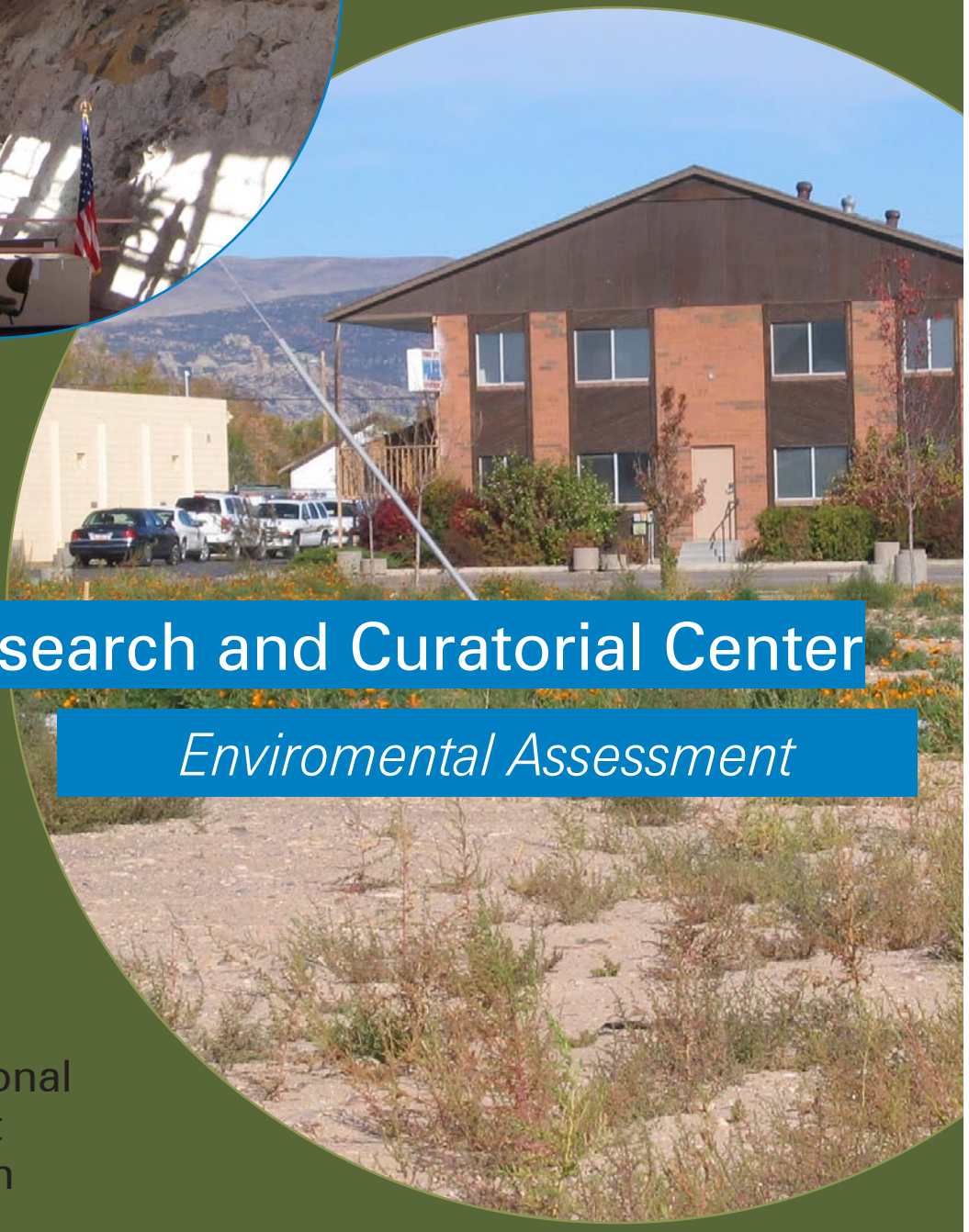

Uintah Research and Curatorial Center

Enviromental Assessment

Dinosaur National
Monument
Vernal, Utah

June 2006

Uintah Research and Curatorial Center
Environmental Assessment

June 2006

Prepared by:

National Park Service
12795 W. Alameda Parkway
Lakewood, CO 80228

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SUMMARY

U.S. Department of Interior

National Park Service

Environmental Assessment

Construction of the Proposed Uintah Research and Curatorial Center

Vernal, Utah

This environmental assessment examines two alternatives: No Action and the National Park Service Preferred Alternative. The Preferred Alternative considers constructing the Uintah Research and Curatorial Center in Vernal, Utah. This facility would serve as a curatorial center and storage site for one of the National Park Service's most valuable museum collections, which is currently being housed in the Quarry Visitor Center at Dinosaur National Monument. The Quarry Visitor Center is the main attraction at Dinosaur National Monument because of the unique rock outcrop containing exposed fossils that makes up a wall of the Center. The Quarry Visitor Center would remain open to the visitors but would no longer be used as a curatorial or storage facility.

This project is needed because a valuable National Park Service museum collection is being jeopardized. The current curation and storage regimen meets less than half of the applicable National Park Service Museum Collection guidelines. Some collection pieces are exposed to weather and/or theft. Additionally, Dinosaur National Monument employees are exposed to radon emitting fossils on a daily basis. There is not sufficient work space at the Quarry Visitor Center, which forces employees to work in aisles at book shelves. Due to the Quarry Visitor Center being constructed on top of a formation containing layers of bentonite, the building has shifted over time. This has resulted in uneven floors and cracked walls that provide an unsafe work environment in which at least one or two joint injuries are reported by employees each year.

The Preferred Alternative would have no or negligible impacts on air quality, soundscape, lightscape, visual resources, geological resources, water resources, vegetation, wildlife, threatened and endangered species, soils, floodplains, wetlands, paleontological resources, cultural resources, environmental justice, energy requirements, prime farmlands, or Indian trust resources.

Five topics were identified which would be impacted by construction of the Uintah Research and Curatorial Center. Long- term direct moderate beneficial effects would occur to the museum collection and park operations. Long- term direct minor beneficial impacts would occur to the visitor experience at the Uintah Research and Curatorial Center and the socioeconomics of Vernal, Utah. Long- term direct negligible beneficial impacts would occur to the Quarry visitors Center as a historic structure.

Notes to Reviewers and Respondents

If you wish to comment on the environmental assessment, you may mail comments to the name and address below. Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the record, which we will honor to the extent allowable by law. If you want us to withhold your name and address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations

and businesses, and from individuals identifying themselves as representative officials of organizations or businesses, available for public inspection in their entirety.

Please address comments to:

Superintendent; Dinosaur National Monument; Attn: Uintah Research and Curatorial Center; 4545 E. Highway 40, Dinosaur, Colorado, 81310- 9724; or via e- mail at DINO_Superintendent@nps.gov

Comments may also be submitted via the National Park Service Planning, Environment, and Public Comment website at http://parkplanning.nps.gov/.

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1.0 INTRODUCTION

The National Park Service (NPS) is considering the construction of a new curatorial storage facility to accommodate staff and resources from Dinosaur National Monument. This National Monument spans more than 210,000 acres along the northern Colorado- Utah border. Currently, paleontological and cultural resources recovered at the Douglas Quarry and other sites are processed and stored at the Quarry Visitor Center (QVC) and 11 other facilities throughout the National Monument. The proposed Uintah Research and Curatorial Center (URCC) would allow the museum collection to be properly processed, cataloged, and stored according to NPS museum standards. Figure 1 depicts the locations of the QVC and the URCC. The URCC is proposed to be attached to the Utah Field House of Natural History State Museum (UFHM) in Vernal, Utah. Figure 2 shows the proposed location of the URCC within the City of Vernal. See Appendix A for photographs of the existing facility and proposed URCC location.

This Environmental Assessment (EA) will analyze the proposed project alternatives and their potential impacts on the environment. The EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ)(40 Code of Federal Regulation [CFR] 1508.9), the NPS Director's Order (DO)- 12 (Conservation, Planning, Environmental Impact Analysis, and Decision- making 2001), and the National Historic Preservation Act (NHPA) of 1996 (as amended).

1.1 PROJECT BACKGROUND

The URCC is proposed to be built on land that will be donated to the federal government by the City of Vernal and Uintah County. The new facility will be co- located as an addition to the recently opened UFHM. In September 2003, a bill was introduced in Congress to provide for the establishment of the URCC for Dinosaur National Monument in the states of Colorado and Utah. This bill stipulated acquisition of five acres of land located in Uintah County, in the vicinity of Vernal, Utah, providing for curation of museum collections from Dinosaur National Monument.

The URCC site is identified in the State of Utah and Uintah County master plan for consolidation of public facilities (AJC 2005). Two facilities are planned for this site, including the existing UFHM and the proposed URCC. This site is owned by Uintah County; however, a Memorandum of Understanding has been signed that puts the operation and control of this area under the State of Utah and the NPS.

1.2 PLANS OUTLINING MANAGEMENT GOALS

The General Management Plan- Development Concept Plan- Land Protection Plan- Environmental Assessment for Dinosaur National Monument in Moffat County, Colorado and Uintah County, Utah was developed in 1986 by the NPS for the management of Dinosaur National Monument. The plan was developed so that the resources at the National Monument would be managed as a total environment, perpetuating the natural, historic, and prehistoric

features for which the area was established. The goal of the General Management Plan (GMP) is to meet legislative and NPS mandates for endangered species protection, floodplain management, wetland protection, and protection of cultural and paleontological resources. Additionally, the Land Protection Plan was developed in order to manage non- federally owned lands within the monument boundaries, as well as lands adjacent to Dinosaur National Monument.

The "Resource Issues" section of the GMP discusses the inferior state of curatorial, storage, and library facilities at Dinosaur National Monument. It was noted that the preservation of the collections could not be ensured under existing conditions. The following excerpt, taken from the GMP, summarizes the NPS' opinion on the condition of the Monument's storage facilities (NPS 1986).

> "Irreplaceable fossils in the monument's collections….are stored in facilities that are grossly undersized…..The issue is a question of correcting substandard curatorial work areas to allow for proper cataloguing and treatment and secure storage. Acceptable environmental controls …..are required by NPS- 28, 'Cultural Resource Management Guidelines'….Without meeting these established curatorial standards the prospects for deterioration and loss of these valuable resources are high…..Along the same lines the paleontological library at Dinosaur is not housed in an atmospherically controlled environment….The issue is how to protect this valuable collection from disintegration and loss."

The need for a curatorial facility with proper heating/ventilation/air- conditioning system was deemed necessary for both the protection of specimens and improvement of working conditions. A new collections building was stated to be necessary in order to "secure storage and proper access to large volumes of fossils." The new facility would be equipped with a fire suppression system as well as an intrusion detection system. All of these amenities would be included "to ensure proper long- term preservation of specimens."

