Recovery Strategy for the Branched Phacelia (*Phacelia ramosissima* var. *ramosissima*) in British Columbia

Prepared by the Southern Interior Rare Plants Recovery Implementation Group

November 2008

About the British Columbia Recovery Strategy Series

This series presents the recovery strategies that are prepared as advice to the Province of British Columbia on the general strategic approach required to recover species at risk. The Province prepares recovery strategies to meet its commitments to recover species at risk under the *Accord for the Protection of Species at Risk in Canada*, and the *Canada – British Columbia Agreement on Species at Risk*.

What is recovery?

Species at risk recovery is the process by which the decline of an endangered, threatened, or extirpated species is arrested or reversed, and threats are removed or reduced to improve the likelihood of a species' persistence in the wild.

What is a recovery strategy?

A recovery strategy represents the best available scientific knowledge on what is required to achieve recovery of a species or ecosystem. A recovery strategy outlines what is and what is not known about a species or ecosystem; it also identifies threats to the species or ecosystem, and what should be done to mitigate those threats. Recovery strategies set recovery goals and objectives, and recommend approaches to recover the species or ecosystem.

Recovery strategies are usually prepared by a recovery team with members from agencies responsible for the management of the species or ecosystem, experts from other agencies, universities, conservation groups, aboriginal groups, and stakeholder groups as appropriate.

What's next?

In most cases, one or more action plan(s) will be developed to define and guide implementation of the recovery strategy. Action plans include more detailed information about what needs to be done to meet the objectives of the recovery strategy. However, the recovery strategy provides valuable information on threats to the species and their recovery needs that may be used by individuals, communities, land users, and conservationists interested in species at risk recovery.

For more information

To learn more about species at risk recovery in British Columbia, please visit the Ministry of Environment Recovery Planning webpage at:

<http://www.env.gov.bc.ca/wld/recoveryplans/rcvry1.htm>

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Disclaimer

This recovery strategy has been prepared by the Southern Interior Rare Plants Recovery Implementation Group, as advice to the responsible jurisdictions and organizations that may be involved in recovering the species. The British Columbia Ministry of Environment has received this advice as part of fulfilling its commitments under the *Accord for the Protection of Species at Risk in Canada*, and the *Canada – British Columbia Agreement on Species at Risk*.

This document identifies the recovery strategies that are deemed necessary, based on the best available scientific and traditional information, to recover branched phacelia populations in British Columbia. Recovery actions to achieve the goals and objectives identified herein are subject to the priorities and budgetary constraints of participatory agencies and organizations. These goals, objectives, and recovery approaches may be modified in the future to accommodate new objectives and findings.

The responsible jurisdictions and all members of the recovery team have had an opportunity to review this document. However, this document does not necessarily represent the official positions of the agencies or the personal views of all individuals on the recovery team.

Success in the recovery of this species depends on the commitment and cooperation of many different constituencies that may be involved in implementing the directions set out in this strategy. The Ministry of Environment encourages all British Columbians to participate in the recovery of branched phacelia.

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RESPONSIBLE JURISDICTIONS

The British Columbia Ministry of Environment is responsible for producing a recovery strategy for branched phacelia under the *Accord for the Protection of Species at Risk in Canada*. Environment Canada's Canadian Wildlife Service participated in the preparation of this recovery strategy.

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EXECUTIVE SUMMARY

Branched phacelia (*Phacelia ramosissima* var. *ramosissima*) is a robust perennial plant restricted to intermountain areas from the southern Okanagan Valley in south-central B.C., south through Washington and Oregon to Nevada and southern California. NatureServe has assigned a status of globally secure to the species. Branched phacelia is assessed as Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). This designation was assigned because the Canadian populations are geographically restricted and known only from three[1] small populations numbering fewer than 1000 plants. The species was listed on Schedule 1 of the federal *Species at Risk Act* in 2006 as endangered.

The Canadian extent of occurrence covers about 5 km^2 near Osoyoos, BC, and the three populations known from Canada occupy less than 1 km^2. The populations occur on a mix of private and provincial Crown land.

