

**U.S. Department of the Interior
Bureau of Land Management
Royal Gorge Field Office
3028 E. Main Street
CañonCity, CO 81212**

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-2011-0079 EA

CASEFILE/PROJECT NUMBER (optional):

PROJECT NAME: National Natural Landmark Designation Expansion

PLANNING UNIT: Gold Belt Sub-region #5

LEGAL DESCRIPTION: 6th PM,

T 18 S., R70W., Section 3, Lot 2 (40.74)
Section 4, Lot 1(40.56)

T 17 S., R 70W., Section 20, E½E½ (160)
Section 21, Lots 1-5, SWSE, NWNW (266.35)
Section 23, SWSE, SESE, SWSW (120)
Section 26, W ½, W½E½, W ½ SESE (500)
Section 27, Lots 1-4, E½ (492.4)
Section 28, Lots 1-12, NWSE, NWNW (506.23)
Section 29, E ½NE, NESE (120)
Section 33, Lots 1, 2, 7-11, (247.02)
Section 34, Lots 1, 2, E ½, NW, E ½ SE, SWSE (675.34)
Section 35, NWNW, SWNW, NENW (120)

Total 3288.64 acres

APPLICANT: BLM

ISSUES AND CONCERNS: Garden Park Fossil Area National Natural Landmark should be expanded to include historic paleontologic sites for which it was originally designated.

INTRODUCTION/BACKGROUND: The existing Garden Park Fossil Area (GPFA) National Natural Landmark (NNL) located north of Cañon City is 40 acres of Public lands located in the SE1/4 of the SE1/4 of section 28, T 17S, R 70W. This area was designated by the Secretary of the Interior in 1973 as part of a greater subset of Mesozoic Vertebrate Paleontologic sites across the Nation. The NNL program's goals are to preserve sites that illustrate the geological and ecological history of the United States, and to strengthen the public's appreciation of America's

Natural Heritage. The NNL program was established in 1962 and is administered by the National Park Service (NPS). **National natural landmark designation is not a land withdrawal, does not change the ownership of an area and does not dictate activity.** The NPS encourages owners to protect the nationally significant values of their property, but this voluntary cooperation does not restrict the owner's use of his or her land. The voluntary involvement in the program carries the hope that the owner will not lower the integrity of the resource being recognized. The NNL program offers assistance to the BLM in protecting its natural heritage.

The Garden Park Fossil Area (GPFA) is significant because it was one of the primary areas responsible for generating worldwide interest in dinosaurs during the late 1800's. Fifteen species of dinosaurs, nine of which were new, were recovered from the GPFA at that time. Fish, crocodile, turtle, and mammal fossils have also been recovered, making this site one of the oldest and richest fossil sites in the United States.

The entire Garden Park Fossil Area is also designated as a BLM Area of Environmental Concern (ACEC). Additionally, parts of the area are designated by the BLM as a Research Natural Area and by the State of Colorado as a Colorado Natural Area (Figure 1.). These designations support the BLM's management goals for the Garden Park Fossil Area to protect, enhance, and interpret the special resource values found in the area.

The BLM regulates activity within the Garden park ACEC through the Royal Gorge Resource Area Management plan that was authorized in May 1996. This Plan designated the Garden park ACEC and prescribes special management in the ACEC as follows:

- livestock grazing will be excluded in some areas and adjusted on other areas, stocking rates and season of use have been adjusted in Garden park ACEC;
- timber harvesting and wood gathering will be allowed only for enhancement of protected values;
- fluid minerals leasing will occur with a NSO stipulation in the Garden Park ACEC;
- mineral materials development will not occur, except in Garden park where it will be allowed if it enhances fossil values;
- VRM class II will be avoided for major rights-of-way;
- retention in public ownership;
- Off-highway vehicle use will be limited to designated roads and trails;

Recreational Target Shooting:

Much of the Garden park Fossil Area and surrounding lands were closed to recreational target shooting under additional planning efforts completed in 1995 and 2002. Currently, recreational target shooting is allowed in the designated area on the west side of the Garden park ACEC along BLM route number 593B (Appendix II).

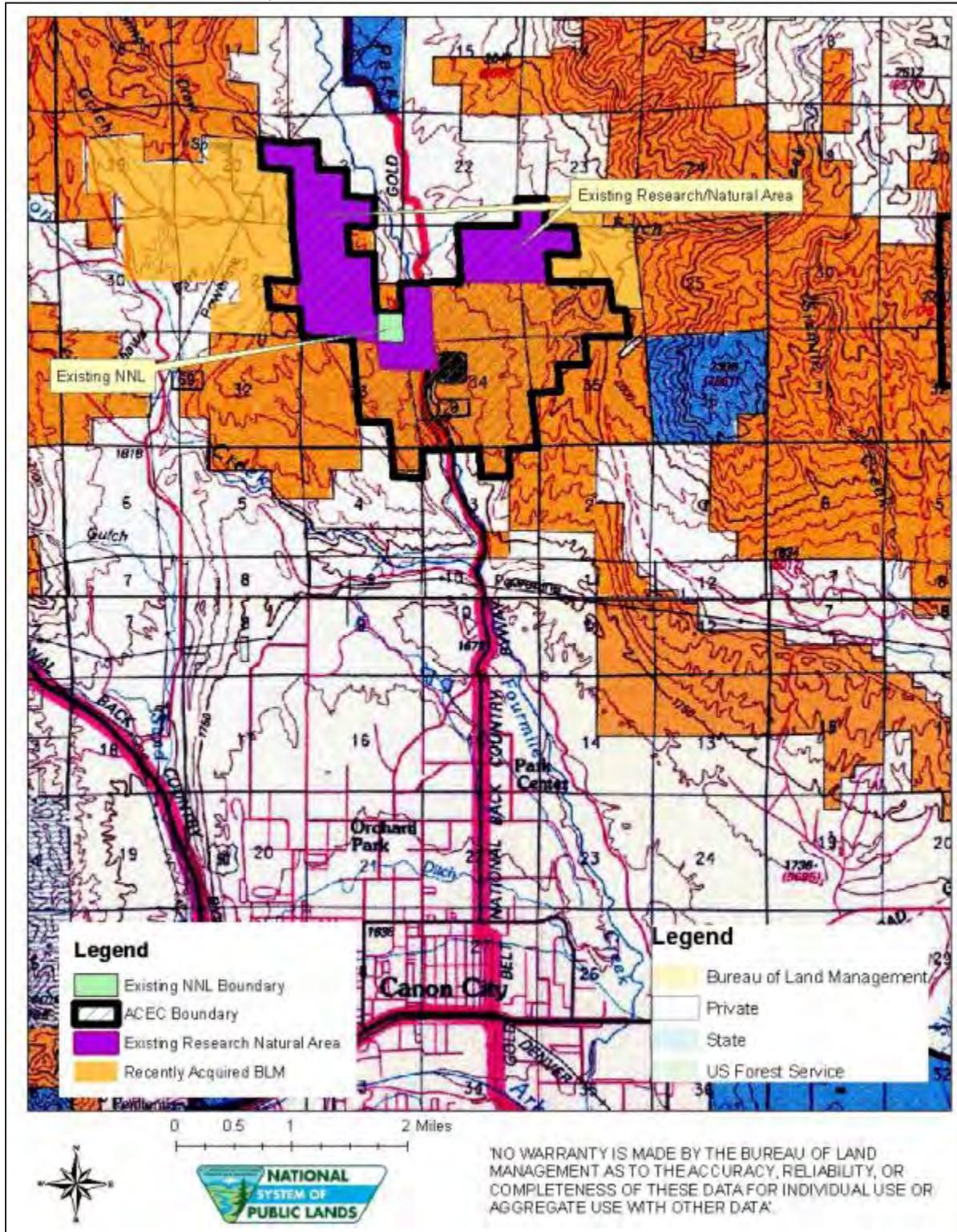
The existing NNL designation as well as any expansion of this designation is supported by past planning efforts that the BLM Royal Gorge Field Office has completed as well as FLPMA, NEPA, and the Paleontological Resource Preservation Act of 2009. The BLM has also received letters of support for the expansion from several non-federal groups that cooperatively support preservation of the resources in the Garden Park Fossil Area including the Goldbelt

Byway Association, the Garden Park Paleontology Society, and the Colorado Natural Areas Program (Appendix 1).

The BLM's paleontological resource management and paleontology activity plan's (CO-050-RG-87-55) primary objective is **to protect historic quarry locations and other areas identified as potentially containing scientifically significant vertebrate fossil material from surface disturbing activities** including but not limited to, mining, off-road vehicle use, illegal collecting and vandalism, while effectively managing other resource uses within the Garden Park Fossil Area. This plan also supported BLM's designation of the GPFA as a Research Natural Area, a Colorado Natural Area, and ACEC. Additionally, the historic quarry sites are eligible for the National Register of Historic Places.

DRAFT

Figure 1. Map showing location of Garden Park Area of Critical Environmental Concern located north of Cañon City. The existing NNL, Research Natural Area and Colorado Natural Area are within the ACEC boundary.



BLMs PURPOSE AND NEED: The purpose of the project is to expand the NNL designation. As currently designated, the area does not include any of the historic fossil quarries present in the area. Because land ownership patterns have shifted since the original designation, the Bureau of Land Management now proposes to expand the area of the Natural Landmark to include the important fossil sites on Federal land, and the associated interpretive trail and signs.

The need for the action stems from BLM's obligation under the Federal Land Policy and Management Act of 1976 (P.L. 94-579) that requires that the public lands be managed in a manner that **protects the "... quality of scientific ..."** and **other values**. Additionally the National Environmental Policy Act of 1969 (P.L. 91-190) requires that **"... important historic, cultural and natural aspects of our national heritage ..."** be protected, and that **"... a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences ... in planning and decision making. ..."** be followed.

The BLM's paleontological resource management and paleontology activity plan's (CO-050-RG-87-55) primary objective is **to protect historic quarry locations and other areas identified as potentially containing scientifically significant vertebrate fossil material from surface disturbing activities**.

Additionally, the Paleontologic Resource Preservation Act passed by congress in March 2009, mandates a proactive management of paleontologic resources using scientific principles and expertise.

DESCRIPTION OF ALTERNATIVES:

The BLM proposes to expand the existing NNL boundary in the Garden Park fossil area to include the historically significant dinosaur quarries that earned the area its original designation and additional outcrops of the Morrison Formation that are highly likely to produce vertebrate fossils in the future.

