
Briefing - Council NOTES

Date: Tuesday 29 August 2023
Time: 9.15 am
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

2. LTP 2024-34, Joint development briefing

Cllr Sara Templeton, Cllr Tyrone Fields, Cllr Tim Scandrett, Cllr Jake McLellan, Cllr Pauline Cotter, Cllr Mark Peters, Cllr Celeste Donovan, Cllr Yani Johanson, Cllr Melanie Coker (9.38), Cllr Tyla Harrison-Hunt (9.45), Andrei Moore (10.07)

Online: Cllr Sam MacDonald, Cllr Tyla Harrison-Hunt (9.15-9.45), Cllr Victoria Henstock, Cllr Aaron Keown

Chair: Mayor Phil Mauger

Principal Advisor: CE

Presenter: Brent Smith, Head of Three Waters

Water Supply:

Introduction of team: Gavin Hutchison & Tim Drennan

What this Activity Delivers

Water supplies that are safe to drink, and we acknowledge they may not comply with all the new rules because as you know, we're going through the whole compliance process at the moment. Interestingly, one of the biggest risks that we've noted in the activity plan to our water supply is backflow and we have a backflow program running now providing high quality water.

So it's taste, smell and appearance.

Operating water supplies in a reliable manner so that it's available when you need it.

Operating water supplies in a responsive manner, so quick to resolve issues.

And Water supply networks and operations are sustainable.

So this is where our consumption, monitoring of consumption, leak detection, that sort of stuff comes in.

A snapshot of provision and use:

Over 1800 kilometres of mains, over 1700 kilometres of sub mains. You know that because you'll be aware of leaks and things that pop up in your areas, 235 kilometres of laterals, 15,000 fire hydrants, 144,000 metres.

So it's quite an extensive asset base here. On top of that we have the pumps, buildings, wells, well

heads, reservoirs, tanks and aside from what we're doing town here, there's the six Banks Peninsula water treatment plants.

What our community is saying

With all of that, over the range of things we measure we have 53 to 79% customer satisfaction with the various aspects of the supply.

Why we deliver this activity: Community outcomes

In terms of community outcomes, there's a number there, but the major ones are contributing to Green Liveable City, Thriving prosperous city, Collaborative confident city, All that all that comes on the back of having a resilient water supply network.

Why we deliver this activity: Strategic priorities

The major ones again:

Inclusive and equitable City so that everyone's got equitable access to a good clean water.

Balancing the needs of today's residents with the needs of the future and managing ratepayers money wisely. So just making sure that we spend wisely and invest in the right areas.

Climate Resilience Goals

In terms of climate resilience and a number of factors there, with all the planning we do it's around understanding, preparing and designing for climate change and that comes in a number of areas whether it's areas potentially subject to a sea level rise or whether it's because of higher rainfalls, higher temperatures, we take all that into account.

So, managing the available water resources and with all of that, spending in a way that reduces our greenhouse gas emissions.

How we are planning for future impacts

So in terms of climate change, quite significant there, education, things like what we've already brought in with water restrictions, excess water charges, managing the resource that we've got.

The big one for us of course is regulation and reform. So we have chlorine currently, which you're aware of, in the future, maybe fluoride, UV treatment, having to deal with the contact time and just in general the overall compliance of our systems. So they have a big part to play in what we have to do.

Infrastructure renewal. Probably about 2/3 of the program is renewals. You're aware of issues we have with our pipe infrastructure, the age of it and the ongoing collapses, water main blowouts and that type of thing.

We had a major one just the last week, and Dyers Rd on the main highway.

You know, just something that you can't predict, but that's the state of the infrastructure.

Huge benefit from technology growth. Working with our Smart Cities team to give us better monitoring with smart meters and that type of thing and that just helps us manage the network better and in turn, manage the resource.

One of the big impacts is we have a number of major projects and due dates coming up in years four and five (2027/28 and 2028/29). When you get to see the capital program, there are upgrades required for pump stations and the like.

Our levels of service

A lot of the Community levels of service that you'll get to see, we have 16 community levels of service. A lot of these DIA driven (Dept of Internal Affairs non-financial performance measures), we have to have them in the plan. So, there's no choice there.

We also have 16 management Levels of Service. Now they're mainly around customer satisfaction and the like. Now the good example of why we need to review these is and it's one thing we have to do is chlorinate our water. But we a level of service around customer satisfaction with the taste. So it's not something that we can influence, we have to do it. So why would you have a level of service? So, those are sort of levels of service we're going to review.

How assets will be managed

There's quite a lot of detail there.