Within its range, branched phacelia is restricted to talus slopes in the Bunchgrass and Ponderosa Pine Biogeoclimatic zones. It appears to prefer steep (40–60%) slopes of various aspects, sparsely vegetated with shrubs, forbs, and grasses.

Branched phacelia faces threats from habitat loss or degradation due to urban development, mining and mineral exploration, and potential threats of talus removal, recreational activities, and invasive species.

The recovery goal for branched phacelia is to maintain all known extant populations in B.C.

The short-term (5-year) recovery objectives are:

1. Establish protection for the known extant populations (with no loss or degradation of occupied habitat).
2. Assess the extent of the five threats to the populations (urban development, mining and mineral exploration; and the potential threats of talus removal, recreational activities, and invasive species) and reduce their impacts.
3. Investigate the feasibility of restoring and enhancing populations at extant sites and implement restoration measures when deemed necessary.
4. Address knowledge gaps relating to species biology, particularly life history and demographics.
5. Confirm the distribution of branched phacelia and update population and distribution objectives as needed.

No critical habitat can be identified for branched phacelia in Canada at this time, but it may be identified at a later date in a federal addition by Environment Canada, or in a future action plan. It is expected that critical habitat will be proposed following the completion of outstanding work required to quantify specific habitat and area requirements for the species, further research on the

[1] One of the populations described in the COSEWIC status report was based on a mapping error and never existed. However, an additional population was discovered in 2007, so the total remains at 3 populations.

biology of the species, and monitoring of the populations to determine population trends. Consultation with affected landowners and organizations will also be necessary.

A recovery action plan will be completed by 2012.

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BACKGROUND

Species Assessment Information from COSEWIC

Assessment Summary: May 2005
Common name: branched phacelia
Scientific name: *Phacelia ramosissima*
Status: Endangered
Reason for designation: A geographically highly restricted perennial known only from three small populations numbering fewer than 1,000 plants subject to continued habitat loss and population decline from urban expansion and mining activities.
Occurrence: British Columbia
Status history: Designated Endangered in May 2005. Assessment based on a new status report.

Description of the Species[2]

Branched phacelia is a perennial herb from a branched stem-base and a taproot (Figure 1). The glandular-hairy (having glands, usually sticky) stems are 0.5–1.5 m long. The basal leaves (leaves near the base of the stem), if any, are soon shed while the stalked, glandular-hairy, odoriferous stem leaves are alternate (alternate up the stem, not opposite each other) lance-shaped (sword-shaped) in outline, wider towards the tip, and 10–20 cm long and 3–10 cm wide. The leaves are divided into oppositely arranged lobes (rounded sections) and the lobes are cleft (divided) and toothed. The flowering structure consists of a coiled, 1-sided, dense, terminal cluster of lavender, pale cream, or sometimes white, 5–8 mm long, corollas (a corolla is the ring of petals). The hairy calyces (an outer ring of reduced, petal-like structures) have linear lobes with hairless stamens that protrude well beyond the petals. The fruits are capsules that contain 8–12, 1–2 mm long, pitted seeds.

[2] The following section is adapted from the species description in the status report (COSEWIC 2005).

