

MIDDLE PARK Conservation Action Plan 2011 Update



Middle Park penstemon © *Betsy Neely*



Kremmling milkvetch © *Denise Culver*

Plant Species of Focus:

Kremmling milkvetch (*Astragalus osterhoutii*)

Middle Park penstemon (*Penstemon penlandii*)

**Sponsored by the
Colorado Rare Plant Conservation Initiative**

Workshop dates: June 26, 2008 and July 6, 2010

Report date: August 25, 2011

Table of Contents

I. Introduction	2
II. Vision and Goals for the Middle Park Priority Action Area.....	2
III. Rare plants of the Middle Park Priority Action Area	3
IV. Map of Middle Park Priority Action Area.....	4
V. About the Workshops	5
VI. Workshop Results.....	6
A. Conservation Targets.....	6
B. Viability	7
C. Conservation Issues.....	8
D. Strategies.....	10
VII. Next Steps	15
VIII. References	15
Attachment 1. Additional key species and plant communities in the Middle Park area	16
Attachment 2. Photos taken during the 2010 workshop field trip	17

Panjabi, S. and B. Neely. 2011. Middle Park Conservation Action Plan, 2011 Update. Prepared by The Nature Conservancy and the Colorado Natural Heritage Program. Unpublished report prepared for the National Fish and Wildlife Foundation.

I. Introduction

This document identifies conservation strategies for globally imperiled Middle Park penstemon and Kremmling milkvetch, based on assessments of the plants' viability and threats by participants of an initial conservation action planning workshop held in June 2008 and a July 2010 follow-up workshop. The primary audience is intended to be the workshop participants and other stakeholders interested in conserving these species and helping to implement the strategies.

An initial Conservation Action Plan was developed in 2008 (Kram et al. 2008; available on-line at <http://www.cnhp.colostate.edu/teams/botany.asp#initiative>) following the first workshop. This report, herein, is intended as a comprehensive follow-up and update to the 2008 plan.

The Kremmling milkvetch and Middle Park penstemon are rare plants endemic to the Middle Park Priority Action Area as identified by the Colorado Rare Plant Conservation Initiative (RPCI, Neely et al. 2009). Both species are listed as endangered under the Endangered Species Act by US Fish and Wildlife Service. A Priority Action Area is an area needing immediate conservation action to prevent the need for listing, extinction, or further losses of imperiled plant species. Selection was based on the level of imperilment of rare plant species, quality of the occurrences, urgency of the management and protection actions, and other opportunities such as funding and land ownership patterns. These areas are based on the Potential Conservation Areas identified by the Colorado Natural Heritage Program, Colorado State University, with input by the RPCI and the Rare Plant Technical Committee (RPTC). To date, RPCI has identified ten such areas across Colorado.

II. Vision and Goals for the Middle Park Priority Action Area

Vision:

1. Populations of the imperiled Kremmling milkvetch and Middle Park penstemon and their habitats thrive within functioning ecosystems.
2. A coalition of partners work together to ensure their long-term survival and stewardship.

Goals:

1. Conserve all viable and restorable occurrences of the Kremmling milkvetch (5) and Middle Park penstemon (2).
2. Conserve a minimum of 700-1000 acres of habitat for both imperiled plants.
3. Maintain/restore a mosaic of high-quality plant communities.

III. Rare plants of the Middle Park Priority Action Area

Middle Park penstemon (*Penstemon penlandii*) is a stunning plant with blue-purple flowers in the snapdragon family (Schrophulareaceae). The species is particularly interesting because it is only known from two locations in the world, despite extensive searches by area botanists over the past 25 years. It is a very distinct species, disjunct from its nearest relatives by nearly 150 miles.

The Kremmling milkvetch (*Astragalus osterhoutii*) is similarly limited in its distribution and rarity, known from a total of five locations in the world. The Kremmling milkvetch is a member of the pea family (Fabaceae) and has numerous whitish flowers. Both of these species are found in fine textured soils in sparsely vegetated sagebrush badlands within an approximately 65 square mile area in Grand County, Colorado.

Although the known occurrences appear to be in good to excellent condition, the habitat of these two plant species is threatened by motorized recreation, future residential development, mining, oil and gas development, excessive grazing, herbivory (blister beetle), competition from invasive plants, road construction and maintenance, utility construction and maintenance, and trail or ditch maintenance activities. Both of these species are listed as endangered by the U.S. Fish and Wildlife Service and are ranked critically imperiled (G1) by the Colorado Natural Heritage Program.

