspects of this utility, including accounting policies, staffing levels, integration with other City departments, and its approach to providing service beyond its borders, and an understanding of the process used by the City to set rates.

When we speak of accounting policies, by the way, two (2) of -- of the three (3) of us are accountants, professional accounts, the Board will be seeking a better understanding of the City's utility revenue sources and expenditures: your surpluses, allocations of shared services between the utilities and the City's general operating funds, transfers to the City's general revenues, and the management of utility funds and reserves.

Thirdly, the Board would apprecria -- appreciate an overview of the City's planned major capital expenditures for water and wastewater, including those relating to the combined sewer systems. The Board is particularly interested in how those planned expenditures are to be paid for, and we would appreciate the City explaining their approach and views.

Fourthly, the Board would like an understanding of the terms and conditions of service applied to the City's customers, such as rate categories, connection and disconnection procedures, consumption levels, and conservation.

And lastly, the Board would like to get a better understanding of the City's relationship with surrounding municipalities when it comes to the City's water and wastewater system.

The Board welcomes Ms. Pambrun. Am I saying your name right? There you are. Okay.

MS. DENISE PAMBRUN: Close enough.

THE CHAIRPERSON: Who the Board knows, I don't, but the Board in previous hearings has known Ms. Pambrun for -- now, how do you say that?

MS. DENISE PAMBRUN: Pambrun.

THE CHAIRPERSON: Pambrun. Pambrun.

MS. DENISE PAMBRUN: But Pambrun is fine.

THE CHAIRPERSON: I've got to get it right because we may be asking you lots of questions.

MS. DENISE PAMBRUN: I've been called many things, and many far worse, trust me.

THE CHAIRPERSON: So it's Pambrun.

MS. DENISE PAMBRUN: Yes.

THE CHAIRPERSON: Is that close enough?

MS. DENISE PAMBRUN: Yes, it is.

THE CHAIRPERSON: Okay. Now, we know you from interventions into this Board's -- City's interventions into this Board's regulatory hearings involving Manitoba Hydro. And so we welcome you and all the other City witnesses, and the support personnel that come with you. We know that you're going to be invaluable to the process that we are embarking on today.

We will strive to keep the hearing moving, given that we've set aside really, hopefully, just the two (2) days to do this. But, a third day, if it was necessary, we would do it. But it's getting close to Christmas, so we're hoping not. And this --

I think we should be able to do it.

Now, when we hear your presentation, I think some of us, the -- the ones that can't see will be moving to where they can see. I encourage everyone to try and move to, you know, where they can actually follow along looking at the screen. And -- and, of course, we might jump in with questions and, you know, interrupt you occasionally as you work through the presentation.

So before I begin, I would be remiss if I didn't thank Ms. Pambrun -- Pambrun, and the City's witnesses for their anticipated cooperation in the hearing.

And with those comments, I'm going to turn the microphone over to our Board counsel, Bob Peters, who also has a few opening comments. Thank you.

MR. BOB PETERS: Thank you and good morning, Madam Chair, Board member Girouard, Board member Lafond. For the record, my name is Bob Peters and I appear this morning as counsel to the Public Utilities Board with respect to this hearing.

Madam Chair, I should include a confession that I too am a rookie when it comes to regulation of the City's water and sewer utilities, but the Board is ably assisted in this matter by Wayne Buck, seated to my left, a retired chartered accountant, and by Kurt Simonsen, a professional engineer, seated to my right.

Madam Chair and Board members, as opposed to a rate setting hearing, as you've identified, this is more akin to an informational hearing on the City's water and sewer utilities.

And without dwelling on the legalities, but as contained in the public notice of this hearing, the Public Utilities Board Act provides that this Board has regulatory oversight over all water and sewer utilities in the province of Manitoba. That regulatory oversight, as prescribed by statute, is extensive and could readily be compared to this Board's regulatory oversight of, say, Centra Gas Manitoba Inc., but with one (1) significant exception to which the Chair has already referred. And that being the setting of consumer rates.

And in the public notice, Madam Chair, Board members, ladies and gentlemen, the public notice contained an extract of Section 210(5), from the City of Winnipeg Act. And I think it's worth reading into the record:

> "Despite the Public Utilities Board Act, the City may, as provided in this Act, establish prices, rates, fees, deposits, or other charges for any commodity or service that the City supplies, and for that purpose the City need not obtain approval from the Public Utilities Board. The intention being that the City may establish such -- such amounts and use the revenues therefrom for the general purposes of the City, and not solely for the purposes of offsetting any costs related to supplying the commodity or service."

So, some might say, if the Board doesn't have jurisdiction to set the City's sewer and water rates, why is there need for regulation by this Board? And I expect this Board will hear that the City's water and sewer utilities are already heavily regulated by provincial authorities, by federal authorities, and even by the City's elected officials.

While the Board will choose to answer that question in any order or report it chooses to issue, however, there may be areas where the Board's experience in the water and sewer regulation may provide guidance to the City's efforts.

The Board, as you've noted Madam Chair, also needs to act in the public interest. The public interest has been defined by this Board and adopted by the Court of Appeal as including the fiscal health of the utility, as well as the utility's impacts on the consumer. And to that end, more information providing transparency should always be seen as better than less information.

As for the suggested procedures for this hearing, the Board can expect Ms. Pambrun to introduce her witnesses, who will be sworn or affirmed, to provide direct testimony or evidence before the Board, and that I believe will be through primarily a -- a presentation. And on behalf of the Board, I'll have questions for the witnesses. And of course, as you've mentioned, Madam Chair, the panel members may have questions at any time.

As I understand it, there presently are no Intervenors for this hearing, and I understand the Board has not received any request for Intervenor status. And I am -- and as such, I am hopeful we can keep this hearing streamlined and finish within the

allotted time. And as noted, it is after all the -- the week of Christmas.

While it may be ambitious, I think it's entirely feasible.

Leading up to this hearing the City has filed and compiled a large volume of information that's been filed with the Board and with Board counsel. That information is contained in the exhibit list the Board has prepared and circulated.

And just a brief review of the exhibit list so that the proceedings can -- can be orderly, the PUB Exhibit 1 will be the Public Notice.

--- EXHIBIT NO. CITY OF WINNIPEG-1: Public Notice

MR. BOB PETERS: PUB Exhibit 2-1 through 2-29 will be questions that were asked of the City and answers provided by the City on April the 6th of 2011.

--- EXHIBIT NO. CITY OF WINNIPEG-2: Questions that were asked of the City and answers provided by the City on April the 6th of 2011

MR. BOB PETERS: And then the third exhibit I would ask to be marked will be a book of documents on behalf of the Board. And I've talked to my learned colleague Ms. Pambrun this morning. I have not shared with her the book of documents in advance only because it wasn't prepared in advance. But it was prepared partially prior to receiving the City's PowerPoint presentation, so there may be some duplications. I have put it into a blue binder and it is tabbed with an index, and most of the documents -- maybe I should say all of the documents in there originated with the City in -- in some shape or form, either in the filings done by the City in this matter, or taken from the City's website. And I think even Tab 17 is a customer bill that's been redacted.

--- EXHIBIT NO. CITY OF WINNIPEG-3: Book of Documents

MR. BOB PETERS: So in preparing that, that will probably be the focus of where my questions go in terms of discussions with the City. And in the book of documents there are extracts to the many documents the City may have filed. And at no time

should the witnesses feel precluded from going back to the source documents. They should certainly -- certainly use whatever documents they need to provide the Board with the information that's being requested.

As you've mentioned, Madam Chair, and as I did, the City is being represented in this hearing by Ms. Pambrun, Senior Solicitor with the City. And I too should thank her publicly for her assistance in getting this matter to the Board.

The evidence of the City will be provided by a panel of several officials within the City of Winnipeg. It's my common practice in Public Utilities Board hearings to ask a question, and then I leave it for the witnesses to fight over who wants to, or who doesn't want to answer the question. Always remember that the panel would like to receive the best information possible in response to the question. If you feel one (1) of your colleagues has partially answered it and there is additional information you want to answer, I'm certainly not going to stop you from adding some supplemental information.

And it'll be up to Ms. Pambrun whether that's any -- any concerns on that at all. And my purpose is not to put any witness on the spot or to challenge any credibility, but again, to just ensure that the Board has all the relevant information before it.

And I dare say, Madam Chair, that the witnesses probably did not know that testifying before the Public Utilities Board was in their job descriptions, but they do now, and I think they can add it to their accomplishments and CVs, and I do thank them in advance.

So at this point, and subject to any questions that the Board has of me, I would suggest the Board call upon Ms. Pambrun to introduce the City of Winnipeg panel, to have the City's witnesses either sworn or affirmed before they provide their evidence. Thank you.

MS. DENISE PAMBRUN: Thank you, Mr. Peters. For those members of the panel who don't know me, I am Denise Pambrun. I am counsel to the City of Winnipeg in this matter. And Mr. Peters and I do have a history of other hearings before this panel. And if I poke fun at Mr. Peters' ties during the course of the week, it is a matter of habit I can't break.

There is a little history to this matter as the Chair did outline a little bit in her opening statement. From the point of view of the

witnesses and myself, this matter really got going, if I can call it that, in this -- the spring of this year when the Board provided a set of Information Requests to the City.

The Board provided the Information Requests and we answered. And the answers to that -- to that set of Information Requests does form part of the exhibit -- PUB Exhibit 2. We will be referring to that material either during the presentation of the witnesses, or in cross-examination. And that formed a fairly thick binder which consists mainly of accounting information, most of it publicly available.

The City has also provided three (3) binders of information that forms City of Winnipeg Exhibit 1, I -- 2, let me just check. Exhibit 1. And there's a series of folders and subfolders in that.

I think when that got sent over to the PUB by the printer some of the tabs were a little out of order, particularly in 6. If we have any difficulties we'll take a quick break and -- and reconfigure it for you. I hope there aren't too many errors. I had the -- because of the shortness of time I had the printer send it directly to your offices rather than check it, which is my usual habit.

And then in Exhibit City of Winnipeg 2 I sent some further information at the request or at the suggestion of Mr. Ro -- Mr. Peters, and we'll be going through that material as well.

Now, what I should tell you is, now that -- after this proceeding, as Mr. Peters has said, our witnesses will have been -- had the experience of testifying before the PUB, I expect after what Mr. Peters said they're all going to be head-hunted by other people who are all so happy they have this experience now, and we'll have to train a whole group of new ones for the next time we appear if that happens.

However, they will be going through a PowerPoint presentation which is meant to highlight the evidence that they have put before you. They're not going to be going through all those -- all that material in the binders that was provided to you as background material only. But, of course, Mr. Peters, no doubt, in his thorough cross-examination is going to be going through all that material in detail because he told me he spent his weekend doing exactly that. And -- but if there are questions obviously on that background material, the witnesses are ready to answer any questions on that material.

And I would like to introduce the members of the panel now at this time. Right to my immediate left is Moira Geer. If you look in that -- the three (3) binders, the very first tab has brief biographical sketches of each of the witnesses. So Moira Geer is a CA. She will be speaking mainly to the accounting material that has been provided to you.

To her immediate left is Geoff Patton, Geoffrey Patton. His material is in the -- or his biographical sketch is in Tab D of 1 -- of Tab 1. He's an engineer. He will be speaking to some of the more technical aspects as well as the capital slides that we'll be putting forward.

Right next to him is Kelly Kjartanson. His material is in the Tab B, I believe. And he too is an engineer and the manager of environmental standards. He will be dealing with the regulatory regime under which the City operates, a fairly extensive bunch of material that was in the binders on that. Obviously we're not going to go through every line of that material, but he provide -- he'll provide the overview.

Next we have Cynthia Wiebe. Her material is in Tab C. She too is an engineer. She'll be dealing with the combined systems overflow material that's been provided to you.

Right over here because we have such a large panel we've -- we've expanded into the Intervenor section. First here we have Wanda Burns. Wanda is a CA. Her material is at 'E' and she will be dealing with the connection and disconnection policy that the City has with respect to customers of the City.

Next we have Duane Griffin. His material -- he's last, for some unaccountable reason. He too is an engineer and he'll be talking about the City's conservation programs.

And last but not least we have Arnold Permut, also an engineer, very senior engineer with the City, and he will be dealing with the nitrogen issue and the City's response to it. And so that is the panel that we have before you.

I think it's fair to say you have some of the very best people of the City of Winnipeg, very experienced people, very knowledgeable, and they have been working very hard to be ready to answer any questions you have and to let you know just what a very talented and solid group of people we have working at the City -- City's Water and Waste

Department making sure the citizens of Winnipeg have first-rate quality water and sewer service and meet the highest standards that are possible.

So that is the witness panel that you have. I have one (1) exhibit to hand in to Mr. Peters and Mr. Singh, and that is the affidavit of publication of the notice of application as requested. It was -- the notice of application was published in the Winnipeg Sun. Here's the original. Does Bob need a copy? Okay. Because I have an extra copy if you want one. Winnipeg Sun, the Winnipeg Free Press, and La Liberte as required under the statute. And I believe the statutory requirements for publication have been met for the hearing to commence on this day.

The present -- presenters were required to register with the secretary on December 9th, and Mr. Singh can confirm but I believe there was only one (1) registration by that date? None? None.

So that will be Exhibit City of Winnipeg 2 -- 3. Four? I've lost number 3 then, Mr. Singh, I'm sorry. Thank you. Number 4. Number 3 was the PowerPoint presentation.

--- EXHIBIT NO. CITY OF WINNIPEG-4:
Affidavit of publication of the notice of application

MS. DENISE PAMBRUN: With that, unless there are any questions of me, I propose to have Ms. Geer commence the PowerPoint presentation.

THE CHAIRPERSON: And before we do that, I'll call upon Mr. Hollis Singh to swear in these witnesses. We might as well do them all at once, or affirm them --

MS. DENISE PAMBRUN: Agreed.

THE CHAIRPERSON: -- in some way. Thank you.

MS. DENISE PAMBRUN: Thank you.

CITY OF WINNIPEG PANEL:
CYNTHIA WIEBE, Affirmed
KELLY KJARTANSON, Affirmed
GEOFFREY PATTON, Affirmed
MOIRA GEER, Affirmed
WANDA BURNS, Affirmed
DUANE GRIFFIN, Affirmed
ARNOLD PERMUT, Affirmed

THE CHAIRPERSON: Thank you very much,

Mr. Singh. Now, I think we're just going to do some chair shuffling, and then we'll begin with Ms. Geer.

DIRECT EVIDENCE BY WAY OF PRESENTATION BY CITY OF WINNIPEG:

MS. MOIRA GEER: Good morning. Good morning, Madam Chair, and Board -- Board members Girouard and Lafond.

I' going to start the -- the City presentation this morning, and -- and we were going to begin with a overview of the -- of the water and sewer operations, which are the subject of these hearings.

The -- just as a bit of background, the -- the City of Winnipeg's structure. There is a water and waste department, and within the department lies the responsibility for the water and sewer operations. It also includes the solid waste services, as well, which are not subject to this hearing, but all of those services are bundled within that one (1) department.

The department's vision is excellence in environmental services, and it's mission is to provide and continually improve drinking water, wastewater, land drainage, and solid waste services for the citizens of this City.

Just further to a description of how the department is structured, the Director of the department is -- reports to the City's Chief Administrative Officer, and now with recent changes, through the Chief Operating Officer. But ultimately the Director reports to the City's CAO, and there's a management team that delivers the services within the department. And at the bottom of the chart is sort of the core operating divisions, which is sewer, water, and solid waste.

And of course we -- we are supported by a very large engineering group, Environmental Standards, which Kelly Kjartanson is here this morning. They do all the compliance and the regulatory work.

We have a customer service outfit, which is primarily dealing with customers, and our water bill inquiry line in helping with that group. We have -- we have the support services, which is finance and admin, human resources, and information systems.

And the City, within the last year, has gone to an internal services model, where the actual -- those support services report directly to the

corporate -- the corporate headquarters, but are -- reside within the department and provide those direct support services in the lines of business. So that -- that's why there's the dotted -- dotted reporting lines there.

So that's all on the department, but of course, we're here today to speak about water and sewer. So, just as way of background, in our sewer -- in the City's sewer system -- this -- this is a slide of our three (3) sewage treatment plants.

We have -- our largest plant is the North End plant, as we refer to it, and it's on Main Street, close to Chief Peguis. Our South End plant, which is our second largest plant, which is at the south perimeter. In fact, with all the new development in South St. Vital, you can actually see the treatment plant from some people's yards across the Perimeter Highway. And then our smallest plant is the West End plant. And that one (1) is at Wilkes and -- and the perimeter west of the City.

And you can see, in the catchment area, in the colour coding, the populations that service by each of those -- of those plants. The -- you know, more than -- roughly half of the City goes to the North End and the smallest amount to the West End, and of course then a larger catchment area in the South End. And the South End Plant is probably the one (1) area where we're experiencing the most growth. So that plant is -- will be expanded in the future.

Just as -- as way of -- just to give you some indication of the scope of the operations within the City, we've just mentioned we have the three (3) treatment plants, but we've -- we've got close to 2500 kilometres below grade of sewer mains, 1800 kilometres of land drainage sewers. We have 119 kilometres of interceptor sewers, 115 pumping stations. We have seventy-one (71) retention ponds. And the City, which is also responsible for flood control and protection, there's a 117 kilo -- kilometres of primary diking system. And that's really just to give you a -- some sense of the magnitude of -- of what's below grade and -- and above grade.

In -- in the sewer operations -- the staffing in the sewer operations, we have roughly four hundred (400) people delivering those services. The majority of that is within what we refer to as the Wastewater Services Division, which was on the org chart I showed in a pre -- a couple of slides earlier.

Now those are the people that operate the treatment plants. Those are the people that maintain the treatment plants. That also includes all of the people that work in the collection systems. So if there's a -- a sewer repair, there's work being done to a lift station, and you see those City crews out on the streets, that's part of that group.

We have a finance group. And within finance, that's sort of like the -- the accounting, the budgeting, the forecasting, the rates, and also running the billing system for -- for the utility customers.

We have a large engineering group. Environmental Standards, which is primarily compliance.

The customer services group, which is the people that answer the phone and that deal with the customers and -- and provide that excellent customer service to -- to the citizens.

We have an IT group. There's many mission-critical systems that we use within our operation and the IT folks are the ones that -- that look after those for us. And, of course, we have a Human Resources Division.

Now I'd like to just speak to the water operations a bit. You -- you may know, our water supply comes from Shoal Lake, which is on the border, and it's sort of here with -- between Ontario and Manitoba. We have the aqueduct, which sort of -- which is gravity-fed and the water comes from Shoal Lake and it goes up to the Deacon Reservoir, which is just east of Winnipeg. And that's where we have recently constructed and opened our new water treatment plant. So that's where the aqueduct goes to.

Now from -- if you -- if you look at the bottom of the slide, this is where Deacon is down here and then there's the Branch 1 and Branch 2 aqueducts. That's what actually brings the water supply into the City of Winnipeg.

And we have three (3) booster stations. We have the McPhillips Reservoir, which is sort of Logan and -- and McPhillips area. We've got the MacLean Reservoir, which is -- is Bishop Grandin. And then we've got the Hurst, which is out the Waverley area. So what happens is the Deacon reservoirs, we always have a supply of water. If there's work that needs to be done on the aqueduct that we have storage in four (4) cells at Deacon. And we have in-city

storage as well just to ensure that when -- if there's ever any work that needs to happen we always have -- have a sufficient water supply.

This is just a -- another diagram of how with the feeder mains and sort of the major networks below grade of the water distribution system when it comes in from Deacon and from the water treatment plant. And the three (3) red dots, those are the -- the three (3) main stations and reservoirs. And that's sort of where it -- how it -- how it flows throughout the City.

Again, just to -- just to give you some sense of scope or magnitude of our water system, we've got the water treatment plant which is -- which is new and we'll talk a bit more about that very soon. We've got five (5) stations, we've got roughly two hundred thousand (200,000) water meters. All the -- or the customers in the City of Winnipeg are metered. We've got 1,850 kilometres of water services lines. We have 2,500 kilometres of water mains, a hundred and fifty (150) of feeder mains, which are the -- the big ones on the -- on the diagram. We've got the aqueduct, which is 157 kilometres from Shoal Lake to -- to Deacon. We've got 44 kilometres of branch aqueduct, which were those two (2) that sort of come from Deacon into -- into the City.

Now the water treatment plant, which for the City is relatively new, it opened -- it was commissioned a couple years ago. It's a very state of the art modern facility and it has a multi -- multi-step approach to water treatment.

People don't get to see it, because it's outside of the City. And people don't get to see it because there's security reasons and -- and so on and so forth that we don't want people going to the plant. But it is the size of the MTS Centre, to give it some sense of -- of size. And the schematic, which I'm -- I'm not the technical person, but what -- basically what happens is we have a multi-stage -- multi-barrier approach to treating our drinking water, which is very -- a very advanced treatment process.

And I'm not going to attempt to take you through the diagram, but rather what I would like to do is we have a video that was produced and it's on the City's website. And it's -- what the video does, it illustrates how we treat the drinking water for the City of Winnipeg. And we intentionally developed the video because it's important to be transparent and communicate to people how we treat our water. But at

the same time we've got to en -- ensure the safety of the water supply, so we can't be bringing people into the plant to give them tours.

So if I may, Madam Chair, we've got a brief -- it's like a six (6) minute video, but it will explain to you how we treat the drinking water at the new treatment plant.

THE CHAIRPERSON: That would be very interesting. I'd like to see that, since I'm on dial-up and can never see it at home.

MS. MOIRA GEER: Okay.

THE CHAIRPERSON: Thanks.

MS. MOIRA GEER: Then that's what -- I'm just going to flip to the -- to the video now then.

MS. DENISE PAMBRUN: We're hoping these speakers will be loud enough to be picked up by everyone.

(VIDEO PLAYED)

THE CHAIRPERSON: Thank you for that. That was very good.

(BRIEF PAUSE)

MS. MOIRA GEER: Okay. Just carrying on with some background on the water operations.

In -- in the water utility, we have roughly four hundred (400) staff in -- in -- delivering those services. And -- and about three-quarters of that was water services. And those are the folks that again they -- they maintain and operate the water treatment plant. They look after the distribution system. They work at Shoal Lake. They work all along the aqueduct. And it's the same folks that you feel really sorry for in the winter when you see them repairing a water main break when it's forty (40) below, and it's -- you just feel badly for them. It's those folks, as well.

And again, we have the -- the same support services that work along with the -- with the direct operations and maintenance within the water operations.

And just finally as a bit of introduction and -- and overview that I'm starting with is the -- one (1) of the questions as posed.

MS. DENISE PAMBRUN: We're going to move into some accounting matters now, Madam Chair, as

you see from the next slide. And I just wanted to refer you to Tab 3 in the three (3) binders, has some of the accounting materials. That's the 2010 annual financial report and excerpts from the detailed financials statements from 2010 if you wanted to refer to any of that material.

And then the binder that we provided back in the spring has -- has the financial statements from earlier. So I don't know if you want to look at any of that, but if you do that's where you'll find it.

THE CHAIRPERSON: Go ahead.

MS. MOIRA GEER: Thank you. The -- as with all municipal operations, the City has fund accounting. And we -- the water and waste department is part of the City, and we manage certain funds within the City's structure.

And the way the funds are structured for us for the water and sewer operations, we have the water utility fund. And within that fund houses all of the operations and the capital within that fund. The same with the sewer utility fund. We have an entirely separate fund for the sewer operations, again which is all the operations and capital for sewer.

And then we have -- we have four (4) reserve funds that -- that we administer as well. There's a water main renewal reserve. That reserve is money set aside for our annual renewal program in fixing water mains to limit the number of breaks that we have. It's a -- a water main renewal program, and you'll probably see a little bit more of that when my colleague, Mr. Patton, gives an overview of the capital program. These are -- these are all capital reserves, I -- I should mention.

The aqueduct rehabiltation reserve, which has a very small balance and -- and will be -- should be closed out by the end of this year. That was -- we did a major rehabilitation of the aqueduct that was completed -- I believe it was completed sort of close to -- like in -- in the late '90s, and just with some additional work, or it may have been in the early -- within this -- this century. But I -- I know we -- we funded a project that was roughly 60 million, and that's how it was funded primarily was -- the plan was to -- to set aside the monies to do that.

There's the sewer system rehabilitation reserve, which again that is for programming and renewal of the -- of the collection systems.

And then we have an environmental

projects reserve, and that's the reserve that we have dedicated towards capital improvements as a result of provincial licencing and CEC recommendations.

So those -- those are the funds that we administer with respect to the water and sewer operations.

MS. DENISE PAMBRUN: All right. Madam Chair, I think we're ready to move into some of the material on the capital budget. And Mr. Patton is going to be dealing with that. He is our asset management engineer.

So if you would like to refer to any of the material on the capital budget, you will find that at the -- Tab 4 of the binders. And that is the 2011 adopted capital budget. And again, some of the earlier years, with the adopted capital budgets, you'll find in the 2000 -- in the spring material that was provided.

So we're just going to give Mr. Patton a chance to move the computer along and he'll be ready to go in a minute.

MR. GEOFFREY PATTON: Thank you very much. My name is Geoff Patton. I'm the asset management engineer for the City of Winnipeg water and waste department. I'm going to present an overview of the 2011 capital budget for the water and waste department.

In terms of the -- the three (3) funds that we're going to talk about today for the 2011 budget, land drainage and flood control, the 2011 approved budget was for just over $6 million worth of upgrades to those systems. For the water works system, just over $27.5 million allocated to projects within that fund. The sewage disposal system, over forty-seven thousand (47,000) -- or, sorry, 47 million was allocated to the projects within the wastewater or sewer disposal projects. For an overall total 2011 budget of $81.258 million planned.

Included in our budget submission as well, is -- is a forecast. One (1) current year is -- is approved, with a five (5) year forecast. In the total six (6) years for these three (3) funds, over $1.159 billion has been allocated for projects within the land drainage, water and sewer.

This is a -- a history slide of -- of capital proj -- programs within the City of Winnipeg water and waste. Overall, from 1996, the budgets have -- have climbed from around $35 million annually, to where we are right now, you know, in the eighty (80)

some odd million dollars. But increasing in the future as new projects come on line.