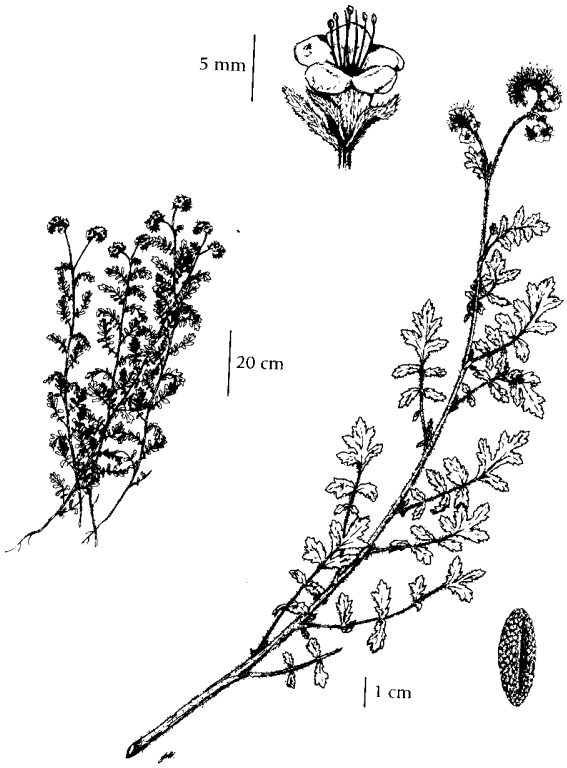

Figure 1. Illustration of branched phacelia. Left: habit; top-centre: flower; lower-centre: branch; lower right: seed (Line drawing by an unattributed illustrator in Douglas *et al.* 1999, with permission).

Populations and Distribution

Branched phacelia is restricted to intermountain areas from the southern Okanagan Valley in south-central B.C., south through Washington and Oregon to Nevada and southern California (Figure 2).

Six varieties of *Phacelia ramosissima* occur within North America, and the variety *ramosissima* is the only variety of this species occurring in Canada (Wilken *et al.* 1993; Kartesz 1999). Other varieties occurring within North America are listed in Table 1.

Table 1. Varieties of *Phacelia ramosissima* in North America and province/state of occurrence.

Variety	Province/State
austrolitoris	CA
eremophila	CA, NV, OR
latifolia	AZ, CA, NV, UT
montereyensis	CA
ramosissima	B.C., CA, NV, OR, WA
subglabra	CA, ID, NV, OR

AZ = Arizona; B.C. = British Columbia; CA = California; ID = Idaho; NV = Nevada; OR = Oregon; UT = Utah; WA = Washington.

Branched phacelia is ranked globally secure by NatureServe conservation ranks (Table 2).

Table 2. Conservation ranks for branched phacelia (variety *ramosissima*).

Location	Rank	Rank description
British Columbia	S1	Critically imperiled
Washington	SNR	Not ranked
Oregon	SNR	Not ranked
California	SNR	Not ranked
Nevada	SNR	Not ranked
Global	G5?TNR	Species is globally secure; variety *ramosissima* is not ranked

Sources: Oregon Natural Heritage Information Centre (2004), California Department of Fish and Game, Natural Diversity Database (2005), Washington Natural Heritage Program (2005), B.C. Conservation Data Centre (2008), NatureServe (2008).

Figure 2. Distribution of branched phacelia in North America (from COSEWIC 2005). Map shows the range of variety *ramosissima*, the only one occurring in Canada.

In Canada, branched phacelia has always been rare as this species is at the northern extent of its range. It was first reported in 1985, however additional records since then have not been monitored to determine population trends.

Currently, populations of branched phacelia have been reported near Osoyoos along the east, west, and southeast slopes of Mount Kruger on the west side of Osoyoos Lake, BC (Figure 3;

Table 3). There are three populations[3] of branched phacelia: one population on the west slope of Mount Kruger; one population (consisting of 16 subpopulations) on the east slope of Mount Kruger; and one population on the southeast slope of Mount Kruger, which is a new occurrence since the COSEWIC (2005) status report.[4]

The extent of occurrence of branched phacelia in Canada is approximately 5 km^2. The area of occupancy is between 800 and 1000 m^2 and a total Canadian population of fewer than 1000 plants (COSEWIC 2005). The Canadian area of occupancy and population size represents less than 1% of the global population and distribution for branched phacelia.