Figure 1: Project Location

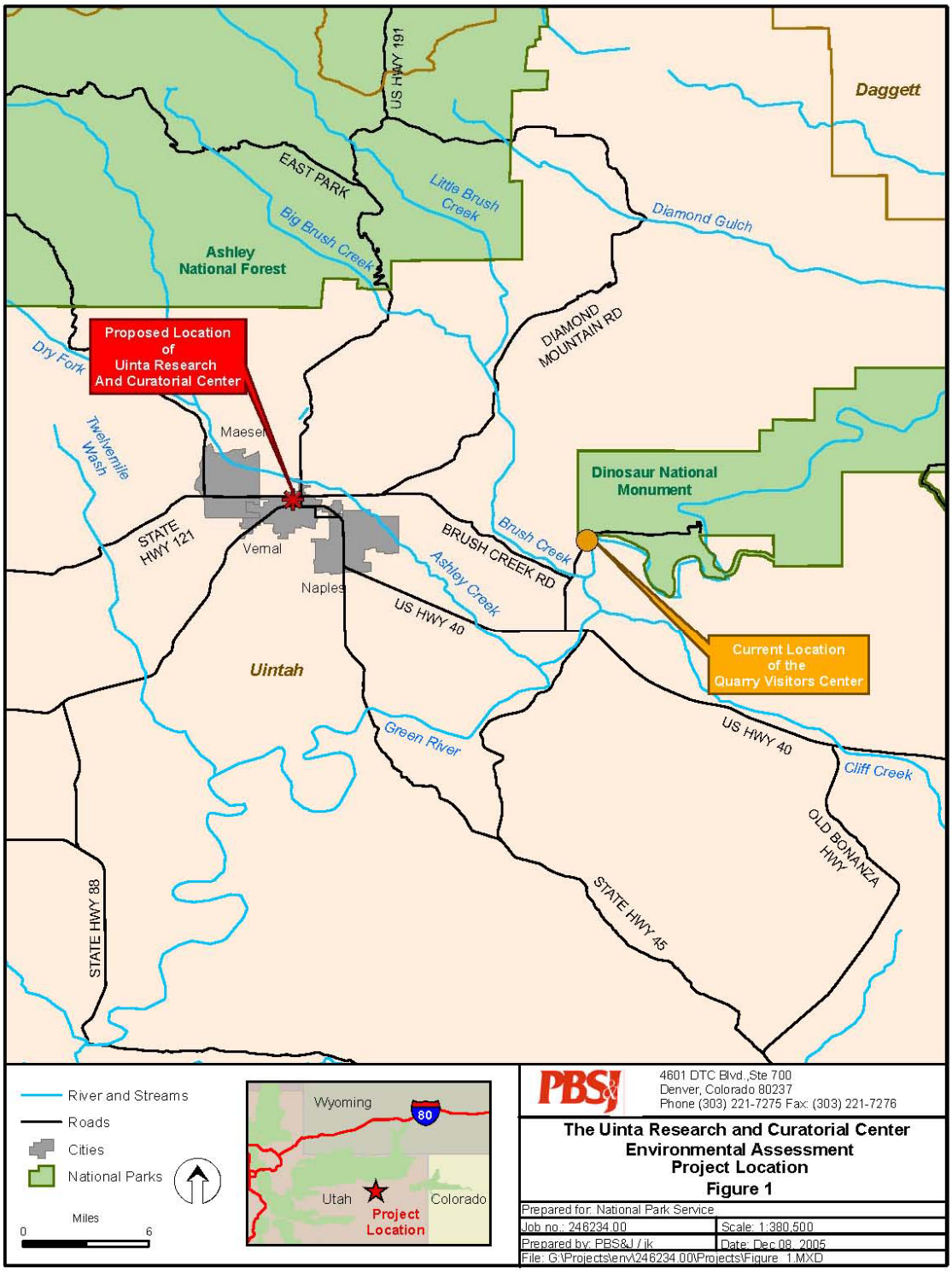

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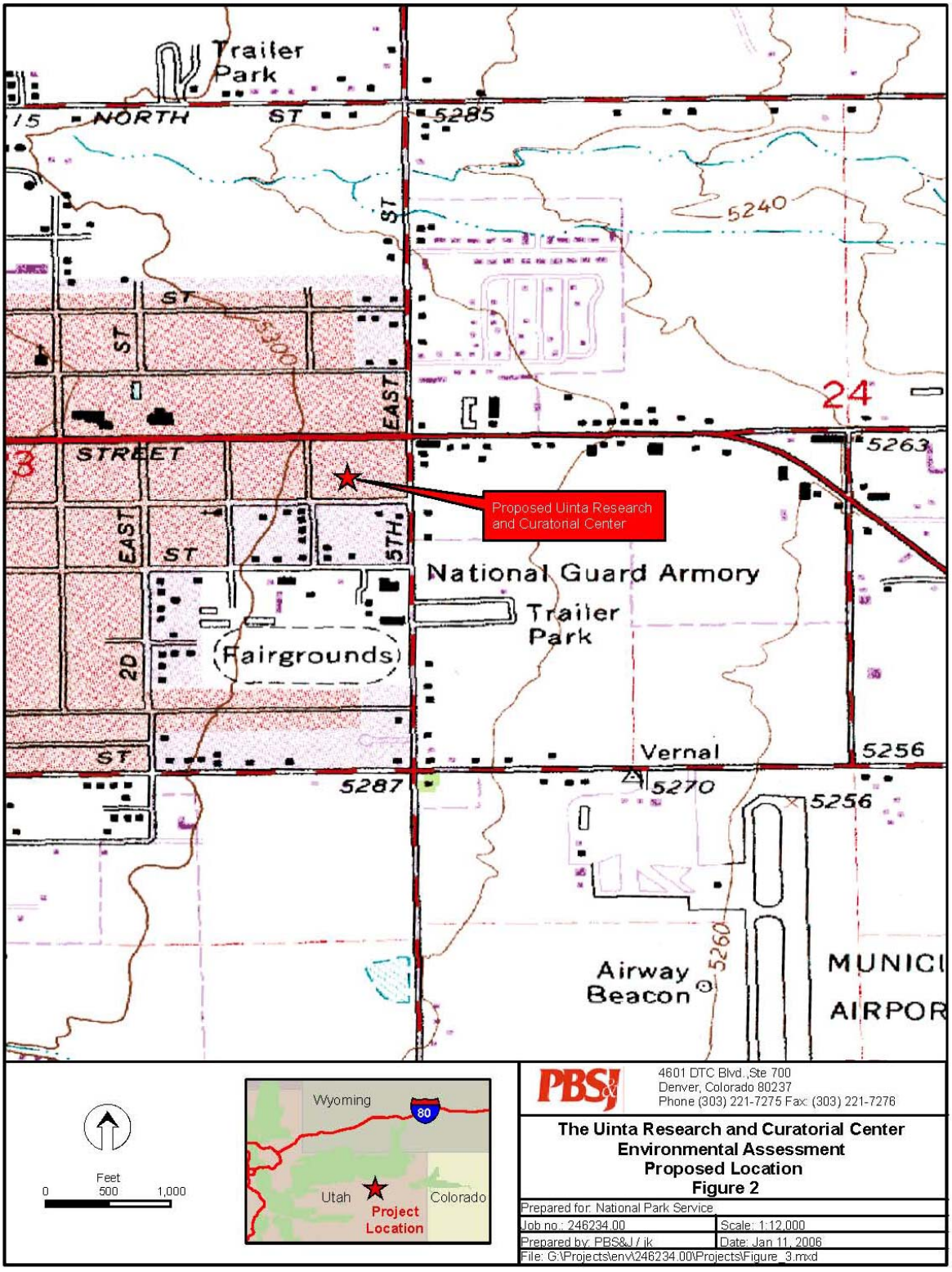
Figure 2: Proposed Location of URCC



1.3 PURPOSE AND NEED

The purpose of the project is to ensure that the Dinosaur National Monument's museum collection is acquired, accessioned, cataloged, preserved, protected, and made available for access and use according to NPS standards and guidelines (NPS Museum Handbook 2004 and DO- 24, Museum Collections Management 2000). The museum collection includes prehistoric and historic objects, artifacts, works of art, archival documents, and natural history specimens. This can be achieved through the construction of a new, modernized research and curatorial facility. Due to lack of space and insufficient amenities, over 400,000 specimens are being improperly prepared and stored. Currently there are 12 facilities, including administrative facilities, one exhibition facility, and storage facilities being used at Dinosaur National Monument for museum collection and research purposes. Under these conditions many of the applicable NPS standards (NPS Museum Handbook 2004 and DO 24 2000) are not being met. The construction of the proposed URCC will ensure that museum collections are acquired, accessioned, cataloged, preserved, protected, and made available for access and use according to NPS standards and guidelines.

Another purpose of the proposed URCC is to improve the health, safety, and comfort of Dinosaur National Monument employees and visitors. The majority of the fossil specimens in the collection are radioactive and produce radon gas. The existing storage areas do not have ventilation systems to disperse buildup of radon gas in the building. Employees working in, and patrons visiting the enclosed storage facilities, are exposed daily to radon gas. Additionally, under existing conditions, National Monument staff members have no offices. Administrative duties are conducted in an existing paleontological laboratory. Currently, the only work space available to staff are the aisles between storage shelves and near the bookcases. The uneven walking and standing surfaces have also created tripping hazards for both employees and visitors. Due to these conditions there is an average of one to two joint injuries a year reported by employees. The proposed URCC would provide proper ventilation, sufficient work space, and a stable structure to improve conditions for both employees and visitors.

1.4 PLANNING ISSUES AND CONCERNS

Planning

The need for a new curatorial and storage facility was first identified in 1986 within the GMP for Dinosaur National Park. The NPS has consulted with other federal, state, and local agencies to discuss a partnership in the proposed project. In November 2005 the NPS began scoping meetings for the proposed URCC.

Scoping

Scoping is an effort to involve agencies and the general public in determining issues to be addressed in an EA. Scoping is used to:

- Determine important issues to be given detailed analysis in the EA and eliminate issues not requiring detailed analysis;
- Allocate assignments among the interdisciplinary team members and/or other participating agencies;
- Identify related projects and associated documents;
- Identify permits, surveys, consultations, etc., required by other agencies; and
- Create a schedule that allows adequate time to prepare and distribute the EA for public review and comment before a final decision is made.

Scoping includes any interested agency, or any agency with jurisdiction by law or expertise (including the state and historic preservation officer [SHPO] and associated Indian tribes) to obtain early input.

Dinosaur National Monument staff conducted internal scoping for the project. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined the likely issues and impact topics, and identified the relationship of the proposed action to other planning efforts at Dinosaur National Monument.

The NHPA (as amended- 16 United States Code 470 et seq.), NEPA, NPS Organic Act, NPS Management Policies (2001), DO- 12 (2001), and DO- 28: Cultural Resources Management Guidelines (1998) require the consideration of impacts on cultural resources either listed in, or eligible to be listed in, the National Register of Historic Places.

Scientific Integrity

Under current conditions the scientific integrity of Dinosaur National Monument's museum collection is being compromised. Damage to specimens could diminish their scientific and educational value. Damage to the library collection and archives could also result in a loss of valuable research.

