



LAND MANAGEMENT ACTIVITY – 15 AUGUST 2020 TO 31 OCTOBER 2020

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 Rakau](#) (TUR) contract. The report is presented in five sections:
1. Activity during the last reporting period and upcoming activity;
 2. Report on progress against the Annual Plan, and contract outputs;
 3. SLUI activity by Whole Farm Plan production, work completed life-to-date and year-to-date, and against targets;
 4. Regional and Coast work completed against year-to-date targets; and
 5. Nursery activity.
- 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. The [Sustainable Land Use Initiative](#) (SLUI) is the main component of the programme. It has more than 575,000 ha of farm plans across 800 farms and aims to complete approximately 3,100 ha of erosion control works and 22,500 ha of new farm plans in the 2020-21 year.
- 1.1.3 Beyond hill country erosion control, the Land programme also supports industry partnerships including the Ballance Farm Environment Awards and events that enable discussion among industry professionals and farmers about land management activity. The Land Management team also provides support to Horizons' regulatory teams about the implementation of the [National Environmental Standard for Plantation Forestry](#) (NES-PF) and the implementation of One Plan policies and rules about land disturbance and vegetation clearance. More recently we have been working on implementation of the NES-FW for freshwater.
- 1.1.4 Management of poplar and willow nurseries in order to provide the necessary materials for the hill country erosion work is the final component of the Land activity. Upgrades to Horizons' Woodville nursery will continue this year. The programme aims to produce more than 30,000 poplar poles to be planted annually for erosion control within our region.
- 1.1.5 The Annual Plan and contract targets are agreed, with the latest [Ministry of Primary Industries](#) (MPI) contract signed in August 2019. This commits MPI funding of more than \$6.4 million over

four years until 30 June 2023. The overall budget for this programme exceeds \$30 million, consisting of funding from Horizons, MPI and landowners.

1.1.6 The MPI funding is not evenly spread over each of the four contract years and this is the lowest year for funding with MPI contributing \$1.388 million.

1.1.7 The Land Management activities of this year's work programme link to the Council's Long-term Plan 2018-28 and to the non-regulatory methods of the One Plan (Chapter 5, Policies 5-1 & 5-5).

2 ACTIVITY

2.1 ACTIVITY DURING LAST REPORTING PERIOD

2.1.1 This activity report relates to the period 15 August – 31 October 2020. Spring conditions have generally been average (rainfall and temperatures), but have followed a generally dry 2020 calendar year. Most areas have been reporting good pasture growth, with patchy dry areas in Taihape and the lower Turakina, Whangaehu and Whanganui catchments. In Taumarunui, two September frosts held growth back. At the time of writing this report November was tending mild and wet.

2.1.2 While conditions so far would point to good tree establishment, only a small number of tree claims have been completed. Pine seedlings are reportedly establishing well while many poles are only just leafing up. Drying winds are the main concern as we go through October and November.

2.1.3 Staff visits to landowners tend to be lower at this time of year as lambing limits access; however many farmers have continued their fencing programmes and these claims are ahead of budget this year.

2.2 ACTIVITY OVER THE NEXT THREE MONTHS

2.2.1 During November to January staff will:

- Continue to keep in touch with landowners regarding grant work. All programmes are over-allocated but historically they come in closer to budget. Staff maintain funding spreadsheets with various levels of certainty of works being completed (proposed, confirmed, rolled over, cancelled);
- Work through claim processing, visiting farms and inspecting works;
- Complete Milestone reporting to TUR for the SLUI programme (November);
- Hold the SLUI Advisory Group meeting at the Woodville pole nursery (4 November);
- Deliver completed farm plans and discuss work programmes for winter 2021, including on-farm inspections;
- Support the local Ballance Farm Environment Awards winner's fieldday on 2 December 2020 at Woodhaven (Clark property in Levin);
- Attend the [Poplar and Willow Research Trust](#) (PWRT) AGM on 26 November where a new Trust chair was to be elected;

- Liaise with PWRT to update pole trial sites in our region;
- Continue to liaise with **Ministry for the Environment** (MfE) over Central Government's Freshwater proposals, specifically on the development of a Freshwater Farm Plan;
- Continue monitoring/audit programme for SLUI plans, with the aim of having a report available to TUR;
- Restart the silviculture programme in joint venture forests. Contractors will continue with programmes that were disrupted during Covid-19 lockdowns and then postponed over the planting season.

