# TIMARU DISTRICT

# SIGNIFICANT NATURAL AREAS SURVEY

## SEYB PROPERTY

**Report prepared for the Timaru District Council by Mike Harding**
**March 2011**

# TIMARU DISTRICT SIGNIFICANT NATURAL AREAS SURVEY

# PROPERTY REPORT

## PROPERTY DETAILS:

**Owner:** ..... GW Seyb
**Valuation Reference:** ..... 24640/076.00
**Address:** ..... Peel Forest Road, RD22, Geraldine.
**Location:** ..... Ferry Road, north of Arundel.
**Ecological District:** ..... Low Plains
**TDC Land Type:** ..... Plains
**Land Environment:** ..... N2 (eastern South Island plains).

## ECOLOGICAL CONTEXT:

The property lies on a recent alluvial surface (terrace scarp) of the Rangitata River floodplain. The original vegetation of this area would probably have been kanuka-kowhai forest/treeland or matagouri-*Coprosma* shrubland, with grassland-herbfield-mossfield on very recent or disturbed surfaces. The indigenous fauna would have been significantly more numerous and diverse, with a greater range of birds, lizards and invertebrates than is presently found in the area.

Indigenous vegetation at this site comprises areas of shrubland/scrub and grassland/shrubland. Grassland plant communities at the site have a high component of naturalized (exotic) plant species; shrubland communities have a higher indigenous component. The site represents a rare example of a lowland alluvial surface at which indigenous shrubs, grasses, herbs and mosses have been able to survive or recolonize. The site supports a small population of an at-risk (declining) plant species, *Aciphylla subflabellata*.

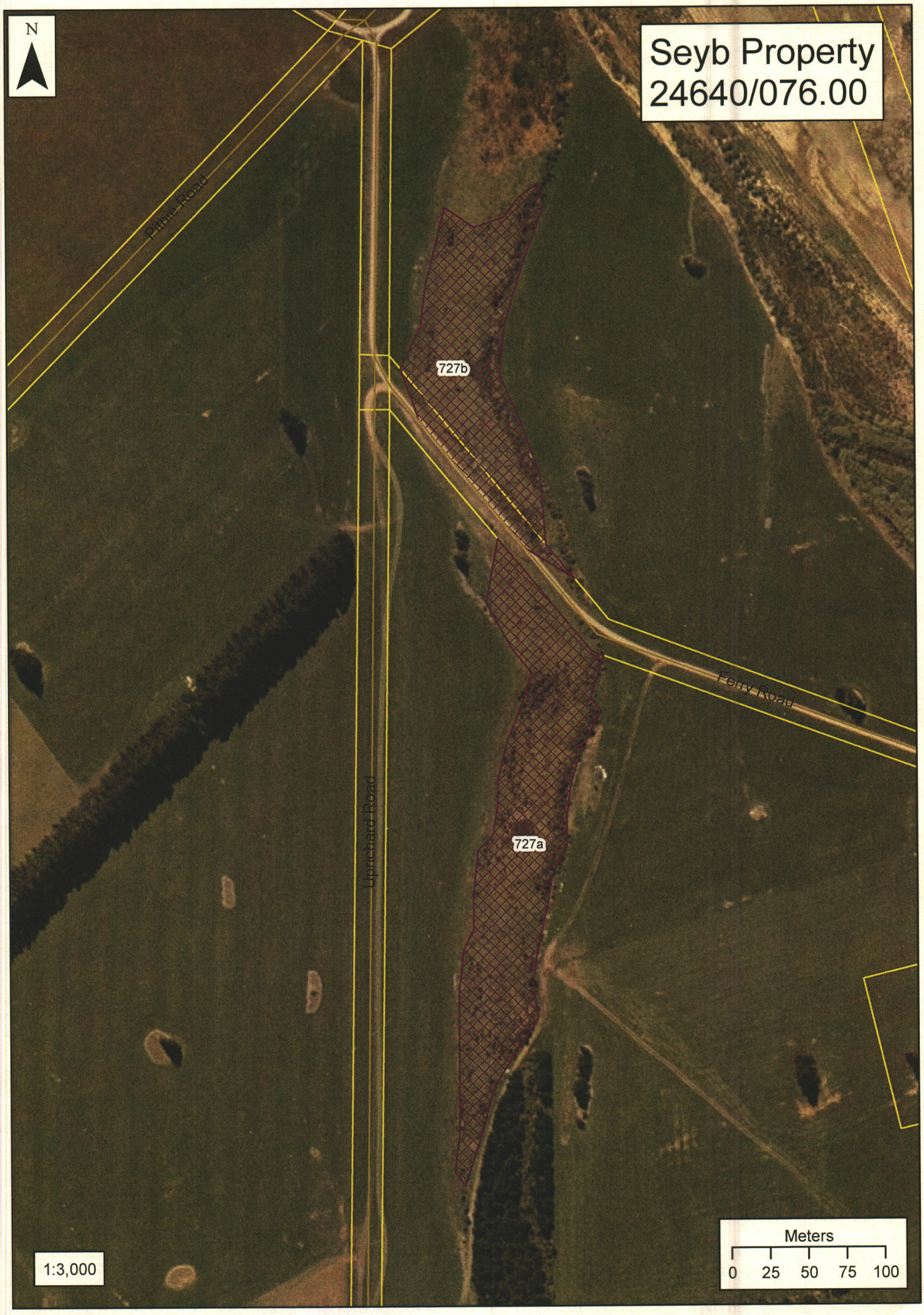
## SIGNIFICANT AREAS ON THE PROPERTY:

The property was surveyed as part of the District-wide survey of Significant Natural Areas in February 2011. Two areas, separated by Ferry Road, are regarded as significant when assessed against the District Plan criteria.

These SNAs are illustrated on the attached aerial photograph and described in greater detail in this report. These SNAs meet the ecological criteria in the Timaru District Plan (criteria i-vi, pages B18-B19), though will require conservation management (notably plant pest control) to maintain their ecological values in the long term (criterion vii, page B19). SNAs are subject to confirmation by Council after regarding the matters listed under Final Considerations (pages B19-B20). It is expected that SNAs will eventually be listed in the District Plan by way of a notified plan change.

At present, consent is required from Council for clearance of areas of indigenous vegetation or habitat which meet the Interim Definitions in the District Plan. Clearance includes burning, spraying with herbicides and over-planting. SNAs encompass most, but not necessarily all, areas of vegetation and habitat which meet the Interim Definitions.

To assist with the protection and management of any SNA, landowners can apply to Council for financial assistance. Any questions regarding the protection, management and use of SNAs should be directed to the District Planner.


N
Seyb Property
24640/076.00
Pithie Road
727b
Ferry Road
Upper Jaird Road
727a
1:3,000
Meters
0 25 50 75 100

# TIMARU DISTRICT SNA SURVEY AREA 727a&b

**Area Name:** Rangitata Terrace Scarp shrubland
**Ecological District:** Low Plains
**AREA 727a: Location (central map ref.):** K37: 721-937
**AREA 727b: Location (central map ref.):** K37: 721-942
**Surveyors:** Mike Harding

**Property:** Seyb
**Nearest Locality:** Arundel
**Area Size (ha):** 1.67 **Altitude (m):** 220-230
**Area Size (ha):** 1.21 **Altitude (m):** 220-230
**Survey Time:** 1½ hours **Survey Date:** 04-02-11

## General Description:

This SNA lies in two parts on a west-facing scarp of a terrace of the Rangitata River, between Arundel and Peel Forest. The parts are separated by Ferry Road and both parts adjoin cultivated paddocks on the terraces.

## Plant Communities:

Two main plant communities are present: shrubland/scrub and grassland/shrubland. These plant communities are described for each part of the SNA below. Naturalized (exotic) species are indicated with an asterisk*.