Health and Safety

The Dinosaur National Monument QVC was opened in 1958. Since that time the museum collection and staff have outgrown the existing facilities. Due to the lack of appropriate storage space employees and visitors are exposed daily to hazardous radiation, radon gas, and silica dust from museum collection specimens. These radioactive specimens are stored in common areas without ventilation throughout the park. Additionally, staff does not have sufficient space to work. Curation and other work is performed at bookshelves or in crowded aisles. The QVC is constructed on top of the Morrison Formation. The Morrison Formation contains layers of bentonite, which is prone to shifting. The shifting of this formation has caused uneven floors and doorways throughout the building. These poor working conditions have caused injuries to staff members.

1.5 IMPACT TOPICS

Impact topics are the resources of concern that could be affected by the range of alternatives. Specific impact topics were developed to ensure that alternatives were compared on the basis of the most relevant topics. The following impact topics were identified on the basis of federal laws, regulations, orders, NPS Management Polices (2001), and NPS knowledge of resources. A brief rationale for the selection of each impact topic is given below.

1.5.1 Visitor Experience

The experience of visitors who travel to see the Dinosaur National Monument museum collection will be enhanced. The proposed URCC will not be a publicly open facility. However, there will be an opportunity for the public to safely and conveniently view a working paleo-laboratory through glass windows. Under current conditions, visitors can view partially excavated fossils in the QVC; however, the fossils available for closer viewing are replicas and represent only a fraction of the full collection. The new facility will allow visitors to view a variety of original collection specimens through a viewing window. Additionally, the proposed location of the URCC is adjacent to the UFHM which houses interactive dinosaur related exhibits such as "Finding Fossils" (Utah 2005). This melding of the URCC and the UFHM will increase the visitor's experience at the facilities.

1.5.2 Socioeconomics

The proposed facility will have an effect on the socioeconomics of the area. The addition of the curatorial facility next to the existing UFHM may increase the number of visitors to the Vernal, Utah area. In addition to the temporary influx of revenue from workers constructing the URCC, a sustained level of tourist activity could encourage the expansion or addition of restaurant and retail businesses. In turn, employment opportunity in the area would be increased. As a result, the economic vitality of the area would benefit from the construction of this facility.

Land Use

The area being proposed for construction is part of a State of Utah and Uintah County master plan to consolidate and provide a focused location for public facilities in Vernal (AJC 2005). To facilitate the development of the park district, Uintah County began purchasing several residential and commercial properties on a block in Main Street. Upon approval of the proposed project, ownership of this parcel will be transferred from the City of Vernal and Uintah County, to the federal government, namely the NPS. Currently, the master planned facilities are the existing UFHM and the proposed URCC. Construction of the URCC will contribute to the growth of this planned park district in Vernal. Figure 3 illustrates the various categories of land use designated by the City of Vernal at and around the proposed URCC location.

Urban Quality

The urban quality of Vernal will be affected. The construction of the curatorial facility will greatly enhance the educational value of the existing UFHM. Additionally, due to the presence of such a valuable museum collection, the Utah State University Extension Campus is pursuing plans to bring an advanced degree course of study in paleontology to Vernal (AJC 2005). The construction of the proposed facility would greatly enhance the educational and cultural quality of the area.

The parcel being proposed for construction of the URCC was purchased by the City of Vernal and Uintah County. Although the parcel is currently vacant, it was previously developed. A Phase I Environmental Site Assessment was conducted in April 2002. It was determined that leaking underground storage tanks were once present on the proposed site but have been removed and properly remediated. There were no other hazardous material concerns identified in the vicinity of the project (Phase 2002).

The construction of the URCC will encourage tourism in Vernal, progress the development of the designated park area, and will positively influence urban quality. Therefore, the socioeconomic climate of Vernal, Utah will be positively impacted by the construction of the URCC.

1.5.3 Park Operations

Park operations at Dinosaur National Monument will be affected. With the construction of the URCC, most of the current paleontological and curatorial daily park operations would be conducted at the new facility. The QVC would remain open to visitors solely as an exhibition center. Curation, storage, and administrative operations will take place at the URCC. The URCC will provide modern laboratories, space for archive storage, properly ventilated storage and work spaces to disperse radon and silica dust released by `some fossils, and offices in which staff can conduct administrative duties.

1.5.4 Museum Collections

The NPS's DO- 28 (1998) and Museum Handbook (2004) require the consideration of impacts on museum collections (historic artifacts, natural history specimens, and archival and manuscript material). Dinosaur National Monument currently houses one of the most important paleontological museum collections in the western United States. The collection includes blocks of dinosaur bones weighing up to 5,700 pounds, microscopic fossil teeth, eggshells, and skeletal material. The paleontological collection at Dinosaur National Monument is the largest, most complete, and most significant dinosaur age collection in the NPS system. The diversity and abundance of specimens, as well as the data they provide, make Dinosaur National Monument a reference site for paleontological studies around the world. In addition to the fossils, the National Monument's paleontological library is also extremely valuable. The fossil collection and library are estimated to be worth several million dollars.

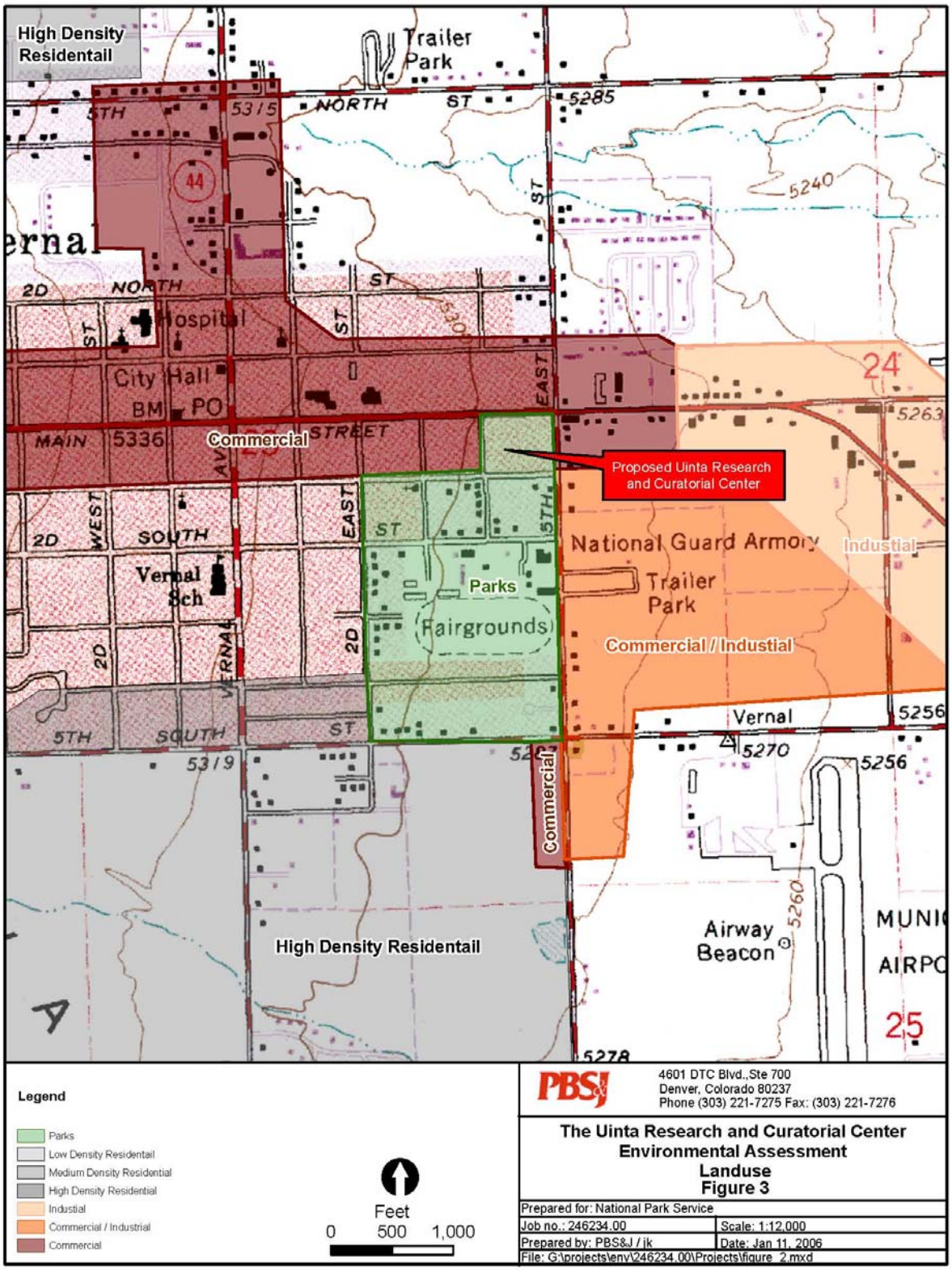
In addition to the impressive collection of dinosaur fossils, a large number of archeological and cultural specimens are also present. Specimens include Indian headdress, pottery, baskets, bark mats, bone tools and beads, samples of C14 dating, arrowheads, and lithic fragments. Specimens from Archaic, Paleo- Indian, and Fremont cultures dating back to 7,000 B.C. are included in the

collection. The collection is unique because it covers three physiographic regions (Great Basin, Rocky Mountains, and the Great Plains), two major rivers, and great variations in elevation.

1.5.5 Historic Structures

The QVC has been in operation since 1958. It was declared a National Historic Landmark in January 2001 and noted to be unique in that it was located directly at the point of interest (NHLP 2005). That point of interest is the rock wall in which thousands of fossils are visible. Expansive soils have caused the entire structure to shift, walls to crack, and floors to become uneven. The shifting has begun to jeopardize the integrity of the national landmark. The use of the URCC for everyday operations would beneficially impact the QVC.

Figure 3: Land Use



1.6 IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS

Impact topics are the resources of concern that could be affected by the range of alternatives. Specific impact topics were developed to ensure that alternatives were compared on the bases of the most relevant topics. Based on federal laws, regulations, orders, NPS Management Polices (2001), and NPS knowledge of resources the following topics were dismissed as impact topics. A brief rationale is given below for dismissing specific topics from further consideration.

1.6.1 Air Quality

Section 118 of the 1963 Clean Air Act (42 U.S.C. 7401 et seq.) requires a national park unit to meet all federal, state, and local air pollution standards. Dinosaur National Monument is a Class II air quality area under the Clean Air Act, as amended. A Class II designation indicates the maximum allowable increase in concentrations of pollutants over baseline concentrations of sulfur dioxide and particulate matter as specified in Section 163 of the Clean Air Act. Further, the Clean Air Act provides that the federal land manager has an affirmative responsibility to protect air quality related values (including visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse pollution impacts.

The Clean Air Act requires the Environmental Protection Agency (EPA) to identify national ambient air quality standards to protect public health and welfare. Standards were set for the following pollutants: ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), inhalable particulate matter less than 10 microns (PM10) and less than 2.5 microns (PM 2.5), and lead (Pb). These pollutants are designated criteria pollutants because the standards satisfy criteria specified in the act. An area where a standard is exceeded more than three times in three years can be considered a non- attainment area.

