



## LAND MANAGEMENT ACTIVITY – 1 MARCH TO 30 JUNE 2021

### 1. OVERVIEW

- 1.1.1 The purpose of this report is to update Council on the Land Management activity within the **Sustainable Land Use Initiative** (SLUI), Regional and Coast, and Nursery activities carried out under the Annual Plan and the **Te Uru Rākau** (TUR) contract.
- 1.1.2 The Land Management programme's primary activity is to reduce hill country erosion in order to increase the resilience of the region to storm events and improve water quality. At the end of 2021 financial year SLUI had completed more than 597,000 ha of **Whole Farm Plans** (WFPs) across 822 farms.
- 1.1.3 The Land Management Programme's progress in the 2020-21 financial year was:
- SLUI – 23,000 ha of new WFPs, 3,832 ha of grant works. Meeting both Annual Plan and Contract targets although the contract target for paddock maps was not met, with 1,004 ha completed against a target of 2,000 ha;
  - Regional and Coast and **Whanganui Catchment Strategy** (WCS) – 197 ha of grant works including cost-share work with the **Whanganui River Enhancement Trust** (WRET) meeting their financial and Annual Plan targets (175 ha);
  - Industry Partnerships – supported seven initiatives, exceeding the target of supporting at least five;
  - Nursery – last winter produced 32,600 poles for distribution to landowners for works in the 2020-21 year, exceeding the target of 30,000, and this winter approximately 37,500 poles will be distributed for works in the 2021-22 year;
  - Joint Venture Forestry – completed the silviculture work that was delayed last year by Covid-19 and fire risk, and worked through a substantial amount of the 2020-21 programme; updated measurements for forest growth and **Emissions Trading Scheme** (ETS) requirements;
  - Nursery Irrigation – estimates and quotes received for parts of the development with more work needed regarding the water supply.

- 1.1.4 In the last few months of the financial year, staff concentrated on finishing as many claims as possible and processed 250. The bulk of these claims were for fencing (riparian or retirement) but there was also a large number of late pole claims for the year. In late May and June staff had to switch their priorities to allocation and distribution of the winter 2021-22 poles as harvesting from the nursery started in early June.



Photo 1 – Completing fencing claims in June – Ohakune. Photo: Ryan Connor

- 1.1.5 Pole numbers are up this year with nearly 40,000 available for sale. By the end of June staff had orders for nearly 37,500 poles and were still working on finding homes for the remainder. This is a big increase on the 32,600 poles sold last year. There has been a slight over-demand for willow poles despite a solid increase in nursery stock.
- 1.1.6 Staff completed the March and May milestone reporting and invoicing for the SLUI contract.
- 1.1.7 Figures provided in this report were correct as at 30 June 2021 but there may be some adjustments as late claims are processed and the database is re-checked. There could be small adjustments made before the Annual Report is finalised. To this end all Annual Plan and contract targets should be considered provisional at the time this report was written.

## 2 REPORT ON PROGRESS

### 2.1 ANNUAL PLAN AND CONTRACT TARGETS (2020-21)

2.1.1 The Annual Plan and **Hill Country Erosion Fund** (HCEF) contract targets for 2020-21 are shown in the table below.

Table 1: Annual Plan and HCEF contract targets 2020-21 – Correct at 30 June 2021

MEASURE	ANNUAL PLAN	HCEF CONTRACT	TARGET	YTD	PROVISIONAL RESULT
<b>Sustainable Land Use Initiative (SLUI)</b>					
Erosion reduction works programmes in targeted SLUI catchments (ha)	3,100	3,065	3,100	3,832	Met target
Whole Farm Plan properties mapped per year (ha)	20,000	22,500	22,500	22,869	Met target
Farm or paddock assessments mapped per year (ha)		2,000	2,000	1,004	Not met target
Case study completed (number)		1	1	1	Met target
Feasibility reports (number)		6	6	4	Not met target
<b>Regional and Coast</b>					
Manage grant programmes to deliver erosion reduction works (ha)	175		175	197	Met target
Support industry initiatives that promote sustainable land use (number)	5		5	7	Met target
Operate council nurseries and source additional commercial pole material to deliver poplar and willow poles to control erosion (number of poles)	30,000		30,000	32,600 <sup>1</sup>	Met target

<sup>1</sup> This relates to poles distributed in winter 2020 for the 2000-21 financial year and meets the target for that year. As noted, approximately 6,000 of these poles have not been claimed in Land work programmes in the 2020-21 financial year. These claims will be completed in 2021-22 along with the winter production of approximately 37,500 poles.

2.1.2 All five of the Annual Plan targets and four of the six Contract targets were met. The exceptions are:

- Farm or paddock map assessment (HCEF Contract) 2,000 ha. These projects are completed by staff and are either small extensions to existing farm plans, mapping works before a farm plan is completed, or one-off assessments for one-off jobs. They have tended to be lower priority and more reactive than proactive. It is noted that the target for new Whole Farm Plans was 20,000 ha in the LTP and 22,500 ha in the HCEF contract, and the targets were exceeded with 22,869 ha completed.

- Feasibility Reports (HCEF Contract) six, completed four – these reports relate to working with landowners who need more information around the feasibility of establishing forestry blocks on their land. Four were completed in 2020-21, but there was less demand from landowners than in previous years. Some used forestry consultants while others were happy with their own knowledge or the support from their LMA. This missed target has had no impact on getting afforestation projects approved

2.1.3 The seven industry partnership programmes completed included support for:

#### **Ballance Farm Environment Awards**

- The year was interrupted due to Covid-19,
- Completed the 2019-20 winner's field day in November 2020,
- Started planning 2021-22 programme.

#### **Beef and Lamb (B & L) and other partners**

- Catch cropping (using short term crop after grazing) project looking at ways to reduce sediment loss, this project will wind up in spring,
- Continued with intensive winter grazing project with sheep, to compare sediment, nutrient and bacteria losses compared to cattle grazing,
- Supported intensive winter grazing campaign to support best practice,
- Spoke at B & L field days and workshops, including trees on farm and ETS.