You can see an increase in 2005 and '06, in the magenta purple areas. These were the expenditures for the water treatment plants. Various other expenditures as well, with sewers. But forecasted as well in the future are expenditures for upgrades, primarily to the wastewater treatment plants.

I'm just going to go through a quick highlight of our -- of our major programs in our six (6) year capital submission for the waterworks fund. These projects represent about 84 percent of our -- of our total budget, so I thought I'd give you a small sampling of our -- of what commitments and what projects we're planning in the new years -- in the future years.

With the water main system, total commitments for water main renewals. These are renewals of our aging, cast iron infrastructure within the City. Total expenditures of over $92 million in an annual program over the six (6) years is forecasted for work.

In 2016, with our capital budget submission, even though we've -- we've shown you our -- our brand new water treatment plant, expenditures are expected to deal with replacements of mechanical systems far out in its operation. So this is what we're planning to -- to expend for the upkeep and maintenance of the water treatment plant, over $10 million.

The Waverley West feeder main is for the servicing of new lands in the -- in the Waverley West area. So that's a new phase to the -- to the feeder main. That's a Phase 2 to the feeder main. Phase 1 has already been accomplished.

The Tache booster pumping station. This is a station on our Branch 1 aqueduct. It is used in -- during high flow applications. It was a 1950s installation. The pump station has provided great service, but is nearing the end of its service life and rehabilitation to the pumping, electrical, mechanical, and building envelope are planned.

The water supervisory and deed acquisitions SCADA upgrade. This is the major system that controls the functions of our distribution system pumping stations. So these are highly evolved controllers and small computers that, again, are nearing the end of their service lives. And

replacements and an upgrade of the logic to make the logic a little bit more simple in terms of how it controls and automates our systems is planned.

Feeder main condition assessment and rehabilitation. Feeder mains, as Ms. Geer had mentioned before, these are large specialized pipes that move water from our regional pumping stations to the distribution systems. These pipes are very specialized. They're -- they fail in a very unique method, catastrophically actually, so the -- we are proactively doing a condition assessment on those pipes to determine what rehabilitation needs are required.

The water supply and installation replacement program. These are -- within the feeder main system there are chambers and valves that help us isolate and operate the system. Some of those valves and -- and ancillary mechanical features are actually coming to the end of their service lives and -- and work is being planned on those.

Regional pumping stations, reliability upgrades. These are to actually harden our assets within our water pumping stations to ensure that they are less susceptible to power fluctuations within the electrical grid. So these are various changes to ensure that we have a water supply during intermittent power events that occur.

The Shoal Lake aqueduct asserv -- asset preservation. As Ms. Geer has mentioned as well, we had a large upgrade that occurred through the late '80s and early '90s with the Shoal Lake aqueduct. This guaranteed a -- or provided for additional service life for this pipe. The pipe's been in -- in service for about a hundred (100) years, but there is ongoing maintenance and upkeep on this that -- that's required.

Ultraviolet light disinfection as well within the water treatment plant. These systems are mechanically intensive and require maintenance and upgrades as well. The Saskatchewan Avenue water main, again, is a -- is a new development project for lands in the Saskatchewan area within the Perimeter Highway. So this is a -- represents about the largest lion's share of -- of our six (6) year budget for the water system.

On to the sewer projects. The largest expenditure over our six (6) years is -- is nutrient red -- reduction and removal at the North End water pollution control system. So that addresses the --

the nitrogen and -- and phosphorous elements that will be spoken about later on today.

Biosolids. Alternate management, delivery, disposal, and management system. Biosolids, this program is -- is changing from land application to -- to right now we're land-filling the biosolids from our treatment plants, but there are plans to change how we deal with those solids and -- and the residuals management from our wastewater treatment plants.

Sewer renewal. As -- as -- as Ms. Geer had mentioned, we have a large amount of -- of sewer infrastructure, and we assess it through various technical means in terms of video-cameraing in -- inspections. And this provides us with a -- a condition assessment of the pipe. And we plan rehabilitation and -- and replacement through that condition -- annual condition assessment program.

The combined sewer overflow management strategy. So again, this is our -- this is the development of our CSO master plan to reduce the number of overflows to our rivers. This is a major expenditure as well, in the -- in the amount of $87 million in terms of -- of starting the program.

Primary clarifier covers at the North End water pollution control system. There are three (3) uncovered clarifiers that are an odour source. Our plans are to cover those to provide those clarifiers with also access for year-round maintenance and operation activities.

There's an upgrade to the external power supply at the North End Water Pollution Control Centre. Currently we have redundant power supplies that operate or that supply the North End treatment plant with -- with power. With expansions to the systems the power needs will grow beyond those -- those power feeds. So this will be an expansion into the grid to provide the new power for new expanded facilities at the North End plant.

The Water Pollution Control Centre reliability upgrades. These are projects. We've done a risk and criticality assessment of all of our treatment pumping stations. Those elements that were determined -- that determined to be of high criticality were -- have been scheduled into an ongoing program to be addressed.

The grit handling upgrades at the North End plant. Again this is an improvement to the -- to the handling facilities at that plant.

A new discharge chamber at -- at the North End plant. The existing discharge chamber is at the end of its service life so a new chamber is required at that plant.

Raw sewage pump replacement at the North End plant. There are several 700 horsepower pumps that have been in service for a long period of time, are ending their -- are at the end of their service life and replacements are planned.

A new surge well. Again, existing -- the existing surge well is at the end of its service life and a replacement is planned.

We are dealing with combined sewers in -- in this -- in the presentation. Combined sewer flood relief are funded through our land drainage and flood control. So these are areas within the City, very -- Ms. Wiebe will be speaking about this later on in the presentation about combined and relieved and unrelieved areas within the City of Winnipeg. Work is planned to prevent basement flooding and to minimize overflows through this program.

Outfall rehabilitation. Many -- we have many outfalls from our systems, sewer and land drainage to the various rivers. They are on unstable riverbanks and have failed in certain instances, so we have to -- we've done a condition assessment. We have priorized (sic) those. And this is an ongoing program for us.

Primary dike upgrading. These are enhancements to flood protection of our primary line of defence for flood operations.

Flood pumping station rehabilitation. Again, we've done condition assessment on our -- on our flood pumping stations and we've priorized the replacements and rehabilitation that needs to be done. And this is an ongoing program as well.

Lastly, land drainage and combined sewers outfall gate structures. These are gate structures that are near the rivers that are designed to isolate the sewer system from the rivers to ensure during high river elevations the sewer system isn't inundated with -- with river water and potentially can cause property damage through those.

And that is my presentation on the capital program.

THE CHAIRPERSON: I'd like to thank you, but I want to ask you a question before we move on to the next witness. In the biosolids you referred to the fact that you had been spreading, and you've

shown us in the material where you've been spreading.

But now you're doing landfill, I take it? You're putting the biosolids into landfill? Is that what you said?

MR. GEOFFREY PATTON: I'd like to request some assistance from my colleagues as well.

THE CHAIRPERSON: Oh. Okay, maybe I'm asking the wrong person. But I'm just -- what I'm looking for is you spoke of alternatives, alternatives to the present system. So I guess where I'm going is I just wondered if you could hint at what those alternatives would be for the biosolid disposal.

MR. GEOFFREY PATTON: Yes. Can I ask Mr. Kjartanson to -- to respond, or Arnold -- Mr. Permut.

THE CHAIRPERSON: It could be that this is going to be covered by Mr. Peters. Who knows? But I -- we had talked about during this presentation if anything popped into our mind that we wanted to have covered. And this is something I'm interested in, but it doesn't have to happen right now. If this is coming up in a presentation, a future one, or another witness is going to deal with it, that would be fine, Ms. Pambrun.

MS. DENISE PAMBRUN: I think Ms. -- Mr. Permut is going to be dealing with it. Well, then deal with it right now, Mr. Permut. Thank you.

THE CHAIRPERSON: Okay, we'll deal with it right now. Thank you.

MR. ARNOLD PERMUT: Okay. By brief way of explanation, the reason we are currently land-filling the biosolids is because the province had passed a nutrient management regulation and the conditions within that regulation were so restrictive that it essentially made our land spreading program unworkable and not practical. And given the fact that we had no short-term alternative, we have to take our biosolids to the -- to the Brady Road Landfill.

On the short term in terms of alternatives, we are looking at a pilot study, which I will briefly actually mention in my program. By pilot study, it's substantial, it's 20 percent of our volume of biosolids. We estimate currently the capital will be $5 million, and this is to compost biosolids at the Brady Road Landfill and hopefully provide a sustainable practical reuse for that compost material.

On the long term, we may be looking at an array of alternatives. We don't like to put all our eggs in one (1) basket in respect to biosolids

because -- for a variety of reasons. One (1) system may not be useable to us. And as I usually say, our product keeps on coming at us no matter what, so we have to have a useable alternative.

We are currently with our strategic partners, Veolia, and a subsidiary of theirs, Kruger out of Denmark, are doing a biosolids management study. And to say -- other than that, I can't say what our ultimate plans will be because it's a very preliminary phase of the study and -- but it is currently being undertaken.

THE CHAIRPERSON: That sounds very interesting and maybe promising in terms of a byproduct that you might produce.

MS. DENISE PAMBRUN: Any further questions at this time? Then maybe we'll turn to Mr. Kjartanson for his presentation on the regulatory regime.

MR. KELLY KJARTANSON: And I would have -- I would be very happy to give a presentation on the regulatory regime this morning to the panel, but I was told by a public --

THE CHAIRPERSON: I'm going to stop you because I'm thinking that maybe we should be taking a break. I'm -- I'm told by counsel it might be an appropriate time.

I hate to cut you off but --

MR. KELLY KJARTANSON: I don't mind being cut off, Madam Chairman.

THE CHAIRPERSON: -- but we usually do take a mid-morning break. And it might give you a chance, some of you, to at least go to the bathroom. I know we're on a tight schedule but it's not that tight.

So let's take fifteen (15) minutes. And we'll come back, Mr. Kjartanson, with you. Thank you.

MS. DENISE PAMBRUN: Thank you, Madam Chair.

--- Upon recessing at 10:42 a.m.
--- Upon resuming at 11:00 a.m.

THE CHAIRPERSON: Okay. I think we have everyone back now and we can resume. Go ahead.

(BRIEF PAUSE)

MR. KELLY KJARTANSON: Thank you,

Madam Chair. Excuse me. Kelly Kjartanson, manager of Environmental Standards. I will be giving a presentation.

You had mentioned regime, and I would love to give a presentation on regime but our public information officer did not like the word, "regime," so I'm giving a presentation on framework this morning. I did want to be king of the regime, but unfortunately that's not happening.

And I would mention in addition to my duties with respect to compliance reporting and regulatory affairs with the department, we also provide analytical services in support of the operations of the department with the water -- wastewater and solid waste services. Excuse me. We also are involved in bylaw enforcement, primarily the sewer bylaw. We also provide backflow prevention support for the water side of the operation. And I have a coordinator that's responsible for audit and governance of security and emergency management within the department itself.

MS. DENISE PAMBRUN: I would like to vote for Kelly to be king of the regime because his material takes up by far, by far the most space in my precious binders. So they start at number five 5 and go to 5MM, or something ridiculous like that, if you're looking for the material.

MR. KELLY KJARTANSON: And -- and I do apologize for the heavy paper -- paper load but as you did mention in your opening, you want to see if we're regulated or not, and what the compliance requirements are.

So we decided to show you what we're dealing with. And it is a very heavy weight of material we're dealing with on a -- on a regular basis.

To quickly go through what I will be talking about this morning, I'll provide a bit of an overview of the regulatory and compliance framework. We'll look at the provincial legislation, regulations, and licences that apply to our water and wastewater operations. We are also governed in some respects by federal requirements, so we'll look and see what Canada requires us to do on a regular basis.

We, indeed, do wish to ensure that our utilities are properly administered, that public health is protected, and the environment is taken care of as well. So we have in place bylaws to -- to take that step, that additional internal step, to ensure

that the public health is protected and the environment is protected. We have water and sewer bylaws.

We'll go through some of the regular compliance submissions we make to Manitoba and Canada. I have a few additional compliance related matters I'll share with you. Then we'll look at the performance of the water and wastewater utilities with respect to these various legislative, regulatory, and licensing vehicles. And then I'll quickly summarize my presentation.

As Denise mentioned, the material that we have submitted as exhibits are contained within the binders, starting about the middle of the second binder, under "Topic 5." And I'll refer to the various tabs as I go through my pre -- through my presentation. Unfortunately, you'll find that the tabbing does not follow in order with respect to the presentation, so I'll ask you to bear with me.

With respect to the province and the wastewater utility, as I'm sure you realize, we are governed by the Provincial Environment Act. The Environment Act is provided to you as Tab G. That's 'G', as in George. And under this particular Act we have a number of licences that have been issued by the Manitoba Department of Conservation for our operations.

We've talked about biosolids earlier this morning. We are regulated with respect to biosolids. We have a licence issued by the Manitoba Department of Conservation. Tab number S, as in Sam, and it's licence number 1089ERR. And as you can see by the ERR, this has been a topic that has been considered several times by the Clean Environment Commission and the department. Every time you add a letter after the licence number, that means there's been a change made, there's been a hearing by the Clean Environment Commission, or something else has happened.

Our three (3) wastewater treatment plants are also licenced. As Moira indicated earlier, we have three (3) wastewater treatment plants within the City. The smallest plant, the Wa -- West End Water Pollution Control Centre, has licence number 2669ERR. And that's Tab Number M in your binder. Our larger plant, the North End sewage treatment plant, has received licence number 2684RRR. That's Tab number O. Our South End treatment plant, which has received a lot of attention over the past couple of

months, has a licence as well. It's number 2716R. Tab number J, as in Jack.

And under the Environment Act, we also have to meet a regulation respecting certification of operators of water and wastewater facilities. This particular requirement is called the Water and Wastewater Facility Operators Regulation. It was issued in 2003, Regulation number 77 that year. And it's Tab number H, as in Harold, in your package.

With respect to the wastewater utility on a provincial basis, we also have the Water Protection Act in place. Tab number II.

And which is -- a regulation which has been previously referenced this morning, the Nutrient Management Regulation, which is Tab JJ, applies to our biosolids operation. Essentially, at the beginning of this year, our -- as Mr. Permut indicated earlier, disposal of our -- our beneficial disposal of biosolids to agricultural land had to cease because of the very stringent requirements under this particular regulation. And as I mentioned, it is in the package as Tab JJ.

A very recent development by the government with respect to environmental protection is Bill 46, the Save Lake Winnipeg Act. It's Tab KK. That particular Act, with respect to the City of Winnipeg, is specifically applicable to our North End Water Pollution Control Centre and sets requirements for the upgrading of that particular facility, particularly to meet nutrient limits which will be beneficial to Lake Winnipeg.

With respect to the water utility and still looking on a provincial basis, the main instrument with respect to water safety, provincially, is the Drinking Water Safety Act. And that's Tab number 'U', Uganda. Under that particular Act the province has put into place two (2) regulations dealing with public water supplied.

The first regulation is called the Drinking Water Safety Regulation 40/2007, which is Tab V for Victor in the package. They've also put in place the Drinking Water Quality Standards Regulation, which closely followed the previous regulation, 41/2007, which is Tab W.

Under the Act, the office of drinking water issues licences for public water systems in Manitoba. We have been issued an operating licence for the water supply system, and we have to meet the requirements of the Act, the regulations, and this

particular licence. It is licence PWS-09-412RR, which once again, means it was altered twice since it was issued. That is Tab X in our package.

The water utility has operators, so we also have to meet the Water and Wastewater Facility Operator's Regulation with respect to the water utility, same tabs for that Act and the regulation.

With respect to Canada, the requirements aren't quite as onerous on the wastewater and water utilities, but there are still federal requirements that we have to meet.

Under the Canadian Environmental Protection Act, commonly called CEPA, which is located at Tab A in the package, we have to meet national pollutant release inventory requirements, NPRI requirements, and we also have to meet reporting requirements for greenhouse gas emissions.

Under the -- under the Canada Fisheries Act -- and I apologize that we -- we weren't aware there were two (2) Fisheries Acts, in fact. Manitoba has a Fisheries Act and Canada has a Fisheries Act. We mistakenly included the Manitoba Fisheries Act in our initial submission, which I hope has been corrected. It should be the Canada Fisheries Act, which is at Tab D. And under that particular Act there are requirements that we have to meet to ensure that discharges to the environment are not deleterious to fish.

The federal government has also proposed putting regulations in place Canada-wide dealing with wastewater facilities. And they have proposed a wastewater systems effluent regulation. This is in a proposal stage and they're hoping to work with their partners, the provinces, to bring this into place within the next year or so. That proposed regulation is at Tab E of the package.

And the federal requirements for the water utility are fairly similar to those of the wastewater utility in that we have to submit NPRI and greenhouse gas information for the water utility as applicable.

Also in place, Canada has a guideline for drinking water, which applies Canada-wide with respect to water. The province has -- has jurisdiction, but Canada helps to get things in order on a national basis.

The federal/provincial/territorial guideline for Canadian drinking water quality is in place as a guideline across Canada. And we do our ut

-- utmost to meet this particular guideline with respect to our drinking water quality. Those guidelines are provided as Tab F in the package.

I mentioned earlier, in addition to all these external requirements we have also put internal requirements in place in the way of bylaws. With respect to the wastewater utility we have in place, which is located at Tab MM in the package, the sewer bylaw. The bylaw that's in place now is really in many respects a brand new bylaw. It was effective January 1st, 2011. It's bylaw number 92/2010. It does include many improvements to the old bylaws which were in place in 1988 and 1998. One (1) of the major improvements or changes in the bylaw has been the requirement for pollution prevention plannings -- plant provi -- pollution prevention planning by businesses in Winnipeg.

This particular requirement is taking place January 1st of 2012. And staff in my office are in fact putting plans in place to move forward on pollution prevention planning.

This bylaw is actively enforced by staff of my division. We ensure that the public health is protected and that the environment is protected in accordance with the requirements in the sewer bylaw.

As indicated in -- in this slide, the bylaw does provide requirements for administration of the wastewater utility and it does protect public health and the environment. And as I mentioned earlier, this is not a new thing for the City. We've had previous bylaws in effect, 1988 and 1998. And things have been changing and moving so rapidly in the environmental area, about every ten (10) years we come out with new versions of -- of the sewer bylaw.

We also have a bylaw dealing with the water utility. Even though the current version appears to be old, and it indeed is old and that first came out in October of 1973, Tab LL in the package, it has been upgraded over the years. And it is, as with the sewer bylaw, actively enforced by departmental staff, including staff within my own division that look after backflow prevention and cross-connection control within the City. And we are at present reviewing and totally updating that bylaw, so we should have a new water bylaw in place within a year or so.

As with the sewer bylaw, the waterworks bylaw lays out requirements to administer the water

utility and ensure public health is protected. And as I mentioned, we are routinely amending the bylaw to keep up to date, including recent changes we made to backflow prevention requirements.

So I've talked about the all the legislative instruments -- the Acts, the regulations, the licences, the bylaws -- with respect to regulating the water and wastewater utilities. As a part of all those requirements, we do submit compliance information on a regular basis to the various levels of government.

With respect to the wastewater utility, we have routine compliance sumli -- submissions to the Province of Manitoba, including monthly monitoring compliance submis -- submissions with respect to our licences, our three (3) water pollution control centres. And we have examples of these compliance submissions. It's Tab K in the binder.

Under the licences, we also have to do testing on a quarterly basis for priority pollutants, which are called Schedule 'A' in the licence. So we test on a quarterly basis at our wastewater treatment plants for priority pollutants. And we also look at the toxicity of the wastewater that's going into the environment, and we conduct trout toxicity tests. These are provided under Tab R of the package.

We also accept wastewater that's hauled from within the City of Winnipeg and outside the City of Winnipeg at our North End and South End Water Pollution Control Centres. And in accordance with our licence requirements, we provide yearly submissions of these loads that we accept at these facilities to the Manitoba Department of Conservation, and these are copies of these reports. Example copies are provided as Tab S -- Tabs L and 'Q,' pardon me.

In addition to that, we provide a yearly biosolids report to the Province. An example of that is provided as Tab T. Over and above that, if we have any mechanical or physical failures in our wastewater collection or treatment system, we do notify the authorities as soon as possible by way of calling their twenty-four (24) hour reporting line. So we have fairly immediate notification of any wastewater spills to the Province.

And I have some examples of these various documents. The first example is a monthly summary of the monitoring conducted our -- at our West End Water Pollution Control Centre.

So we have, as mentioned earlier, three

(3) sewage treatment plants in the City: the West End, the South End, and the North End plant.

We conduct monitoring on a twenty-four (24) hour, three hundred and sixty-five (365) day basis, so we do monitor every day at every plant. We submit records to the Provincial government on a monthly basis.

As you can see, we cover all of the various tests that are required under the licences that are issued by Manitoba. This is an example of a -- a submission made to Manitoba for the West End Water Pollution Control Centre for December of 2010.

I mentioned we also submit, on a yearly basis, a summary of biosolids spreading. Unfortunately, because of the changes made recently, the biosolids, instead of being spread out agricultural land, have been taken to landfill. But we do report on this on a yearly basis. This is the cover page from our 2010 report.

So those were the compliance submissions that we make on a routine basis to the Province for the wastewater utility.

For the water utility, we undergo similar rigour in ensuring that -- that we do meet compliance requirements. Included in the list of things that we submit are weekly distribution system chlorine residuals, Tab Z, for zebra, in the package.

We have monthly monitoring compliance submissions, which are Tab Y, for yellow, in the package. We report fluoride levels in the drinking water system on a monthly basis, and an example of that is provided in Tab FF. We also provide quarterly trihalomethane results submissions. An example of that is provided in Tab BB.

On an annual basis, we provide a report on lead, which is Tab AA. And we do submit an annual water quality report; an example of that is provided as Tab CC.

We also submit, on a regular basis, corrective action reports, as required, to the regulatory office.

Some examples of these documents I've referenced include a document that we submit with all of our bacti samples. And as you can perhaps see on this, our chlorine levels are entered on the sheet that go to the lab, along with the bacteriological results.

We have a number of reports that we provide on a monthly basis, including turbidity values

from the water treatment plant, raw values, plus values for beach filter on a daily basis.

Another report that we regularly submit on a monthly basis with respect to our water treatment plant operation is a report on chlorine grab sampling at our water treatment plant. The plant provides water through two (2) branch aqueducts, so we provide readings from both those branch aqueducts.

To once again show how much information we provide on a regular monthly basis to the Province with respect to the safety of the drinking water supply, we pro -- we treat our water with ultraviolet light, and we provide a monthly report on UV monitoring. We have six (6) different reactors that we treat the water with. So we have a monthly report, once again for December 2010, providing detailed information on the operation of these facilities.

We do provide an annual report to the Office of Drinking Water with respect to our water supply system. Here we see the cover page from the 2010 annual report.

And whenever we have a difficulty in the water supply system, we do a corrective action report. These reports are done on an as-required basis. This particular report was from December of 2010 with respect to a positive coliform in the distribution system of the water supply system.

Okay, I've gone over the -- some of the various things we do for the Province with respect to ensuring that the wastewater and water supply systems are performing properly.

We also have federal requirements that we're required to report on, including the National Pollutant Release Inventory. And we do make annual submissions on NPRI, respecting applicable water and wastewater facilities. An example of this is provided as Tab B, for bob, in our package.

We are also required to submit information respecting greenhouse gas emissions. We have an annual submission we -- we make respecting applicable water and wastewater facilities. Applicable information on this is provided as Tab C in the package.

In addition to meeting all of these legislated requirements and regulatory requirements set by Manitoba and Canada, we also have additional compliance things that we undertake on a voluntary basis.

With respect to certification of water

and wastewater operators, the Province does require that operators working in our water and wastewater facilities be certified. We conducted our own internal audit to ensure that we were in compliance with the provincial regulation requiring this in 2010. A copy of this is provided as Tab I in the binder.

We also provide the Winnipeg Regional Health Authority with month -- monthly water quality reports. This is a voluntary submission to the WRHA. An example of this is provided as dab -- as Tab GG in the binder.

In addition to that, we voluntarily provide the provincial regulators with an annual water main cleaning program, water quality monitoring summary report. That's a big mouthful.

That means we tell them how well we're cleaning our water mains. We clean the water mains on an annual basis to enure the drinking water is as clean as possible when it reaches our customer's tap.

So we do provide the Province with a copy of a summary report on this activity on an annual basis. An example of this provided as Tab HH in the binders.

We also routinely monitor the rivers and small streams within Winnipeg to ensure that the environment is protected. We have copies of some of this information as Exhibit 2-1 and 2-2 and additional material that was submitted.

We also conduct sanitary surveys of Shoal Lake, our raw water source, to ensure that the raw water source is as clean as it can be. And we have some information on that provided as Exhibit 2-3.

And I'll just very quickly go through some of this material. Here's the cover page from our operator certification audit review that we conducted with respect to how our operators were doing with respect to mandatory certification. This is operators of both our water and wastewater facilities. Here's the cover page from that report.

Here we have a monthly water quality report. We submit a copy of this monthly to the Winnipeg Regional Health Authority for their information. They are, of course, very involved in ensuring that the safety of -- the public health safety of the water we provide to our customers.

Our water main cleaning program is conducted regularly. We provide an annual report on our water main cleaning program to the regulators for their information. Here is a copy of the report done

for 2010.

We also, as I mentioned, routinely monitor the rivers running through Winnipeg during open water season. Here we have an example of our river survey monitoring report, including a number of parameters for May 2011. And we have a number of sampling locations on both the Assiniboine and Red River.

As I mentioned, we also intensively monitor the source of our water, Shoal Lake. Here you can see the locations that we routinely take samples during open water season at Shoal Lake.

Okay. I've talked a lot so far about what we do with respect to ensuring our utilities provide safe water to our customers and dispose of their wastewater in a safe and efficient manner.

We'll now discuss the performance of the utilities respecting regulatory and licence requirements.