The BLM has acquired, through exchange and the use of Land and Water Conservation Funding, all of the private lands that had encumbered the designation of the NNL in the past. These acquisitions were acquired, in part, for the preservation of the paleontologic resources present on the parcels. All of the proposed scenarios include these properties located to the west and east of the Garden Park ACEC. These parcels were acquired after the ACEC was designated and therefore are not currently part of the ACEC designation, these parcels should be incorporated into the ACEC boundary due to the presence of fossils and similar rock formations to what is found in the ACEC.

The NNL designation and potential expansion offers additional resource protection for Class 5 paleontologic resources in the Morrison Formation that is found throughout the area. Class 5 paleontologic resources are highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at high risk of human-caused adverse impacts or natural degradation. Management concern for Class 5 paleontologic resources is high to very high meaning that the probability for impacting significant fossils is high.

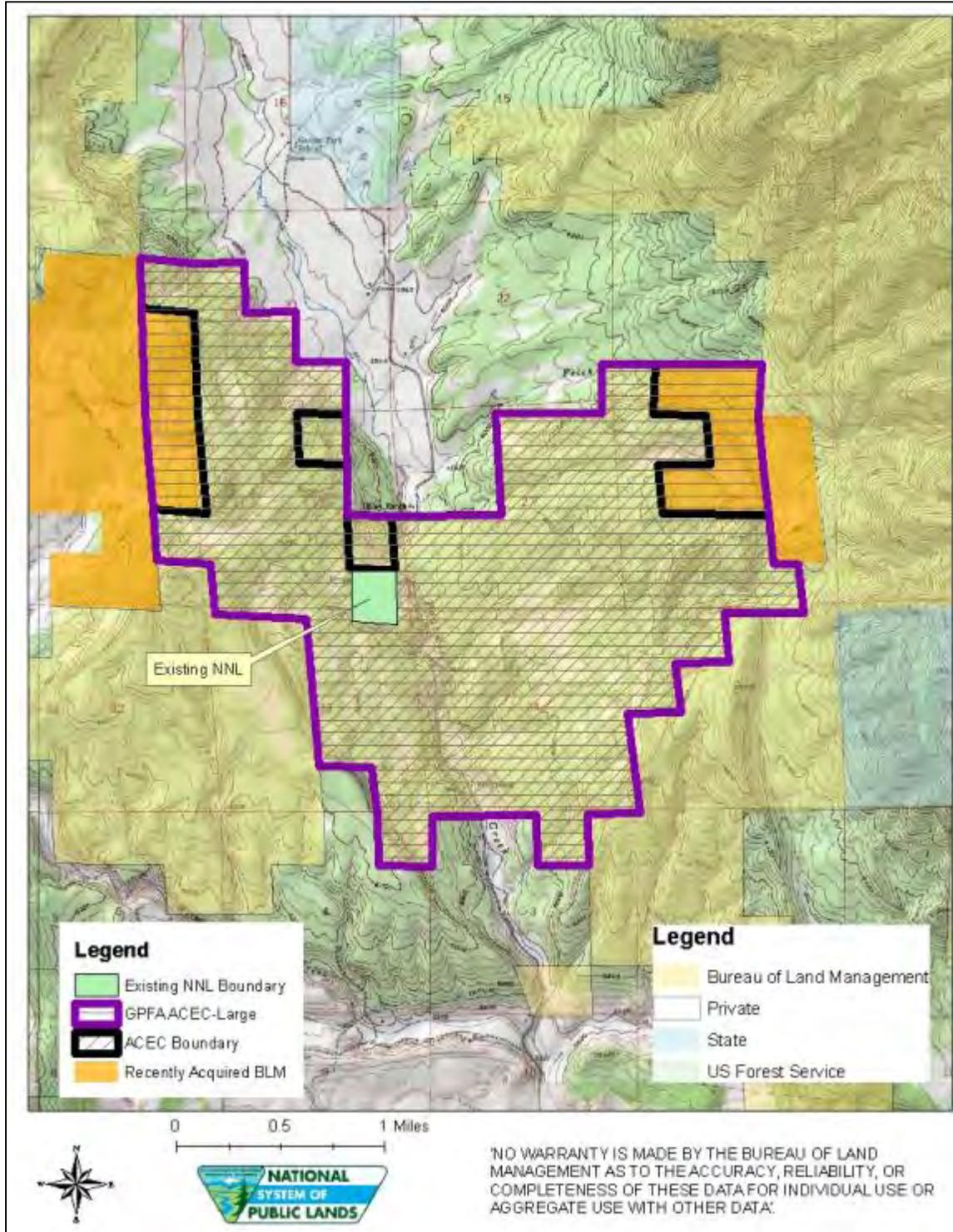
NNL Designation Process (36 CFR Part 62 NNL Program; Final Rule)

The NPS has already requested and received permission from the Front Range District Manager Gregory P. Shoop to begin an evaluation process that will analyze the scientific and historic resources within the Garden park Fossil Area for suitability for the NNL designation. After this process is complete, the evaluation will be peer reviewed by appropriate scientists who are familiar with the area and the resources under evaluation. After consideration of the evaluation report and peer review recommendations, the NPS makes a determination as to whether the site appears to meet the NNL significance criteria. Notification is then published in the Federal Register, opening up a 60-day public comment period. Notification letters are concurrently mailed to the landowners and appropriate congressional representatives, state legislators, local government officials and other interested parties. All comments received are taken into consideration, and barring objection from the landowners, recommendations for designation are forwarded to the National Park System Advisory Board for approval and ultimately to the Secretary of the Interior for final review and designation. **The NNL designation does not give any management control to the National Park Service.**

Alternative 1. Large NNL expansion proposal (approximately 3288.64 acres)

The first alternative is to designate all of the public land located within the Garden Park ACEC as an NNL (3288.64 acres, Figure 2 showing largest NNL expansion). The largest proposed area includes all of the historic quarries in the fossil area, plus additional outcrops that are likely to produce dinosaur fossils in the future. This scenario also includes all of the high density fossil localities. This is the most conservative route, designating all areas that have potential to produce historically significant fossils.

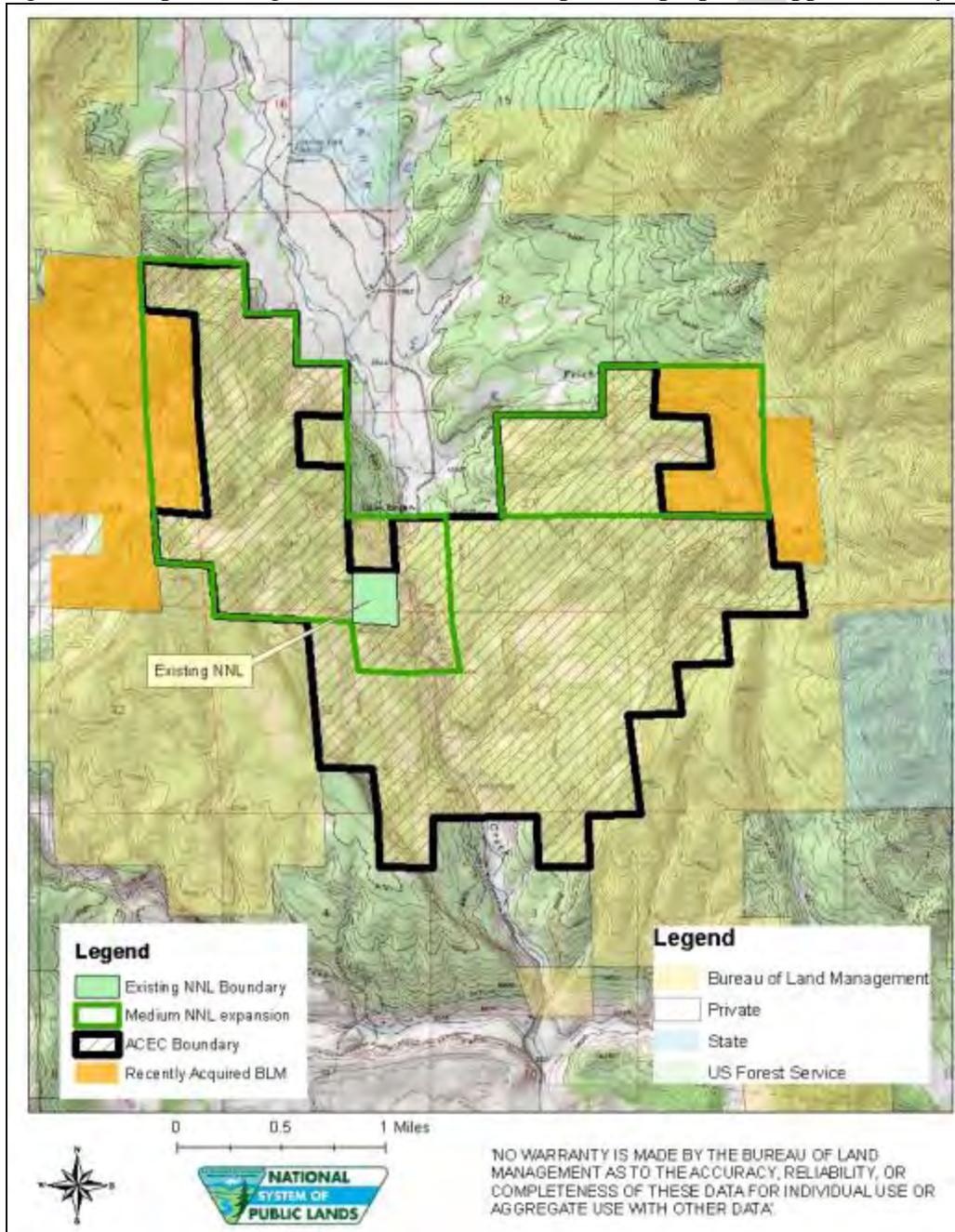
Figure 2. Alternative 1--Map showing location of proposed NNL expansion (largest area, calculated 3288.64 acres). The proposed NNL boundary includes all of the GPFA ACEC and parts of the recently acquired parcels to the west and east of the original ACEC boundary.



Alternative 2. Medium sized NNL expansion proposal (approximately 1630 acres)

Alternative 2 is to designate a smaller portion of the ACEC including acquired lands to the west and east of the ACEC. This boundary includes the area that is currently designated by the State of Colorado as a Colorado Natural Area (CNA) and the area that BLM has designated as a Research Natural Area (RNA). These two designations share the same footprint. This boundary includes all of the high density paleo localities, historic quarries, and many of the Class 5 paleontologic outcrops (figure 3 showing medium NNL expansion).

