

Implementation Plan

Prepared to meet the requirements of CRC190445, CRC214226

Christchurch City Council

July 2021

Internal Document Review and Approval

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1. Introduction

In December 2019, an Environment Court Decision [ENV-2019-CHC-107] was made to grant Christchurch City Council (CCC) a 'global' stormwater network discharge consent (CRC190445), otherwise known as the Comprehensive Stormwater Network Discharge Consent (CSNDC). The consent is subject to a range of conditions and has followed extensive public engagement and negotiations with Canterbury Regional Council (ECan) over many years.

The conditions span operational, reporting, investigative, and planning activities. A significant number of projects are required to be delivered, in-order to meet the CSNDC objectives, for council to be compliant, and to deliver the environmental outcomes sought by the consent.

One requirement of this consent, detailed in Conditions 11 and 12, is the Implementation Plan. The purpose of this plan is to give effect to certified SMPs and to include the matters included in Condition 12, provided below.

As per Condition 12, the Implementation Plan must include:

- A list and map of proposed stormwater mitigation methods and devices;
- A programme of stormwater works for Christchurch City Council and anticipated private development;
- A plan for regulatory, investigative, educational, and preventative activities or programmes relating to stormwater discharges, including activities undertaken under Conditions 39 and 40 and Schedules 3 and 4; and
- Details of budgets for capital works or resourcing that is linked to the Christchurch City Council Long Term Plan.

Consultation with Papatipu Rūnanga and the Department of Conservation must also be undertaken in the development of this Implementation Plan, detailed in Conditions 11(a) and 13(a). A draft copy of this Implementation Plan has been provided to accepted by the above with no requests for changes.

1.1. Stormwater Management Plans

Stormwater Management Plans (SMPs) are required for each of the main catchments within the Christchurch District, under Condition 4 and 5 of the CSNDC. Each of these SMPs correspond to a main river catchment, with the exception of the Te Pātaka o Rākaihautū/Banks Peninsula Settlements SMP. Within the CSNDC, Banks Peninsula is addressed only where settlement areas are served by the Christchurch City Council's reticulated stormwater network. As per Condition 5, the SMPs to be implemented under the CSNDC, and their respective dates of submission to Canterbury Regional Council are as follows:

Table 1-1: SMP Programme

SMP Area	Date SMP Operative	Date Submitted to Canterbury Regional Council
Ōtākaro/Avon River Area Christchurch		Within 42 months of the commencement of this consent
Pūharakekenui/Styx River Area Christchurch	30 June 2014	
Huritini/Halswell River Area Christchurch	30 June 2016	
Ōpāwaho/Heathcote River Area Christchurch		Within 24 months of the commencement of this consent
Estuary and Coastal Area Christchurch		Within 30 months of the commencement of the resource consent
Ōtukaikino/Outer Area Christchurch		Within 36 months of the commencement of the resource consent
Te Pātaka o Rākaihautū/Banks Peninsula Settlements		Within 42 months of the commencement of the resource consent

Each SMP is to be reviewed and submitted to Canterbury Regional Council every 10 years from the date of the certification of the SMP. Furthermore, reviews of the currently active SMPs above, are scheduled as per below, within the same Condition 5:

- The Styx SMP shall be reviewed and submitted by 20 June 2023, and then 10 yearly after its certification; and
- The Halswell SMP shall be reviewed and submitted by 20 June 2021, and then 10 yearly after its certification

The purpose of these SMPs is laid out within Condition 6 of the CSNDC and is as follows:

- Contribute to meeting the overall contaminant load reduction standards set in Condition 19 and 20;
- Set a contaminant load reduction target(s) for each catchment in that SMP area in order to demonstrate the commitment of the Consent Holder to the improvement of stormwater discharge quality over time;
- Demonstrate the means by which:
 - The quality of stormwater discharges will be progressively improved toward meeting the Receiving Environment Objectives and Attribute Target Levels for waterways, coastal waters, and groundwater and spring set out in the conditions of this consent and in Schedules 7 to 9; and
 - The Receiving Environment Objectives and Attribute Target Levels for water quantity in Schedule 10 will be met;
- Provide for discharge of stormwater to land infiltration systems where reasonably practicable as the means to demonstrate that stormwater contribution to groundwater and spring-fed stream flows will be maintained;
- Demonstrate the means by which Christchurch City Council stormwater infiltration facilities constructed by, or on behalf of, the Consent Holder, after the commencement of this consent will be designed, located and operated to avoid, remedy or mitigate adverse effects of groundwater mounding on other land in anything more frequent than the critical 2% AEP Event;
- Plan the works required to mitigate the adverse effects of stormwater discharges to the extent required by this resource consent;

- g) Implement the conditions of this consent as they apply to each catchment, including the best practicable option for weed management in the Pūharakekenui/Styx River as determined by Schedule 4(x).

1.2. Stormwater Technical Peer Review Panel

Condition 14 of the CSNDC requires the Consent Holder to establish, at its own cost, the Stormwater Technical Peer Review Panel (TPRP), for the purpose of providing scientific and technical review of a number of tasks, including:

- Stormwater Management Plans
- Scope and outputs of feasibility studies and investigations required by Condition 39 and Schedule 3(a-h) and Condition 40 and Schedule 4(d, e, j, k, r, and s)

At the time of writing this plan, the Huritini/Halswell and Ōpāwaho/Heathcote SMPs have undergone review with regard to the following technical areas:

- Stormwater Engineering and Hydrological/Flood Modelling
- Freshwater and Coastal Water Quality and Ecology
- Hydrogeology
- Contaminated Site/Land Management
- Erosion and Sediment Control

Cultural input, particularly in the form of Cultural Statements and Cultural Impact Assessments have been provided on behalf of Papatipu Rūnanga, by Mahaanui Kurataiao Ltd. These address both the cultural significance of these river catchments and the impacts of existing and predicted future development on these river catchments. Within each SMP, where significant changes have been made to the SMPs' content in response to these reviews, commentary has been provided within the document.

1.3. Public and Other Consultation

Condition 8 of the CSNDC requires that following completion of a draft SMP, Christchurch City Council must provide a draft copy to the parties listed in Condition 4, listed below, inviting feedback within a timeframe of not less than 40 working days. Christchurch City Council must also provide public notice of the draft SMP and invite written feedback within a timeframe of not less than 40 working days, prepare a summary of this feedback and a brief explanation of whether and how comments have been incorporated into the SMP. Furthermore, due to the policy-like nature of the SMPs, Council approval must be gained prior to these SMPs becoming operative. This Council approval shall be sought prior to submission of the SMPs to Canterbury Regional Council for certification.

