Grand Forks Grasslands

Property Management Plan

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Southern Interior Land Trust 521 Vardon Lane Vernon, BC, V1H 1Y4

Cell/Text: (250) 328-4699 Email: office@siltrust.ca

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Acknowledgements

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SILT thanks all those individuals and organizations that contributed to the preparation of this plan through their comments and advice. Archeological and cultural information was provided by the Lower Similkameen Indian Band, a member community of the syilx nation.

Summary

In 2020, SILT acquired the Grand Forks Grassland properties consisting of two adjacent parcels containing 144 hectares of low elevation grasslands. These grasslands host a variety of at-risk ecological communities and serve as important year-round foraging and escape habitat for ungulates including California Bighorn Sheep. The grasslands also support at least six federally listed species at risk. Now that this habitat has been secured, SILT's goal is to protect and maintain the valuable ecological features on this property. Priority management issues affecting wildlife and species at risk include unauthorized motor vehicle use, a history of trespass livestock grazing, and the resulting spread or introduction of invasive plants.

Key recommendations for the property include identifying and protecting species at risk and their habitats, improving and restoring key habitats for wild sheep and deer, minimizing unauthorized use by managing public access, and continuing to exclude livestock to support and recover sensitive habitats.

Introduction

The Southern Interior Land Trust Society (SILT) is a registered not-for-profit charity run by an independent volunteer board. SILT seeks to create a legacy of protected, important habitats for all living things. SILT selectively acquires and maintains gems of wildlife habitat in the BC southern interior that act as "stepping-stones" for wildlife movement and habitat connectivity.

SILT's Grand Forks Grasslands property is located two kilometres (km) east of Grand Forks and about one km north of Highway 3. The property is 144 hectares (356 acres) of open, rolling bunchgrass grassland interspersed with patches of trembling aspen-rose and black hawthorn thickets, other deciduous shrubs, and exposed bedrock and talus at higher elevations. Two creeks run through the northeast and southwest corners of the property.

The Grand Forks Grasslands is best known for supporting a herd of California bighorn sheep that use the area year-round as a forage and security habitat. It also contains important winter/ spring range for

Mule and White-tailed deer; and supports at least six federally listed species-at-risk including Western Rattlesnake, Great Basin Gophersnake, Western Yellow-bellied Racer, Spadefoot Toad, Tiger Salamander and American Badger. At-risk bats are known to roost on the property, and there is suitable habitat for Sharp Tailed Grouse (considered locally extirpated).

SILT's properties are managed for conservation in perpetuity. SILT encourages and maintains walk-in public access for hunting, fishing, and nature appreciation on its properties, provided such use is safe, legal, and protects the land's integrity. SILT believes this helps reward those who contribute to wildlife and habitat conservation. SILT's vision is for the property to remain in good condition as natural habitat and a quiet space used by wildlife and by the community as a place to appreciate wildlife and enjoy nature.

Property Specifics

Location: Grand Forks, BC

Size: 144 Hectares (356.12 acres)

PIDs: <u>DL 492</u>: 001-564-005; <u>Lot A DL 493</u>: 002-223-163

Legal Description: DL 492: District Lot 492 Land District 54 PT shown on PL attached to DD 4989D

Lot A DL 493: Lot A District Lot 493 Similkameen Division Yale District Plan 11814

Address: Morrissey Creek Road

Local Authority: Regional District of Kootenay-Boundary, Area D

Zoning:

<u>DL 492:</u> Majority is Rural Resource 1; SW corner south of powerlines is Agriculture Resource 1. The AG 1 part (1.34 hectares) is within the Agricultural Land Reserve

<u>Lot A DL 493:</u> Rural Resource 1; Agriculture Resource 1. About 5 hectares along the southern boundary of Lot A is within the Agricultural Land Reserve

UTM coordinate: 11 379379 5431896

Ownership type: Fee-simple

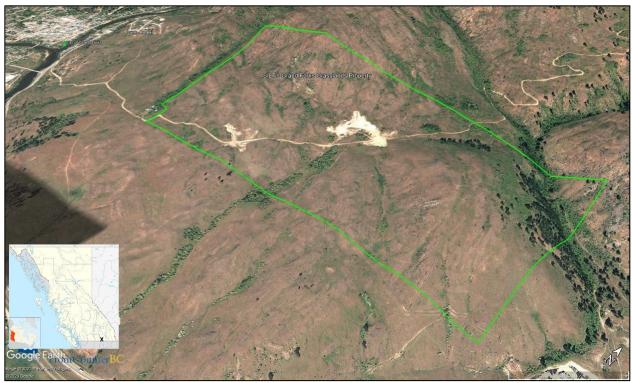


Figure 1: SILT's Grand Forks Grasslands Property east of Grand Forks, BC.