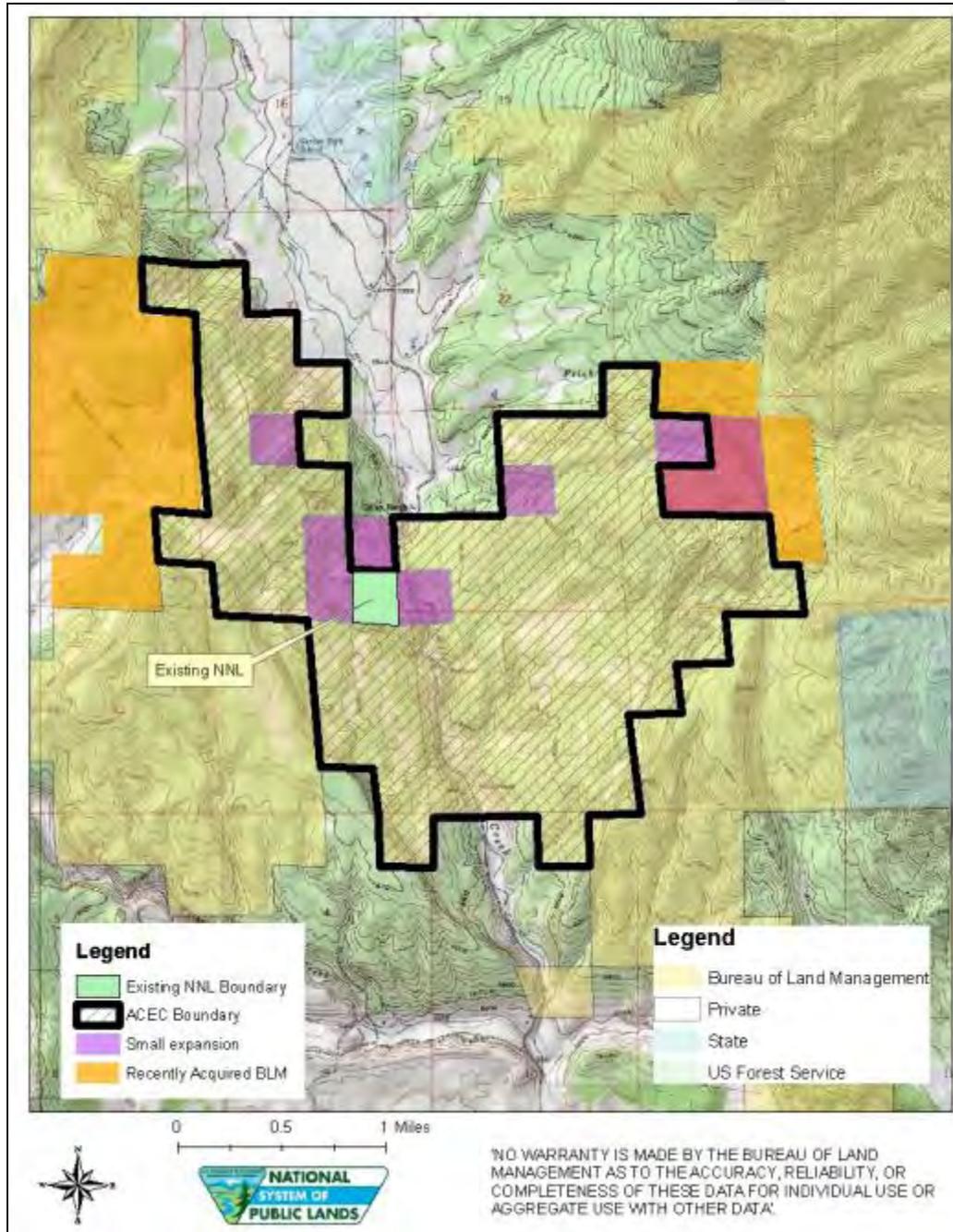
Figure 3. Map showing medium sized NNL expansion proposal (approximately 1630 acres)



Alternative 3. Small sized NNL (approximately 415 acres)

Alternative 3 is the proposal to designate the smallest possible area as an NNL. This area includes many of the highest density paleontologic localities, all of the historic quarries, and does not include much of the Class 5 paleontologic outcrops. This designation would not likely include any significant localities that could be found in the future, leaving the NNL designation incomplete (figure 4 showing smallest NNL expansion).

Figure 4. Map showing smallest sized expansion (approximately 415 acres).



No Action Alternative: Under the no action alternative, the existing NNL boundary will remain as is and will not be expanded to include the historically significant dinosaur quarries that were not included in the original NNL designation in 1973.

PLAN CONFORMANCE REVIEW:

Name of Plan: Royal Gorge Resource Management Plan

Date Approved: May 13, 1996

Decision Number: 5-48, 5-49

Decision Language: 5-48, Utilization of fossil resources for educational, research, and other public uses, such as tourism, will be encouraged with special emphasis on the Garden Park Fossil Area. 5-49, Conservation of Class 1 paleontological resources will be provided through ACEC designation.

Standards for Public Land Health: In January 1997, Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below.

AFFECTED ENVIRONMENT / ENVIRONMENTAL EFFECTS / MITIGATION MEASURES:

PHYSICAL RESOURCES

AIR QUALITY

Affected Environment: Air quality in the area is, generally, good to excellent. Frequent winds remove fugitive dust generated from activities conducted by people in the area.

Environmental Effects : Neither of the alternatives will result in air quality standards that are degraded from the current situation.

GEOLOGIC AND MINERAL RESOURCES

Affected Environment: The Garden Park Fossil Area was formed by a large fault-bounded depression that has created a valley on the north side of the Cañon City Basin. Pre-Cambrian crystalline rocks occur outside the valley as mountains to the east, north, and west of Garden Park and within the structural depression a sequence of Ordovician, Mississippian, Pennsylvanian, Jurassic, and Lower Cretaceous sedimentary rocks is exposed.

While there is no active mineral development within the Garden Park Fossil Area, there is a moderate potential for clay and moss rock or dimension stone within the current ACEC boundary and the proposed expanded NNL boundary. One clay mine was active in the 1980s west of the current ACEC designation on the newly acquired Federal property when it was in private ownership. A clay pit and a dimension stone permit are active south of the designated area on private lands. There may also be potential for oil and gas within the area. The RGFO RMP allows for oil and gas development within the current ACEC boundary with a No Surface Occupancy Stipulation for protection of special status plant species. The area is open to mineral entry but closed to mineral materials disposals, unless disposal would enhance fossil values.

Environmental Effects : Neither of the alternatives will have an effect on geologic or mineral resources.

SOILS (includes a finding on Standard 1)

Affected Environment: The main soils in the area consist of the Ustic Torriortents-Sedillo Complex, 15-40% slopes (50% of the area), the Louviers-Travessilla complex, 20-50% slopes (17% of the area), and the Travesilla-rock outcrop complex - 50% slopes (17% of the area). Almost all of the paleontologic localities are located within the Ustic Torriortents-Sedillo Complex, and the Louviers-Travessilla complex soils. In general, soils in the area are in good condition, but in some areas they are heavily impacted by roads and recreation uses.

Environmental Effects

Alternative #1 – Large NNL expansion

Direct and Indirect Impacts: Alternative 1 would expand the area designated as a National Natural Landmark to cover a larger area that includes most of the paleontologic resource yielding formations in the area. The expansion in designation would have no direct impact on soils resources in the area. Some minor indirect impacts to soils could occur as the result of increased visitation to the area due to the expansion. From a soil resource standpoint, the existing infrastructure in place such as roads, trails and day use areas should be adequate to handle minor to moderate increases in visitation with minor impacts to soils.

Cumulative Impacts: The area currently sees moderate recreational use along with livestock grazing. Expanding the NNL designation could potentially increase visitation in the future adding to the number of people visiting the area. Looking at soils from the Fourmile Creek watershed scale, the possible addition of these visitors in the future would have a very minor to immeasurable impact on soils.

Mitigation/Residual Effects: None

Alternative #2 – Medium NNL Expansion

Direct and Indirect Impacts: Under Alternative #2, the NNL would be expanded at a smaller scale than Alternative 1. This would result in roughly the same impacts to soil resources, but the probability of increased visitation may be reduced along with reduced indirect impacts.

Cumulative Impacts: Cumulative impacts would be similar to Alternative 1.

Mitigation/Residual Effects: None

Alternative #3 – Small NNL Expansion

Direct and Indirect Impacts: Under Alternative #3, the NNL would be expanded at a much smaller scale than Alternative 1. This would result in roughly the same impacts to soil resources, but the probability of increased visitation may be further reduced along with larger reductions in indirect impacts.

Cumulative Impacts: Cumulative impacts would be similar to Alternative 1.

Mitigation/Residual Effects: None

No Action Alternative

Direct and Indirect Impacts: Under the No Action Alternative, the current NNL designation would stay in place. This would have no new impacts on soil resources in the area.

Cumulative Impacts: None

Mitigation/Residual Effects: None

Finding on the Public Land Health Standard for Upland Soils: Currently, soil resources in the area are meeting standards for public land health and would not change under any alternative.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The Proposed NNL expansion would occur mainly in the Fourmile Creek watershed north of Cañon City. Water quality in this area is generally good and most of the area under consideration is in dry upland areas that produce very little runoff. Fourmile Creek itself runs through the center of the proposed NNL and is discussed in greater detail in the wetlands/riparian area section of this document.

Environmental Effects

Alternative #1 – Large NNL expansion

Direct and Indirect Impacts: Alternative #1 would expand the area designated as a National Natural Landmark to cover a larger area that includes most of the paleontologic resource yielding formations in the area. The expansion in designation would have no direct impact on water quality in the area. Some minor indirect impacts to water quality could occur as the result of increased visitation to the area due to the expansion. From a water quality standpoint, the existing infrastructure in place such as roads, trails and day use areas should be adequate to handle minor to moderate increases in visitation with minor impacts to water resources.

Cumulative Impacts: The area currently sees moderate recreational use along with livestock grazing. Expanding the NNL designation could potentially increase visitation in the future adding to the number of people visiting the area. Looking at water quality from the Fourmile Creek watershed scale, the possible addition of these visitors in the future would have a very minor to immeasurable impact on water resources.

Mitigation/Residual Effects: None

Alternative #2 – Medium NNL Expansion

Direct and Indirect Impacts: Under Alternative #2, the NNL would be expanded at a smaller scale than Alternative 1. This would result in roughly the same impacts to water resources, but the probability of increased visitation may be reduced along with reduced indirect impacts.

Cumulative Impacts: Cumulative impacts would be similar to Alternative 1.