3 REPORT ON PROGRESS

3.1 ANNUAL PLAN AND CONTRACT TARGETS (2019-20)

3.1.1 The Annual Plan and **Hill Country Erosion Fund** (HCEF) contract targets for 2019-20 are shown in the table below.

Table 1: Annual Plan and HCEF contract targets 2020-21

MEASURE	ANNUAL PLAN	HCEF CONTRACT	TARGET	YTD	PREDICTED RESULT
Sustainable Land Use Initiative					
Erosion reduction works programmes in targeted SLUI catchments (ha)	3,100	3,065	3,100	379	4,568 ha work allocated.
Whole Farm Plan properties mapped per year (ha)	20,000	22,500	22,500	0	16,992 ha allocated
Farm or paddock assessments mapped per year (ha)		1,000	1,000	39	Mapped
Case study completed (number)		1	1	0	One proposed
Feasibility reports (number)		6	6	0	On track
Regional and Coast					
Manage grant programmes to deliver erosion reduction works (ha)	175		175	45	247 ha work proposed
Support industry initiatives that promote sustainable land use (number)	5		5	started	5
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	31,994	Preliminary figure includes 24,464 from Horizons' nurseries.

4 SLUI ACTIVITY

4.1 WHOLE FARM PLAN (WFP) PRODUCTION

4.1.1 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)

No. of Plans	Hectares	Comments
800	575,000	WFPs completed in SLUI to 30 June 2020 – 51 plans
0	0	Plans/ha mapped in SLUI in 2020-21
35	16,992	Plus plans/ha on list to be mapped in 2020-21
35	16,992	Equals (0 + 35) plans on list to be mapped in 2020-21 financial year
57	38,930	Information with landowners who are still to finally commit to a plan

4.1.2 Of the 51 plans mapped last year, 31 have been delivered to farmers and 17 of these have agreed to start a works programme.

4.1.3 There are 35 (16,995 ha) of plans allocated to the contractor in 2020-21. This is less than the target so more plans are being sought from the "information out with landowner" list of 10 farms expected to return the information by the end of December.

4.1.4 There has been an increase in interest in WFPs but much of this is centered around the new Freshwater plan as proposed in the government regulations. SLUI WFPs will not meet the requirements of a Freshwater plan.

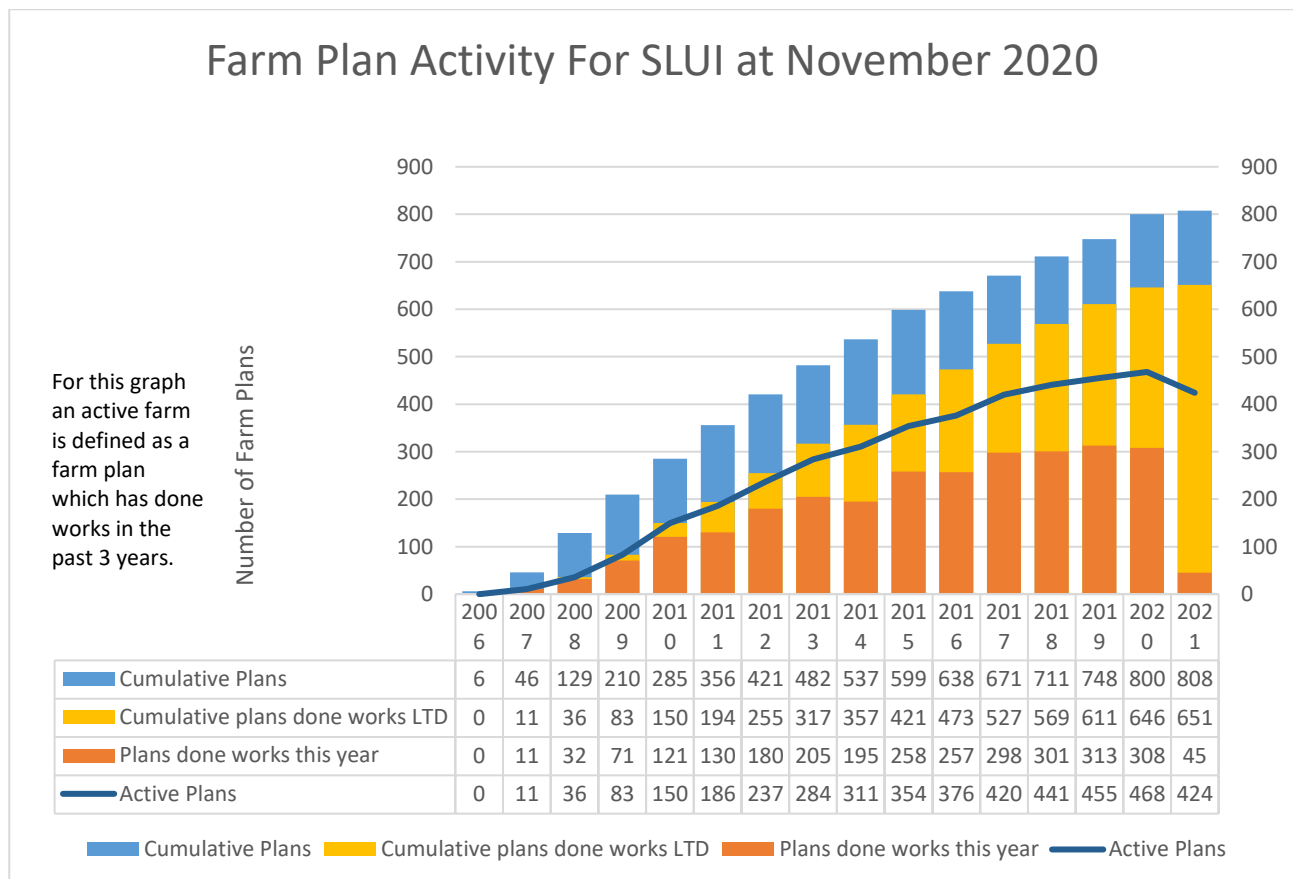
4.1.5 We are awaiting the return of information/documents from a further 57 farms, accounting for 38,930 ha. Those with paperwork outstanding have been prioritised by:

1. Having existing plans;
2. Being on top priority and high priority land;
3. Being in the Oroua Catchment; and
4. The likelihood of doing works.

Some of those on the list who have had the information from Horizons for some time will be followed up with a reminder to provide the information, and if this is not provided by a certain date they will be removed from the list.

4.2 WHOLE FARM PLAN ACTIVITY

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



Graph 1: Farm Plan Activity at November 2020. Note the results for 2021 (2020-21) reflect the timing of this report at an early point in the year.

4.2.2 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 2019-20 there were 800 plans completed over the life of SLUI, 646 plans had completed some works (81% active), and 308 plans had completed some work in that year (i.e. 39% of plans active in 2019-20).

4.2.3 The solid blue line tracks “currently active” farm plans where active is taken to be “has completed works in the last three years”. In this instance the number of plans at the end of 2019-20, with some works completed in the last three years, was 468 (59%).

4.2.4 The data in Graph 1 shows a trend of more active plans (yellow stacked column) and also shows that the number of plans active in any given three-year period (blue line) had grown to 468 by the end of 2019-20 but subsequently reduced to 424 in the 2020-21 year. There are a number of reasons for this including older plans will have completed priority works and may be less

motivated, landowners with more than one plan may be concentrating on one farm at a time, and if ownership changes or circumstances change plan works may be a lower priority. The blue line also shows a decrease for 2021. This is expected at the start of the year and recently completed plans will not be active yet.