#### **Poplar and Willow Research Trust and other partners**

- Supported release of the Giant Willow Aphid parasitic wasp biological control agent,
- Supported a research project into the establishment, life cycle and potential distribution of the poplar sawfly,
- Horizons staff member continued as a Trustee of the Poplar and Willow Research Trust,
- Continued membership of the Technical Advisory Group and the Nursery Managers' Group,
- Supported with sites and measurement of field trials.

#### **Taumarunui Sustainable Land Management Group**

- Membership, and attendance at meetings.

#### **New Zealand Farm Forestry Association**

- Membership,
- Attended meetings and spoke at field days.

#### **Farmed Landscape Research Centre (Massey University)**

- Sponsorship of annual workshop,

- Input into development of Intermediate and Advanced Farm Environmental Planning Courses.

**LandWISE**

- Sponsorship of annual conference.



Photo 2 – Winter trees, Stormy Point. Photo: Georgia Hodgson.

## 3 SLUI ACTIVITY

### 3.1 WHOLE FARM PLAN (WFP) PRODUCTION

3.1.1 WFPs are a tool for bringing new land into the programme and for allocating grants to farms on various land types (priority land). An important part of maintaining the momentum of SLUI is the ability to bring new farms, new land and new work into the programme. This table shows the plans completed in SLUI's **life-to-date** (LTD) and progress with bringing new plans into the programme.

Table 2: WFP production (life-to-date) – Correct at 30 June 2021

No. of Plans	Hectares	Comments
795	575,000	WFPs completed in SLUI to 30 June 2020 – 51 plans
42	22,869	Plans/ha mapped in SLUI in 2020-21
0	0	Plus plans/ha on list to be mapped in 2020-21
7	4,283	Plans that were on the list to be mapped in 2020-21 but now moved to 2021-22 financial year.

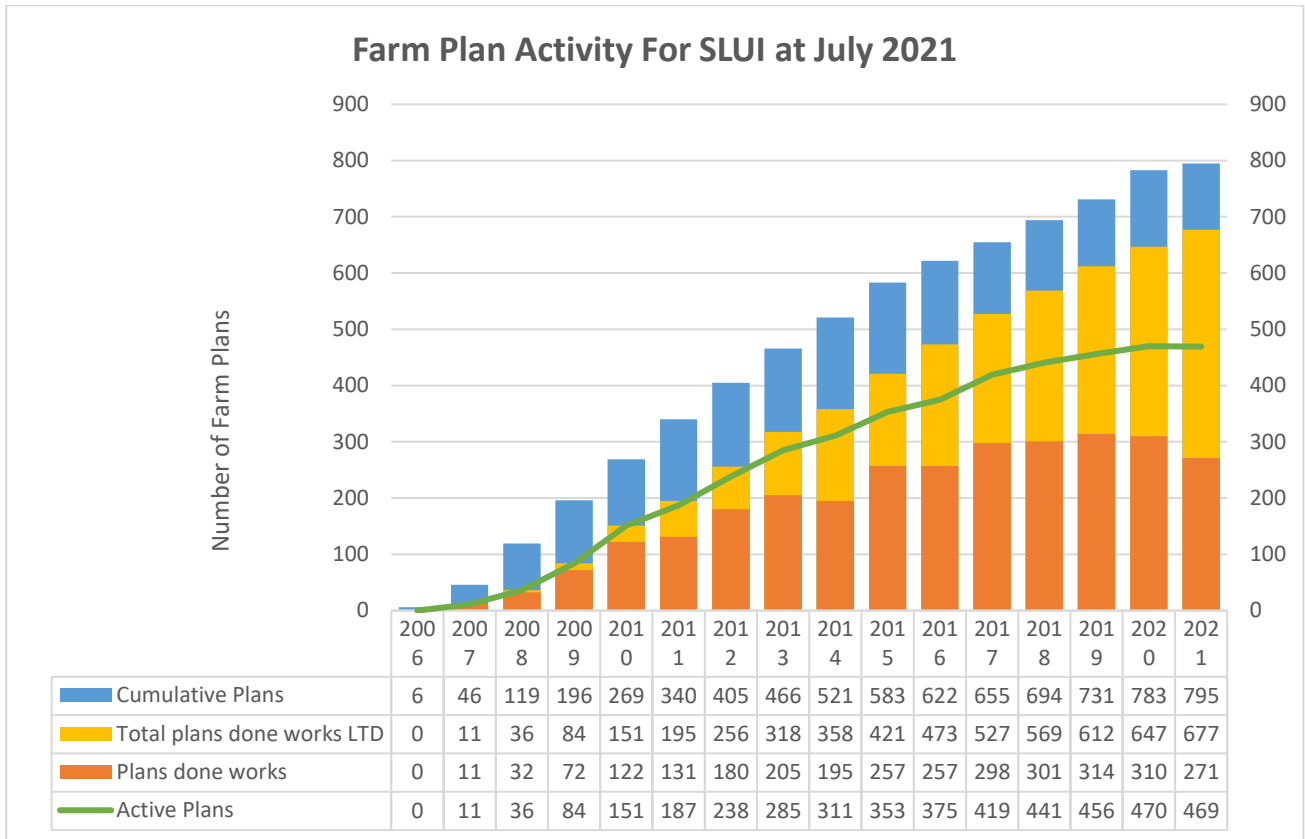
3.1.2 Fifty plans were allocated to the contractor in 2020-21, with 42 completed, seven carried over to 2021-22 and one put on hold by the landowner.

3.1.3 The seven plans (4,283 ha) carried over to this financial year will be first priority for mapping. There are 11 more plans on the list for this year so far, bringing the total allocated to 9,474 ha.

3.1.4 A further eight plans (1,004 ha) were mapped by Horizons staff. These were a mix of paddock maps and extensions to existing farm plans.

### 3.2 WHOLE FARM PLAN ACTIVITY

3.2.1 The contract targets focus on the number of plans completed and the activity of individual plans over the life of the programme. On an annual basis they provide another measure of SLUI activity. The number of plans active in any one year can and does change.



