

Advice to Porirua City Council (PCC) Regarding Three Waters Services Capital Expenditure (CAPEX) Delivery Plan for the Financial Years 2022/23 and 2023/24 (Y2&3 CDP)

TO Andrew Dalziel, General Manager Infrastructure, PCC

COPIED TO Porirua City Council: Graeme Grieve, David Down, Jo Devine
Wellington Water: Ian Dennis, Tonia Haskell, Julie Alexander, Oggie Kralj, Gary Cullen

FROM Susannah Cullen, Manager Programme Practice

DATE 4 July 2022

Action sought

	Action sought	Deadline
Andrew Dalziel General Manager Infrastructure, PCC	Approve the recommendations in this paper.	8 July 2022

Contact for telephone discussion (if required)

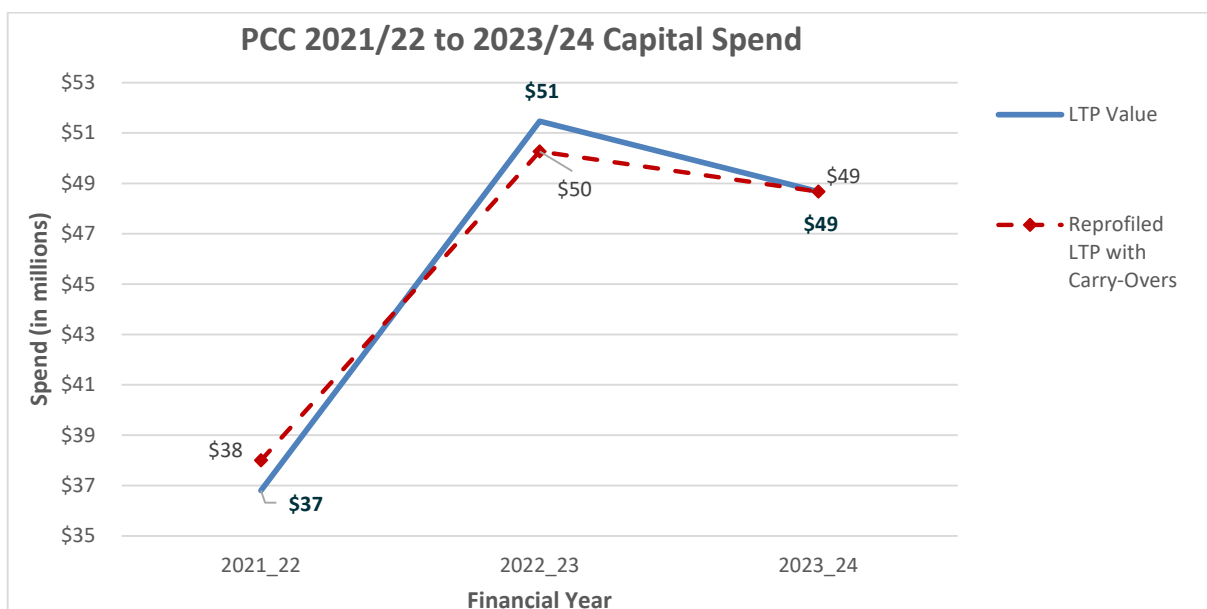
Name	Position	1st Contact	
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Purpose of this advice

1. This paper provides a high-level summary of the draft capital delivery plan (CDP) Wellington Water plans to deliver in Year 2 of the LTP (FY22/23).
2. An indicative plan for delivery in Year 3 (FY23/24) is included for information, noting this will be further refined throughout Year 2.
3. Where significant risks or opportunities have been identified, these are outlined in the following.

Summary

4. The requested budget is **\$50.3M** for Year 2 and **\$48.7M** for Year 3.
5. For Year 2, this equates to the approved (inflated) LTP value of \$51.5M (excluding Bothamley Park and Porirua High Level #2), and minus \$1.2M to account for overspend in Year 1.
6. For Year 3, this equates to the approved (inflated) LTP value of \$48.7M.
A more detailed summary of the Year 2 and 3 budgets is presented at Appendix A.
7. The total value of the project works proposed is \$57.8M for Year 2 and is estimated at \$89.7M for Year 3 (see Appendix C).
8. The plan for delivery in Year 3 will be further developed throughout Year 2.
9. The project value for FY2022/23 comprises **115%** of the proposed budget. This over-programming against the LTP budget has been purposefully introduced to mitigate delivery risks and optimism bias in delivery capacity.
10. Progress against the budget spend will be reported throughout FY22/23 via the established monthly finance and programme meetings.
11. Works to begin delivery of the Very High Criticality Assets (VHCA) programme have been introduced to Year 2 plan and will continue to be developed throughout FY22/23.
12. There remains a risk across the region relating to escalating costs and availability of resources (materials and personnel).