Mitigation/Residual Effects: None

Alternative #3 – Small NNL Expansion

Direct and Indirect Impacts: Under Alternative #3, the NNL would be expanded at a much smaller scale than Alternative 1. This would result in roughly the same impacts to water resources, but the probability of increased visitation may be further reduced along with larger reductions in indirect impacts.

Cumulative Impacts: Cumulative impacts would be similar to Alternative 1.

Mitigation/Residual Effects: None

No Action Alternative

Direct and Indirect Impacts: Under the No Action Alternative, the current NNL designation would stay in place. This would have no new impacts to water resources in the area.

Cumulative Impacts: None

Mitigation/Residual Effects: None

Finding on the Public Land Health Standard for Water Quality: Water quality in Fourmile Creek is currently meeting standards and is not identified by the State of Colorado on either the 303(d) or Monitoring and Evaluation lists. The implementation of any alternative would not alter water quality in a way that would cause standards to not be met.

BIOLOGICAL RESOURCES

INVASIVE PLANTS*

The proposed project and alternatives will have no effect on invasive plants.

*Invasive plants are plants that are not part of (if exotic), or are a minor component of (if native), the original plant community or communities that have the potential to become a dominant or co-dominant species on the site if their future establishment and growth are not actively controlled by management interventions, or are classified as exotic or noxious plants under state or federal law. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes a finding on Std. 4)

Affected Environment:

Peregrine falcon: Peregrine falcon habitat includes nesting and hunting sites, as well as migration and wintering areas. Typical nesting sites are cliffs more than 200 feet high that overlook water and permit extensive views of the surrounding area. Prey abundance and diversity provided by these situations are major factors in eyrie (nest) selection. Peregrines may travel up to 17 miles from nesting cliffs to hunting areas. Preferred hunting habitats include cropland, meadows, river bottoms, marshes and lakes that provide an abundance of avian prey. Birds are occasionally reported in Colorado during the winter but most peregrines migrate to Central and South America.

Peregrine falcons in the area are found in the roughest, most rugged, inaccessible areas BLM manages. Large canyon complexes with extensive rock are typically used during the breeding season. Peregrines have reoccupied many cliffs throughout Colorado and have done extremely well in many areas. There are three known eyries in the Beaver Creek drainage and potential habitat along the Shelf road.

Recovery goals for nesting peregrines were exceeded several years ago. Colorado documents over 100 nesting pairs of peregrines each year. The peregrine was downlisted from a federal threatened species to a state listed species of special concern as recovery progressed. The BLM considers the peregrine falcon a sensitive species.

Townsend's big-eared bat: The Townsend's big-eared bat occurs throughout the west and in Colorado. Habitat associations include: coniferous forests, deserts, native prairies, riparian communities, and agricultural areas. Its distribution is strongly correlated with the availability of caves and cave-like roosting habitat, with population centers occurring in areas dominated by exposed, cavity forming rock and/or historic mining districts. Its habit of roosting on open surfaces makes it readily detectable, and it is often the species most frequently observed (commonly in low numbers) in caves and abandoned mines throughout its range. It has also been reported to utilize buildings, bridges, rock crevices and hollow trees as roost sites.

Foraging associations include: edge habitats along streams, adjacent to and within a variety of wooded habitats. It often travels large distances while foraging, including movements of over 10 miles during a single evening. It is a moth specialist with over 90% of its diet composed of lepidopterans.

The primary threat to the species is almost certainly disturbance or destruction of roost sites (e.g., recreational caving, mine reclamation, renewed mining in historic districts). This species is very sensitive to disturbance events and has been documented to abandon roost sites after human visitation. Both roosting and foraging habitat may be impacted by timber harvest practices. Pesticide spraying in forested and agricultural areas may affect the prey base. The species is known to occur near the fuels planning area.

Brandegee wild buckwheat: The Brandegee wild buckwheat is listed as a BLM sensitive species. It is found in the valley of the upper Arkansas River in Chaffee and Fremont Counties, Colorado. It occurs on barren clay-loam soil in the Morrison formation. The Colorado Natural Areas Program, in cooperation with The Nature Conservancy, designated a site in Chaffee County as the Dronery Gulch State Natural Area. The Dronery Gulch site represents the best known occurrence in the world for this species. An equally important site is the Cleora site, located southeast of Salida. This species also occurs in the Garden Park area north of Cañon City. Several thousand individual plants are found in several sites along Fourmile Creek. Much of the area has been disturbed by past mining and increases in off-road vehicle use in recent years. The area that contains the buckwheat plant is designated as the Garden Park Natural Area by the state of Colorado and as a BLM Research Natural Area and an Area of Critical Environmental Concern (ACEC).

Dwarf milkweed: Dwarf milkweed habitat consists of shortgrass prairie, often on sandstone-derived soils and gravelly or rocky slopes at an elevation of 4000-6500 feet. It occurs north of Cañon City in the Oil Well Flats and Dinosaur Flats areas, growing on the lower side slopes of canyon walls. Other associated species include juniper, mountain mahogany, blue grama, yucca and prickly pear cactus. Dwarf milkweed is very rare with small population sizes and is only known from isolated occurrences in Colorado, New Mexico, Wyoming and Arizona. Surveys by the Colorado Natural Heritage Program in 1996 documented one population of this species with 24 individual plants in Oil Well Flats. Previous surveys documented a small population in the Dinosaur Flats area.

Golden blazing star: Golden blazing star is a tall plant with yellow flowers. The habitat consists of barren slopes of limestone, shale or clay at elevations of 5120 -5700 feet. This species is known from less than 20 locations in the Arkansas Valley from Pueblo Reservoir to Cañon City and is not found anywhere else in the world. BLM lands support two excellent populations of blazing star, one in the Fourmile Creek drainage north of Cañon City and the other in the dry uplands at Blue Heron ponds. Both populations of this species that occur on public lands provide an important potential haven for the golden blazing star.

Environmental Effects

All Alternatives

Direct and Indirect Impacts: The proposed change in designation will have no effect upon the threatened, endangered or sensitive species habitat. The designation will not alter the existing plant and animal communities and it will not restrict the development of any future habitat improvement projects as needed.

Finding on the Public Land Health Standard for Threatened & Endangered species:

The proposed alternatives will not change the public land health standard for T&E or sensitive species.

VEGETATION (includes a finding on Standard 3)

Affected Environment:

The pinyon-juniper habitat type is evergreen woodland situated above desert or grassland vegetation and below mountain shrub. Colorado pinyon pine is the predominate pinyon species in the area and Rocky Mountain juniper is also dominate. Proportions of juniper and pinyon within this habitat type vary greatly, and pure stands of either tree may occur. Typically, as elevation increases pinyon dominance increases, juniper density decreases, total tree density increases, and trees become larger. Pinyon pines drop out completely at the lowest elevations. Depending on site variables, pinyon-juniper may range from an openly spaced savanna to a closed forest. Pinyon-juniper understories vary from completely open to quite dense, the densest understories occurring in open canopy woodland/oak communities. Soils underlying pinyon-juniper often are shallow, rocky and low in fertility. Pinyon-juniper habitats in the planning area are generally mixed with shrub species such as gambel oak and mountain mahogany and therefore provide browse for mule deer, and elk.

Fourmile Creek provides a foothills riparian habitat dominated by a deciduous component, especially narrowleaf cottonwood, a variety of willow species, box elder, mountain alder and river birch. The understory of these systems is typically rich, with a wide variety of shrubs and herbaceous plants. Riparian areas represent a transition zone between the aquatic ecosystem and the drier uplands. The riparian zones are well defined, unique, and highly productive areas that are sensitive to disturbance.

Shortgrass within the planning area is dominated by the low-growing warm-season grass blue grama. Western wheatgrass is also present, along with taller vegetation, including widespread prickly-pear cactus and cholla. Mixed grass (needle-and-thread, side-oats grama) communities occur locally as do mountain grasslands dominated by Arizona fescue and mountain muhly. Grasslands are typically intermixed within pinyon-juniper and large expanses of open grassland habitat are rare in the planning area.

Environmental Effects

All Alternatives: The changes in designation proposed will have no effect upon the vegetation resource. The designation will not alter the existing plant communities.

Finding on the Public Land Health Standard for Plant and Animal Communities:

The proposed alternatives will not change the public land health standard for Plant and Animal Communities.

WETLANDS & RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: This action, depending upon alternative, includes varying amounts of riparian wetland resources along Four Mile Creek that would be included in the new designation. Four Mile Creek is one of the primary drainages off the southerly slopes of the Pikes Peak and Cripple Creek region. This drainage when viewed at a larger scale downstream to the areas of consideration is highly impacted by water withdrawal, agriculture, road encroachment, development in headwater regions, mining alterations and exotic plant invasion. The area on BLM receives moderately high visitation for angling, soaking from local residents in hot weather, picnicking, hiking and for other outdoor interests associated with medium size streams in Colorado. Given all the historic and fixed long-term modifications to the larger scale watershed, BLM considers Four Mile Creek through public land to be in functional condition meeting the Bureau Land Health Standard for riparian resources when evaluated by Bureau assessment procedures. Public and scientific visitors to the areas paleontologic resources often spend some time at developed sites along Four Mile Creek. BLM is engaged in weed project work and grazing regulation affecting riparian resources. BLM also worked with the Colorado Water Conservation Board to obtain an instream flow protection for Four Mile Creek. The downstream lower end of the public lands discussed here is the site for the Park Center well and Park Center irrigation ditch withdrawal (infrastructure for supplying north Cañon City with water). A re-drilling activity at the Park Center well location is ongoing and complications with that procedure may require some resource damage mitigation to potentially occur within the confines of these proposed land status designation changes.

Environmental Effects

Alternative #1 (Largest)

Direct and Indirect Impacts: The changes in designation proposed should have no effect upon the riparian resources discussed. Increase in visitation potentially could occur, but the developed sites constructed previously near the stream should keep increased visitation from altering riparian function. The ability to manage riparian resources is unaffected by the designation changes and future management capability is maintained so actions underway to protect or enhance riparian resource conditions would not change.

Cumulative Impacts: There are no known cumulative impacts to these resources by the change in designation; however the intent of the LCL designation does align with basic Bureau riparian protection policies so that over the long-term, basic land use pressures encroaching upon many bureau public lands would perhaps be lessened because of the preservation objectives placed in the area.

Mitigation/Residual Effects: None required unless visitation is substantially increased where visitation causes trailing along the riparian zone. Public use controls could become necessary, but are not anticipated.

Alternative #2 (Medium)

Direct and Indirect Impacts: Similar to Alternative 1.
Cumulative Impacts: Similar to Alternative 1.
Mitigation/Residual Effects: Same as Alternative 1.