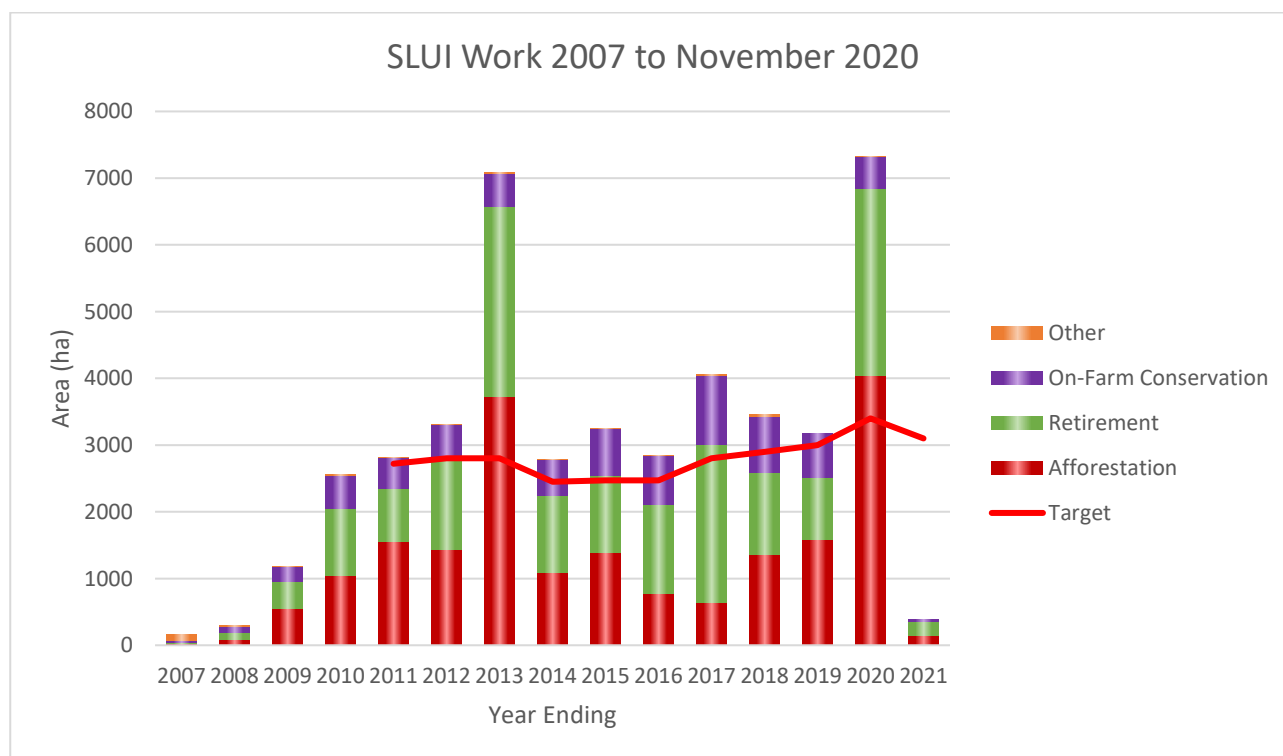
4.2.5 We have undertaken further analysis of the “inactive” plans with the aim of introducing a “maintenance” category. These are plans where they:

- Haven't been active over the last three or more years, and
- Have completed works on at least 70% of their Top and High priority pasture land.

4.2.6 These plans are considered to have done the bulk of their work programme but we are hesitant to label them completed. There are currently 11 plans assessed as being in this “maintenance” category.