The parties from whom Condition 4 of the CSNDC requires that in development of SMPs Christchurch City Council must work in consultation with are:

- Papatipu Rūnanga
- The relevant Zone Committee(s) (or successor organisation)
- The relevant Community Board(s) (or successor organisation)
- The Department of Conservation
- The CRC Regional Engineer and any relevant Rating District Liaison Committee

Due to this required consultation and Council approval, contingency for timeframes, by way of a Consent Variation Application has been agreed upon, extending the submission of SMPs by 6 months, to allow for full and thorough discussion. This means that the Huritini/Halswell and Ōpāwaho/Heathcote SMPs may not be operative until at least 20th December 2021, following the certification of this Implementation Plan.

Furthermore, in development of this Implementation Plan, Condition 11(a) requires engagement with Papatipu Rūnanga and the Department of Conservation. A draft copy of this plan has been provided to the newly appointed Mahinga Kai/Nga Wai Cultural Advisor at Mahaanui Kurataiao Ltd. for review and comment. It is

important to note that in the Quarterly Reports and Annual Meetings with Mahaanui Kurataiao Ltd., required under Conditions 13 (c) and (f), a forward-looking programme of proposed stormwater works is provided for comment. A draft copy of this Implementation Plan has also been provided to the Department of Conservation for comment. Both the Department of Conservation and Papatipu Rūnanga (via Mahaanui Kurataiao Ltd.) have not expressed any concerns with this plan or requested any changes to be made.

2. List and Map of Proposed Stormwater Mitigation Methods

As per Condition 12(a), a map of proposed stormwater treatment facilities and devices is provided within Appendix A. There are two main areas where such facilities are proposed, primarily in the Northern and Southern halves of the city, where larger images have been provided. It should be noted that these maps are indicative of proposed locations for facilities, and do not represent a finalised plan. In addition, Christchurch City Council are currently involved in a project to map existing operational stormwater treatment basins alongside an approximate modelled catchment for each main treatment facility. This map will seek to compliment the information provided in Appendices A and C, demonstrating how Christchurch City Council will seek to implement the stormwater treatment objectives of each river catchment's Stormwater Management Plan. This map is not a required item under Condition 12, but will seek to complement existing information and possibly be included in future revision of this plan.

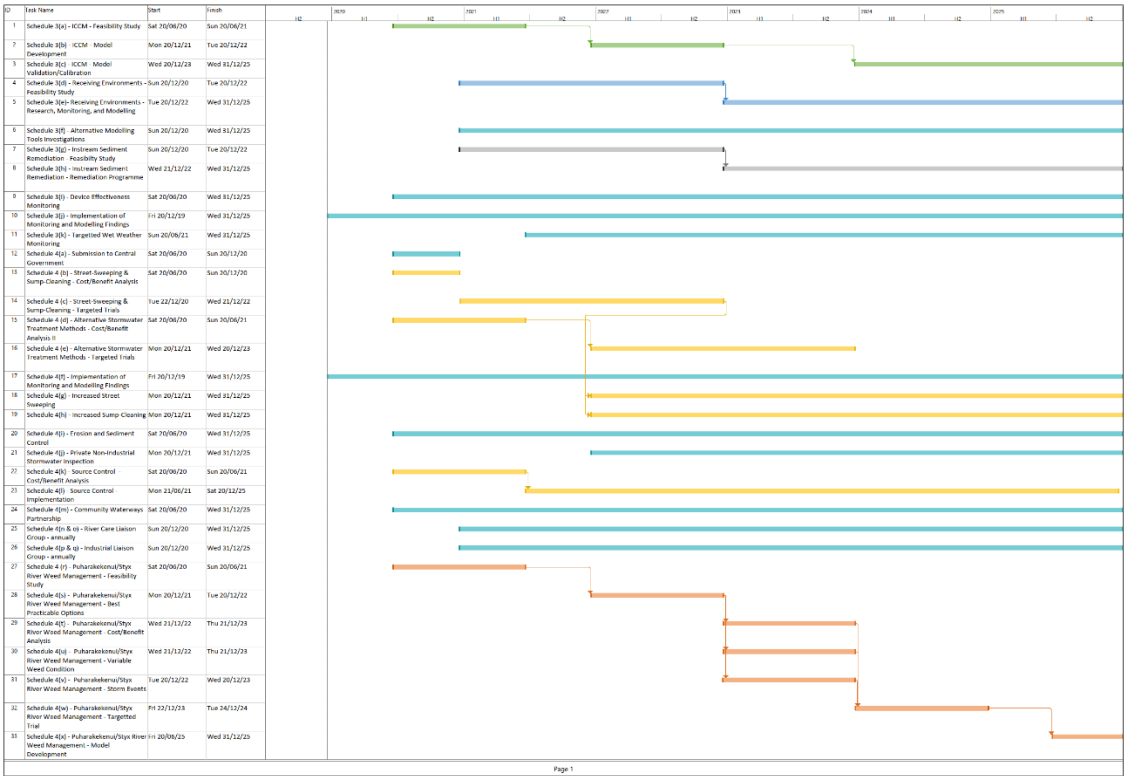
3. A Plan for Regulatory, Investigative, Educational, and Preventative Activities or Programmes (Schedules 3 and 4)

Schedule 3 of the CSNDC outlines the tasks required to fulfil Condition 39 of the CSNDC. This suite of tasks is categorised as the ‘Stormwater Quality Investigation Programme’. For further details of these tasks and their progress, please refer to the CSNDC Annual Reports.

Schedule 4 of the CSNDC outlines the tasks required to fulfil Condition 40 of the CSNDC. This suite of work is broken down into 3 main categories, those being: Source Control; Communication, Education, and Awareness; and Pūharakekenui/Styx River Weed Management. For further details of these tasks and their progress, please refer to the CSNDC Annual Reports.

A Gantt chart has been developed to provide an overall view of the progress achieved to-date and upcoming future investigations, analysis, and developments required by the tasks in Schedules 3 and 4.

It is important to note that for those tasks with either no specific end date, many of which are ‘ongoing’, the end dates for these tasks extend out to the end of the consent, 20th December 2044. Those tasks extending to the end of the chart below, 31st December 2025 are those which extend to this ‘end of consent’ date. Groups of tasks have also been colour-coded to assist the reader. A larger version of this chart can be found attached as Appendix B.