There's \$3.7 billion worth of water supply assets in the district. We always aim to renew and replace at the end of the useful life. Sometimes things are brought forward to coincide with other projects, such as roading projects, so it disturbs our customers less and we're improving scheduling, we're running three year delivery programs with major contractors.

So we're looking at smarter ways of delivering these programs and less disruption. On top of that, you got the new and updated assets. So we've got infrastructure going in to support growth and also improve levels of service that are generally required to meet those compliance issues and regulatory requirements.

Capital expenditure

These tables, in slides 6 and 7 yet to be updated, they're still based on the 23/24 annual plan and that we present next week, but predominantly in terms of the significant programs we have major pipe renewal programs, drinking water compliance, which is chlorination and rolling out of the smart meters. They some of the some of the big ones here.

Financial resources

In terms of financial resources (based on the 23/24 annual plan) this will be updated next week, but that gives you a bit of an indication there's to the levels of operational investment.

Negative impacts

Going through to negative impacts, I think some of the some of the big ones, and you'll hear this from the ratepayers anyway - that's the costs associated with fluoridation, UV treatment, contact time, new pump stations. If we don't save water, we're going to have to build new pump stations. So, there's a bit negative there in terms of delivering a program and of course rate payer dissatisfaction with chlorination.

As the network gets bigger you will increasingly get the cost of operating the required systems will grow, so that's one of the risks of some of the stuff going and UV treatment plants aren't cheap to run.

Currently, with things like fluoridation, we haven't been instructed to do so, so they've been pushed out past the 10 years anyways.

So that's a real quick snapshot because you've had previous briefings on water supply. Happy to take questions.

Open for questions:

Cllr Sam MacDonald: I just wondered when you talked about the contractors, I'm kind of thinking about the way they've been talking around the lack of resource, I guess in the market to deliver the work. Do we have a view on whether we're just using top tier or actually whether we are getting

them to sub out a lot of it too, to that sort of lower ranked resource in terms of actually getting work done and it being delivered?

Answer: Yeah, currently we have a panel of contractors. There's a lot of capacity in the market and has been for some time, particularly in the pipe lane. So that's the spread of our Tier One's and Tier 2 and Tier Threes that we give work to. We're looking to do more long term contracts so we can give more guarantee of work to contractors so they can resource that, because that's part of the issue of resourcing. So when the market picks up, we'll give them a guarantee of work, they'll resource. There's probably more challenges in the electrical instrumentation space. We have a large renewals program going forward. There's one area we're looking at to try and improve delivery. And again that's working with the suppliers to give them guaranteed work that they can resource up to deliver our program.

...

Tier one contractors do use subcontractors anyway, but it's the assurity we get from engaging with them and the system they have in place pay off in the long term.

CE Dawn Baxendale: We did the panel work this year at the beginning of the year, if my memory serves me correct in terms of strengthening the panel approach.

Cllr Sam Macdonald: I guess it was just making sure that we're not sort of tying ourselves up and knots when we've got people in the market that could deliver what we're not delivering in our capital program.

Cllr Sam MacDonald: In terms of that at the moment, the 10 year budget for Three Waters, I just wondered again how that compares to the new regular regulatory environment and in terms of, I guess again, I'm just compare it to commentary, but this massive additional investment that will need to be into infrastructure. So are we comfortable that that number is in fact what we should be delivering or is that sort of would that be worked through in the coming weeks?

Answer: We are still working through it, but in general, we have in the forward 10 year program, we have the upgrading of chlorination systems. I mentioned briefly that until we are instructed to fluoridate, that's pushed out past the 10 years anyway.

The other, we're still doing the testing on the Class 1 water, but from that point onwards there will be a program put in place, for example, for the UV systems, but it's looking like it will be a 15 to 20 year program to be affordable because it is a significant investment and we'll have to have discussions with the regulator as to the appropriateness of that.

Cllr Yani Johanson: Is it possible to get an updated integrated water strategy? Can we get the implementation plan and an understanding of what's being done, what hasn't been done and what the changes are for the LTP?

Answer: I don't see why not.

Cllr Yani Johanson: Because I guess when I looked through the document, the one thing I don't see is a reference to that strategy. So we've adopted the strategy and a governance level, but it's really hard to know what's been done, what hasn't been done and what resources we might need. So the classic one is like, the rain water and grey water. I see it's listed as one of the climate change mitigations, to reduce emissions, but I don't have any sense of what budgets required if we're going to do that.

Answer: Well, we'll take that offline, but we'll see if we can get through a current copy of that...

Cllr Yani Johanson: There's quite a good implementation plan that staff presented three years ago to council.

Answer: We'll circulate it.