4.3 SLUI LIFE TO DATE AND OUTCOMES

4.3.1 SLUI Life-to-date

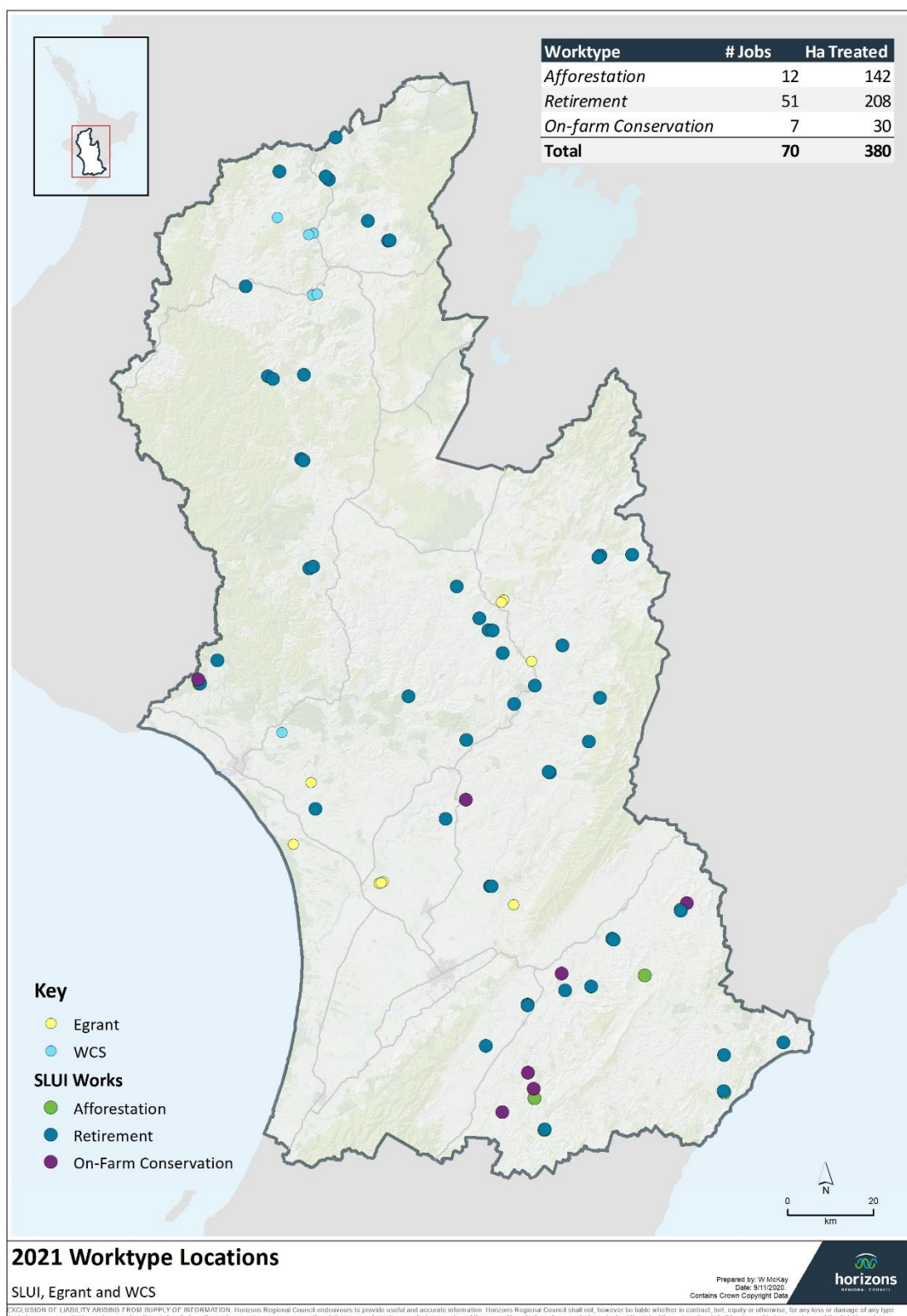


Graph2: SLUI works completed by work type during the life of the programme against annual contract targets (red line). Note 2020 is a partial year at this stage. See Graph 3 for the change in job status through the year.

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

4.3.3 Last year had the most work completed with just over 7,000 ha of work. Afforestation and retirement made up the bulk of the work.

- 4.3.4 The notable years for afforestation were 2013, when there was a high level of uptake for the Afforestation Grant Scheme, and 2020 where there was a large amount of carbon and carbon/timber forestry established.
- 4.3.5 Retirement programmes also peaked in 2013 and 2020. In 2013 this was due to a large amount of jointly funded Nga Whenua Rahui work completed in the Whanganui and Whangaehu catchments. In 2020 a large contribution was due to one major retirement project in the upper Rangitikei catchment.
- 4.3.6 On-farm conservation (purple) is predominantly space planting and gully planting with poplar and willow poles but which also includes structures and earthworks. It is consistently about 500-1,000 ha per year and the limitation is largely pole supply.
- 4.3.7 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 with about 500 ha of that 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.
- 4.3.8 Outcomes for SLUI have been modelled by [Manaaki Whenua Landcare Research](#) (MWLCR) and this work was reported 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>
- 4.3.9 The MWLCR modelling reports:
- That SLUI works to June 2018 are estimated to have reduced sediment load in rivers by 835,000 tonnes (6%) with the greatest reductions (up to 19%) in the Kai Iwi, East Coast and Lower Rangitikei areas.
 - With ongoing implementation of SLUI works at approximately the current pace, the average annual sediment load could be decreased by 27 percent and water clarity improved by 29 percent by 2043.
 - However, climate change is likely to alter annual rainfall patterns and increase hill slope erosion and river sedimentation, particularly in the northern and western areas of the region. Modelling suggests that this could result in a potential change to the predicted reduction in sediment load from 27 percent by 2043 to just 19, 12 or 5 percent under minor, moderate and major climate change scenarios, with the amounts varying across the region.
 - Modelling also shows that SLUI, New Zealand's largest hill country erosion programme, may not offset the increases in sediment load from climate change in the longer term, as sediment loads in rivers could increase by between 40 and 180 percent by 2090. This suggest the long-term effectiveness of work already undertaken through SLUI is expected to reduce under climate change, as heavier rainfall events increase sediment loading in the region's rivers.



Map 1: Location of all grant works completed this financial year (SLUI and Regional and Coast).