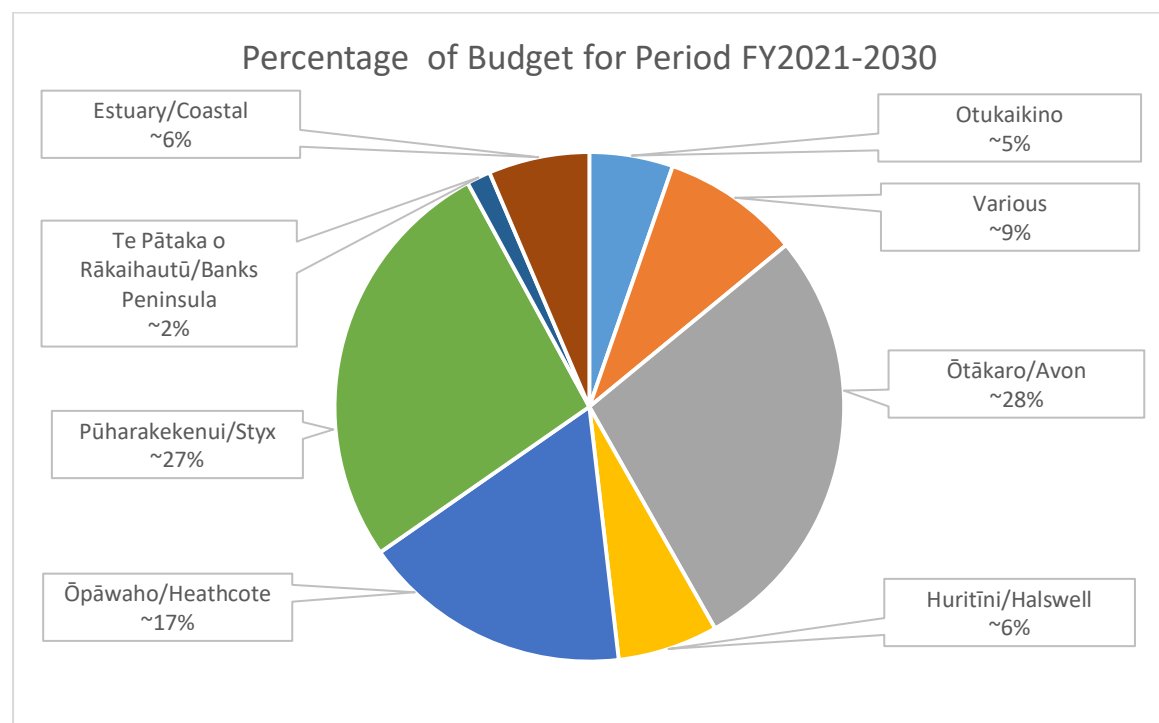
4. Programme of stormwater works and budgets linked to the Christchurch City Council Long Term Plan for the period FY2021-30

As per Conditions 12(b) and (d) of the CSNDC, this Implementation Plan provides the following:

- Programme of stormwater works for Christchurch City Council and anticipated private development; and
- Details of budgets for capital works or resourcing that is linked to the Christchurch City Council Long Term Plan.

Please refer to Appendix C for a full list of projects and budgets for the period FY2021-30. Below, commentary is provided on each SMP area. Some stormwater works for this period will affect multiple SMP areas and are referred to here as 'various'. It is important to note that the figures expressed in Appendix C are calculated from the Christchurch City Council Long Term Plan, and have been rounded to the nearest dollar, and should not be taken as exact actual budgets for each project, rather as an expression of approximate proportion of the overall budget. Furthermore, Appendix D provides a list of proposed stormwater works which currently don't have any budget allocated to them.

Figure 1: Budget for Stormwater Works for the period FY2021-30, by SMP area.



4.1. Ōtākaro/Avon Catchment

A new SMP will be developed for the Ōtākaro/Avon River catchment, and will be submitted to Canterbury Regional Council within 42 months of the commencement of the CSNDC. This catchment flows into the Ihutai estuary, which will be addressed under the Estuary and Coastal SMP. Overall, a total of ~28% of the total budget for stormwater works is proposed to serve projects exclusively within the Ōtākaro/Avon River SMP area for the period FY2021-30.

4.2. Ōpāwaho/Heathcote Catchment

South-western portions of the Ōpāwaho/Heathcote catchment are currently served by the South west Area Plan, operative since 2010. However, a new SMP is currently being developed for the Ōpāwaho/Heathcote River catchment to better address the CSNDC, and is due for submission to Canterbury Regional Council within 24 months of the commencement of the CSNDC. Similarly to the Ōtākaro/Avon River catchment, the Ōpāwaho/Heathcote SMP flows into the Ihutai estuary, which will be addressed under the Estuary and Coastal SMP. Overall, a total of ~17% of the total budget for stormwater works is proposed to serve projects exclusively within the Ōpāwaho/Heathcote River SMP area for the period FY2021-30.

4.3. Huritini/Halswell Catchment

The Huritini/Halswell catchment is currently served by an SMP, operative since 30 June 2016. However, a new SMP is currently being developed for the Huritini/Halswell catchment, better addressing the CSNDC. This new SMP is due for submission within 24 months of the commencement of the CSNDC. Only the upper portion of this catchment falls within the Christchurch City District, and the catchment flows to Te Waihora/Lake Ellesmere. Overall, a total of ~6% of the total budget for stormwater works is proposed to serve projects exclusively within the Huritini/Halswell River SMP area for the period FY2021-30.

4.4. Ōtūkaikino Catchment (Outer Area Christchurch)

A new SMP will be developed for the Ōtūkaikino River SMP area, and is due for submission to Canterbury Regional Council for certification within 36 months of the commencement of the CSNDC. This catchment is largely comprised of rural land-uses and flows into the Waimakariri River. Overall, a total of ~5% of the total budget for stormwater works is proposed to serve projects exclusively within the Ōtūkaikino Catchment area for the period FY2021-30.

4.5. Pūharakekenui/Styx Catchment

The Pūharakekenui/Styx catchment is currently served by an SMP, operative since 30 June 2014. However, a new SMP will be developed for the Pūharakekenui/Styx catchment, better addressing the CSNDC. This new SMP is due for submission to Canterbury Regional Council for certification within 48 months of the commencement of the CSNDC. The Pūharakekenui/Styx catchment flows north to Brooklands Lagoon, just south of the mouth of the Waimakariri River. Overall, a total of ~27% of the total budget for stormwater works is proposed to serve projects exclusively within the Pūharakekenui/Styx River SMP area for the period FY2021-30.