THE CHAIRPERSON: Can I -- can I just interject with a quick question? I don't know whether my panel members have questions at this point, but I know you're going into a different area.

MR. KELLY KJARTANSON: M-hm.

THE CHAIRPERSON: Yeah. I just want to check on those trout, the ones that you were checking for toxicity. Where are they? Are they -- obviously, downstream from the plants, right? But are they in the wild, or are -- are you putting them in a -- some kind of a pond that you monitor, where you can access them?

Or how does that work? Where do you get them from?

MR. KELLY KJARTANSON: This -- this is a laboratory test. So what we do is we collect samples of -- of effluent and then take them to a lab, and the lab checks to see if the samples of effluent kill very small fish in a laboratory environment.

THE CHAIRPERSON: Thank you. That's helpful.

MR. KELLY KJARTANSON: Okay.

THE CHAIRPERSON: Thank you.

MR. KELLY KJARTANSON: You're welcome. Okay. To continue on with the performance of the utilities respecting the regulatory and licence requirements, we'll first talk about the performance of the water utility.

The Office of Drinking Water, with the Province of Manitoba, routinely ensures that our

drinking water is safe. And they conducted an annual audit in 2010. That was our first annual audit after our water treatment plant was placed into operation. A copy of their report is provided at Tab DD of our binder.

And with respect to their 2010 Annual Audit Report, they found us to be in 100 percent compliance in all categories, which we were very happy to hear, because we did feel we were providing a very good and -- and safe service to our citizens.

No warnings have been issues, nor charges laid, with respect to the water utility. So we do continue to be in compliance with our licence, applicable regulations, and guidelines.

With respect to the wastewater utility, the wastewater utility is in general -- generally in compliance with licenses and regulations. No warnings have been issued or charges laid.

We do have some compliance on a day -- on daily limits, and those ongoing items are under discussion with Manitoba Conservation with respect to future licenses being issued for our -- two (2) of our plants: the South End and North End Wa -- Wastewater Treatment Plants.

Our South End sewage treatment process, as you are aware, was upset in October and November of 2011, and we can discuss that further. I'm sure you may have some questions on that, which we'd be happy to discuss in the future.

So in summary, for our wa -- water and waste water utilities, as you can see, at all times we're managing a myriad of federal and provincial requirements. We have legislation, regulations, licenses, and guidelines that we're continuously dealing with, with -- with respect to the water and wastewater utilities.

We do sample, monitor, and test the utility in -- infrastructure on a regular basis. And I can tell you, we do it a lot more than is required under regulation and licence. Most of the testing is done at our own internal laboratory, and that licence -- that laboratory is accredited by the Canadian Association for Laboratory Accreditation, CALA.

I've shown you that we submit compliance reports on a weekly, monthly, quarterly, and annual basis to both levels of Government, as required. We do practice internal due diligence through discussion of monthly compliance reports by our departmental management team.

So we discu -- do discuss, on a regular basis, how we're doing with respect to these requirements. It is a standard item on the agenda of our meetings.

We do practice external due diligence with biannual wastewater compliance meetings with staff of the provincial Department of Environment. We also have water compliance meetings on an annual basis with the provincial regulators respecting water.

We do update and enforce our bylaws, both the waterworks and sewer bylaws, to protect public health, safety, and the environment. We do, for the most part, comply with regulatory and licence requirements. And we do -- we are very open. We provide most compliance information on the Winnipeg website in the spirit of transparency.

And to give a couple of examples of this from our website, here's a shot of the page with respect to our water pollution control centre licensing and monitoring. We provide copies of the provincial Acts, and we provide regular compliance reports that we submit. We submit monthly compliance reports. This information is available on our website for the general public.

With respect to drinking water, we provide water quality information to the general public as well. We provide test results on our website, as well as other information.

And I think that concludes my presentation on this particular topic.

THE CHAIRPERSON: Thank you very much. I'm just wondering, do you have any questions? Okay. I just want to make one (1) quick comment, and that was that video. I'm still struck by how wonderful that video was, on the water treatment plant.

So in terms of the sewage and the treatment of sewage have you contemplated doing another video that would be available on the website so that people could understand the sewage side of it?

MR. KELLY KJARTANSON: We -- we do have information available on the website to try and let customers know, and the general public, about our wastewater treatment plants. But that is something we certainly could take under consideration, because we're very proud of the video we have on the -- on the water treatment plant. Thank you for the feedback.

THE CHAIRPERSON: So now we're moving to a new witness. Go ahead.

MS. DENISE PAMBRUN: Yes, we have Ms.

Cynthia Wiebe, PN, who's going to be speaking now on combined sewer wastewater collection systems.

MS. CYNTHIA WIEBE: Good morning. As mentioned, I'm the wastewater collections planning engineer. The material for my topic can be found in Tab 6, and I'm going to be speaking on the combined sewer wastewater collection system.

MS. DENISE PAMBRUN: Just a word of warning, Madam Chair, this is the tab where the material may have gotten to you in the wrong order. And if there's any difficulties, please don't hesitate to interrupt, and we'll make sure we sort it out. Thank you.

MS. CYNTHIA WIEBE: Right. So I'm going to begin the presentation by giving a bit of background on what our wastewater collection system is and how it functions. I'll then talk briefly about the regulatory information. And I'll follow that with some project updates on combined sewer overflows. And I'll finish with where we are in terms of developing a long-term combined sewer overflow program.

So first the wastewater collection plan. These two (2) graphics can be found in Tab 6A and 6B. So the sewer system is a fairly complex network that includes both gravity and pumping facilities as well as collection and treatment components.

As was mentioned earlier, we do have three (3) treatment plants. And you can see them, the red dots, with their associated colour coordinated -- or coloured catchment district. We also have five (5) interceptor systems, which take the sewage and bring it to the three (3) treatment plants.

We have forty-three (43) combined sewer districts, and these are highlighted on the right; and that would be Tab 6B. These are colour coded based on where we're at in terms of basement flood relief. And what I mean by that is it is the City's mandate to upgrade all the combined sewer systems to a one (1) in five (5) year level of service.

So that would mean that a storm -- we would -- sorry. We would expect to see approximately once every five (5) years could be contained within the sewer system and not result in basement flooding. In the future, we will then be going and upgrading them to one (1) in ten (10) year.

So in addition to that, we also have two hundred and thirty-one (231) land drainage outlets, seventy-four (74) sewage lift stations,

thirty-four (34) flood pump stations; and thirteen (13) land drainage pump stations.

So the City of Winnipeg has two (2) types of sewer systems, similar to many of the older areas in North America that were built around when Winnipeg was built.

We do have a combined sewer system, and this is the -- these are the older parts of the City, approximately 27 percent of the City in the central core. And that -- these are basically serviced by one (1) sewer which is going to collect both the sewage from the homes and buildings, as well as any of the rainfall or snow-melt-related runoff from roads and parking lots. And that goes into one (1) single sewer.

What we're building nowadays is called a separate sewer system, and that's on the right-hand side. And this is characterized by two (2) distinct pipes. There's one (1) pipe that's dedicated to taking this sewage from homes and buildings and conveys it to the treatment plant, and a second, separate pipe that's going to collect all the rainfall and snow-melt-related runoff. And that will then discharge into a local water course either through a storm retention basin or directly.

So there are some similarities between the two (2) systems. So for both the combined system and a separate sewer system under dry weather operation, all of the wastewater is going to be treated. As well, under wet weather, both of these systems can be vulnerable to basement flooding.

It's pretty easy to see how it can happen in a combined sewer system, when you've got a lot of rain coming in. The mixture of rainfall and sewage can back up in -- and flood an unprotected basement.

We also can get basement flooding in a separate sewer district from various inflow-related wet weather influences, and this can include weeping tiles from houses that were built before sump pumps were installed; post-implementation of sump pump, we also do find a lot of people reconnect their sump pumps back into their home draining -- drainage, or home plumbing. And that provides a source for wet weather to get into a sewer that was never designed to carry that wet weather.

And also in some areas, under really heavy rainfalls, we can have some street flooding, and that flooding can get in through a wastewater manhole.

So one (1) thing that's unique to a combined sewer system is that there are relief elements, and those are called combined sewer overflows, or CSOs.

So because the combined sewer system can become overwhelmed due to rainfall, relief elements were intentionally designed into the system in order to protect homes from basement flooding, and these relief elements are the combined sewer overflows.

So the way it works is under dry weather, the sewage will come down the pipe and come and basically hit a diversion weir. And this weir is like a little mini-wall in the sewer that's going to redirect the sewage to the interceptor, where it goes for treatment.

For smaller wet weather events -- and that's anything up to around two point seven five (2.75) times dry weather flow, which is how the weirs were sized, and in some areas it is higher than that -- both the sewage and the rainfall runoff will go to treatment. So what that does is it takes any of the pollutants -- the oils, the greases, litter, and debris -- from roads and parking lots and sends it to treatment instead of sending it directly to a water course.

Under larger rainfall events, the sewer becomes overwhelmed, and the diversion capacity is exceeded. And what we have is a dilute mixture of sewage and rainfall runoff that spills to the river, and that spill is the CSO.

So on average we have about twenty-two (22) CSO events per year, or eighteen (18) per open water rec season. The major impact from CSOs is a temporary rise in fecal coliforms, and we have done some studies that show that the fecal coliforms return to ambient levels a few -- within a few days from the CSO.

And typically we lose about 1 percent of our total annual sewage to overflows every year. And again, these CSOs are in place in order to protect basements in the combined sewer areas from basement flooding.

So that was a brief background to our sewage collection system, and I'm just going to talk briefly on where we are in terms of regulation.

So in 1991 and '92, the Provincial government directed the Clean Environment Commission to hold hearings that defined appropriate uses and

water quality objectives for the Red and Assiniboine Rivers in Winnipeg.

At this time, the CEC concluded that there wasn't sufficient information to stipulate a requirement to regulate CSOs at that time. So instead what they did was, they made a recommendation that we undertake site-specific studies to determine the water quality impacts of CSOs and to formulate some remedial measures.

So as a result of that, the City began a combined sewer overflow manag -- management strategy study in 1994. So this is in Tab C, and the objectives are outl -- highlighted on page 4.

So two (2) of the key objectives of the study were to understand the effects of CSOs on the rivers, as well as to focus on conceptual-level CSO control alternatives. So to date, this study has provided a good resource and foundation for how we've allocated our capital investments, in terms of projects, and is providing a really good foundation for where we're going in the future as well.

In early 2003, CEC hearings were held again on the continued operation and development of the wastewater collection system. And once more, the CEC provided a list of recommendations. And these can be found on Tab D, specifically pages 57 and 58.

In terms of the combined sewer overflows, the City was directed to shorten the time -- the timeframe to develop our CSO plan to a twenty (20) to twenty-five (25) year period. As well, the City was directed to reduce CSOs by instrumenting outfalls, raising weirs, advancing combined sewer replacement, as well as undertaking pilot retention projects.

Other recommendations for the public notification system included directing the City to develop and implement a public notification system that would inform the public whenever there was a release of raw sewage to the river. And a bit further in my presentation, I'll discuss some of the things we've done to meet these recommendations.

So to date, we currently do not have a licence for CSOs from our provincial regulators, and we are awaiting one. We have had preliminary discussions with Manitoba Conservation, and they've indicated to us that the licence should be forthcoming shortly.

It's our goal to work collaboratively with our regulators, and we'd like to do this in order

to achieve a cost-effective, risk based control -- or a ris -- risk-based approach to CSO control. So this could incorporate varying the CSO requirements, depending on the location of where the overflow is, as well as the nature of the effluent at that location.

In addition, we would like to work collaboratively with the Province in order to develop performance measures to evaluate CSO reduction and compliance with the licence.

So while we don't currently have a provincial licence, the Canadian Council of Ministers of Environment, or CCME, has endorsed a national wastewater framework that they've aimed at protecting human health and the environment. And this was endorsed in 2009.

The Canada-wide strategy for the management of municipal wastewater effluent can be found in Tab 6E. The primary objective for overflow management, which is outlined in pages 4 and 5, is to reduce the impact of CSOs on the surface waters.

So the national standards for combined sewer overflows include that there is no increase in CSO frequency due to the development or redevelopment of areas unless it occurs as part of a long-term control plan.

There should also be no dry-weather overflows, except during spring thaw or under emergency conditions. As well, wherever possible, we are encouraged to remove all of the floatable materials.

The framework also mentions that jurisdictions can provide more stringent, site specific objectives. So, again, while we don't have a provincial licence at the moment, we are anticipating that this will form the minimum of what our licence will be.

So the City of Winnipeg is actively addressed -- addressing issues relating to CSOs through both operational improvements and capital projects. So some of the ongoing operational improvements to our collection system include identifying and reducing dry-weather overflows through system upgrades. Some of this could include upgrading pumps or pump stations, raising weirs, replacing pipes.

We also identify and remove large sources of extraneous inflow to the sewer system. So this could include, for example, drainage elements like land-drainage sewers or catch basins that have

been incorrectly connected to the sewer system.

We also use high-sewer-water-level warning alarms at overflow locations. These alarms are set below weir level. And we set them that way in order to provide times for our crews to respond to an alarm, get to the site, and then wherever possible, prevent the -- prevent the overflow from happening.

We're also enhancing our computer monitoring system, and this is helping us to improve our alarming and reporting capabilities. We also use it to diagnose system concerns before they become problems. And it also provides a graphical intervase -- interface that's helping us to visualize what's happening within our system, and it's provided opportunities for us to target preventative maintenance that needs to happen, again, before we have concerns.

So in response to this -- one of the CC recommendations I mentioned, the City did develop and implement a CSO public notification system. And this screenshot of this is found in Tab 6G.

Our notification system went online in 2004. So the notification system was based on the existing equipment that we have in the field, and these are the high-level warning alarms that I mentioned. And that's why we're reporting on the probability of alarm, because our alarms are going off before we're actually experiencing an overflow.

So our system, what it does is it looks at these alarms that are coming in, and then it makes an assessment based on whether we think there's a low probability, a likelihood, or a high probability of an overflow actually occurring at any point in time.

The notification system is also further limited by high river levels in the City. And that's because when the river levels are high, the gates at the outfall structure are held shut. So what we need is a higher level in the sewer before the gate is opened and we have an overflow.

So what we then see is these warning alarms are coming on earlier -- or coming on for longer durations and we're getting more of them, without actually experiencing an overflow.

So we do realize that our current system is inadequate for our long-term CSO reporting, and we do have a program in place to address this. And I'll be talking about that one shortly.

I'd also like to mention, in Tab 6H, there's another screenshot from our website. We do

have a separate notification system that describes any of the discharges that happen due to sewer service interruptions.

So the City has also undertaken a number of capital projects and initiatives to mitigate CSOs, and I'm just going to highlight a few of the key ones. And a number of these also go towards addressing the CEC concerns.

So the first one is the Combined Sewer Overflow Outfall Monitoring Program. And this is the program I was referring to when I said we have one place for the public notification system.

We have completed a pilot -- pilot project, instrumenting fifteen (15) outfalls, and it was a fairly large program. But preliminary results are looking really good, so we are extending this program in 2012 and will continue to instrument more outfalls. And as this program moves along, we will be able to provide better notification and reporting on our overflows.

We have also recently completed a pilot storm water retention tank. And -- sorry, the way the retention tank works is during a rain, it captures the rainfall runoff and holds it in the tank until the levels in the sewer have dropped enough and the rainfall is gone. And then what's in the storage tank can then be released to the sewer and it goes to treatment, instead of overflowing into the sewer system.

So we're pretty excited about this opportunity, and it will give us a chance to test the feasibility of this type of a facility here in Winnipeg, and also an opportunity to evaluate some of the operation and maintenance concerns that are going to be associated with the type of facility.

We also have ongoing combined sewer separation projects, and that's where we take the -- thank you very much -- and that's where we take those single-pipe, combined sewer -- sewer areas and we change it into a dual pipe - a dedicated wastewater/dedicated land drainage.

We are currently in the works of separating six (6) districts in the City. We do have low-impact development standards in place for all the development or redevelopment that happens in our combined sewer districts. And in these areas, what we'd like to do is ensure that any development or redevelopment has an adequate stormwater management plan, and we limit the site runoff to pre-development

conditions. So in this way, we don't exacerbate basement flooding or CSOs due to any development in the area.

We also have ongoing combined sewer relief studies. And while the focus of these is primarily on basement flooding, we do also put a strong emphasis on CSO solutions in the -- in the studies as well.

We also have ongoing interceptor and collection system sewer flow monitoring that we undertake as we need. We have combined sewer renewals and replacements that ha -- happen annually, as well as lift station improvements and capacity upgrades that are also happening on an annual basis.

So in mind with the CCME national standard, we are in the process of developing a long-term CSO program. So as I mentioned previously, in 2002, the City finalized the CSO management strategy study. And this study outlined various conceptual studies -- or strategies for the City in terms of CSO. And these strategies ranged from 450 million to $1.5 billion solutions, and those values are in 2002 dollars.

So in order to take this conceptual plan and move it forward to an actual roadmap for the future, we need -- we initiated a CSO master plan. And the objectives of this include reviewing and updating the 2002 CSO study, and this is done in order to reflect where the current level of knowledge and the current technologies, in terms of CSO practice, is.

It also is going to reflect the City's enhanced knowledge of a system that we've gained over the last number of years through various projects and initiatives that we've undertaken. And it's also going to look at updating the cost, that four-fifty (450) to 1.5 billion, and bring it in an order of magnitude type of cost forward to current value.

So in order to help us with this, we have initiated a requested for qualifications that we put out earlier this month. And the intent here is really to short list some qualified consultants that'll move forward to the proposal phase. And we are expecting that the development of this plan will take approximately three (3) to five (5) years.

So, in summary, the City is committed to improving our sewer infrastructure and decreasing the impact of CSOs on the rivers and Lake Winnipeg. While we await a licence from the regulators, we will

continue to carry out capital projects and operational improvements that will reduce CSOs in the City. We're also in the process of developing a long-term plan to address CSOs, and this fla -- plan will form the basis of a multi-decade program that we'll undertake.

We are dedicated toward -- to working with the provincial regulators in order to create a sustainable, risk based approach to CSO control. Thank you.

THE CHAIRPERSON: Thank you very much. Now, I'm looking at the time. I'm thinking -- should we carry on, Mr. Peters? What do you think in terms of time? Or should we take our lunchbreak and come back?

MS. DENISE PAMBRUN: Mr. Permut is next, and his presentation will take perhaps fifteen (15) to twenty (20) minutes, but it is a pretty heavy subject. Would you like a break at this time?

THE CHAIRPERSON: What is your preference? Do you want to carry on for the fifteen (15) to twenty (20) minutes and then take the break? We can do that. That's not a problem.

MS. DENISE PAMBRUN: I think a break at this time might be wise, actually.

THE CHAIRPERSON: Do you? Okay. Well, then let's take our lunchbreak. Normally we break for an hour. And so I'm thinking we'll be back around let's say right at 1:00 so that we can carry on. And then we'll look forward to hearing from Mr. Permut. Thank you.

MS. DENISE PAMBRUN: Thank you, Madam Chair.

--- Upon recessing at 11:56 a.m.
--- Upon resuming at 1:02 p.m.

THE CHAIRPERSON: Oh, sorry. Here we are, one o'clock. We're back, and we're ready for Mr. Permut. Oh, he -- there he is. Okay, go ahead.

MR. ARNOLD PERMUT: Thank you, Madam Chair, and Board members. First of all, I'd like to clarify something that Ms. Pambrun had said, that I'm a very senior engineer. What she really meant -- what she really meant to say was I'm old, and you may have noticed Mr. Kjartanson is also a very senior staff member, too, so.

I should clarify that Bill 46 here, we're referring to Save the Lake Winnipeg Act, just for clarification. The outline of my presentation,

I'll review the background related to nitrogen and the Save the Lake Winnipeg Act. I will give you a brief overview of wastewater treatment, albeit it will not be a slick video but I'll give you a quick presentation as best I can. I'll discuss Bill 46, the treatment requirements, the total nitrogen removal, the science and experience of total nitrogen removal, as well as the cost of nitrogen removal. I will end with the City recommendation and a summary of our position on the matter.

By way of background, in -- sorry -- in 2003 the Clean Environment Commission report recommended that the City of Winnipeg reduce the following wastewater treatment plant discharges based on a thirty (30) day rolling average. They recommended that phosphorus be reduced to 1 milligram per litre and total nitrogen be removed to 15 milligrams per litre.

Subsequently, in January of 2008 the City responded to the province that we advised that we would comply with the licence requirements for control of ammonia once the North End sewage plant was upgraded. And we requested that the requirement for total nitrogen removal be removed from the licence.

In September of 2008, the Minister of Conservation ordered the Clean Environment Commission to investigate nutrient reduction, and specifically I -- we're referring to nitrogen and phosphorus. And they -- also requested that they look at ammonia, which is a form of nitrogen. And I will have a slide related to that which I'll show you shortly. And also the reduction of nitrogen at Winnipeg sewage treatment plants.

In March 2009, the Clean Environment Commission report reaffirmed the thirty (30) day rolling average limits for phosphorus at 1 milligram per litre and nitrogen discharges of 15 milligrams per litre.

A very quick tour around the North End sewage treatment plant. Let me see if I can get a mouse going here. Sorry. Please bear with us for a slight technical difficulty.

(BRIEF PAUSE)

MR. ARNOLD PERMUT: Okay, here we go. At the North End sewage treatment plant the raw influent, or raw sewage comes in through several interceptors, which are large sewers within the

catchment area of the North End plant. They come in below grade at about 20 metres or 60 feet below grade. There are six (6) large raw sewage pumps that pump the raw wastewater up.

And the preliminary treatment at the North End plant consists of bar screens which remove large debris, rags, 2 x 4s, whatever else someone decides to put down a sewer inappropriately. Following the bar screens, we have grit removal, which is basically a settling process where large, solid material like sand and gravel settle out. And from grit removal the wastewater flows into primary treatment, which is a settling process as well but for smaller particles. And the primary clarifiers remove roughly 50 percent of what we call total suspended solids.

The wastewater then flows into secondary treatment, which is a biological process. It uses, basically, a soup of micro-organisms that use dissolved organic material in the wastewater as a food source. They convert that to cell mass, and that cell mass then flows into the secondary clarifiers, where it is settled out.

I'll just go back to the bioreactors for a -- a minute. Currently, the North End treatment plant uses a high purity oxygen process, as does the current South End treatment plant. And, just a bit of trivia for you. We have the largest oxygen generation plant in Manitoba at eighty (80) tonnes per day. And that is privatized, and it's run by Praxair, I believe right now.

I'm going to get back to the solids out of the clarifiers, but I want to follow the liquid stream first. When you look at a sewage treatment plant, there's basically two (2) flows. One (1) is the liquid and one (1) is the solids.

The liquid stream, once it is settled and the secondary sludge is settled out in the secondary clarifiers, moves on to ultraviolet disinfection. And the ultraviolet disinfection is so that we can meet our bacterial limits of e coli and colifecal coliforms for the treatment plant. And then the treated wastewater then flows out to the Red River.

A comment on ultraviolet disinfection. It's a very good technology for Manitoba for several reasons. One (1) is it uses no chemicals. And past technologies used elsewhere are -- use chlorine, which a) is a dangerous compound to transport, and b) you

have to undertake a process called dechlorination prior to discharge to the river, because chlorine is extremely toxic to fish. So ultraviolet disinfection has a huge benefit, that there's no residual leaving the plant after the bacteria are killed off by the UV.

The other benefit ultraviolet disinfection has in Manitoba, and I'd have to say thanks to the Public Utilities Board, our electrical rates are very favourable in Manitoba. UV disinfection is very electrical intensive, but given the excellent rates we have for power in Manitoba, it's a good fit.

Moving to the solids. The secondary clarifier solids are sent to the primary clarifiers, and they go through a process called co-thickening with the primary solids. All of this material then goes to a process called anaerobic digestion. Anaerobic digestion is a break down of the organic material in the wastewater. It's done -- anaerobically, means in the absence of air. It's done at approximately 35 to 38 degrees, which is body temperature.

It's really not unlike your digestive system for breaking down food in your body. The byproduct of the anaerobic digestion is methane gas, with other compounds in it. We use the methane gas at the North End plant currently for space heating in the winter time. It's worth a lot of money to us and avoided natural gas costs. We also use the methane from the anaerobic digesters to reheat the contents of the digesters. Because as you can understand, in the winter time to try to keep them at 35 to 38 degrees requires a lot of heat.

From the anaerobic digesters, the sludge then goes into a dewatering system, which consists of six (6) centrifuges. They basically spin the water out of the sludge, because when we haul the sludge, which at this point we now call biosolids, which is essentially treated sludge, we don't want to haul water around. It's not cost effective to haul water around. The sludge typically comes out of the digesters at 2 percent. It dewaters to approximately 25 percent, which is a twelve-fold decrease in volume if you run out the numbers.

The biosolids from the dewatering then are trucked currently to the landfill at Brady Road which we've discussed already. And I did mention that we are looking at alternative methods for disposal of biosolids.

In order to assist the province with reduction of nutrients in Lake Winnipeg, the City has at the North End plant put in a process called sequencing batch reactors. They treat the centrate, which is the liquid that comes off the centrifuges. It's very high in ammonia. It's very high in phosphorus. And this is a very efficient process for reducing nitrogen and phosphorus in the effluent from the North End plant. And this -- this has been up and running for several years now and has been working very effectively.

Bill 46, or the Save the Lake Winnipeg Act treatment requirements apply to the North End treatment plant only. The phosphorus limits that are spelled out in Bill 46 are that we treat to 1 milligram per litre on a thirty (30) day rolling average with minimizing chemical treatment. The City agrees with this and we propose to undertake it as we expand the North End treatment plant.

The Bill also calls for the City to look for sustainable methods of reuse of phosphorus. We are supportive of this as well and we are continuing to evaluate cost-effective technologies to do this. I did mention in my brief discussion over there that the biosolids program -- currently we're looking at a trial for composting of 20 percent of the total biosolids production in the City to produce a reusable compost.