Alternative #3 (Smaller area)

Direct and Indirect Impacts: Similar to Alternative 1.
Cumulative Impacts: Similar to Alternative 1.
Mitigation/Residual Effects: Same as Alternative 1.

No Action Alternative

Direct and Indirect Impacts: None
Cumulative Impacts: None anticipated
Mitigation/Residual Effects: None

Finding on the Public Land Health Standard for Riparian Systems: BLM riparian resources included in the areas discussed are meeting land health standards and would not change under any of the alternatives.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: See also wetland and riparian section above, but in addition, Four Mile Creek is a popular fishery for introduced brown trout. Four Mile Creek also serves as important habitat to other fish, amphibian and aquatic reptile species known to be locally present.

Environmental Effects

Alternative #1 (Largest)

Direct and Indirect Impacts: The changes in designation proposed should have no effect upon the aquatic resources. Increase in visitation potentially could occur, but the developed sites constructed previously near the stream should keep increased visitation from altering riparian function affecting aquatic habitat. The ability to manage riparian or aquatic resources is unaffected by the designation changes and future management capability is maintained so actions underway to protect or enhance resource conditions would not change.

Cumulative Impacts: There are no known cumulative impacts to these resources by the change in designation, however the intent of the NNL designation does align with basic Bureau riparian and aquatic protection policies so that over the long-term, basic land use pressures encroaching upon many bureau public lands would perhaps be lessened because of the preservation objectives placed in the area.

Mitigation/Residual Effects: None required unless visitation is substantially increased where visitation causes trailing along the riparian zone. Public use controls could become necessary, but are not anticipated.

Alternative #2 (Medium)

Direct and Indirect Impacts: Similar to Alternative 1.
Cumulative Impacts: Similar to Alternative 1.
Mitigation/Residual Effects: Same as Alternative 1.

Alternative #3 (Smaller area)

Direct and Indirect Impacts: Similar to Alternative 1.
Cumulative Impacts: Similar to Alternative 1.
Mitigation/Residual Effects: Same as Alternative 1.

No Action Alternative

Direct and Indirect Impacts: None
Cumulative Impacts: None anticipated
Mitigation/Residual Effects: None

Public Land Health Standard for Plant and Animal Communities: BLM riparian resources included in the areas discussed are meeting land health standards and would not change under any of the alternatives. Presently however, at and below the downstream segment of the proposed designation fish died due to an unrelated action (Park Center well drilling activities). The fishery and other aquatic wildlife populations affected below will begin to recover, but at the present time the NNL vicinity aquatic habitat has been disturbed and is not meeting land health standards. The NNL proposal however is unrelated to resources not meeting standards and will have no effect upon species recovery.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment:

The pinyon-juniper habitat type is evergreen woodland situated above desert or grassland vegetation and below mountain shrub. Colorado pinyon pine is the predominate pinyon species in the area and Rocky Mountain juniper is also dominate. Proportions of juniper and pinyon within this habitat type vary greatly, and pure stands of either tree may occur. Typically, as elevation increases pinyon dominance increases, juniper density decreases, total tree density increases, and trees become larger. Pinyon pines drop out completely at the lowest elevations. Depending on site variables, pinyon-juniper may range from an openly spaced savanna to a closed forest. Pinyon-juniper understories vary from completely open to quite dense, the densest understories occurring in open canopy woodland/oak communities. Soils underlying pinyon-juniper often are shallow, rocky and low in fertility. Pinyon-juniper habitats in the planning area are generally mixed with shrub species such as Gambels oak and mountain mahogany and therefore provide browse for mule deer, and elk.

Fourmile Creek provides a foothills riparian habitat dominated by a deciduous component, especially narrowleaf cottonwood, a variety of willow species, box elder, mountain alder and river birch. The understory of these systems is typically rich, with a wide variety of shrubs and herbaceous plants. Riparian areas represent a transition zone between the aquatic ecosystem and

the drier uplands. The riparian zones are well defined, unique, and highly productive areas that are sensitive to disturbance.

Shortgrass within the planning area is dominated by the low-growing warm-season grass blue grama. Western wheatgrass is also present, along with taller vegetation, including widespread prickly-pear cactus and cholla. Mixed grass (needle-and-thread, side-oats grama) communities occur locally as do mountain grasslands dominated by Arizona fescue and mountain muhly. Grasslands are typically intermixed within pinyon-juniper and large expanses of open grassland habitat are rare in the planning area.

Animals species typically found within these habitat communities include elk, mule deer, black bear, mountain lion, merriam's turkey, and several raptor species (golden eagle, prairie falcon, peregrine falcon, red-tailed hawk, Coopers hawk, sharp-shinned hawk, and kestrel)

Environmental Effects : The changes in designation proposed will have no effect upon the wildlife habitat. The designation will not alter the existing plant and animal communities and it will not restrict the development of any future habitat improvement projects.

Finding on the Public Land Health Standard for Plant and Animal Communities: The terrestrial wildlife are currently meeting land health standards and any alternatives would produce a non-significant effect towards this standard.

MIGRATORY BIRDS

Affected Environment:

The primary habitat type is pinyon pine and juniper woodland. Open areas of mountain grassland are interspersed throughout the area and mountain shrubs such as currant and mountain mahogany are abundant, especially on south slopes. Pinyon-juniper habitat supports the largest nesting bird species list of any upland vegetation type in the West. The richness of the pinyon-juniper vegetation type, however, is important due to its middle elevation. Survey tallies in pinyon-juniper are similar in species diversity to the best riparian. Several species are found in the pinyon-juniper habitat and include: black-chinned hummingbird, gray flycatcher, Cassin's kingbird, gray vireo, pinyon jay, juniper titmouse, black-throated gray warbler, Scott's oriole, ash-throated flycatcher, Bewick's wren, mountain chickadee, white-breasted nuthatch, and chipping sparrow.

Foothills riparian forests are distributed along stream systems in the foothills, lower mountains and mountain parks. The most significant riparian resources are found in Fourmile Creek. In some areas the riparian forest is dominated by a deciduous component, especially narrowleaf cottonwood, a variety of willow species, box elder, mountain alder and river birch. The understory of these systems is typically rich, with a wide variety of shrubs and herbaceous plants. Riparian areas represent a transition zone between the aquatic ecosystem and the drier uplands. The riparian zones are well defined, unique, and highly productive areas which are sensitive to disturbance. However in most western riparian systems 75% of the bird species use

riparian areas during some part of their life cycle. In deciduous foothills riparian systems, Yellow Warbler is the species most frequently detected, followed by American Robin, Northern Flicker, House Wren, Warbling Vireo, Song Sparrow, Western Wood-Pewee, and Broad-tailed Hummingbird.

The following birds are listed on the US Fish and Wildlife Service Birds of Conservation Concern (BCC) – 2002 List for BCR 16-Southern Rockies/Colorado Plateau. These species have been identified as species that may be found in the project area, have declining populations, and should be protected from habitat alterations.

The golden eagle is a bird of grasslands, shrublands, pinyon-juniper woodlands, and ponderosa pine forests, but may occur in most other habitats occasionally, especially in winter. Nests are placed on cliffs and sometimes in trees in rugged areas, and breeding birds range widely over surrounding habitats.

Northern harriers reside throughout Colorado, with highest densities on the eastern plains, mountain parks, and western valleys. These hawks feed on small mammals, birds, reptiles, and amphibians. They hunt by flying low over wetlands, grasslands, shrublands, and croplands.

Peregrine falcons in Colorado breed on cliffs and rock outcrops from 4,500-9000 ft in elevation. The most commonly chosen cliffs lie within pinyon-juniper and ponderosa pine zones. These falcons feed on smaller birds almost exclusively, with white-throated swifts and rock doves being among their favored prey.

Prairie falcons nest in scattered locations throughout the state where they inhabit the grassland and cliff/rock habitat types. These falcons breed on cliffs and rock outcrops, and their diet during the breeding season is a mix of passerines and small mammals.

Gray vireos' nest along the western tier of counties, with centers of abundance in Mesa, Montrose, and Montezuma counties. They also nest on the eastern slope in Las Animas County. Gray vireos are pinyon-juniper woodland obligates. Gray vireos usually inhabit stands dominated by juniper or thin stands of pure juniper. They construct nests of dry grasses, plant fibers, stems, and hair, often camouflaging them with sagebrush leaves.

Pinyon jays range the semiarid lands of the West. The Colorado Breeding Bird Atlas map shows them south of a diagonal line drawn from the northwest corner to the southeast corner of the state. Pinyon jays are pinyon and juniper obligates in Colorado and nest commonly at the lower elevations of pinyon-juniper woodlands, often where junipers dominate. A few nest in ponderosa pine. They prefer extensive stands far from high human activity.

Black-throated gray warblers are fairly common summer residents in pinyon-juniper woodlands across the southwestern half of Colorado. Some surveys show these warblers to be the most frequently encountered birds in the pinyon-juniper woodland. Black-throated gray warblers, in Colorado, are pinyon-juniper obligates, preferring tall, dense pinyon-juniper woodlands.

Virginia's warblers in Colorado nest between 5,000-9,000 ft. elevation. They breed most abundantly in the western quarter of the state, along the eastern slope foothills, and in the upper Arkansas River drainage. Virginia's warblers nest in dense shrublands and on scrub-adorned slopes of mesas, foothills, open ravines, and mountain valleys in semiarid country. They use scrubby brush, pinyon-juniper woodland with a well-developed shrubby understory, ravines covered with scruboak, and dense shrublands--especially gambel oak. They also breed in open ponderosa pine savannahs that have a dense understory of tall shrubs.

Environmental Effects : The changes in designation proposed should have no effect upon the migratory bird habitat. The designation will not alter the existing plant and animal communities and it will not restrict the development of any future habitat improvement projects.

HERITAGE RESOURCES AND HUMAN ENVIRONMENT

CULTURAL RESOURCES

Affected Environment: The area of potential effect ("APE") of the proposed alternatives contains several highly significant historic properties, including the Marsh Quarry (5FN119), the Cope Quarry (5FN988), a newly-designated agricultural landscape (5FN1782) and a rare rock art panel (5FN1771). The presence of isolated features (like 5FN1522) and artifacts, along with a major drainage that bisects the APE, are indicative of a very high potential for aboriginal sites. Only about 16% of the APE has been inventoried for cultural resources, therefore it is highly likely that many more unrecorded historic properties are present within the proposed boundaries of the NNL.