4.6. Estuary/Coastal Catchment

A new SMP will be developed for the Estuary and Coastal Area, which includes Ihutai estuary and is due for submission to Canterbury Regional Council for certification within 30 months of the commencement of the CSNDC. This SMP will serve both the Ihutai estuary and the coastal areas of New Brighton and Sumner. Overall, a total of ~6% of the total budget for stormwater works is proposed to serve projects exclusively within this area for the period FY2021-30.

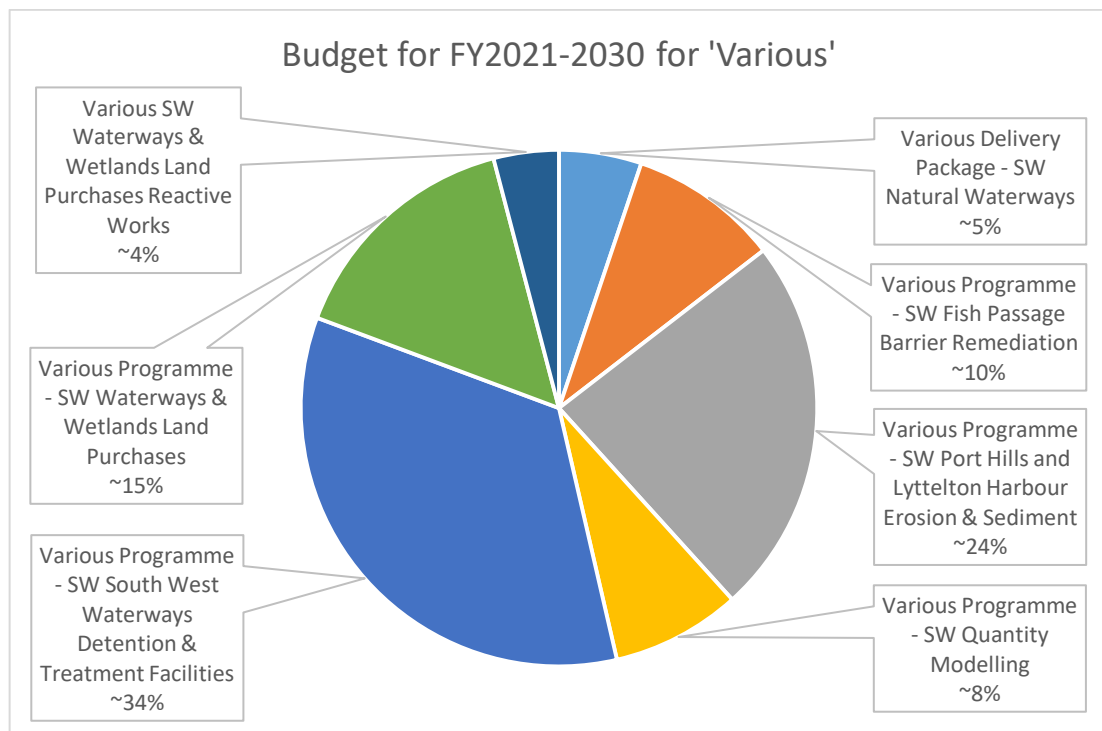
4.7. Te Pātaka o Rākaihautū/Banks Peninsula Settlement Areas

A new SMP will be developed for settlement areas within Banks Peninsula and is due for submission to Canterbury Regional Council for certification within 42 months of the commencement of the CSNDC. Overall, a total of ~2% of the total budget for stormwater works is proposed to serve projects exclusively within these areas for the period FY2021-30.