4.4 YEAR-TO-DATE ACHIEVEMENTS

4.4.1 The table below shows the types of works completed and claimed this financial year.

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

Worktype	Claims	Farms	Grant \$	Hectares By Land Type				
				Not Erodible	Erodible	High Priority	Top Priority	Total Ha
Afforestation	12	10	\$ 124,377	17.5	39.2	65.6	19.7	142
Retirement	20	19	\$ 96,069	2.4	50.5	15.4	23	91.3
Riparian Retirement	23	18	\$ 140,777	14.8	46.6	12.1	27.1	100.6
Wetland Retirement	7	7	\$ 41,675	5	9.6	-	0.8	15.3
Managed Retirement	1	1	\$ 3,168	-	0.4	-	-	0.4
Pole Planting	7	7	\$ 12,311	0.1	14.6	4.8	10.5	30
Total	70	47	\$ 418,378	39.8	161	97.8	81	379.6

4.4.2 The 379.6 ha of works completed and claimed is 12% of the Annual Plan full-year target of 3,100 ha.

4.4.3 Hectares completed by land type shows 178.8 ha (47%) 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.

4.4.4 There have been 70 claims completed to date on 47 farms.

4.5 FORECAST VS ACTUAL (TARGETS VS ACTUAL BY WORK TYPE)

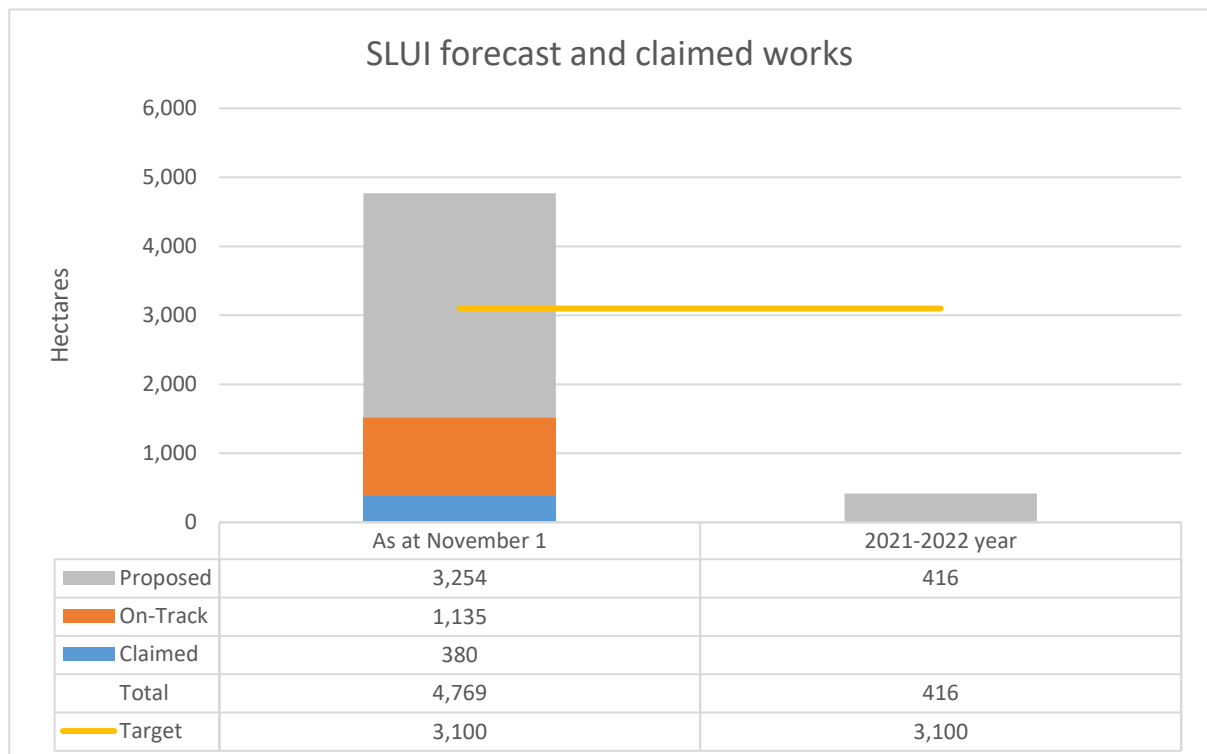
4.5.1 Table 4 shows the forecast figures against target for 2020-21. The work programme is fluid and changes throughout the year. Some of the changes are due to postponements or cancellations and some are due to new plans coming on stream and bringing in new work programmes. The dollars shown in the table are the grant cost. It is unclear yet how Central Government's Freshwater rules governing river fencing will affect the work programme. There will be more riparian fencing completed and more requests for funding, 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 this financial year (contract vs forecast vs actual by hectares and dollars). Note that the negative values in the actual minus contract column reflect the early stage in the year of this report.

