

Wayland, Joshua

From: Mike Hyde <mhyde@duchesne.utah.gov>
Sent: Friday, June 28, 2019 3:13 PM
To: Wayland, Joshua
Cc: Greg Miles; Gregory Todd; Irene Hansen
Subject: Uinta Basin Railroad
Attachments: DOC295.pdf; Potential Fossil Yield Map.pdf; Historic Properties CRMP Text.pdf

Mr. Wayland:

Attached is verification that Duchesne County, Utah would indeed like to participate in the NEPA process as a Cooperating Agency.

Regarding historic properties, I have attached the applicable section of our County Resource Management Plan and the map of potential fossil yield areas in the County FYI.

--

Mike Hyde, AICP
Duchesne County
Community Development Director
PO Box 317
Duchesne, UT 84021-0317
435-738-1151
Fax: 435-738-5522
mhyde@duchesne.utah.gov

ATTACHMENT B: NHPA SECTION 106 CONSULTATION OPTIONS FORM

Duchesne County

Surface Transportation Board Docket No. FD 36284, Seven County Infrastructure Coalition—
Construction & Operation Exemption—in Utah, Carbon, Duchesne, and Uintah Counties, Utah

Project Name: Uinta Basin proposed rail line

Please check all the appropriate response(s) that apply from the list

☐ We have no interests associated with the Coalition's proposed rail line and further consultation with our organization is not required.

☐ We want to continue to receive project information by mail and participate in the public involvement process.

☒ We have an interest in the Coalition's proposed rail line and want to participate as a "Consulting Party" in the Section 106 of the NHPA process.

☒ We have included comments regarding potential historic properties in the project area and/or potential impacts to historic properties on the back of this form or on additional sheets.

Name of Duchesne County designated contact for Section 106 Consultation for the Surface
Transportation Board's decision on whether to allow the Coalition to construct and operate a new
rail line in Utah:

Please print

Name: Greg Todd

Phone: 435-823-5755

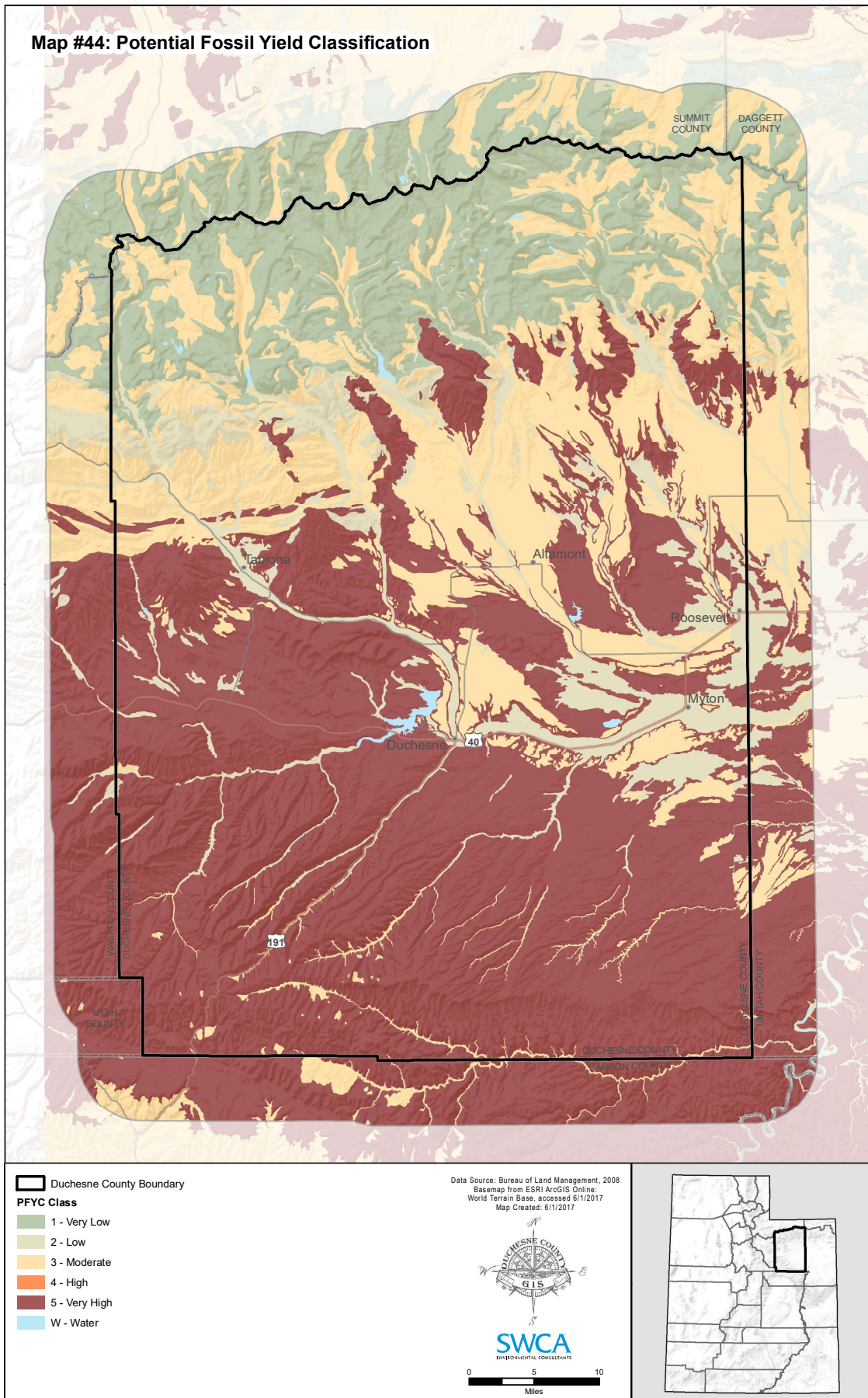
E-mail: gtodd@duchesne.utah.gov

Signed: Greg Todd

Date: June 24, 2019

Please mail to: Joshua Wayland
Surface Transportation Board
Docket No. FD 36284
c/o 9300 Lee Highway
Fairfax, VA 22031

Map #44: Potential Fossil Yield Classification



Section 21. Cultural, Historical, Geological and Paleontological Resources

Findings: The Uintah Basin and its counties have a large quantity and variety of cultural and historical resources.

Cultural History: According to the Utah Division of State History, the history of the Uintah Basin is broken down into five major periods: 1) the Paleo Archaic period (ca. 10,000–6000 B.C.), 2) the Archaic period (ca. 6000–500 B.C.), 3) the Formative period (ca. 500 B.C.–A.D. 1300), 4) the Protohistoric or Historic Ute period (ca. A.D. 1300–1800), and 5) the Historic Euro-American period (ca. 1800–present). Sites from the Formative and Historic Euro-American periods dominate the archaeological and historical record in the Uintah Basin and include resources such as granaries, rock art, villages (as seen in sites found in Nine Mile Canyon), ranches, irrigation systems, and forts (as seen in Fort Duchesne).

Other researchers offer a slightly different view of the Cultural History of the region. The following general chronological description of cultural activities, focusing on the area of the Ashley National Forest (part of which is in Duchesne County), is derived from publications prepared for and published by the USDA Forest Service, authored by Byron Loosle, Clay Johnson and others.

The Paleoindian Period (10,000 BC - 6,500 BC)

The Paleoindian period represents the earliest occupation of the Ashley National Forest (ANF). This period commenced with the arrival of humans in the area around 10,000 BC and concluded around 6,500 BC. The Paleoindian people are generally characterized as highly mobile, following and primarily subsisting on herds of now-extinct megafauna that were killed with spears, and later, with atlatl darts. The Paleoindian period is represented on the Ashley NF by infrequent surface finds.

The Archaic Period (6,500 BC to AD 100)

The Archaic period (6,500 BC – AD 100) was characterized by modern flora and fauna, a broad spectrum of which was utilized by foraging Archaic peoples. Seasonal rounds were timed to exploit peaking plant and animal resources. In mountainous areas, peak availability of some resources varies with elevation; seasonal travel to various elevations could exploit this extended period of availability. Exploitation of various elevations also varied in response to climate change. At least some Archaic groups were seasonally (winter) sedentary in the lowlands. Typical artifacts or features include rock lined storage and thermal features (including slab-lined basins), basketry, nets, snares, groundstone, atlatls and darts, stemmed, comer-notch and side-notch projectile points, scrapers and occasional rock art. Caves and rock shelters were utilized, but ephemeral (brush structure) and more permanent (pit house) habitations were also constructed.

Early Archaic components at Dutch John were activity areas and relatively substantial brush structures with internal hearths and pits, groundstone and large side notch points, bracketed by (I-sigma range) dates of 8005 and 6605 Cal BP (before present). Late summer or fall season occupation appears to have focused on a combination of plant seeds and fauna) (predominantly Artiodactyl) resources. These structures and activity areas may represent a strategy of central place foraging. Later Archaic era components bracketed by (I –sigma range) dates of 4610 and 3290 Cal BP at Dutch John were typically slab-lined basins in open situations, representing a highly mobile strategy focused on late winter or early spring season processing of roots, tubers, and possibly cactus pads. Elko series projectile points replaced large side-notch points during the Late Archaic period. At Dutch John, hearth and roasting pit components in two rock shelters were bracketed by (I-sigma range) dates of 2784-1880 Cal BP. Dramatic changes in mobility and feature type documented at Dutch John supported subdivision of the Archaic era into the Early Archaic period (8000-5000 Cal BP) and the Late Archaic period (5000-2000 Cal BP) in the eastern Uintas.

The Fremont Period (AD 100 to 1350)

Around AD 100, the bow and arrow and cultigens appear in the region. For the following thousand years, a pattern prevails of increased sedentism and cultigen use, with a series of new traits added over time. In northeastern Utah this period and culture is known as the Fremont. Although variable with location and elevation, Fremont sites tend to feature some combination of cultigens, ceramics, architecture, constructed storage facilities, and distinctive rock art. In general, lowland sites tend to have the most evidence of sedentary occupation and the most extensive material inventory. Between AD 1100 and AD 1350, the Fremont pattern of cultigen use and traits including projectile point types, ceramic types, and farming appears to vanish from the region. Decreased sedentism and cultigen reliance thereafter are coupled with reduced storage and changes in occupation type, projectile points, ceramics, rock art and basketry techniques.