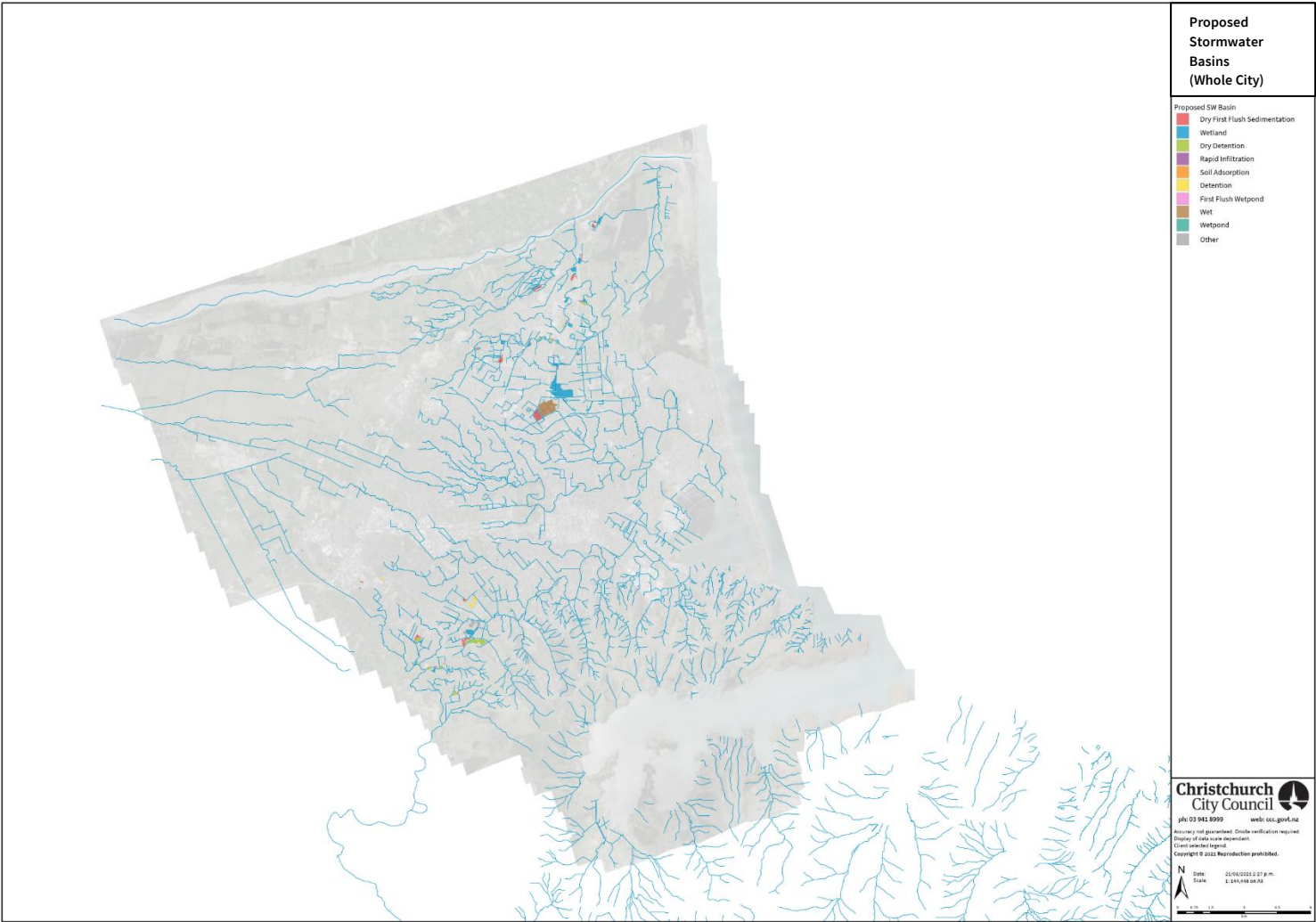
4.8. Various

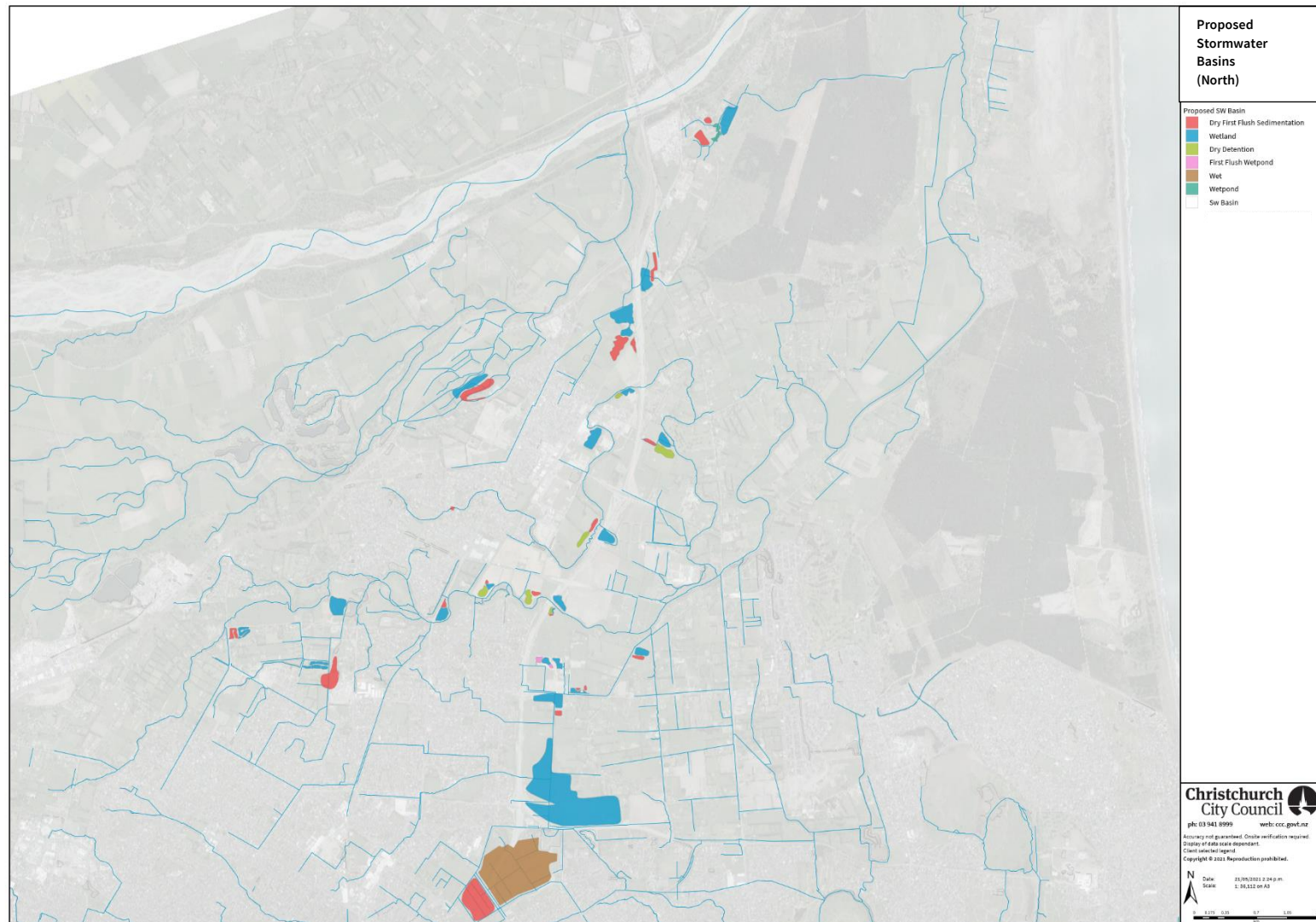
The final portion of ~9% of the budget for stormwater works for the period FY2021-30 is dedicated to projects which serve more than one SMP area. These projects include such purposes as land purchases, water quantity modelling, stormwater treatment facilities, and fish barrier remediation. The vast majority (~34%) of this portion of the budget (~9%) is proposed for the purposes of developing stormwater detention and treatment facilities in the South-West of Christchurch City. Of note also is that ~10% of this portion of the budget is proposed for Fish Passage Barrier Remediation, which will provide direct ecological benefits through allowing increased migration of aquatic fauna throughout many of the waterways in the Christchurch District.