Action / Question

Cllr Yani Johanson: I mean 100 million for chlorination, did I see somewhere it is \$95 million?

Answer: It's hard to know because every pump station's different.....

Cllr Yani Johanson: So are we gonna ask the Community questions about that, around whether we should spend the money over what timeframe?

Answer: It'll be in the LTP and it'll be spread through the LTP so everyone's welcome to make comment on that.

CE Dawn Baxendale: Remembering that we're specifically in the regulatory framework. So I don't want us to be misleading to the public.

Cllr Yani Johanson: What's the time frame that we have to be compliant by in terms of spending all that money?

Answer: Yeah, we need to have that conversation with the regulator and work through that. Yeah, but indications suggested as 15-20 years in some cases.

Cllr Yani Johanson: So why? Why are we rushing on other things?

Answer: We already had the temporary chlorination systems in place, so we were able to comply with that component straight away. This is the upgrade to the permanent systems which gives you a better control and continuous monitoring over the dosing and that can be controlled remotely. So this is the upgrade to the permanent system, these things are already past the use by date. We complied with what we could at the time.

Cllr Yani Johanson: So is it fair to say that governments put a \$100 million cost on us plus more.

Answer: The regulations require us to meet certain standards, and that's right throughout the country. So there's a number of ways you can do it. Chlorination, through previous briefings we've given you showing you the advantages and disadvantages and relative costs.

Cllr Kelly Barber: It's really staggering looking at the snapshot of what you guys provide and that there are so few issues with it. You know, it's an extraordinary, really when you look at 1800 kilometres of water supply mains etcetera. And I guess that a lot of that sort of stuff has been renewed since the earthquakes. And I'm really interested in your problems around surface flooding in and how difficult that is for you guys to plan for and to deal with, because that would seem to be a really sort of difficult part of your job.

Answer: So we'll do surface flooding when we get to the stormwater activity plan, which is later on. I think we can address that.

Cllr Sara Templeton: Couple of things, with the negative impacts on wellbeing thing in the environmental, we've got salt water intrusion in the coastal regions and effects of water abstraction. Is there any thought about including the potential for the nitrate incursion? So we've had some ratings now in the north west wards of increasing nitrates. And I'm just wondering whether that would mean at some stage shifting some of those as well and whether we should be starting to account for that?

Answer: I think some of it will have already been planned for what just what the depth of wells that we are using currently. So the salt water intrusion side of things is typically the shallower bores close to the coast.

Cllr Sara Templeton: I was just thinking it should be sort of listed in our significant negative stuff as an issue.

Action

Cllr Sara Templeton: When we look at the potential changes to the levels of service, just in the agenda rather on the slides, and there's one where a number of continuity of supply complaints per thousand properties. ... It wasn't clear if we were looking at deleting this or just changing it, or is it going to look at complaints or actual continuity issues?

Answer: There's another piece of work to put all those together. I've been discussing it with Peter's group as to how we package up those. There's more changes proposed and what's appropriate, so we'll bring those back.

Cllr Sara Templeton: And then there's the percentage of real water loss and those kind of things.

Action

Mayor Phil Mauger: With your panels, so you've got 3 tier ones or whatever they are, when you put out something to the those three, to price, it is just on price? You don't do weighting on them? Because the way I look at it, they walked over broken glass with their health and safety work and all that stuff that and sustainability to be the three anointed ones that gets on the table. I know that some of the transport ones they go back and weight them, but I feel that if the three contractors - if there's three - have done all this work and jump through all these hoops, it should come down to just the price, because they've already walked on broken glass to get to the top of the three. Did you do weighting on your process?

Answer: Typically it is our price only, but there are projects we also add methodology into that as a weighting. So yeah, we have obviously review them as a company and their people that are, if there's a particular project that we think is complex, the methodology is an important factor, we will consider.

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Wastewater collection, treatment and disposal

What this Activity Delivers

Operating wastewater services in a reliable manner.

Council has a high wastewater discharge quality

Council operates wastewater services in a responsive manner.

Public health is protected, and

Council wastewater networks and operations are sustainable

A lot of the work that we do or a significant amount that we do is a compliance related.

An example of that will be: There's a large pump station in Somerfield on the books for - and that's required as part of our program - reducing overflows the into the rivers. So that type of thing is in the wastewater. The rest of it, the bulk of the program is around running and maintaining our networks.

Snapshot of provision and use

What we have here in terms of a snapshot of our assets is a very similar sort of thing.

