

## Maintenance Works Schedule for Small Streams, Drainage Channels and River Flood Fairways

**1 January 2024 – 31 December 2024**

| Job File Reference | Name of District              | Works Description                 | Timing   |
|--------------------|-------------------------------|-----------------------------------|----------|
| qA 1749            | Arthurton Drain               | Bed Excavation and Spraying       | Mar 2024 |
| qA 1562            | Bayswater Drain               | Bed Excavation and Spraying       | Mar 2024 |
| qA 1749            | Black Creek                   | Bed Excavation and Spraying       |          |
| qA 1570            | Blees Creek                   | Bed Excavation and Spraying       |          |
| qA 1749            | Bolgers Drain                 | Bed Excavation                    | Mar 2024 |
| qA 1765            | Boundary Creek                | Willow Control                    |          |
| qA 1749            | Carnies Outfall               | Bed Excavation                    |          |
| qA 1562            | Castledowns Drains            | Bed Excavation                    |          |
| qA 1570            | Centre Bush Creek             | Bed Excavation                    | Mar 2024 |
| qA 1749            | Charlton Drain                | Bed Excavation and Spraying       | Mar 2024 |
| qA 1686            | Clifton Drain                 | Bed Excavation and Spraying       |          |
| qA 1749            | Cronins Creek                 | Bed Excavation and Spraying       | Mar 2024 |
| qA 1570            | Dipton Channel                | Erosion Repair and Willow Control | Apr 2024 |
| qA 1688            | Duck Creek South              | Bed Excavation                    | Jul 2024 |
| qA 1688            | Duck Creek North              | Bed Excavation                    |          |
| qA 1765            | Fenham Stream                 | Willow Control                    |          |
| qA 1570            | Gaines Cull Creek             | Bed Excavation and Spraying       | Mar 2024 |
| qA 1749            | Gorge Creek                   | Bed Excavation (18 mth clean)     | Oct 2024 |
| qA 1570            | Howell Rd Drain               | Bed Excavation                    | Jul 2024 |
| qA 1765            | Lilburn Stream                | Willow & Erosion Control          | Nov 2024 |
| qA 1570            | Lochiel Channel               | Bed Excavation and Spraying       | Mar 2024 |
| qA 1749            | Longridge Stream              | Bed Excavation & erosion control  | Dec 2024 |
| qA 1749            | Mataura Is Drain              | Bed Excavation                    | Apr 2024 |
| qA 1749            | Menzies Ferry Drain           | Bed Excavation and Spraying       |          |
| qA 1562            | McKay Creek                   | Bed Excavation and Spraying       | Mar 2024 |
| qA 1584            | Middle Creek                  | Bed Excavation and Spraying       | Dec 2024 |
| qA 1570            | Murray Creek                  | Bed Excavation and Spraying       |          |
| qA 1584            | Old Otahuti Stream            | Bed Excavation                    | Oct 2024 |
| qA 1562            | Opahaka Stream                | Bed Excavation and Spraying       | Oct 2024 |
| qA 1570            | Oporo Flats Drain             | Bed Excavation and Spraying       | Apr 2024 |
| qA 1765            | Orauea River                  | Erosion Repair and Willow Control | Jan 2024 |
| qA1570             | Orion Rd Drains               | Bed Excavation & Spraying         | Mar 2024 |
| qA 1749            | Ota Creek                     | Bed Excavation & Spraying         |          |
| qA 1570            | Otakau Stream                 | Bed Excavation                    |          |
| qA 1584            | Otaitai Bush Drains           | Bed Excavation and Spraying       | Apr 2024 |
| qA 1687            | Otatara Drain<br>Lake Hawkins | Bed Excavation and Spraying       | Jan 2024 |
| qA 1567            | Otepuni Stream                | Bed Excavation                    |          |
| qA 1749            | Oteramika Stream              | Bed Excavation                    |          |