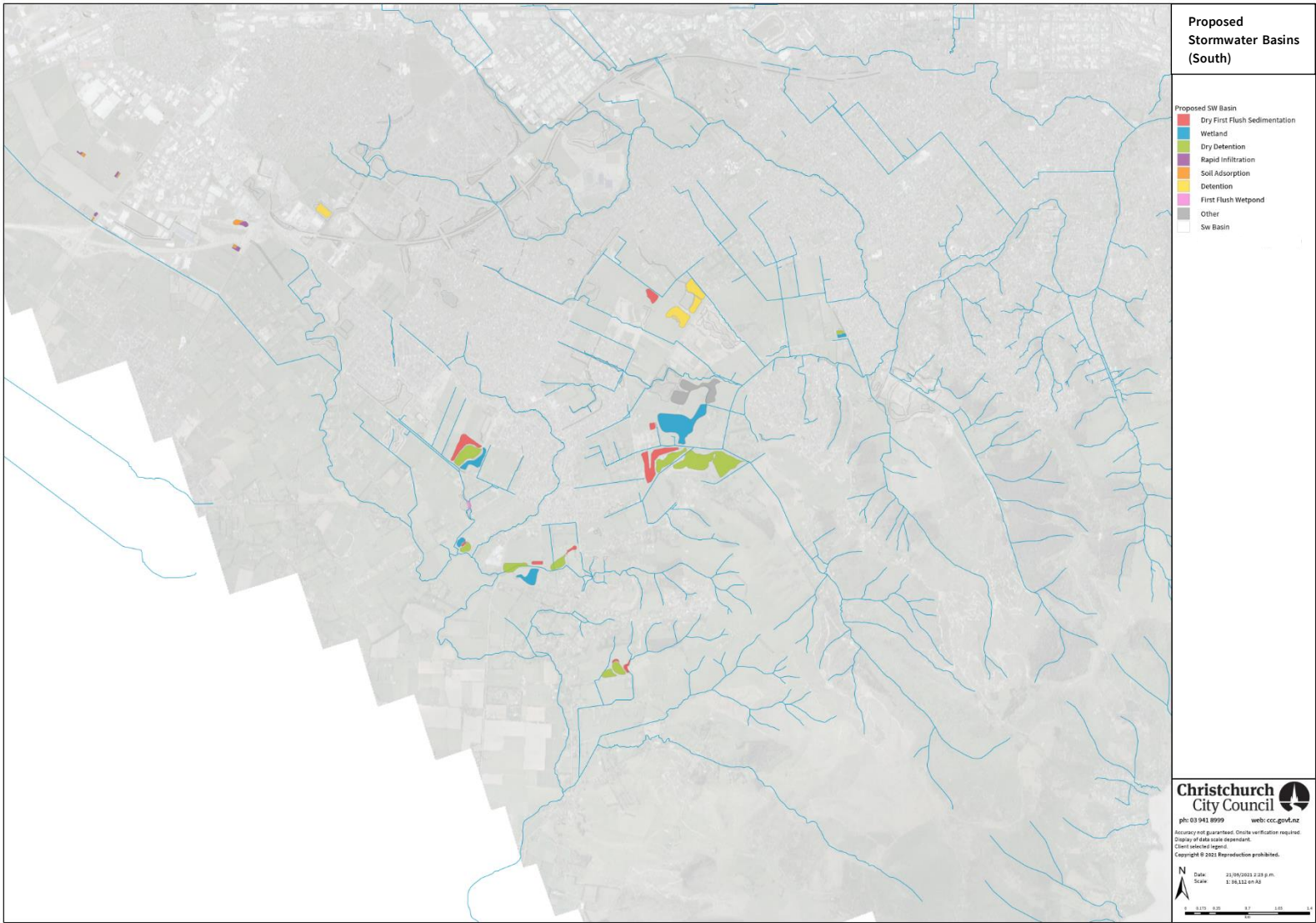
Figure 2: Budget for Stormwater Works for the Period FY2021-30, which influence various catchments, by project.



Appendix A: Map of Proposed Stormwater Mitigation Methods







Appendix B: A Plan for Regulatory, Investigative, Educational, and Preventative Activities or Programmes Relating to Stormwater Discharges, Including Activities Undertaken under Conditions 39 and 40 and Schedules 3 and 4



Appendix C: Programme of stormwater capital works for Christchurch City Council and anticipated private development, with budgets linked to the Christchurch City Council Long Term Plan, for the period FY2021-30

ID	SMP Area	Project Title	Facility to be Delivered	Phase	Delivery Date	By	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
2679	Ōtakaro/Avon	SW Prestons & Clare Park	Clare Park Wetland	Execute	Jun-22	CCC	256420	803519	0	0	0	0	0	0	0	0
56116	Ōtakaro/Avon	SW Snellings Drain Enhancement at Prestons South	Snellings Drain	Plan	Sep-21	CCC/Private Developer	5000	5000.06	294885	1121126	0	0	0	0	0	0
62924	Ōtakaro/Avon	SW Flood Management Avon River Flood Modelling (OARC)	Avon River Flood Mitigation	Plan	Jun-23	CCC	500000	826199.8	211095	712969	66205	0	0	0	0	0
62925	Ōtakaro/Avon	SW Flood Management LDRP 521 Stage 1 Waitaki Street (OARC)	Waitaki Basin and Wetland	Execute	Jun-26	CCC	1862000	3311557	3534443	1466572	2011741	0	0	0	0	0
56166	Ōtakaro/Avon	SW Waikākāriki - Horseshoe Lake Stormwater Treatment Facility (OARC) (Stage 1)	Waikākāriki - Horseshoe Lake Wetlands Stage 1	Plan	Jun-23	CCC	33002	5000.06	847676	1866989	3476847	4647845	2348735	0	0	0
41987	Ōtakaro/Avon	SW Addington Brook & Riccarton Drain Filtration Devices	Addington/Riccarton Stormwater Treatment	Execute	Jun-25	CCC	57843	5000.06	1023000	628531	483183	1968895	1061545	57985	119216	1681216
63038	Ōtakaro/Avon	Programme Flood and Stormwater Priority Works (OARC)	Avon River Flood Mitigation and Treatment	Concept	Jun-51	CCC	0	1600000	12034500	2618880	3758093	4842571	2822999	2319376	2384318	1226732
57718	Ōtakaro/Avon	SW Waikākāriki - Horseshoe Lake Stormwater Treatment Facility (OARC) (Stage 2)	Waikākāriki - Horseshoe Lake Wetlands Stage 2	Concept	Jun-30	CCC	0	0	5114.99	47139.96	1073741	1650876	1693799	4674479	4768637	0
60235	Ōtakaro/Avon	SW Bishopdale Flood Management	Bishopdale Flood Management	Concept	Jun-25	CCC	0	0	0	0	295279	4312089	1129200	28992	29804.01	0
2416	Ōtakaro/Avon	Programme - SW Ōtakaro - Avon Waterway Detention & Treatment Facilities	Various Oaterway	Concept	NA	CCC	0	0	0	0	0.01	209494	3105299	4353078	3576478	5508026
60242	Ōtakaro/Avon	SW Riccarton Main Drain Flood Management	Various	Concept	Jun-32	CCC	0	0	0	0	0	0	0	0	0	184010
42000	Te Pātaka o Rākaihautū/Banks Peninsula	Programme - SW Banks Peninsula Settlements Waterways Detention & Treatment Facilities	Various Banks Peninsula	Concept	NA	CCC	0	0	0	5238	5369.01	57576	117984	121112	1248886	1647501
42008	Te Pātaka o Rākaihautū/Banks Peninsula	Programme - SW Lyttelton Stormwater Improvements	Various Lyttelton	Concept	Jun-27	CCC	0	0	0	273032	448597	919646	1014344	0	0	0
60243	Estuary/Coastal	SW McCormacks Bay Flood Management	Various	Concept	Jun-29	CCC	0	0	0	26189.04	751619	11006	11292.01	0	0	0
41998	Estuary/Coastal	Programme - SW Estuary & Coastal Waterways Detention & Treatment Facilities	Various Estuary and Coastal	Concept	NA	CCC	0	0	0	5238	5369.01	1234227	5162055	6229181	5821144	5607917
54802	Huritini/Halswell	SW Carrs Corridor Infrastructure Provision Agreement (Stage 1)	Carrs Drainage Corridor	Close	Mar-21	CCC/Private Developer	83217	64999.97	0	0	0	0	0	0	0	0