In 1993, the EPA adopted regulations implementing section 176 of the Clean Air Act as amended. Section 176 requires that federal actions conform to state implementation plans for achieving and maintaining the national standards. Federal actions must not cause or contribute to new violations of any standards, increase the frequency or severity of any existing violation, interfere with timely attainment or maintenance of any standard, delay emission reduction milestones or contradict state implementation plan requirements. Federal actions that are subject to the general conformity regulations are required to mitigate or fully offset the emissions caused by the action, including both direct and indirect emissions that the federal agency has some control over.

Construction activities, including operations and the hauling of material, could result in temporarily increased vehicle exhaust and emissions, as well as inhalable particulate matter. Construction dust associated with exposed soils would be controlled, if necessary, with the application of water or other approved dust palliatives. Also, dust creating activities would be suspended when winds are too great to prevent visible dust clouds from affecting sensitive receptors (houses, schools, hospitals). In addition, any hydrocarbons, NO2, SO2 emissions, as well as airborn particulates created by fugitive dust plumes, would be rapidly dissipated because the prevailing winds allow for good air circulation. Overall, there could be a local, short- term, negligible degradation of local air quality during construction activities; however, no measurable effects outside of the immediate construction site would be anticipated. Any construction-

related, adverse effects to air quality would be temporary, lasting only as long as construction. Therefore, air quality was dismissed as an impact topic.

1.6.2 Soundscape Management

In accordance with NPS Management Policies (2001) and DO- 47 (2000), Sound Preservation and Noise Management, an important part of the NPS mission is preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human- caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequencies, magnitudes, and durations of human- caused sound considered acceptable varies among NPS units, as well as potentially throughout each park unit, being generally greater in developed areas and less in undeveloped areas.

The project area in Vernal, Utah is an urbanized setting, where the protection of a natural ambient soundscape and/or the opportunity for visitors to experience natural sound environments is not an objective of the park. Visitors would not come to the proposed URCC to seek the quiet, intermittent sounds of nature. Any construction associated with implementation of the alternatives, e.g. the hauling of material or the operation of construction equipment, could result in dissonant sounds. Such sounds would be temporary and protection of the natural sound environment is not a consideration for construction of the facility; therefore, soundscape management was dismissed as an impact topic.

1.6.3 Lightscape Management

In accordance with NPS Management Policies (2001), the NPS strives to preserve natural ambient landscapes, which are natural resources and values that exist in the absence of human caused light.

Due to the urbanized setting of the proposed URCC, the preservation of natural ambient landscapes would not be a project objective. The park would strive, however, to limit the use of artificial outdoor lighting to that which is necessary for basic safety requirements. An effort is made to ensure that all outdoor lighting is shielded to the maximum extent possible in order to keep light on the intended subject and out of the night sky. These efforts are made as to minimally contribute to surrounding light sources of Vernal. Thus, lightscape management was dismissed as an impact topic.

1.6.4 Visual Resources

The proposed location of the URCC is a vacant lot situated next to an existing museum within urbanized Vernal, Utah. Typical of this type of setting, the only vegetation present in the vicinity of the proposed site is landscaping, wildflowers, and weed species. The addition of the facility

will coexist with the urban setting. The visual resources for visitors to the URCC will not be altered; therefore, this topic has been dismissed as an impact topic.

1.6.5 Geological Resources

According to NPS Management Policies (2001), the NPS will (1) assess the impacts of natural process and human- related events on geological resources; (2) maintain and restore the integrity of existing geological resources; (3) integrate geological resource management into Service operations and planning; and (4) interpret geological resources for park visitors. Examples of important geological resources in parks include rocks and minerals, geysers and hot springs in geothermal systems, cave and karst systems, canyons and arches in erosional landscapes, sand dunes, moraines, terraces in depositional landscapes, and dramatic or unusual rock outcrops and formations.

No geological resources are present at the proposed site (Utah Geological Survey 2005). Therefore, geological resources were dismissed as an impact topic.

1.6.6 Water Resources

NPS Management Policies (2001) requires protection of water quality consistent with the Clean Water Act. Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting process, discharge of dredged or fill material in waters of the U.S.

The proposed site of the URCC is in the urban core of Vernal, Utah. There are no natural, artificial, permanent, or intermittent water courses near the site, and groundwater does not occur near the surface of the proposed URCC site.

The URCC's domestic water needs would be provided by the city of Vernal, which is expected to meet the present and predictable water needs of the facility for any potable and fire suppression water needs. Wherever possible, water conservation features would be used throughout the facility to reduce consumption.

Wastewater treatment services for the URCC would be provided by the city of Vernal, which has sufficient capacity to handle the facility's flows. Precipitation that falls on the building and other impervious structures, which could contain pollutants such as hydrocarbons and heavy metals from vehicles, would be diverted to existing sewer systems. All chemicals used in the facility would be properly stored or disposed of so as not to pose a threat to water quality.

Because proposed construction would have no effect upon water resources this topic was dismissed as an impact topic.

1.6.7 Vegetation and Wildlife

NEPA (42 USC 4321 et seq.) mandates an examination of the impacts on all components of affected ecosystems. According to the NPS Management Policies, the NPS strives to maintain all

components and processes of naturally evolving park unit ecosystems, including the natural abundance, diversity, and ecological integrity of plants and animals.

The proposed site of the URCC is in the urban core of Vernal, Utah and is not a natural ecosystem. There are no natural, artificial, permanent, or intermittent water courses at the site. Additionally, there are no wetlands near proposed URCC boundaries.

The surface of the site is either covered with impermeable material (concrete and/or asphalt) or comprised of hardened, bare soil. Vegetation at the site is entirely composed of wildflowers seeded to control dust and enhance the aesthetics of the vacant lot. Minimal landscaped vegetation is found near the site.

Decades of commercial use/urbanization have destroyed any natural habitat available to wildlife near the site. The absence of natural habitat and surface water preclude the presence of any land mammals except those common to urban habitats throughout the area, e.g. rodents, ground squirrels, and rabbits. Construction of the URCC would not affect transient birds.

Due to the urban/commercial character of the site and its adjacent environs as well as the lack of suitable habitat, vegetation and wildlife was dismissed as an impact topic.

1.6.8 Soils

According to NPS Management Policies (2001), the NPS actively seeks to understand and preserve the soil resources of parks. The NPS also strives to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or its contamination on other resources.

The soils of the proposed site are classified by the Natural Resources Conservation Service (NRCS) as Boreham loam, which is found primarily on 0 to 2 percent slopes (NRCS 1999). The Boreham series consists of very deep, well drained, moderately permeable soils that formed in loamy alluvium over loamy- skeletal alluvium derived from sedimentary and metamorphic rocks. Boreham loam has a low runoff potential.

This site is located in an urban setting. Urban land is non- agricultural land comprised of soil material that was disturbed and manipulated by human activities in an urban environment. Urban soils are extensively disturbed, displaced, and compacted, which creates a soil material unlike its natural counterpart. This can be caused by several methods, such as the mixing of soil material when soil is scraped sway, stockpiled and respread; the dumping and spreading of soil material from diverse sources over existing surfaces; or contamination resulting from deposition, mixing, and filling of materials in the soil not found, or at concentrations greater than those found, in natural soils. Disturbance and manipulation results in physical, chemical, and biological properties of soils less favorable as a rooting medium when compared to soils in a natural landscape.

The disturbance of soil at and adjacent to the site due to construction has permanently altered the topography of the land and natural soil regimes. For decades the lands surrounding the proposed site have either been developed, covered with impermeable surfaces (asphalt and concrete), or landscaped.

Because soils at the proposed site have been extensively disturbed by construction, any short or long- term adverse impacts to soils associated with excavation, grading, and resurfacing with concrete or asphalt would be negligible. Existing topography and elevations would not be altered during construction, and the potential for soil erosion would be minimal because much of the

surrounding area is developed or covered with impermeable surfaces. Appropriate soil erosion control measures would be implemented for any excavated or exposed soils. Therefore, soil was dismissed as an impact topic.

1.6.9 Floodplains

Executive Order (EO) 11988, Floodplain Management (1977), requires all federal agencies to avoid construction within the 100- year floodplain unless no other practicable alternative exists. Certain construction within a 100- year floodplain requires preparation of a statement of findings.

There are no natural, artificial, permanent, or intermittent water courses near the site. The site is outside the 500- year floodplain (FIRM 1986). Therefore, floodplains were dismissed as an impact topic.

1.6.10 Wetlands

EO- 11990 (1977), Protection of Wetlands, requires federal agencies to avoid, where possible, adversely impacting wetlands. The goal of NPS wetlands management is to strive to achieve a no net loss of wetlands as defined by both acreage and function. Proposed actions that have the potential to adversely impact wetlands must be addressed in a statement of findings.

There are no wetlands at or near the site of the proposed URCC. There would be no impacts to wetlands and a statement of findings for wetlands will not be prepared. Therefore, wetlands were dismissed as an impact topic.

1.6.11 Threatened, Endangered, and Candidate Species and Species of Special Concern

The Endangered Species Act (ESA 1973) requires an examination of impacts on all federally-listed threatened or endangered species. NPS policy also requires examination of the impacts on all federal candidate species, as well as state- listed threatened, endangered, rare, declining, and sensitive species that are known collectively as species of concern.

There are no known threatened, endangered, and candidate species or species of special concern in the vicinity of the proposed URCC. The site is a vacant lot, and there are no natural, artificial, permanent, or intermittent water courses at or near the site. There is no suitable habitat for wildlife at or near the site. Because implementation of the Preferred Alternative would have no effect on threatened or endangered species, candidate species, and species of special concern, the topic was dismissed as an impact topic.

1.6.12 Cultural Resources

1.6.12.1 Archeological Resources, Prehistoric/Historic Structures, and Cultural Landscapes

The NHPA, NEPA, NPS DO- 28 (1998), Management Policies (2001), and DO- 12 (2001) require the consideration of impacts on cultural resources listed on or eligible for listing on the National Register of Historic Places. The undertakings described in this EA are subject to Section 106 of the NHPA, and the document will be submitted to the Utah SHPO for review and comment.

Archeological Resources

There are no known National Register listed or eligible archeological resources at the proposed site of the URCC and it is unlikely that any would be discovered. The site has been extensively disturbed by decades of commercial/urban use. If during construction significant archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed, if necessary, in consultation with the Utah SHPO. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 would be followed. Due to the unlikelihood of presence of these resources occurring in the project area, archeological resources were dismissed as an impact topic.

Prehistoric/Historic Structures

There are no structures at the proposed site of the URCC. The vacant parcel is not part of a historic district. Therefore, prehistoric/historic structures impacts at the proposed construction site were dismissed as an impact topic.

Cultural Landscapes

According to the NPS's DO- 28 (1998), a cultural landscape is:

> ...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use in reflecting cultural values and traditions.

The proposed site of the URCC is a vacant lot, and the land is not part of a historic district. The topography, vegetation, circulation features, spatial organization, or land use patterns of the site's adjacent landscape are common urban elements and not significant. Therefore, cultural landscapes were dismissed as an impact topic.