IV. Map of Middle Park Priority Action Area

This document focuses on rare plants within the Middle Park Priority Action Area (Figure 1) as recognized by the Colorado Rare Plant Conservation Initiative (RPCI, Neely et al. 2009).

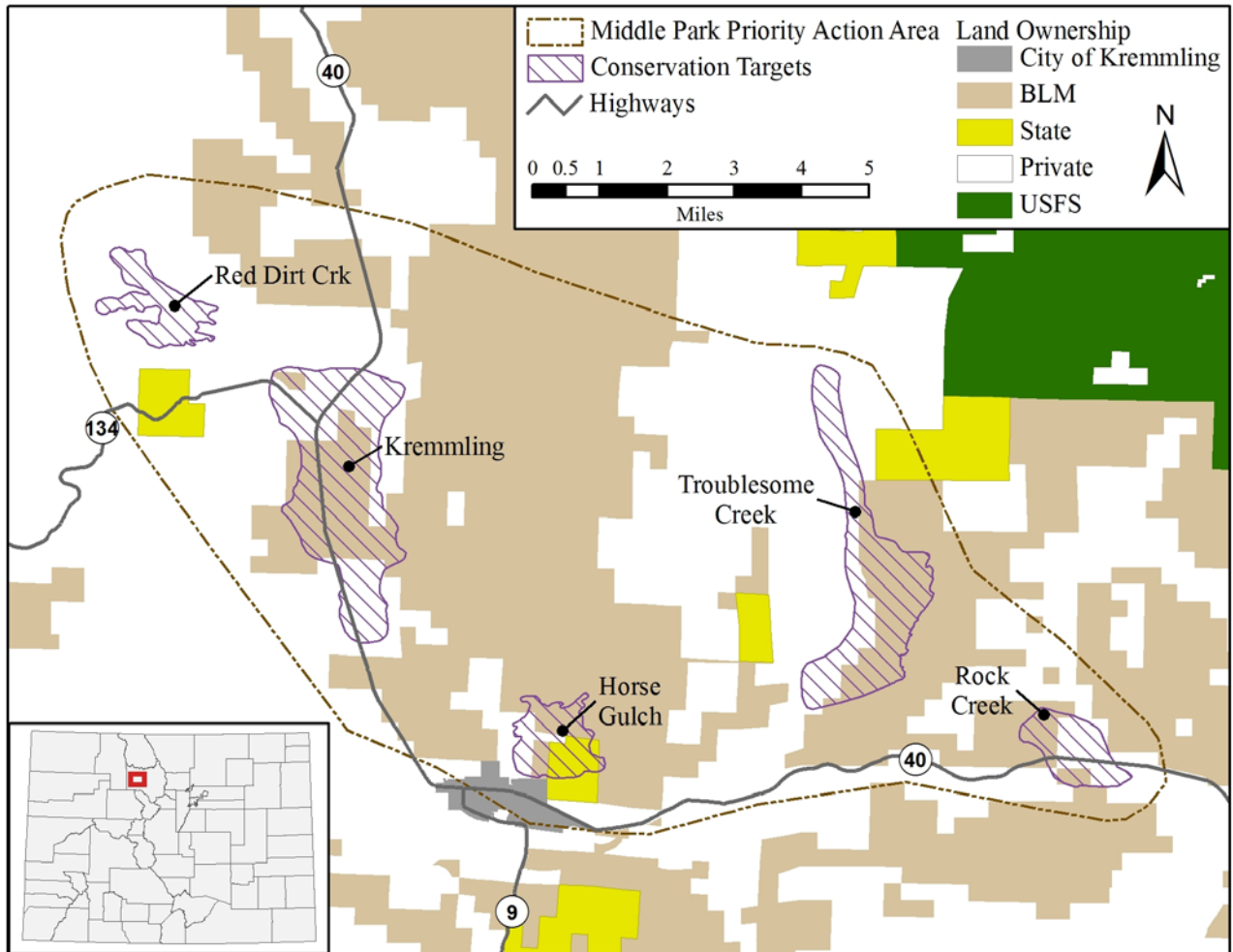


Figure 1. Map of the Middle Park Priority Action Area. Boundaries are based on Potential Conservation Areas developed by the Colorado Natural Heritage Program (2011) and are recognized by the Colorado Rare Plant Conservation Initiative as Important Plant Areas (Neely et al. 2009).