Introduction

13. Wellington Water has been working to improve the effectiveness of what we are delivering, what we mean by this is having a focus on delivering the right assets at the right time; whether that be a renewal, level of service increase or to support growth, although our current emphasis is on renewals. We are also working to improve the efficiency of our programme delivery and beginning to bring in projects from the VHCA assessment programme will contribute to improving our effectiveness.

PCC Capex

14. The LTP investment is **\$50.3M** and **\$48.7M** for Year 2 (FY22/23) and Year 3 (FY23/24) respectively. These are the inflated values and exclude allocations for Bothamley Park and Porirua High Level #2).
15. The allocation between water types and LGA Classification is shown at Appendix B.
16. We have proposed a Year 2 programme comprising 120 projects with a total value of \$57.8M (see Appendix C). The proposals comprise:
 - 8 Major Projects = \$17.6M
 - 30 other capital projects = \$27.5M
 - 3 land development contributions = \$0.78M
 - 5 consent projects = \$0.86M
 - Projects self-delivered by operations (minor works and reactive) = \$11.1M
17. There is potential of a shortfall in projects identified for the PCC catchment into Year 3. We have therefore sought to introduce a higher proportion of low complexity renewals into the Year 2 programme for development to enable a quick delivery turn-around and thus ensure that we are set up well to deliver a high volume of work in Year 3. The large number of smaller projects does however introduce resourcing risk.
18. At this stage, due to the risk of the programme underdelivering across the three-year programme, Wellington Water is not requesting additional budget for the Paremata Wastewater Pipeline Renewal Emergency Project; we will re-evaluate this assessment following development of the Year 3 programme which will be shared at the beginning of Q4 FY22/23.

Risks & Opportunities

19. **Delivery of Proposed Y2&3 CDP** - historically, Wellington Water has underspent capital against council budgets. We have worked to mitigate this risk by over-programming against the LTP across the three years.
20. **Delivery of the VHCA Programme** – initial works to identify the VHCA programme of works is underway, and an allowance has been made for the scoping of the projects in Year 2, but the full scale of the works required is not yet fully understood. Additional funding will be required in future years to complete these works.
21. **Resource and Supply Chain Constraints** – there is currently an industry wide constraint in availability of resources (both materials and personnel) which may impact the delivery of projects. To mitigate the likelihood and impact of this risk, we have worked with Consultant and Contractors to apply a deliverability lens across the projects proposed i.e., to only propose projects that we are confident we can deliver within the current known constraints.

22. **COVID Pandemic** - We continue to face impacts of the global COVID pandemic. We expect to continue to see challenges with global supply chains, freight and transportation and associated price increases which will impact delivery of the programme.
23. **Large Number of Smaller Projects** - there is a risk that the inefficiencies of delivering large volumes of small projects reduces productivity of resources available, potentially compounding the risks highlighted with resource constraints.

Next steps

24. Once the Year 2&3 CDP is agreed with PCC, we will communicate the plan with Wellington Water Groups, the Consultant Panel and Contractor Panel, and commence delivery.
25. Delivery against the agreed budget will be monitored throughout Year 2 and progress updates communicated to the council established monthly finance and programme meetings.
26. We will adjust the proposed Year 3 plan through Year 2 (based on Year 2 delivery) and submit the final Year 3 capital delivery plan at the start of Q4 FY22/23.

Recommended action

26. We recommend that you:
 - a) **note** that the value of the proposed projects exceeds the councils LTP budget; this is purposeful to help mitigate delivery of risk of underspending against the council budgets.
 - b) **consider** the risks and issues identified above.
 - c) **note** the proposal to work with PCC to continue to optimise the Year 3 programme during Year 2.