1.6.12.2 Ethnographic Resources

Ethnographic resources are defined by the NPS as any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (DO- 28 1998). There are no known ethnographic resources at or near the proposed site of the URCC. Because it is very unlikely that ethnographic resources would be affected, and because appropriate steps

would be taken to protect any human remains, funerary objects, sacred objects, or objects of cultural patrimony inadvertently discovered, Native American tribes were not solicited for comment and ethnographic resources was dismissed as an impact topic. If subsequent issues or concerns are identified, appropriate consultations would be undertaken.

1.6.13 Paleontological Resources

Paleontological resources are the remains of ancient plants and animals, both organic and mineralized remains in body or trace form, that provide information about earth's ancient environment. According to the NPS's Management Policies (2001), paleontological resources will be protected, preserved, and managed for public education, interpretation, and scientific research.

There are no known paleontological resources at the project site, which is a previously disturbed urban location. Therefore, paleontological resources were dismissed as an impact topic.

1.6.14 Environmental Justice

EO- 12898 (1994), Federal Actions to Address Environmental Justice in Minority Populations and Low- Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low- income populations and communities. According to the EPA, environmental justice is the:

> …fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

The goal of 'fair treatment' is not to shift risks among populations, but to identify potentially disproportionately high and adverse effects and identify alternatives that may mitigate these impacts.

Vernal, Utah contains both a minority and low- income population; however, environmental justice is dismissed as an impact topic for the following reasons:

- Implementation of the proposed alternative would not result in any identifiable adverse human health effects. Therefore, there would be no direct or indirect adverse effects on any minority or low- income population.
- The impacts associated with implementation of the Preferred Alternative would not be specific to any minority or low- income population or community.
- Implementation of the Preferred Alternative would not result in any identified affects that would be specific to any minority or low- income community.

- Any impacts to the socioeconomic environment resulting from implementation of the Preferred Alternative are negligible to minor adverse or beneficial. These impacts would not occur all at one time, but would be spread over a number of years. In addition, the Park staff and planning team do not anticipate the impacts on the socioeconomic environment to appreciably alter the physical and social structure of the nearby communities.

1.6.15 Energy Requirements and Conservation Potential

The CEQ guidelines for implementing the NEPA require examination of energy requirements and conservation potential as a possible impact topic in environmental impact statements.

Dinosaur National Monument strives to incorporate the principles of sustainable design and development into all facilities and park operations. Sustainability can be described as the result achieved by operating in ways that do not compromise the environment or its capacity to provide for present and future generations. Sustainable practices minimize the short- term and long- term environmental impacts of developments and other activities through resource conservation, recycling, waste minimization, and the use of energy efficient and ecologically responsible materials and techniques.

The NPS's Guiding Principles of Sustainable Design (1993) provide a basis for achieving sustainability in facility planning and design, emphasizes the importance of bio- diversity, and encourages responsible decisions. The guidebook describes principles to be used in the design and management of visitor facilities that emphasize environmental sensitivity in construction, use of nontoxic materials, resource conservation, recycling, and integration of visitors with natural and cultural settings. The URCC would reduce energy costs, eliminate waste, and conserve energy resources by using energy efficient and cost effective technology wherever possible. Energy efficiency would also be incorporated into any decision- making process during the design or acquisition of facilities, as well as all decisions affecting park operations. The use of value analysis and value engineering, including life cycle cost analysis, would be performed to examine energy, environmental, and economic implications of proposed development. The park would encourage suppliers, permittees, and contractors to follow sustainable practices and address sustainable park and non- park practices in interpretive programs. Consequently, any adverse impacts relating to energy use, availability, or conservation would be negligible. In addition, the proposed facility is designed to meet silver Leadership in Energy and Environmental Design (LEED) requirements.

Therefore, energy requirements and conservation potential is an impact topic dismissed from further consideration.

1.6.16 Prime and Unique Farmland

In August 1980, the CEQ directed that federal agencies assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's NRCS as prime or unique. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. Unique

farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops (e.g. citrus, tree nuts, olives, cranberries, fruit, and vegetables).

Boreham loam is classified as a prime farmland, if it is irrigated. However, the proposed location of the URCC is a vacant lot in an urban setting. The soil is not used for agricultural purposes and is highly disturbed. Therefore, prime and unique farmlands were dismissed as an impact topic.

1.6.17 Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to Native American and Alaska Native tribes.

There are no Indian trust resources in Dinosaur National Monument or in the vicinity of the proposed site of the URCC. The lands comprising the monument are not held in trust by the Secretary of the Interior for the benefit of Native Americans. Therefore, Indian trust resources were dismissed as an impact topic.

2.0 ALTERNATIVES

2.1 INTRODUCTION

This chapter describes the alternatives that were considered and analyzed in this EA. These alternatives assist in evaluating and comparing the environmental effects of all reasonable and prudent alternatives, including the No- Action Alternative. The alternatives meet the objectives of the proposed action while minimizing or avoiding adverse environmental impacts to the greatest extent possible. The Preferred Alternative and the No- Action Alternative were evaluated during the screening process. Table 1 summarizes the characteristics of these alternatives.

2.2 ALTERNATIVE A (No Action)

The No- Action Alternative proposes to continue the present storage regimen and continued use of available work spaces. Selection of the No- Action Alternative implies that procedures for processing and storing the museum collection will continue according to current protocol. The staff would continue working and conducting administrative duties in the currently available spaces.

If the No- Action Alternative is selected, museum collections would continue to be stored at 12 different facilities throughout the National Monument. Additional storage within the National Monument would be identified as specimens are added to the museum collection. Proper maintenance, curation, and storage of specimens will continue to be deferred until funds become available for additional preparation and storage space.

2.3 ALTERNATIVE B (Preferred Alternative)

The NPS would construct a new 20,300- gross square feet (sq.ft.) research and curatorial facility and paleontological laboratory in Vernal, Utah for Dinosaur National Monument and its partner, the UFHM. This new facility would consolidate the park's museum collection in one location, and would provide adequate space for the maintenance and curation of specimens, proper environmental controls for the preservation and protection of the collection, and a safe employee work environment. Alternative B would meet the curatorial objectives of the Dinosaur National Monument GMP.

The two story facility will be constructed at the lot adjacent to the UFHM. The lot, which is currently vacant, has been seeded with wildflowers and currently is approximately half vegetated and half bare soil. The lot is a previously developed site within an urbanized area; therefore, existing utility lines should be available. Three permanent NPS employees will be present at the URCC on a daily basis. In addition, up to 12 temporary or visiting NPS employees and 15 volunteer and Intermountain Natural History Association employees may be present at the URCC. Because the URCC will not be a publicly open facility, a maximum of 27 people may be

present at the URCC on an average workday. The existing sewer lines will be sufficient to accommodate this additional demand. The City of Vernal, being an urban community, will have capacity for the additional electricity requirements of the URCC. Additionally, energy efficient equipment and natural light have been incorporated into the URCC design in order to minimize electricity demands.

Plans for the proposed URCC include a looping drive, which provides access to a loading dock and employee parking lot. The loading dock, and all activities that take place there, will be shielded from public view. The employee parking lot will be connected to an employee entrance via a paved walkway at the southwest corner of the proposed structure. The proposed employee parking lot will accommodate the URCC employees. Since the URCC will not be a publicly open facility, the existing UFHM visitor parking lot will be sufficient for any additional visitors the URCC may generate.

The proposed research and curatorial facility would be constructed on land donated from the City of Vernal and Unitah County to the NPS. The new facility would be co- located as an addition to the recently opened UFHM on Main Street (State Highway 40). The facility would serve as the collection center for the park and partners' fossil, archeological, natural resources operations and collections, and park archives and would provide work space for park staff, visiting scholars, interns, and volunteers. The public would also have an opportunity to view more of the museum collections, particularly the paleontology collections. The project would include site preparation, installation of all utilities to the foundation, access, and parking. The building interior would be finished with utilities, climate control, security, and fire prevention systems, all of which would meet NPS Museum Standards. In addition to these amenities, the facility would include:

- A paleontological research room,
- A radon/radiation specimen storage room,
- An unprepared specimen storage room,
- Numerous offices,
- Workrooms,
- A contaminated objects isolation room,
- Archive rooms,
- Art storage room,
- A visitor tour/observation corridor,
- A Heating Ventilation Air- Conditioning (HVAC) system,
- A dust/fume evacuation system for the paleontological laboratory, and
- Space for basic administrative and maintenance supplies.

The proposed URCC will be connected to the existing UFHM and will share amenities such as:

- A new modernized paleontological laboratory,
- A paleontological and geological collections repository,
- Archive repository,
- A non- paleontological repository,
- A herbarium repository,

- A reception area,
- Conference rooms,
- Classroom, and
- A staff break room.

The primary partner of the NPS in this endeavor is the State of Utah. Other minor partners include the Bureau of Land Management (BLM), U.S. Forest Service (USFS), Intermountain Natural History Association, and the Utah State University Extension Campus.

Table 1: Summary of Alternative Characteristics

Factor	Alternative A (No- Action)	Alternative B (Preferred Alternative)
Visitor Experience	There will be no processed fossils available for viewing.	Offers smooth transition from the existing UFHM to the URCC, maximizing the visitor's experience. Visitors can participate in interactive dinosaur related exhibits. Visitors can view paleontologists working in a laboratory setting and view curated fossils.
Operations Efficiency for Museum Collection	Museum collections will continue to be improperly stored and catalogued. Only 50.4 percent of NPS Museum Standards will be met.	Offers proper repositories with appropriate environmental controls. Between 95 to 98 percent of museum standards will be met.
Operations Efficiency for Employees	Employees will continue to use the old paleo- lab for administrative work. Curation will continue to be done on bookshelves and in aisles between storage shelves.	Herb and non- paleo rooms are close to the research room. The paleo-library has an efficient design and the employee break room has good natural lighting. Administrative and visiting staff will have private offices.
Employee Health, Safety, and Welfare	Employees will continue to be exposed daily to radioactivity and radon gas. Possibility exists for additional worker's compensation claims due to adverse working environment.	Proposed URCC will be equipped with climate control and ventilation systems for radon control. New laboratories will provide sufficient work space.
Total Cost (2005)	No cost would be incurred by the NPS.	$6,389,244.00.
Environmental Considerations	Additional space at Dinosaur National Monument would be required to accommodate the growing collection. The integrity of the museum collection will continue to be jeopardized.	No natural, cultural, or archeological resources would be disturbed. Design qualifies for silver LEED certification (US Green 2005). Design includes use of ground source heat pumps for heating and cooling.

2.4 ALTERNATIVES CONSIDERED BUT REJECTED

2.4.1 Closure

Due to the existing conditions, the NPS has considered closing the QVC. In the event that the QVC were closed the museum collection would be transferred to an off- site curatorial/storage facility. Because no facility exists that can accommodate the entire collection, it would have to be separated and shipped to various faculties for curation and storage. Specimens would be processed and stored according to NPS standards at another facility; however, separating the specimens would also be problematic for scientists who wish to use the collection for research purposes.

