Attachment to Statement of Evidence on Russell Lupins for Regional Pest Management Plan

Photos

Fig 1. A well-established block of lupins in full flower

Fig 2. Clean gravels of a dynamic braided river – Godley River. This habitat is required by kaki/black stilt, wrybill and black-fronted tern for nesting.

Fig 3. Stabilised old braids of the Godley River alongside active riverbed. The area to the left contains very low growing prostrate mat plants and shrubs of genera such as *Raoulia, Pimelea, Muehlenbeckia* and *Coprosma*. This area provides important habitat for banded dotterel, invertebrates and lizards but the waterways running through it provide an easy route for lupins to invade.

Fig 4. A number of bird species require the clean gravels of a braided river to nest in, including wrybill.

Fig 5. Raoulia mat plant community.

Fig 6. Early stages of lupin spread in the Tasman River

Fig 7. Lupin spread along water channels – Tasman River

Fig 8. Lupin spread along the edges of an old river channel

Fig 9. Heavy infestation of lupin in the Lower Ahuriri River

Fig 10. Lupin control using backpack sprayers

Fig 11. Nationally critical plant *Chenopodium detestans* growing on the shore of Lake Tekapo

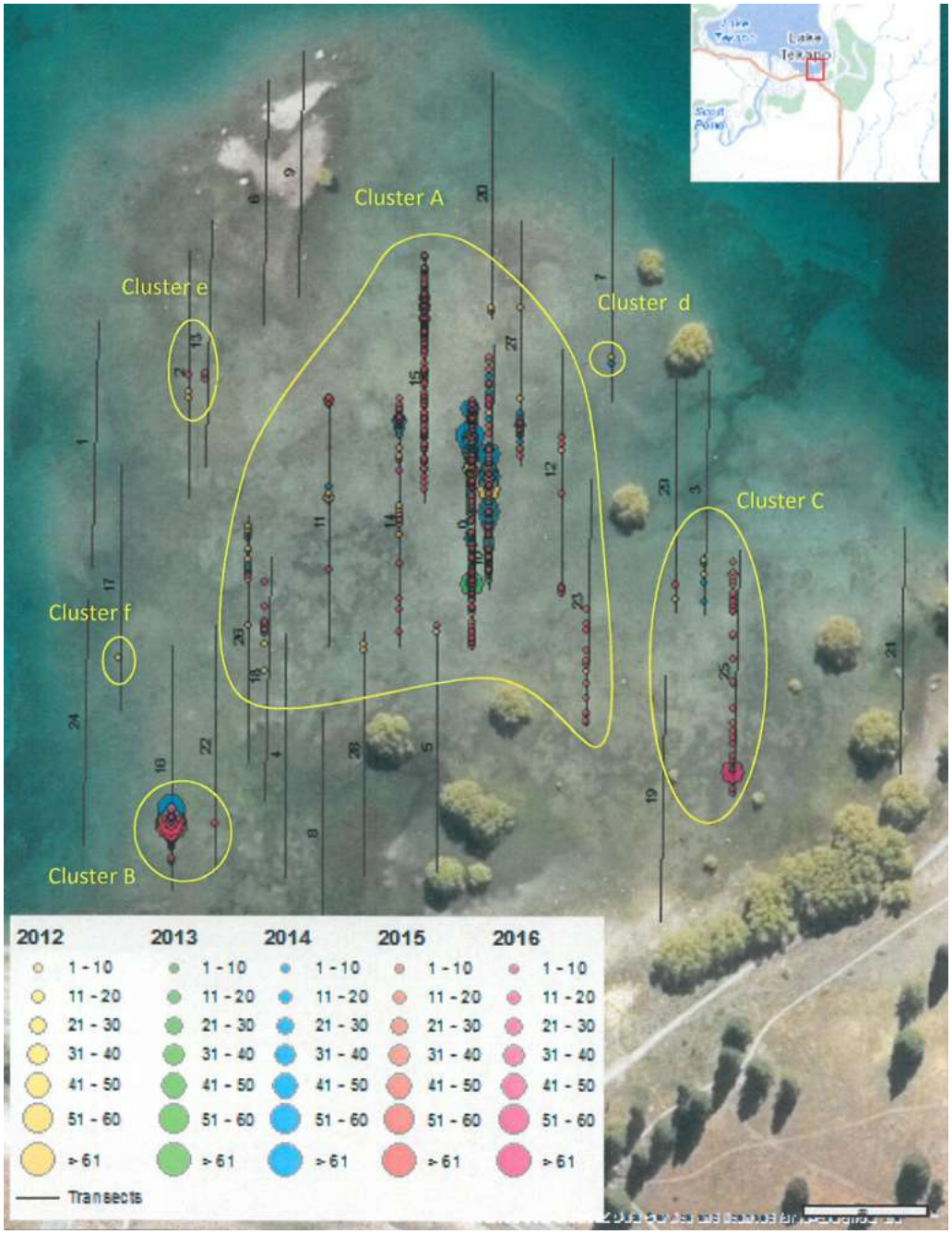

Fig 12. *Chenopodium detestans* monitoring transects on the southeast corner of Lake Tekapo. This area has become invaded with lupins when lake levels are low.

Fig 13. Shoreline turf communities being invaded by lupins on the shore of Lake Ohau

Fig 14. The results of hand spreading of seed along main highways. These plants are close enough to a waterway that they will be a source of seed to spread downstream in the future.