| <b>Job File Reference</b> | <b>Name of District</b>  | <b>Works Description</b>   | <b>Timing</b> |
|---------------------------|--------------------------|--|---------------|
| qA 1562                   | Otautau River Board Area | Bed Excavation and Spraying<br>Erosion Repair and Willow Control |               |
| qA 1749                   | Parawa Creek             | Bed Excavation & Spraying  | May 2024      |
| qA 1749                   | Pukerau Drains           | Bed Excavation   |               |
| qA 1749                   | Pukerau Stream           | Erosion Control  |               |
| qA 1749                   | Pyramid Drain            | Bed Excavation and Spraying                                      | Apr 2024      |
| qA 1749                   | Quoich Creek             | Bed Excavation   |               |
| qA 1749                   | Rippon Drain             | Bed Excavation and Spraying                                      | Mar 2024      |
| qA 1570                   | Roeburn Stream           | Bed Excavation   |               |
| qA 1765                   | Sharpridge Stream        | Erosion Repair   |               |
| qA 1749                   | Sheepwash Creek          | Bed Excavation   |               |
| qA 1570                   | Swales Creek             | Bed Excavation   | Mar 2024      |
| qA 1570                   | Swaneys Creek            | Bed Excavation and Spraying                                      | Jul 2024      |
| qA 1570                   | Stag Stream Cut Off      | Bed Excavation and Spraying                                      |               |
| qA 1584                   | Taunamau Stream          | Bed Excavation and Spraying                                      | Feb 2024      |
| qA 1562                   | Thornbury Trib           | Bed Excavation and Spraying                                      | Mar 2024      |
| qA 1749                   | Titiroa Drains           | Bed Excavation and Spraying                                      |               |
| qA 1570                   | Tomoporakau              | Bed Excavation and Spraying                                      | Feb 2024      |
| qA 1749                   | Titiwi Drains            | Bed Excavation and Spraying                                      |               |
| qA 1570                   | Waikiwi Stream Upper     | Bed Excavation and Spraying                                      | Mar 2024      |
| qA 1570                   | Waikiwi Stream Lower     | Bed Excavation   |               |
| qA 1570                   | Waiwana Stream           | Bed Excavation and Spraying                                      | Mar 2024      |
| qA 1569                   | Waihopai (Lower)         | Bed Excavation & Willow Control                                  |               |
| qA 1569                   | Waihopai (Upper)         | Bed Excavation   |               |
| qA 1749                   | Waikaka Tribs            | Bed Excavation and Spraying                                      |               |
| qA 1689                   | Waikawa Stream           | Bed Excavation and Erosion Control                               | Feb 2024      |
| qA 7235                   | Waituna Stream & Tribs   | Bed Excavation, Erosion control & spraying                       | Feb 2024      |
| qA 1584                   | Waimatuku Stream & Tribs | Bed Excavation, Erosion control & spraying                       |               |
| qA 1749                   | Waimea Stream Upper      | Bed Excavation and Erosion Control                               |               |
| qA 1749                   | Waimea Stream Lower      | Bed Excavation and Erosion Control                               |               |
| qA 1749                   | Waimumu Stream           | Erosion Control  | Dec 2024      |
| qA 1749                   | Waimumu Stream (old)     | Bed Excavation and Spraying                                      | Feb 2024      |
| qA 1570                   | Wallacetown Drain        | Bed Excavation   | Nov 2024      |
| qA 1765                   | Wairaki Stream           | Erosion Control  | Aug 2024      |
| qA 1570                   | West Plains Rd Drain     | Bed Excavation   | Nov 2024      |
| qA 1570                   | Winton Channel East      | Bed Excavation and Spraying                                      | Mar 2024      |
| qA 1570                   | Winton Channel West      | Bed Excavation and Spraying                                      | Mar 2024      |
| qA 1570                   | Winton Channel           | Bed Excavation, Willow and Erosion Control                       | Apr 2024      |

*Note: Blank timing spaces means no work is scheduled in this time period.*

## Invercargill City Drainage

| Job File Reference | Name of District | Works Description           | Timing |
|--------------------|------------------|-----------------------------|--------|
| qA 1566            | Kingswell Creek  | Bed Excavation and Spraying |        |
| qA 1567            | Otepuni Creek    | Bed Excavation and Spraying |        |
| qA 1569            | Waihopai Stream  | Bed Excavation and Spraying |        |

