



# Hokitika Wastewater Upgrade Project

**Westland District Council  
Council Meeting**

**23 February 2023**





# Hokitika Wastewater Upgrade Project

## Agenda

- Introduction
- Overview of Work to Date
- Options/Alternatives – Sieving Approach
- Elements of a Wastewater Scheme
- Base Scheme Elements taken forward
- Scheme Options Assessment (Domestic)
  - ‘Long Long’ List
  - Reduce this to a ‘Long List’
  - Traffic Light Assessment of ‘Long List’
  - ‘Short List’ of Potential Wastewater Schemes
- Short List of Potential Wastewater Schemes
- Components that make up the Short List Options
- Next Steps



# Introduction

- **Resource consent** for the current Hokitika Wastewater Treatment Plant discharge **expires in April 2026**.
- WCRC indicates the **existing discharge will not meet current receiving environment standards**.
- WDC is **investigating wastewater treatment and disposal options** for Hokitika.
  
- In 2019 Westland Milk Products (WMP) offered WDC the opportunity to join in with their then proposed ocean outfall project.
  - **Consulted with community: Annual Plan 2019/2020** with **two options presented**:
    - Option 1 - Partner with WMP on the Ocean Outfall project.
    - Option 2 - Wait until the Resource Consent is due to expire.
  
- WDC agreed to the ocean outfall option. Following **projected cost increases** WDC reviewed alternative methods of discharge.
  - **Consulted with community: Annual Plan 2020/2021** with **two options presented**:
    - Option 1 - Increased cost of WMP project.
    - Option 2 - Investigate alternative options.
  
- The community's preference for **Option 2: Investigate alternative options**, was adopted following the Draft Annual Plan 2020/2021 hearing process.

Continued



# Introduction

- **Working in Partnership with Poutini Ngāi Tahu** in the decision making process  
WDC committed to working in partnership to develop a solution that is sensitive to cultural and environmental concerns and that meets the needs of the community.
- Pathway/journey for the Hokitika Wastewater Upgrade Project  
Envisaged pathway presented to Poutini Ngāi Tahu at a hui at Arahura Marae, which was agreed to.  
Formation of a **WDC Oversight Subcommittee**, with **equal representation of Poutini Ngāi Tahu and WDC**, also agreed to.
- **Hokitika Wastewater Treatment Plant Project Oversight Subcommittee** formed  
WDC resolved to endorse this approach.  
Four representatives each from Poutini Ngāi Tahu and WDC.

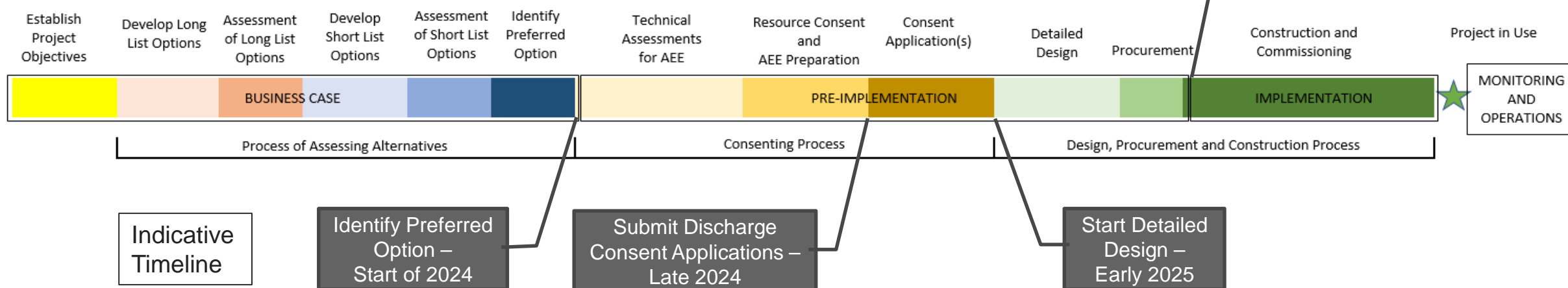


# Overview of Work to Date

Pathway/journey map, with indicative timeline.



**Hokitika WWTP Project - Proposed Pathway**



Latest application date for new discharge consents would be six months before expiry of existing consents in April 2026 (i.e. Oct 2025).

Once Consent Applications are lodged with WCRC, their process will govern the timeline. Also, with pending new legislation in terms of the Natural and Built Environment Act (NBA) different consent processes and timelines may apply. We currently assume the existing RMA processes will be retained over a transitional period.