ID	SMP Area	Project Title	Facility to be Delivered	Phase	Delivery Date	By	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
41899	Huritini/Halswell	SW Carrs Corridor (Stage 2)	Carrs Drainage Corridor	Plan	Jun-21	CCC/Private Developer	487879	149888	0	0	0	0	0	0	0	0
33980	Huritini/Halswell	SW Owaka Basin	Owaka Basin	Execute	May-21	CCC	641091	249023	0	0	0	0	0	0	0	0
33976	Huritini/Halswell	SW Rossendale Infrastructure Provision Agreement	Rossendale Basins	Execute	Jun-23	CCC/Private Developer	1229199	841500	511500	1047594	1803842	0	0	0	0	0
38090	Huritini/Halswell	SW Greens Stormwater Facility	Greens Basins and Wetlands	Plan	Jun-24	CCC	91675	5000.06	46034.99	1099930	5257259	4789822	3783243	0	0	0
53890	Huritini/Halswell	SW Copper Ridge Private Development Agreement (PDA)	NA	Concept	Feb-22	CCC/Private Developer	0	5000.06	5114.99	240784	0	0	0	0	0	0
60265	Huritini/Halswell	SW Quaifes Murphys Extended Detention Basin	Quaifes-Murphys Basins	Concept	Jun-25	CCC	0	0	0	52377.96	724775	0	0	0	0	0
41900	Huritini/Halswell	SW Creamery Ponds	Creamery Ponds	Concept	Jun-29	CCC	0	0	0	0	0	0	0	204278	1284206	0
34337	Ōpāwaho/Heathcote	SW Bells Creek Ferry Road Storm Filter Vault	Bells Creek Storm Filter Vault	Close	May-19	CCC	4820	0	0	0	0	0	0	0	0	0
15751	Ōpāwaho/Heathcote	SW Sparks Road Development Drainage Works	Sparks Road Wetland	Close	Apr-19	CCC	40045	0	0	0	0	0	0	0	0	0
44575	Ōpāwaho/Heathcote	SW Cashmere Worsleys Wetlands Infrastructure Provision Agreement (IPA)	Cashmere Worsleys Valley Wetlands	Execute	Jun-21	CCC/Private Developer	116950	0	0	0	0	0	0	0	0	0
63671	Ōpāwaho/Heathcote	Hoon Hay Basin Outlet and Cashmere Stream Control Structure (Eastman Sutherlands)	Hoon Hay Basin	Review - Inbox	Jun-22	CCC	1960000	3307600	265014	410033	0	0	0	0	0	0
32243	Ōpāwaho/Heathcote	SW Eastman Sutherland and Hoon Hay Wetlands	Eastmans and Hoon Hay Wetlands	Execute	Jun-21	CCC	4599823	11277615	4719777	3429788	0	0	0	0	0	0
33975	Ōpāwaho/Heathcote	SW Spreydon Lodge Infrastructure Provision Agreement	Meadowlands Basins	Plan	Dec-24	CCC/Private Developer	5000	5000.06	5114.99	2499591	3703204	1179999	0	0	0	0
60247	Ōpāwaho/Heathcote	SW Weir Place Flood Management	Various	Concept	Jun-31	CCC	0	0	0	127801	10737	11006	0	0	0	0
60255	Ōpāwaho/Heathcote	SW Remuera Avenue Flood Management	Various	Concept	Jun-31	CCC	0	0	0	0	353261	22012.01	0	0	0	0
60249	Ōpāwaho/Heathcote	SW Greenpark Flood Management	Greenpark Flood Management	Concept	Jun-31	CCC	0	0	0	0	459561	11006	11292.01	0	0	0
60246	Ōpāwaho/Heathcote	SW Lower Heathcote Valley Flood Management	Lower-Heathcote Managements	Concept	Jun-31	CCC	0	0	0	0	107374	768208	11292.01	11596.98	0	0
19398	Ōpāwaho/Heathcote	Programme - SW Ōpāwaho - Heathcote Waterways Detention & Treatment Facilities	Various Ōpāwaho	Concept	NA	CCC	0	0	0	0	420209	858028	3472657	4784091	5494883	5428689
60241	Ōpāwaho/Heathcote	SW Paparua Stream Flood Management	Various	Concept	Jun-28	CCC	0	0	0	0	0	165088	651548	11596.98	11922	0
60251	Ōpāwaho/Heathcote	SW Hillsborough Flood Management	Various	Concept	Jun-34	CCC	0	0	0	0	0	0	0	0	59608	306683
60252	Ōpāwaho/Heathcote	SW Marion Street Flood Management	Various	Concept	Jun-34	CCC	0	0	0	0	0	0	0	0	0	61337
48918	Ōpāwaho/Heathcote	Upper Heathcote Storage Optimisation	Various				300000	511500	523776	536870	550292	564600	579844	596080	613366	629927