## Makarewa Tributary Drains

| Job File Reference | Name of District           | Works Description           | Timing   |
|--------------------|----------------------------|-----------------------------|----------|
| qA 1562            | Bews Trib                  | Bed Excavation and Spraying | Feb 2024 |
| qA 1562            | Buchanans Outfall          | Bed Excavation and Spraying |          |
| qA 1562            | Carsons Creek              | Bed Excavation and Spraying | Mar 2024 |
| qA 1562            | Counsell Rd Drains 1,2,3,4 | Bed Excavation and Spraying | Mar 2024 |
| qA 1562            | Dalzells Trib              | Bed Excavation and Spraying | Mar 2024 |
| qA 1562            | Gold Creek & Trib          | Bed Excavation and Spraying |          |
| qA 1562            | Grovebank Outfall          | Bed Excavation and Spraying | Mar 2024 |
| qA 1562            | Hedgehope Flats Drain      | Bed Excavation and Spraying |          |
| qA 1562            | Horman Rd Drain            | Bed Excavation and Spraying | Feb 2024 |
| qA 1562            | Horton Evans Trib          | Bed Excavation and Spraying | Feb 2024 |
| qA 1562            | Kerrs Outfall              | Bed Excavation and Spraying | Feb 2024 |
| qA 1562            | Pebbly Hills Outfall       | Bed Excavation and Spraying |          |
| qA 1562            | McPhersons Outfall         | Bed Excavation and Spraying |          |
| qA 1562            | Settlers Creek             | Bed Excavation and Spraying |          |
| qA 1562            | Sharks Tooth Creek         | Bed Excavation and Spraying | Feb 2024 |
| qA 1562            | Slee Hanning Outfall       | Bed Excavation and Spraying | Mar 2024 |
| qA 1562            | Swaneys Trib               | Bed Excavation and Spraying | Apr 2024 |
| qA 1562            | Tussock Creek              | Bed Excavation and Spraying |          |
| qA 1562            | Watts Outfall              | Bed Excavation and Spraying | Feb 2024 |

### ***Explanation of Drainage Maintenance Work***

The Drainage Works Programme that is in place today is a result of historic information and consultation with river/drainage liaison committees, ratepayers, interest groups, SoE groups and other affected parties.

To determine if a drainage scheme requires drainage, maintenance works inspections are carried out by Environment Southland Catchment Operations Division staff four weeks in advance of the programmed drainage works.

These inspections also determine the type of works required to maintain suitable drainage outfall.

Bed Excavation is removal of accumulated weed and silt to reinstate drainage outfall. Bed spraying is eradication of weed growth to reinstate drainage outfall.

Willow control is eradication and control of willow (majority crack willow) to stop infestation of waterways and flood ways.

Erosion control is repairing stream/river bank edge using willow species, rock armouring, concrete rip-rap and sediment manipulation. Sediment manipulation means removing accumulated sediment from the inside of the bend to relieve pressure on the outside of the bend where erosion is occurring. Excavated material will be placed on the eroding side in first instance or out behind machine if this is not possible or beneficial to the works in question.

### **Consultation – Note 1**

The above “*description of works*” and “*timing schedules*” are based on requirements established in consultation with rating district landowner/ratepayers, interested organisations and historic information. However, it may be necessary from time to time to alter the type of work or the timing of individual schedules programmes to meet changed circumstances.

In the event of a requirement to initiate a change greater than three weeks either side of that listed in the “Works Schedule”, Council staff will advise the following organisations in writing, three weeks prior to the commencement of any changed activity:

- Department of Conservation
- Fish and Game New Zealand, Southland Region
- Iwi
- South Island Eel Industry Association
- Southland Recreational Whitebaiters Association
- Public Health South

### **Te Anau Basin – Drainage District**

The following inventory of drainage rating districts are situated within the Te Anau basin and are all maintained on an irregular “*as required*” basis involving a mixture of *excavation and aquatic weed spraying*.

### **Consultation – Note 2**

In order that Council’s consultation requirements are met, Council staff will provide the following organisations with details of work proposals in writing, three weeks prior to the commencement of any activity on any of the listed rating districts within the Te Anau Basin.

- Department of Conservation
- Fish and Game New Zealand, Southland Region
- Public Health South
- Iwi
- Southland Island Eel Industry Association

### Te Anau Rating District Drains

These drains are now part of the wider Te Anau Rating District and receive work on an as required basis.