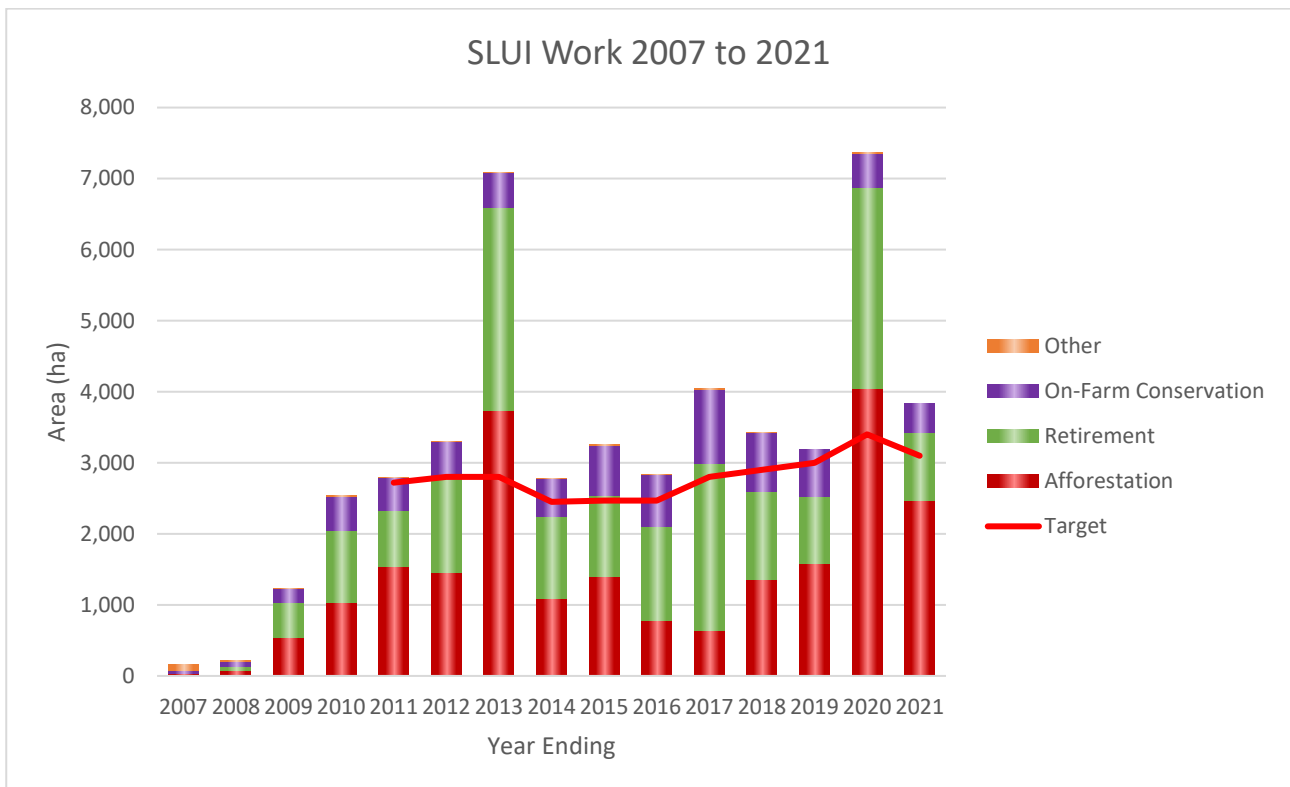
Graph 1: Farm Plan Activity at July 2021. Note this graph is not updated with all new WFPs as at 30 June.

- 3.2.2** Graph 1 looks at the farm plan activity as a whole and in any particular year. It is a “stacked column graph” where the orange, yellow and blue components of the column add up to the total number of plans in SLUI at the end of any given year. For example, in 2020-21 there were 795 plans completed over the life of SLUI, 677 had completed some works (85% active, up from 83% the year before), and 271 plans had completed some work in that year (i.e. 34% of plans active in 2020-21). The number of plans completing works is down from 310 in 2019-20 to 270 last year.
- 3.2.3** The solid green line tracks “currently active” farm plans where active is taken to be “has completed works in the last three years”. The number of “currently active” plans at the end of 2019-20 was 470 (60%). In 2020-21 this decreased by one to 469.
- 3.2.4** As expected, the data in Graph 1 shows a trend of more active plans (yellow stacked column) as we bring on 40-50 new plans per year. The number of plans active in any given three-year period (green line) has slowed. While to some extent this reflects older plans dropping off and becoming less active this year, we have had a number of new staff join the team and we have a number of claims that were not completed by the end of the financial year; while many of these will already have been “active” some would have added to the “currently active” set.

3.2.5 The plans that have done works this year dropped from 310 in the previous year to 271 in 2020-21. Active plans that have done works at least once in the last three years decreased from 470 to 469. This was a result of staff prioritizing distribution of the additional poles available for winter 2021 and deferring claim processing as a result, rather than fewer farms doing works. Approximately 60 pole claims and 40 riparian fence claims were rolled over from last year to this year and if these claims had been completed the numbers would have been higher.

### 3.3 SLUI LIFE-TO-DATE AND OUTCOMES

3.3.1 SLUI life-to-date annual works completed are shown in Graph 2.



Graph2: SLUI works completed by work type during the life of the programme against annual contract targets (red line). See Graph 3 for the change in job status through the year.