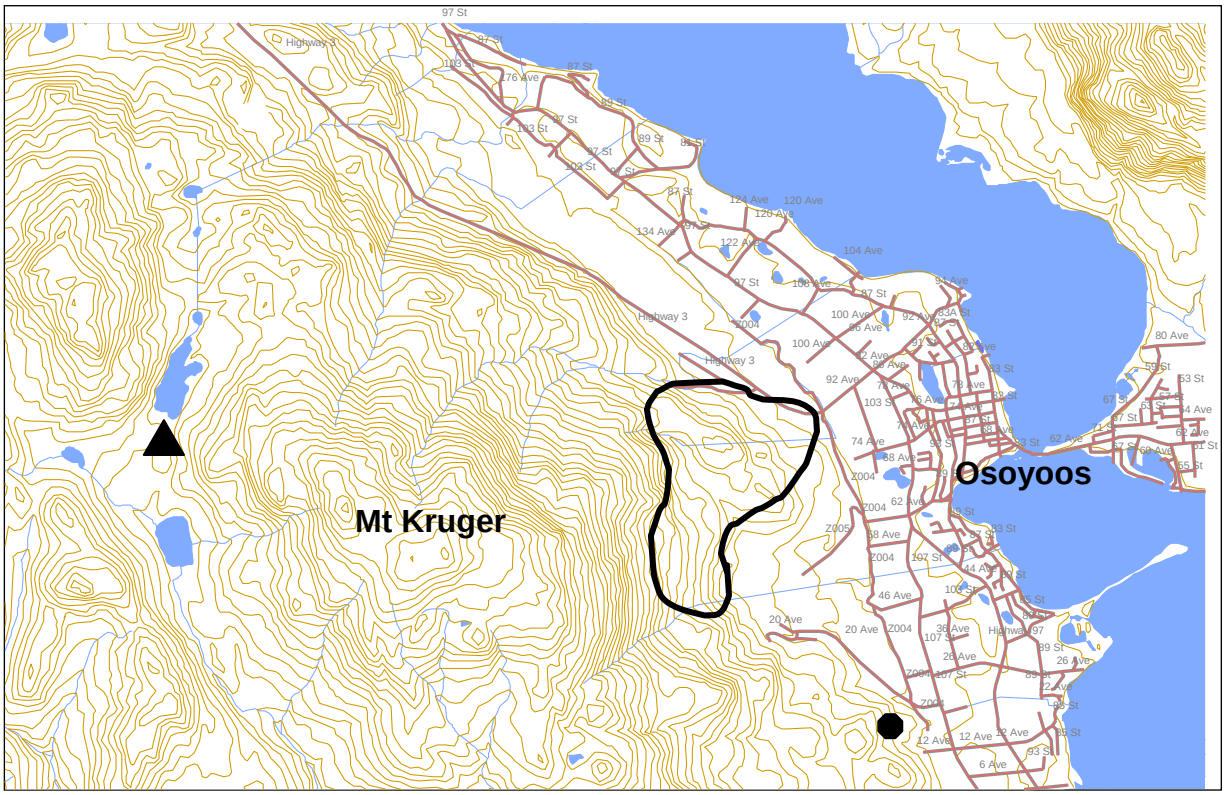

Figure 3. Distribution of branched phacelia in Canada. The triangle represents Mount Kruger west slope population, and the open polygon represents subpopulations on the east slope of Mount Kruger (west bench of Osoyoos Lake). Solid dot is the new population on southeast slope of Mount Kruger.

[3] Populations are locations that are separated from each other by < 1 km
[4] One of the populations described in the status report was based on a mapping error and never existed.

Table 3. Summary of populations and subpopulations of branched phacelia in Canada.

Population	Subpopulations	Status and description	Land tenure
Mount Kruger, west slope	None	1998: six plants over 10 m^2. Not seen since July 18, 1998 observation.	South Okanagan Grassland Protected Area
Mount Kruger, east slope	16 subpopulations	1998: eight subpopulations with a combined population of 500–700 individuals occupying about 800–1000 m^2. 2007: nine of the 16 subpopulations were surveyed with a population of 426 plants/910 m^2	16 extant subpopulations - Mixed private and provincial Crown land. Twelve subpopulations are on provincial Crown land, including one in the South Okanagan Grassland Protected Area. Four other subpopulations are on private land. Two others have been extirpated from private land (COSEWIC 2005).
Mount Kruger, southeast slope	None	2007: 15-m long patch	Private land