2.4.2 Retrofitting

The NPS considered retrofitting the existing laboratory in the QVC. In addition to the large expenses this would incur, the QVC is a registered National Historic Landmark. The QVC is valued as an example of the use of modern architecture in the post World War II period. Although the existing structure was designed to function as a curatorial and storage facility, the collection has exceeded its original capacity. Alterations to this structure would jeopardize the historical integrity of this landmark.

2.4.3 Relocation

The NPS has considered moving the fossil collection to other facilities. In the event that the QVC were closed the museum collection would be transferred to an off- site curatorial/storage facility. Part of the collection is embedded in the rock outcrop and cannot be moved. Separating the collection and moving a portion of it to another institution would destroy the scientific integrity of the Douglas Quarry, which the park was established to protect. Relocating the collection would also be inconvenient for park staff that uses the specimens daily for study. Separating the specimens would also be problematic for scientists who wish to use the collection for research purposes. There are no adequate storage facilities anywhere else in the region.

2.5 MITIGATION MEASURES

The following mitigation measures are provided for in the Preferred Alternative:

A 150 sq.ft. radon/radiation specimen storage facility is included in the URCC design. This facility will store specimens that emit high levels of radon and other radiation on open rack shelving in vented cabinets. The mechanical system in the room would be isolated from the main HVAC system as to not contaminate the ventilation system of the rest of the building. Additionally, security and entrance procedures for the facility will be designed to prevent accidental radiation and radon exposure.

In the event that archeological resources are discovered during construction, all work would cease until the resources are properly recorded by a qualified archeologist. If any resources are determined to be potentially eligible for the National Register of Historic Places, further consultation with the Utah Division of State History/Utah State Historical Society will be conducted to determine if either avoidance or mitigation is necessary.

In the unlikely event that any human remains or funerary and sacred objects are unearthed during construction, the NPS, in compliance with the Native American Graves Protection and Repatriation Act (1990), would consult the appropriate tribal representatives in order to determine proper treatment.

Prior to construction, the NPS will prepare an erosion and sediment control plan in compliance with Utah Administrative Code R317- 8- 3.9. During the construction period, excavated soil will be stockpiled in compliance with the erosion and sediment control plan. The NPS will oversee onsite contractors, conduct regular site inspections, and take prompt action against non-compliance, if necessary.

2.6 ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with DO- 12 (2001), Alternative B has been identified as the environmentally Preferred Alternative. This alternative was selected according to the criteria suggested by NEPA, which is guided by the CEQ. The CEQ provides direction that the environmentally preferable alternative will promote the national environmental policy as expressed in Section 101 of NEPA, which considers:

- Fulfilling the responsibilities of each generation as a trustee of the environment for succeeding generations;
- Assuring for all generations a safe, healthful, productive, aesthetically, and culturally pleasing surroundings;
- Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserving important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity, and variety of individual choice;

- Achieving a balance between the human population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources.

Due to efficient energy design, Alternative B (the Preferred Alternative) is the environmentally Preferred Alternative. Alternative B will incorporate the use of ground source heat pumps for heating and cooling which results in a significant savings in life cycle energy costs. Tubular skylights will be used to light corridors and workrooms, extra insulation and lighting controls will used to monitor and control interior lighting, and solar power will be used to heat water; therefore decreasing the need for outside energy resources.

3.0 AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

Dinosaur National Monument comprises more than 210,000 acres along the northern Colorado-Utah border. In addition to recreational activities such as hiking and rafting, the National Monument contains a working fossil quarry. Visitors to Dinosaur National Monument can tour the QVC and view a rock wall with over 1,500 fossils in place. This National Monument is home to one of the most important dinosaur fossil collections in the western United States.

The URCC is proposed for construction next to the UFHM in Vernal, Utah. Vernal is located in northeast Utah, 35 miles south of Flaming Gorge, 20 miles west of Dinosaur National Monument, and southeast of the Uintah Mountains on US Highway 191. The city sits at an elevation of 5,322 feet with a population of approximately 8,000 residents.

The following sections will discuss the affected environment and environmental consequences associated with the construction of the proposed facility. Consistent with NEPA, the analysis also considers the context, intensity, and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate impacts. NPS policy also requires that "impairment" of resources be evaluated in all environmental documents associated with resource analysis.

3.2 METHODOLOGY FOR ASSESSING IMPACTS

Potential impacts are described in terms of type (are the effects beneficial or adverse), context (are the effects site- specific, local, or even regional), duration (are the effects short- term, lasting less than one year, or long- term, lasting more than one year), and intensity (are the effects negligible, minor, moderate, or major). Because definitions of intensity vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this EA.

In addition, NPS' Management Policies (2001) require analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the NPS, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts to park resources and values. However, the laws do give the NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values. An impact to any park resource or value may constitute an impairment, but would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park; or
- Identified as a goal in the park's GMP or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. A determination on impairment is made in the Environmental Consequences section for historic structures and museum collections. Impairment determinations are unnecessary for visitor use and experience, park operations and socioeconomic resources. According to the Organic Act, visitor use and experience, park operations, and socioeconomic resources cannot be impaired in the same way park resources and values can. The NPS keeps the resources and values of park units unimpaired so that visitors may experience and enjoy those resources and values.

Cumulative Impacts

The CEQ regulations, which implement the NEPA of 1969 (42 USC 4321 et seq.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for both the No-Action and Preferred Alternative.

Cumulative impacts were determined by combining the impacts of the Preferred Alternative with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at the proposed URCC site and, if applicable, the surrounding region.

Reasonably foreseeable developments being considered for the cumulative impact analysis in this study include the future development of the parks district in Vernal, Utah, including the proposed Uintah County Western Heritage Museum. Additionally, ongoing oil and gas development in the Vernal region is contributing to potential cumulative impacts in the study area.

3.3 RESOURCE IMPACTS

3.3.1 Museum Collection

Affected Environment

Dinosaur National Monument currently houses one of the most important museum collections in the western United States. The museum collection at Dinosaur National Monument is the largest, most complete, and most significant dinosaur age collection in the NPS system. The diversity and abundance of specimens, as well as the data they provide, make Dinosaur National Monument a reference site for paleontological studies around the world. In addition to the impressive collection of dinosaur fossils, a large number of unique archeological and cultural

specimens are also present representing three physiographic regions (the Great Basin, Rocky Mountains, and the Great Plains), two major rivers, and great variations in elevation. Also included in the collection is the National Monument's paleontological library. The fossil collection and library are estimated to be worth several million dollars.

Environmental Consequences

Definitions of Impact Intensity Levels:

> ***Negligible:*** Impact is at the lowest level of detection — barely measurable with any perceptible consequences, either adverse or beneficial, to museum collections.
>
> ***Minor:*** Impacts would affect the integrity of few items in the museum collection but would not degrade the usefulness of the collection for future research and interpretation.
>
> ***Moderate:*** Impacts would affect the integrity of many items in the museum collection and diminish the usefulness of the collection for future research and interpretation.
>
> ***Major:*** Impacts would affect the integrity of most items in the museum collection and destroy the usefulness of the collection for future research and interpretation.

Alternative A

Direct and Indirect Impacts

Implementation of Alternative A (No-Action Alternative) states that specimens would continue to be stored at the QVC and various other facilities throughout the National Monument. Currently, specimens are stored in overcrowded and unsecured conditions. Some of the facilities in which museum collections are kept are incapable of being sealed from weather, and the shifting foundation allows insects, rodents, bats, birds, and dust to enter, subjecting the valuable specimens to damage. Additionally, the lack of equipment and space is preventing the specimens from being properly curated and maintained.

The data and research material associated with the museum collections is also being compromised. The library and archives are not properly protected from the elements and in some cases are deteriorating. The general lack of space and organization has limited the accessibility and management of the collection. Under current conditions only 50.4 percent of NPS Museum Standards are being met.

Conclusion

The current storage regimen at Dinosaur National Monument is compromising one of the most valuable museum collections in the NPS. The collection is being exposed to weather, potential loss or theft, and general damage due to improper storage. Selection of the No-Action Alternative would result in a long-term direct moderate impact on the Dinosaur National Monument museum collection.

Alternative B

Direct and Indirect Impacts

Alternative B states that a 20,300 gross sq.ft. facility would be constructed. This facility would include curation space, storage space, as well as library and research space. The Preferred Alternative provides for a large paleo-laboratory as well as a cultural specimen processing area adjacent to the loading zone where specimens are received. After museum collections are properly processed they can be stored in a modern facility. Storage of over 400,000 specimens would be maximized through the use of a high-density mobile storage system in dedicated paleontological and non-paleo collection repositories. A dedicated paleo-research and paleo-

library room would also be provided. Approximately 95 to 98 percent of NPS Museum Standards would be met in the proposed URCC.

Cumulative Impacts

No cumulative impacts to the museum collection will result from this action in conjunction with other past and present actions.

Conclusion

The museum collection at Dinosaur National Monument is valuable scientifically, educationally, and financially. The collection requires proper curation, cataloguing, and storage so that it can be preserved and utilized to its fullest extent. Selection of Alternative B would result in a positive long- term direct moderate impact on the NPS' museum collection.

3.3.2 Historic Structures

In accordance with the Advisory Council on Historic Preservation's regulations implementing Section 106 of the NHPA (36 CFR Part 800, Protection of Historic Properties), impacts to archeological resources, cultural landscapes, and historic structures were identified and evaluated by 1) determining the area of potential effects; 2) identifying cultural resources present in the area of potential effects that were either listed in or eligible to be listed in the National Register of Historic Places; 3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the National Register; and 4) considering ways to avoid, minimize, or mitigate adverse effects.

Under the Advisory Council's regulations, the determination of either adverse effect or no adverse effect must also be made for affected National Register eligible cultural resources. An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the National Register, e.g. diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonable foreseeable effects caused by the Preferred Alternative that would occur later in time, be farther removed in distance, or be cumulative (6 CFR 800.5, Assessment of Adverse Effects). A determination of no adverse effect means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the National Register.

CEQ regulations and NPS DO- 12 (2001) also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest that the level of effect as defined by Section 106 is similarly reduced. Although adverse effects under Section 106 may be mitigated, the effect remains adverse.

A Section 106 summary is included in the impact analysis section for historic structures. The Section 106 summary is an assessment of the effect of the undertaking (implementation of the alternative) on National Register eligible or listed cultural resources only, based upon the criterion of effect and criteria of adverse effect found in the Advisory Council's regulations.

Affected Environment

A collection of over 400,000 specimens is currently housed at Dinosaur National Monument, many of which are kept specifically at the QVC. The QVC was designated a registered National Historic Landmark in January 2001. The NPS' statement of significance (NPS 2005) states that:

"The Quarry Visitor Center at Dinosaur National Monument is one of the four most significant structures constructed by the NPS as part of its Mission 66 program. Seated on top of a bed of fossilized remains, this building illustrates the concept of locating the newly developed 'visitor centers' directly at the cultural or natural resource. The building also shows the NPS's use of modern architecture in the post World War II period."