Land Use History

The Grand Forks Grasslands lies within syilx (Okanagan) nation territory. Syilx people have used and cared for tmxwulaxw (the land) and timixw (all living things) for thousands of years. Grasslands in the area were historically used as travel corridors, winter horse pasture, seasonal lodgings, and for hunting and resource gathering (MoE, 2008). Cultural use sites on SILT's Grand Forks Grasslands property were identified in 2024 (LSIB, 2024). SILT acknowledges the relationship of First Nations to the land and animal people in the region and strives to respect this in its property management activities.

The Grand Forks Grasslands property has had a history of trespass ATV, dirt bike, and 4x4 use. The former landowner seemed to tolerate the use. Consequently, many of the users appear to believe the land is public. Unregulated vehicle use has caused soil disturbance on parts of the property and continual erosion of roadways and trails. To maintain the integrity of the land for conservation, unauthorized vehicle use needs to be addressed.

Public access through Lot A DL 493 to the western boundary of DL 492 is guaranteed by the gazetted public Morrissey Creek Road right-of-way which bisects the southern portion of Lot A.

The public road ends at the western boundary of DL 492 near an existing but damaged steel gate. All the rough roadways and trails on SILT-owned DL 492 are private. SILT put up prominent vehicle prohibition signs in 2020, but these and other physical barriers created since have been often ignored and sometimes vandalized by vehicle operators' intent on trespass. SILT intends to but has yet to close the gate and create further more effective physical barriers.

When SILT acquired the land, there had also been a long history of cattle grazing by the former landowner, who also held a provincial range tenure on nearby public lands. Despite SILT's requests to stop, that rancher, and a second, continued to frequently graze cattle on SILT's property without authority. Following several unresolved complaints to government, in 2023 SILT also complained to the BC Forest Practices Board that both ranchers were non-compliant with provincial range laws and that government lacked effective enforcement. In 2024, SILT built fences to better protect its land. Later that year, one range tenure expired, and the other was abandoned. The province has not issued a replacement tenure.

There are two small disused gravel pits on DL 492, and one mineshaft of unknown origin. Three powerline rights-of-way traverse both parcels from east to west. FortisBC frequently monitors and maintains its transmission line. The City of Grand Forks maintains an airport safety beacon on DL 492, and a related structure on Lot A. The city holds no land tenure for either structure.

Surrounding Land Uses

Grand Forks Grasslands is bounded on its southern border by private range land, to the west by private rangeland and a residential property, Crown range along its northwest boundary, Nature Trust of BC (TNTBC) conservation land on its northeast boundary, and by steep, undeveloped private land along its eastern flank.

Assessment of Ecological Character

The Grand Forks Grasslands is located within the Southern Okanogan Highlands (SOH) Ecosection. This ecosection barely enters British Columbia—the majority is in Washington State. In BC, the SOH ecosection is restricted to a narrow area along the Canada-US border from Anarchist Summit to the Grand Forks basin (Demarchi, 2011). The ecosection is dominated by Dry Ponderosa Pine and Interior Douglas-Fir. SILT's property is within the Ponderosa Pine very dry hot (PPxh3) biogeoclimatic subzone. This subzone has hot, dry summers and typically warmer winters than elsewhere in the ecosection, and was historically subject to frequent, low-intensity wildfire.

Morrissey Creek bisects the property in a deep ravine running across the property's northeastern corner; this creek is not known to contain fish but is thought to flow year-round. Mehmal Ranch holds an irrigation water licence on the creek. The diversion works are accessed by a track on DL 492 leading from adjacent private land. DL 492 east of the creek is steep and rocky. Steep slopes on northern aspects of DL 492 have relatively open stands of ponderosa pine and Douglas-fir among dense deciduous shrub patches. On southerly aspects, trembling aspen in the swales and gullies of the open, rolling grasslands are indicative of groundwater seepage.