We are in the process of submitting a plan to Manitoba Conservation which will require an alteration to our existing biosolids licence to undertake this. I'm optimistic that this will take place and we're trying to get this up and running, say, by next summer.

The other issue is the reuse of phosphorus -- is recovering phosphorus in a form that can be used in the manufacture of commercial fertilizer. This is something we're looking at as well. Phosphorus value is increasing rapidly because of a shortage of phosphorus worldwide. So this is becoming a very economically attractive thing for us to do and we are evaluating alternatives -- ways to do that. And again, it provides a sustainable reuse of the phosphorus as well.

With -- in terms of Bill 46 requirements, we do not concur with the proposed ammonia daily limit requirement, although it does vary by month by the plant. This daily requirement will result in considerable cost for what essentially is no

demonstratable benefit. It will result in an overdesign of the treatment plants for wet weather flows. And sometimes bigger isn't better when one designs a waste water treatment plant. And the implication of overdesigning a treatment plant is that it is extremely difficult to operate properly during normal flow conditions. We are continuing our discussions with the province regarding the limits. So that's -- as I say, that's under review with a discussion right now.

A little bit of chemistry here, hopefully not -- I've simplified it as best I can. Total nitrogen removal is really a two (2) step process. The first step is to take ammonia, which is a -- an NH3, which is a form of nitrogen, that comes in raw sewage. It is converted to another form of nitrogen called nitrate. And this essentially happens by taking ammonia, adding oxygen, and putting it in a tank process with the appropriate micro-organisms that their job is to convert it to nitrate.

We propose to do this because ammonia is toxic to fish and we recognize that and agree with that. Nitrate is not considered harmful in the environment, and this is where we would like to basically end the removal of nitrogen.

If we go to total nitrogen removal we have to go to step 2 where nitrate is converted to nitrogen gas. And that is done again with appropriate micro-organisms. It requires that nitrate have carbon added to it as well to assist the bacteria to do their job. And they release nitrogen gas, which is harmless as air is 78 percent nitrogen already.

The current licence states that the North End treatment plant, as of December 31st, 2014, must not discharge effluent which -- in which, and I quote:

> "The concentration of total nitrogen in the effluent is in excess of 15 milligrams per litre as determined on a thirty (30) day rolling average."

And that can roughly be interpreted as a monthly average.

The scientific evidence does not support a total nitrogen limit. And -- and this is an extremely important part of our consideration of making the recommendation that the total nitrogen limit not be applied to the licence at the North End plant.

Some form of algae can convert nitrogen

gas in the atmosphere into a nutrient. These organisms are called nitrogen fixers. Total nitrogen removal will limit green algae, but it gives nitrogen-fixing algae -- and these are known as blue-green algae, another name for them is cyanobacteria, which you may see at some -- some point in your reading. It gives these algae a competitive advantage because the green algae cannot get nitrogen out of the water because it's been removed. The nitrogen-fixing algae, or blue-green algae, are not harmed by it not being in the water because they can get it out of the air. The concern with blue-green algae is that they're extremely harmful to humans and animals and they produce some very serious toxins.

I've simplified this a little bit, but neurotoxins are one (1) of them that is released. It causes damage to nerves and nerve tissue. Hepatoxins cause liver damage. Endotoxins cause excessive internal bleeding, severe diarrhea, fever, and it also affects the body's ability to resist bacterial infections.

There's been cases in Saskatchewan, for example, where there are cattle drinking water out of ponds that have blue-green algae in them. The toxins have been of such a level that the cattle have died, so this is a serious issue.

With respect to nitrate removal not being beneficial to Lake Winnipeg, building on the discussion of the previous slide, Dr. David Shindler, who is a worldwide respected authority on limnology, the study of lakes, and eutrophication, the aging of lakes due to excessive algae growth, he concluded that in Lake Winnipeg the explosive growth of algae is primarily nitrogen fixers or blue-green algae.

This was confirmed and verified by Dr. Hedy Kling, who is an algae specialist at the University of Manitoba. Further, sixty-three (63) prominent scientists wrote Manitoba Clean Environment Commission regarding this matter supporting Dr. Shindler's conclusions. And they wrote, and I quote:

> "Removing nitrogen will, at best, do nothing, and at worst, increase the dominance of filamentous nitrogen-fixing bacteria."

The research conclusively proves that phosphorus is the key nutrient to eutrophication of lakes. Dr. Shindler did a whole lake experiment to understand the algal response to carbon, nitrogen, and phosphorus additions.

This picture, in my view, tells the whole story very clearly. You can see in the area of the lake that was divided in half here, carbon, nitrogen, and phosphorus were added, and there's an explosive grown of cyanobacteria or blue-green algae. You can look at the other side of the lake where carbon and nitrogen were added, and phosphorus was not added, and I stress that nitrogen was present here. There is no growth of algae. And the clear implication of this research is that the algae growth is limited strictly by phosphorus supply.

Controlling nitrogen input to lakes may adversely affect water quality. And it's clear that low nitrogen conditions favour blue-green algae or the growth of cyanobacteria. Phosphorus is a key element in eutrophic lakes. They are rich in nutrients. They support a dense plant population. The reason eutrophic lakes are a concern is because as the algae die off they consume oxygen, and this deprives animal life, such as fish, of a healthy oxygen supply.

The City of Winnipeg's position is that we agree with the Clean Environment Commission recommendation to remove phosphorus aggressively, and the science supports this as well. Total nitrogen will not benefit Lake Winnipeg. In fact, it may result in a detrimental outcome, as -- as I've already discussed.

We believe that not implementing a total nitrogen limit helps green algae compete against harmful blue-green algae and therefore minimizes the harm caused by the blue-green algae.

Those comments are based on science, based on experiments. I want to talk a bit about real-world experience. The City of Toronto wastewater treatment system serves 2.6 million people. It discharges to Lake Ontario and the Don River. And this is the key point here, the City of Toronto only removes phosphorus, not nitrogen, from their wastewater effluent.

Also the Great Lakes have recovered from eutrophication since the early '60s and '70s. Other cities around the Great Lakes also remove phosphorus only, and total nitrogen removal was not a significant factor in the recovery of the Great Lakes.

Also, not to be ignored, there is a cost to total nitrogen removal. There's a financial cost. There's increase in size and operating cost to facilities. As I pointed out to you, there's an extra step involved to take nitrate and convert it back to

nitrogen gas. It would also result in larger sewage treatment plants, both at the North End and at the South End, even though Bill 46 refers only to the North End.

And there's an environmental cost. It would increase the carbon footprint of the treatment plants because there is a carbon source required for nitrate removal. One (1) possible carbon source is methanol. We would prefer not to use this because it does increase the carbon footprint of the treatment plant. And an additional increase in carbon footprint is in energy requirements to operate the facility, as well.

The City's recommendation therefore is to focus our resources on phosphorus reduction and phosphorus reuse. This is supported by scientific studies, and it's also clearly supported by practical experience elsewhere, such as Toronto and its discharge to Lake Ontario, as well as cities along other areas of the Great Lakes.

In summary, the City is dedicated to improving both our sewer infrastructure and our sewage treatment program to help protect water quality in the Red, Assiniboine, and -- Rivers and Lake Winnipeg.

We plan to remove phosphorus to the limit specified in Bill 46. We're also continuing to explore sustainable and practice -- pardon me -- sustainable practical reuse of nutrients, such as composting and phosphorus=based fertilizer.

The City -- our department's vision statement, as was highlighted by Ms. Geer, is that excellence in environmental services. And if we stick to our vision statement it's very difficult for us to support the total nitrogen limit in Bill 46 for the North End plant licence.

It gives harmful blue-green algae a competitive advantage in Lake Winnipeg. There's increased financial and environmental cost. And further eliminating a total nitrogen provides greater protection to the environment, and public and animal health. And, finally, the City in dealing with this matter is continuing discussions with the province regarding ammonia and nitrogen limits.

And that's my dis -- discussion. Thank you.

THE CHAIRPERSON: Thank you very much, Mr. Pat -- Patton -- no, Permut --

MR. ARNOLD PERMUT: Permut.

THE CHAIRPERSON: -- Mr. Permut.

MR. ARNOLD PERMUT: Right.

THE CHAIRPERSON: I neglected -- one (1) of my fellow Board members did have a question which he brought up over the noon hour, so, Mr. Lafond, you were wanting to ask something about -- and I'm taking us back to the CSOs, but you had a question about the CSO.

MR. RAYMOND LAFOND: I will start with a question on the very last presentation. You said that Bill 46 applies to the North End treatment plant only.

Why is that, and not to the other two (2) plants?

MR. ARNOLD PERMUT: I believe the reason for that -- and maybe someone can help me out here with the licence. I'll -- I'll look to our -- our team to assist me here. The North End treatment plant is the last one (1) to be upgraded and expanded. And I believe the licence was issued for the South End plant final -- it was finalized prior to Bill 46 coming into effect.

And I also think that the intent was to speed up the development, construction of the South End plant without holding it up with changes to the licence.

MR. RAYMOND LAFOND: So the plan is not to upgrade the two (2) plants accordingly.

MR. ARNOLD PERMUT: The plan is -- right now is to continue discussions with the province. If our discussions are unsuccessful from our perspective, we would be obligated by law to upgrade the plants, based on Bill 46.

MR. RAYMOND LAFOND: Thank you. My questions, I guess, on the previous -- the subject was in regards to combined sewers outflow.

First of all, the 27 percent figure, was that in regards to the area of the City, or is it in regards to the estimated amount of wastewater?

MS. CYNTHIA WIEBE: That's on an area-wide basis.

MR. RAYMOND LAFOND: Area-wide basis.

MS. CYNTHIA WIEBE: It's -- 27 percent of the area of the City of Winnipeg is combined sewer.

MR. RAYMOND LAFOND: So would the estimate be that it's a bigger portion of wastewater because it's in a more dense area of the City?

MS. CYNTHIA WIEBE: I wouldn't have that figure to hand, sorry.

MR. RAYMOND LAFOND: No. Okay. And,

you talked about a separation program. The program is -- I don't want -- I don't think I heard any specific numbers in terms of number of years, or the progress you expect to do, like in five (5) years, ten (10) years, fifteen (15) years?

MS. CYNTHIA WIEBE: Sorry. I have a cough candy in my mouth. The current six (6) districts we're working on, we're expecting will take approximately ten (10) years to complete those six (6) districts.

MR. RAYMOND LAFOND: So at that rate, they would take, like, a hundred years to do everything?

MS. CYNTHIA WIEBE: I suppose it depends how much we do at any one (1) given time.

MR. RAYMOND LAFOND: Okay. And, the other one (1) is a bit technical. At slide number 63, you -- I don't think you need to refer to it. But you were -- in the separated sewer lines, there is a manhole that goes from the raw sewage to the street.

What is the purpose of this? Is this for inspection or -- why would street water go through the raw sewage line?

MS. CYNTHIA WIEBE: It's there for -- it provides access for inspection, for -- it ventilates the sewer system. It's -- it's -- it is a solid cover, but there are like --

MR. RAYMOND LAFOND: Yes.

MS. CYNTHIA WIEBE: -- two (2) little pick holes.

MR. RAYMOND LAFOND: Yes.

MS. CYNTHIA WIEBE: And the water can get in through those.

And so, a lot of it depends on the area you're in. Nowadays when we develop new areas, we do make sure there is a significant grade difference between where our line drainage manholes are and wastewater sewers. But some of the older areas, there wasn't as much consideration put into things like that. And Winnipeg is fairly flat.

MR. RAYMOND LAFOND: Thank you.

THE CHAIRPERSON: All right. I think we're ready to move on now. Mr. Patton...?

MS. DENISE PAMBRUN: We're just going to give the witnesses a moment to swap places.

THE CHAIRPERSON: Okay.

MR. GEOFFREY PATTON: Thank you. A question has been advanced about the integration of management processes within the City of Winnipeg. So,

this falls under our terminology of "asset management." So I'm here to make a presentation on the asset management process within the City of Winnipeg and make specific references to coordination of renewal programs within the street right-of-way.

So the definition of asset management for the City of Winnipeg. It's an integrated set of processes to minimize the life cycle cost of owning, operating, and maintaining assets at an acceptable level of risk, while continuously delivering established levels of service.

I've highlighted three (3) key items within that definition. Again, life cycle costs, minimizing the ownership costs of these assets over their entire life. These assets are long lived. You know, anywhere from twenty (20) to over a hundred years in duration. So we need to minimize those life cycle costs.

Risk. We need to understand when our assets fail, who is affected, how are things affected. And that encompasses all of our discussions about the renewal of our asset base.

And levels of service. Another key indicator, levels of service can be regulatory compliance, established levels of service to our public. But what -- it connects our assets to the public and -- and provides those levels of service that the public expects.

A little bit on the drivers of asset management, why we're doing these processes. We all know the infrastructure is aging. And it's becoming less reliable. We need to improve that.

There's public demands for high levels of service.

Regulations, as we've spoken about this morning and early this afternoon.

Population growth or decline, depending on where we are within these cycles within the City of Winnipeg.

Liability and risk management. We need to understand, again, the risks or our assets and -- and how they are affected when they -- when and if they fail.

Limited financial resources. This is a reality within all municipalities.

Increased accountability as well with our asset base.

Just a little bit of understanding of how the challenges of different asset service lives.

Just for graphical purp -- purposes, you know, our road may have a shorter lifespan as five (5) years, it could have a longer lifespan of about thirty-five (35) years, depending on the construction techniques.

Water mains could have lifespans of fifty (50) to over a hunderd (100) years. Sewers could be in excess of a hundred (100) years. There are other utilities within the right of way, gas, electrical, cable, these items can have long lives or short lives depending on technology growth.

And coordinating the renewal of these assets that have these differing disparate service lives is a challenge for our renewal programs.

Again, within the right of way there are several stakeholders within the right of way. We have cathodic protection within our cast iron water mains. We have our annual water main renewal and sewer rain renewal programs. As Ms. Wiebe has indicated, basement flood relief and CSOs are going on within this -- within the very tight right of ways.

External agencies, Hydro Gas are doing upgrades to their asset base as well. Street renewal and maintenance is ongoing continuously through the City of Winnipeg. Plus there are other stakeholders within the right of way. We have festivals -- but there's reactive maintenance that's going on with our asset base. So all of these stakeholders within a very narrow right of way competing for their piece within the right of way and the coordination of traffic is a -- is a consideration when we're doing our renewal programs.

The coordination of renewal programs. The street and undernow -- underground renewal programs within the City of Winnipeg. Proposed project locations are exchanged well in advance using spatially-enabled databases within the public works and the water and waste department. We're continuing discussing -- continuing to discuss budget limitations where -- where required, well in advance, to -- to look at advancing a project or deferring a project depending on the challenges with -- within each of those programs.

But again, there are several challenges to our programs. A -- a street may have a simple overlay plan for it, but actually when you get down to the engineering of the work it becomes quite complicated and -- and a more intensive renewal strategy is actually used. Cancellation of projects as well, as projects that may not make it through the

budget process are discussed, you know, in advance, but there are challenges to the programs.

To help us with these very difficult challenges with our renewal programs, the Underground Structures Committee was established within the City of Winnipeg in 1974. This encompasses representatives from the public works, water and waste, property planning and development, and also our corporate support services. External stakeholders as well, Manitoba Hydro, MTS Allstream, and AT&T Canada are also involved in this committee.

The committee formulates and adopts standards for locations for underground utilities within the right of way. They coordinate the stru -- the construction on and underneath the streets, and they also mainta -- maintain a record of the structures within the right of way as well.

More recently, we've moved forward with web-based tools that can help us coordinate infrastructure within the right of way. We're currently using a -- a tool called Envista, which again, helps us identify project conflicts and opportunities well in advance. It's being used by the Underground Structures Committee for proposed location, communication, and coordination. So this is a successful web-based tool where internal stakeholders and external stakeholders can review projects and look for coordination opportunities. We started using this in 2010 and it's been a success for us since that time.

This is a -- a screen capture of the work that we're -- that -- that goes on. Highlighted in -- in green, this is an area just south of Portage Avenue in the Wolseley neighbourhood that we've got several proposed sewer rehabs going on in the City of Winnipeg. Also the blue lines indicate water renewal programs that are going on. And you can see over here a street called Camden Place in 2010 overlaid -- there's a street reconstruction program coordinated with a water main renewal program at that time.

So these projects come up as -- as conflicts, but there are -- through our discussion processes they were known ahead of time. But they make sure that people are aware of what's going on within the right of way. Our external consultants use this program as well that can give us -- that also help us in the coordination of -- of their work as well.

So the benefits of asset management in

terms of -- provides better and consistent levels of service to our customers, reduces the total cost of asset ownership over its life. It reduces and manage -- the -- manages the risk of our assets, improves communication and coordination within various stakeholders. It also improves information transfer and knowledge retention between the senior engineers and those less senior, so.

And that is the end of my presentation.

THE CHAIRPERSON: Thank you very much. Now, I see we're moving to Ms. Wanda Burns. Are you going to move over and...?

MS. DENISE PAMBRUN: I think I'm going to ask Ms. Burns and Mr. Griffin to both move --

THE CHAIRPERSON: Oh.

MS. DENISE PAMBRUN: -- at the same time --

THE CHAIRPERSON: Okay.

MS. DENISE PAMBRUN: -- because they'll be handling the next two (2) areas.

(BRIEF PAUSE)

THE CHAIRPERSON: Go ahead when you're ready, Ms. Burns.

MS. WANDA BURNS: Okay. Thank you. I will be discussing the City of Winnipeg's disconnection policies. You may wish for -- to refer to Section 9 in your binders.

Like most utilities, the City uses disconnection as a means of last resort to enforce payment. Where a property is occupied by someone other than that who is financial responsibly for the water bill other means of collection are pursued. Specifically, the City has authority under the City of Winnipeg charter to add unpaid water and sewer charges to the property tax bill. This authority is not limited by the person who uses the water.

Adding to property taxes is the most cost-effective method of collection but is not always fair to the property owner. That being said, the City treats property owners and tenants equally in our collection policies, the exceptions to that being that if a tenant has an overdue water account we do provide this information to the landlord. Also, if a tenant requests payment arrangements that extend past the typical turnoff date we do require landlord approval for those arrangements. This information is included in the document "Important Information for Landlords,"

which is included at Tab 9B in your binders.

This document is provided to all landlords who register with the City of Winnipeg water and waste department and is also available on our website. The purpose of this communication is to give landlords an opportunity to work with their tenants to encourage prompt payment, to avoid disconnection, and also to avoid a potential tax liability for the landlord.

Prior to disconnection we communicate with our customers in a number of ways. The customer typically receives a water bill for a three (3) month period. The due date on that water bill is ninety (90) -- or sorry, thirty (30) days from the bill date. At forty (40) days after the bill date we send the customers a remi -- a reminder notice. A copy of this notice is included at Tab 9D in your binders, and the notice includes this statement, "Please pay the outstanding amount now to keep your water service."

The landlord is also sent a notice at this time. A copy of the reminder notice to landlord is included at Tab 9E in your binders. Sixty (60) days after the bill date or at the time that the account is thirty (30) days overdue we send the customer a turn-off notice. A copy of the turn-off notice is included at Tab 9F in your binders and includes the following statements.

> "Your water will be turned off. And if we don't hear from you we will turn your water off as early as ten (10) days from the date of this notice."

The landlord receives a second letter at this time. A copy of the turn-off notice to landlord is included at Tab 9G in your binders. Following the turnoff notice we attempt to contact the customer by telephone. If we receive voice -- voice mail we leave a message saying that it is urgent the customer contact us regarding their account.

Finally, we -- we -- sorry, we review the account and property information to see if there is any reason that we should not disconnect the water. For example, if we're aware that the landlord is responsible for a tenant-occupied premise we will not turn off the water. Or if one (1) water service connection controls the water for more than one (1) property, we cannot turn off the water.

The City is conscious to ensure that customers have a same-day payment option on the day

following disconnection. Currently, the City completes its disconnections Monday to Thursday, except holidays. However, we are looking at alternative methods of receiving same-day payment that would allow us to extend those disconnections to Fridays. Our customer service centre is open on Saturdays to receive customer calls.

Following disconnection, we continue to monitor the account. If the customer does not contact us within thirty (30) days of the turnoff date, we revisit the property to ensure that the water is off. This step is necessary because water control valves are mechanical devices and they do fail. Therefore, it is possible that we believe we have disconnected the water but the customer is still receiving service.

If we have confirmed that the water is off, and we believe that the property is occupied and the residents require assistance, then we will provide this information to the environmental health office.

Reconnection occurs after the City receives full payment of arrears, plus a reconnection fee. Occasionally we will authorize reconnection based on approved payment arrangements. If we do authorize reconnection based on approved payment arrangements, their water service is subject to immediate disconnection if those arrangements are not kept.

Typically, the City will send a new turn-off notice and wait another ten (10) days. However, where a customer commits to making payment on the next business day we may advise the customer that they will be immediately disconnected if they don't make this commitment.

We have provided monthly disconnection statistics for 2010. These are included at Tab 9C in your binders. In 2010, the City completed three thousand four hundred and fifty-two (3,452) disconnections. This represents less than 2 percent of our customer base. The actual number of customers impacted would be less because some customers would be disconnected more than once in a calendar year.

Results for 2011 so far are approximately 30 percent lower than 2010. Disconnections in 2010 were higher as a result of disconnections being suspended in the latter part of 2009. This was done following implementation of our new customer information system. This system automatically triggers disconnections for customers who have an overdue balance, and we wanted to ensure

that those processes were operating properly before resuming disconnections.

And, Mr. Griffin, did you want to trade places, or -- sorry.

THE CHAIRPERSON: Yeah, I think before we go onto another area, I just would be interested in asking a quick question, maybe others have questions.

But I know our experience with Hydro in terms of the number of disconnections that we experienced at one time was lessened with a load limiter. And of course that meant that they would receive just enough power to run the furnace and perhaps do other essential things.

Now, I don't know how this would work in water, but you have the engineers, so perhaps you can give it some thought. But if there was some way of limiting the water available to encourage the bill payment. That's basically what happened in the Hydro scenario. People were -- weren't happy because they couldn't watch TV and have the furnace going, so they quickly found some money to get that television back up and running again.

Now, in water it's a little different because obviously, you know, there are essential things, and there are non-essential uses, so I -- I -- just give it some thought, and maybe you'd like to get back to us. I don't want to put anyone on the spot, but it would be interesting to see if, you know, that could be an incentive device. It's just a question.

MS. DENISE PAMBRUN: I can certainly advise in due course. The City could give that some thought, and perhaps get back --

THE CHAIRPERSON: Sure.

MS. DENISE PAMBRUN: -- to the Board.

THE CHAIRPERSON: And any time we ask a question that you don't have the immediate answer for, we're more than willing to get those answers after the hearing in writing because sometimes, you know, it does take a little bit of thought, a little investigation, but that would be very helpful. Thank you very much.

MS. DENISE PAMBRUN: Thank you, Madam Chair.

THE CHAIRPERSON: Did you have any questions?

MR. RAYMOND LAFOND: No, but I will ask one (1).

THE CHAIRPERSON: Okay.

MR. RAYMOND LAFOND: Thank you. You -

- I noticed you do advise health inspectors if a property is occupied and the residents require assistance, but you do this after the fact.

I was wondering if this -- if you've considered actually informing proper authorities, social welfare or social services, of the fact that the bill payment is -- and you're about to go and -- and disconnect?

MS. WANDA BURNS: We haven't done that on -- as a regular course. But where we have been in communication with a customer in advance of disconnection, they've advised us that they don't have the money, we do advise the customers of their options. For instance, Manitoba Family Services will pay the bills directly to us. We've asked them if they have made -- you know, inquired about that possibility.

We encourage them, as I said, to talk with their landlords. If they are in proper communication with them, they are more likely to work with them towards an agreeable payment arrangement.

Sometimes when you're speaking with a customer on the telephone, you can tell whether they are in need of assistance and we'll -- we'll make that referral in advance of the disconnection if that seems warranted.

But to do it three thousand four hundred and fifty-two (3,452) times, I'm not sure if they have the resources to deal with that.

MR. RAYMOND LAFOND: Okay. So you don't do it all the time, but whenever you suspect that there could be a need, you do so?

MS. WANDA BURNS: We do.

THE CHAIRPERSON: Okay. I guess we're ready to get to the next water conservation promotion topic.

(BRIEF PAUSE)

MR. DUANE GRIFFIN: Okay. My name is Duane Griffin, and I'll be speaking about the water conservation, and what the City of Winnipeg has done with water conservation, where it started from, how it came about, what are our goals, and what the current program is producing as far as water conservation results are.

So, Winnipeg dates back to -- quite a few years. And we see on this graph here the dark blue line, which indicates our current population.

And this red line was the population at the time, in the early 1920s. And it was projected that Winnipeg would be called the "City of the North," and/or the "Chicago of the North."

And as you can see here, our population in 1902 hit fifty thousand (50,000), and it was growing rapidly. And at the time, the City of Winnipeg was served by groundwater wells and the water demands were going to be far in exceedance of the supply of the aquifer just north of the City of Winnipeg. So, an aqueduct was built from Shoal Lake, which was highlighted earlier. And just for references, this is the aqueduct. Other sources that were considered for water supply were up here at Natalie Lake, Lake Winnipeg, the Red River, and the Assiniboine River.

And all those sources were ruled out, either due to water quality issues or unreliable sources. Like, for example, the Red River. Fluctuations can vary greatly from a dry, arid period to a wet period. So, Natalie Lake -- Natalie Lake was also looked at. It was the second choice. But Shoal Lake was selected as our primary source as it was a source of water that was very soft water. It was a high quality, natural occurring water, surrounded by remote area, limited access, and was in an area that received more annual precipitation than evaporated.

So, the aqueduct was built. And because it's a very long distance here from source to Winnipeg, we are limited by carrying capacity to bring water into the City of Winnipeg.

This just shows another summary of -- of our City's supply system. Once it reaches the City, we've got the water treatment plant on the right of the screen. We've got the aqueduct capacity of 385 million litres per day. We've got a water treatment plant capacity of 400 million litres a day. And we also have a licence capacity of withdrawal from the Shoal Lake, of 455 million litres per day.