Evidence of the Uinta Fremont variant, representing Fremont occupation in northeastern Utah, is most prevalent on the northern edge of the Uinta Basin, along the foot of the Uintas south slope. Introduction of corn and the bow and arrow probably occurred around AD 100 and ceramics by AD 400. Lowland occupation typically occurred as small clusters of pit houses. Large lowland villages have not been securely identified, although occupational density did increase after AD 600. Occupational density as measured by radiometric dates from the Uinta Basin peaks between AD 600 and AD 1100 then declines abruptly. At Dutch John, brush structures and open campsites with hearths and roasting pits indicate short duration camps bracketed by (I-sigma range) dates of 1750 Cal BP and 925 Cal BP. Rose Spring Corner-notch points are indicative of bow and arrow technology. Limestone tempered ceramics, more formal metates and corn occur in brush structures dating late in the period (I-sigma range brackets of 1105-925 Cal BP). Based on the Dutch John excavations and on proxy data from the surrounding areas, the Formative period interval is between AD 100 and AD 1350.

The Late Prehistoric Period (AD 1300 to 1600)

Between AD 1100 and AD 1350 the people in the Uinta Basin and along the Green River abandoned corn horticulture and returned to a strategy of hunting and gathering foods. A lifestyle of hunting and gathering results in greater mobility and a change from sedentary villages to more seasonal hunting camps scattered across the landscape. Mobility also necessitates a reduction in personal materials and saw the abandonment of the Fremont ceramic tradition. Between AD 1300 and AD 1500, the archaeological record is very sparse, but shows that people during the period we call the “Late Prehistoric” used the bow and arrow for hunting (desert side notch and cottonwood triangular points) and gathered available plants and seeds. They used very expeditious thick-walled earthenware ceramics called “Intermountain Brownware,” and built temporary shelters of brush and logs. The invasion of European peoples in the Americas commenced multiple changes that were to indirectly change the Ute way of life. European diseases spread across the Americas during the 1500s and changed lifeways and patterns with massive deaths of native peoples. The Late Prehistoric peoples are most likely also the ancestors of the Ute and Shoshone people who were encountered by Euro-American explorers in the 1700 and 1800s.

The Ute (AD 1600 to Present)

The Ute people inhabited much of the Colorado Plateau and are most likely descendants of the people living in the area during the “Late Prehistoric” period. The Ute hunted and gathered native plants and animals with highly mobile family groups. The introduction of the horse, especially after the pueblo revolt in 1680 changed the Ute lifestyle more dramatically than almost any other event. The introduction of European trade goods, such as metal axes and knives, metal arrowheads, and firearms forever changed the native inhabitants of the area. The Ute people maintained many cultural traditions and practices, but the influence of European animals, plants, diseases, and materials were forces of change that are not completely understood.

European Contact (AD 1536 to 1847)

The year 1492 commenced a period of massive changes across the American continent as European peoples began to exploit available resources and claim lands inhabited by indigenous peoples. From 1536 to 1821, most of the western United States, including the plan area, was claimed by the kingdom of Spain. Locally, the Ute and Eastern Shoshone Indians were not directly affected by the claims of Spain, but were affected by the spread of horses, trade goods, and the spread of European diseases.

Native Americans in northeastern Utah and surrounding areas were Numic-speaking Ute, Shoshone, and (possibly) Comanche, many of whom practiced a mobile foraging lifeway over large areas, often using horse transportation. Little or no written evidence survives from 1776 to 1821, when the area was under Spanish rule. The few Spanish trade routes or exploration parties (such as Escalante and Dominguez in 1776) were closely controlled by the Spanish government. The area was closed to exploration by people of other nationalities during that period.

In 1821, Mexico (including what is now Utah) gained independence from Spain. Mexican control of trade was very lax and the Rocky Mountains experienced an influx of Euro-American fur trappers hoping to take advantage of the abundance of fur bearing animals in an area, now void of Spanish rule. Americans, French and British fur trappers quickly began to explore Mexico's northern territory. Trade with the American Indians was enhanced by the establishment of trading posts along the Green River. Henrys Fork, Little Hole and Dutch John Flat, and Browns Hole provided somewhat temperate microclimates where winter months were a little easier. During the fur trapping era, Browns Hole (later in the century to be known as Browns Park) was occupied by Shoshone and Ute Indians, with the Shoshone also occupying the Henrys Fork area. In 1827, Fort Davy Crockett, a fur trading post in Browns Hole, was established.

By the mid-1840s the region's fur bearing animals had been over-exploited and the demand for lucrative beaver pelts had declined because of fashion changes in Europe. Trade relationships with the Utes and other tribes soured when Euro-American trappers were no longer willing to pay for pelts brought by the native people. Euro-American trading posts and forts, such as Fort Robidoux near Whiterocks, were burned by disillusioned Utes and the trade networks were essentially dissolved.