Needs of the Branched Phacelia

Biological needs, ecological role, and limiting factors

Branched phacelia does not reproduce from cuttings or pieces of the plant (M. Fairbarns, pers. comm., 2006), therefore dispersal of the species likely depends on reproduction through seed. Most phacelia species exhibit physiological dormancy (dormancy due to internal inhibitors usually enzymes and hormones) and require a period of cool and moist conditions before germinating (Baskin and Baskin 1998). It is a perennial species and the longevity and demographic attributes of Canadian plants is unknown. Canadian plants produce large amounts of seed but there is no information regarding the species' ability to bank seeds over long periods, nor is there any information regarding its capacity for long-range seed dispersal.

The species is probably pollinated by bees (M. Fairbarns, pers. comm., 2006). The small populations of this species in B.C. are likely susceptible to stochastic events and demographic collapse.

Habitat needs

Branched phacelia is restricted to the Southern Okanagan Basin, Okanagan Range Ecosection (B.C. Ministry of Environment 2005), in the very dry hot Okanagan variants of the Bunchgrass and Ponderosa Pine Biogeoclimatic zones (B.C. Ministry of Forests 2003). Within this area, it occurs on talus slopes, often calcareous in nature. Leading species nearby include shrubs that can tap into water stored deep in the soil (mock-orange - *Philadelphus lewisii*; soopolallie – *Shepherdia canadensis*; oceanspray – *Holodiscus discolor*; saskatoon – *Amelanchier alnifolia*; nootka rose – *Rosa nutkana*; poison ivy – *Toxicodendron rydbergii*; big sagebrush – *Artemisia tridentata*) and drought-tolerant forbs and grasses (bluebunch wheatgrass – *Pseudoroegneria spicata*; narrow-leaved goosefoot – *Chenopodium desiccatum*; Richardson's penstemon – *Penstemon richardsonii*). It appears to prefer steep (40–60%) slopes of various aspects (J. Penny,

pers. comm., 2005). The influences of fire and fire suppression have not been examined; some *Phacelia* species found in California semi-arid sites need fire for germination (Baskin and Baskin 1998).

Threats

Habitat loss or degradation
Urban development constitutes a major threat to the species as the south Okanagan Valley is experiencing high rates of growth. Potential habitat for branched phacelia has recently been lost to housing and industrial development.

Mining exploration on Mount Kruger potentially threatens branched phacelia (COSEWIC 2005). Mineral exploration activity has occurred within a few metres of one extant subpopulation on the east slope of Mount Kruger and may have contributed to the loss of one or both of the recently extirpated subpopulations (Table 3).

Currently, mineral claims cover all branched phacelia occurrences outside of the South Okanagan Grasslands Protected Area; however, no mining permits have been active since 2000 (A. Brunke, pers. comm., 2006). Mining permits are required for all mineral exploration work involving machinery, but "pick-and-shovel" exploration may be ongoing.

Other potential threats
Talus removal, recreational activities, and invasive species are potential threats. Some talus slopes in the South Okanagan have been excavated to provide rocks for landscaping (T. Lea, pers. comm., 2006). The potential severity of this threat is unknown. As well, recreational activities may impact the habitat of the branched phacelia (trampling, accidental removal of talus), and the spread of invasive alien plant species from nearby areas may threaten the species as well. The potential severity of these threats is unknown.

Actions Already Completed or Underway

In 2007, the B.C. Conservation Corps with the Ministry of Environment partially resurveyed the Mount Kruger area, as did Terry McIntosh and Mike Sarell. A new population found by the latter team is called Mount Kruger, southeast slope (Table 3). No other recovery actions have been completed or are underway.

Knowledge Gaps

More survey work should be conducted in other parts of the Southern Okanagan Basin and possibly within the Okanagan Range and Southern Okanagan Highland Ecosections to determine the presence of unreported populations.