There are no wetlands on the Grand Forks Grasslands property, but a groundwater spring provides a year-round water source for wildlife on DL 492, and a constructed dugout below the spring typically contains water until mid-summer. Deadhorse Creek crosses the property in its southwest corner; this creek contains no fish but does provide treed riparian habitat and is also a permanent, year-round water source for wildlife.

The unique features of the property and its location in the SOH ecosection suggest it is ecologically significant at a provincial level. Protected grasslands, seepage sites, stream riparian ecosystems, talus, and rock crevices in the PPxh3 subzone are rare. The 912-hectare Gilpin Provincial Park, a few kilometres to the east, is the largest protected area in this subzone.

Ecosystem Mapping

More detailed ecological mapping is needed for this property to help support future habitat management decisions. The BC Conservation Data Centre has mapped occurrence data of several species at risk and invasive species (see appendix). SILT maintains a list of species occurrences and known habitat features.

Current climate data shows that climate change effects could have positive outcomes for grasslands as it is predicted grassland coverage in the province will increase (Climate Data Canada, 2020). However, newer grasslands will be predominantly early seral stage, and prone to invasive species, lacking the biodiversity of existing native grassland communities.

Predicted climate-related changes for the Grand Forks Grasslands location include longer frost-free seasons (Climate Data Canada, 2020). This may lead to longer spring and fall cycles for annual grasses. Invasive species such as cheatgrass (*Bromus tectorum*) will likely benefit from this change, other invasive annual grasses known in eastern Washington State will likely move into the interior valleys of BC (Gayton, 2013). Protecting the existing grasslands from soil disturbance and erosion will help limit the spread of invasive species. Continued monitoring for plant and wildlife species changes will be necessary.

Habitat and Site Characteristics

The property is 144 hectares (356 acres) of rolling, open grasslands of wheatgrass, rough fescue, and a variety of wildflowers and other forbs including the cactus prickly pear. Like other low elevation areas nearby, the Grand Forks Grasslands have a long history of use by livestock, and off-road vehicles, as well as past gravel extraction. Vegetation in disturbed areas includes cheatgrass, knapweed, toadflax, hairy alyssum, and nodding thistle. On gentle slopes, bluegrasses dominate. Black hawthorn, saskatoon, rose, rabbitbrush, and sumac are scattered throughout the property. The steep northeastern corner across Morrissey Creek is a southwest facing slope of rock outcrops and broken talus interspersed with grassy ledges, shrub thickets and scattered pine, fir, and aspen. The north and east aspects opposite have more fir and denser tree and shrub cover.

Fish and Wildlife Values

The property and surrounding lands are likely best known in recent decades for supporting a reintroduced (1980s) herd of California Bighorn Sheep (Blue-listed). The property is year-round foraging habitat for bighorn sheep—all ages and sex classes are commonly seen. About 30% of the property is

steep, with ledged rock bluffs and talus that provide good quality escape terrain for bighorn sheep. In addition, both Mule Deer and White-tailed Deer also make use of the land, notably in spring as the first flush of new grasses and forbs occurs. Snows are generally shallow in this area, and while much of the property offers little winter habitat for deer, the swales, rocky ledges, and seepage areas do. The Grand Forks Grasslands lie within a Kootenay-Boundary Land Use Plan ungulate winter range zone. The adjacent Crown lands are also provincially designated mule deer winter range.

The entire property lies within federally identified Critical Habitat for southern interior snakes. Great Basin Gophersnake (SARA threatened) and Western Yellow-bellied Racer (SARA special concern) are known to occur on Lot A, and occurrence of Western Rattlesnake (SARA threatened) is likely. It is not known whether there are active snake dens on the Grasslands but snake sightings in early spring suggest strong potential for over-wintering of all three species.

There is federally identified Critical Habitat for Great Basin Spadefoot (SARA threatened) on the southern third of Lot A DL 493. This is "core habitat" meaning it is associated with a known breeding site, which would be a nearby (potentially seasonal) shallow pond. Spadefoot are mostly terrestrial, and most move no more than 500 meters from their natal pond to forage and burrow in adjacent lands with relatively loose soils.