1600 kilometres of mains, 300 kilometres of pressure mains, 64 kilometres of vacuum mains, 1000 kilometres of laterals. Over 9000 local pressure sewer system tanks post earthquake. 4353 vacuum sewer system chambers, 150 pump stations to run; 84 lift stations to run, 3 vacuum stations, 248 pump station control systems. We've got 5 wastewater treatment plants. So it's not just the one at Bromley. We've got the ones on the Peninsula and outfall pump station, 3 ocean outfalls and two land irrigation schemes, so again it's a massive, massive asset.

What our community is saying

With all of that, our community overall are saying they're 59% satisfied with what we're doing, so that's not bad in terms of average across the city.

Why we deliver this activity – Community Outcomes

Again contributing to major community outcomes of a Green Liveable City, Thriving Prosperous

City and a Collaborative Confident City all on the back of having a good, sustainable wastewater network.

Strategic priorities.

And this is again around being inclusive and equitable. Reducing emissions, that's a major one for us to focus on at the wastewater treatment plant and Managing ratepayers money wisely, so spending the money at the right time at the right place.

Climate resilience goals

Climate resilience and I'll put this on all of them, understanding, preparing and designing for climate change. We do that part and parcel of what we do for all of our projects.

The major one in a lot of the program, out of the waste water treatment one, the end game is investigating ways to reduce or utilise the greenhouse gases. Another one at the wastewater treatment plant is the significant energy consumption and looking at options to reduce that. It's one of the one of the largest industrial plants in Christchurch. It has a major impact on our carbon footprint and that's taken into account and everything we do there.

How we are planning for future impacts

Climate change. Major assets at risk, that's from sea level rise and we have some quite low lying areas. We have increased infiltration and especially with the some of the mains networks are being very coastal and increased odours. Now that's until we get the permanent solutions back at wastewater treatment plant. We do run the risks of seasonal change when it goes from winter mode to summer mode and before the algae start growing. So that's continuing risk there.

And again, regulation and reform, making sure that we're complying. Potential future changes and compliance rules in the future. You don't know. It's just something that's part of what we deal with. Infrastructure renewal, aging pipe infrastructure. We have collapsed mains. We had a collapsed main on Anzac Drive. Our brick barrels are over 140 years old then and if they made stuff these days like they did back then would be in good shape. But it's a big risk.

Technology growth is area that we will win. One of the future impacts just being able to monitor, operate our systems and bringing a new technology at the plants.

Major projects and due dates for compliance and consents. Again, bottlenecking around years four and five. We've got plant upgrades at the treatment plant at Bromley. We have the Akaroa and Duvachelle schemes and we also have, I mentioned before, the Somerfield pump station, which is that's all to do with reducing our wastewater overflows. Some things we can push out, some things we're determined by where our consents run out as well.

Our Levels of service

We have 11 community level of service. Again, a lot of DIA driven here, but 17 management levels of service, so many of these again are around customer satisfaction. And some of them, for example around different response times to what we send our contractors out to, and we'll just need to have to review those and see that they're relevant and meaningful in terms of the delivery of what we're doing here.

How assets will be managed to deliver the services

So again, another \$5.6 billion in assets. Which we went through a wee bit earlier. Renewals again, we replace them at the end of their useful life, sometimes again with in conjunction with other repairs of roading renewals... Managing to do a bit more through the improved scheduling and three year delivery programs and working with those major contractors again.

Same as for water supply, new and updated assets for growth and improved levels of service, generally compliance growth and regulatory requirements drive those.

Capital expenditure and key capital projects

Again, these are the updated for the annual plan projections. So the capital programme represented again next week, but the major ones here again, pipe renewals, the trickling filter replacement Akaroa reclaimed water treatment scheme, the Christchurch wastewater treatment plant renewal program, Somerfield pump station and another one on the grass near facility which is supporting some development in that area.

Financial resources needed

Resourcing again that will be updated. That's based on the 2023/24 annual plan projections.

Possible significant negative impacts on wellbeing

And then the possible significant impact again. And if we don't do things like sorting out the wastewater overflows, that's massive impact on the environment. We will continue to get ratepayer dissatisfaction with odours if we don't do the upgrades at the right times. We have a program in there for controlling midges which part of that is the planting work that's going on around the palms at that Bromley. And just the cost of operating treatment plants, that's not going to go away as we have a growing population; we can't we can't turn off treatment plants and we can't restrict it, like we could for example with water supply. And yeah, just managing those overflows, that's probably one of the biggest environmental risks and making sure we comply with our current consents.

...

Open for questions

Cllr Yani Johanson: So I think in previous LTP's we've had sort of submitters asked to do more to reduce the wet weather, both the overflows through the 9?) waste water overflows and the environmental impacts. Under this LTP are we likely to see an improvement in urban water quality based on these activities or is it gonna stay the same or is it gonna get worse?