Euro-American Settlement and the Displacement of the American Indian (1847 to 1882)

The arrival of thousands of Euro-American Mormon settlers along the Wasatch Front beginning in 1847 set off a series of conflicts between the new arrivals and the Ute bands already living in the Utah and Salt Lake Valleys. Utah and the surrounding areas were ceded to the United States from Mexico in 1848 and westward expansion, settlement, and development by Euro-American Immigrants began with a fury.

In order to solve the land conflicts between the Ute bands and the newly arrived Euro-Americans, the U.S. Government set aside much of the Uinta Basin as a reservation for the Utes. The Uinta Basin had been previously surveyed by Mormon settlers and deemed undesirable for Euro-American settlement. By 1865, all Utes along the Wasatch Front were being moved to the Uinta Valley Reservation. In a similar way, Ute Bands in Colorado were also moved onto two Reservations, one on the White River and one near the Uncompahgre River.

Captain Parson Dodds, the first Indian agent on the newly created Uintah Valley Indian Reservation, arrived in late 1868 with seven other employees at Whiterocks, known originally as Uintah Valley. Whiterocks was the Indian agency's permanent headquarters and, by the following year, it was Uintah County's first Euro-American settlement. Dodds, recognizing the agricultural potential of the area, chose to settle near the reservation in 1873 after completing his term as Indian agent. Other Euro-American immigrants followed Dodds to Ashley Valley soon thereafter and started the Ashley settlement.

In Colorado, at the White River Agency headquarters, the Ute bands became upset with Agent Nathan Meeker's attempts to reform them into an agricultural society. In September of 1879, when Meeker plowed under their favorite pasture used for horse racing, one of the chiefs didn't

1 appreciate his heavy handedness and walked into the agency headquarters and gave Mr. Meeker a
2 terrific beating. Meeker called for military protection and Major Thomas Thornburgh and four
3 cavalry companies (about 140 men) were dispatched from Fort Steel, Wyoming to protect
4 Meeker. When the White River Utes learned that troops were being sent to the reservation, they
5 immediately began to prepare to defend their land. When the military column arrived,
6 Thornburgh and his men were met by over 700 mounted Utes. Sixteen soldiers died, including
7 Thornburgh, and 43 were wounded. At the same time, Meeker and 10 employees were killed at
8 the Agency.

9
10 Colorado settlers in the area immediately declared that the Utes were in open rebellion and called
11 for their removal. By 1882, additional lands were added to the Uintah Valley Reservation and
12 the Utes on the White River Reservation were forced to leave their homelands and move to the
13 Uintah Basin. Euro-American settlers in Colorado and the Colorado State Governor also insisted
14 that the Utes on the Uncompahgre Reservation, led by Chief Ouray and his wife Chipeta, also be
15 moved to the Uinta Basin, even though they had not been involved with the Meeker incident nor
16 had they been uncooperative with reservation administrators. After the Utes from the reservation
17 in Colorado were moved to the Uinta Basin, their reservation lands in Colorado were opened up
18 for Euro-American settlement.

19
20 Starting In 1894, congress passed several bills that allotted a specified number of acres to each
21 adult male Ute Indian, and then opened up the rest of the Uintah Valley reservation for Euro-
22 American settlement. In 1934, congress passed the Indian Self Determination Act which allowed
23 American Indian Tribes to develop their own constitution and be relatively self-governing. All
24 remaining un-allotted (public) lands within the original Uintah Valley treaty boundary were
25 recognized as tribal property.

26 27 **Cultural and Historic Resources**

28
29 Cultural and historical resources are defined as the physical evidence or place of past human
30 activity, such as a site, an object, a landscape, or a structure. Archaeological sites and historic
31 built environments (such as buildings) are two of the most common types of cultural and
32 historical resources.

33
34 Cultural and historical resources can be further defined as non-archaeological sites and non-
35 structural sites (such as waterways, viewsheds, and resource procurement areas) that have been
36 identified as important for traditional and/or ideological reasons by either Native American
37 groups or other organizations with ancestral and/or present ties to an area.

38
39 Federal laws, procedures, and policies affecting the treatment of cultural resources include the
40 Antiquities Act of 1906, Public Law 59-209, Executive Order 11593, Section 106 of the National
41 Historic Preservation Act (NHPA) of 1966 (Public Law 91-190), the Federal Land Policy
42 Management Act (Public Law 94-579), and 36 Code of Federal Regulations (CFR) 60 and 36
43 CFR 800. The American Indian Religious Freedom Act (42 United States Code [USC] 1996) has
44 also been established to protect religious practices, ethnic heritage sites, and land uses of

federally recognized Native Americans. The Native American Graves Protection and Repatriation Act applies to human remains found on federal lands.

Duchesne County is blessed with a concentration of historic and archaeological resources. These resources are located in towns, cities, and main streets, as individual sites or grouped in historic districts. Others are scattered throughout the County in the form of rock art, archaeological structures, archaeological sites of scientific importance, and historic landscapes or settings. As we know from experience, any great community (or county) is enhanced by looking to its future and new development but also by keeping a steady hand on its past. History can become an enhancer for our quality of life and a stimulator for economic development. Businesses in some industries often look for historic settings in historic buildings in order to provide character, the sense of stability, and a unique marketing angle for their products and services.