Environmental Effects

Alternative 1 (Large)

Direct and Indirect Impacts: The largest number of historic properties would receive an additional layer of protection if the NNL boundaries were expanded to the extent proposed in alternative 1.

Cumulative Impacts: Negative and adverse effects on the largest number of historic properties would be reduced.

Mitigation/Residual Effects: None.

Alternative 2 (Medium)

Direct and Indirect Impacts: Similar to Alternative 1, but fewer historic properties.

Cumulative Impacts: Similar to Alternative 1, but fewer historic properties.

Mitigation/Residual Effects: None.

Alternative 3 (Smaller area)

Direct and Indirect Impacts: Similar to Alternative 1, but fewer historic properties.

Cumulative Impacts: Similar to Alternative 1, but fewer historic properties.
Mitigation/Residual Effects: None.

No Action Alternative

Direct and Indirect Impacts: The lowest number of historic properties would receive an additional layer of protection. The existing NNL boundary includes none of the known historic properties described in the affected environment paragraph above.

Cumulative Impacts: Negative and adverse effects on the lowest number of historic properties would be reduced.

Mitigation/Residual Effects: None.

TRIBAL AND NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: As mentioned in the Cultural Resources section above, the potential for aboriginal sites in the APE is very high, based on known sites and the natural environment. At present, there are no known sacred sites or Traditional Cultural Properties (TCPs) in the APE.

Environmental Effects

Alternative 1 (Large)

Direct and Indirect Impacts: The largest number of aboriginal sites would receive an additional layer of protection if the NNL boundaries were expanded to the extent proposed in alternative 1.

Cumulative Impacts: Negative and adverse effects on the largest number of aboriginal sites would be reduced.

Mitigation/Residual Effects: None.

Alternative 1 (Medium)

Direct and Indirect Impacts: Similar to Alternative 1, but fewer aboriginal sites.

Cumulative Impacts: Similar to Alternative 1, but fewer aboriginal sites.

Mitigation/Residual Effects: None.

Alternative 2 (Smaller area)

Direct and Indirect Impacts: Similar to Alternative 1, but fewer aboriginal sites.

Cumulative Impacts: Similar to Alternative 1, but fewer aboriginal sites.

Mitigation/Residual Effects: None.

No Action Alternative

Direct and Indirect Impacts: The lowest number of aboriginal sites would receive an additional layer of protection. The existing NNL boundary includes none of the known aboriginal sites described in the affected environment paragraph above.

Cumulative Impacts: Negative and adverse effects on the lowest number of aboriginal sites would be reduced.

Mitigation/Residual Effects: None.

PALEONTOLOGICAL RESOURCES

Affected Environment: The Garden Park Fossil Area was formed by a large fault-bounded depression that has created a valley on the north side of the Cañon City Basin. Pre-Cambrian crystalline rocks occur outside the valley as mountains to the east, north, and west of Garden Park and within the structural depression a sequence of Ordovician, Mississippian, Pennsylvanian, Jurassic, and Lower Cretaceous sedimentary rocks is exposed.

At the southern access to the Garden Park area a large hogback, which is formed from the Cretaceous-aged Dakota sandstones, is inclined to the south. Dinosaur footprints are revealed in these sandstones along the roadside west of Cañon City. The Morrison Formation occurs as low badlands along the valley of Four Mile Creek that eventually opens up into the wide valley of Garden Park. Along Four Mile Creek, the Morrison formation is locally covered by large Dakota sandstone blocks that have slid downward and broken apart during a series of huge landslides. Landslide debris covers much of the Morrison exposure except along gully walls and ridges. Several historic dinosaur quarries occur in these Morrison Outcrops, which is why the Morrison Formation in the Garden Park Fossil Area is considered as a Class 5 paleontologic resource. Class 5 paleontologic resources are highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at high risk of human-caused adverse impacts or natural degradation. Management concern for Class 5 paleontologic resources is high to very high meaning that the probability for impacting significant fossils is high. Any ground disturbing work proposed within this area would require on-the ground surveys and on-site monitoring (IM 2008-009).

Because the Morrison outcrops in the Garden Park Fossil area are so important, they have been studied intently by many scientists therefore the Class 5 designation has been expanded to include 5a, 5b, and 5c to further delineate significance among Morrison Formation outcrops. Class 5a Morrison outcrops have the highest paleontologic interest. They contain scientifically significant vertebrate fossils or their traces and/or type localities or developed quarries. Class 5b outcrops are large outcrops of potentially scientifically significant vertebrate fossils or their traces but with no developed quarries or type localities. These exposures have high paleontologic research potential. Class 5c outcrops are scattered small area outcrops of potentially scientifically significant vertebrate fossils or their traces and/or type localities. These exposures have moderate to low paleontologic research potential. Table 1 shows the acreage of Class 5, 5a, 5b, and 5c paleontologic resources that are within the boundary of the existing NNL designation and within the boundaries of the 3 proposed NNL designations.

Garden Park Fossil Area is one of the most productive and historically important locations in the United States for the study of Late Jurassic dinosaurs. Local residents first found dinosaur bones here in the 1870s. When word of the finds reached the museums of the eastern U.S., two of the most famous paleontologists in American history were soon involved. Edward Drinker Cope and Othniel Charles Marsh were the principal opponents in an intense rivalry that became known as “the Bone Wars.” The Marsh-Felch Quarry and the Cope-Lucas Quarries of Garden Park were financed by these two rivals and excavated by Cañon City pioneers. The excavations played an

important role in the start of the Great Dinosaur Rush, which established dinosaurs in the public consciousness and affected the course of American paleontology.

Table 1. Class 5 Paleontologic resources within the existing and the proposed alternatives for changes to the NNL designation boundary.

Paleo Class	Acres				
	Existing NNL	Alt#1 Large	Alt #2 Medium	Alt #3 Small	No Action
5	0.5	568	362	53	0.5
5a	2.4	106	106	58	2.4
5b	0.1	250	207	25	0.1
5c		232	174	63	
SUM	2.9	1155	849	200	2.9

Environmental Effects

Alternative #1: (1155 acres Class 5 paleontologic resources) Alternative 1 provides for the largest change in the NNL designation boundary and it would have the greatest benefit to paleontologic resources because it includes the greatest number of acres of Class 5 paleontologic resources. The BLM needs to rely increasingly on partnerships to accomplish its mandate to manage and protect paleontologic resources on Federal land using scientific principles and expertise. Management and protection of paleontologic resources becomes increasingly difficult as the population of nearby Cañon City continues to expand, and the need for recreation opportunities in the nearby Garden Park Fossil area continues to increase. Expansion of the NNL would increase our ability to use the BLM's partnership with the National Park Service to provide increased educational opportunities, preventative measures, and mitigation when necessary to help protect our significant paleontologic resources in the Garden park Fossil Area. Table 1. Clearly shows that the highest number of paleontologic resources would be included in the proposed NNL designation expansion.

Direct and Indirect Impacts: No ground disturbing activity is proposed therefore no direct impacts to fossil resources are anticipated. Indirect impacts include damage or loss of fossil resources due to the unauthorized collection of scientifically important fossils by the public due to a possible increased interest in the Garden Park Fossil Area due to designation. Adverse impacts to paleontological resources can be reduced to a negligible level through public education programs and partnerships that would be strengthened by increasing the NNL designation. It is probable that the proposed project would have the beneficial impact that might result in the discovery of important fossil resources.

Cumulative Impacts: No ground disturbing activity is proposed therefore no direct impacts to fossil resources are anticipated. Indirect impacts include damage or loss of fossil resources due to the unauthorized collection of scientifically important fossils by the public due to a possible increased interest in the Garden Park Fossil Area due to designation. Adverse impacts to paleontological resources can be reduced to a negligible level through public

education programs and partnerships that would be strengthened by increasing the NNL expansion. It is probable that the proposed project would have the beneficial impact that might result in the discovery of important fossil resources.

Mitigation/Residual Effects: The Garden Park ACEC and its accompanying activity plan shall be updated to include the newly acquired parcels located to the east and west of the existing ACEC. The Activity Plan should also reflect the BLM's continuing commitment to protect the significant paleontologic resources through continued public education using resources on these newly acquired parcels in coordination.

Alternative #2—Medium NNL Expansion, (849 acres Class 5 paleontologic resources)

Direct and Indirect Impacts: Similar to Alternative 1, fewer paleontologic resources protected.

Cumulative Impacts: Similar to Alternative 1

Mitigation/Residual Effects: Same as Alternative 1

Alternative #3—Small NNL Expansion, (200 acres Class 5 paleontologic resources)

Direct and Indirect Impacts: Similar to Alternative 1, fewer paleontologic resources protected.

Cumulative Impacts: Similar to Alternative 1

Mitigation/Residual Effects: Same as Alternative 1

No Action Alternative: (2.9 acres Class 5 paleontologic resources) No change in NNL designation would occur.

Direct and Indirect Impacts: Similar to Alternative 1, no change in paleontologic resources protected.

Cumulative Impacts: Similar to Alternative 1

Mitigation/Residual Effects: Same as Alternative 1

VISUAL RESOURCES

Affected Environment: Visual Resource Management (VRM) classes along with the corresponding VRM Objectives were established in the Royal Gorge Field Office in 1996 with the approval of the Royal Gorge Resource Area Resource Management Plan (RMP). Visual Resource Management objectives corresponding to the various management classes provide standards for analyzing and evaluating proposed projects. Projects are evaluated using the Contract Rating System to determine if it meets VRM objectives established by the RMP.

The VRM classes established for the project area is Class II and III. The objective for Class II and III areas are as follows:

The objective of Class II is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat

the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The objective of Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Environmental Effects

Alternative 1

Direct and Indirect Impacts: The proposed change in designation of the NNL boundary would not have any impacts to visual resources. There are no ground disturbing activities associated with this alternative and the change in designation would not preclude future disturbances therefore there would be no positive or negative impacts to visual resources.

Cumulative Impacts: None
Mitigation/Residual Effects: None

Alternative 2

Direct and Indirect Impacts: The proposed change in designation of the NNL boundary would not have any impacts to visual resources. There are no ground disturbing activities associated with this alternative and the change in designation would not preclude future disturbances therefore there would be no positive or negative impacts to visual resources.

Cumulative Impacts: None.
Mitigation/Residual Effects: None.

Alternative 3

Direct and Indirect Impacts: The proposed change in designation of the NNL boundary would not have any impacts to visual resources. There are no ground disturbing activities associated with this alternative and the change in designation would not preclude future disturbances therefore there would be no positive or negative impacts to visual resources.

Cumulative Impacts: None.
Mitigation/Residual Effects: None.