Located in Grand County, the Middle Park Action Area includes all known occurrences of Middle Park penstemon and Kremmling milkvetch (Table 1). This Area lies within a Southern Rocky Mountains Ecoregional Assessment conservation area (Neely et al. 2000) and occurs within the vicinity of the Upper Colorado River Corridor Priority Landscape identified by the Colorado Conservation Partnership.

Table 1. Plants of focus in the Middle Park Priority Action Area

Common name	Scientific name	Known occurrences	Global rank*	Status	CNHP Rare Plant Field Guide Link
Kremmling milkvetch (or Osterhout's milkvetch)	<i>Astragalus osterhoutii</i>	Five occurrences in the world, all of which are in the Middle Park area.	G1	Listed Endangered	http://www.cnhp.colostate.edu/download/projects/rareplants/pdfs/20454.pdf
Middle Park penstemon (Penland beardtongue)	<i>Penstemon penlandii</i>	Two occurrences in the world, both of which are in the Middle Park area.	G1	Listed Endangered	http://www.cnhp.colostate.edu/download/projects/rareplants/pdfs/17097.pdf

*G1 = critically imperiled. G2 = imperiled. For more detail on global ranks please visit the Colorado Natural Heritage Program's website at <http://www.cnhp.colostate.edu/heritage.html>.

Although the focus of the workshops was on the globally imperiled plants, Attachment 1 describes other significant species and plant communities in this area. A full suite of biodiversity values should be considered during more expansive conservation planning efforts for this area.

V. About the Workshops

Purpose: To identify (and update) conservation strategies for conserving the globally imperiled plant species, the Kremmling milkvetch and Middle Park penstemon, based on an assessment of their viability and threats.

Workshop dates: June 26, 2008 and July 6, 2010

2008 Participants:

Name	Affiliation
Megan McGuire	BLM Kremmling Field Office
Molly Mikan	BLM State Office
Peter Gordon	BLM State Office
Jeff Peterson	Colorado Department of Transportation
Denise Culver	Colorado Natural Heritage Program
Susan Panjabi (co-facilitator)	Colorado Natural Heritage Program
Amy Sidener	Grand County
Adam Cwiklin	Middle Park Land Trust
Betsy Neely	The Nature Conservancy
Megan Kram (co-facilitator)	The Nature Conservancy
Paige Lewis	The Nature Conservancy

2010 Participants:

Name	Affiliation
Megan McGuire	BLM Kremmling Field Office
Brian Kurzel	Colorado Natural Areas Program
Leo Bruederle	Colorado Native Plant Society
Peter Gordon	BLM State Office
Jennifer Scott	Grand County Natural Resources Department
Mo Ewing	Colorado Native Plant Society
Susan Panjabi (co-facilitator)	Colorado Natural Heritage Program
Gina Glenne	US Fish and Wildlife
Alicia Langton	US Fish and Wildlife
Betsy Neely (co-facilitator)	The Nature Conservancy
Carol Dawson	BLM Colorado State Office
Other contacts	
Audrey Volt	Consultant
Bonnie Kablitz	Middle Park Soil Conservation District
Ellen Mayo	US Fish and Wildlife
Carse Pustmueller	Middle Park Land Trust

VI. Workshop Results

A. *Conservation Targets*

Using The Nature Conservancy's (TNC) site conservation planning workshop methodology, "conservation targets" are a limited suite of species, communities, and/or ecological systems, or specific locations of these elements of biodiversity (e.g., occurrences, sub-occurrences, or other areas) that are the basis for setting goals, identifying conservation strategies, and measuring conservation effectiveness. At the Middle Park Priority Action Area our targets are specific locations of the endangered plants, identified more specifically based on land ownership.

At the Middle Park workshops, we organized the occurrences of Kremmling milkvetch and Middle Park penstemon into fourteen targets based on landownership within five "Potential Conservation Areas" (PCA) as identified by the Natural Heritage Program (Table 2). A PCA represents CNHP biologists' best estimate of the primary area required to support the long-term survival of species or communities of interest or concern. Distinguishing between different landowners enabled us to effectively evaluate threats and identify meaningful strategies later in the workshop.