This requires a balance and a careful planning approach. All too often, we find ourselves in a situation where we tear down the old in the name of progress, only to realize too late that the old could have been a better economic stimulus than the new. Or we find ourselves so encumbered by the past and that new is not entertained. If we create a balance and dialogue between old and new, we can take advantage of the benefits of both. The new can be given broader character by referring to heritage and tradition, while the old can be reinvigorated by new development. Utah Code 9-8-401 states, "The Legislature determines and declares that the public has a vital interest in all antiquities, historic and prehistoric ruins, and historic sites, buildings, and objects which, when neglected, desecrated, destroyed or diminished in aesthetic value, result in an irreplaceable loss to the people of this state."

As a public recognition of the importance of historic and archaeological resources to communities, large and small, the federal National Historic Preservation Act (NHPA) of 1966 set forth a process where any project involving federal lands, funds, permits, or licenses needs to take into account the action's effects on cultural resources. Similarly, Utah Code Annotated 9-8-404 established a similar process for any project involving state lands, funds, or permits in 1973. These two laws do not prevent the demolition or removal of cultural resources but require diligence in planning efforts involving cultural resources.

Because of the importance of historic resources, the Legislature has established economic incentives for their preservation and re-use. The State of Utah, through Utah Code Annotated 59-7-609, has implemented a tax credit for the rehabilitation expenditures associated with qualifying residential historic buildings. Further, the United States Tax Code has provided a similar investment tax credit for the rehabilitation of historic commercial and residential rental properties.

To promote local preservation and historic revitalization, the Utah Division of State History (UDSH) oversees a Certified Local Government program backed with funding from the National Park Service. Duchesne County was made a CLG in 1986, and Duchesne City received that designation in 1993. While both of these organizations have not been active recently, a CLG designation with an ordinance and a commission allows these communities to apply for grants

1 through UDSH to conduct historic preservation activities such as building rehabilitations,
2 planning, and others.

3
4 In historic preservation, there are many issues and trade-offs to consider. Does the historic
5 resource add to the quality of life of the county? Are these historic sites, settings and landscapes
6 an important factor in the quality of life and why people want to live/move here? Are there ways
7 to include new with old, where the new is compatible and yet functional? Does the old prevent
8 us from needed new development, or can new development and old development exist together
9 with creative design? Do the historic resources and archaeological sites add value to an
10 economic development plan?

11
12 Energy development may need to be designed in a way that considers the past and archaeology in
13 particular. The co-existence of archaeology and energy development can create conflicts, which
14 with advanced planning can be minimized or removed.

15
16 New business development needs resources and careful planning in order to keep as much of the
17 old as possible when it has been determined it is important, so that old and new complement each
18 other.

19
20 The full range of choices should be examined with respect to historic and archaeological
21 resources because they are finite and can be lost without careful planning. The County needs to
22 explore all options for keeping and enhancing its historic and archaeological heritage while
23 providing for growth and new development. Options may include locating new development in
24 areas without significant resources, or designing new projects so that historic resources are
25 maintained and enhanced. National Register resources do not limit property right or
26 development options, but should be taken into account because of the historic value they add to a
27 community.

28
29 As found in a recent study promoted by the Utah Heritage Foundation and the Utah Division of
30 State History, entitled “Profits through Preservation” (found at utahheritagefoundation.org) the
31 economic benefits of historic preservation and tourism are significant. In this study, the
32 researchers found that there 7.2 million visitors to Utah’s heritage sites and events with over
33 \$717 million in direct and indirect expenditures. Unfortunately, most of this heritage tourism is
34 centered in communities outside Duchesne County.

35
36 Further, historic preservation rehabilitation projects (such as façade improvements) have far-
37 reaching local effects where for every \$1,000,000 spent on rehabilitation yields 10.2 direct jobs,
38 7.5 indirect jobs, more than \$845,000 in local wages, and nearly \$1 million in economic activity.
39 Through the proposed project, sub-grants to local communities for façade improvements and
40 other historic preservation activities will increase the vitality of these commercial downtown
41 districts and make the communities more attractive and visible for the proposed influx of heritage
42 tourists. Jobs created through historic preservation could include the building trades, service
43 industries, and educational and interpretive opportunities.

1 Duchesne County recognizes the need to preserve its cultural heritage and foster the economic
2 potential tied to heritage tourism. Culture refers to the integrated pattern of human knowledge,
3 belief, and behavior that depends upon man's capacity to learn and transmit knowledge to
4 succeeding generations.

5
6 Once land is settled and subsequent generations come and go, the ensuing culture becomes
7 attached to the land. Such ties transcend the physical or tangible relationship wherein man
8 walks, tills and otherwise works the land; thus becoming implicit in the soul of people to make
9 up the patina that colors and gives character to their heritage. It is these "intangible" elements
10 that place significance upon environmental features and attendant life ways. Indeed, the lay of
11 the land, its plants and animals, and even its unrelenting weather patterns, serve as metaphorical
12 images to guide the people. As born out in vernacular phrases such as "Times back then were
13 tough," it is important to keep alive the tacit understanding of what it means to belong to a
14 certain area such as Duchesne County.