Appendix A – Budget Breakdown

Financial Year	Sustained Uplift (\$M)			LTP Value (\$M)	Carry Over (\$M)	Reallocated Carry Over (\$M)	Reprofiled LTP (inc. Carry-Overs) (\$M)	Planned Project Forecast (\$M)	Project Forecast vs Reprofiled LTP
	Lower	Mid-Point	Upper						
Year 1 (FY21/22)	22.0	25.0	28.0	36.8	-1.2	0	38.0	38.0	100%
Year 2 (FY22/23)	46.0	52.5	59.0	51.5	0	-1.2	50.3	57.8	115%
Year 3 (FY23/24)	69.0	79.5	90.0	48.7	0	0	48.7	89.7	184%
TOTAL	137	157	177	137.0	-1.2	-1.2	137.0	185.5	135%

Appendix B – Spend by Water Type and LGA Classification

Water Type	LGA Classification	LTP Year 2 (\$)	Proposed Projects Year 2 (\$)	LTP Year 3 (\$)	Proposed Projects Year 3 (\$)
Water	Growth	15,439,830	254,000	6,333,541	1,900,000
Water	Level of Service	1,251,982	2,561,000	987,015	10,335,000
Water	Renewal	1,850,015	12,104,000	3,942,441	16,607,000
Stormwater	Growth	-	-	-	-
Stormwater	Level of Service	10,826,106	5,671,000	12,008,400	17,906,000
Stormwater	Renewal	169,446	800,000	173,852	800,000
Wastewater	Growth	-	770,000	-	770,000
Wastewater	Level of Service	69,812	6,119,000	1,775,260	3,302,000
Wastewater	Renewal	4,263,834	7,963,000	2,054,004	14,024,000
Wastewater JV	Growth	-	-	-	-
Wastewater JV	Level of Service	15,678,029	15,212,000	21,163,244	22,340,000
Wastewater JV	Renewal	1,920,613	6,350,000	234,171	1,705,000
Totals		51,469,668	57,804,000	48,671,929	89,689,000

Appendix C – Proposed Projects

Appendix C1 – PCC Priority Projects

Project Title	Water Type	LGA Classification	Value Year 2 (\$)	Value Year 3 (\$)
Porirua Central City Wastewater Storage tank	Wastewater JV	Level of Service	10,000,000	20,000,000
Karehana SW Catchment	Stormwater	Level of Service	3,395,000	12,200,000
Duck Creek Pump Station wastewater storage tank	Wastewater	Level of Service	3,200,000	5,000
Tangare Drive WWPS Flow Splitter Replacement	Wastewater JV	Renewal	2,650,000	-
WWTP Hydraulics Milliscreen to Aeration Basin	Wastewater JV	Level of Service	2,500,000	-
Milliscreen Channel Corrosion	Wastewater JV	Renewal	2,000,000	-
Porirua Wastewater Treatment Plant - Discharge Resource Consent	Wastewater JV	Level of Service	1,000,000	-
Paremata to Porirua WW Trunk Main Upgrade	Wastewater	Level of Service	1,000,000	1,000,000
Porirua WWTP Solids Handling Upgrade	Wastewater JV	Level of Service	700,000	1,000,000
Taupo Stream SW Catchment Improvements	Stormwater	Level of Service	600,000	2,145,000
PCC JV WWTP PLANNED Renewals	Wastewater JV	Renewal	500,000	500,000
PCC and WCC JV Wastewater network overflow consent	Wastewater JV	Level of Service	500,000	215,000
Porirua Wastewater Treatment Plant - Equipment Replacements & Components Renewals (Planned)	Wastewater JV	Renewal	500,000	505,000
Elsdon Park Wetland and Daylighting Stream Improvements	Stormwater	Level of Service	370,000	-
PCC WWTP Equipment Renewals	Wastewater JV	Renewal	200,000	200,000
		Total	29,115,000	37,770,000

Appendix C2 – Other Proposed Projects

Project Title	Water Type	LGA Classification	Value Year 2 (\$)	Value Year 3 (\$)
Prosser Street Watermain Renewals	Water	Renewal	5,635,000	100,000
Plimmerton WW Renewals (Steyne Ave)	Wastewater	Renewal	3,000,000	3,000
Titahi Bay Trunk Main Renewal	Water	Renewal	2,330,000	6,500,000
Titahi Bay Water Renewals 21-22	Water	Renewal	1,500,000	-
Wastewater (excl JV) - Network - Renewals	Wastewater	Renewal	1,000,000	7,000,000
PCC Potable Water REACTIVE Works	Water	Renewal	1,000,000	1,000,000
PCC Wastewater Reactive Renewals - Wastewater Pipelines	Wastewater	Renewal	1,000,000	1,000,000
PCC Low Level (Aotea) Reservoir (prev Elsdon)	Water	Level of Service	870,000	8,615,000
North Plimmerton wastewater storage	Wastewater	Growth	750,000	750,000
PCC WW manhole cover safety improvements	Wastewater	Level of Service	714,000	-
PCC-WW-VHCA Pipe Renewal Programme	Wastewater	Renewal	650,000	2,000,000
Stormwater - Network - Renewals	Stormwater	Renewal	500,000	500,000
PCC Management of Fire Hydrant Use	Water	Level of Service	436,000	-