# Overview of Work to Date

- WDC engaged Stantec to take the project lead.
- **Project outcome statement, process, and partner/stakeholder involvement**  
Agreed by: **Oversight Subcommittee** (Inaugural Meeting, Aug 2021).
- **Problems and benefits of investment**  
Defined by: Project Working Group (Iwi reps, WDC staff, Stantec persons) (Sept 2021)  
Endorsed by: **Oversight Subcommittee** (Oct 2021).
- **Technical elements of the project**  
Defined by: Project Working Group, plus WCRC staff (Oct 2021).  
Included: scope, risks, constraints and dependencies.
- **Draft Strategic Case Report**  
Issued to WDC for review (Nov 2021).  
Sets out: purpose, background, strategic context, case for investment, existing arrangements and needs, potential scope and key technical requirements, main benefits and risks, key constraints and dependencies.
- **Options Assessment Framework**  
Endorsed by: **Oversight Subcommittee** (April 2022)

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# Overview of Work to Date

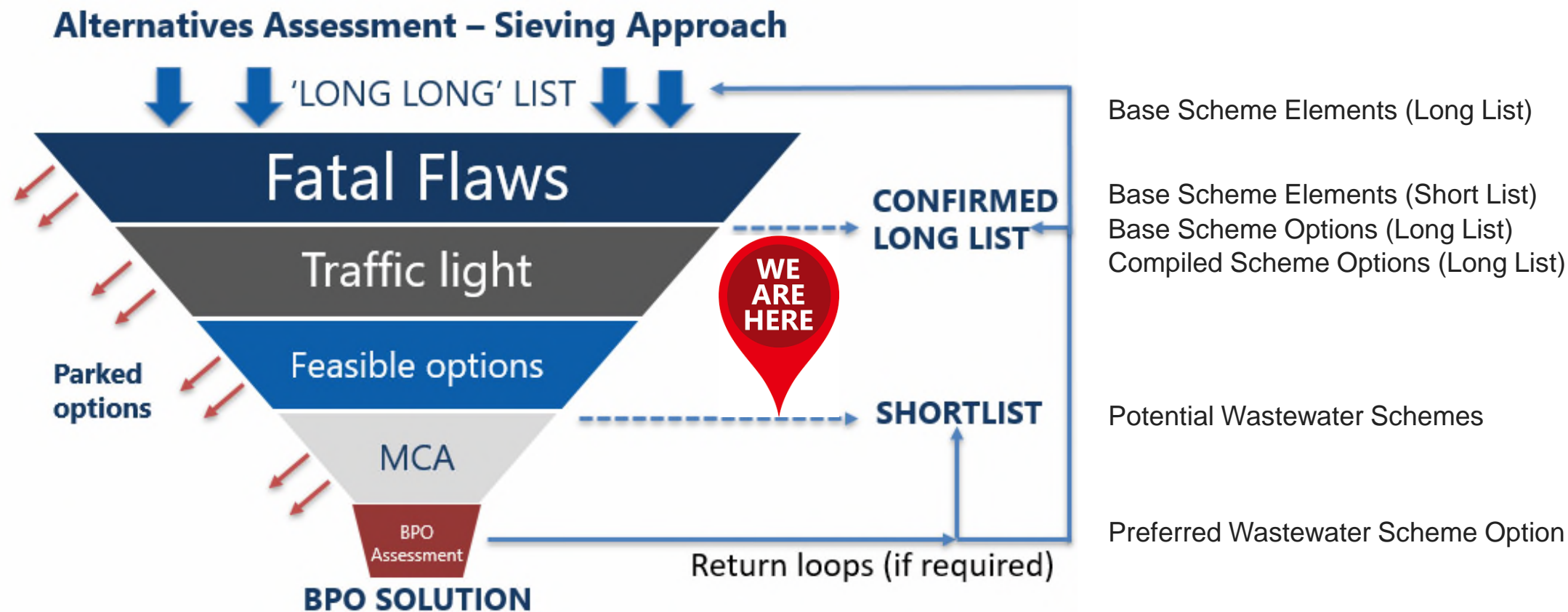
## Options Development:

- **Elements** of the Wastewater Scheme – options identified.  
By: Project Working Group, plus reps from WCRC, DOC, CPH (Nov 2021, Mar 2022).  
Included: locations, discharge, treatment, storage, capacity, funding and technology.
- **Silver Fern Farms** – start discussions on: project process, activities to date, and consideration of their discharges within the options assessment process (Nov 2021).
- **Westland Milk Products** – receive information from: to assist options assessment (May 2022).
- **Scheme Elements** – Fatal Flaw Assessment to identify those to take forward for Scheme Options.  
Assessed by: Project Working Group (May 2022).
- **Site visit** to Greymouth Biological Trickling Filter (BTF) WWTP  
Visits by: Project Working Group (June 2022), **Oversight Subcommittee** (Feb 2023).
- **Scheme Options ‘Long List’** – Traffic Light Assessment to identify a ‘Short List’.  
Assessed by: Project Working Group (June and July 2022, Jan 2023).
- **‘Short List’ of Potential Wastewater Schemes** – to take forward for detailed investigations.  
Endorsed by: **Oversight Subcommittee** (Feb 2023)





# Options/Alternatives – Sieving Approach



\*Feasible Options are an outcome of the Traffic Light Assessment

MCA – Multi Criteria Analysis (decision tool), BPO – Best Practicable Option (RMA definition)