15
16 Duchesne County recognizes that County culture is among its most valued and important assets.
17 It is the intent of the County to protect and enhance its natural environment, identify, preserve,
18 protect and enhance its historic buildings, structures, sites, objects, and districts, and to guard and
19 foster traditional ways of life rising out of the history attached thereto and forming the basis upon
20 which its heritage rests.

21
22 Natural landforms and wildlife species often serve as touchstones to community life and values.
23 Livestock grazing, farming, mining and other mineral extraction, along with other endeavors
24 have left an imprint on the landscapes of the west and form the core of an old and enduring
25 economic and cultural heritage for residents of Duchesne County. Detachment to the land
26 creates a phenomenon known as "extinction of experience," and brings about a great cultural loss
27 of stories and meanings tied to the land and nature. Once these reservoirs of folklore and cultural
28 understanding have been dissipated, it is increasingly hard to replenish them.

29
30 Structural objects are crafted from the materials of nature and the local environment and display
31 cultural and individual distinctiveness that often serve as symbols of personal, occupational, and
32 regional identity. Many sites represent a unique settlement history that is closely related to
33 prehistoric Indians and early homesteaders. Camp sites, pit houses, artifacts, trails, ceremonial
34 and religious sites, burials, out-buildings, hay derricks, canals, sheds, fence forms, and other
35 contrivances of man fall within the realm of cultural heritage and should be preserved.

36
37 The NHPA is the basis for cultural and historical preservation and defines the responsibility of
38 federal agencies for protection and preservation of cultural and heritage resources. The standards
39 and guidelines established by the Bureau of Land Management (BLM) take this into
40 consideration and are used to assist with inventorying and evaluating cultural and historical
41 resources (BLM 2004).

42
43 The National Register of Historic Places (NRHP) lists properties that have been found eligible
44 through the Section 106 process.

Table CHP1 provides the following information for the 37 NRHP listed properties in Duchesne County:

- The name of the property (if applicable)
- The date the property was constructed (if known)
- A brief description of its original use (if known)
- The city that the property is located in
- The Utah Division of State History Record ID number
- The property's NRHP register number
- The property's current NRHP status

Table CHP1. NRHP-Listed Properties in Duchesne County

Property Name or ID Number	Construction Date	Original Use	City	UDSH Property Record ID	NRHP Register Number	NRHP Status
Centennial House	–	Archeology Site	Nine Mile Canyon	–	09001042	Listed
Fool's Pinnacle	–	Archeology Site	Nine Mile Canyon	–	09001041	Listed
Indian Canyon Guard Station	1914	Institution housing	N/A	46325	N/A	Listed
Karen's Cist	–	Archeology Site	Nine Mile Canyon	–	09001043	Listed
Maxie's Pad	–	Archeology Site	Nine Mile Canyon	–	09001044	Listed
Nordell's Fort	–	Archeology Site	Nine Mile Canyon	–	09001045	Listed
Redman Village	–	Archeology Site	Nine Mile Canyon	–	09001047	Listed
Simmons Ranch	1913/1920	Agriculture storage	N/A	55192	92000463	Listed
Stockmore Ranger Station	1914	Institution housing	Stockmore	70858	99001293	Listed
Sunstone Village	–	Archeology Site	Nine Mile Canyon	–	09001046	Listed

Table CHP1. NRHP-Listed Properties in Duchesne County

Property Name or ID Number	Construction Date	Original Use	City	UDSH Property Record ID	NRHP Register Number	NRHP Status
Taylor's City	–	Archeology Site	Nine Mile Canyon	–	09001048	Listed
42DC306	–	Archeology Site	Nine Mile Canyon	–	09001040	Listed
42DC331	–	Archeology Site	Nine Mile Canyon	–	12000772	Listed
42DC530	–	Archeology Site	Nine Mile Canyon	–	12000773	Listed
42DC638	–	Archeology Site	Nine Mile Canyon	–	09001039	Listed
42DC645	–	Archeology Site	Nine Mile Canyon	–	12000774	Listed
42DC682	–	Archeology Site	Nine Mile Canyon	–	09001026	Listed
42DC683	–	Archeology Site	Nine Mile Canyon	–	09001027	Listed
42DC684	–	Archeology Site	Nine Mile Canyon	–	09001038	Listed
42DC685	–	Archeology Site	Nine Mile Canyon	–	09001037	Listed
42DC686	–	Archeology Site	Nine Mile Canyon	–	09001036	Listed
42DC687	–	Archeology Site	Nine Mile Canyon	–	09001035	Listed
42DC688	–	Archeology Site	Nine Mile Canyon	–	09001034	Listed
42DC696	–	Archeology Site	Nine Mile Canyon	–	09001025	Listed
42DC700	–	Archeology Site	Nine Mile Canyon	–	09001025	Listed
42DC702	–	Archeology Site	Nine Mile Canyon	–	09001033	Listed
42DC703	–	Archeology Site	Nine Mile Canyon	–	09001031	Listed
42DC704	–	Archeology Site	Nine Mile Canyon	–	09001030	Listed
42DC705	–	Archeology Site	Nine Mile Canyon	–	09001023	Listed
42DC708	–	Archeology Site	Nine Mile Canyon	–	09001029	Listed
42DC709	–	Archeology Site	Nine Mile Canyon	–	09001028	Listed