The key demographic attributes should be described for populations in Canada to determine the longevity of plants, identify what stages present the most serious bottlenecks to population growth, and identify the underlying factors. This information will provide a scientific basis for developing well-targeted management actions that are likely to foster efficient, effective, and

economical recovery.

The seasonal development of branched phacelia should be studied. Knowledge of germination dates, important growth periods, flowering times, and seed dispersal periods will provide a scientific basis for timing recovery actions and avoiding adverse impacts.

Seed viability, germination requirements, and seedbank longevity should be determined. This information will assist in the development of effective techniques for seed collection and storage, propagation and population establishment or augmentation. The breeding system should be investigated. If the results indicate that branched phacelia is an outbreeder, its major pollinator guilds should be identified.

RECOVERY

Recovery Feasibility

Recovery is biologically and technically feasible for branched phacelia (Table 4).

Table 4. Technical and biological feasibility of recovery, criteria from Environment Canada *et al.* (2005).

Criteria	Feasibility
1. Are individuals capable of reproduction currently available to improve the population growth rate or population abundance?	Yes. It reproduces sexually and produces abundant seed.
2. Is sufficient suitable habitat available to support the species or could it be made available through habitat management or restoration?	Yes. While there have been declines in habitat quality and extent, there is no compelling evidence that sufficient habitat securement for recovery is impossible.
3. Can significant threats to the species or its habitat be avoided or mitigated through recovery actions?	Yes. Threats can be mitigated through the actions outlined in Table 5.
4. Do the necessary recovery techniques exist and are they demonstrated to be effective?	Yes. Recovery techniques consist primarily of threat mitigation techniques. One subpopulation on the east slope of Mount Kruger was found (during the 2003 surveys for the status report) on rubble excavated from a mine (S. Smith, pers. comm., 2006), which indicates that population establishment is technically feasible.

Recovery Goal

The recovery goal for branched phacelia is to maintain all known extant populations in B.C.

Rationale for the Recovery Goal

Specific targets for population numbers are not possible due to lack of historical data for determining long-term population trends. As well, because the species is at the northern extent of its range in North America, it is likely that it has always been rare. There is too little known about the species' demography, seasonal development and productivity to develop more specific goals.

Recovery Objectives

The short-term (5-year) recovery objectives are:

1. Establish protection for the known extant populations (with no loss or degradation of occupied habitat).
2. Assess the extent of the five threats to the populations (urban development, mining and mineral exploration; and the potential threats of talus removal, recreational activities, and invasive species) and reduce their impacts.
3. Investigate the feasibility of restoring and enhancing populations at extant sites and implement restoration measures when deemed necessary.
4. Address knowledge gaps relating to species biology, particularly life history and demographics.
5. Confirm the distribution of branched phacelia and update population and distribution objectives as needed.

Approaches Recommended to Meet Recovery Objectives

Broad strategies for the recovery of branched phacelia are presented in Table 5.

1. Protect habitat[5] for existing populations.
2. Monitor threats and develop best management practices or management plans.
3. Establish scientific research to determine if restoring and enhancing populations is feasible and deemed necessary.
4. Establish scientific research to address knowledge gaps relating to the viability of the species including demography, population dynamics, seed germination requirements, seedbank longevity, and genetics.
5. Inventory and monitor existing populations and potential sites for additional populations.
6. Provide public outreach (stewardship) with landowners and land managers to increase interest in the protection and stewardship of the species.

[5] This may involve protection in any form including stewardship agreements and conservation covenants, land use designations, and protected areas.

Recovery planning table

Table 5. Recovery planning table for branched phacelia.