SNA 727a:

Scrub and denser shrubland are present at the toe of the slope, mostly at stony sites. This plant community is dominated by *Coprosma propinqua*, matagouri, porcupine shrub, pohuehue, blackberry* and emergent elderberry* trees. Other canopy species present are sweet brier*, scrub pohuehue, native jasmine, native convolvulus, lawyer, *Clematis marata* and occasional emergent trees of sycamore*. Plant species at the scrub margins are broom*, nodding thistle*, hawksbeard*, yarrow*, male fern*, bracken, velvety nightshade* and bittersweet*. Rarely present are prickly shield fern and Khasia berry*.

Scattered shrubland with areas of pasture covers most of the area. The dominant shrub species present are *Coprosma propinqua*, matagouri and porcupine shrub. Other plant species amongst or on the shrubs are broom*, gorse* (one main patch), sweet brier*, scrub pohuehue, pohuehue, *Clematis marata*, *Clematis forsteri*, lawyer, blackberry*, cleavers*, yarrow*, hawksbeard*, bracken, *Oxalis exilis*, *Wahlenbergia gracilis*, velvety nightshade* and bittersweet*.

The open grassland community is dominated by browntop*, mouse-ear hawkweed* and bare ground. Other species present are cocksfoot*, sweet vernal*, vulpia hair grass*, *Rytidosperma clavatum*), *Elymus solandri*, plume grass, Chewings fescue*, catsear*, patotara, sheep's sorrel*, Deptford pink*, creeping pohuehue, woolly mullein*, white clover*, haresfoot trefoil* and moss. Occasionally present are Australian sheep's bur*, vipers bugloss*, nodding thistle*, *Acaena inermis*, *Carex breviculmis* and a single plant of the at-risk (declining) speargrass, *Aciphylla subflabellata*.

*Speargrass, Aciphylla subflabellata*

SNA 727b:

This part of the SNA has similar vegetation to that described above. However, the native shrubland/scrub is less extensive and the grassland is less diverse. Broom* and blackberry* are also more common in this area. Two additional native species were observed in this part of the SNA: wire moss and necklace fern. Neither species is common. Old man's beard is present at one location.

**Birds/Fauna Observed:**
Native birds observed during this brief survey were grey warbler and Australasian harrier. A recently-shed gecko skin was observed amongst rocks in SNA 727a.

*Good lizard habitat (rocks and vegetation) at the toe of the slope*

**Notable Flora, Fauna and Habitats:**
The most important feature of this area is that it is an example of a plant community that has all but disappeared from Low Plains Ecological District. Other features are the presence of an at-risk (declining) plant species (*Aciphylla subflabellata*) and native grasses, the habitat the area provides for lizards and the size of the area.

**Notable Plant and Animal Pests:**
The most important plant pests in the taller shrubland/scrub are elderberry, old man's beard, blackberry, sycamore, Khasia berry and the native climber, pohuehue (*Muehlenbeckia australis*). Important plant pests in the grassland/shrubland are broom, gorse and sweet brier. Introduced pasture grasses, and herbs such as mouse-ear hawkweed, are also dominant in the grassland. Animal pests were not surveyed, though hares and rabbits were seen, and possums are likely to be present.

**Boundaries (buffering, fencing, adjoining plant communities and habitats):**
These two areas are well buffered by their location on the steep scarp slopes and the stony substrate, particularly at the toe of the slope. The areas are within larger paddocks, fenced from the adjacent terraces. Other parts of the scarp, to the north and south, support plantation forest. The areas are isolated from other areas of indigenous vegetation, though there are a few scattered plants of matagouri and porcupine shrub on a smaller terrace scarp east of this site.

## Condition and Management Issues:

The shrubland and scrub are in moderate condition, and are affected by invasive plant pests and cattle. Areas of pasture are in poorer condition though still support native grasses and herbs. The most important management issues are the control of woody plant pests (especially broom, gorse, elderberry, sycamore and Khasia berry) and aggressive climbing/sprawling plants (notably old man's beard, pohuehue/*Muehlenbeckia australis* and blackberry). Sheep-grazing at the site would probably be less damaging than cattle-grazing. Indiscriminate herbicide use may affect vegetation at the site.