Table CHP1. NRHP-Listed Properties in Duchesne County

Property Name or ID Number	Construction Date	Original Use	City	UDSH Property Record ID	NRHP Register Number	NRHP Status
42DC710	–	Archeology Site	Nine Mile Canyon	–	09001029	Listed
42DC712	–	Archeology Site	Nine Mile Canyon	–	09001032	Listed
42DC1302	–	Archeology Site	Nine Mile Canyon	–	12000775	Listed
42DC1618	–	Archeology Site	Nine Mile Canyon	–	12000776	Listed
42DC1619	–	Archeology Site	Nine Mile Canyon	–	12000758	Listed
42DC1620	–	Archeology Site	Nine Mile Canyon	–	12000837	Listed

Occasionally, resources managed by agencies are not included in the most up-to-date NRHP listing. This is usually the result of batch nominations, that is, properties submitted to the SHPO in groups (usually as multiple properties listings) for the SHPO's review and evaluation. These batches are usually only submitted to the SHPO on an "as-needed basis."

The Bureau of Land Management (BLM)'s Vernal Field Office recently submitted such a batch nomination to the SHPO for properties associated with the West Tavaputs Programmatic Agreement (PA). The work conducted for this PA identified 445 NRHP-evaluated properties within the Nine-Mile Canyon Area that have been recommended eligible for the NRHP. Although they may not be included in the most up-to-date NRHP listing, their NRHP status should be considered "pending".

The preservation of historic properties and cultural landscapes has the potential to add economic value to an economy by balancing preservation and need. A county that is a certified local government (CLG) with a historic preservation committee can apply for federal grants and gain the tools and resources needed to integrate historic buildings into the community's social and economic fabric. Supporting information and a model Historic Preservation Ordinance are found on the Utah Division of State History website.

Geological and Paleontological Resources

Findings: Fossils are the remains or traces of organisms preserved in the earth's crust, and paleontology is the study of these fossils. Through scientific study of carefully collected and preserved fossils, we gain a better understanding of the history of life on earth.

Human development of the earth's surface can be detrimental to fossils if the development includes surface-disturbing activities in areas containing important fossils. Paleontological

issues include: (1) avoiding destruction of scientifically important fossils, (2) identifying areas having scientifically important fossils, (3) collecting (removing) and preserving scientifically important fossils, and (4) allowing and maintaining access to scientific study of important fossils.

Both the Federal Government and State Government have laws and rules regarding the collection, preservation, and curation of fossils, while allowing for personal, professional and academic study and research. In general, personal hobby collecting of invertebrate and plant fossils (for example, clams and leaves) is legal on many State and Federal lands, but collection of vertebrate fossils (for example, dinosaurs) requires that a detailed permit be issued by the land's governing agency. Destruction of vertebrate fossils originating on state and federal lands in Utah is illegal. State and federal fossil resource laws do not pertain to private lands. The state law does apply, at least in part to county-owned lands as well.

Utah State Code (63-73-11 through 63-73-19) states that paleontological resources are important and requires the preservation of critical fossil resources on State lands. The Code mandates that those removing or excavating critical fossils on State lands be qualified and permitted under joint jurisdictional cooperation from: the Utah Geological Survey (UGS), Utah Museum of Natural History, and the School and Institutional Trust Lands Administration. State Code (53B-17-603) also requires that important extracted fossils be curated by an approved and qualified institution. The BLM and Forest Service have similar laws concerning the collection of vertebrate fossils on federal lands.

Federal laws, policies, and guidelines affecting fossil resources include the Paleontological Resources Preservation Act (PRPA) of 2009. The PRPA is codified in Title VI of the Omnibus Public Lands Management Act of 2009 (Public Law 11- 011, Title VI, Subtitle D), which defines paleontological resources, resource-use permit criteria, requirements for curation, and the criminal and civil penalties. In addition, the Federal Land Management and Policy Act of 1976 (Public Law 94-579; 90 Stat. 2743; USC 1701–1782), the National Environmental Policy Act (Public Law 91-190; 31 Stat. 852; 42 USC 4321–4327), and general procedural guidelines for management are provided in the BLM's Instructional Memorandum (IM) 2008-009 (2007), Manual H-8270-1 (BLM 1998), and IM 2009-011 (BLM 2008), which define management, preservation, and protection of paleontological resources.

The Bureau of Land Management has classification and assessment & mitigation guidelines in their Handbook for Paleontological Resource Management, which is currently under revision. The Society of Vertebrate Paleontology has also adopted Standard Guidelines for the Assessment and Mitigation of Paleontological Resources.