There is also federally identified Critical Habitat for Tiger Salamander (SARA endangered) along the southern edge of the property. Tiger Salamander are also mostly terrestrial but require permanent fish-free water for breeding. They are known to wander as much as two kilometres from their natal pond but most burrow and forage in open land less than a kilometre away.

The property has suitable habitat for American Badger (SARA endangered). One sighting and one likely burrow have been recorded on the property. There is a known bat roost on the property. A reported sighting of what may be Sharp-tailed Grouse (locally extirpated) is intriguing but needs further confirmation.

Management Goals & Objectives

The Grand Forks Grassland supports a diverse abundance of wildlife and species at risk; SILT's goal is to protect these wildlife values forever. Priority management issues that damage habitat and disturb wildlife include ongoing unauthorized vehicle use, the potential for recurrence of trespass livestock, the resulting spread of invasive species, and frequent, year-round trespass by dog walkers. Below is a series of objectives to address each issue.

1. Protect and maintain habitat for bighorn sheep, deer, and several species at risk.

SILT aims to identify and collect inventory on at-risk plants and species that reside on the grasslands property to allow for better protection. Invasive species lower the habitat quality and availability for many native species. Cattle, human-use, dogs, and vehicles can damage habitat, disturb wildlife, and accelerate the spread of invasive species.

Supporting Objectives	Priority	Timing
Compile and update vegetation and wildlife species inventories and mapping	High	Ongoing
Identify important wildlife habitat features	High	Ongoing
Minimize the use of fencing where possible, but ensure safe wildlife crossings where fencing is necessary	High	Concurrent with fence building
Secure transfer of Lot A DL 493 water licence from the former owner to SILT	High	Applied in 2020. Check status and confirm transfer in 2025.
Apply for a conservation water licence to secure flow from the DL 492 groundwater spring	High	Applied in 2024. Check status and confirm transfer in 2025.
Repair outlet and improve the DL 492 dugout waterhole to extend its hydroperiod.	Moderate	By 2026. Waiting on water licence approval.
Develop an invasive plant management strategy	Moderate	After vehicle access is effectively controlled.
Identify the need and opportunities for future habitat restoration & enhancement projects	Moderate	Ongoing. Requires more detailed ecosystem mapping

2. Prevent trespass livestock from entering the Grand Forks Grasslands property.

The property provides important winter and spring range for several ungulates, and year-round habitat for several at-risk species. Trespass livestock on the property results in competition for forage, limits wildlife security cover, and may lead to degradation of habitat and destruction of nesting sites. SILT's policy is to exclude all livestock from its properties unless specifically prescribed by SILT for wildlife habitat enhancement.

Supporting Objectives	Priority	Timing
Identify and mark the boundaries of the property at known access points	High	Completed; monitor and maintain signs & fences.
Identify areas where cattle are accessing the property, congregating, causing erosion, or damaging wildlife habitat	High	Completed; continue to monitor.
Prevent livestock entry through strategic fencing	High	West boundary fencing completed. Monitor and maintain yearly.

		DL 492 waterhole fences completed. Monitor and maintain yearly. Ongoing monitor and cooperatively maintain south boundary fences with neighbours.
Continue minimum yearly contact with neighbours and MoF range staff.	High	Ongoing

3. Reduce and restore habitat damage caused by unauthorized vehicle use.

To achieve this goal, SILT has been monitoring public access. Disturbance and noise from unauthorized vehicle and other public use of SILT's land (e.g., dog walking, drinking parties, camping) can disturb wildlife activity, especially during nesting seasons. Impacts on the soil crust from motorized vehicles can expose the soil to erosion, can damage native species and increase the spread of introduced species (Grasslands Conservation Council of British Columbia; 2004b).

Supporting Objectives	Priority	Timing
Physically restrict unauthorized vehicle use by 2026.	High	Ongoing for signage and monitoring. Repair and close DL 492 gate in 2025. Deactivate Morrissey canyon trail on TNTBC's SL 14 concurrent with closing the DL 492 gate. Enact physical barriers on other trails concurrent with gate closure.
Maintain walk-in public access and promote respectful use of the land consistent with SILT's mission and values.	High	Ongoing. Monitor use and maintain barriers. Notify like-minded public users to be aware and report trespasses.
By 2026, inspect the Morrissey Creek access trail (from adjacent private land) for issues related to its use or to related water licence.	High	Fall 2025. This part of DL 492 has not been previously inspected.
By 2026, resolve incorrect mapping of SILT's property access/status.	Moderate	Ongoing. GFks ATV maps on Morrissey Ck Rd have been removed. Other map kiosks may need to be updated. Request Google maps and the RDKB to fix incorrect road label and lot line

(powerline) on cadas	tre
mapping.	