Table 2. Total of fourteen targets based on landownership and presence of Kremmling milkvetch and Middle Park penstemon. For example, there are four targets identified for the Kremmling milkvetch at the Horse gulch site: Horse Gulch BLM, Horse Gulch private, Horse Gulch roadside, and Horse Gulch State land Board (SLB).

Target area (each area is a “Potential Conservation Area” as identified by CNHP)	Associated landownership – occurrences of Kremmling milkvetch (and Middle Park penstemon where noted) that lie entirely or partially within the following:
Horse Gulch	<ul style="list-style-type: none"> ▪ BLM ▪ Private ▪ Roadside - county ▪ State Land Board
Kremmling	<ul style="list-style-type: none"> ▪ BLM ▪ Private ▪ Roadside - CDOT
Red Dirt Creek	<ul style="list-style-type: none"> ▪ Private ▪ Roadside – county
Rock Creek	<ul style="list-style-type: none"> ▪ BLM ▪ State Wildlife Area
Troublesome Creek - contains Kremmling milkvetch and the only known occurrences of the Middle Park penstemon	<ul style="list-style-type: none"> ▪ BLM ▪ Private ▪ Roadside - County

B. Viability

“Viability” per TNC terminology is the “health” or “functionality” of the conservation targets. During the Workshop we attempted to answer two key questions through the viability assessment: *How do we define ‘health’ (viability) for each of our targets?* and *What is the current status of each of our targets?*

Table 3 shows the viability for each occurrence as previously identified by the Colorado Natural Heritage Program (CNHP) and confirmed by the workshop participants. We do not show viability by target (i.e., by ownership or management) because we identified targets according to *land ownership* and CNHP identifies viability by *occurrence*. Any one occurrence can be found on multiple land ownerships.

Table 3. Viability of all of the known occurrences of the two endangered plant species, organized by area.

Target Area	Viability Rank*	Occurrence Acres	Occurrence ID # (CNHP)	Conservation Targets (Ownership or Mgmt)
Middle Park penstemon				
Troublesome	A	798	1	BLM, very small amt. on private
Troublesome	B	37	2	Private
Kremmling milkvetch				
Horse Gulch	B	52	7	BLM, Private, Roadside - county, State Land Board
Kremmling	AB	270	1	BLM, private, roadside
Red Dirt Creek	B	244	5	Private
Rock Creek	B	32	11	BLM, Private
Troublesome	A	192	10	BLM

* CNHP assigns a rank to each occurrence using the following codes: A = Very good; B = good; C = fair; D = poor; H = possibly extirpated/ possibly extinct; X presumed extirpated/presumed extinct

The overall viability rankings of A-B for each occurrence were based on a systematic assessment of the components of viability, or indicators and associated indicator ratings as shown in the table below. These components of viability are “rolled up” into the overall viability rank (**Table 4**).

Table 4. Basis for viability ratings.

Key Attribute	Indicator	Indicator rating criteria			
		D - Poor	C - Fair	B - Good	A - Very Good
Intactness of occurrence and surrounding area	% fragmentation	Highly fragmented	Moderately fragmented	Limited fragmentation	Unfragmented
Population structure & recruitment	Evidence of reproduction	Little or no evidence of successful repro. (few seedlings and/or no flowering or fruiting)	Less productive, but still viable with evidence of flowering and/or fruiting and mixed age classes	Good likelihood of long-term viability as evidenced by flowering, fruiting, and mixed age classes.	Excellent viability as evidenced by high % flowering and fruiting, and mixed age classes
Species composition / dominance	Evidence of reproduction	>50% cover	11-50% cover	1-10% cover	<1% cover
Population size & dynamics for KREMLING MILKVETCH	# individuals	<20	20-100	100-1000	>1000
Population size & dynamics for MIDDLE PARK PENSTEMON	# individuals	<100 individuals observed within a 5-year period	100-1000 within a 5-year period	1000-2500 within a five-year period	>2500 within a five-year period

C. Conservation Issues

With the viability analysis complete, participants then identified the primary conservation issues (threats, stresses, sources of stress) at each site. Conservation issues include the stresses that impair, degrade or destroy the viability of the targets (e.g., trampling) as well as the stressors, the causes or sources of the stress (e.g., cattle grazing, OHV traffic). The participants identified and ranked the issues based on their expertise, local knowledge, and sense of the key issues facing each target (**Table 5**).