Work Type	Hectares				Dollars \$ x 1000			
	Contract Target	Forecast	Actual	Actual vs Contract	Contract Target	Forecast	Actual	Actual vs Contract
Afforestation	1,250	2,381	142	-1,108	939	1,168	124	-815
Retirement	600	758	91	-509	261	865	96	-165
Riparian Retirement ^{*A}	220	493	116	-104	357	1,552	182	-175
Managed Retirement	85	17	0.4	-84	25	27	3	-22
Space Planting & Gully Planting	900	880	30	-870	398	314	12	-386
Structures/Earthworks	10	-	0	-10	60	0	0	-60
Other (inc. blank)	-	36	0	-	63	28	0	-63
Total ^{*B}	3,065	4,567	379.4	-2,686	2,102	3,969	418	-1,684

^{*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 the works allocated for the next financial year. "On-track" means the Land Management Advisor has re-confirmed the work with the landowner or is confident the work will proceed. Graph 3 updates Table 4 with more recent forecasts.

- 4.5.2 Table 4 compares contract target (ha and \$) to forecast and actual. There can be wide variations in individual work targets, i.e. in reality the contract is to deliver 3,065 ha and the mix of work type 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.
- 4.5.3 Graph 3 shows that the jobs allocated at this stage of the year include a high proportion of “proposed” works. These are often fencing projects planned for summer and autumn. The “On-track” jobs are primarily associated with winter afforestation or space planting. As the year progresses the ratio of proposed, on-track and claimed works changes.
- 4.5.4 Graph 3 doesn’t record that there have been 12 jobs cancelled, saving \$180,000 of grant expenditure. These jobs are split between afforestation and fencing projects.
- 4.5.5 Current allocation includes jobs recorded as claimed, on-track and proposed. Based on past experience, approximately 70% of that proposed work will be completed by 30 June (2,278 ha). Graph 3 will be updated regularly as staff make contact with landowners to confirm work programmes.
- 4.5.6 Note Table 4 and Graph 3 are already showing a different year-end outcome as the works programmes are constantly changing. Staff are still getting requests for work to be approved in this financial year. At this stage we will accept small jobs such as pole programmes or fencing works from new plans, but larger jobs are now being allocated to 2021-22 and there is already 416 ha (approximately \$150,000 grant works) allocated to next financial year.

4.6 JOINT VENTURE FORESTRY OPERATIONS

- 4.6.1 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 and another report is planned for early next financial year. 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 Emission Trading Scheme registration and reporting, and liaising with landowners.
- 4.6.2 Work has started on this year’s silviculture programme. It will be a busy year with work to catch up following the Covid-19 lockdown. At this stage thinning has been completed on Wickham (Roswicks) and quality control plots have been completed.
- 4.6.3 A project is also underway concerning the value of the forestry and carbon, and forecasts for these will be made to inform the Long-term Plan process.

5 REGIONAL AND COAST ACTIVITY

5.1 PROGRESS ON ENVIRONMENTAL GRANT AND ADVICE

- 5.1.1 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 for the year to date

Grant Type	WORK AREA (ha)				BUDGET (\$)			
	AP Target	Allocated	Complete	AP % Complete	AP Budget	Allocated	Complete	AP % Complete
WCS	75	110	36	48	113,000* ¹	133,502	30,113	27
RL&C	100	137	9	9	80,000	129,949	42,018	53
Total	175	247	45	26	193,000	263,451	72,131	37

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

- 5.1.2 A total of 146 projects have been allocated to date with an estimated work area of 247 ha.
- 5.1.3 Space planting accounts for 63 of the 146 projects and riparian retirement 39.
- 5.1.4 WRET allocation of \$63,000 could not be confirmed until its AGM in November.
- 5.1.5 Both areas are over-allocated and some jobs may have to be transferred to the 2021-22 year; however 15 jobs are already approved for 2021-22.

5.2 INDUSTRY PARTNERSHIPS

BALLANCE FARM ENVIRONMENT AWARDS (BFEA)

- 5.2.1 The Ballance Farm Environment Awards Regional Supreme Winner evening was cancelled and the winner's field day postponed. The field day was to be held at Woodhaven, Levin, on 2 December 2020.
- 5.2.2 This year's programme has been revised, with no awards being run. The **New Zealand Farm Environment Awards Trust (NZFEAT)**, which runs the awards programme, is considering revamping the awards for the 2020-21 year. The sponsorship agreement has been re-negotiated and fewer events will be run this year.
- 5.2.3 The NZFEAT Trust has recently held its elections and Terry Olsen (Chair of the Horizons BFEA committee), has been elected to the Trust.

POPLAR AND WILLOW RESEARCH TRUST (PWRT)

- 5.2.4 The PWRT held its AGM on 26 November. Bruce Wills stepped down as Chair of the Trust. The Trust is scheduled to meet in the next reporting period and an update will be able to be provided to the Catchment Operations Committee when this item is presented.