No Action Alternative

Direct and Indirect Impacts: None.
Cumulative Impacts: None.
Mitigation/Residual Effects: None proposed.

ENVIRONMENTAL JUSTICE

Affected Environment: The proposed change in NNL designation affects areas that are rural in nature. The land adjacent to these parcels is open rangeland. As a result, there are no minority or low-income populations in or near the project area. As such, the proposal will not have a disproportionately high and adverse human health or environmental effect on minority or low-income populations.

WASTES, HAZARDOUS OR SOLID

Affected Environment: It is assumed that onsite conditions are currently clean and that no contamination is evident. No hazardous material, as defined by 42 U.S.C. 9601 (which includes materials regulated under CERCLA, RCRA and the Atomic Energy Act), will be used, produced, transported or stored on or within the allotment. This term does not include petroleum or natural gas.

LAND RESOURCES

RECREATION

Affected Environment: The area identified for expansion offers a variety of recreation opportunities in a middle country physical with roaded areas and trails both for motorized and non-motorized recreation. There is also a popular area for target shooting in the area. The Gold Belt Travel Management Plan (EA) and the Dilley Property Travel Management Plan designated roads and trails in the area.

Environmental Effects : Direct and Indirect Impacts: With the NNL program's stated goals of preserving sites and strengthening the public's appreciation of these types of sites it can be assumed that there would be at least some increase in recreation use associated with paleontological interest. Although the level of increase in use is impossible to determine it would not change the physical or social setting for the area. Since travel management plans have already been completed for this area there would be no change or modification in the route designation for this area from this alternative. It is also unlikely that other existing recreational uses in the area, including target shooting would be changed or affected by the proposed designation. All in all the expanded NNL designation would have little impact to recreation resources for this area.

FARMLANDS, PRIME AND UNIQUE

Affected Environment: There are no Prime and Unique Farmlands involved in this analysis.

RANGE MANAGEMENT

Affected Environment: There are two grazing allotments within the analysis area, South Garden Park and Oil Well Flats. The proposed change in designation of the NNL boundary would not have any impacts to range resources.

LANDS AND REALTY

Affected Environment: There are realty authorizations present within the proposed area; however, this project will not have an adverse impact on the authorizations. The proposed designation would not have an effect on any future authorizations as BLM would still authorize realty transactions under the authorized RGFO RMP.

WILDERNESS, AREAS OF CRITICAL ENVIRONMENTAL CONCERN, WILD AND SCENIC RIVERS, LANDS WITH WILDERNESS CHARACTERISTICS

Affected Environment: The project is located within the Garden Park ACEC as designated in the Royal Gorge Resource Area Resource Management Plan. This ACEC was designated for its internationally known paleontological sites and the protection of these resources.

Environmental Effects

Alternative 1

Direct and Indirect Impacts: A change in designation of the NNL would most likely improve the Garden Park ACEC by offering additional tools for preservation of the sites that the ACEC was originally designated to protect. There would be no negative impacts to the ACEC characteristics.

Cumulative Impacts: None

Mitigation/Residual Effects: None proposed.

Alternative 2

Direct and Indirect Impacts: Same as Alternative 1.

Cumulative Impacts: None

Mitigation/Residual Effects: None

Alternative 3

Direct and Indirect Impacts: Same as Alternative 1.

Cumulative Impacts: None

Mitigation/Residual Effects: None

No Action Alternative

Direct and Indirect Impacts: If the designation of the NNL was not modified it would affect the Garden Park ACEC.

Cumulative Impacts: None

Mitigation/Residual Effects: None proposed.

The resources or issues below were dismissed due to their not being present or applicable. If one of these elements are present and need to be brought forth for analysis, follow the instructions after the table

Resource/Issue	Rationale for dismissal
Cadastral Survey	No surface disturbance
Fire	Change in NNL designation will not create or elevate risk factors leading to unwanted wildland fire ignition.
Forest Management	Change in NNL designation should not affect future forest management actions because the designation does not dictate activities. The change in NNL designation shall have no effect to the recent pinyon IPS bark beetle population increase in this area.
Law Enforcement	There are no law enforcement issues associated with this action.
Noise	This action will not result in any impacts due to noise or result in any increased noise levels.
Socio-Economics	This action will not result in significant impacts to the socio economics of the region.
Farmlands Prime and Unique	None present

CUMULATIVE IMPACTS SUMMARY: Overall, expansion of the NNL designation would have a beneficial impact to many Public lands resources that are present within the newly expanded boundaries. Expansion of the NNL designation would most likely improve the Garden Park ACEC by offering additional tools for preservation of the sites that the ACEC was originally designated to protect. Expansion of the NNL would increase the BLM’s ability to partner with the National Park Service to provide increased educational opportunities, preventative measures, and mitigation when necessary to help protect the significant paleontologic resources in the Garden park Fossil Area. Expansion of the NNL designation would also potentially result in the discovery of scientifically important fossil resources. The intent of the NNL designation aligns with basic Bureau riparian protection policies so that over the long-term, basic land use pressures that continue to encroach upon Public lands would perhaps be lessened because of the preservation objectives placed in the area.

Expanding the NNL designation could potentially increase visitation in the future adding to the number of people visiting the area. The level of increase in use is impossible to determine and the designation would not change the physical or social setting for the area, which are the primary attractions for visitors. Looking at soils and water quality from the Fourmile Creek watershed scale, the possible addition of these visitors in the future would have a very minor to immeasurable impact on soils and water resources.

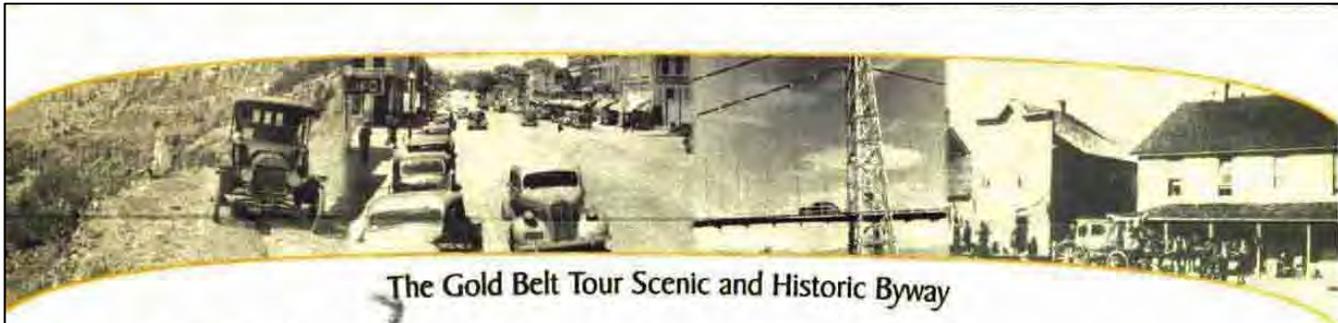
PERSONS / AGENCIES CONSULTED:

Gold Belt Byway Association-Appendix I
 Garden Park Paleontological Society— Appendix I
 Colorado Natural Areas Program-Colorado State Parks— Appendix I
 National Natural Landmark Program-National Park Service

INTERDISCIPLINARY TEAM REVIEW		
NAME	TITLE	AREA OF RESPONSIBILITY
Matt Rustand	Wildlife Biologist	Terrestrial Wildlife, T&E, Migratory Birds
Jeff Williams	Range Management Spec.	Range, Vegetation, Farmland
Chris Cloninger	Range Management Spec.	Range, Vegetation, Farmland
John Lamman	Range Management Spec.	Range, Vegetation, Farmland, Weeds
Dave Gilbert	Fisheries Biologist	Aquatic Wildlife, Riparian/Wetlands
Stephanie Carter	Geologist	Minerals, Paleontology, Waste Hazardous or Solid
Melissa Smeins	Geologist	Minerals, Paleontology
John Smeins	Hydrologist	Hydrology, Water Quality/Rights, Soils
Ty Webb	Prescribed Fire Specialist	Air Quality
Tony Mule'	Cadastral Surveyor	Cadastral Survey
Kalem Lenard	Recreation	Recreation, Wilderness, Visual, ACEC, W&S Rivers, LWCs
John Nahomenuk	Recreation, River Manager	Recreation, Wilderness, Visual, ACEC, W&S Rivers, LWCs
Ken Reed	Forester	Forestry
Martin Weimer	NEPA Coordinator	Environmental Justice, Noise, SocioEconomics
Monica Weimer	Archaeologist	Cultural, Native American
Erin Watkins	Archaeologist	Cultural, Native American
Vera Matthews	Realty Specialist	Realty
Hugh Wolfe	Realty Specialist	Realty
Steve Cunningham	Law Enforcement Ranger	Law Enforcement

APPENDICES: Appendix I—Support letters
 Appendix II—Garden Park Roads and Trails Map

APPENDIX I-LETTERS OF SUPPORT



The Gold Belt Tour Scenic and Historic Byway

7-14-2011

Bureau of Land Management-Royal Gorge Field Office
Gregory P. Shoop, District Manager
3028 East Main Street
Canon City, CO 81212

JUL 18 2011

Dear Mr. Shoop,

The Gold Belt Tour Byway Association enthusiastically supports the BLM's participation in the National Natural Landmark (NNL) Program. The NNL program recognizes and encourages the conservation of sites that contain outstanding geological and biological resources such as those in the Garden Park Fossil Area. The Garden Park Fossil Area, located along the Gold Belt Byway Tour, is an internationally known paleontological site that was one of the primary areas responsible for generating worldwide interest in dinosaurs during the late 1800's. Fifteen species of dinosaurs, nine of which were new, were recovered from here at that time. Fish, crocodile, turtle, and mammal fossils have also been recovered, making this site one of the oldest and richest fossil sites in the United States.

The BLM's attention to the preservation and promotion of the historical quarries and the natural landscape in the Garden Park Fossil area through designation of the NNL is fully appreciated and supported by the Gold Belt Tour Byway Association. The NNL designation supports the Gold Belt Byway Tour Association's purpose to improve the appearance and increase the historical awareness of the Byway.

The Gold Belt Tour Scenic and Historic Byway Association has been worked with the BLM since its inception and has helped to complete several important projects. We hope we can continue to be of assistance to benefit all interested parties.