Table 5. Primary conservation issues for each target. Red = high threat-H, orange = medium threat-M; yellow = low threat-L.

Target Area	Ownership or Mgmt	Recreation (OHVs)	climate change	Invasives/non-native plants	Utility construction and maintenance	Housing construction	Road maintenance	Road construction	Trail or ditch maintenance	Excessive grazing	Herbivory - Blister beetle	weed control efforts	Mining (gravel, uranium)	Oil and gas development	Road widening	existing access route	winter wind rowing of snow	Notes
Horse Gulch	BLM	H	M?	L						L							L	Recreation – Off-highway vehicles (OHVs) may or may not be an issue as plants are fenced. But erosion is problematic. Grazing - not an issue, steep terrain.
	County Rd.	H	M?	L			M										L	
	Private	H	M?	L		M												Housing construction -threat within the 3-mile growth boundary.
	SLB	H	M?	L						L							L	Recreation - OHVs, motorcycles.
Kremmling	BLM		M?	M							L							Negative impacts of the blister beetle are questionable. Area is closed to OHVs.
	Private		M?	M		L												
	Roadside - CDOT		M?	M			M					L						Widening - no plans to widen now. Road maintenance - weed spraying is an issue. County is communicating with BLM to target spray the weeds and not the rare plants
Red Dirt	County Road		M?	M			L											
	Private		M?	M	M	M		M		L								Invasives - Canada thistle.
Rock Creek	BLM		M?	L										L				No major threats. Unfavorable terrain for OHVs. Little potential for O&G
	SWA		M?	L					M									
Troublesome	BLM	L	H?	L	H					L		L	L	L			L	Beardtongue only may be affected by utility, oil and gas, and recreation. Milkvetch only may be affected by the other colored cells.
	County road		H?	L			M	L	L			L			L			Road maintenance - magnesium chloride is an issue.
	Private		H?	M		L				L				L				

D. Strategies

Based on an understanding of the status of Kremmling milkvetch and Middle Park penstemon, participants identified strategies to support the long-term conservation of the species, focusing on strategies needed to address key conservation issues (**Table 6**). Specific to private land protection efforts, the RPCI is also evaluating opportunities to work with willing private landowners and local land trusts to conserve these species and their habitats using voluntary tools such as conservation easements.

Table 6. Strategies for the conservation of Kremmling milkvetch and Middle Park penstemon as identified at the 2008 and 2010 workshops. The workshop participants agreed that all of the strategies are high priority. In 2008, the group did not identify strategies based on specific conservation issues (OHV=off highway vehicle).

Year strategy was developed	Conservation Issue	Site	Owner/manager	Strategy	Lead
2010	OHV	All	All	Hold an activity day to bring awareness to plants	CoNPS
2010	OHV	Horse Gulch		Create a kiosk with local groups to increase public ownership and pride. For example: Trail sponsored/created by Mountain Metal Mashers (local OHV group).	CoNPS
2010	OHV	All	All	Cultivate plants (with school groups)	CoNPS, USFWS
2010	OHV	Horse Gulch		Post signs, e.g., “this is State Land Board property; please stay on trail for next mile. Explain trail, rest of area is closed to protect resources in this area. Using area is a privilege that could be lost if the area is abused.” Do not mention the plants specifically.	CNAP
2010	OHV	Horse Gulch		Post and cable fencing is needed for a short distance, just past the plants, with enforcement possible (even without capacity).	CNAP
2010	OHV	Horse Gulch		Re-route access around plants	BLM and partners, GOCO
2010	OHV	Priority Area-wide and Statewide		Develop a multi species OHV rare plant protection proposal for funding from USFWS	USFWS (Gina Glenne)
2010	OHV	Horse Gulch		Pave or gravel road to encourage concentrated use and limit dust	CNAP with USFWS funding (?)