3.3.2 Each year since 2010 the contract target for hectares of works completed has been exceeded.

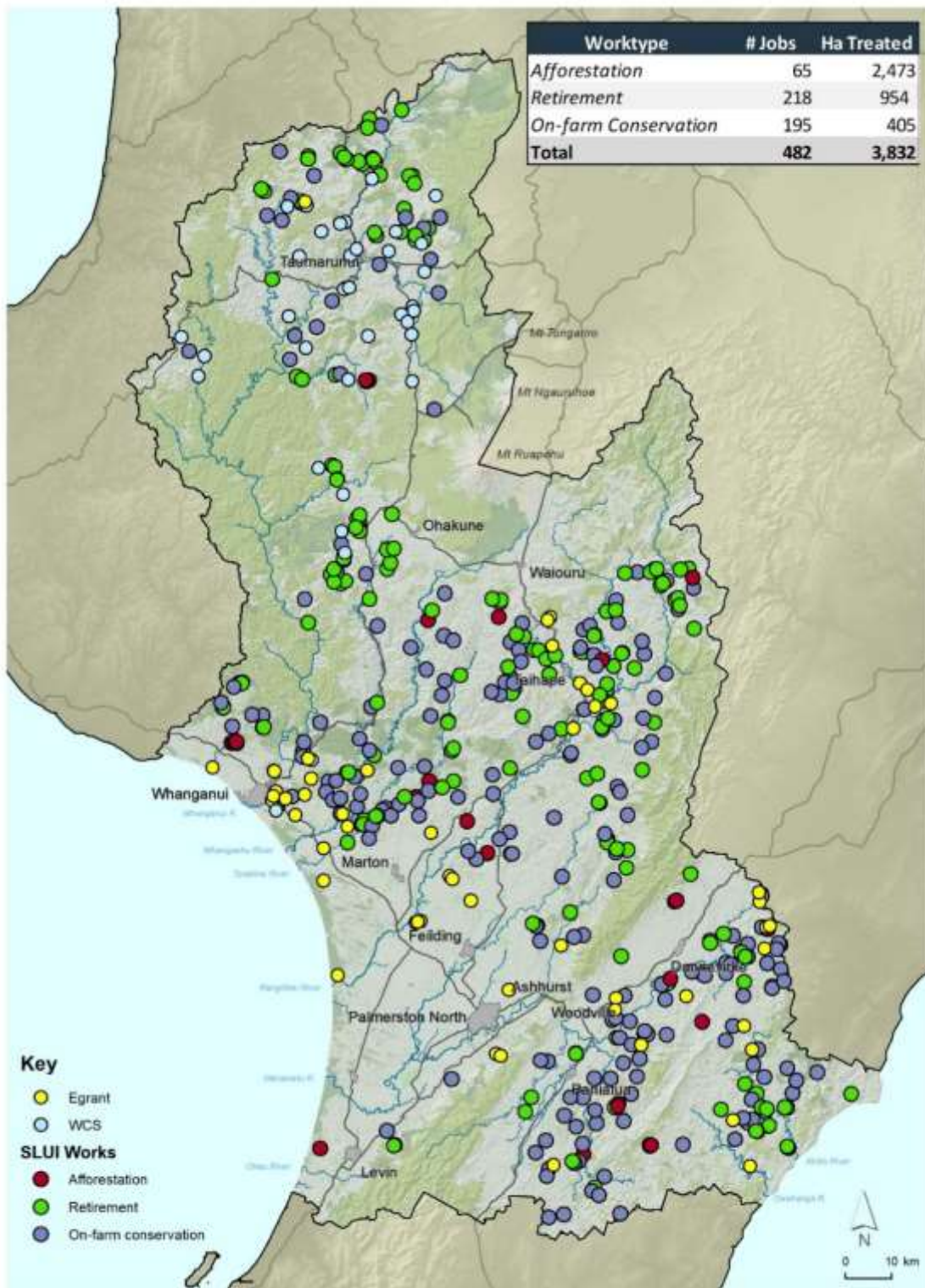
3.3.3 The most work was completed last year with just over 7,000 ha of work. Afforestation and retirement made up the bulk of the work.

3.3.4 The notable years for afforestation were 2013, when there was a high level of uptake for the Afforestation Grant Scheme, and 2020, when there was a large amount of carbon and carbon/timber forestry established.



- 3.3.5 Retirement programmes also peaked in 2013 and 2020. In 2013 this was due to a large amount of jointly funded Ngā Whenua Rāhui work completed in the Whanganui and Whangaehu catchments. In 2020 a large contribution was due to one major retirement project in the upper Rangitīkei Catchment with 1,315 ha completed, which was 50% of the total retirement work.
- 3.3.6 On-farm conservation (purple) is predominantly space planting and gully planting with poplar and willow poles but also includes structures and earthworks. It is consistently about 500-1,000 ha per year and the limitation is largely pole supply. In the 2020-21 financial year there were approximately 60 pole claims outstanding and the works completed dropped to 404 ha. Pole supply has increased by around 5,000 poles for the 2021-22 financial year (approximately 15% increase). It is noted that pole supply is expected to be lower next winter for work in the 2022-23 financial year.
- 3.3.7 At the current rate of progress, analysis suggests it will take 112 years to carry out works on all the top priority land that is currently in pasture. This calculation is based on completing approximately 3,000 ha of work per year with 1,000 ha on top priority land, about 500 ha of which is in pasture. The other 500 ha is retirement of existing tree-covered land. All the high priority land that is currently in pasture is estimated to take 252 years of works.
- 3.3.8 Outcomes for SLUI have been modelled by **Manaaki Whenua Landcare Research** (MWLCR) and this work was reported for Horizons in the 2019 **State of Environment Report** (SOE) at page 19.  
<https://www.horizons.govt.nz/CMSPages/GetFile.aspx?guid=a77bc2a4-381f-4660-8ef9-4e2486ac7165>
- 3.3.9 The Science and Land teams are working with MWLCR to update their modelling, which should be completed by June 2022. This work is focusing on modelling the outcomes of SLUI in relation to sediment in rivers, including the new targets of the **National Policy Statement for Freshwater Management** (NPS-FW). The work is scoped to investigate the impact of SLUI life-to-date i.e. if it continues at a similar pace or if it were doubled in pace, and what the impact of climate change would be on the mid-century and end-of-century outcomes.

This is understood to be the first piece of work in New Zealand linking a land management programme with the NPS targets and climate change.



**2021 Worktype Locations**

Map prepared by W McKay, NRP Group on 14/07/2021

Map 1: Location of all grant works completed this financial year (SLUI and Regional and Coast). Note the hectares completed does not include the Regional Grant and WCS works.