ID	SMP Area	Project Title	Facility to be Delivered	Phase	Delivery Date	By	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
38091	Otukaikino	SW Otukaikino Stormwater Facility	Otukaikino Basin and Wetland	Concept	Jun-27	CCC	10603325	5000.02	5000.09	5288.04	4545.99	1174927	3102944	4638751	0	0
41999	Otukaikino	Programme - SW Outer Christchurch Otukaikino Waterways Detention & Treatment Facilities	Various Otukaikino	Concept	NA	CCC	0	0	0	5238	26259.01	57576	117984	24241	186178	637901
37343	Pūharakekenui/Styx	SW Highsted Land Purchase & Construction of Waterways, Basins & Wetlands	Highsted Basins and Wetlands	Execute	Jun-23	CCC	1698195	2445660	0	0	0	0	0	0	0	0
51269	Pūharakekenui/Styx	SW Highfield Northwest Basins Infrastructure Provision Agreement	Highfield Northwest Basins and Wetlands	Execute	Jun-21	CCC/Private Developer	630000	109420	0	0	0	0	0	0	0	0
38088	Pūharakekenui/Styx	SW Gardiners Stormwater Facility	Gardiners Basin and Wetland	Execute	Jun-22	CCC	1572011	1480742	1265787	0	0	0	0	0	0	0
38022	Pūharakekenui/Styx	SW Blakes Road Stormwater Facility (Works 1)	Blakes Road Wetland	Execute	Mar-22	CCC	2525921	3000097	1046000	1432233	1233244	0	0	0	0	0
60386	Pūharakekenui/Styx	SW FM Flood model build Styx and Citywide renewals	Various	Concept	May-22	CCC	186188	99999.99	160578.1	188541	304693	0	0	0	0	0
60036	Pūharakekenui/Styx	SW Horners Kruses Land Purchase	NA	Execute	Jun-21	CCC	269320	4315959	358050	52377.01	53687	2238634	0	0	0	0
44577	Pūharakekenui/Styx	SW Highsted Styx Mill Reserve Wetland	Highsted Styx Mill Reserve Wetlands	Concept	Jun-24	CCC	156675	105000.1	563385.1	1258363	3083686	5502922	2310317	0	0	0
41896	Pūharakekenui/Styx	SW Styx Centre Cost Share	Railway Basin and Wetlands	Concept	May-22	CCC/Private Developer	0	500000.1	1023000	1047552	0	0	0	0	0	0
44585	Pūharakekenui/Styx	SW Highsted Wetland, Highams Basin & Pūharakekenui - Styx Stream	Highsted Basins and Wetlands	Concept	Jun-24	CCC	0	1050000	3636798	2873568	4958330	1993563	0	0	0	0
2415	Pūharakekenui/Styx	Programme - SW Management Plan on Pūharakekenui - Styx Waterway Detention & Treatment Facilities	Various Styx Stormwater Facilities	Concept	NA	CCC	0	5000.06	5114.99	5238	5367.99	425913	1782187	6979669	11040981	14990488
44421	Pūharakekenui/Styx	SW Kainga Basins	Kainga Basin and Wetland	Concept	Jun-26	CCC	0	0	51149.98	523777	4474968	3624221	2258399	0	0	0
44417	Pūharakekenui/Styx	SW Guthries Thompson Basins	Guthries Thompson Basins	Concept	Jun-28	CCC	0	0	0	0	0	156675	377393	302861	0	0
56179	Various	SW Waterways & Wetlands Land Purchases Reactive Works	Various	Plan	NA	CCC	150040	297946.8	316483	619283	0	0	0	0	0	0
50664	Various	Delivery Package - SW Natural Waterways	Various	Execute	NA	CCC	479121	447165	418389	406568	0	0	0	0	0	0
60376	Various	Programme - SW Quantity Modelling	Various	Concept	NA	CCC	0	253557	268068	517540	408716	246178	252578	259398	266661	274394
60436	Various	Programme - SW Fish Passage Barrier Remediation	Various	Concept	NA	CCC	0	0	664950	523776	536870	275146	282300	289922	298040	306683
3412	Various	Programme - SW Waterways & Wetlands Land Purchases	Various Waterways	Concept	NA	CCC	0	0	0	0	805306	825439	846899	869766	894119	920049

ID	SMP Area	Project Title	Facility to be Delivered	Phase	Delivery Date	By	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
973	Various	Programme - SW South West Waterways Detention & Treatment Facilities	Various South	Concept	NA	CCC	0	0	0	0	0	425913	1204216	3659843	3218830	3113599
60356	Various	Programme - SW Port Hills and Lyttelton Harbour Erosion & Sediment	Various	NA	NA	CCC	0	300000	716100	838042	966366	990526	1016280	1043719	1072944	1104059
Total							\$30,544,760	\$37,388,949	\$34,525,899	\$28,514,057	\$42,628,596	\$46,161,627	\$40,528,625	\$41,460,016	\$42,390,221	\$43,629,211

Appendix D: Other Proposed Stormwater Treatment Projects, with no budget currently allocated

SMP Area	Project Title	Facility to be Delivered	Target Delivery Date	Delivered By
Ōtākaro/Avon	SW Dudley Diversion Basins	Dudley Diversion Basins	Jun-28	CCC
Pūharakekenui/Styx	SW Horners Kruses Basin	Horners Kruses Basin	Unknown	CCC
Pūharakekenui/Styx	SW Highfield South Basins	Highfield South Bains	Unknown	CCC
Pūharakekenui/Styx	SW Radcliffe Basins	Radcliffe Basins	Unknown	Private Developer
Pūharakekenui/Styx	SW Mundys Basins	Mundys Basins	Unknown	Private Developer
Pūharakekenui/Styx	SW Works 3 Basins	Works 3 Basins	Unknown	CCC
Pūharakekenui/Styx	SW Works 4 Basins	Works 4 Basins	Unknown	CCC
Pūharakekenui/Styx	SW Highfield West Basins	Highfield West Basins	Unknown	CCC
Pūharakekenui/Styx	SW Highfield East Basins	Highfield East Basins	Unknown	CCC
Pūharakekenui/Styx	SW Highfield (Oakbridge South) Basins	SW Highfield (Oakbridge South) Basins	Jun-21	Private Developer
Pūharakekenui/Styx	SW Highfield (Oakbridge North) Basins	SW Highfield (Oakbridge North) Basins	Apr-23	Private Developer
Pūharakekenui/Styx	SW Highfield (Selkirk) Basins	SW Highfield (Selkirk) Basins	Apr-24	Private Developer
Pūharakekenui/Styx	SW Arterial Basins	SW Arterial Basins	May-23	Private Developer