Year strategy was developed	Conservation Issue	Site	Owner/ manager	Strategy	Lead
2010	OHV	Horse Gulch		Explore land transfer to BLM, however town may have greater enforcement capacity	BLM
2010	All-lack of awareness and or appreciation	All	All	Outreach to garden clubs, school groups, Mountain Metal Mashers (Bonnie may have contacts)	CoNPS
2010	All	All	All	Botany blitz or bioblitz in area	CoNPS
2010	All	All	All	Connect with native plant masters	CoNPS
2010	All	All	All	Make use of RM Society of Botanical Artists art work (see RARE exhibit and catalog).	CoNPS
2010	All	All	All	Conduct public outreach about the significance of the species. Create a flyer or poster (highlighting characteristics and good photos, contact Gina).	CoNPS
2010	All	All	All	Myth busters	CoNPS
2010	All	All	All	Create a local garden in local schools--Partners for Fish and Wildlife may have funding--contact Lois Brink with CoNPS for information.	CoNPS
2010	All	All	All	Work with CoNPS and educators at universities on overall outreach project; create materials that can be distributed.	CoNPS
2010	Utility construction and access route	Troublesome		Send letter to Tristate and or BLM from RPCI and or CoNPS: e.g., we understand that you are considering updating your power-lines; we are concerned about the plants and the area/habitats and would like to work with you. We are available to assist you with BMPs. You are in a position to help the plants and we hope you do. We are concerned about direct impacts as well as indirect to habitat. There will be a 30 day comment period after BLM signs off on the EA.	CoNPS and others

Year strategy was developed	Conservation Issue	Site	Owner/ manager	Strategy	Lead
2010	Utility construction and access route	Troublesome	All	Work with BLM on BMPs for consideration while they are reviewing the EA.	RPCI and BLM
2010	All	Troublesome and Kremmling	BLM	Encourage ACEC designation. Comment on BLM Resource Management Plan. Send letters from RPCI, CoNPS, CNHP, CNAP, TNC, individuals, etc. Alternatives B and C include ACEC designations (B is "preferred" (by BLM).	All
2010	All		BLM	Produce ACEC management plans.	Carol Dawson
2010	Housing construction	All	Private	Pursue conservation easements, tax credits, etc., incentives for private land owners.	Middle Park Land Trust, RPCI and TNC
2010	Housing construction	All	Private	Pursue funding for conservation through the Recovery Land Acquisition Program.	
2010	All	All	All	Determine the year of species recovery plans (if they exist) and "priority numbers" assigned by USFWS.	CNHP and RPCI
2010	all	Troublesome and Kremmling	BLM	Designate State Natural Areas at ACEC areas.	CNAP
2008		All	All	Identify lead for Middle Park Priority Action Area.	Leo Bruederle and Mo Ewing identified as recommended leads in 2010
2008		All	All	Inform county master planning effort to protect rare plants. Include language re spraying and road widening. For private lands, - aim for maintenance of 35+ acre parcels within Potential Conservation Areas as identified by CNHP.	CNHP w/RPCI

Year strategy was developed	Conservation Issue	Site	Owner/ manager	Strategy	Lead
2008		All	All	Presentation to County and Town about rare plants, importance, etc. D. Culver from CNHP presented in 2006. Funding is needed.	Denise Culver?
2008		All	All	Work with oil and gas companies to avoid rare plants.	RPCI and CNHP
2008		All	All	Monitor plant status.	CNHP, BLM
2008		All	County roads	Inform road maintenance plan to ensure spraying avoids rare plants. Establish placards for no-spray zones.	A. Sidener
2008		All	Private	Conduct targeted outreach about the rare plants, what landowners can do to protect them (e.g., conservation easements, surface use agreement for O&G), pursue conservation easements with willing landowners, etc.	Middle Park Land Trust
2008		All (esp. for Troublesome)	Private	Investigate possibility of State Land Board (SLB) or BLM exchanges. Talk with L.Osborn from SLB.	CNAP
2008		Horse Gulch	BLM	Continue to maintain fences.	BLM
2008		Kremmling	Roads - CDOT	Identify BMPs and share with CDOT and mark maintenance areas.	RPCI and CNHP
2008		Troublesome	BLM	Monitor progress of RMP in support of ACEC in all alternatives.	A.Sidener
2008				Pull information together about the species, similar to a USFS Species Assessment, regarding pollination ecology, etc.	?
2008	OHV	All	All	Improve rare plant education and awareness, e.g., create a brochure with Mountain Metal Mashers (local OHV group).	RPCI and CNHP

VII. Next Steps

1. The leads for all strategies are responsible for ensuring their implementation.
2. Participants of the planning meetings proposed to meet annually to update information and conservation status and gauge progress toward implementing strategies. Ideally this meeting would be coordinated by the RPCI lead for Middle Park. Preferably this meeting would occur in the summer so a field visit to the plants is also possible.
3. Need to identify a lead to facilitate future meetings, update action plan, and coordinate implementation.