- 5.2.5 PWRT held a Technical Advisory group meeting in September where Regional Councils gave input into the research and work programme to feed into the AGM, however Post-Covid-19 budget travel restrictions limited attendance to representatives from only four councils.
- 5.2.6 Regional councils and the PWRT have continued to fund a project investigating the establishment of poplar sawfly near Dunedin. This project was cut short due to Covid-19 last autumn and an extension of funding has been approved from the Sustainable Food and Fibre Fund.

BEEF AND LAMB NEW ZEALAND (BLNZ)

- 5.2.7 Staff have attended a number of BLNZ workshops over the past few months with two workshops covering farming and the **Emissions Trading Scheme** (ETS). BLNZ has engaged Forest 360 to present to farmers about how the ETS may affect them. Staff have been present to clarify funding available through our grant programmes. The other priority for BLNZ has been to run workshops outlining Central Government's Freshwater rules. Staff have been present and answered questions.

OTHER

- 5.2.8 Staff have attended and presented at a number of events including:
- Various catchment group meetings including Porewa, Kawhatau, Northern Manawatu, Moawhango, Waitahora, Te Maire, and the combined Rangitikei group AGM. The support requested and given varies with the individual groups but this is a growing area with implications for staff time on the Land, Freshwater and Science teams in particular;
 - Various farm discussion groups and farmer visits. Central Government's Freshwater rules have dominated the discussion, especially Intensive Winter Grazing and the low slope map for river fencing. Staff have encouraged farmers to submit questions to the Ministry for the Environment website about the low slope areas;
 - Staff are involved in Horizons' response to the Freshwater rules, helping a proposed consenting process for Intensive Winter Grazing and with a cross-council input into the Freshwater Farm Plan;
 - Staff attended and spoke at a carbon forestry workshop in Dannevirke;
 - Staff continue to liaise with Tararua District Council on its Right Tree Right Place work programme, funded through the One Billion Trees Programme. Up to three case studies, looking at the options of timber and carbon within the farming system, will be completed.
 - Liaison with SCION (forestry research) regarding setting up a catchment trial of water quality and quantity within a mature forested catchment. The proposed site is within the Akitio catchment.

5.3 SOIL HEALTH

- 5.3.1 Planning is underway for the summer soil health programme.

5.4 WHANGANUI CATCHMENT STRATEGY (WCS) AND WHANGANUI RIVER ENVIRONMENTAL TRUST (WRET)

- 5.4.1 Work programmes in the upper Whanganui-Ruaapehu area are ahead of target as grant works were completed earlier this year. Grant claims traditionally slow up during the lambing season and into Christmas as farmers are busy with stock work.
- 5.4.2 Staff have continued to liaise with WRET regarding funding of the works programme. An Annual Report is being prepared but at this stage WRET have still to confirm the date of its AGM. We are proceeding along the lines of funding for a normal year's work programme, but we would be able to complete more grant work if WRET is willing to approve it.



Photo 1 SLUI riparian retirement in Ruapehu area – Taringamotu Stream uses a 2-wire cattle exclusion allowing for possible flooding. Photo Weston Brown.

5.5 SUPPORT FOR CONSENTS AND COMPLIANCE

- 5.5.1 Advice to landowners regarding the need for consents or compliance for a number of activities which may be permitted or require consent, including:
- Four on vegetation clearance including one where no consent was required;
 - Four providing advice about vegetation disturbance and forestry in red zone areas;
 - Two earth disturbance including one where no consent was required;
 - Two requests which were passed onto Compliance, one for forest harvesting and one culvert.

6 NURSERY

6.1 WORK PROGRAMME TO DATE

6.1.1 WRET-supported nurseries in the Ruapehu District:

- 2,456 poles were cut from Horizons, WRET and landowner nurseries (estimated production was 2,200 poles);
- Spraying has commenced;
- Whio (blue duck) nursery has expanded with 1,300 new stakes planted;
- 900 stakes were planted as a replant in Mangapapa nursery.

6.1.2 Woodville:

- Spring growth is underway and contractors are busy pruning poles while mowing and mulching are ongoing;
- Spray operations for rust and aphids are planned for November.

6.1.3 Bulls:

- 2,000 old kawa and veronese stools have been removed at Horizons' Bulls nursery and more than 6,000 new plantings made. This will be followed up by approximately 1.5 ha of new planting next year;
- Work planned in November includes pruning and thinning and spraying.