## Property Owner Comment:

Wish to continue to graze the area. May wish to undertake weed control.

## ASSESSMENT AGAINST DISTRICT PLAN CRITERIA:

| Primary Criteria | Rank | Notes |
|---|---|---|
| Representativeness | M | Shrubland and scrub at this SNA are moderately representative of the original vegetation; grassland is more modified though still supports species representative of the original grassland community. |
| Rarity | M/H | Indigenous shrubland and uncultivated grassland are now very rare in the ecological district. One at-risk (declining) plant species (*Aciphylla subflabellata*) is present. |
| Diversity and pattern | M | Moderate species diversity: plant species diversity is high compared with other sites but probably lower than originally present. |
| Distinctiveness/special features | M | The presence and extent of good lizard habitat is a notable feature. |
| **Other Criteria** | | |
| Size/shape | H | A large site for this ecological district. |
| Connectivity | L | Isolated from other areas of indigenous vegetation. |
| Long-term Sustainability | L/M | Control of plant pests and management of grazing will probably be required to maintain ecological values in the long term. |

## Final Consideration (of other matters: Section D, page B-19 of Timaru District Plan):

These steep slopes have limited potential for farm development, though would be suitable for plantation forestry. This is a scarce remnant of native shrubland that provides some amenity value to the property.

## Discussion:

These areas meet the District Plan criteria for Significant Natural Areas. Important features of the areas are that they are rare examples of a plant community that is representative of the Low Plains Ecological District, support an at-risk (declining) plant species (*Aciphylla subflabellata*) and native grasses, provide habitat for lizards and are relatively large.

**Scientific names of species cited by common name in this report**

*(Note: this is not a complete species list; it is a list only of species cited by common name in this report)*

| Common Name (* = naturalised species) | Scientific name |
|---|---|
| Australian sheep's bur* | *Acaena agnipila* |
| bittersweet* | *Solanum dulcamara* |
| blackberry* | *Rubus fruticosus* |
| bracken | *Pteridium esculentum* |
| broom* | *Cytisus scoparius* |
| browntop* | *Agrostis capillaris* |
| catsear* | *Hypochoeris radicata* |
| Chewings fescue* | *Festuca rubra* ssp. *commutata* |
| cleavers* | *Galium aparine* |
| cocksfoot* | *Dactylis glomerata* |
| creeping pohuehue | *Muehlenbeckia axillaris* |
| Deptford pink* | *Dianthus armeria* |
| elderberry* | *Sambucus nigra* |
| gorse* | *Ulex europaeus* |
| haresfoot trefoil* | *Trifolium arvense* |
| hawksbeard* | *Crepis capillaris* |
| Khasia berry* | *Cotoneaster simonsii* |
| lawyer | *Rubus schmidelioides* |
| male fern* | *Dryopteris filix-mas* |
| matagouri | *Discaria toumatou* |
| mouse-ear hawkweed* | *Hieracium pilosella* |
| native convolvulus | *Calystegia tuguriorum* |
| native jasmine | *Parsonsia* sp. |
| necklace fern | *Asplenium flabellifolium* |
| nodding thistle* | *Carduus nutans* |
| patotara | *Leucopogon fraseri* |
| plume grass | *Dichelachne crinita* |
| pohuehue | *Muehlenbeckia australis* |
| porcupine shrub | *Melicytus alpinus* |
| prickly shield fern | *Polystichum vestitum* |
| scrub pohuehue | *Muehlenbeckia complexa* |
| sheep's sorrel* | *Rumex acetosella* |
| sweet brier* | *Rosa rubiginosa* |
| sweet vernal* | *Anthoxanthum odoratum* |
| sycamore* | *Acer pseudoplatanus* |
| velvety nightshade* | *Solanum chenopodioides* |
| viper's bugloss* | *Echium vulgare* |
| vulpia hair grass* | *Vulpia bromoides* |
| white clover* | *Trifolium repens* |
| wire moss | *Polytrichum juniperinum* |
| woolly mullein* | *Verbascum thapsus* |
| yarrow* | *Achillea millefolium* |