Answer: Every time we implement a project and part of the overall program, the water quality will improve.

Cllr Yani Johanson: So in the past, I think we've had a gap of about \$25 million to stop the network from going backwards. Is that gap being plugged now and are we getting ahead of it?

Answer: Well, you see that when the capital programs presented. But as an example, that one pump station there which is Somerfield which is linked to overflows as well. About \$30 million on its own. And that will save a significant amount of risk.

Cllr Yani Johanson: So how are we measuring the improvement to water quality?

Answer: I'll have to check but we are measured by the number of overflows (frequency of overflows and volume of it. So they are monitored.

Cllr Yani Johanson: I'll just quite keen to get a little bit more understanding about that, given that that has been more like key issues in the past.

Question

Cllr Yani Johanson: I just wanted to commend you for acknowledging in the one of the introductions they impact of the earthquake repairs, which you know, basically I think we also do the same for the water supply where the government changed the standards and changed the budget so that we wouldn't get a lot of the stuff fixed that we thought or strengthened or renewed to a level that we thought would be adequate. And I do wonder whether it's useful to show over time what's happened. You know, pre earthquake post earthquake and we were at.

Action – provide advice

Cllr Yani Johanson: The only other one other thing I was kind of like quite keen to understand was and I don't know if this is something that you can discuss now, but it seems to me that there will be a big question about the future of the waste water treatment plant. And I'm just wondering how we engage the community over what the options are through this process. We were supposed to have some high level kind of concepts by November last year, but we still don't seem to have any sense of what the options are and I appreciate that we're in insurance negotiations. But yeah, I just wanted to understand through this process how we're gonna engage the community through the funding that's required and not often what the options are for the treatment.

....

Answer: So just to clarify in terms of the future of the wastewater treatment plant, you're talking about the upgrade program and the renewal of the trickling filters, that sort of thing?

Cllr Yani Johanson: I presume there's an opportunity to look, but as I understood it, we had a consultant looking or we had someone looking at various options looking to the future, post the fire at what could be done. I appreciate there are two workstreams as insurance negotiations, respect that's confidential and very technical and very legal. But then the other piece of work as I understood it was, there was being a look at in terms of our plan by November last year, we're gonna have the kind of high level kind of understanding about what future options may be.

Answer: I think that would be a separate briefing

Action

Cllr Yani Johanson: But is it going to be in the LTP, a discussion with our community over the choices that we had?

CE Dawn Baxendale: Until we know the outcome of the insurance situation, it isn't possible to answer that question so directly until that's completed. And once we've completed, you've been able to brief you the elected Members, then you'll have the answer to that.

Answer: What we have allowed for in the draft LTP, you will see chunks of money for the various things that are programmed to be renewed at the plant.

Mayor Phil Mauger: With a good day with a tail wind, will we never put another vacuum sewer system in? Because I think it's the biggest disaster since Dunkirk. If you hit it all over again, would you use it again?

Answer: No

Mayor Phil Mauger: Excellent. Overflows at Somerfield... It only overflows when we get a lot of rain and that stormwater ingress into the system, isn't it? So when you say you're gonna do a new pumping station at Somerfield, that will handle the storm water that's coming in to stop it overflowing it as it is, it just too small and it has to overflow into the rivers, is that your issue?

Answer: If you were wanting a bit of an overview of the whole overflow situation, we could arrange a separate briefing on that if you like. Then you get a bit of a picture as to what the issue is, what the quantum of the overflow in and where the hotspots are.

Mayor Phil Mauger: and how much rain you need to have that problem to occur. So OK, that's great.

Action

Cllr Sara Templeton: When we look at the overflows, we tend to think about the overflows that happen during storm events and impact our rivers, those kind of things. What do we call the ongoing issues that are affecting Whakaraupō at the moment? And that interrupted swimming and those kind of things last season? Is it part of the overflow work or is that just general breakages and old infrastructure that are causing those and we just have within the plan?

Answer: I think that's a bigger issue than just our network. So there's a whole bunch of things that

are contributing to the bacteria getting into the system, but it will have a part. We have a part to play with our renewals over there and investigations into our system. But equally it will be private property, septic tanks, freedom campers all that sort of thing that are playing a part.

Cllr Sara Templeton: But that work is captured

Answer: But separate to the overflow.

Cllr Sara Templeton: Separate to overflow but captured within the waste water sort of space?

Answer: It is separate and we are working through what that looks like. Its within our operations area.