So, from 1921 to 1990, on this slide, we have the red line which is the litres per capita per day. And this value is just the total water that is pumped, divided by the population. So this takes in all uses of water in the City of Winnipeg. It's a historical number that we keep track of on an annual basis and it's very important from a planning perspective to record these values and use them.

We also have the population in the blue line from 1921 up to 1990 and we can see that

population is steadily increasing as we're, in this graph, just crossing the six hundred thousand (600,000) population.

Also in your binders under "Topic 10," Tab A, I have the water consumption summary report included in here which contains a lot of the history of our water supply characteristics that we record over time.

So, in the early 1990s the City of Winnipeg was conducting a study called the "Regional water supply study." And in this study they were looking at water supply for the next fifty (50) years. On this slide we have -- on the left-hand side we have our water demand in millions of litres per day. And on the previous slide I showed you the litres per capita per day and we also showed you the population.

If you project the population going forward fifty (50) years and you draw a line through the litres per capita per day, projecting that line on the similar axis, you multiply those two (2) variables together you get this ever-increasing line here from the present all the way up to 2041, the terms of that study. Then we overlaid the line called -- the green line, called the "Aqueduct capacity." So we're in a situation there where we're forecasting that within the next twenty (20) years we'd be needing an additional supply of water.

As I highlighted earlier, the Shoal Lake was a considerable distance from the City of Winnipeg. It is a single pipe. We were in the process of rehabilitating -- rehabilitating that pipe to extend its service life for an addition -- additional fifty (50) years. But also at the same time, if we had to build a second pipe, what would it look like, where would it go, what would the capacity of that pipe be?

So in this study a short-term interim measure was to look at the Sandilands aquifer on the east side of -- of the province. And the Shoal Lake aqueduct ran nearby that so we could build a pipeline and bring water in from there just to top up some of our water demands.

Another alternative was to look at either going to Shoal Lake for an additional supply of water, but remembering we only had a licence for 455 million litres a day. So we would have to go for additional licensing withdrawal if we were going to go to Shoal Lake.

Another option was to look at Natalie

Lake. Natalie Lake, again, was just north of the right of way, and we could pump water from there and bring it into another pipeline, and build it and bring it to the City of Winnipeg.

Another option that was considered was what happens if we took this line and tried to deflect it by 5 percent, or try to deflect it by 10 percent, i.e., reduce demands, reduce future demands to allow the growth of the City of Winnipeg to re -- remain within the aqueduct capacity.

Hence the terms of our water conversation program. So understanding our history, where we're located, and the restraints on our system, we now have a meaningful water conversation program. We have something to tie our urgency to conserve water to, something that is measurable, something that we can report on on a daily basis, or an annual report.

Hence, Slow the Flow was created in 1993 at the end of the year by council. The Slow the Flow program was to increase and still is, to increase water efficiencies within the City of Winnipeg without negatively impacting the lifestyles of Winnipegers and deferring the expansion of our water supply systems.

As you can see here: "Slow the Flow, Save for Tomorrow." That was a slogan that was developed through pilot workshops and it was meant to -- by the participants to create a need to conserve water but yet save. And the whole feeling around this slogan was that it could relate to somebody that was young. It could relate to somebody in their middle age. It would relate to somebody in their -- in their years when they're raising their grandchildren. So it appealed to the full cross section of our customers. And the "Save for Tomorrow" was something that everybody had a great trust in that we would do something for tomorrow.

Water conservation research has been very active in the department. In 1994, there was a lot of activity that was kicked off and we took an approach where we had to quantify how water was being used, where it was being used, and why it was being used, and to understand all those different attributes, and to understand what we can influence and what we couldn't influence to shape our future water conservation program, and what our messaging would be and how we were going to define whether a change was successful or not.

So this is just a little summary of some of the studies that we have undertaken. We've

looked at partnerships with the FortWhyte Alive. Back then it was called Fort Whyte Centre. We did some xeriscape landscaping.

We also, very important, in 1994 created the -- the water conservation database. What this does is it's a database that kept track of all the water bills that were generated in the billing system. The billing system at that time only had a mon -- eighteen (18) month window of active records. The most recent bills spooled out the bills that were over eighteen (18) months, so that data was lost.

By creating this database we now captured every year. We went in and did a data dump from the water -- water bill system. Hereby, we were able to measure results, quantify program changes. We had a way of determining roughly what residential uses were taking place and comparing those results. This has been a huge asset for the water conservation program and the envy of many other cities in North America, as we actually had something to work with to quantify and to make judgments on future projections and what the impacts could be on a -- on a water bill.

The City also did some pilot testing on -- on water conservation kits and toilet rebates and a number of other pilots that were taking place. They also did surveys of industrial water consumption, and we'll get to more of those results.

We also looked at a youth education program, whereby we hired a consultant and they worked with teachers that were in the school education program system. They created a binder of teaching aids that covered the full spectrum of grades 5, 6, 7, and 8. And you'll see why -- a little later on why we picked those years.

Those teaching aids were stand-alone documents. So if you wanted to talk about math you could talk about how many litres in a kilolitre and -- and there's always a little reason why, and a conserva -- conservation method was attached to that to help. If there's a program on -- on social studies or in sciences and you want to talk about the ecosystems and the impor -- this program was created for the City of Winnipeg.

It wasn't generic information from some other manual, but it was City of Winnipeg information regarding -- about their system, so it was very well received. It was created by teachers for teachers. And we have now a partnership with the Fort Whyte Centre where they promote it through their facility,

and teachers come to their centre and learn how to use this guide.

Also, part of our research was the City of Winnipeg water demand evaluation and projection. I previously showed you on the -- on an earlier slide that we keep track of our leaders per capita per day. We also kept track of our population figures. And historically, as I alluded to earlier, those two (2) numbers were projected into the future either through a regression analysis or a straight line method, and you multiplied those two (2) values, and you then looked at what you needed to do to make up that water demand.

This model was a significant departure from that, and I'll get into this a little later in the presentation.

Also ongoing in the City of Winnipeg now is the toilet replacement -- toilet credit program. And this was instituted in October of 2009, whereby single-family, residential homeowners could get a sixty dollar ($60) credit from the City of Winnipeg by installing a dual-flush toilet or a low -- low-flow WaterSense toilet.

We did participate in a map testing program that took place, and that was through the Canadian Water and Wastewater Association. They hired a consultant to go out and independently test a number of these toilets that were on the market and put together a toilet efficiency list.

And that forms the foundation of a lot of these toilet credit programs, by selecting a toilet off an approved list so that, thereby, the City does not have to approve every toilet or test every toilet. As long as it meets the requirements and passes their physical test, then it went onto the list.

That list is now taken over by -- and it's referred to as a WaterSense label list. So if you see our literature on the webpage it'll refer to WaterSense.

I'm happy to report in 2011 that we are just in the process of -- of approving four thousand, one hundred and sixty-six (4,166) credits. That equates to two hundred and fifty thousand dollars ($250,000) of credits for the City of Winnipeg. And right now, we're just approving the last handful for this year, and next year we'll start up with a new budget.

But you can see from October 2009, we had nine hundred and eighty-one (981); last year was

two thousand, seven hundred and twenty-two (2,722); and this year, it's forty-one sixty-six (4,166).

So the program has gained a lot of mom -- momentum, and we have worked with a number of the wholesalers and large retailers here in Winnipeg to promote the program. And believe me, the people that are processing these credits know when the Home Depot puts it in their flyer.

Back in our -- industrial water users were telling us what they saw in the future was them using a lot less water. And they had active water conservation programs back in 1995. They were -- 55 percent of them were practising some form of water conservation in their industry. And the most heavy industry users, because the water bill formed a large component of their operating costs, were very much interested in research and new processes, recycling, reuse within their facilities, to -- to lower their bills.

And everything that they were projecting for the future was -- is that their water demand would, at most, be con -- constant or go down. So their goal was to drive their water use down. So we have had -- I've seen those trends come true.

FortWhyte, our partnership has been very successful with them -- thank you very much. They've been an advocate of -- of the environment, and they're an excellent partner for the City to -- to coordinate and to get our message out with.

They have, I think it's, two hundred thousand (200,000) students a year go through their facility. So there's ample opportunity there for the water conservation message to -- to get out, and they've been very successful at -- at that.

They also worked with the teachers through the SAG conferences here, and the teachers have been very supportive of expanding the use of the school curriculum act -- materials in the -- in their classrooms. And there are now even like little competitions that are taking place where they go online, and -- and one school will say what they're doing, and then another school will do another program, and -- to see who can save the most water.

So they're trying to make the -- the water conservation theme memorable and con -- fun to do, and we are specifically targeting the younger generation before they become the water users of the future. So it's creating a life-long message for water conservation.

So based on our research -- and this pie chart is -- is different from some of the pie charts that we've used in the past, because we're now basing on the true categorization of our customers and our new billing system. But generally, 58 to 60 percent of our water is used by our residential. So that's this blue chart here, slice of the pie. Twenty-three (23) percent is our commercial, and industrial is the purple, which is 4 percent.

And the purple, or the lighter purple colour, is 15 percent. We call that the non-revenue. So that's basically, from everything that we produce, and subtract off everything that we bill, and everything in between is non-revenue. So that takes into street sweeping, sewer flushing programs, water main cleanings, water breaks, leaks, theft. Firefighter training is a very big use. Actual fire use is another allocation that's within there. So there's about 15 percent there that's -- that's used for a myriad of other uses, that's not billed.

So how does a single-family residential home use water? Well, as part of our water conservation program, our program had to be sustainable, measurable, and -- and we're looking for long-term use reduction to stay within the capacity of the Shoal Lake aqueduct.

From approximately a thousand participants in our research, this pie chart was created. And we can see that toilet leaks make up about 6 percent. Faucet use makes up about 9 percent. Baths make up about 10 percent. Toilet use is about 32 percent. Showers at about 20 percent.

So there's about 70 percent of the water is being used in one (1) room of the house, and that room -- room gets used every single day of the year when the house is occupied. Therefore, targeting a water conservation program that looks at that room and how water is used there, and offer incentives to retrofit devices within that room, made sense for us, in the City of Winnipeg, to make sure that wa -- long-term water demands stayed within the capacity of the Shoal Lake aqueduct.

So I -- I -- I spoke to you a little earlier about how water demand planning was done. We showed you at the beginning the litres per capita, per day. We showed you the population increasing to the right. And the typical model was to multiply those two (2) together, out to 2041 in our case, when we're doing the regional water supply study.

This does not take into account the change in technology that was about to come our way. In conducting the research, US EPA mandated that in the US, that old water-guzzling toilets were going to be replaced by something that was going to use a lot less.

We also knew that showerheads were going to use a lot less water in the future than the current installed base in Winnipeg had. We also knew that demographics were changing also in the City of Winnipeg. We also knew that the top-load washing machine was going to be replaced by a front-load washing machine.

So to extend the line that was based on historical data, and historical data was coming from a system that was not necessarily fully populated with all these devices. So you see our litres per cap -- per capita continuing to increase through the 40s, the 50s, the 60s, as more single-family homes were developed. Then we start going into washing machines and dishwashers, and pools started to come into -- into residential settings.

There was an increasing -- but as this technology, wears out, replaces, gets changed out, whether it's because of style, or habit, or use, what was coming behind it was a technology that was going to use less than what was installed in the current base.

That was a key finding in our studies of going forward, with how we were to shape our conservation programs, what our messages would be, and also what would -- the effects were going to be on us from a revenue perspective, as well as from our installed water use.

Our studies and our surveys found out that water use by age group varies. And this is why we went to the Fort Whyte Centre at a very young age, is because -- the next bar over, which is the thirteen (13) to nineteen (19) year olds, were using 157 litres per day. Showers and more showers and showers. What can I say?

Also, we found there is a substantial drop-off over sixty-five (65). From our research, we found that the population at that time, that was over sixty-five (65), a lot of them maybe did not grow up with a fully plumbed system as we do today, in my generation. So there is still people there that can relate to having to pump the well for a bucket of water to put it on a stove to heat it up for their

use, so.

Also, in -- in those surveys of demographics there was the -- the line that was written in there was, "I'll have a bath once a week whether I need it or not." Well, I'll have a shower once a day whether I need it or not. So there's demographic changes that take place over this, and that is also important.

So when we're projecting water demands in the future and we're projecting these numbers we have to be cognizant of who, what era did they grow up, how did they use water when they were a child, what was the messages that -- and what was the foundations for which their habits were based upon, and what key influences can be taking place.

Also, water use varies by the household size and the number of people that are within that home. So if there's only one (1) person in the home we found that it was taking about 305 litres per day to service that home. And as the number of participants in the home increased there's more efficiencies in the laundry, there was more efficiencies in the dish washing, there was more efficiencies in the cooking.

This is also important as we now shift to our demographics of the future where we'll have smaller household sizes. But also, at the same time, we will be seeing more of our population moving into condominium settings, which then gets rid of some of the green grass and, also, the size of the facilities. And they'll have more common area facilities for fitness centres and for those other kind of activities. So again, we have to be cognizant of how these impacts are going to be changing.

This is an interesting marketing slide. I was reading the book over here, "The Great Boom Ahead," and it was talking about these S-curves for marketing. And, you know, it talks about the old technology and the new technology. So, basically, I just substituted in a 13-litre toilet to a 10-litre toilet.

And in that report that I -- that we did in 1997 we can see from this period to this period, and then from here over to here, and then from this point to this point. So they call this the innovation period. They call this the growth period, from -- from where it goes up this curve. And then from here they call it the -- the mature market period.

So it's just basically an overlapping of new technologies replacing the old technologies on a pre -- pre -- prescripted. So the theory is, is if you can figure out what's happening here in this period of time you can predict how long it's going to be when it ta -- gets to this point, and then from the point where it's matured. And then this overlaps with the next technology that's going to be in the innovation period.

So prior to 1973, majority of the homes in Winnipeg were equipped with a toilet that used 23 litres per flush. Twenty-three litres per flush isn't even on this curve, so we could take twenty-three (23), put it down here, put the thirteen (13) up here. But because of doing this work in 1997 we're at 13 litres, and we're going onto 6 litres.

So once you know the -- the building permit age of the number of homes in the City of Winnipeg you can then start guessing as to what number of fixtures you have in the age groups. And you can then start transitioning through these different curves based on the building permit years and you can start getting some idea of what number of fixtures you have at the various age groups.

So back in the early '90s, Winnipeggers were just starting to get introduced to 13-litre toilets. I personally built a home in 1993 and took occupancy in September. There was only one (1) 6-litre toilet approved for use in Canada that had CSA approval. So that went into my home. And since then you can see this curve is taken off and it's gone up to -- to the point now where 16 li -- or a 6-litre toilet is pretty much the dominant toilet.

We did talk to wholesalers in -- in Winnipeg, the -- the large distributers here. And as part of the research that we did in 1997 we kept track of, just on a percentage basis, what was their allocation from the 13-litre toilet to 6-litre toilet in their inventory. And they just gave us that data anecdotally, and we kept track of it, and this is where it plotted up on this curve.

So looking at our installed base, we can see as these toilets are replaced over time -- from CMHC there's studies there that take place on Winnipeg's renovation rate. The most conservative number was 4 percent. It could vary up to as high as 12 percent on any year depending on the economic conditions within the City of Winnipeg.

So getting back to the number of

fixtures that we have in the City of Winnipeg by their building date, we were then able to project going in -- forward if we just -- even just did 4 percent on an annual basis. So when we'd see the bathroom and show -- come through Winnipeg and people get excited about renovating their washroom, they're not going back and putting in a 23-litre toilet. You can't even get them. You can't hardly get a 13-litre toilet now. They're getting a 6-litre toilet or a dual flush or even a 4.8 litre or some of the even higher efficiency toilets now.

But, over time, those old fixtures will be replaced and, at some point in time, you'll see that effect leave the water demand equation as -- as the base gets tighter and tighter with new fixtures.

Just to demonstrate and highlight the water use within the home and -- and the significant impacts that we were projecting would take place, and which we have now confirmed are taking place. The pie chart here showing 73 litres per capita per day on the toilet, if we just follow this across to the next pie chart for what we were projecting it to be in 2004, that -- that number goes down.

You see it again here in 2019, that number going down. And this -- and that's simply just the -- the effect of this old stock being replaced and -- and the new homes being constructed with the latest water efficiency technologies. And you can also see it with the washing machines. It's coming across. It's getting smaller and smaller.

Some of the other observations were that the shower use was not changing a whole lot. Even though the devices were being more efficient, I was projecting that people in my generation, as they grow up, aren't going to be taking a bath once a week whether they need it or not. So we had to re -- we had to have a birth date segment in here.

So as this was following through, even though we're gaining efficiencies on the showers, we're also recognizing the demogramic -- demographic effects of this new generation that was going to be consuming waters when they're at their age of 55 plus.

So just to highlight some of the other things that we've discussed, and to show that everyone in the City of Winnipeg is using less water, this is the billed water consumption by block. Currently, we have a block structure here in the City of Winnipeg, so you -- you progress through Block 1, Block 2, Block 3. A residential home will stay within Block 1 rate.

Commercial typically will get into Block 2 rate. And industrial will get into Block 3. So you can see on this graph from 1989 out to the present everyone is using less water.

So I had this slide at the beginning and -- of my story here on water conservation, and so I thought I'd put it in here after today. So this shows where we are today. So we still see this blue line representing the population, still increasing, going to the right. We're now at seven hundred thousand (700,000) population roughly.

Our latest per capita per day using this exact same formula as we did from 1921 up to the -- 1990 when I showed you the slide earlier, has now dropped off to the equivalent of 1941. That is a huge impact for the City of Winnipeg. So even though the population has increased -- our litres per capita, we're way more efficient in using water than we were.

And this is the total water use. This includes everybody. This includes industrial, commercial, apartments, residential. All our facilities in Winnipeg are using a lot less water than they were in 1990.

So what does this mean for our aqueduct? Our aqueduct capacity is up here, this blue line. We did not go way up to the right here as originally was projected at one (1) point in time. Slow the Flow was introduced. A number of other factors, a few recessions came along, building technologies, front load washers, water-efficient fixtures, toilets, all using less -- waterless urinals, and this line has come off and come down to the right, despite our population.

Looking forward, based on this concept, we see that our water demands are going to plateau out at some point in time even though the population is increasing in the City of Winnipeg as the old technology is consumed through renovations and replaced through replacements. This line will then start to go up at a more gradual increase in the future. But for the time being, as far as our projected model are -- we're still in this flat plateau period.

What has this done for the City of Winnipeg? Water conservation has been a serious and a very beneficial program for the City of Winnipeg. We've been able to demonstrate and understand why people are using water, how they're using water. Meet -- create meaningful messaging to affect water

demands. We've also seen technology impact our water demands. We also understand customers, how they're using water.

Only 4 to 6 percent of our annual water use is used for outdoor water use in the City of Winnipeg. That is a very small component compared to a lot of other cities. If you're in the States, that bill -- that amount can be up to 50 percent, maybe up to 75 percent of their annual water bill, depending on how much outdoor irrigation takes place.

So by having a water conservation program targeting outdoor water use has very little benefit in the City of Winnipeg on affecting our demands because that's just the short little season of time. By focussing indoors on a toilet, on a showerhead, on -- on habits of our teenagers or our kids at home before they become the high water users, we've been able to significantly impact the water use within the City of Winnipeg.

The trend of water-efficient fixtures is well documented, and well in place in the City of Winnipeg. And we've seen the effects of that now today. We do not have to build a second aqueduct. We do not have to expand our water supply. The studies for Sandiland ground -- groundwater have been shut down. All that work has been ceased.

Water treatment plant capacity was originally envisioned in 1993 to be 915 million litres a day. That was downsized to 750 million litres a day when we first started seeing this drop in water con -- water -- water use on a litres per capita basis. Since then it went to 515 million litres a day. And I'm telling you today we built a plant of 400 million litres a day, significantly less than what we were projecting in the original 1990 study.

Expansion of in-town reservoirs has been pushed -- pushed off and deferred because we have excess pumping capacity and because the peaks have been diminished. Therefore the -- the available storage can be used and optimized within the system, thereby reducing the size of the water treatment plant to be more efficient within the City of Winnipeg.

So with that, that concludes my story on the water conservation program.

THE CHAIRPERSON: Thank you very much, Mr. Griffin. I have a few questions, and perhaps my fellow Board members will be asking you some things.

I -- I was interested in that database that you said you now have to show past consumption.

And I wondered if you do something like, again, Hydro does, where they send out the bill and they show my consumption per month in a graph. And then they show the year before of my consumption of power per month, and I'm able to kind of compare my November this year to my November last year.

Do you know that graph that I'm talking about? Do you do that with your water bills? Like, can you kind of show people whether they're making progress on --

MR. DUANE GRIFFIN: Not yet.

THE CHAIRPERSON: -- but you intend to, is that what you're saying? You don't -- you don't have to answer, but it's just something that I find very interesting because I'm able to see whether I'm saving power as compared to last year. And --

MR. DUANE GRIFFIN: Right. And -- and the reason -- what I can tell you is, is that our previous billing system was very outdated and is very limited. And the new billing system we just put in place, that Wanda Burns here was speaking to, once we get enough data in there and we've done -- we probably have to do a lot of configuration to do that, but that platform does have some ability and I can't answer when it would happen or how it would happen, but I'm just saying the -- the old system never had that ability. And now we're excited about the future with this.

THE CHAIRPERSON: Well, you know, kids like to compare, don't they --

MR. DUANE GRIFFIN: Yes, they do.

THE CHAIRPERSON: -- in the schools, whether they're doing well compared to another school. But I think as adults, we always compare against our own personal self. You know, am I doing better than I was last year, that kind of stuff.

Anyway, enough of that. The next question I have is on the recycling of the toil -- toilets because -- and I'm glad that the City of Winnipeg is a utility, where it's not just all about sewer and water. It's also about the landfill and what goes into the landfill.

So recently my son took a couple of toilets to the landfill and he was hoping they would be recycled, in other words, crushed and used perhaps for counter tops, new materials that use that kind of material. But he kind of got the idea at the landfill that this might not be happening. So I though you were, perhaps, or if someone at the City might be the

ideal person to ask about this.

What happens to all these toilets, the old ones? Are they recycled in any way?

MR. DUANE GRIFFIN: Okay. We have three (3) recycling depots. There's Rocky Road. I forget the third one (1) right at this time, and also the City of Winnipeg Brady Road Landfill.

The Brady Road Landfill crushes them and uses them for road base, so they don't have to use rock for making roads to travel within the -- the landfill. Some of the -- the partners, like Rocky Road, that material I believe is available to get lead credits for building, for the building systems that are going forward.

So there are -- we tried to cover that off.

THE CHAIRPERSON: That's great news. And my last question deals with this water that you called non-revenue. I love that word, because it's basically water produced but not sold.

MR. DUANE GRIFFIN: That's correct.

THE CHAIRPERSON: And when we talk to the other three hundred (300) utilities, we always refer to it as unaccounted for water. And so it's some -- standing right now at 15 percent. And we tell the other utilities that we're always hoping it will be under 10 percent. That's the industry sort of standard.

But I noticed when you made your comments you said that some of it was actually of important use. Like, it was used for street cleaning, maybe watering foliage or whatever, that the City has going.

So, I mean, what we'd like to see is maybe a break out. If, in the -- you know, when you report these things, legitimate uses, these are legitimate uses for firefighting, for cleaning, for watering plants.

But then there's the uses that are not great, where a water main breaks, or toilets are leaking and all that kind of stuff. So if we could get down to that kind of information, that's the kind of information that consumers need to know, is the real lost water, the water that is lost to the system, that they pay to produce but somehow no one gets the use of it.

And that would be helpful. I'm sure it's well under 10 percent in your case, because you mentioned all the other uses that are included in the

15 percent. Do you understand what I mean?

MR. DUANE GRIFFIN: Yes, exactly, I understand.

THE CHAIRPERSON: And do you have a figure on that?

MR. DUANE GRIFFIN: I don't have the --

THE CHAIRPERSON: Okay.

MR. DUANE GRIFFIN: -- the figures to -- to break down that, but what I can tell you is we have a study that's underway right now, as we talk. And we are moving over to the full implementation of the non-revenue model. So the non-revenue model goes into those sectors that you're just talking about.

So I'll just say right now that we -- we're in the development stages of trying to implement this for the department and it's a -- it's a project that just started this year.

THE CHAIRPERSON: Well, we'll look forward to hearing about that because it sounds like it will be a really good number, a fairly low number.

Do others have questions?

MR. RAYMOND LAFOND: Do you -- in -- in terms of water conservation, I think that's a great program and with fantastic results, but how do we compare with other cities our size? Do you have that type of information? I mean, I'm sure as cities you compare yourselves to one another to see what the other is doing, why and why not, et cetera.

MR. DUANE GRIFFIN: Yeah, we're comparing very favourably to other cities of equal size in -- in Western Canada. We are required by law to fill out the Federal Government forms on water use.

And in there we can compare ourselves to Regina, Saskatoon, Calgary, Edmonton, and I don't have any of that data in front of me today to share with you, but, you know, it's part of the Federal Government reporting requirements.

We are very favourable in our water use compared to other -- other cities.

THE CHAIRPERSON: Ms. Geer, you were the last, we're coming full circle back to you, right, to do something in terms of the agreements with others. Would you like a break now or do you want to do this and then take a break? What's your preference?

MS. MOIRA GEER: You know, I think it's -- it's -- this is the final subject in our presentation, Madam Chair, and it's a couple of

slides, maybe with some more questions, but I think that we could just proceed to complete the presentation before we break if that -- that works for you?

THE CHAIRPERSON: That's fine.

MS. MOIRA GEER: Okay. Okay. One (1) -- one (1) of the things that the -- that the City was requested was to speak to service sharing arrangements with other Municipalities.

And I -- I guess the -- the -- we do have one (1) agreement at the City right now which has nothing to do with sort of recent discussions, or even discussions within the last few years. We have an agreement with the Rural Mun -- Municipality of East St. Paul. It's been in existence since the mid '70s. And what that agreement is, a street -- a -- a boundary street. Glen -- Glenway is the name of the street and it runs -- it runs east/west and on the north side of the street is the RM of East St. Paul and on the south side of the street is the City of Winnipeg.