## 3.4 YEAR-TO-DATE ACHIEVEMENTS

3.4.1 The table below shows the types of works completed and claimed in the 2020-21 financial year.

Table 3: Works year-to-date completed and claimed, by grant amount and land priority

Work Type	Claims	Farms	Grant \$	Hectares By Land Type					Total Ha
				Other (ha)	Not Erodible (ha)	Erodible (ha)	High Priority (ha)	Top Priority (ha)	
Afforestation	65	39	857,663	25.7	229.4	1,046.8	896.8	274.5	<b>2,473.2</b>
Retirement	77	65	539,233	8.0	43.0	198.7	198.5	174.3	<b>622.4</b>
Riparian Retirement	115	81	727,612	1.4	43.3	91.9	40.5	119.3	<b>296.4</b>
Wetland Retirement	25	23	118,368	0.0	13.3	20.3	0.5	0.8	<b>35.0</b>
Managed Retirement	1	1	3,168	-	0.0	0.4	-	-	<b>0.4</b>
Pole Planting	196	195	266,079	5.8	16.3	249.4	90.8	42.6	<b>404.8<sup>1</sup></b>
Other	3	3	47,745	-	-	-	-	-	-
<b>Total</b>	<b>482</b>	<b>288</b>	<b>2,559,869</b>	<b>40.9</b>	<b>345.3</b>	<b>1,607.6</b>	<b>1,227.1</b>	<b>611.6</b>	<b>3,832.4</b>

<sup>1</sup> As noted in Sections 4.2.5 and 4.3.6 – more poles went into the ground but approximately 60 claims are still to be completed; this may equate to approximately 5,000-6,000 poles, 150 ha of work and \$70,000 grant cost.

3.4.2 The 3,832 ha of works completed and claimed is 124% of the Annual Plan full-year target of 3,100 ha and 125% of the TUR Contract target

3.4.3 Hectares completed by land type shows 1,839 ha (48%) of work claimed to date this financial year is on High priority and Top priority land. The bulk of this work has been completed on afforestation projects.

3.4.4 There have been 482 claims completed on 288 farms. This is fewer than last year, a record year, but there are still potentially 60 pole claims and 40 fencing claims outstanding.

3.4.5 There was 168 km of fencing completed, 2.8 million trees planted including 41,000 riparian plants in the 2020-21 financial year.

## 3.5 FORECAST VS ACTUAL (TARGETS VS ACTUAL BY WORK TYPE)

3.5.1 Table 4 shows the forecast and actual figures against target for 2020-21. The work programme is fluid and changes throughout the year. Some changes are due to postponements or cancellations and some are due to new plans coming on-stream and bringing in new work programmes. The dollars shown in the table are the grant cost. It is unclear yet how Central Government's Freshwater rules governing river fencing will affect the work programme but it is likely more riparian fencing will be completed and requests for funding will increase, although this is

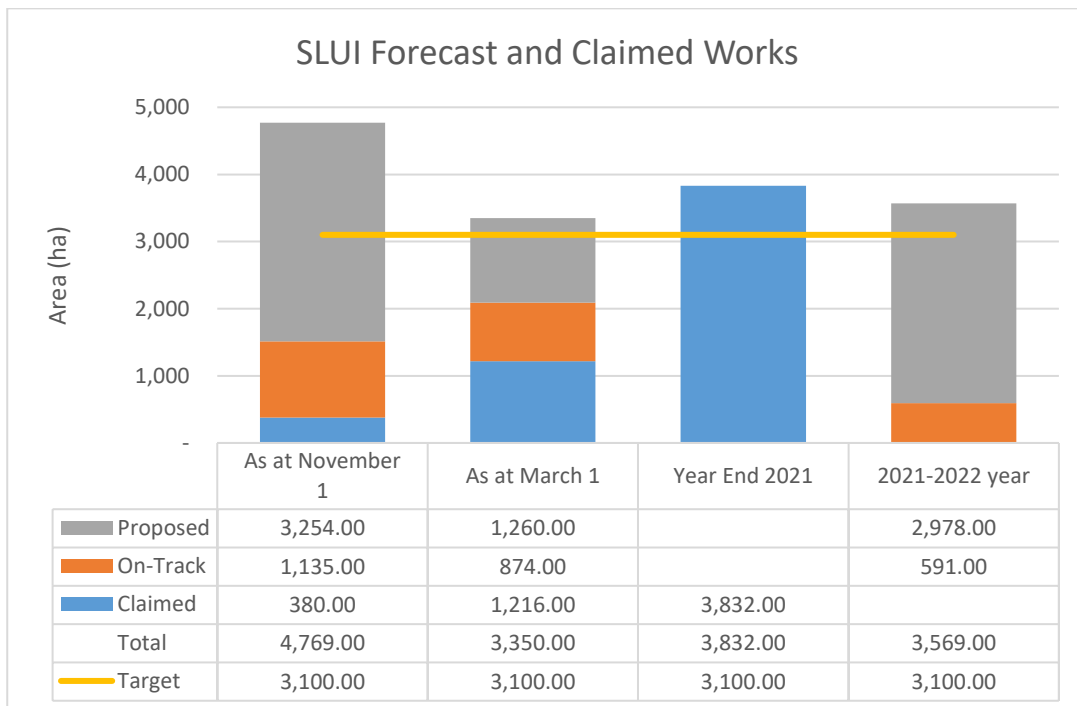
already over-allocated. Further ahead, farmers may choose to redirect funding from afforestation or other works to riparian protection, and as a result the programme may struggle to meet some targets.

Table 4: Work during 2020-21 financial year (contract vs forecast vs actual by hectares and dollars).

Work Type	Hectares				Dollars \$ x 1,000			
	Contract Target	Forecast	Actual	Actual vs Contract	Contract Target	Forecast	Actual	Actual vs Contract
Afforestation	1,250	1,475	2,473	+1223	939	1,056	858	-81
Retirement	600	714	622	+22	261	819	539	+278
Riparian Retirement <sup>*A</sup>	220	573	332	+111	357	1,672	846	+489
Managed Retirement	85	17	0.4	-84	25	27	3	-22
Space Planting & Gully Planting	900	665	404	-496	398	315	266	-132
Structures/Earthworks	10	1	0	-10	60	7	0	-60
Other (inc. blank)	0	35	0	0	63	25	48	-15
<b>Total <sup>*B</sup></b>	<b>3,065</b>	<b>3,480</b>	<b>3,831.4</b>	<b>+767</b>	<b>2,103</b>	<b>3,921</b>	<b>2,560</b>	<b>+457</b>

\*A – includes wetland retirement

\*B – Annual Plan Target is 3,100 ha, SLUI Contract Target is 3,065 ha.