### Old E L R Drains

| Job File Reference | Name of Channel        | Length (metres) |
|--------------------|------------------------|-----------------|
| qA 1577            | Ellis Creek            | 5,847           |
| qA 1577            | Lagoon Creek           | 12,198          |
| qA 1577            | Reids Dale             | 6,166           |
| qA 1577            | Upper Lagoon Creek     | 2,780           |
| qA 1577            | Wilderness Swamp Drain | 1,938           |

### Old Mount York Rating District

| Job File Reference | Name of Channel                | Length (metres) |
|--------------------|--------------------------------|-----------------|
| qA 1577            | Stevens Tributary              | 3,695           |
| qA 1577            | Desolation Swamp               | 2,806           |
| qA 1577            | Desolation Creek               | 3,013           |
| qA 1577            | McLeods Stream and Tributaries | 7,922           |
| qA 1577            | Riverslea Drain No 1           | 7,223           |
| qA 1577            | Riverslea Drain No 2           | 2,437           |
| qA 1577            | Staple Drain                   | 6,634           |
| qA 1577            | Home Creek                     | 11,487          |
| qA 1577            | Waiau No 1                     | 6,520           |
| qA 1577            | Waiau No 2                     | 5,662           |
| qA 1577            | Waiau No 3                     | 6,573           |
| qA 1577            | Duncraigen No 1                | 2,895           |

### Old Whitestone Rating District

| Job File Reference | Name of Channel           | Length (metres) |
|--------------------|---------------------------|-----------------|
| qA 1577            | Boundary Block Drains     | 7,277           |
| qA 1577            | Fred Burn                 | 10,970          |
| qA 1577            | Dodds – Woods Tributary   | 2,360           |
| qA 1577            | Flaxy Creek               | 9,889           |
| qA 1577            | Dale Block Drains         | 3,687           |
| qA 1577            | Long Valley Drains        | 9,889           |
| qA 1577            | Kakapo Block Drains       | 2,964           |
| qA 1577            | Margin Tributary          | 1,808           |
| qA 1577            | Mount York Drains 1 and 2 | 3,040           |
| qA 1577            | Homestead Drains          | 3,465           |

### Old Upukerora Rating District

| Job File Reference | Name of Channel     | Length (metres) |
|--------------------|---------------------|-----------------|
| qA 1577            | Tributary "B"       | 2,620           |
| qA 1577            | Coal Pit Flat Drain | 1,034           |
| qA 1577            | Melland Tributary   | 3,967           |
| qA 1577            | Snowdon Drain       | 3,580           |

### River Fairway Spraying Programme

Ground-based spraying may occur intermittently on the flood fairways of the following rivers from the dates listed:

| Job File Reference | Name of Channel               | Timing                |
|--------------------|-------------------------------|-----------------------|
| qA 1762            | Waiau River and Tributaries   | July 2023 to Dec 2024 |
| qA 1741            | Oreti River and Tributaries   | Sep 2023 to Dec 2024  |
| qA 1649            | Mataura River and Tributaries | Sep 2023 to Dec 2024  |
| qA 1579            | Aparima River and Tributaries | Oct 2023 to Dec 2024  |
| qA 1759            | Mararoa River                 | Oct 2023 to Dec 2024  |
| qA 1759            | Whitestone River              | Oct 2023 to Dec 2024  |
| qA 1759            | Upukerora River               | Oct 2023 to Dec 2024  |
| qA 1693            | Makarewa River                | Oct 2023 to Dec 2024  |

### Makarewa River Works

| Job File Reference | Name of Channel  | Timing                     |
|--------------------|------------------|----------------------------|
| qA 1693            | Makarewa River   | November 2023 to July 2024 |
| qA 1693            | Lora Stream      | November 2023 to July 2024 |
| qA 1693            | Otapiri Stream   | November 2023 to July 2024 |
| qA 1693            | Dunstable Stream | November 2023 to July 2024 |
| qA 1693            | Titipua Stream   | November 2023 to July 2024 |
| qA 1693            | Hedgehope Stream | November 2023 to July 2024 |