So basically what they are is they're hooked up to our water and sewer and land drainage systems, and that's been in place for -- for years and years. So what they do is, the Municipality itself pays the frontage levy fees and the indiv -- individual property owners are billed through our system that are actually hooked into our system and -- and they're bas -- they're basically being treated like City customers for that one (1) boundary service.

And I guess the more recent -- recent developments, in fact, just last week City Council -- Winnipeg City Council approved a service sharing policy with other Municipalities. And basically what they've -- they've included is some basic terms for service sharing and to authorize the City's chief administrative officer to negotiate service sharing agreements with the specific reference last week to West St. Paul.

And part of the resolution passed by council is any of the negotiated agreements, or any agreements that may be amended in the course of -- of that would have to go back for full approval by City Council. So basically what City Council did last week was they -- they approved basic terms and a policy, but there are no such agreements that exist right now.

MR. RAYMOND LAFOND: And this would be for both water and sewer services with the RM of St. Paul -- of West St. Paul?

MS. MOIRA GEER: I believe so, yeah. There is nothing that exists now, but that would be water and sewer.

(BRIEF PAUSE)

THE CHAIRPERSON: Well, thank you very much. I think we are now at 2:30 and I'm kind of thinking we might try and go till 4:30 unless anyone has a problem with that. We just want to get a nice full day in today.

And so if that's okay -- you can let Mr. Peters know if it's not, but we aim for that. So let's take a fifteen (15) minute break and then we'll be back.

MS. DENISE PAMBRUN: Thank you, Madam Chair.

--- Upon recessing at 2:35 p.m.
--- Upon resuming at 2:55 p.m.

THE CHAIRPERSON: Okay. I think -- are we ready to pro -- proceed with you, Mr. Peters?

MR. BOB PETERS: Yes, I see Ms. Geer is in the room, so I think we can start.

THE CHAIRPERSON: Okay. Thank you.

CROSS-EXAMINATION BY MR. BOB PETERS:

MR. BOB PETERS: Madam Chair, Board members, witness panel, for my questions, I believe you only need at hand the PowerPoint presentation that has been marked as City Exhibit 3, and the blue binder, which has been called the PUB Counsel Book of Documents, marked as PUB Exhibit 3.

My questions will stem from those two (2) documents. But, as I said earlier, at no time are you restricted to those two (2) documents. If you have materials in the three (3) binders filed with the Board, plus the April 6th, 2011, material filed with the Board, you're certainly welcome to access it.

And I should repeat the suggestion of the Chair, in that if an answer is not readily at hand and it's something you want to caucus about in the backroom or over -- over coffee, over lunch, over the evening, you can provide an undertaking. And undertakings that don't get answered on the record, we traditionally ask that your lawyer provide them to the Board in writing following the hearing. So I'll try to keep Ms. Pambrun's workload as light as I can.

MS. DENISE PAMBRUN: Thank you, Mr. Peters.

MR. BOB PETERS: Yes. And again, my questions are to the person who has the best knowledge of the -- of the area. And I'll -- I'll try to do as well as I can with the names, but by no means are you restricted to that person.

And, Ms. Geer, I would -- would it be a safe assumption, or could I use the assumption going forward, that if any questions I have are what I would consider of a policy nature, you would probably be the witness best able to answer those or indicate whether an answer is available to the Board?

MS. MOIRA GEER: With -- with respect to certain policies, yes.

MR. BOB PETERS: All right. And if --

MS. MOIRA GREER: Not -- not all, but certainly, I -- I will take a stab at it.

MR. BOB PETERS: All right. And if you feel some of your colleagues have -- have some information in that area, too, that they're welcome to certainly provide it as well.

Would it be correct to say that the information that my client, the Public Utilities Board, has today is all information, in those three (3) binders of material plus the April 6th material, is all information from the public record, to the best of your knowledge?

MS. DENISE PAMBRUN: I think that's so, Mr. Peters.

MR. BOB PETERS: All right. And so there's no -- there's no confidentiality issue that the Board is apprised of at this time, that some of this material shouldn't be discussed on the public record?

MS. DENISE PAMBRUN: The -- all of it is public in that sense.

MR. BOB PETERS: All right. Thank you for that. On page 4 of the PowerPoint presentation, which is again City Exhibit 3, there was an organizational chart, Madam Chair and Board members.

And, Ms. Geer, I think you were explaining this to the Board, and this was a schematic of the Waste and Water Department, correct?

MS. MOIRA GEER: That is correct.

MR. BOB PETERS: And under the director's heading, my understanding is Mr. MacBride is the recently retired director of Water and Waste Department.

Have I -- have I got that right?
MS. MOIRA GEER: That is also correct.
MR. BOB PETERS: All right. His name appears throughout these documents, but he's in fact now retired?
MS. MOIRA GEER: That is right.
MR. BOB PETERS: And is there someone in that position at this point in time?
MS. MOIRA GEER: Yes, there is. The -- the new director of the Water and Waste department is a Ms. Diane Sacher, who is a P. Eng. She took on the role as the director of the Water and Waste Department. I believe it was on October 31st. She is away this week and -- and sends her regrets.
MS. DENISE PAMBRUN: But Mr. MacBride has deigned to join us for the occasion, notwithstanding his retirement.
MR. BOB PETERS: Yes.
MS. DENISE PAMBRUN: Would he like to stand?
MR. BOB PETERS: I'd like him to sit on this side of the room if I could. But let's get back to more serious notes.
Ms. Geer, when we look at the -- the services -- the water services, the wastewater services, the solid waste services -- those are generally the three (3) headings of services provided by Water and Waste Department, correct?
MS. MOIRA GEER: That is correct.
MR. BOB PETERS: And just to deal with the solid waste services, I think you said that referred to your landfill operations?
MS. MOIRA GEER: The -- the solid waste services, what's delivered through that area of the department, it's the landfill operation. It's also the recycling program for the City of Winnipeg, and it's also the garbage collection program as well. That's all encompassed within the solid waste services division.
MR. BOB PETERS: And the -- and those services on the solid waste side, are those -- some of those provided by the private sector and some provided by the -- the public sector of the City?
MS. MOIRA GEER: That -- that would be correct. We have a number of City staff that work in those areas, but we've also -- it was quite publically known that the garbage collection -- residential garbage collection within the City of Winnipeg is fully contracted out.

(BRIEF PAUSE)

MR. BOB PETERS: Are any of the sewer and water rate revenues used to pay for anything under solid waste services of this department?

MS. MOIRA GEER: There are no revenues from water or sewer that are used to pay for solid waste services in the department.

MR. BOB PETERS: All right. And so the solid waste services are either paid for on a -- a fee for service, or out of property taxes, or some other revenue source?

MS. MOIRA GEER: That's right. The solid waste services and the solid waste utility are funded from sources other than water or sewer revenues.

(BRIEF PAUSE)

MR. BOB PETERS: And those sources would -- would include the ones I mentioned, Ms. Geer, such as real property taxes, tipping fees at the landfill sites; I'm not sure where else it would come from, but those would be examples of other sources of revenue that would cover that side of the department?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: All right. Thank you.

THE CHAIRPERSON: Can I just ask, I thought that you were trucking biosolids to the landfill. The utility is.

Do you charge the utilities for taking those biosolids?

MS. MOIRA GEER: Yes. They're -- the -- the solid waste -- as -- as I had explained earlier, I believe in one of the slides on the accounting funds, like the solid waste, which is a utility fund on the -- at the landfill, the landfill charges the sewer operations for those tipping fees for what goes to the landfill, is correct.

MR. BOB PETERS: And, Ms. Geer, and Madam Chair, on page 81 of this PowerPoint presentation, I -- I think the -- the Chair's question, Ms. Geer, the biosolids to landfill, my notes were that those go to the Brady Road site.

Would that be true for where all biosolids go, to Brady Road?

MS. MOIRA GEER: Biosolids go to Brady

Road. The City operates one (1) landfill, which is Brady Road Landfill.

MR. BOB PETERS: I suppose this might be the point I should mention this -- or ask this question, too, Ms. Geer, to the extent that -- that you can help, or perhaps maybe Mr. -- Mr. Patton might help.

There's a product called leachate that arises in your landfill at Brady Road that ends up being trucked to the sewage treatment centre.

Would that also be correct?

MS. MOIRA GEER: That is correct.

MR. BOB PETERS: And leachate is the liquid product of -- of whatever is in the landfill. You would have perhaps a membrane in the landfill site so that fluids don't -- liquids don't go into the -- into the soil to any great depth.

They are self-contained in a -- in a non-porous membrane?

MS. MOIRA GEER: There is a leachate system at the Brady Road Landfill, correct.

MR. BOB PETERS: All right. And so that -- so that liquid gets pumped out of the Brady Road Landfill site into trucks, and those trucks take it to the -- probably the North End Sewage Treatment Centre.

(BRIEF PAUSE)

MR. ARNOLD PERMUT: Ms. -- Madam Chairman, it's Arnold Permut. In response to your question, it's sort of a several-part question, so I'll try and address it in pieces.

With respect to the containment of leachate in the landfill so it doesn't contaminate groundwater, the Brady Road Landfill site is located in a prime location in that there's a very abundant clay layer that's impervious under the landfill, and it's compacted to create an impervious membrane using the natural properties of the clay.

And there is a perforated pipe system under the solid waste that collects the leachate to what's essentially manholes. And it's pumped out of there and, as we've discussed, trucked to the North End treatment plant for proper and safe environmental disposal.

MR. BOB PETERS: All right. Let's bring this back to the topic that the Chair was raising.

Does the solid waste services pay the wastewater services to then treat that leachate?

MS. MOIRA GEER: Yes, they do.

MR. BOB PETERS: All right. So on one hand, Peter is paying Paul to take the biosolids to the landfill site, and then Paul is paying Peter to take the leachate back to the -- to the sewage treatment centre?

MS. MOIRA GEER: They are separate and distinct funds, and they are treated as a customer, per se.

MR. BOB PETERS: Okay. And the -- the way they are charged is no different than any other customer that the City would have, hauling the same product?

MS. MOIRA GEER: That's correct.

MR. BOB PETERS: Okay.

(BRIEF PAUSE)

MR. BOB PETERS: Now, Ms. Geer, another question I had from your presentation on -- still on slide 4 of the PowerPoint, you -- you explained the City has recently gone to a new managerial structure.

But when the Board looks at this organizational chart, are the -- are the personnel that are in the finance and admin, the human resources, the IT systems, corporate support, are they embedded in the Water and Waste Department? Or are they in a separate area of the City, and they just provide services to different departments of the City?

MS. MOIRA GEER: They are embedded in the Water and Waste Department. MR. BOB PETERS: So they're equivalent, full time employees, now in the -- in the -- in the Water and Waste Department?

MS. MOIRA GEER: That is right.

MR. BOB PETERS: Formerly, they would have been under an umbrella of a department that had different client responsibilities, and now they're dedicated to -- to water and waste?

MS. MOIRA GEER: No. No, I -- I wouldn't categorize it that way. Basically, the -- the way that the staff are embedded in the department in those support functions has not changed. What has changed in the organization structure -- structure is, those managers of finance, HR, and IT used to report directly to the director of the line department. And they had dotted-line reporting relationships to the

corporate leaders within those functions. That is now changed.

So the dotted-line reporting relationship is to the line director, and the straight, solid line reporting relationships are now to the corporate offices at the City. So the actual staff in the department hasn't changed. It's the reporting relationships have changed.

MR. BOB PETERS: And does that answer hold true, then, for the manager of customer services and environmental standards and engineering services, as well?

MS. MOIRA GEER: No, those -- those positions report directly to the director of the Water and Waste Department.

MR. BOB PETERS: Can you provide the Board with a -- a brief explanation as to the responsibilities of the manager of utility development?

MS. MOIRA GEER: The -- the manager of utility development, which is a position that was added, probably, four (4) years ago, the manager of utility development, I -- I would be considered one (1) of those positions of manager of utility development. There were three (3) that started.

But that was essentially a -- a position that was created that -- that looked at the upgrades to the wastewater treatment plants and looked at finding somebody to work with the City to help us conduct that massive program. That was part of the duties of the manager of utility development, as well as, back in the day, which was in -- a couple of years ago, looking at the utility structure, which Madam Chair referred to in her opening remarks.

MR. BOB PETERS: Okay. I apologize. I didn't -- from your bio, I didn't connect it to you, if -- if that's your position. I am sorry. I didn't -- I didn't -- didn't draw that line.

You've had many hats of late. Would that be correct?

MS. MOIRA GEER: That's -- that's very correct.

MR. BOB PETERS: Okay. That's my way of sliding out of that question. On Tab 17 of that blue binder, it may be the one (1) and only document that the witnesses hadn't seen before today, and it's a mockup of a customer bill. I'm not sure how mocked up it is.

MS. DENISE PAMBRUN: We know how many

showers Mr. Peters now takes. I think I might have Ms. Burns answer questions on this document.

MR. BOB PETERS: Well, fair enough. Not too much in depth here but, Ms. Burns, can you tell from looking at that document that that's a residential account and -- or -- or is there any way for you to know that?

MS. WANDA BURNS: No, there is no indication, short of the person's name that has been redacted, that this would have been a residential account.

MR. BOB PETERS: All right. You can't tell, because the entire consumption is within the first tier, that doesn't necessarily restrict it to a residential account?

MS. WANDA BURNS: That's true. Many commercial customers may stay also within the first tier of consumption.

MR. BOB PETERS: When -- when we're looking at demographics, sometimes it's helpful for me to envision a typical residential customer. And I think we saw from Mr. Griffin the -- the demographics of the household.

When you say a commercial customer, what connotes, in my mind, from perhaps other utility work would be a customer such as a -- it -- it could be a service station, it could be a strip mall operator, or a store in a strip mall.

Is that the same -- does that mean -- connote the same to the City, in terms of what a commercial customer is?

MS. WANDA BURNS: That's true, Madam Chairman. A commercial customer could be anything from a hairdresser salon to a large customer. The difference with industrial are more the high-water-use customers.

MR. BOB PETERS: And so when we get to industrial -- and I'm not looking for any specific customers being identified, much as we've redacted Tab 17. But an industrial customer is really only identified by the volume of water they use over and above a commercial customer.

Would that be correct?

MS. WANDA BURNS: One moment, please.

MR. ARNOLD PERMUT: Just to comment on industrial customers, there are quite a few industrial customers within Winnipeg that are in the manufacturing area -- aerospace, bus manufacturing, for example -- that really very little of their

manufacturing process effluent goes down the sewer. Much of it is handled, for example, as hazardous waste and properly disposed of. And by and large what goes down the sewer from these manufacturing facilities is what we would call almost equivalent to domestic waste from the staff, and, therefore, they use very little water for their actual process.

So there could be companies in there that would fall under a very small water usage, but are quite large manufacturing facilities.

MR. BOB PETERS: But the manufacturing facility doesn't use water as a feedstock or as a -- a production input?

MR. ARNOLD PERMUT: It -- it varies. It depends on the nature of the manufacturing process.

MR. BOB PETERS: And, Ms. Geer, generally speaking, would -- would the document at Tab 17 of the Board's book of documents, that would be, in essence, the -- the sum and substance of the consumer -- or the -- the residential customer's contact with the City of Winnipeg, is they'd get these quarterly bills and they'd pay them.

And that would be pretty much the extent of their conduct with -- with the Water and Waste Department?

MS. MOIRA GEER: The -- I think maybe what -- we'll ask Wanda to speak to it, but there is more interaction with the customer than just the quarterly bill, in terms of what correspondence they receive from the department and our summer meter-reading program for the residential.

But I'll -- I'll -- maybe I'll ask Wanda -- Ms. Burns to answer that question.

MR. BOB PETERS: Okay. Thank you.

MS. WANDA BURNS: Yes, as Ms. Geer mentioned, we do have a summer meter-reading program where we attend -- or attempt to attend every customer's home, residential home during the year.

We also do attend every commercial and industrial premise four (4) times per year, each quarter, to read the water meter, to inspect it. For the residential customers throughout the year, three-quarters (3/4) of the year, we mail them a meter-reading card, we just -- where we request a meter reading from them voluntarily.

So if the customer does not contact us with other questions or requiring other information, that would be the sole sum of their communication with us.

MR. BOB PETERS: Ms. Burns, from the document at Tab 17 of Board counsel book of documents, can you tell whether that meter has been -- has been self-read, utility read, or utility estimated?

MS. WANDA BURNS: Yes. Near the bottom right-hand corner, it says reading type is customer. So in this case, I can tell that the customer provided the meter reading that generated this bill.

MR. BOB PETERS: And if the customer doesn't self-read in those three (3) out of four (4) quarters that you mentioned, would the City just take an estimate?

MS. WANDA BURNS: Yes. The City's estimation process starts first by looking at the customer's previous read history. So we might look at their last -- the same period for the prior year; or if that's not available, we might look at a previous quarter.

And if there is perhaps no read history for that customer whatsoever, then we will just look at a trend for the City as a whole.

MR. BOB PETERS: And I think that was the -- the Chair's question earlier to Mr. Griffin, was you can go off of what the customer did a year ago, you can make some assumptions as to whether or not they're conserving more or less based on prior -- prior year's consumptions?

MS. WANDA BURNS: That is correct.

MR. BOB PETERS: And my understanding was that the -- the -- the hold up if -- in my words, the hold up for allowing a customer to have access to their old data was the billing system?

MS. WANDA BURNS: That was one limitation of the old billing system. That is correct.

MR. BOB PETERS: And now that's been cured by, no doubt, the expenditure of more money on consumer -- or on computer technologists and the like?

MS. WANDA BURNS: That is correct. We do have the ability, Madam Chair, to provide that information to customers at this time, and we are researching options to do that.

MR. BOB PETERS: So if a customer phoned in, they could get the information. Would that be correct?

MS. WANDA BURNS: Madam Chair, at this point, if a customer phones in, we do not have a graphical way of providing that information to the

customer, but they can obtain their historical information from us.

MR. BOB PETERS: Okay. Thank you for that.

THE CHAIRPERSON: Do -- do you ever use the billing mailing to include any conservation messages? We always ask this of the other utilities, because most other utilities are strapped for cash, and this is one way of getting information out to customers, by including it in the billing that's already going out.

Do you ever do that?

MS. WANDA BURNS: Yes, Madam Chair, there are two (2) ways in which we can provide this information to customers. We have, in the past, used what's typically called a bill stuffer to include that type of information. We also have the ability, with this new system, to provide a message printed directly on the bill itself, and what you see now is the white space.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Geer, the -- the end product of the document at Tab 17 is revenue for the City if the account is paid, correct?

MS. MOIRA GEER: That is revenue for the water and sewer utilities, correct.

MR. BOB PETERS: All right. And -- and it's segregated when it comes in directly to the -- to the water and sewer utility?

MS. MOIRA GEER: That's right. For the customer, the customer gets a water and sewer bill. When we collect the bill and when we bill that, the water revenues go into the water fund, and the sewer revenues go into the sewer fund.

MR. BOB PETERS: All right. And just so -- I'm not sure how important, if -- if at all, this will be, Ms. Geer, but the Water and Waste Department and those two (2) funds you talk about, those are not considered special operating agencies of the City, are they?

MS. MOIRA GEER: They are not special operating agencies.

MR. BOB PETERS: No, you -- you do have some special operating agencies of the City, but none related to water and waste?

MS. MOIRA GEER: That is correct.

MR. BOB PETERS: All right. And out of the revenues that go into these water funds or the

wastewater funds, it will be to pay the operating, maintenance, and administrative expenses?

MS. MOIRA GEER: Operating, maintenance, and administrative, and also capital programming as well.

MR. BOB PETERS: And -- and when you say "capital," it'll pay the financing costs on the debt and the depreciation expense related to the -- the capital?

MS. MOIRA GEER: If -- if you -- and I don't know the exact location of the tab, and I'll maybe refer to Denise to help me, but if you look at the financial statements for the water and sewer utilities, you can see where the funds go.

So, yes, of course, it would be -- as far as it relates to a capital program, it could be debt financing. It could be depreciation. It could be setting aside monies into a reserve fund to pay for future capital.

MR. BOB PETERS: I'll --

MS. MOIRA GEER: It could be all of those things.

MR. BOB PETERS: Mr. Geer, I'll take you and the Board to those sections momentarily so that we'll -- we'll let you make sure that explanation's given. But in addition to those expenses, it appears there's also monies paid not only to the water and sewer funds, but then there are some sub-funds or some additional funds to which monies are flowed.

Is that correct?

MS. MOIRA GEER: There -- there's no sub-funds. There's separate funds for the capital programming, which -- which are -- form part of the City's consolidated financial statements and part of the funds that we administer in the Water and Waste Department.

MR. BOB PETERS: All right. So I shouldn't call them sub-funds. They're separate funds.

MS. MOIRA GEER: They're separate funds.

MR. BOB PETERS: But they're funded out of the Water and -- and Waste Department revenues?

MS. MOIRA GEER: That's -- that is correct.

MR. BOB PETERS: Okay. We'll come to that too. And then, at the end of the day, if all goes well, there's even a surplus that the City has,

or what I think it being called a dividend by the City?

MS. MOIRA GEER: There is a -- I think when -- when you -- when you look at the finances for the water and sewer utilities, which -- I mean, surplus has different meanings. I think you need to look -- you need to look at the operating budget plus the rate report, because the intention of this surplus is -- it becomes more apparent, if it looks like we're budgeting for a surplus, why we were doing that. So you need to look at those two (2) in conjunction, which I gather we will.

MR. BOB PETERS: We will. And would the Board also be correct in understanding, Ms. Geer, that one (1) of the funds to which monies flow would be the general revenue fund of the City?

MS. MOIRA GEER: That is correct.

MR. BOB PETERS: All right. All right, we'll come to that, and you can explain that in greater de -- detail to the Board as well.

So the money from the rates is then used to fund capital plans. Those capital plans include expansions of mains and sewers, and also includes system upgrades, including those directed by the various regulators of the -- the City's Water and Waste Department.

Would that be true?

MS. MOIRA GEER: That -- that would be true, and that would be for the capital programming that was described earlier today by my colleague, Mr. Patton.

MR. BOB PETERS: All right. And -- and so rates do drive the -- the operation of the Water and Waste Department, because it is only from that revenue that you can do all of those things.

MS. MOIRA GEER: That's right.

MR. BOB PETERS: All right. Now, I've -- I heard the Chair's opening comments, that this isn't a rate hearing. Ms. Pambrun and I have talked to each other in loud voices on the phone that this isn't a rate hearing. We've -- you've heard my opening comments that this isn't about setting of the City's rates. But with that in mind I have some general questions on rates.

To the extent you're comfortable answering them, I'll -- I'll float them out there and we'll see if -- and -- and they'll be based on the materials that I have, so I hope I'm not going beyond that.

I'd like to turn to Tab 18 of the Board counsel book of documents and look at a document that the City has called "Rate Overview."

And this would be a document, Ms. Geer that would be prepared by the Water and Waste Department. Would that be correct?

MS. MOIRA GEER: That is correct.

MR. BOB PETERS: And I know this Board deals with other utilities -- gas, electric, water utilities -- and -- and a lot of the details that -- that flow to those.

But in terms of the City of Winnipeg's customer classes for water and waste, there really is only one (1) customer class, is there, for the waste side of things, and there are three (3) customer classes for the water side of the department?

MS. MOIRA GEER: I would say that we actually don't have customer classes. You are correct in that we have a declining block rate structure in water, and we have a uniform rate structure in sewer.

We don't technically have customer classes. Depending upon the level of your consumption, you can sort of get into a different tier, but it's really -- like I don't -- it -- you know, we have -- we have the residential customers, and we have the commercial and the industrial.

I know there was some discussion, but -- I mean, we don't really -- if you -- if you wanted to clearly define what the customer classes are, I would say we don't -- we don't have that.

MR. BOB PETERS: That -- that's probably even a better way of looking at it than I have for the last little while.

What you're just saying is: If the City provides water to you, you pay the same rates as anybody else to whom the City provides water.

MS. MOIRA GEER: I'm sorry, could you repeat that, please?

THE CHAIRPERSON: I -- I think that -- what you're saying is that if you use more water, you're going to pay less, because you'd be a high-use consumer, right? You'd be in the -- that third block, over 96,000 cubic feet of water.

They get a different price, right?

MS. MOIRA GEER: That's right. If you --

THE CHAIRPERSON: Okay. So that's a declining block rate --

MS. MOIRA GEER: It's rate structure

for water.

THE CHAIRPERSON: Rate structure. So it's all based on how much you use.

MS. MOIRA GEER: Based upon your consumption.

THE CHAIRPERSON: So I guess my question -- I -- I'm sorry I'm interrupting, but you can probably put your question in a moment.

But this is something that's fast disappearing in all the other three hundred (300) utilities, so it's kind of interesting to me that you still have this arrangement.

Others have thought that a gallon of water is a gallon of water, and it should be paid for, you know, in an equitable way. In other words, if you're a big customer, you're still going to pay as much as the small customer for the same gallon of water. And that's a trend that is being picked up.

I'm not suggesting that, you know, every utility does this, but it's increasingly becoming popular, because it kind of leads to more conservation. It sets a price that, you know, people want to obviously use less, because it cost more to use more.

So do you want to give us your thoughts on why you are using the declining block structure and differentiating between customers totally on what they use?

What's the philosophy behind that?

MS. DENISE PAMBRUN: Well, I think the difficulty here is that none of these witnesses are really in a position to speak to the intention of City council.

I don't know if the report that was provided to counsel with the last rate report spoke to this matter, or if there's Hansards available on this.

We can look to see if there is some way through which council spoke to its rationale and provide it to you, if there is something. But I'm not sure any of these witnesses can speak as to what the sixteen (16) members of council had on their mind when they voted on this rate structure.

THE CHAIRPERSON: That -- that would do. But when I read through the material, I could see that many of these witnesses attend the -- is it AWWA meetings? The Associated Water -- whatever, across Canada. You're at these meetings where water -- help me out here. What's that organization called?