**Importance under the RMA of a robust and defensible approach to alternatives assessment**





# Elements of a Wastewater Scheme

Receiving Environment Options (Treated Wastewater)	WWTP Location and Potential Treatment Options	Wastewater Inputs Management Options
<ul style="list-style-type: none"><li>• Ocean</li><li>• River</li><li>• Land</li><li>• Groundwater</li><li>• Re-use</li><li>• Combinations</li></ul>	<ul style="list-style-type: none"><li>• Location - starting from existing site and moving away from there.</li><li>• Base Treatment Options:<ul style="list-style-type: none"><li>• Ponds,</li><li>• Biological Tricking Filter (BTF)</li><li>• Conventional Secondary Treatment</li><li>• Membrane.</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Silver Fern Farms (SFF) inputs</li><li>• Wastewater Network inputs:<ul style="list-style-type: none"><li>• Includes: other trade waste, septage, stock truck, campervan, water demand management, infiltration and inflow reduction.</li></ul></li></ul>

Carry out **Fatal Flaw Assessment of Elements** (Domestic)



**Elements taken forward**  
To Scheme Options



# Base Scheme Elements taken forward

Elements taken forward to Scheme Options, following Fatal Flaw Assessment



## Receiving Environment Options

*Ocean:*

O3 – WMP Existing Outfall

O4 – New WDC Outfall (location not defined)

*Land:*

In the vicinity of -

L1 - West of Airport

L2 - Airport

L3 - East of Airport

L4 - Blue Spur

L5 - Kaniere

L6 - Southside / Adair Road

## WWTP Location Options

In the vicinity of:

TP1 - Existing WWTP Location

TP2 - West of Airport

TP3 - Airport

TP4 - East of Airport

## WWTP Base Treatment Options

A - Ponds

B - Biological Trickling Filter (BTF)

C - Conventional Secondary Treatment (CST)



# Scheme Options Assessment (Domestic)

Assessment follows the 'Sieving Approach':

Create '**Long Long List**' of Scheme Options (**153 Options**)  
From Elements



Reduced to a '**Long List**' of Scheme Options (**21 Options**)  
By **comparative assessment** between options



Carry out **Traffic Light Assessment** of the '**Long List**'  
To determine a '**Short List**'  
Includes: Treatment Enhancements  
But before: SFF considerations



'**Short List**' identified (**11 Options**)  
Endorsed by: **Oversight Subcommittee** (Feb 2023)



# Short List of Potential Wastewater Schemes

## 11 Options

Endorsed: Oversight Subcommittee (8 February 2023)

Base Scheme Ref.	Receiving Environment	WWTP Location	Base Treatment Option	Mana Whenua Input from 'Long List'	Treatment Enhancements			
					UV Disinfection (d)	Membrane Filtration (m)	Cultural Enhancement (c)	
O-TP1-B	Ocean via: WMP Existing Outfall	TP1 Existing WWTP Site	Biological Trickling Filter (BTF)	x	x	x	✓	
				x	✓	x	✓	
				x	x	✓	✓	
O-TP2-B		TP2 West of Airport		Biological Trickling Filter (BTF)	✓	x	x	✓
					✓	✓	x	✓
					✓	x	✓	✓
O-TP3-B		TP3 Airport		Biological Trickling Filter (BTF)	✓	x	x	✓
					✓	✓	x	✓
					✓	x	✓	✓
L-TP2-C	Land West of Airport via: RIBS/Trenches	TP2 West of Airport	Conventional Secondary Treatment	✓	✓	x	✓	
				✓	x	✓	✓	

Silver Fern Farms Options still to be worked through.



# Components that make up the 11 Short List Options

<b>Component</b>	<b>Description</b>
<b>Receiving Environments (2)</b>	<b>Ocean</b> (via Westland Milk Products existing ocean outfall) <b>Land</b> (West of airport via Rapid Infiltration Basins / Trenches)
<b>Base Treatment Options (2)</b>	<b>Biological Trickling Filter</b> (to Ocean) <b>Conventional Secondary Treatment</b> (to Land)
<b>Treatment Enhancements (3)</b>	<b>UV Disinfection</b> <b>Membrane Filtration</b> <b>Cultural</b>
<b>Treatment Plant Sites (3)</b>	<b>Existing Site</b> <b>West of Airport</b> <b>Airport</b>



# Next Steps

- Westland Milk Products – re-open discussion regarding the possible use of their ocean outfall
- Silver Fern Farms - options identification and addition to the ‘Short List’
- Communication / Engagement (progress update)
  - Iwi Partner
  - Statutory Authorities (WCRC, CPH, DOC)
  - Water Reform Entity D
  - Interested Parties
  - Wider Community
  - Other key Stakeholders
- Detailed investigations of Short Listed Schemes including SFF options (multi faceted)
- Multi Criteria Analysis of the Short Listed Schemes and decision making
- Identification of a Preferred Wastewater Scheme



# Questions