If you have any questions or need more information please feel free to call me 719-689-2461

Sincerely,


Charlotte Bumgarner
Executive Director

6778 County Road 102
719.689.2485



Guffey, Colorado 80820
goldbeltbyway.com



Colorado Natural Areas Program



1313 Sherman Street, Room 618 • Denver, Colorado 80203 • (303) 866-3203
www.parks.state.co.us/cnap

September 27, 2011

Bureau of Land Management-Royal Gorge Field Office
Keith E. Berger, Field Office Manager
3028 East Main Street
Canon City, CO 81212

Dear Mr. Berger,

The Colorado Natural Areas Program (CNAP) enthusiastically supports the BLM's participation in the National Natural Landmark (NNL) Program. The NNL program recognizes and encourages the conservation of sites that contain outstanding geological and biological resources such as those in the Garden Park Fossil Area. The Garden Park Fossil Area is an internationally known paleontological site that was one of the primary areas responsible for generating worldwide interest in dinosaurs during the late 1800's. Fifteen species of dinosaurs, nine of which were new, were recovered from here at that time. Fish, crocodile, turtle, and mammal fossils have also been recovered, making this site one of the oldest and richest fossil sites in the United States.

The BLM's attention to the preservation of paleontologic resources through the promotion of the historic quarries in the Garden Park Fossil area through designation of the NNL is fully appreciated and supported by the Colorado Natural Areas Program. The NNL designation aligns with the CNAP's goals to help conserve Colorado's best places well into the future.

The CNAP also supports the NNL designation because it will provide additional resources and partnerships that can assist with conservation of the Garden Park Fossil Area well into the future.

Sincerely,

Brian P. Kurzel
Natural Areas Coordinator

RECEIVED
USDI-BLM-RGFO

OCT 1 2011

STAFF	ACT INFO INT.
Field Mgr	KB
Assoc. Field Mgr	
Pub. Aff.	
Per-Res	20
Non-Per-Res	
Support Serv.	
Fire Mgr.	
File	

M. J. ...

STATE OF COLORADO • COLORADO PARKS AND WILDLIFE
John W. Hickenlooper, Governor • Mike King, Executive Director, Department of Natural Resources •
Rick D. Cables, Director, Colorado Parks and Wildlife •
Colorado Natural Areas Council: Jill Ozarski, Chair • Bruce Schumacher, Vice-Chair • Mike Bloom, Board of Land
Commissioners • Lenna Watson, Parks and Wildlife Commission • Renee Rondeau, Member • Dr. Lee Shropshire, Member •
Tom Nesler, Member

DINOSAUR DEPOT MUSEUM

330 Royal Gorge Blvd., #A · Cañon City, CO 81212 · 719-269-7150

September 21, 2011

Bureau of Land Management
Royal Gorge Field Office
Keith E. Berger, Field Office Manager
3028 East Main Street
Canon City, CO 81212

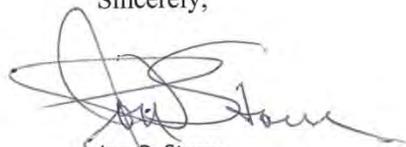
Dear Mr. Berger,

The Garden Park Paleontology Society (GPPS) enthusiastically supports the BLM's participation in the National Natural Landmark (NNL) Program. The NNL program recognizes and encourages the conservation of sites that contain outstanding geological and biological resources such as those in the Garden Park Fossil Area. The Garden Park Fossil Area is an internationally known paleontological site that was one of the primary areas responsible for generating worldwide interest in dinosaurs during the late 1800's. Fifteen species of dinosaurs, nine of which were new, were recovered from here at that time. Fish, crocodile, turtle, and mammal fossils have also been recovered, making this site one of the oldest and richest fossil sites in the United States.

The BLM's attention to the preservation of paleontological resources through the promotion of the historic quarries in the Garden Park Fossil area through designation of the NNL is fully appreciated and supported by the Garden Park Paleontology Society. The NNL designation aligns with the GPPS mission to help local residents and visitors to our area better understand its rich fossil heritage.

The GPPS also supports the NNL designation because it will provide additional resources and partnerships that can assist the GPPS and the BLM with the Paleontological Resources Preservation Act (PRPA) mandate to protect paleontological resources on Federal land using scientific principles and expertise.

Sincerely,

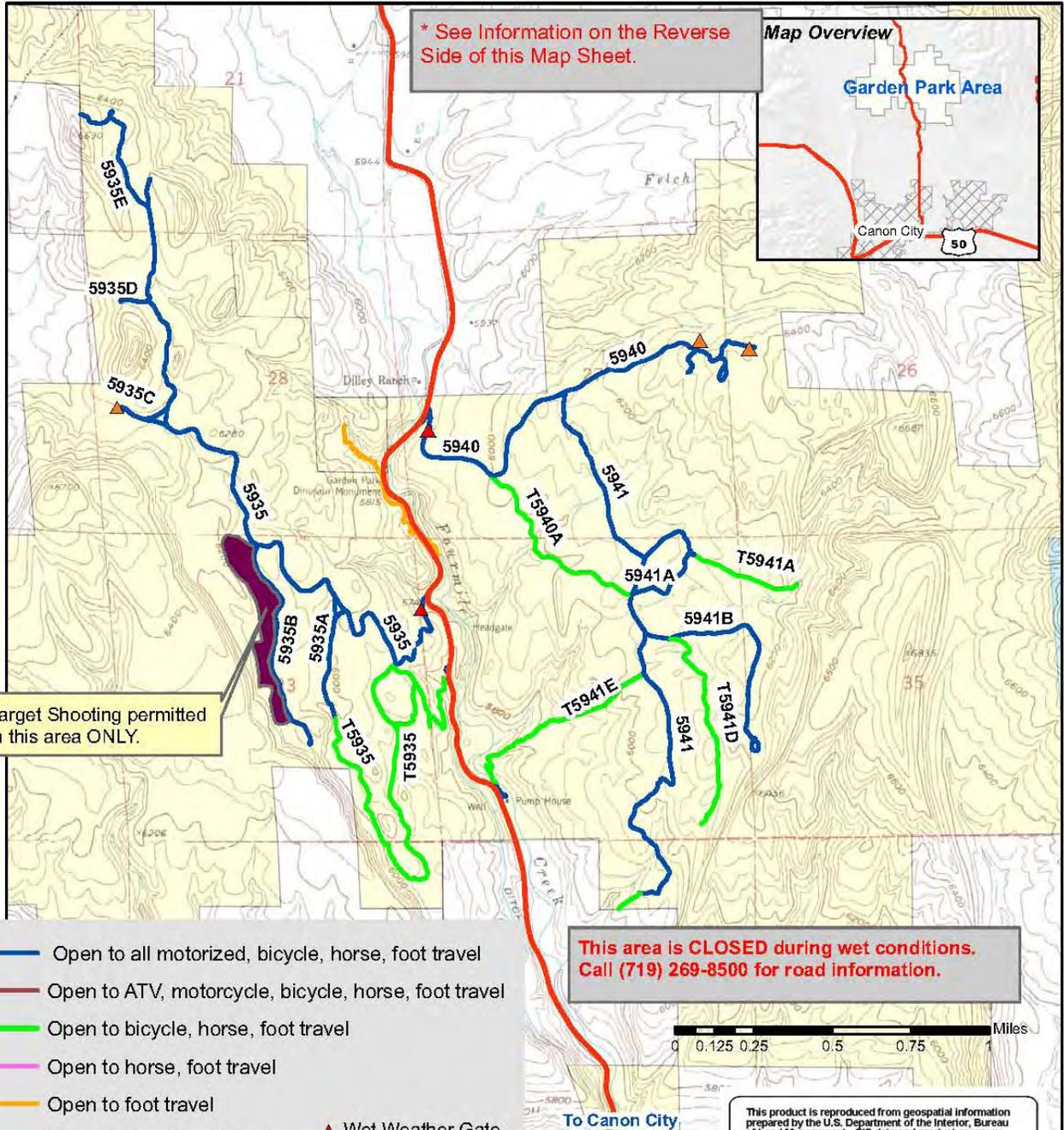


Jon P. Stone
Executive Director



Garden Park Roads and Trails BLM Royal Gorge Field Office

Current Designated Travel Routes as of 1/11/06*



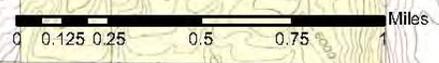
* See Information on the Reverse Side of this Map Sheet.



Target Shooting permitted in this area ONLY.

This area is CLOSED during wet conditions. Call (719) 269-8500 for road information.

- Open to all motorized, bicycle, horse, foot travel
- Open to ATV, motorcycle, bicycle, horse, foot travel
- Open to bicycle, horse, foot travel
- Open to horse, foot travel
- Open to foot travel
- Garden Park/Shelf Road
- Bureau of Land Management
- Private Lands
- State Lands
- ▲ Wet Weather Gate
- ▲ Locked Gate
- 5941A Road Number
- T5941E Trail Number



This product is reproduced from geospatial information prepared by the U.S. Department of the Interior, Bureau of Land Management. GIS data and product accuracy may vary. They may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation, incomplete while being created or revised, etc. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. This information was released on the date below. The Bureau of Land Management reserves the right to correct, update, modify, or replace GIS products without notification. For more information, contact the Royal Gorge Field Office, (719) 269-8500.

Map prepared by L. Quesenberry, 1/11/2006



BUREAU OF LAND MANAGEMENT

Royal Gorge Field Office

3028 East Main Street, Canon City, CO 81212
(719) 269-8500, www.co.blm.gov

The Garden Park Area Designated Road and Trail System – Motorized travel in this area is limited to **designated** roads and trails identified for off-highway vehicle (OHV) travel. Only the routes displayed on the reverse side of this map sheet in **blue** are open to motorized travel with off-highway vehicles.



Look for signs like these showing the types of uses permitted on each route.

Be a Responsible User of Your Public Lands



- **Limit your use** to designated roads and trails identified for off-highway vehicle travel.
- **Do not create** new roads or trails by riding off designated routes.
- **Prevent soil erosion** by protecting vegetation and soils from damage.
- **Park** at existing parking areas and pull-offs.
- **Register** your off-highway vehicle – it's Colorado law! (Available at all State Park Offices and at many recreation vehicle dealerships.)
- **Avoid** motorized travel when conditions are wet to prevent damage to roads and trails. The Garden Park area is **CLOSED** to motorized travel during wet road conditions. Call (719) 269-8500 for current road information.

* **Map Information** – The Garden Park Roads and Trails Map shows routes designated for OHV travel as of January 1, 2006. **Changes** in the available routes will occur over the next few years as pending land exchanges take place and new trails are constructed. Revised editions of the map will be available as changes occur. **Please check with BLM to ensure that you have the latest version of the map.** Current maps may be obtained by contacting BLM at the address and phone number listed above or at www.blm.gov/co/st/en/BLM_Programs/recreation/atvreg.html.