MR. DUANE GRIFFIN: The American Water

Works Association.

THE CHAIRPERSON: That's it.

MR. DUANE GRIFFIN: AWWA.

THE CHAIRPERSON: So it's not a Canadian association? It's North American?

MR. DUANE GRIFFIN: Well, there's chapters here in Canada.

THE CHAIRPERSON: So it's North American. So it's a North American water association where utilities go and they discuss these issues. And so probably you've heard some of this discussion if you've been at those association meetings.

And I guess, I'm just wondering, you know, do you take back these thoughts to the council? Do you have discussions with City council on what you've heard or trends?

MS. DENISE PAMBRUN: There will be a report to council that would accompany -- there -- there is a report to council. Council then adopts or doesn't adopt the recommendations of the administration.

We can provide whatever there is that was provided to council to the extent it's not already in the material. And we can provide a Hansards. And that will explain what council had before it and whatever debate there was at that council meeting and that will give you what we have. Thank you.

THE CHAIRPERSON: I don't want you to think I'm suggesting you go in a certain direction. All I'm suggesting is that usually utilities, when they make these decisions, they're doing it on the basis of something. Maybe they want to promote industry in their community and they have to attract the large users with an attractive price. And that's all fine, you know. It's just whatever communities decide to do.

It's just that we're just looking for some kind of feeling for how decisions are made, and that's the kind of background that we're kind of looking for,
because that aids in transparency, knowing why rates are what they are.

MS. DENISE PAMBRUN: We'll provide what we can. Thank you.

THE CHAIRPERSON: Get back to us on just -- you know, what kind of -- well, maybe City council would like to give us some information. You know, and just why -- it's just that, you know, it continues but it's a trend that is changing. So we're

interested.

MS. DENISE PAMBRUN: The undertaking is that I will provide a Hansards of the council meeting, at which the rate report was adopted, as well as the report provided to council with the rate report. You're welcome.

--- UNDERTAKING NO. 1:City of Winnipeg to provide Hansards of the council meeting at which the rate report was adopted, as well as the report provided to council with the rate report

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Madam Chair, still in Tab 18 of the book of documents, and I -- I should have drawn to the witnesses' and the Board's attention that in the top right hand corner, each page is sequentially numbered and that may assist people in referring to specific pages.

I -- I raise that now, because the very point, Madam Chair, you -- you make is found on page 609 in the document, included in Tab 18 of Board counsel's book of documents.

And Ms. Geer, we have the -- we have the declining rates for 2010, as well as proposed for 2011, set out on page two oh -- 609, is that correct?

MS. MOIRA GEER: That's right. That would be the 2010 rate and the '11 rate.

MR. BOB PETERS: And the 2011 rate has been approved by City council, and the 2011 rate that is shown on the top of page 609 for the three (3) different tiers of water consumed, that is, in fact, the rate that is charged in 2011?

MS. MOIRA GEER: That is the rate.

MR. BOB PETERS: All right. To follow up then on the -- on the Chair's question, this is the administrative report or public service report to the elected officials, wherein the rate going forward being proposed is still on a declining block structure.

Would that be correct?

MS. MOIRA GEER: That -- that is correct. I think the -- the public service report, in fact, is on page 611.

MR. BOB PETERS: Right.

MS. MOIRA GEER: Yeah.

MR. BOB PETERS: And -- and the numbers on 611 match the numbers on 609?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: Now perhaps put another way, maybe a bit more boldly, is why is the administration recommending to council a declining block structure at this point in time?

MS. DENISE PAMBRUN: I'd like to take that question under advisement, Mr. Peters. I think we should probably have a discussion internally before we proceed.

--- QUESTION UNDER ADVISEMENT NO. 1:
Why is the administration recommending to council a declining block structure at this point in time?

MR. BOB PETERS: That's fair. Would the Board also, Ms. Pambrun, related to that, and, Ms. Geer, to the extent you want to answer this question, would it be correct that the rate structure has been approved by the elected officials of the City for a long time?

I don't now how long, but for a long time.

MS. DENISE PAMBRUN: The rate structure has always been approved by City Council. It is set by City Council.

MR. BOB PETERS: Ever since the City of Winnipeg Act Section 210 was enacted?

MS. DENISE PAMBRUN: That's a little before my time, but I think we can assume that's the case.

MR. BOB PETERS: All right. And if the City Council is the one who approves the rate structure, can this Board take from that that the City elected officials haven't asked administration to come back with any other structure of rates?

MS. DENISE PAMBRUN: I can't answer that question. They may well have, in 1876 they may have. I -- I don't think that's an answer we can give.

MR. BOB PETERS: Fair -- fair enough, Ms. Pambrun. Would your witnesses be able to answer whether in the last five (5) years there's been any direction given by the elected officials to come back with a rate structure that doesn't have three (3) tiers for water supply?

MS. DENISE PAMBRUN: I think that's a question I'd have to take under advisement.

MR. BOB PETERS: All right.

--- QUESTION UNDER ADVISEMENT NO. 2:
Would your witnesses be able to answer whether in the last five (5) years there's been any direction given by the elected officials to come back with a rate structure that doesn't have three (3) tiers for water supply?

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Let's turn to the sewer rate. The sewer rate that's shown on page 609 and it's shown also on page 611, the sewer rate is -- is one (1) rate regardless of the consumption of water.
Would that be a correct interpretation, Ms. Geer, of -- of the sewer rate?
MS. MOIRA GEER: I'm -- I'm sorry, Mr. Peters, could you please --
MR. BOB PETERS: Yes. I was trying to establish that regardless of your consumption, "your" being a customer's consumption, of water, the sewer rate for 2011 was a $1.97 per cubic metre?
MS. MOIRA GEER: That's right. It is a uniform sewer rate.
MR. BOB PETERS: And uniform to every and all customers of the City?
MS. MOIRA GEER: Yes.
MR. BOB PETERS: And that's to any and all customers of the City that are connected to the City's sewer services?
MS. MOIRA GEER: Yes.
MR. BOB PETERS: But there can be customers that drive in from a municipality and offload their -- their sewage at certain sites around the City.
Is that also correct?
MS. MOIRA GEER: That is correct. There's hauled facilities at North End and South End plants.
MR. BOB PETERS: And do they pay $1.97 per cubic metre for their load?
MS. MOIRA GEER: They -- the fee structure is a -- is a little more complicated for those hauling waste to the plants because of the nature of the -- what is being brought into the plant that's not coming through our collection systems.
I think just in terms of describing the

-- the manifest system a little bit more I will defer to my colleague Mr. Kjartanson to -- to speak to that.

MR. KELLY KJARTANSON: Yes, we do have a rate that we set for hauled wastewater. If it's not overstrength wastewater there's a certain flat rate that's paid. And if it's overstrength wastewater there's an additional rate paid.

MR. BOB PETERS: Is the amount of the -- the non-overstrength load, is it charged at a higher rate than $1.97 per cubic metre for 2011?

(BRIEF PAUSE)

MR. KELLY KJARTANSON: It is a flat rate, so it would depend on the -- the strength. I would have to check on that.

MR. RAYMOND LAFOND: I think page 46 out of 50, the fee schedule stipulates that per loads.

MR. BOB PETERS: Okay.

(BRIEF PAUSE)

MR. RAYMOND LAFOND: That's in the -- the fee and rate study, page 46 I'm looking at. We got a copy this morning and we had some in our binders.

MS. DENISE PAMBRUN: Are you speaking of the fees and charges manual, Mr. Lafond?

MR. RAYMOND LAFOND: Yes. Yes.

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. We're looking at hauled wastewater. We're --

MR. RAYMOND LAFOND: There are two (2) categories --

THE CHAIRPERSON: Yeah.

MR. RAYMOND LAFOND: -- disposal fee per load. Sorry. There are two (2) disposal fees. One (1) is per load, and then the other one (1) is hauled -- the wastewater disposal fee. They're a different fee. I'm not sure why.

MR. BOB PETERS: Madam Chair, I've located that in the blue book of documents on page -- it's at Tab 19 but page number in the top right-corner is 638. I believe that's where...

THE CHAIRPERSON: Yeah, I think we're all on the same page now, but I'm be -- discovering that there's a whole lot of charges on that page that

seem to be referring to what you're asking, Mr. Peters, about basically what would I haul if I -- or what would I pay if I was a hauler, what would the tipping charge be.

This is kind of interesting because, for us, we have to -- sometimes municipalities are not sure what to charge. And they ask us when we're out doing hearings, What do others charge. And it's kind of interesting to see the variance. And, once again, it's local government. They make the decisions about what they're going to charge, just as I'm sure you do. But we're always interested in, you know, what are the things that influence their charge, what -- you know, what are the factors that make them come to a certain decision about the dollars per cubic metre that they're going to charge.

So if you have that information, that would be very useful to us. But I see there's a lot of different categories on that page.

(BRIEF PAUSE)

MR. KELLY KJARTANSON: Could I have the question repeated, please?

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Mr. Kjartanson, we were just talking about the sewer fees and the wastewater fees and we're wondering whether people who haul and offload at the City's facilities are paying more or less than what the City pay -- City-connected customers pay for -- I'll call it regular strength, not overstrength sewage.

MR. KELLY KJARTANSON: Yes, the fee that's paid for regular strength sewage would be two dollars and fifty one cents ($2.51) per kilolitre. And that is based on the -- we determine the volume that each truck can haul. So based on the truck that comes in, they're charged a flat fee of two fifty-one (251) per kilolitre as a base fee.

MR. BOB PETERS: A kilolitre is a thousand litres, correct?

MR. KELLY KJARTANSON: That's correct.

MR. BOB PETERS: And so this is less expensive than the dollar ninety-seven ($1.97) per cubic metre charged to the City residents?

MR. KELLY KJARTANSON: More.

MS. DENISE PAMBRUN: I think we'll take that under advisement because we'll have to do a

calculation, Mr. Peters, unless you have --

MR. BOB PETERS: I apparently have done it wrong.

MS. DENISE PAMBRUN: -- your calculator handy.

THE CHAIRPERSON: Sometimes it is more, Mr. Peters, because they may be coming from somewhere other than the City. You know, they -- I don't know, but there's another question for the utility. Are these haulers coming from other places and using the City of Winnipeg's facility? Would that be true, Mr. Kjartanson?

MS. DENISE PAMBRUN: I think we're going to take this question under advisement and get back to the Board at a later date.

THE CHAIRPERSON: And maybe just include who are these people, are they in the City, are they out of the City?

MR. BOB PETERS: I don't want to get too far --

--- QUESTION UNDER ADVISEMENT NO. 3:

Based on the truck that comes in, they're charged a flat fee of two fifty-one (251) per kilolitre as a base fee, and so this is less expensive than the dollar ninety-seven ($1.97) per cubic metre charged to the City residents?

MR. RAYMOND LAFOND: I'm sorry. There -- there are two (2) categories there, the wastewater, the -- the disposal fee per load, two fifty-one (251), and the hauled wastewater disposal fee, seven fifteen (715). What would be the difference between the two (2) of them?

MS. DENISE PAMBRUN: We'll take that under advisement, Mr. Lafond.

--- QUESTION UNDER ADVISEMENT NO. 4:

There are two 2) categories there, the wastewater, the disposal fee per load, two fifty-one (251), and the hauled wastewater disposal fee, seven fifteen (715). What would be the difference between the two (2) of them?

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Geer, to your

knowledge, if -- if you're a resident within the City of Winnipeg and construct a house or have a business, are you required to connect to the City's water and wastewater services or is that an option?

MS. MOIRA GEER: You are required to connect.

MR. BOB PETERS: All right. Are there -- are there then businesses or homes in the City of Winnipeg that have been grandfathered and they don't have to connect, and then they're not connected, so that they haul their own within the City limits?

MS. MOIRA GEER: There are some peculiarities with some grandfathering, and I would not be the one (1) to speak to that, and I'm not sure if there's anybody in the panel that could.

MR. BOB PETERS: No, I -- I don't need anything further on that. I just wondered if -- if any of these rates were being set for people within the City of Winnipeg. And I guess the possibility is that they are, and I wanted to just -- to check that with you.

In terms of going back to our -- our rate structure, on page -- tab -- we can start at Tab 19 -- or we can stay at Tab 19, and the terms of the fees. The basic service charges on page 639, top right-hand corner, Ms. Geer, the service charges vary depending on the size of the pipe that comes to the metre.

Is that correct?

MS. MOIRA GEER: Based upon the metre size, there's different rates.

MR. BOB PETERS: And do you under -- what -- what's the rationale for that, if you know?

MS. DENISE PAMBRUN: Mr. Peters, maybe you and I should have a little discussion offline, if we're going --

MR. BOB PETERS: Okay.

MS. DENISE PAMBRUN: -- much further with these questions.

MR. BOB PETERS: All right. We will have our discussion about that.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Geer, let's just pick the five-eighths (5/8) metre for the -- the fifteen (15) cents of a daily charge. We see from Tab 17 that the City divides that fifteen (15) cents up into some of it relates to the water and some relates to the -- to the wastewater.

Would that be correct?
MS. MOIRA GEER: That's right. We attribute the metre charge to both utilities.
MR. BOB PETERS: And how do you decide -- is that a decision by administration as to how much goes to which -- which service, or is that a elected official decision?
MS. DENISE PAMBRUN: Ultimately, all the decisions are made by council.

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Okay. Ms. Geer, is -- when we go back to Tab 17 and we look at the five-eighths (5/8) metre, and that bill mock-up, there's a basic charge of twelve (12) cents for the water and three (3) cents for the sewage. And that equates to the fifteen (15) cents that we've referred to?
MS. MOIRA GEER: Yes.
MR. BOB PETERS: And for how long has that twelve (12) cent/three (3) cent divide been in existence, if you know?
MS. MOIRA GEER: The divide, the exact divide, I -- I don't know how long that specific divide has been in existence but it's -- it has been practised and it is normal practice to -- to split that across the water and sewer utilities.
MR. BOB PETERS: And the rationale for reason -- for -- for why it's done is a question that I think Ms. Pambrun was going to take under advisement as to why that was the case.
Is that fair?
MS. DENISE PAMBRUN: That's fair.
MR. BOB PETERS: All right.

--- QUESTION UNDER ADVISEMENT NO. 5:
For how long has that twelve (12) cent/three (3) cent divide been in existence and what is the rationale or reason why?

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Let's turn to -- back to document Tab 18, and the top right-hand corner has page 607 on it.
Ms. Geer, you've already talked about, and your counsel has talked about the approval process, and we see that it culminates with council approving increases on a one (1) year basis only, correct?

MS. MOIRA GEER: That has been the practice, yes. Council approves a one (1) year rate.

MR. BOB PETERS: And in their approval process, reports are provided by the administration, of which you have managerial responsibilities.

MS. MOIRA GEER: As -- the manager of finance and admin, is the lead author of that report. The managerial responsibilities for the report reside with the director --

MR. BOB PETERS: So the --

MS. MOIRA GEER: -- and the CAO within the City's framework.

MR. BOB PETERS: Okay. That's fair. The -- the administrative report, the Board can find that still under Tab 18 on page 613 in the top right-hand corner.

That would be an administrative report with which you are familiar?

MS. MOIRA GEER: That is correct.

MR. BOB PETERS: And do you recall if the rate increases that were recommended in this administrative report were consistent with the forecasts in the previous reports provided through to council, or were there any changes that administration made from what they'd previously filed?

MS. MOIRA GEER: I couldn't answer that question, but the -- the reality is is when you do a forecast or a projection, things do change year to year with actuals not being the same as what you had forecast to happen. So it is possible.

MR. BOB PETERS: But that decision would be ultimately made by the elected officials, not by administration, correct?

MS. MOIRA GEER: City Council makes those approvals.

MR. BOB PETERS: All right. And when we look on, say page -- top right-hand corner, six-one-six (616), found under Tab 18, the Board's going to see the combination of adding the water together with the sewer on a combined basis and a future projection that you had just alluded to.

This is done by administration?

MS. MOIRA GEER: It is an administrative report that goes to council.

MR. BOB PETERS: And can you explain to the Board, what's the basis for administration's estimates of the -- of the rates that will be charged into the future?

MS. DENISE PAMBRUN: I think that's

probably a question I would have to take under advisement, Mr. Peters.

MR. BOB PETERS: Okay. I'm not looking from the -- from the elected officials' point of view, but just from administration's point of view, if -- if that helps your -- your review of it.

MS. DENISE PAMBRUN: Not really.

--- QUESTION UNDER ADVISEMENT NO. 6:
What's the basis for administration's estimates of the rates that will be charged into the future?

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: While we're on -- on the -- document, in terms of principles of operation, found on page 608, also under Tab 18 of the City's rate overview document, can you advise, Ms. Geer, whose principles of operation these are?

Are these the elected officials', or are these administration's, or both, or do you know?

MS. MOIRA GEER: The principles are approved by council, by City council.

MR. BOB PETERS: And one (1) of the principles is that whatever the rates are, they must recover 100 percent of the costs, at a minimum, incurred by the Water and Waste Department?

MS. MOIRA GEER: They are self-supporting utilities.

MR. BOB PETERS: And in addition to being self-supporting, there are other funds to which, you've mentioned before, monies can be transferred if there's an excess of funds?

MS. MOIRA GEER: I -- I never said money would be transferred if there was an excess of funds. But yes, there are transfers to other funds.

MR. BOB PETERS: And that only happens if there are -- is a surplus or excess? Is -- is that the case?

MS. MOIRA GEER: I never -- I never said that. I said there were other funds that -- or, we transfer from the water and sewer operations into capital funds, is what I said.

I didn't -- I didn't tie it to the excess. I -- you had previously asked me a question about surpluses, and I said you need to look at rates and operating budgets at the same time. But I did not suggest transferring of excess.

MR. BOB PETERS: All right. Where

does the money come from to transfer to these other funds?

MS. MOIRA GEER: Within the funds themselves. The -- there was a slide in the presentation where I indicated the funds that we administer. And there's the water fund, and then there's the sewer fund, and there's some capital funds.

And we, as part of the operating cost of the utility funds, transfer to the other funds, which is typical municipal accounting.

THE CHAIRPERSON: Can I -- can I interject now? I'm not the accountant, so I'm at a loss here. But I guess when I think of a transfer of funds to other funds, I'd be interested in knowing whether those funds are related to the water and sewer utility, or where these funds are, because I always think, when we go out to the other three hundred (300) utilities, we're saying to them, Oh, no, you can't take funds from your general operating and put that into your utility if your utility is running short of money.

What your utility has to do is, obviously, be self-sufficient. It has to work on the principle of whatever expenses it has, it has to find the revenues from the customer base to pay for its expenses.

So this is kind of a different scenario. It's not the same thing, obviously. But I'm just wondering, like, where does this money go? Where does it come from? Where does it go?

Is it going back into a utility-related place? Because, I guess, not being an accountant, I'd -- I'd -- I need it simplified.

(BRIEF PAUSE)

MS. MOIRA GEER: Pardon me, the other funds -- and it was in this slide that the City delivered earlier today, where we tal -- we spoke about the funds, and those are -- primarily those are capital funds that are used to invest in the capital programs of the water and sewer utilities.

THE CHAIRPERSON: Okay. Good. Then I -- I can understand that it's sort of a closed system then. You're running the utility with strictly utility revenues, and if there were any excess revenues, they would be in these reserves waiting for projects related to the utility.

Is that what you're saying they would be?

MS. MOIRA GEER: Not -- not all of -- like the -- the transfers and -- and, Mr. Peters, in -- in the binders, we have the financial statements. There's transfers to the -- the reserve funds as part of the operating costs of the utilities.

MR. BOB PETERS: Perhaps I -- perhaps, Madam Chair --

THE CHAIRPERSON: Go ahead.

MR. BOB PETERS: -- I -- I can assist.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Geer, if we turn to slide -- I have it as 16 in what was emailed to me, but it might be 15 in what was handed out today, the PowerPoint slide.

I believe yours would be 15 in colour, and this should be "Fund Accounting" headed.

MS. MOIRA GEER: That's right.

MR. BOB PETERS: All right. This slide, in answer to the Chair's question, and I -- I'm -- I'll be careful with my wording, the revenues that come from the water rates go into the water utility fund for capital and operations, correct?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: And the revenue that comes from the sewer rate that is charged go to the sewer utility fund for its operations and capital?

MS. MOIRA GEER: That's correct.

MR. BOB PETERS: And included in the rates that are set for those funds, there are monies that will be used for various reserves, correct?

MS. MOIRA GEER: That is right.

MR. BOB PETERS: And four (4) of those reserves are set out on page 15 of the PowerPoint presentation?

MS. DENISE PAMBRUN: It's 16 in the version that came forward today.

(BRIEF PAUSE)

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Okay. As long as we're on the same -- the same slide. We have a couple of different documents here -- or, page numbering.

So on page 16, the -- the four (4) funds are the water main renewal reserve, and that is funded only from the water utility fund, not from the

sewer fund.
Am I correct on that?
MS. MOIRA GEER: That's right. Aqueduct and -- and water main relate to water operations, and sewer and environmental projects relate to the sewer operations.
MR. BOB PETERS: All right. And just to close off, I think the last point being made is that if there is a surplus, even after transfer to these reserves, that money could end up in the -- the general revenue account of the City?
MS. MOIRA GEER: That -- that is correct. And a surplus also -- part of the way we fund some of our capital program is cash to capital. So we do budget for surpluses to help pay for some more routine infrastructure upgrades that wouldn't fall within the fund accounting of -- of these separate capital funds.
MR. BOB PETERS: All right. I'm going to come to that, but I don't want to get into too much detail when I get there. I warn you. In terms of still -- I'm back to Tab 18 and the rate overview document that I'm struggling with, with Ms. Pambrun.
In preparing the rates that are charged, can you advise the Board whether or not the City does any cost-of-service studies related to either the water utility or the sewer utility?

(BRIEF PAUSE)

MS. MOIRA GEER: Yes, we do.
MR. BOB PETERS: Have they been done for a number of years, five (5) years or more?
MS. MOIRA GEER: Have they been done recently --
MR. BOB PETERS: Well, I was just wondering have them been done in -- for the last five (5) years? Are they annual? Are they --
MS. MOIRA GEER: They're -- they have been done in the last five (5) years.
MR. BOB PETERS: And is it an annual report or an annual study done?
MS. MOIRA GEER: Not annual.
MR. BOB PETERS: All right. "As requested" might be the better way to describe its frequency?
MS. MOIRA GEER: No.
MR. BOB PETERS: How often are they done?

MS. MOIRA GEER: I -- I would say they have been done within the last five (5) years.
MR. BOB PETERS: They have been?
MS. MOIRA GEER: Yes.
MR. BOB PETERS: Okay. And who receives those cost-of-service reports when they are prepared?

(BRIEF PAUSE)

MS. MOIRA GEER: They are an administrative report.
MR. BOB PETERS: And can you tell the Board what administration does with them?
MS. MOIRA GEER: The results of -- of the studies would be incorporated into the rate report, if put forward that way.
MR. BOB PETERS: Is the document in Tab 18, starting on page 613 in the top right-hand corner, is that the report that would contain the essence of the cost-of-service study to which you've just referred?
MS. MOIRA GEER: Any -- anything to do with rates, the amounts, the structure, all of that would be reported through to council in the administrative rate report.
MR. BOB PETERS: And is this it, six thir -- on page -- starting on page 613, is this the administrative rate report?
MS. MOIRA GEER: For the 2011 rates? Yes.
MR. BOB PETERS: Can you identify where in there it refers to -- or what -- what part refers to the cost-of-service study, if any part?

(BRIEF PAUSE)

MS. DENISE PAMBRUN: At page 614, Mr. Peters.

(BRIEF PAUSE)

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Can you help the Board out on that, Ms. Geer? I'm not sure where counsel is specifically drawing my attention, but I've -- I'm just looking for what the upshot of the cost-of-service report reference is to admi -- to the elected officials.
And is that on this page?

MS. DENISE PAMBRUN: It's not specifically referred to on the page. Ms. Geer's evidence was that the cost-of-service study is re -- is -- is dealt with in the administrative report to council.

MR. BOB PETERS: Yeah, I understood that the results would be incorporated into the report.

MS. DENISE PAMBRUN: Sometimes not expressly.

MR. BOB PETERS: I'm -- I'm okay with that. So to the extent that numbers are derived, that is the end product of the cost-of-service report?

MS. DENISE PAMBRUN: That's correct.

MR. BOB PETERS: Ms. Pambrun, I'll -- I'll ask through Ms. Geer, but seeing as you're taking matters under advisement and seeing that this is an administrative report and not otherwise, I would ask if you could file the most recent copy, with the Board, of the cost-of-service study.

Will you take that under advisement and let me know?

MS. DENISE PAMBRUN: I will take it under advisement.

--- QUESTION UNDER ADVISEMENT NO. 7:

Seeing that this is an administrative report and not otherwise, I would ask if you could file the most recent copy, with the Board, of the cost-of-service study.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: All right. And, Ms. Geer, do you prepare the cost-of-service study, or is that prepared by somebody external from the City?

MS. MOIRA GEER: The City would typically hire an expert to -- to work with the City.

MR. BOB PETERS: I've never seen a water cost-of-service study, but do you -- do you know if they functionalize the costs, and then classify those costs, and then allocate the costs?

MS. DENISE PAMBRUN: When you see the cost-of-service study, Mr. Peters, you'll be in a position to know.

MR. BOB PETERS: Shall I hold my breath, take -- take --

THE CHAIRPERSON: So, Mr. Peters, I gather this is an undertaking, right?

MR. BOB PETERS: Well, I've asked --
MS. DENISE PAMBRUN: No, it isn't, Madam Chair.
THE CHAIRPERSON: Oh, it isn't.
MR. BOB PETERS: We've asked it as an--
MS. DENISE PAMBRUN: No, it's taken under advisement.
MR. BOB PETERS: And -- and it can --
THE CHAIRPERSON: Oh, okay. I'm --
MR. BOB PETERS: The -- the distinction may not be large. It's going to be recorded as under advisement. And if there's a problem or -- I may make a stronger request once I hear back, but I'm -- I'm prepared to discuss with My Friend the document itself and -- and move from there.