Project Title	Water Type	LGA Classification	Value Year 2 (\$)	Value Year 3 (\$)
Plimmerton WW Renewals	Wastewater	Renewal	400,000	-
Whitehouse Road Flood Mitigation	Stormwater	Level of Service	385,000	2,000,000
SPS30 - Muri Road pump station renewal - pipework, electrical and pumps	Wastewater	Renewal	330,000	-
Hongoeka SW Catchment	Stormwater	Level of Service	330,000	187,000
Reservoir safety improvements	Water	Level of Service	324,000	324,000
PCC Commercial water meter replacement	Water	Level of Service	300,000	300,000
Potts Lane Watermain Renewal	Water	Renewal	300,000	-
PS6B rising main upgrade	Wastewater	Level of Service	300,000	445,000
PCC Stormwater Reactive Renewals	Stormwater	Renewal	300,000	300,000
PCC Reservoir VHCA Remedial Works	Water	Renewal	270,000	538,000
South Beach Access	Wastewater	Renewal	260,000	2,000,000
PCC Stormwater Modelling	Stormwater	Level of Service	250,000	200,000
Porirua WWTP Odour Treatment	Wastewater JV	Level of Service	200,000	300,000
PCC JV WWTP REACTIVE Renewals	Wastewater JV	Renewal	200,000	200,000
PCC Pressure Management Stage 2	Water	Level of Service	200,000	280,000
PS6B pump station upgrade	Wastewater	Level of Service	200,000	232,000
PCC Resource Consents - Wastewater local	Wastewater	Level of Service	200,000	-
Whitehouse Road (Titahi Bay) Wastewater Renewals - stages 3 and 4	Wastewater	Renewal	185,000	500,000
PCC WWJV - Major Pump Stations PLANNED Renewals	Wastewater JV	Renewal	165,000	150,000
Wastewater (excl JV) - Pump Station - Renewals	Wastewater	Renewal	162,000	162,000
PCC Wastewater Pump Stations PLANNED Renewals	Wastewater	Renewal	160,000	200,000
SPS21 - Brendan Beach pump station renewal - electrical and pumps	Wastewater	Renewal	155,000	-
SPS22 - Ocean Parade pump station renewal - electrical and pumps	Wastewater	Renewal	155,000	-
SPS23 - Pukerua Beach Road pump station renewal - electrical and pumps	Wastewater	Renewal	155,000	-
PCC WWA JV Network Upgrades - Trunk Pipelines - PCC Master Planning	Wastewater JV	Level of Service	153,000	825,000
Awarua Street water main renewal	Water	Renewal	150,000	4,100,000
PCC Wastewater Pump Stations REACTIVE Renewals	Wastewater	Renewal	150,000	-
PCC Wastewater Hydraulic model update calibration	Wastewater	Level of Service	150,000	50,000
Porirua High Level to Whitby water trunk main	Water	Growth	140,000	1,650,000
PCC WWJV - Major Pump Stations REACTIVE Renewals	Wastewater JV	Renewal	135,000	150,000
Wastewater network overflow consent (PCC/WCC JV)	Wastewater JV	Level of Service	135,000	-
PCC Stormwater Management Strategy	Stormwater	Level of Service	125,000	143,000
WPS4 - Mercury Way pump station renewal - electrical and pumps	Water	Renewal	109,000	-
PCC Water Pump Station PLANNED Renewals	Water	Renewal	108,000	120,000
Plimmerton Farms Low Level Reservoir (Existing shortfall)	Water	Growth	100,000	250,000
Reservoir roof waterproofing - Porirua Low Level No 2	Water	Level of Service	100,000	50,000