Upon approval and completion of the proposed URCC, the QVC would continue to accommodate visitors. The QVC would be open for National Monument visitors to observe the 1,500 dinosaur fossils imbedded in the stone wall and for NPS employees for interpretation offices. However, the building would no longer be used as a storage facility, office, or work space for NPS employees.

Environmental Consequences

Definitions of Impact Intensity Levels

> ***Negligible***: Impact is at the lowest level of detection with neither adverse nor beneficial consequences. The determination of effect for Section 106 of the NHPA would be *no adverse effect*.
>
> ***Minor***: Alteration of a feature(s) would not diminish the overall integrity of the resource. The determination of effect for Section 106 of the NHPA would be *no adverse effect*.
>
> ***Moderate***: Alteration of a feature(s) would diminish the overall integrity of the resource. The determination of effect for Section 106 of the NHPA would be *adverse effect*. A memorandum of agreement (MOA) is executed between the NPS and applicable state or tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). Measures identified in the MOA to minimize or mitigate adverse impacts reduce the intensity of impact under NEPA from major to moderate.
>
> ***Major***: Alteration of a feature(s) would diminish the overall integrity of the resource. The determination of effect for Section 106 of the NHPA would be *adverse effect*. Measures to minimize or mitigate adverse impacts cannot be agreed upon and the NPS and applicable state or tribal historic preservation officer and/or Advisory Council are unable to negotiate and execute a MOA in accordance with 36 CFR 800.6(b).

Alternative A

Direct and Indirect Impacts

Alternative A (No- Action Alternative) provides for the continued storage of the museum collection at the QVC and various other facilities throughout the National Monument. The QVC is currently not in good condition and inherent structural problems present continuous problems. The bentonite formation on which the structure is built is constantly shifting. The floors, door frames, and ceilings of the structure have tilted so that cracks are now visible in wall surfaces. While these problems are structural in nature, constant everyday use would contribute to the damage. These structural issues are not only an aesthetic problem but contribute to employee injuries.

Conclusion

The continued use of the QVC as a storage facility, office, and work space would have detrimental effects on both the structure itself as well as employee well- being. Selection of the No- Action Alternative would have long- term direct moderate impacts on the QVC as a National Historic Landmark.

Section 106 Summary

After applying the Advisory Council on Historic Preservation criteria of adverse effects (36 CFR Part 800.5, Assessment of Adverse Effects), the NPS concludes that implementation of the No-Action Alternative would have an adverse effect on the historic structure.

Alternative B

Direct and Indirect Impacts

The selection of Alternative B would allow for the construction of the URCC to house collections currently at Dinosaur National Monument. The QVC would no longer be used by paleontological and curation staff for everyday operations. Limiting the QVC to use as a visitor center may slightly decrease the wear on the structure.

Cumulative Impacts

No cumulative impacts to historic structures will result from this action in conjunction with other past and present actions.

Conclusion

The URCC would be constructed in Vernal, Utah on a vacant lot. There would be no effect to any historic structures at the proposed site due to the selection of the Preferred Alternative. There would be long- term direct negligible beneficial impacts to the QVC.

Section 106 Summary

After applying the Advisory Council on Historic Preservation criteria of adverse effects (36 CFR Part 800.5, Assessment of Adverse Effects), the NPS concludes that implementation of the Preferred Alternative would have no adverse effect on the historic structures.

3.3.3 VISITOR EXPERIENCE/RECREATION

Affected Environment

Approximately 450,000 visitors annually visit the QVC. At the QVC these visitors can observe a unique rock wall in which 1,500 fossils are partially exposed. Dinosaur National Monument is currently home to the largest, most complete, and most significant dinosaur collection in the NPS system. The collection includes dinosaur bones ranging from 600 pound specimens to microscopic teeth, herbarium specimens, mammalian and avian skins, eggshells, preserved algae, Indian headdresses, pottery, bone tools, beads and much more. Visitors can observe paleontologists preparing these specimens inside the laboratory though a glass partition. Although the fossils are then stored throughout the park at various facilities, fossil replicas are available for visitors to view.

Environmental Consequences

Definitions of Impact Intensity Levels

Negligible: Visitors would likely be unaware of any effects associated with implementation of the alternative. There would be no noticeable change in visitor use and experience or in any defined indicators of visitor satisfaction or behavior.

Minor: Changes in visitor use and/or experience would be slight but detectable, but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.

Moderate: Few critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be altered. The visitor would be aware of the effects associated with implementation of the alternative and would likely be able to express an opinion about the changes. Visitor satisfaction would begin to either decline or increase as a direct result of the effect.

Major: Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. The visitor would be aware of the effects associated with implementation of the alternative and would likely express a strong opinion about the change. Visitor satisfaction would markedly decline or increase.

Alternative A

Direct and Indirect Impacts

The QVC is the main attraction at Dinosaur National Monument. The unique rock wall where visitors can observe embedded fossils would continue to attract a large number of visitors. Visitors can also observe replicas of fully excavated fossils. Continued use of the QVC as a curatorial facility would have little to no impact on the visitors' experience.

Conclusion

If the No- Action Alternative is chosen there would be a long- term direct negligible impact to the visitors' experience.

Alternative B

If the Preferred Alternative was implemented, visitors would be able to view the extensive collection of paleontological, biological, anthropological, and cultural specimens. Visitors would also be able to view paleontologists preparing specimens in a laboratory setting. Additionally, visitors would have access to the UFHM where they can experience all of the exhibits and displays offered by Utah State Parks.

Cumulative Impact

The proposed URCC would be constructed adjacent to the recently opened UFHM. The UFHM is a 22,000- sq ft structure designed to educate patrons on the prehistory found within the Uintah Basin. Currently, visitors to the UFHM can experience exhibits including the dinosaur gardens, educational films, dig site simulation, artificial rock wall where visitors can try to identify fossils, children's activities, and a simulated fossil preparation workstation. If the URCC is constructed, visitors would also be able to view paleontologists preparing fossils in a modern work station and curation facility. Patrons would theoretically be able to view a fossil from discovery through storage.

Conclusion

If the Preferred Alternative is chosen there would be a long- term direct moderate beneficial impact to the visitors' experience.

3.3.4 NATIONAL MONUMENT OPERATIONS

Affected Environment

The National Monument is currently visited by approximately 290,000 visitors annually. The QVC is an older structure that is not fully handicapped- accessible. Due to the nature of the geological formation which forms the foundation of QVC, the building is constantly shifting, causing cracks in the walls and ceilings. Due to the lack of space and modern facilities, the six to 12 people employed at the QVC do not have offices. Office duties are conducted in an old paleo-laboratory. Curation and preparation work is done in the space between storage shelves or near the bookcases.

Indoor air quality is also a concern for NPS employees working at the QVC. Many of the fossils in the NPS collection are slightly to strongly radioactive and produce radon gas. Radon is an odorless, tasteless gas created in the ground where uranium and radium exist. Uranium breaks down into radium, which then decays into radon gas. The more uranium in the ground beneath a building, the higher the potential for elevated radon levels within a building constructed upon that soil. In the case of the fossils emitting radon, the soils and geologic formations where the fossils occurred contained high uranium levels.

Uintah County is located in a radon Zone 1, which has the highest potential for radon concentrations in the State of Utah (USC 2005). Indoor radon levels in Zone 1 have average levels greater than 4 pci/L. These elevated indoor radon levels may vary throughout Uintah County, but are considered to be at the "action" level by the Utah Department of the Environment.

Another indoor air quality issue associated with silica dust results from paleontological laboratory operations. The current facility located at the QVC has inadequate vents to prevent buildup of silica dust in the facility. If humans are exposed to elevated levels of silica dust it can lead to serious health problems.

Environmental Consequences

Definitions of Impact Intensity Levels

Negligible: The action would have no measurable impact to park operations.

Minor: Actions with minor impacts would affect park operations in a way that would prove extremely difficult to measure. To the normal observer, such impacts would not be apparent, such as levels of increase in the park's budget and current staffing of less than 10%.

Moderate: Actions would measurably affect park operations such as levels of increase in the park's budget between 10- 30% or an increase in personnel of 10- 30%. Impacts would include providing additional visitor services, protection and emergency response services, facility maintenance, administrative support, and curatorial services.

Major: Actions would significantly affect park operations such as an increase in the park's budget of greater than 30% or an increase in personnel of greater than 30%. Impacts

would be providing additional visitor services, protection and emergency response services, facility maintenance, administrative support, and curatorial services.

Alternative A

Direct and Indirect Impacts

Under the No- Action Alternative, the National Monument and the QVC would continue to function under current circumstances. National Monument employees would continue to conduct administrative duties in the old paleo- laboratory and perform curation and preparation duties in cramped work spaces next to specimen storage shelves. As additional museum specimens are acquired, the conditions would likely become more crowded and hazardous for NPS employees.

If this alternative is chosen, the radon emitting fossils will continue to be handled and stored at the QVC. The current storage facilities at Dinosaur National Monument have improper ventilation and technology that does not allow radon and silica dust to be vented. Employees would continue to be exposed to low levels of radon and silica dust.

Conclusion

The QVC would continue to be used as a visitor center and curatorial facility. Issues associated with the lack of space for specimens and storage will continue. Additionally, NPS employees will continue to work in cramped spaces and be subjected to health concerns from improper storage features. The selection of Alternative A would result in long- term direct moderate impacts to the park operations.

Alternative B

Direct and Indirect Impacts

If Alternative B is chosen, all operations connected with the Dinosaur National Monument museum collection would take place at the URCC. Sufficient research space would be provided as well as offices in which NPS staff could conduct administrative duties. The proposed URCC is designed with features to vent radon gas and silica dust in order to prevent buildup of indoor air pollutants in the facility. These design features will prevent NPS employee radon and silica dust exposure and help ensure their health. If chosen, Alternative B will accomplish a critical need through lowering the levels of NPS employee radon and silica dust exposure.

Cumulative Impacts

No cumulative impacts to park operations will result from this action in conjunction with other past and present actions.

Conclusion

Selection of the Preferred Alternative would encourage efficient National Monument operations as well as improve employee health and safety. The construction of the URCC would have beneficial long- term direct moderate impacts on National Monument operations.

3.3.5 Socioeconomics

Affected Environment

The purpose of the socioeconomic impacts analysis is to determine if construction of the proposed URCC would temporarily increase demand for local community services and infrastructure, such as adequacy of police and fire protection, health care, housing, and so on. A secondary purpose is to estimate whether construction of the URCC might increase visitation to the area.

Vernal, Utah is currently home to approximately 8,000 residents and is one of the largest population centers in Uintah County. Table 2 summarizes the Uintah County population growth from 2000 to 2004. Tourism is a notable contributor to the Vernal socioeconomic climate. Many tourists make use of the numerous Vernal area motels and inns due to the city's proximity to Dinosaur National Monument and Flaming Gorge National Recreation Area. Additionally, Vernal offers local recreation activities including the Vernal State Park Museum, movie theaters, and two water slides. Other activities in Uintah County include raft trips on the Green and Yampa rivers, cycling, hiking, and scenic drives.