Graph 3: Changes to SLUI job status through the year and works allocated for the next financial year. "On-track" means the Land Management Adviser has re-confirmed the work with the landowner or is confident the work will proceed. Graph 3 updates Table 4 with more recent forecasts.

- 3.5.2 Table 4 compares contract target (ha and \$) to forecast and actual. Individual work targets can vary widely, i.e. in reality the contract was to deliver 3,065 ha and the mix of work types will change from year to year. Graph 3 tracks the changes in amount of work and the certainty of that work being completed over the course of the year and into next financial year, as understood through conversations with landowners.
- 3.5.3 Graph 3 shows that jobs allocated for the 2021-22 financial year sit above the target at 3,569 ha. On-track works are largely those carried over from 2020-21. We are still actively seeking works for the year.

## 3.6 JOINT VENTURE FORESTRY OPERATIONS

- 3.6.1 Horizons has interests in 10 **joint venture** (JV) forests (under a registered Forestry Right) with a net stocked area of 1,387 hectares. A report on these forests was provided to Council in April 2017. Work and expenditure in the forests includes rates and insurance payments, maintenance of tracks and fences, pest control, audits and inspections, monitoring and measurements, arranging silviculture, valuations for external audit, maintaining ETS registration and reporting, and liaising with landowners.
- 3.6.2 The Silviculture Contract with Penetito Forestry has been extended for a further two years. This was agreed through the contract negotiations and procurement process carried out and reported to Council in PX 19-200. A works plan for 2021-22 has been written and agreed.
- 3.6.3 Thinning operations on Seddon's forest have been completed. This operation required use of a contractor to manage roading stop/go operations for trees on the road edge.
- 3.6.4 Wright's and Thompson's thinning was completed along with Thompson's track maintenance.
- 3.6.5 Forest 360 have completed plotting for carbon measurement.
- 3.6.6 Consultant Allan Bell completed a forest audit, checking our plotting and growth measurements were being carried out appropriately.
- 3.6.7 Orme and Associates were engaged to carry out forest valuation work which was completed in mid-June in order to meet end-of-year reporting requirements.
- 3.6.8 Pricewaterhouse Coopers have been engaged to report on a number of the forestry issues, including how these forests are accounted for within the Horizons financial system, accounting treatment of the valuation and how we report on potential income and costs (including provision for replanting), and management and accounting treatment of carbon. This report is nearing completion.

## 4 REGIONAL AND COAST, WHANGANUI CATCHMENT STRATEGY (WCS) AND WHANGANUI RIVER ENHANCEMENT TRUST (WRET)

### 4.1 PROGRESS ON ENVIRONMENTAL GRANT FUNDING AND ADVICE

4.1.1 Environmental Grant funding is in place to support landowners to undertake works that will reduce erosion and protect the environment. This funding is targeted slightly differently between the **Regional Land and Coast** (RL&C) environment grant and the **Whanganui Catchment Strategy** (WCS) grant. Under the WCS, support from **Whanganui River Environmental Trust** (WRET) enables a greater variety of work to be funded and at higher grant rates in some areas.

Table 5: Work area and budget expenditure 2020-21 – Correct at 30 June 2021

Grant Type	WORK AREA (ha)				BUDGET (\$)			
	AP Target	Allocated	Complete	AP % Complete	AP Budget	Allocated	Complete	AP % Complete
<b>WCS</b>	75	137	96	123	113,000*1	187,645	116,947	103
<b>RL&amp;C</b>	100	151	101	114	80,000	138,691	77,185	96
<b>Total</b>	<b>175</b>	<b>288</b>	<b>197</b>	<b>118</b>	<b>193,000</b>	<b>326,336</b>	<b>194,132</b>	<b>101</b>

Note \*1 - this is \$50,000 Horizons and \$63,000 WRET

- 4.1.2 WRET allocation of grant funding for the 2020-21 financial year was \$63,000, with a share cost invoiced to WRET of \$61,508. This left a WCS grant cost to Horizons of \$55,439, slightly over budget.
- 4.1.3 Of the 100 projects completed, 51 were for pole planting, 21 riparian retirement and nine for retirement.
- 4.1.4 The 51 pole planting projects totaled 3,891 poles.
- 4.1.5 Eighteen of the 21 riparian projects were completed in the WCS area, reflecting the WRET commitment to these projects and the greater emphasis of riparian projects by the Land team in this area with the Freshwater Team supporting other parts of the region.
- 4.1.6 Eight afforestation projects were completed with 20,281 trees established.
- 4.1.7 It is noted that Dick Lancaster has stood down from the Taumarunui Sustainable Land Management group due to health reasons. Dick has been the mainstay of the group since its inception and his drive and influence will be missed.

## 4.2 INDUSTRY PARTNERSHIPS

### **BALLANCE FARM ENVIRONMENT AWARDS (BFEA)**

- 4.2.1 The local organising committee for the BFEA programme met in late May with Nadine Olsen as the new coordinator. Entrants are open for the 2021-22 year and the BFEA website has been updated to give potential entrants more information regarding the process. [Ballance Farm Environment Awards \(nzfeawards.org.nz\)](https://nzfeawards.org.nz)

### **POPLAR AND WILLOW RESEARCH TRUST (PWRT)**

- 4.2.2 The PWRT held a meeting in May and planned an extra meeting in mid-July to discuss future planning, including long-term funding.
- 4.2.3 PWRT has used the new funding from the One Billion Trees programme to support wider extension programmes with a workshop for regional council staff pm pole planting, varieties, site selection and planting to be held in Masterton in September.
- 4.2.4 Land Management Advisor Weston Brown has supported the PWRT set up a new trial site near Taumarunui which will evaluate establishment and growth of three-metre poles, stakes and rooted cuttings.