Cllr Sara Templeton: And I guess the question is, do we have planned adequate funding for those kind of things? When we look at the level of service and you know, we got proportion of residents satisfied with reliability and responsiveness of wastewater services, those kind of things. A lot of these are also targets that has been exceeded in recent years and but should be achievable with appropriate funding. And that wording appears quite a lot. So making sure that we've got the right advice to make sure that we put enough funding on to achieve the levels of service is gonna be crucial.

Answer: So the fix isn't the expensive part, it's just it's a time thing and tracking them down.

Cllr Sara Templeton: So I'm thinking more broadly for the stuff as well. So with all of our wastewater for the stuff and meeting our levels of service. Just making sure of that and you've mentioned in the risks section and the risks about on page 112 in the agenda, looking at making sure, the assets management policy advice and performance section of the risk is really, really clear. And making sure that we get that really clear asset management information, so we can put on enough budget to each of those things.

Answer: There's a number of things that we do and need to do in terms of that whole asset management area included in which is more videoing of lines and that sort of thing. And Gavin and I've been in discussions about what we can do within existing budgets to increase that forward view so that we invest in the right areas. So it's not necessarily always a matter of extra resource. It's a matter of just making sure where we are spending it as right and how we spend it. For example with, CCTV work on our lines which helped track down some of these leaks. If that's leading directly to a repair, then we just need to make sure we capitalize that work rather than have it hit on the Opex budget, that type of thing. So it's really just analysing the problems and where we can work within existing budgets to hit that.

Cllr Sara Templeton: Having the right budget in the right place.... That risk space, I think it's really important and making sure that we're getting all of that.

Cllr Tim Scandrett: Just on the Somerfield pump station because we've got a huge amount of infill happening there and it's ongoing and that's just one of the suburbs that's happening on the golden development ring. With the streets also like done in Leech and others that still have kind of earthquake damage, is that all going to be included if we have a briefing? Because there's a number of things and factors that cause flooding and there's not just one thing.

Answer: Do you want talk about this in the stormwater area? When storm water comes up, but certainly we can, if there particular suburbs we can have a look at that for you at the time.

Cllr Tim Scandrett: So it's been much wastewater overflow with regards to those areas.

Answer: I don't know. But if we get a briefing, we'll give you a better picture. As mentioned earlier, they monitor frequency and quantity, so that will give you an idea of those hot spots.

Action – with previous action above

Cllr Pauline Cotter: So can we also have a bit of an overview on how that Bells Creek filter is working because we haven't heard much about that and what the operational costs is as well when we do the briefing.

Action – with previous actions above

Mayor Phil Mauger: Down at the wastewater treatment plant, is it mainly CO2 that squirts out into the air?

Answer: I'm not a chemist... methane, nitrous oxide.

...

Mayor Phil Mauger: What I'm getting at, is there's an opportunity, I think, because it was only earlier this year that the only person that makes CO2 in this country, their plant, broke down... Have we got a reliable source of CO2 that we are flowing out that we can somehow capture and make our own CO2 to sell it?

Answer: No, not to my knowledge.

Stormwater Drainage

So this is where we have made some changes, but I'll just stress that we haven't lost anything. What we've tried to do with stormwater drainage and flood protection works is to make a much clearer definition between the two because, as part of the water reforms, stormwater drainage was to go with new entity and flood protection was to stay. Now there's been a bit more work since then around the definition of flood protection and what happens in urban areas. So what you'll see in the stormwater drainage activity plan now is some of the things that used to sit in flood protection that doesn't mean that the we don't respond to floods because we always have that as part of our stormwater drainage system anyway. It's an integrated system. If we build a base and it's not just for storage, it's also for treatment. That type of thing. So just to start off, that's what's happened and if you've seen that change that, that's what's behind it.

What this activity delivers

So stormwater drainage,

We maintain waterway channels and margins especially to approve environmental health.

We manage the network to minimise the risk of flooding, damage and disruption

Manage the stormwater network in a responsible and sustainable manner. Again environmental standards.

Responding to flood events, faults and blockages promptly and effectively. So that's within the storm water system.

Implementing floodplain management programs to minimise the risk of flooding on or above residential flooring levels citywide. So I'll just stress that; it'll come up a couple of times. The level of service is to minimize the risk of flooding on or above residential floor levels, not just on people's properties.

Waterways are clean and pollution is minimized. So that's why you'll see there's a lot of treatment and a lot of our concepts are based around that, reducing producing pollution, getting into our water ways.

A snapshot of provision and use

Again, a snapshot of what we've got. There over 1000 kilometres of pipe work. Again, some of them are over 140 years old. We have some amazing brick barrels out there.