The first step in the assessment of potential impacts is the identification of the socioeconomic Study Area. This is the geographic area within which most effects are expected to occur. For construction of the proposed URCC, Vernal was selected for the Study Area, but additional analysis is also presented for Uintah County and the State of Utah.

In 2004, the combined employment related to "Government," "Trade," and "Mining" sectors accounted for nearly two- thirds of all non- farm employment in the County. Between 2000 and 2004, total non- farm employment increased by 18 percent. Of this total, the highest non- farm job growth rate was associated with mining, which increased by more than one- half. The 2004 County unemployment rate was 5.2 percent. A complete summary of the County labor force employment is shown in Table 3.

Total Uintah County personal income for 2004 was $557 million, which represented an increase of about 30 percent from the 2000 Census estimate. Also between 2000 and 2004, County per capita income increased from $17,000 to $21,000. Growth in Uintah County income and wages is summarized in Table 4.

Although data is not yet available, it is expected that by 2005 or 2006, Vernal residents would continue to be affected by the ongoing increase in oil and gas exploration and development in the area. The current development would probably increase local spending for food, lodging, and entertainment, and is also likely to attract non- local workers, which could create a shortage of nearby motel or apartment rental spaces.

The second step in the analysis is the estimation of how many construction workers would temporarily move to the Vernal area for the duration of construction. It is expected that most workers involved in construction of the URCC would remain in the Vernal area only until construction is completed. Construction workers coming from outside the local area would likely stay at local motels or campgrounds. Although economic modeling has not been performed for construction of the URCC, it is likely that for every construction worker, there would likely be approximately an additional 1.7 workers created as wages are re- spent for various goods and services.

Environmental Consequences

Definitions of Impact Intensity Levels

Negligible: The action that would have a very small impact on the regional and local economy. The results of such actions would have no measurable effect on the socioeconomic environment.

Minor: The impacts would result from actions with relatively small effects. The action would affect only a small sector of the economy and would require significant effort to measure. The consequences of such action would not be readily apparent.

Moderate: The action would measurably impact a relatively small sector of the socioeconomic environment or would alter the relationship between sectors of the economy. Negative impacts would not prove significant enough to threaten any economic sector and positive impacts would not result in major structural shifts.

Major: Impacts to the regional and local economy would become readily apparent in the form of positive or negative shifts in the socioeconomic structure. In certain cases, entirely new economic sectors would be created, or established sectors eliminated. Major impacts would reverberate throughout the socioeconomic environment, significantly altering existing conditions, in either a positive or negative manner.

Table 2: Population of Uintah County

	2000	2001	2002	2003	2004	2000- 2004 Growth
Total Population	11,506	12,179	12,563	13,013	13,964	21%
Percent Change From Previous Year	1.2%	3.0%	- 0.2%	0.1%	0.8%	- 33%

Source: Utah Population Estimates Committee

Table 3: Uintah County Labor Force Characteristics

	2000	2001	2002	2003	2004	2000- 2004 Growth
Total Labor Force	11,506	12,179	12,563	13,013	13,964	21%
Employed	10,962	11,615	11,714	12,215	13,240	21%
Unemployed	544	564	849	798	725	33%
Unemployment Rate	4.7%	4.6%	6.8%	6.1%	5.2%	11%
Non- Farm Jobs	9,261	9,867	9,957	10,323	10,882	18%
Mining	1,387	1,688	1,612	1,875	2,090	51%
Construction	504	545	503	551	614	22%
Manufacturing	216	175	194	189	172	- 20%
Trade/Transportation	2,010	2,182	2,172	2,190	2,338	16%
Information	104	115	120	133	126	21%
Financial	283	274	309	323	384	36%
Professional Services	504	508	483	466	531	5%
Education and Social Security	654	678	763	784	821	26%
Leisure	833	902	956	970	919	10%
Other Services	240	269	258	282	325	35%
Government	2,526	2,531	2,587	2,590	2,552	1%
Total Establishment	819	852	887	924	990	21%
Total Wages (millions)	229.5	269.1	263	293.1	338.4	47%

Source: Utah Population Estimates Committee

Table 4: Uintah Income and Wages

	2000	2001	2002	2003	2004	2000- 2004 Growth
Total Personal Income (millions)	$428	$484	$478	$510	$557	30%
Per Capita Income	$16,924	$18,770	$18,198	$19,396	$20,887	23%
Average Family Income	$38,666	$43,902	$40,810	$42,422	N/A	N/A
Average Monthly Non- Farm Wage	$2,065	$2,273	$2,201	$2,366	$2,592	26%

Source: Utah Population Estimates Committee

Alternative A

Direct and Indirect Impacts

Alternative A calls for continued use of the QVC and other facilities as storage for the museum collection. No new facilities would be constructed; therefore, population, work force, and utilities will not be affected.

Conclusion

Selection of this alternative would have no effect on the socioeconomics in Unitah County and Vernal, Utah.

Alternative B

Direct and Indirect Impacts

Based on recent contacts with staff at Hughes Construction Company, the general contractor that managed construction of the UFHM, construction of the URCC would be expected to take around 14 to 16 months with an average construction workforce of only about 20 individuals (winter construction may affect this schedule). The peak workforce would probably be 30 to 35 workers, some of whom already reside in the Vernal area. Local subcontractors would be used where possible and would assist with such tasks as site excavation, concrete work, rebar, tile work, and general labor duties. Heavy equipment such as front- end loaders and bulldozers would be rented in the Vernal area, where possible.

Construction workers coming from outside the Vernal area would probably stay at local motels or KOA campgrounds. It is also possible that some construction workers may stay in Vernal area motels during the week and then commute back home during weekends. Some workers would probably carpool where possible and if motel spaces are scarce, may also share rooms. Some workers may stay in nearby Roosevelt (approximately 35- minute drive from Vernal) or other nearby communities. KOA campgrounds could also provide additional temporary lodging if motels have no vacancy (due to the oil and gas boom).

Although economic modeling has not been performed for this EA, it is likely that every new construction job would create an additional one or two secondary jobs as wages are "re- spent" for goods and services.

Cumulative Impacts

The area of influence for socioeconomics is Uintah County, and includes the community of Vernal. The construction of the URCC would minimally increase the impact on housing and hotels in the Vernal area. Currently, the boom in natural gas development has created a shortage in housing and room availability in Vernal hotels. The peak workforce for the construction of the URCC is estimated to be 30- 35 workers. These workers would contribute to the housing and motel shortage during the 14- 16 months they are working on the project. However, this should be a minor increase in the Vernal workforce, contributing to a minor increase in the Vernal housing shortage.

Construction workers involved in the URCC project would contribute to the economy of Vernal through spending on goods and services. This input into the local economy, when combined with the new energy workforce, would result in an increase in spending on goods and services.

Conclusion

Although the influx of workers involved with of the construction of the URCC will have only a temporary effect on socioeconomics in Vernal and Unitah County, it is possible that the addition of the facility will cause a minor increase in tourism. Selection of the Preferred Alternative will have a long- term direct minor beneficial effect on the socioeconomic climate of Vernal.

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4.0 CONSULTATION AND COORDINATION

4.1 INTRODUCTION

NEPA requires federal agencies preparing an EA to consult with stakeholders, including the general public and regulatory agencies, early in the planning process. This process, known as scoping, helps to determine important issues and eliminate those that are not; allocate assignments among the interdisciplinary team members and/or other participating agencies; identify related projects and associated documents; identify other permits, surveys, consultations, etc. required by the agencies; and create a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. This chapter documents the scoping process for this project and the official list of recipients for the document.

4.2 BRIEF HISTORY OF PLANNING AND PUBLIC INVOLVEMENT

In 1986, the NPS developed a GMP for Dinosaur National Monument that discussed the need for a new, modern facility in which to house the museum collection. At that time, the NPS requested construction of a 5,000- sq.ft. storage facility. Construction of the proposed URCC was approved and the NPS began discussions with Utah State Parks, Uintah County, City of Vernal, BLM, and USFS on the possibility of forming a partnership in the construction of the facility in 2000. In 2001, the Dinosaur National Monument collection expanded from approximately 60,000 specimens to over 600,000 specimens and a museum management plan was developed.

Several meetings were held between the NPS and local government entities to discuss the proposed URCC. These meetings focused on the benefit of constructing the facility next to the UFHM and the value of the project for the City of Vernal and Uintah County. In November 2005, members of the NPS interdisciplinary planning team met at the UFHM to initiate scoping for the project. At this meeting it was decided that a public scoping meeting would not be held prior to developing the EA. This decision was based on favorable input received from local government agencies during meetings with the NPS.

4.3 COMPLIANCE WITH FEDERAL AND STATE REGULATIONS

This EA has been drafted in accordance with applicable state and federal regulations, including the National Environmental Policy Act of 1969, Council on Environmental Quality 40 CFR 1508.9, and the NPS DO- 12 (2001).

Among other regulations, the proposed site of construction was cleared as a site of historical significance in compliance with Section 106 of the NHPA. The site was assessed for the presence of any state or federally listed threatened or endangered species in accordance with the Endangered Species Act (ESA, 1973). The area was analyzed to determine the presence of waters of the U.S. in compliance with Sections 404 and 303 of the Clean Water Act.

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5.0 REFERENCES

5.1 ACRONYMS

BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulation
DO	Director's Order
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
GMP	General Management Plan
HVAC	Heating Ventilation and Air- Conditioning
LEED	Leadership in Energy and Environmental Design
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
pci/L	picocurries per liter
QVC	Quarry Visitor Center
sq.ft.	square foot/feet
SHPO	State Historic Preservation Office/Officer
UFHM	Utah Field House of Natural History State National Monument Museum
URCC	Uintah Research and Curatorial Center
USFS	United States Forest Service

5.2 LIST OF PREPARERS

This document was prepared by PBS&J, Inc. and Dinosaur National Monument, with design and technical assistance from the NPS Denver Service Center.

PBS&J Inc.			
Robert Belford	Project Manager	16 years experience	Guidance of the NEPA process, document preparation, document review, and project management
Steve Miller	Economist	17 years experience	Document preparation
Nicolle Esquivel	Scientist I	3 years experience	Document preparation
Francesca Liccione	Scientist I	3 years experience	Document preparation
Jason Kord	Senior GIS Analysts	10 years experience	Production of figures

Dinosaur National Monument	
Ann Elder	Museum Curator

NPS Denver Service Center	
Gregory Cody	Cultural Resource Specialist
Elaine Rideout	Natural Resource Specialist

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6.0 APPENDICES

Appendix A **Site Photographs**

Appendix A
Uintah Research and Curatorial Center Environmental Assessment
Site Photographs

View of rock wall with exposed fossils inside the existing Quarry Visitors Center at Dinosaur National Monument.

View of the existing Utah Field House of Natural History State Park Museum facing east.

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Appendix A
Uintah Research and Curatorial Center Environmental Assessment
Site Photographs

View of proposed location of the Uintah Research and Curatorial Center facing north.

View of the vacant lot proposed for construction of the Uintah Research and Curatorial Center facing north. Note the seeded wildflowers and urban surrounding.

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for Native American reservation communities and for people who live in island territories under U.S. administration.

NPS #D-219, May 2006