### **BEEF AND LAMB NEW ZEALAND (BLNZ)**

- 4.2.5 Staff attended two further BLNZ workshops covering farming and the ETS. BLNZ has engaged Forest 360 to present to farmers about how the ETS may affect them and Horizons staff have attended to clarify funding available through our grant programmes.
- 4.2.6 The winter grazing campaign, a multi-funded project between industry bodies and regional councils, continued this year.

The June update follows:

#### **What was done in April & May?**

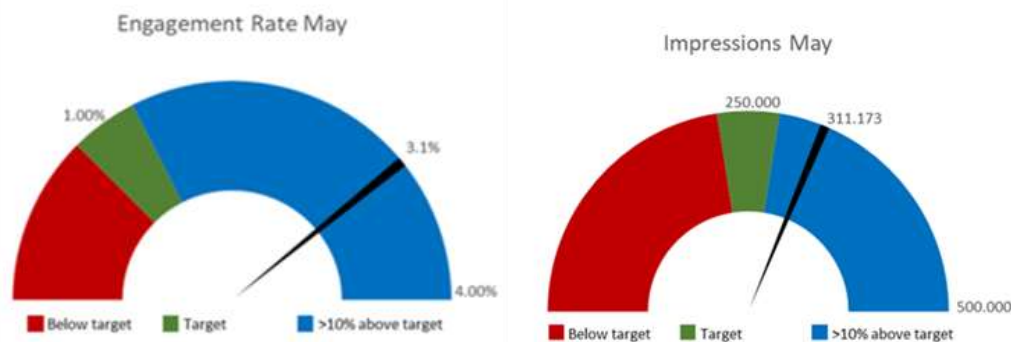
- Three advertisements were placed, in Central Rural Life (CRL), Southern Rural Life (SRL) & Farmers Weekly.
- Eight news stories were written and published (2 in B+LNZ eDiary, Rural Co and Canterbury Farming, CRL and SRL)
- Ten good management practice resources were shared through B+L social media & eDiary.

#### **What was happening in June?**

- Seven advertisements in Farmers Weekly, CRL & SRL
- Fourteen good management practice resources
- Three news stories.

### How are we tracking compared to last year?

Beyond expectations with both metrics far above target levels for May 2021:



Target ranges (green) are based off last year's results.

### OTHER

- 4.2.7 Staff attended and presented at a number of events including farm discussion groups and farmer visits. Central Government's Freshwater rules, especially intensive winter grazing and the low-slope map for river fencing, have continued to dominate discussions.
- 4.2.8 Staff attended the Horizons Oranga Wai meetings in Kimbolton, Taihape, Ohakune, Taumarunui and Whanganui, and report good landowner attendances.
- 4.2.9 Land staff were on site at the Horizons display at the Central Districts Field Days.
- 4.2.10 Where appropriate staff supported catchment care groups including Whangaehu, Otinui, Pohangina, Upper Manawatu, and others.
- 4.2.11 Staff presented on erosion and land-use issues in the Whanganui Catchment to Lincoln University students on their annual North Island field trip.
- 4.2.12 All Land Team were on site for a training day for planting poles. The day started at the Woodville Nursery and covered pole handling, health and safety, trailer loading and load security, before going on-farm to cover pole variety selection, siting and planting. We have five staff in their first year of advising farmers on poles so this was a very important opportunity for experienced staff to pass on their knowledge.



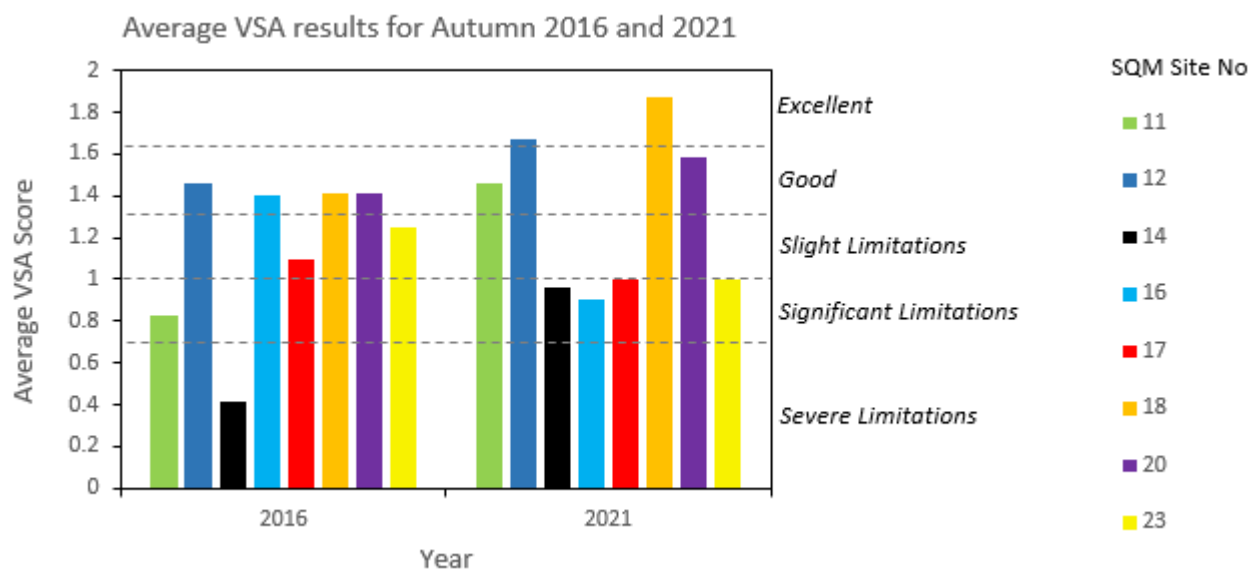


Photo 2 – Staff training in pole planting – Oroua catchment, London’s Ford. Photo: Sara Mathieson.