4. Increase public awareness, use and care of the property.

SILT wants to encourage safe and respectful use and enjoyment of this property. Human use can cause significant disturbance to wildlife. By increasing the public's awareness of the conservation goals at this property, we can keep important habitat sites conserved for target species. Dogs can also cause a disruption to wildlife and can deter animals from safely accessing this habitat, therefore, dogs at this site are prohibited.

Supporting Objectives	Priority	Timing
Inform neighbours and community members about this management plan.	High	After board approval. Post this plan on SILT's website and advise neighbours and the community.
Work with community interest groups to promote SILTs mission for this property	High	Ongoing public outreach.
Define public trails and improve signage	Moderate	When funding permits. Identifying mapped walking trails will help confine public use and clarify acceptable uses for peer-to-peer compliance.

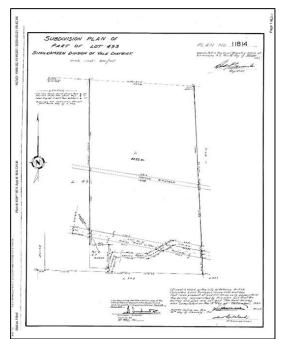
Management Restrictions

SILT strives to honour pre-accepted wishes and conditions of its donors and funders, including:

- The former owner of DL 492 offered to sell the land to SILT at a discount, on an understanding that SILT would seek to curtail livestock grazing on the parcel. A major donor to the purchase made a similar request. SILT's policy is to exclude livestock from all its properties except when specifically prescribed by SILT for a wildlife habitat enhancement purpose.
- 2. Several major funders required SILT to maintain non-mechanized public access on its Grand Forks Grasslands property for hunting, other wildlife-related recreation, and nature appreciation provided such uses are safe, legal, and protective of the land and its habitat values.
- 3. A charitable contributor to purchase of Lot A DL 493 required SILT to obtain federal government approval prior to any future transfer, encumbrance, or disposition of that parcel.

SILT maintains maps of identified Critical Habitats and other wildlife habitat features on the property. Management activities that disturb soils or vegetation will consider protection of Critical Habitat attributes and migratory bird nesting sites wherever they may occur on the property.

The gazetted Morrissey Creek Road bisects the southern part of Lot A DL 493 (Figure 2). Morrissey Creek Road is on a public right-of-way which ends at Lot A's eastern boundary. The Morrissey Creek public road does not extend onto DL 492 from Lot A. The right of public access on Morrissey Creek Road ends at DL 492's western lot line. All of SILT's Grand Forks Grasslands property is privately owned; there is no right of public access onto either of SILT's private land parcels.



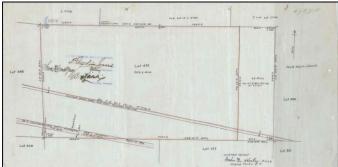


Figure 3: No public road shown on the DL 492 survey plan

Figure 2: Morrissey Creek public road, created in 1961, ends at DL 492's western boundary.

The 1961 Crown Grant of DL 492 into private ownership included a clause requiring "free and unrestricted use of and passage by the public over any roads existing through the said lands". There is no road rights-of-way shown on the current legal survey plan for DL 492 (Figure 3). A 1966 air photo is the earliest available indication of "any roads existing through" the property at the time. The photo (Figure 4) shows a graded road through DL 492. It originated at a sawmill on Highway 3 and first crossed a private lot (a different owner) to the south of DL 492. That 'road' was abandoned decades ago and is mostly revegetated. The current route that extends onto DL 492 from the end of the public "Morrissey Creek Road" did not exist in 1961—it was merely two tire ruts in the grass in 1966.



Figure 4: The road existing on DL 492 in 1966 (presumably the subject of the Crown Grant clause)

SILT's property title contains three recorded powerline rights-of-way for (now) FortisBC. The rights-of-way provide FortisBC with the sole legal access on the rights-of-way for company purposes.