Pump stations and mix of brick, concrete, timber UPVC and natural linings includes the first network of multi value treatment, swales, basins and wetlands.

Nearly two and a half 1000 kilometres of natural waterways and a whole raft of hydrometric monitoring equipment to measure rainfall, surface water, sea and ground water levels.

What our community is saying

Overall, across our satisfaction surveys, 43% satisfaction with the level that we're providing.

Why we deliver this activity

Why do we do it? Again, a green liveable city is a significant one.

A thriving, prosperous city again on the back of having resilient systems so that people can get about their lives.

Strategic priorities

Being inclusive and equitable. Again, making sure everyone have the same levels of service.

Reducing emissions as a Council and the city, and actively balancing the needs of today's residents with the needs of the future.

So that's part of that forward planning.

With the reduction of emissions, we use natural systems.

Sorry, I've been here a long time... But in 1999, we adopted a natural asset management strategy for our waterways. That's what we're still use and some of the other cities are just coming on board now.

So there we go. We knew what we were doing.

Adaptation and resilience, protecting biodiversity, water bodies, tree canopies. All important.

Climate Resilience

Again, understanding, preparing and designing for climate change. And this comes through with yeah, increased rainfalls, that type of thing, making sure we've modelled for it.

Reducing pollutant loads through source treatment and catchment management. You will see the treatment basins and devices going in and prioritising nature based solutions.

How we are planning for future impacts

With climate change, looking at assets that are at risk, looking at increased rainfall, again, regulation and reform, changes to consents and compliance rules.

Infrastructure renewal, aging pipe infrastructure again, we do get collapsed mains with stormwater as well.

Technology growth is helping in terms of our monitoring. Population demographics, housing density changes are all gonna have an impact on runoff, impervious nature of the developments.

Developing the Avon River corridor, looking at treatment options and stop banks and what sort of program we can put in place to achieve that.

And of course, supporting growth, although we do get development contributions back on the significant amounts there.

Our levels of service

We have 11 community ones and 13 management.

A again, we'll be looking at reviewing some of those just to make sure they're meaningful and assist us in carrying out our work.

How assets will be managed to deliver the services

How do we manage our assets? This looks like the poor cousin and he \$2.9 billion worth of assets in this one. A lot of renewals replacing it, the end of useful life, that's the advantage of some of the natural systems is that's its less intrusive and better for the environment when we're regrading banks and things.

Improving scheduling. Working with our natural asset management strategy and our other plans that will we have in place and again new and updated assets for growth and levels of service still generally required to meet compliance and regulatory requirements and still want management plans that type of thing.

Capital expenditure and key capital projects

Again, the tables will be updated, but there are some major projects coming up that. Significant pipe renewals. The Avon River corridor, waterway lining renewals, some large basin complexes planned for Horners and Cruises(?) drains area... Filtration devices going at the ends of the Addington brought in Riccarton stream just at the head of where tips into Hagley Park. And those two devices alone treat over 600 hectares of catchment, so that's why we're looking at different ways of achieving the same treatment outcomes.

Financial resources needed

And again, these tables will be updated. Those are the 23/24 annual plan projections.

Potential significant negative impacts

Potentially, there's still community dissatisfaction with the other flooding, I'll call it nuisance flooding, but it's the other flooding of properties, but not a not above dwelling level.

Compliance with consents. We are having some issues in gaining some of those consents to carry out our work, but we still need to do so and work in with the various regulators.

Climate change and sea level rise will have a major impact and directly in terms of the amount of rainfall but also flood levels.

Urban infill, it does create additional runoff, more impervious surface. So that's why it's all the more important to get our modelling and planning done.

The cost of operating the stormwater network as it things get tighter, it's gonna get more difficult. And the Urban Development that just increased their contaminant load, we have with starting to make some headway on that, in terms of the monitoring which you'll see in the quarterly report coming next week, which talks about some of the things that we're doing there.

There is a risk of deferrals in some of these areas. So we just need to manage the funding and make best use of it, making sure that we, for example in and erosion and sediment control, making sure those planting programs carry on in the right places so that we can minimise discharge into our streams and rivers.

So there's a snapshot of storm water. If there's any questions here.

Open for questions

Cllr Tyrone Fields: Across the winter it's been so wet, the hill suburbs, Lyttelton, Duvauchelle, Corsair Bay, are experiencing like quite a lot of sort of surface flooding, across roads and all that sort of stuff like the stormwater network doesn't seem capable of being able to deal with the amount of water that was coming down. A lot of the time in my observation that's down to clogged gutters and sort of drains. So I guess the first question is like is there anything different or different approach we're taking just on that sort of regular day-to-day maintenance across the network, you know going forward that's part one, that's question one.