## 4.3 SOIL HEALTH

- 4.3.1 **Soil Quality Monitoring** (SQM) continued during autumn with 12 SMQ site visits between May and June. Nine of these sites were originally visited in Autumn 2016 and these were the first repeat visits.
- 4.3.2 SQM site visits were undertaken on a range of land-use types including dairy, sheep, trees, dry-stock and vegetable farms. There was a particular focus on including vegetable farms, with three new sites added to the programme during the autumn 2021 run. One was on Manawatu series soil (Recent) on the lower river flats in Palmerston North and two were on Ohakune series soils (Allophanic) between Raetihi and Ohakune.
- 4.3.3 Samples from the autumn 2021 run have been sent to **Manaaki Whenua Landcare Research** (MWLCR) for analysis. Once these results are back, letters will be written to

the landowners to present and interpret the results. **Visual Soil Assessments** (VSAs) conducted on the autumn 2021 SQM sites have been completed with eight able to be compared to 2016 results. On average, the results indicate the Kairanga and Tokomaru silt loam sites had improved their soil structure, colour and worm count in spring 2021 compared with spring 2015. This appears to relate to a more favorable preceding winter-spring, as well as a longer interval since the sites had been cropped.



Full analysis of the soil physics, soil chemistry and VSA results will be conducted over the coming months. Preliminary analysis of the VSA results shows that, SQM sites generally have improved over time. This is likely related to the length of time under pasture or a longer interval since the sites have been cultivated. Soil quality has been shown to decline with increasing frequency of cultivation (Taylor *et al.* 2017). This is highlighted by the decline in VSA scores for sites 16, 17 and 23 where the soil is subject to continuous cultivation with little to no rest periods. The SQM programme aims to share and explain soil quality information to landowners, to help influence land management decisions.

## 4.4 SUPPORT FOR CONSENTS AND COMPLIANCE

4.4.1 Advice to landowners regarding the need for consents or compliance for a number of activities which may be permitted or require consent, including:

- One on vegetation clearance where a consent was required,
- One on vegetation clearance where no consent was required,
- One on tracking/earth disturbance on land in the hill country zone where consent was required.

## 5 NURSERY

### 5.1 WORK PROGRAMME TO DATE

#### 5.1.1 WRET-supported nurseries in the Ruapehu District:

- A small number of poles were harvested from the Manunui Nursery and a small number of private grower poles will be available,
- The WRET-funded nurseries are on track for harvest next winter.

#### 5.1.2 Woodville:

- The bulk of this year's Horizons supply will be from the Woodville nursery. Harvest started in the first week of June with the contractor's crew ranging from 2-4 staff, two being experienced workers. By the end of June 10,800 poles had been cut, trimmed, sorted and stacked ready for distribution;
- One truck and trailer load of poles and sleeves was delivered to Taihape (Photo 2), with poles for both Taihape and Taumarunui deliveries.



Photo 3 – Bulk pole delivery from Woodville Nursery to Taihape depot. Photo: Sara Mathieson.

- A number of shelterbelts need to be removed but finding contractors is problematic as there are no contractors willing or able to do the full job;
- Waste piles have been burnt and in future there will be more of an emphasis on mulching as much material as possible;
- Investigation into irrigation development continues and we have an estimate for construction of a water storage dam, but are having difficulty getting confirmation of water supply and dam liners from Tararua District Council;
- A plant seedling storage area has been completed and is being utilised by the Freshwater team to store bulk plant supplies for delivery to individual riparian projects;
- The pole storage system has now been in place for three years and is working well. Individual bays contain bundles of poles that can be labeled with variety, number in the bay and date cut so that staff will pick up the oldest poles and record the number they have taken. The sprinklers placed on the tops of the bay posts allow poles to be kept moist without being oversoaked.



Photo 4 – Pole storage bays at Woodville Nursery with each bay displaying information on number of bundles, variety and date cut. Photo: Sara Mathieson.

### 5.1.3 Bulls:

- The Woodville harvest contractors were also completing the Bulls harvest. The team switched from Woodville to Bulls in mid-June with completion due for the end of June. An estimated 4,800 poles will be cut;
- An outdoor cold shower has been installed for any chemical spills;
- There was an attempted break-in to the shed. The area has been reinforced and we have purchased two security cameras with one installed as a trial;
- A newly-cleared area is being prepped for planting in willow stakes this spring.

### 5.1.4 Weber:

- There will be a small harvest of 250 willow poles from Weber this winter;
- We are reviewing our management of this area. The land is leased from Tararua District Council and, if we decide to relinquish the lease, the area will have to be cleared and re-grassed.

## 5.2 ACTIVITY DURING JULY-SEPTEMBER

### 5.2.1 During July-September staff will:

- Complete the SLUI WFP contract allocation to LandVision – at July 1 they had been allocated 17 properties totaling 9,474 hectares with a further 11 properties totaling 7,617 hectares to allocate. These will be assessed and allocated based on Top priority farms first;
- Update the grant allocations for the SLUI works programmes – currently 356 jobs totaling 3,569 hectares are allocated to 2021-22 but most staff have yet to record their pole-planting jobs. This indicates that we are going into the year with SLUI more than fully allocated. Staff will continue to assess new jobs and add to this during the 2021-22 year as past experience tells us some jobs will drop off, and Council-approved use of reserves will allow for some over-allocation;
- Update the Egrant and WCS allocations for works programmes – currently 25 Egrant jobs totaling 48 hectares, and 20 WCS jobs totaling 51 hectares;
- Finalise the Forestry report undertaken by PWC with a draft already commented on;
- Continue to cost and firm up the Woodville Nursery irrigation development;
- Finalise a project with Manaaki Whenua Landcare Research on an update to the Sednet model incorporating all Land Management programmes i.e. not just SLUI;

- Continue with the pole sales and delivery, and assist and demonstrate planting. This will be a major component of the July-August workload;
- Only carry out claim processing if contacted by landowners as this is a lower priority than completing winter planting programmes;
- Keep in contact with landowners carrying out afforestation programmes with 45 programmes at this stage totaling 1,131ha of afforestation ranging in size from 1-140 hectares;
- Deliver plans completed in the 2020-21 financial year. This involves working through the information in each plan and discussing possible work programmes. It may also include on-farm inspections;
- Complete end-of-year reporting for Annual Report, Contract Milestone reporting, and Whanganui River Enhancement Trust;
- Set a date for SLUI Advisory Group meeting.