--- QUESTION UNDER ADVISEMENT NO. 8:
I've never seen a water cost-of-service study, but do you know if they functionalize the costs, and then classify those costs, and then allocate the costs?

THE CHAIRPERSON: I'm just trying -- I'm not a lawyer either, so I don't know the difference between under advisement and an undertaking. But an undertaking means, and I know that from other hearings, that we actually get something and that it kind of looks like what we expect it to look like, which, in my limited experience, not being an accountant, bear -- remember that, is that all the expenses are outlined, all the capital plans are outlined, they've got the amortization built in, and the final cost is -- whatever it is, is divided among the users. And that's what a cost-of-service study. And it just means that the users then all pay their fair share of covering the cost of the utility.
So I think that's what we're hoping to see, but we'll see if that materializes under advisement.
Okay, thanks --
MS. DENISE PAMBRUN: I do -- I take it the Board is aware that Mr. Peters and I have been having a discussion as to what the City will or will be providing with respect to rates and cost-of-service study, and that's why I've been taking these matters under advisement as opposed to giving undertakings to

the Board.

So I'm sure we will continue to have some spirited discussions. Perhaps that's appropriate, given the season.

THE CHAIRPERSON: Okay. Thanks.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Let's see if we can move quickly through the document at Tab 18 of the book of documents, and I want to refer into the administrative report that we are now in.

On page 620 in the top right-hand corner, at Tab 18, you have the Winnipeg water rates compared -- well, water, sewer, and the fixed components compared to other selected cities, correct?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: Is there any particular reason why you picked the cities you picked in this report?

MS. MOIRA GEER: We felt the western cities are -- are reasonable comparisons.

MR. BOB PETERS: Did you...

MS. MOIRA GEER: Cities of -- of the same geographic location, similar attributes.

MR. BOB PETERS: All right. We heard in an earlier presentation today that the City of Toronto was doing certain nutrient removal and has cost associated with that that would be reflected through their rates.

Have you compared Winnipeg rates to Toronto rates, for example?

MS. MOIRA GEER: No. I'm sorry, "No," was my answer. I'm sorry, you didn't hear me.

(BRIEF PAUSE)

MR. BOB PETERS: When we turn to page 625, also in Tab 18, we see the history of the City's water rates for the last decade or so, correct?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: And maybe in the last five (5) or six (6) years, the -- the rates have increased close to 50 percent.

Is that accepted?

MS. MOIRA GEER: That would be accurate.

MR. BOB PETERS: And again, those approvals are all done at the behest, and made by the elected officials, correct?

MS. MOIRA GEER: City council approves rates.

MR. BOB PETERS: Yeah.

(BRIEF PAUSE)

MR. BOB PETERS: When the -- when the sewage rate is set -- and we've already used for 2011, it's not on page 625, but we could pencil it in. It's a dollar ninety-seven ($1.97) per cubic metre.

There is no customer meter on sewage, is there?

MS. MOIRA GEER: There is no customer meter on sewage.

MR. BOB PETERS: Do I take from that the City makes an assumption that for every cubic metre that comes into the house, a cubic metre is going to go out the house, through the sewer?

MS. MOIRA GEER: There's a formula where there's a percentage of the consumption is applied to the sewer rate, and the -- for residential customers.

And certainly, the larger industrial customers, the effluent -- or the sewer portion, is metered. But the sewer consumption base for residential is a percentage of the actual -- the fee water consumption.

MR. BOB PETERS: Except back on Tab 17, for every cubic metre of water that comes into the house, the same number of cubic metres is used to charge out the sewer rate, correct?

It's not a percentage of the water. It's -- it's a hundred (100) per -- well, it's 100 percent of the water, I guess.

MS. MOIRA GEER: Yeah, but in the determination, yes. No, I mean, the -- there's the one -- there's the one rate that's applied to the consumption, but as part of the modelling. I guess I confused it. I'm sorry for that confusion.

MR. BOB PETERS: Okay. Well, maybe I'm the one who confused it, Ms. Geer, so I apologize too.

But it -- what you're essentially telling the Board is that if 41 cubic metres is metered to come into the home, you're going to use that same 41 metres to charge out the sewer rate.

MS. MOIRA GEER: That's right.

MR. BOB PETERS: Okay. And you say, though, for some industrial customers, they may have

an actual sewage meter in their plants?
MS. MOIRA GEER: That is correct.
MR. BOB PETERS: And a commercial customer is not likely to have a sewer meter?
MS. MOIRA GEER: I -- I can't answer that. I mean, there's certain business applications where you do need to meter and others where you don't. If it's a commercial business that's a hair salon, probably would not have a meter. But if it's an -- an industrial customer, a larger customer would have one.
MR. BOB PETERS: When Mr. Griffin was giving the Board the results of his conservation analysis over the years, one of the byproducts of that analysis is that as your volumes decrease, if you want to recover the same dollar amount on a volumetric charge, your unit rate has to go up.
Isn't that correct?
MS. MOIRA GEER: I think if you -- if you look at lowered consumption and the impact on rates in the short term, is your rate would go up. But on the longer term, your rate will be lower or reduced, because Mr. Griffin also -- also showed how we would have to find more water supply or increase or double the aqueduct.
So by bringing the water consumption down to such low levels, we're avoiding huge capital costs to expand the system to meet the demand. So there is a short-term impact, but there is a much greater long-term impact.
MR. BOB PETERS: Thank you for that, Ms. Geer. I may not have asked my question clearly enough. But someone once told me, consumers don't pay rates; consumers pay bills.
And so while my per-unit charge of water may increase, my consumption may decrease enough that my actual bill goes down, correct?
MS. MOIRA GEER: The -- you can effect a lower bill by controlling your consumption.
MR. BOB PETERS: All right. And my point then is that -- you've told the Board that in the last five (5) years, the rates have increased about 50 percent. How much of that rate increase has been necessitated to increase the unit cost to make up for the lower consumption?
Have you -- have you studied it from that perspective?
MS. MOIRA GEER: No, I can't -- I can't answer that right now.
MR. BOB PETERS: Okay. Intuitively,

am I -- am I making sense to you that the City has a whole -- has a certain amount of money it needs to recover from the consumer, and if the consumer is using less on a volumetric basis, the cost per volume has to be a bit higher to make up those costs.

That's intuitively correct, is it not?

MS. MOIRA GEER: No.

MR. BOB PETERS: How does the City otherwise make up those costs?

MS. MOIRA GEER: I think the -- the -- you're just looking at one (1) side of the equation, where consumption may go down, but we're also always striving to reduce the operating costs wherever we can.

So when you look at rates, and you look at rates year over year, and you look at your revenue requirements, part of that control or that good management practice is to look at what costs you are trying to cover through rates, so.

MR. BOB PETERS: But -- but, Ms. Geer, if I look to page 625 of Tab 18, I don't see any rate going down due to good management practices over the years, do I?

MS. MOIRA GEER: The rate may not go down, but there's -- certainly, that is part of the process, to look at the cost structure. But no, rates -- rates are -- have -- have gone up in the last five (5) years.

(BRIEF PAUSE)

MR. BOB PETERS: Ms. Geer, is the ten (10) year forecast included in the administrative report still administration's best forecast of where the sewer and water rates will be going in the next ten (10) years?

MS. MOIRA GEER: It is a ten (10) year forecast.

MR. BOB PETERS: And it's still accurate, to the extent forecasts can be accurate?

MS. MOIRA GEER: The forecast is updated annually.

(BRIEF PAUSE)

MR. BOB PETERS: Does the City know if there are any residential customers that fall outside of Tier I?

(BRIEF PAUSE)

MR. BOB PETERS: Ms. Burns, would you have any way of knowing that?

MS. WANDA BURNS: Not on an annual basis would you see a customer typically go beyond Tier I, but there may be occasional instances where a customer has a large leak or something that would cause them to go over that for a short period of time.

MR. BOB PETERS: Fill the swimming pool?

MS. WANDA BURNS: Apparently a swimming pool actually isn't that expensive to fill.

(BRIEF PAUSE)

THE CHAIRPERSON: This would be like a toilet leak, a continual toilet leak, which we've seen huge bills for when people didn't know it was happening.

MS. WANDA BURNS: That is a good example, Madam Chair.

(BRIEF PAUSE)

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Burns, subject to My Friend opposite, does the City keep track of how many customers are on different tiers, how many commercial customers or industrial customers or residential customers are on each tier?

Or is there any need to do that?

MS. WANDA BURNS: No, that is not in -- that is not information that we are tracking on a regular basis.

(BRIEF PAUSE)

MR. BOB PETERS: When we turn back to Mr. Griffin's slide at page 131 of my PowerPoint presentation, City Exhibit number 3, then, Ms. Burns, if you could just have a quick peek at that with me.

I have it on page 130 -- slide 131. And this was the one that had billed water consumption by block from 8 -- from 1989 to 2010.

(BRIEF PAUSE)

MR. BOB PETERS: Some may have that as

page 130 in the coloured printout. Do you have that, Ms. Burns?

MS. WANDA BURNS: Yes, I do.

MR. BOB PETERS: And so when -- when the Board looks at that slide and sees the -- the graph and the billed water consumption by block, you can't tell whether there's any residential customers in block 2, for example, on that chart?

MS. WANDA BURNS: That's correct, you could not tell.

MR. BOB PETERS: But what you can tell is that every customer -- and I forget how many you had; two hundred (200) -- two hundred thousand (200,000) customers.

Is that approximately correct?

MS. WANDA BURNS: I think it's around a hundred and ninety-four thousand (194,000), yes.

MR. BOB PETERS: So all one hundred and ninety-four thousand (194,000) customers start off in Tier I?

MS. WANDA BURNS: That's correct. They are all billed for their first amount of consumption in Tier I.

MR. BOB PETERS: But not all are necessarily into Tier II, and certainly not all are into Tier III?

MS. WANDA BURNS: That is correct.

MR. BOB PETERS: And so when there's a -- when there's water consumption shown in block 1, that's really only showing the residential consumption, if I could be so bold as to suggest?

MS. WANDA BURNS: The largest percentage would be residential consumption.

MR. BOB PETERS: Because the commercial and the industrial customers are probably onto larger consumptions, and those would be -- would be reflected in the declines of block 2 and block 3?

MS. WANDA BURNS: That's true. But again, Madam Chair, the first 272 cubic metres of every customer's consumption is billed in block 1.

MR. BOB PETERS: Does the City keep track of what revenue it receives from block 1, block 2, and block 3?

MS. WANDA BURNS: In terms of dollars?

MR. BOB PETERS: Or percentage.

MS. WANDA BURNS: Yes, we do.

MR. BOB PETERS: Can you advise the Board as to what that is?

MS. WANDA BURNS: I do --

MS. DENISE PAMBRUN: I think, Mr. Peters, it might take a little convincing of me to know exactly how this is relevant, where this Board does not have jurisdiction over rate setting.

MR. BOB PETERS: Well, part of the -- part of the question goes to what revenues are coming from commercial and industrial related to what costs they would incur on the system.

MS. DENISE PAMBRUN: And how is this related to anything other than setting rates?

MR. BOB PETERS: Just to the fairness of it, Ms. Pambrun.

MS. DENISE PAMBRUN: The fairness of the rates?

MR. BOB PETERS: Well, no, the quest -- no, of -- in terms of coverage of the amounts that the Chair had mentioned previously, in terms of how the Board looks at the revenues and the costs and the rates that are charged to recover those.

MS. DENISE PAMBRUN: That sound suspiciously like rate setting, to me, Mr. Peters. Call me suspicious.

MR. BOB PETERS: We'll talk. We'll talk. Thank you.

MS. DENISE PAMBRUN: Then I'll take it under advisement --

MR. BOB PETERS: All right.

MS. DENISE PAMBRUN: -- shall I?

--- QUESTION UNDER ADVISEMENT NO. 9:
What revenues are coming from commercial and industrial related to what costs they would incur on the system in terms of coverage of the amounts that the Chair had mentioned previously, in terms of how the Board looks at the revenues and the costs and the rates that are charged to recover those?

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Here's another question. Mr. Griffin, from economic principles, does a declining rate block send any kind of a price signal to the customer?

MS. DENISE PAMBRUN: Well, I'm getting a little suspicious again, Mr. Peters. Don't give me that innocent look. You would agree with me that that's an extremely relevant question in terms of

setting rates.
MR. BOB PETERS: I'm waiting for your under -- your advisement.
MS. DENISE PAMBRUN: Ah.
MR. BOB PETERS: So this may become -- take this one as well, because --
MS. DENISE PAMBRUN: I'll take this one (1) under advisement then --
MR. BOB PETERS: -- because --
MS. DENISE PAMBRUN: -- shall I?
MR. BOB PETERS: -- because we've asked questions that -- from an economic principle, is that a -- is that something administration considers; not whether the politicians consider it, but whether administration considers it.
MS. DENISE PAMBRUN: It still goes to rates.

--- QUESTION UNDER ADVISEMENT NO. 10:
Mr. Griffin, from economic principles, does a declining rate block send any kind of a price signal to the customer?

CONTINUED BY MR. BOB PETERS:
MR. BOB PETERS: Ms. Geer, are there any businesses in the City that are charged rates that aren't on the approved rate schedule?
MS. MOIRA GEER: All -- all rates are approved by council.
MR. BOB PETERS: And at Tab 19 of the book of documents, there are extracts from the 2011 fees and charge schedule. And it's -- my recollection is it was a rather lengthy document.
My recollection actually is that -- that you signed off on it, if I -- you were the officer who signed off on the charges?
MS. MOIRA GEER: That could be correct.
MR. BOB PETERS: And my question, though, is: Are there any customers of the water or sewer utility whose rates are not on that rate schedule?
MS. MOIRA GEER: No, there would -- there would not be. We -- we cannot charge a rate without council's approval.
MR. BOB PETERS: When I talked earlier with Mr. Kjartanson about sewage being trucked in or disposed of, I take it some industrial or commercial customers have what they call over-strength sewage?

MS. MOIRA GEER: That is correct.
MR. BOB PETERS: And over-strength means it contains something in excess of what normal-strength sewage does?
MS. MOIRA GEER: That's right.
MR. BOB PETERS: And to have over-strength sewage, there's usually an additional cost to it. Would that be fair?
MS. MOIRA GEER: Yes, there is an industrial waste surcharge.
MR. BOB PETERS: And the purpose of that surcharge?
MS. MOIRA GEER: The purpose of the surcharge is to recover the cost, because in the sewer operations, the -- for lack of a better term, if it -- the nastier the effluent, the costlier it is to treat and -- as far as the total suspended solids and the biological oxygen demand.
MR. BOB PETERS: But it's not treated separately, Ms. Geer. It's -- it's mixed in with everything else and goes through the regular treatment that we had the schematic of, although not the video?
MS. MOIRA GEER: The waste is received into the sewage treatment plants, as is other waste, but there are sampling programs that we know what certain customers are discharging into our sewer collection systems. And that is the basis of the surcharge, and they are metered as well.
So it all goes to the same places; it's just we measure it coming out of the premises.
MR. BOB PETERS: I was referring to the slide on slide on page 81 of the PowerPoint, which was the schematic.
But -- but you've indicated that the City enforces their bylaws on the strength of the sewage, and charges accordingly for it?
MS. MOIRA GEER: That's right.
MR. BOB PETERS: Okay. Can you explain to the Board where the additional costs to treat that would be in the -- in the diagram on page 81?
MS. DENISE PAMBRUN: We'll take that under advisement, Mr. Peters.

--- QUESTION UNDER ADVISEMENT NO. 11:
Can you explain to the Board where the additional costs to treat that would be in the diagram on page 81?

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Geer, let's -- let's turn away from rates themselves, and let's turn to the byproduct of rates, which is money.

And let's turn to Tab 1 of the book of documents, and maybe start on page 26. We'll start with the big picture.

Will -- will the Board conclude, from looking at the -- from the annual report for 2010 of the City, that taxation revenue was about $550 million, and the sales of services, primarily utilities, was around the $425 million mark?

(BRIEF PAUSE)

MS. MOIRA GEER: Sure.

MR. BOB PETERS: And in terms of -- maybe we'll turn a little bit more specifically to page 46 of the -- Tab 1 of Board counsel's book of documents, and consolidated position of the company -- of the -- the City -- municipality.

In looking at this consolidated statement of financial position, Ms. Geer, does the Board conclude that the City's debt approximates half a billion dollars in 2010?

MS. MOIRA GEER: For the City of Winnipeg, yes.

MR. BOB PETERS: Yes, and that -- that is for more than just the water and sewer department, but that's the entire City?

MS. MOIRA GEER: This is a consolidated statement of financial position, which is for the entire City of Winnipeg.

MR. BOB PETERS: And the accumulated surplus for the entire City of Winnipeg sits at about $4.5 billion?

MS. MOIRA GEER: For the entire City of Winnipeg, correct.

MR. BOB PETERS: And if you were asked to calculate the debt-to-equity ratio of the City at -- at that point in time that that statement was prepared, would it be as easy as dividing the debt by the equity, where there's 11 percent debt and maybe 89 percent equity?

MS. MOIRA GEER: It could be, yes.

MR. BOB PETERS: And is it also correct that -- is every taxpayer in the City also a utility customer?

MS. MOIRA GEER: Not necessarily, no.

That's not correct.

MR. BOB PETERS: And certainly not every utility customer is a taxpayer.

MS. MOIRA GEER: That is also correct.

MR. BOB PETERS: So you've got two (2) groups that don't necessarily line up as between ratepayers and taxpayers, correct?

MS. MOIRA GEER: Correct, they could be different customers.

MR. BOB PETERS: And I suppose the City will know that there are some differences as between those two (2) groups?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: Let's turn to Tab 2 of the book of documents, and page 83 in particular, and let's start with looking at the City of Winnipeg waterworks statement of operations.

Can the Board conclude, Ms. Geer, that in 2010, in the "Actual" column in the middle, that the revenues were about $83 million, and the total expenses, halfway down the page, were about $66 million?

MS. MOIRA GEER: The total -- the total revenues?

MR. BOB PETERS: The sale of goods and services from utilities, is that -- is that the -- the $83.4 million?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: And there's some other -- other revenues that the -- we're talking the waterworks fund, or the waterworks system here only, correct?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: Nothing to do with sewer yet.

MS. MOIRA GEER: That's right.

MR. BOB PETERS: And so in addition to the rates charged to customers, you have some interest income, and you also have some government transfer income, that totals the $87.5 million of -- of revenues, correct?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: And when you go through the expense items, the expenses from operations are $66 million?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: And that leaves a surplus for the year from operations of about $21 1/2 million?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: Now, when we trace the transfer to other funds, of eleven point eight (11.8) -- sorry, $11.988 million, that's a transfer that goes only to the water main renewal fund, as I traced it.

Would you agree with that?

MS. MOIRA GEER: The transfer line?

MR. BOB PETERS: Yes, ma'am.

MS. MOIRA GEER: That's correct.

MR. BOB PETERS: Can you readily tell the Board what that water main renewal fund sits at, in terms of a balance, at this point in time?

MS. MOIRA GEER: At this point in time, I could not. But you do have a copy of the annual report, which would reference what that balance was at the end of the last fiscal year.

MR. BOB PETERS: And if approximately $12 million is transferred to the water main renewal fund, that leaves a surplus from operations after transfers of about $9.4 million, correct?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: And then can you explain the deficit surplus -- the deficit from capital on Schedule 4, what the source of that entry is?

MS. MOIRA GEER: The deficit or surplus from capital is the, I believe it was three (3) years ago, the City of Winnipeg amended its financials to actually capitalize the assets.

If you could imagine the value of the asset base that we have in the Water and Waste Department, that was not on our balance sheet. And then you take that citywide, it's a humongous number.

But the -- the PSAB -- Public Sector Accounting Board -- guidelines for capitalization of assets, they're -- the -- the way that the -- the accounting happens, and -- and I'm going to throw this out to the finance people in the room that will understand the peculiarity of the non-matching principle in PSAB.

So basically, what happens is, you can have a surplus or deficit, because if you have whatever the funding source is for capital -- like, say for example, if I had a hundred dollars that came from a water main renewal reserve and I spent a hundred dollars on a water main, I capitalize that water main, but I take that revenue fully into income, where before, you would -- used to match it with the

amortization of the asset.

So it'll really give you a -- a different view. So that's -- that's where the -- the timing difference will come in the capital and the way that it's treated. But it's essentially -- the City capitalizes its assets now.

MR. BOB PETERS: And if the City capitalizes its assets, Ms. Geer, does it then -- does it then charge through those capital costs more on a matching basis or less on a matching basis?

MS. MOIRA GEER: Well, that's what matching is. It'll -- it'll vary year to year. But the accounting treatment of the capital has little impact on rates, because when we do rates, we do it on a cashflow basis.

MR. BOB PETERS: And so at the end of the -- the transfer of the -- or, dealing with the deficit or surplus from the capital that you've now explained, the surplus for 2010, out of the waterworks fund, was $6.7 million?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: And that was added to the surplus that existed at the beginning of the year, to have a year-end surplus of $755 million?

MS. MOIRA GEER: That's right.

MR. BOB PETERS: And let's just turn, as we're still on this topic, to -- maybe we'll start on page 90. Page 90 has information for the Board, in terms of transfers to other funds. And I'm looking at note number 12, Madam Chair, under -- under this report.

THE CHAIRPERSON: Yeah, I see that.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: And, Ms. Geer, it appears that the City council gave instructions to waterworks to transfer certain amounts into the general revenue fund, and at a certain point in time, they've -- they've changed that instruction.

Would that be fair?

(BRIEF PAUSE)

MS. MOIRA GEER: The -- the water main renewal reserve, which was formally funded through frontage levies, is now funded through water rates.

MR. BOB PETERS: Is that the -- is that the upshot of the -- the words under note 12?

MS. MOIRA GEER: There are transfers to the water main renewal reserve that are referenced

in the -- in note 12 --
MR. BOB PETERS: Which --
MS. MOIRA GEER: -- which come from water rates.
MR. BOB PETERS: All right. This note -- does this note suggest that frontage levies were going to be phased out?

(BRIEF PAUSE)

MS. MOIRA GEER: It does not suggest that they will be phased out. The note makes reference.
MR. BOB PETERS: Can you explain to the Board -- then are -- are frontage levies still charged to this day?
MS. MOIRA GEER: Frontage levies are charged.
MR. BOB PETERS: And --
MS. MOIRA GEER: There is a frontage levy bylaw.
MR. BOB PETERS: And where does that revenue come in? Anything related to the water side of the -- the -- the funding?

(BRIEF PAUSE)

MS. MOIRA GEER: The fron -- the frontage levies are -- are -- actually show up on your property tax bill. They're not on the water or sewer bill, and they are charged, yes.
MR. BOB PETERS: Does any of those -- do any of those frontage levies show up in the waterworks accounting on page 83?
MS. MOIRA GEER: No.
MR. BOB PETERS: And they no longer -- the -- the frontage levies no longer fund the -- any -- any reserve funds related to the water system?
MS. MOIRA GEER: That's correct.
MR. BOB PETERS: Do you know what they are used to fund currently?
MS. MOIRA GEER: In accordance with the frontage levy bylaw --
MS. DENISE PAMBRUN: If I can be of some assistance. Frontage levies are used to fund specific improvements in specific areas of the City.

(BRIEF PAUSE)

MS. DENISE PAMBRUN: I'm sorry, I was wrong. They're not in specific areas of the City, but they're charged based on front foot -- or, street, and they're for specific improvements to sp -- to specific -- on specific projects.

CONTINUED BY MR. BOB PETERS:

MR. BOB PETERS: Ms. Geer, I'm approaching the end of my time on the microphone. Are those -- are any of those frontage levies used in any relation to the waterworks system is -- is what I was trying to get at.

MS. MOIRA GEER: No.

MR. BOB PETERS: Okay.

MS. MOIRA GEER: Frontage levies are not used towards the waterworks system.

MR. BOB PETERS: No longer used for that?

MS. MOIRA GEER: That's correct.

MR. BOB PETERS: And are they used in any way for the -- the wastewater system?

MS. MOIRA GEER: They are not used for the wastewater system.

MR. BOB PETERS: All right. And my last point, on page 89, if I can, before we -- we close down, Madam Chair, the accumulated surplus, we talked about there being, from the -- from the waterworks side, the accumulated surpluses have tallied up to over three-quarters (3/4) of a billion dollars, Ms. Geer?

MS. MOIRA GEER: Yes.

MR. BOB PETERS: And if we turn to page 89 of the -- Tab 2 of the book of documents, that that $755 million is divided into investments and tangible capital assets.

Can you just describe for the Board what that specifically refers to?

MS. MOIRA GEER: Well, the -- the -- the seven hundred and fifty-five (755) in -- in accumulated surplus, the value of that is primarily in the assets, in the -- in the capital assets.

And I had mentioned earlier how the City undertook capitalization of its assets a few years ago. Before we did that, that number would have been 66 million or something, along those lines, because it really reflects the value of the asset base that we operate and maintain.

MR. BOB PETERS: Are these capital assets only in the waterworks area?

MS. MOIRA GEER: We also have capital assets in the sewer operations as well.
MR. BOB PETERS: But that would be funded under the sewer rates, would it not?
MS. MOIRA GEER: That would be separate. This is --
MR. BOB PETERS: Yeah.
MS. MOIRA GEER: -- purely water assets.
MR. BOB PETERS: All right. And then the retained earnings, you're telling the Board that there's $67 million of retained earnings sitting in perhaps a more liquid form somewhere?
MS. MOIRA GEER: It could be a more liquid form, yes.
MR. BOB PETERS: But it's not in -- it's not invested in capital assets?
MS. MOIRA GEER: It's not -- it's not attributable to the asset base.
MR. BOB PETERS: All right. Thank you. And with that answer, Madam Chair, subject to any questions, I would suggest this be a time to adjourn for the day.
THE CHAIRPERSON: Yes, I agree. We've worked very hard today, and I want to thank you for cooperation. So we'll meet again tomorrow at 9:30, and thank you.

(PANEL RETIRES)

--- Upon adjourning at 4:36 p.m.
Certified correct,

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Cheryl Lavigne, Ms.