Project Title	Water Type	LGA Classification	Value Year 2 (\$)	Value Year 3 (\$)
Wastewater pump station upgrades	Wastewater	Level of Service	100,000	1,000,000
Mana Ave Watermain Renewals	Water	Renewal	100,000	2,300,000
PCC - Remote Water Quality Sensors - zone monitoring	Wastewater	Level of Service	100,000	-
PCC District meter area PLANNED renewals	Water	Renewal	92,000	100,000
Stormwater - Network - Critical services - Surcharging Manholes - Stormwater	Stormwater	Level of Service	77,000	77,000
District Meter Area (DMA) meter fleet	Water	Level of Service	75,000	162,000
PCC-PW-VHCA Pipe Renewal Programme	Water	Renewal	61,000	412,000
PCC Reservoir Reactive Renewals	Water	Renewal	60,000	60,000
Reservoir reactive renewals	Water	Renewal	54,000	54,000
Commercial meter renewal	Water	Level of Service	54,000	54,000
PCC PRV Renewal	Water	Renewal	54,000	50,000
(WSP_03.2) Water take sites- PCC	Water	Level of Service	54,000	162,000
PCC Commercial Meter REACTIVE Renewals	Water	Renewal	50,000	50,000
Mana Esplanade Pipeline cross connection stage2	Wastewater	Level of Service	50,000	500,000
PCC District Meter Area REACTIVE Renewals	Water	Renewal	50,000	50,000
PCC WW Control Systems Upgrades	Wastewater	Level of Service	50,000	50,000
Takapuwahia Stormwater Upgrades	Stormwater	Level of Service	50,000	500,000
Discovery Dr Wastewater rehabilitation	Wastewater	Renewal	50,000	500,000
Eskdale Conclusion Stormwater Upgrades Phase 2	Stormwater	Level of Service	50,000	300,000
PCC Water Hydraulic model update	Water	Level of Service	40,000	310,000
Spinnaker Drive water main renewal	Water	Renewal	40,000	760,000
SPS11 - Moana Road pump station renewal - pipework, electrical and pumps	Wastewater	Renewal	35,000	311,000
PCC - New Smart Services	Water	Level of Service	35,000	35,000
PCC Water Pump Station REACTIVE Renewals	Water	Renewal	32,000	45,000
PCC Wastewater Pump Stations Electrical Renewals	Wastewater	Renewal	32,000	30,000
WPS5 - Broken Hill pump station renewal - electrical and pumps	Water	Renewal	31,000	283,000
PCC Reservoirs Auto Shut Off Valves Upgrades	Water	Level of Service	30,000	30,000
SPS2 - Postgate Drive pump station renewal - electrical and pumps	Wastewater	Renewal	30,000	272,000
UHCC - Remote Water Quality Sensors - zone monitoring	Wastewater	Level of Service	30,000	-
PCC Reservoir Safety Improvements	Water	Level of Service	25,000	-
Porirua WWTP - UV Treatment Upgrade 1500ls	Wastewater JV	Level of Service	24,000	-
Wastewater (excl JV) - Control Systems - Critical services	Wastewater	Renewal	22,000	22,000
PCC WW Control Systems Renewals	Wastewater	Renewal	22,000	22,000
PCC 3 Waters Development projects - Wastewater REACTIVE	Wastewater	Growth	20,000	20,000
PCC Global consent for operations and maintenance works in streams	Stormwater	Level of Service	20,000	-
Surcharging Manholes - Wastewater	Wastewater	Level of Service	19,000	20,000
PCC PW Control Systems Renewals	Water	Renewal	17,000	17,000
PCC Security Locks Reservoirs	Water	Renewal	15,000	-

Project Title	Water Type	LGA Classification	Value Year 2 (\$)	Value Year 3 (\$)
PCC 3 Waters New Consents - Stormwater	Stormwater	Level of Service	15,000	-
Whitby Reservoir	Water	Growth	14,000	-
(WSP_02.1) Reservoir leakage remediation - PCC	Water	Renewal	14,000	14,000
PCC - Battery replacements Base stations (all councils)	Water	Renewal	13,000	13,000
PCC PW Control Systems Upgrades	Water	Level of Service	12,000	13,000
WR PCC Water Renewals Titahi Bay 20-21	Water	Renewal	8,000	-
WR PCC Wastewater Renewals Titahi Bay 20-21	Wastewater	Renewal	8,000	-
GWRC and 4 Cities SCADA network rationalisation	Water	Level of Service	6,000	-
GWRC and 4 Cities SCADA network rationalisation	Wastewater	Level of Service	6,000	-
Drinking Water - Control Systems - Critical services	Water	Renewal	6,000	6,000
Fantame Mentor Waihora Road Water Pipe Renewal	Water	Renewal	5,000	-
PCC SW Control Systems Upgrades	Stormwater	Level of Service	4,000	4,000
Titahi Bay Wastewater pipeline re-lining	Wastewater	Renewal	2,000	2,000
PCC Stormwater Upgrade Stages 2 - 4	Stormwater	Level of Service	-	100,000
Drinking Water - Pump Station - Renewals	Water	Renewal	-	35,000
PCC-SW-VHCA Pipe Renewal Programme	Stormwater	Renewal	-	-
PCC-WWJV-VHCA Pipe Renewal Programme	Wastewater JV	Renewal	-	-
Paremata school	Stormwater	Level of Service	-	50,000
Total			28,689,000	51,919,000