Answer: So I'll just be very careful here. I don't wanna throw any colleagues under the bus, but there's a differentiation between the roading related storm water and the stormwater mains and the frequency of clearing out those catch bits or sumps and that type of thing. It's probably a combination of both in terms of intensity of rainfall and quantity, and what you've described. So I'd have to have a chat to Lynette and see if there's any information we can bring back.

Question

Cllr Tyrone Fields: That's good because like, I guess my second question was and it's becoming apparent to me that, like how we manage our stormwater and what it's doing to the roads are an inextricably linked, particularly in certain parts on Banks Peninsula.

Answer: In fact we had a meeting yesterday. One of the things we have to do in preparation for the

reforms is being very clear on what assets belong with which entity, because some will go with the new entity, some will stay with Council, and making sure that nothing falls through the gaps in terms of nobody's looking after it anymore. So that's a piece of work we're doing at the moment. ... The first part is who does what. The second part is service level agreements between the two organizations to make sure that things don't fall through the gaps. But yeah, dealing with the that increase in intensity and quantity is going to be something we have to continually work on.

Mayor Phil Mauger: Last week, when I was at the Canterbury Mayoral forum, it was made very clear to me that there's going to be no stormwater basin consent given for the next 12 months. So the \$100 million that you've got up your sleeve for doing, I know it's gonna be held up by stormwater basins.

Can you say redirect that towards - say Somerfield St, so you've already been given \$100 million that you don't have to spend this year, you'll find places to spend it on, on and on saying Somerfield Street.

Answer: I mentioned briefly about the filtration devices that we're putting into Addington Brook and Riccarton stream instead. They do the same job. They are new technology and they've got a special medium in them with the bark bed and planting or what have you.

So instead of what we're looking at is, are they appropriate for the likes of the Waitaki basin where we will no longer need to dig out as much contaminated soil.. we'll be able to build these things and achieve the same treatment. So we'll be using that money to do that type of work.

Cllr Kelly Barber: Back to my question. I'm really interested in surface flooding in how much you know of your time that takes and whether we have the resources because I guess every time it rains we have a significant surface water collecting and in different places. You must be in a situation where you sort of have to prioritize these in and work through them. I mean, do you feel like you've got enough resource, enough staff to deal with those issues if they come up.

Answer: We've had some staff give a previous presentation accounts on that very issue of flooding on roads. I'll use the word again - often it is nuisance flooding, and it is a damn nuisance, but it's not getting into dwellings. So our priority is always our levels of service where we're stopping water getting into, over and above floor levels. But we have committed this year to investigate some solutions for a couple of the areas that were raised during the annual plan and maybe that some not temporary but more cost effective solutions can be put in place just to take the top off some of these things. But it does take a bit of time, but that's what we're here for. Just keeping the network going.

CE Dawn Baxendale: Is it also worth that this whole challenge around expectations of what we can actually achieve versus the reality of significant rain events, and how we manage through that as well I think there's important. So we're very clear about what we can do, and what we're not able to do.

And I think we need to do some more thinking around that.

Answer: When we get significant events, they don't always hit the city in the same place, but we know the pinch points. We know the hot spots and our contractors are very good. They mobilise, we get out there and preparation, making sure grates are cleared, making sure pumps are in place, that type of thing.

Well, I mean, from a resourcing perspective, I think between 3 waters and transport and all our contractors, we've got enough resourcing on the day to deal with the majority of stuff that we've seen over the last few years. And the number of situations, there's nothing we can actually do until the rain stops and the water drains away. So I'm comfortable at this stage.

Cllr Kelly Barber: Yeah, there's I have noticed that they communication has been really good. Obviously, I'm thinking about ... Newport Street, but yeah, the more we communicate with you know that we're doing our best, I think the better people understand.

Mayor Phil Mauger: OK. We've got three more questions. But you're actually finished and just looking at questions now or?

Answer: The only other one is flood protection. But it's very small (activity) now. It really just deals with stop banking that protects from tidal flooding as opposed to stormwater, rain water. So you've really only got a very similar things to stormwater because they're intrinsically linked. So it's mainly the lower Avon stop banks and the Woolston barrage that are covered by that activity. Other than that, everything else has dealt with under the Stormwater activity.

Meeting concludes and additional questions are asked to be put through the online tool.

Yani asked question around two projects and whether they were in the programme or need specific looking?

Flooding: need to improve Charleston drain?

Areas – visibility

Answer: Send through – these will be responded to specifically