Priority	Obj. no.	Broad strategies to address threats	Threats or concerns addressed	Recommended approaches
Urgent	1	Habitat protection	Habitat loss and degradation – urban development, mining and mineral exploration, talus removal	• Establish protection measures for all populations (e.g. covenants and other agreements) in cooperation with the South Okanagan–Similkameen Conservation Program (SOSCP).
Urgent	1, 2	Habitat protection and public outreach	Habitat loss and degradation – all	• Prepare best management practices to support landowners in habitat stewardship activities. • Identify which private and public landowners have populations of branched phacelia on their lands. • Contact landowners through the landowner contact program of SOSCP.
Necessary	2,3,4	Scientific research	Habitat loss and degradation – all	• Determine whether there are bottlenecks affecting pollination/reproduction, dispersal, seed production, recruitment, recruit survival. • Determine feasibility of population enhancement at extant locations. • Determine appropriate management techniques to protect existing populations of branched phacelia and their habitat.
Necessary	1, 2, 3, 5	Inventory and population /threat monitoring	Habitat loss and degradation – all	• Identify and prioritize areas for inventory. • Conduct inventory to determine whether there are any undocumented populations. • Monitor populations and assess threats at sites.
Necessary	3	Habitat restoration	Habitat loss and degradation – all	• Identify sites suitable for restoration and enhancement of extant populations if deemed necessary • Implement restoration activities
Beneficial	1,2	Public outreach - stewardship with landowners/land managers	Habitat loss and degradation – all	• Deliver public education and outreach concerning branched phacelia and their management (e.g. to naturalist and outdoor recreation clubs, First Nations, local governments, landowners, land managers, and stakeholders).

Performance Measures

The following performance measures are related to the objectives:

1. Protection measures, such as covenants, stewardship agreements and best management practices have been developed (Objective 1).
2. Population monitoring indicates that the numbers of plants at the extant sites are stable or increasing, by 2012 (Objective 1);
3. Impact of the five main threats to the populations has been investigated and threats are reduced and/or mitigated at sites of all extant populations by 2012 (Objective 2);

4. Initiation of a scientific investigation to determine whether or not it is feasible and necessary to restore and enhance extant populations is completed by 2012 (Objective 3).
5. Scientific research has been initiated to address knowledge gaps (Objective 4).
6. Public outreach sessions have been presented to land owners and land managers (Objective 5).

Critical Habitat

Identification of the species' critical habitat

No critical habitat can be identified for branched phacelia in Canada at this time, but it may be identified at a later date in a federal addition by Environment Canada, or in a future action plan. It is expected that critical habitat will be proposed following the completion of outstanding work required to quantify specific habitat and area requirements for the species, further research on the biology of the species, and monitoring of the populations to determine population trends. Consultation with affected landowners and organizations will also be necessary.

Recommended schedule of studies to identify critical habitat

1. Identify biotic and abiotic habitat attributes (e.g. soil texture, size of talus soil depth, slope, aspect, hydrologic regime for the entire growing period, species composition) at extant sites by 2012.

2. Using established survey and mapping techniques (applied during phenologically appropriate periods – June and July), delineate the boundaries of all occupied habitats by 2012.

Existing and Recommended Approaches to Habitat Protection

The population on the west slope of Mount Kruger and one of the east slope subpopulations occur in the South Okanagan Grasslands Protected Area. There are no active logging or mining tenures in the protected area (MWLAP 2003).

Eleven other subpopulations on the east side of Mount Kruger occur on provincial Crown land, but are not protected from mining and much of the area is covered by active mining claims.

The remaining four subpopulations on the east slope of Mount Kruger, and the south-east slope Mount Kruger population, occur on private land. Their habitat could be protected through stewardship mechanisms that effectively prevent development for mining or urban development. Effective mechanisms include establishment of conservation covenants, eco-gifting of the small areas where branched phacelia occurs, or purchase of the properties for conservation.

Effects on Other Species

Branched phacelia is found in the South Okanagan Valley where other rare species are found (see Table 6). The recovery actions proposed are not expected to negatively affect any other species. The recommended habitat protection will indirectly benefit other species in the area.

Table 6. Rare species occurring in the South Okanagan Valley.