There are two small, shallow, dis-used gravel on the property; their side slopes have been graded to be stable. There is some rough ground from erosion. Trespass use by ATVs crossing slope breaks and over rough ground could pose some liability if motorized use is not restricted. The pit areas are poorly vegetated overall and contain some exotic and invasive plant species. Vegetative restoration may be required to re-naturalize the pits. There is litter and waste that has been illegally dumped that will require cleanup; there is no indication of anything toxic or noxious.

Other Uses

The City of Grand Forks operates two emergency beacon structures on the property. Neither structure is legally tenured, but both are of clear importance to the community. SILT will do its utmost to provide authorized vehicle access to both structures and may consider entering an agreement with the city for long-term use of the land it occupies.

SILT will continue to engage in conversation with adjoining property owners, community groups, First Nations, members of the public, and others to build towards management strategies that are collaborative while also reflective of SILT's mission, values, and its private property rights.

Community Interests

Individuals and organizations with interest in how SILT's conservation property is managed may include:

- SILT donors and supporters
- Adjoining landowners and land managers
- Syilx Nation member communities
- City of Grand Forks (airport)
- Boundary Invasive Species Society
- Regional District of Kootenay-Boundary
- FortisBC
- Granby Guides & Outfitters Ltd
- Grand Forks Wildlife Association
- Granby Wilderness Society
- Wild Sheep Society of BC
- Grand Forks ATV Club

References

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Lower Similkameen Indian Band, (LSIB, 2024) *nk'mcinm – Grand Forks Grassland Archeological Overview Assessment,* Unpub Rpt.

Appendix

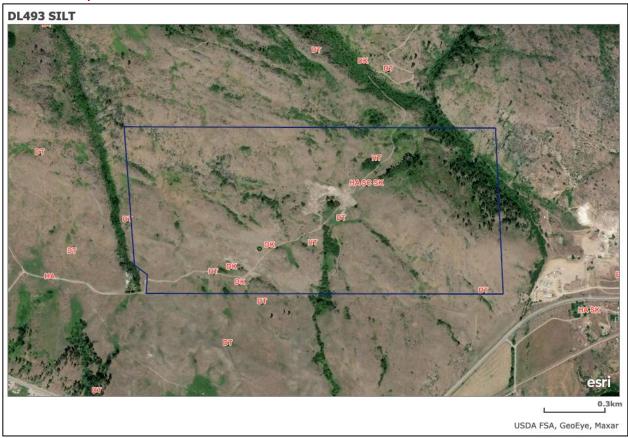
Species At Risk List

Occurrence data mapped from the BC Conservation Data Centre (CDC) shows element occurrences for several wildlife species known to occur in the area with potential to occur on the Grasslands property (Table 1).

Table 1: List of at-risk wildlife known in the vicinity of the Grand Forks Grasslands.

Speci	es Name	S	tatus
<u>English</u>	Scientific	BC List	SARA
Great Basin Gopher Snake	Pituophis catenifer deserticola	Blue	Threatened
Great Basin Spadefoot	Spea intermontane	Blue	Threatened
Western Rattlesnake	Crotalus oreganus	Blue	Threatened
North American Racer	Coluber constrictor	Blue	Threatened
Lewis's Woodpecker	Melanerpes lewis	Blue	Threatened
Immaculate Green Hairstreak	Callophrys affinis	Blue	
American Badger	Taxida taxus	Blue	Endangered
Bighorn Sheep	Ovis canadensis	Blue	
Sharp-tailed Grouse (may be locally extirpated)	Tympanuchus phasianellus columbianus	Blue	Not SARA listed

Invasive Species Occurrences



BC CDC occurrence data for invasive species on, and in vicinity of the Grasslands property.

Table 2: Invasive species occurrence list

(HT): Hound's tongue; PPxh3
(HT): Hound's tongue; PPxh3
(DT): Dalmatian toadflax; IDFxh4
(DT): Dalmatian toadflax; PPxh3
(DT): Dalmatian toadflax; PPxh3
(DK): Diffuse knapweed
(NT): Nodding Thistle
(HA SC SK): Hoary Alyssum, Sulphur Cinquefoil, Spotted Knapweed; PPxh3