VIII. References

Colorado Natural Heritage Program. 2010. Biodiversity Tracking and Conservation System. Colorado State University, Fort Collins, Colorado.

Kram, M., B. Neely and S. Panjabi. 2008. Rare Plant Conservation Planning Workshop: Middle Park Priority Action Area. Prepared by The Nature Conservancy and the Colorado Natural Heritage Program. Unpublished report prepared for the National Fish and Wildlife Foundation.

Neely, B., S. Panjabi, E. Lane, P. Lewis, C. Dawson, A. Kratz, B. Kurzel, T. Hogan, J. Handwerk, S. Krishnan, J. Neale, and N. Ripley. 2009. Colorado Rare Plant Conservation Strategy. Developed by the Colorado Rare Plant Conservation Initiative. The Nature Conservancy, Boulder, Colorado. 117 pages.

Attachment 1. Additional key species and plant communities in the Middle Park area

Although the focus of the workshop was on the globally imperiled plants, other key species and plant communities are known from the Middle Park area as shown in the table below (Colorado Natural Heritage Program 2008, <http://www.cnhp.colostate.edu/>). Specifically, the table identifies rare species and rare and/or high quality examples of plant communities in the Middle Park area. These and other biodiversity values should be considered with more detailed planning efforts for this area.

Common name	Scientific name	Major Group	GRank
Roundtail chub	<i>Gila robusta</i> *	Fish	G3
Dog parsley	<i>Aletes nuttallii</i>	Vascular Plants	G3
Many-stem stickleaf	<i>Nuttallia multicaulis</i>	Vascular Plants	G3
Montane Riparian Forest	<i>Populus angustifolia</i> / <i>Alnus incana</i> Woodland	Natural Communities	G3
Montane Riparian Shrubland	<i>Alnus incana</i> - <i>Salix drummondiana</i> Shrubland	Natural Communities	G3
Montane Wet Meadows	<i>Carex pellita</i> Herbaceous Vegetation	Natural Communities	G3
Montane Willow Carr	<i>Salix ligulifolia</i> Shrubland	Natural Communities	G2G3
Thinleaf Alder-Mixed Willow Species	<i>Alnus incana</i> - <i>Salix (monticola, lucida, ligulifolia)</i> Shrubland	Natural Communities	G3
Bulrush	<i>Schoenoplectus pungens</i> Herbaceous Vegetation	Natural Communities	G3G4
Cottonwood Riparian Forest	<i>Populus angustifolia</i> / <i>Cornus sericea</i> Woodland	Natural Communities	G4
Montane Riparian Meadow	<i>Carex foenea</i> Herbaceous Vegetation	Natural Communities	GU

*Last observed in the Middle park area in 1983. This is the only element on this list with federal or state level recognition. The roundtail chub is a Colorado Species of Concern, and is included on the BLM and USFS sensitive species lists.

For more information about these and other biodiversity values, see reports including but not limited to the following:

- Colorado Wildlife Action Plan
<http://wildlife.state.co.us/WildlifeSpecies/ColoradoWildlifeActionPlan/>
- The Nature Conservancy Ecoregional Assessments.
<http://conserveonline.org/workspaces/cbdgateway/era/reports/index.html> The Southern Rocky Mountains Ecoregional Assessment pertains to the Middle Park Priority Action Area.
- Southern Rockies Ecosystem Project: <http://www.restoretherockies.org/reports.html>

Attachment 2. Photos taken during the 2010 workshop field trip:



2010 workshop field trip participants from left: Michelle Cowardin, Megan McGuire, Mo Ewing, Leo Bruederle, Susan Panjabi, Alicia Langton, Gina Glenne. Photo by Betsy Neely.



2010 Workshop field trip participants observing Middle Park rare plant habitat. From left Michelle Cowardin, Betsy Neely, Gina Glenne, and Megan McGuire. Photo by Susan Panjabi.



Middle Park rare plant habitat. Photo by Betsy Neely.