Species	Common name	Conservation rank	COSEWIC status
Vertebrates			
Taxidea taxus	Badger	G5 S1	E
Ambystoma tigrinum	Tiger Salamander	G5 S2	E
Spea intermontana	Great Basin Spadefoot	G5 S3	T
Ammodramus savannarum	Grasshopper Sparrow	G5 S2B	NA
Spizella breweri breweri	Brewer's Sparrow, *breweri* subspecies	G5T4 S2B	NA
Catherpes mexicanus	Canyon Wren	G5 S3	NAR
Crotalus oreganus	Western Rattlesnake	G5 S3	T
Pituophis catenifer deserticola	Gopher Snake, *deserticola* subspecies	G5T5 S3	T
Hypsiglena torquata	Night Snake	G5 S1	E
Phrynosoma douglasii	Pigmy Short-horned Lizard	G5 SX	XT
Butterflies			
Satyrium fuliginosa	Sooty Hairstreak	G4 S1	NA
Satyrium californica	California Hairstreak	G5 S3	NA
Satyrium behrii	Behr's Hairstreak	G5 S2	T
Plants			
Calochortus lyallii	Lyall's mariposa lily	G3 S2	T
Orthocarpus barbatus	Grand Coulee owl-clover	G2G4 S1	E
Halimolobos whitedii	Whited's halimolobos	G3? S2	NA
Bolboschoenus fluviatilis	river bulrush	G5 S2S3	NA
Salix amygdaloides	peach-leaf willow	G5 S2	NA
Camissonia andina	Andean evening-primrose	G4 S1	NA
Linanthus septentrionalis	northern linanthus	G5 S2S3	NA
Lepidium densiflorum var. *pubicarpum*	prairie pepper-grass	G5T4 S1	NA
Gilia sinuata	shy gilia	G5 SH	NA
Erigeron poliospermus var. *poliospermus*	cushion fleabane	G4T4 S2S3	NA
Verbena hastata var. *scabra*	blue vervain	G5T5 S2	NA
Sphaeralcea coccinea	scarlet globe-mallow	G5? S1	NA
Gaura coccinea	scarlet gaura	G5 S1	NA
Astragalus sclerocarpus	The Dalles milk-vetch	G5 S2	NA
Astragalus filipes	threadstalk milk-vetch	G5 S3	NA
Lappula occidentalis var. *cupulata*	western stickseed	G5T5 S1	NA
Thelypodium laciniatum var. *laciniatum*	Thick-leaved thelypody	G5T5	NA

Status: XT = extinct, E = endangered, T = threatened, SC = special concern, NA = not assessed, NAR = not at risk. S-ranks are assigned by the B.C. Conservation Data Centre and NatureServe.

Socioeconomic Considerations

Recovery of branched phacelia and restoration of its habitat will contribute to the biodiversity, health, and functioning of the environment and enhance opportunities for appreciation of such special places and species thereby contributing to overall social value in the Southern Interior of B.C. The natural beauty of grasslands and associated ecosystems in the South Okanagan and Similkameen areas are an important resource for British Columbians, and contribute to the tourism and recreation industry. Protecting these natural spaces, biodiversity, and recreation values has enormous value to the local economy. Recovery actions could affect private land development, and talus rock and mining sectors. The expected magnitude of these effects is unknown and will be further addressed in the action plan.

Recommended Approach for Recovery Implementation

The recovery team should strive for cross-membership with teams managing the recovery of other rare grassland species in the South Okanagan–Similkameen area. Despite the obvious benefits of cross-membership with other recovery team(s), a single-species approach is best suited to the recovery of branched phacelia because it occurs in specialized talus habitats. Special attention will have to be paid to potential impacts of recovery activities on snake hibernacula.

The South Okanagan–Similkameen Conservation Program (SOSCP) is a partnership of non-governmental, government, and First Nations organizations that conserve the biodiversity of the region, which includes the Canadian extent of occurrence of branched phacelia. SOSCP promotes stewardship through landowner contact, applies First Nations knowledge and ecological heritage, offers educational programs, assists in the securement of sites for conservation, and undertakes research and habitat restoration. While SOSCP provides a landscape conservation context for the protection of species at risk, it currently has no specific projects directed at the recovery of branched phacelia.

Statement on Action Plans

A recovery action plan for branched phacelia will be completed by 2012.

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