The 2008 Resource Management Plan for the Vernal BLM Field office and BLM Instruction Memorandum #2016-124 provide details on the Potential Fossil Yield Classification (PFYC) system that is used to classify paleontological (fossil) resource potential on BLM lands in Duchesne County and elsewhere. The system establishes levels of potential as follows:

1 *Class 1 – Very Low.* Geologic units that are not likely to contain recognizable paleontological
2 resources. Units assigned to Class 1 typically have one or more of the following characteristics:

- 3
4 1. Geologic units are igneous or metamorphic, excluding air-fall and reworked volcanic ash
5 units.
- 6
7 2. Geologic Units are Precambrian in age.

8
9 Management concerns for paleontological resources in Class 1 units are usually negligible or not
10 applicable. Paleontological mitigation is unlikely to be necessary except in very rare or isolated
11 circumstances that result in the unanticipated presence of paleontological resources, such as
12 unmapped geology contained within a mapped geologic unit. For example, young fissure-fill
13 deposits often contain fossils but are too limited in extent to be represented on a geological map;
14 a lava flow that preserves evidence of past life, or caves that contain important paleontological
15 resources. Such exceptions are the reason that no geologic unit is assigned a Class 0.

16
17 Overall, the probability of impacting significant paleontological resources is very low and further
18 assessment of paleontological resources is usually unnecessary. An assignment of Class 1
19 normally does not trigger further analysis unless paleontological resources are known or found to
20 exist. However, standard stipulations should be put in place prior to authorizing any land use
21 action in order to accommodate an unanticipated discovery.

22
23 *Class 2 – Low.* Geologic units that are not likely to contain paleontological resources. Units
24 assigned to Class 2 typically have one or more of the following characteristics:

- 25
26 1. Field surveys have verified that significant paleontological resources are not present or
27 are very rare.
- 28
29 2. Units are generally younger than 10,000 years before present.
- 30
31 3. Recent Aeolian deposits.
- 32
33 4. Sediments exhibit significant physical and chemical changes (i.e., diagenetic alteration)
34 that make fossil preservation unlikely.

35
36 Except where paleontological resources are known or found to exist, management concerns for
37 paleontological resources are generally low and further assessment is usually unnecessary except
38 in occasional or isolated circumstances. Paleontological mitigation is only necessary where
39 paleontological resources are known or found to exist.

40
41 The probability of impacting significant paleontological resources is low. Localities containing
42 important paleontological resources may exist, but are occasional and should be managed on a
43 case-by-case basis. An assignment of Class 2 may not trigger further analysis unless

paleontological resources are known or found to exist. However, standard stipulations should be put in place prior to authorizing any land use action in order to accommodate unanticipated discoveries.

Class 3 – Moderate. Sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence. Units assigned to Class 3 have some of the following characteristics:

1. Marine in origin with sporadic known occurrences of paleontological resources.
2. Paleontological resources may occur intermittently, but abundance is known to be low.
3. Units may contain significant paleontological resources, but these occurrences are widely scattered.
4. The potential for an authorized land use to impact a significant paleontological resource is known to be low-to-moderate.

Management concerns for paleontological resources are moderate because the existence of significant paleontological resources is known to be low. Common invertebrate or plant fossils may be found in the area, and opportunities may exist for casual collecting. Paleontological mitigation strategies will be proposed based on the nature of the proposed activity.

This classification includes units of moderate or infrequent occurrence of paleontological resources. Management considerations cover a broad range of options that may include record searches, pre-disturbance surveys, monitoring, mitigation, or avoidance. Surface-disturbing activities may require assessment by a qualified paleontologist to determine whether significant paleontological resources occur in the area of a proposed action, and whether the action could affect the paleontological resources.

Class 4 – High. Geologic units that are known to contain a high occurrence of paleontological resources. Units assigned to Class 4 typically have the following characteristics:

1. Significant paleontological resources have been documented, but may vary in occurrence and predictability.
2. Surface disturbing activities may adversely affect paleontological resources.
3. Rare or uncommon fossils, including non-vertebrate (such as soft body preservation) or unusual plant fossils, may be present.
4. Illegal collecting activities may impact some areas.

Management concerns for paleontological resources in Class 4 are moderate to high, depending on the proposed action. Paleontological mitigation strategies will depend on the nature of the proposed activity, but field assessment by a qualified paleontologist is normally needed to assess local conditions.

The probability for impacting significant paleontological resources is moderate to high, and is dependent on the proposed action. Mitigation plans must consider the nature of the proposed disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access that could result in looting. Detailed field assessment is normally required and on-site monitoring or spot-checking may be necessary during land disturbing activities. In some cases avoidance of known paleontological resources may be necessary.

Class 5 – Very High. Highly fossiliferous geologic units that consistently and predictably produce significant paleontological resources. Units assigned to Class 5 have some or all of the following characteristics:

1. Significant paleontological resources have been documented and occur consistently.
2. Paleontological resources are highly susceptible to adverse impacts from surface disturbing activities.
3. Unit is frequently the focus of illegal collecting activities.

Management concerns for paleontological resources in Class 5 areas are high to very high. A field survey by a qualified paleontologist is almost always needed. Paleontological mitigation may be necessary before or during surface disturbing activities.

The probability for impacting significant paleontological resources is high. The area should be assessed prior to land tenure adjustments. Pre-work surveys are usually needed and on-site monitoring may be necessary during land use activities. Avoidance or resource preservation through controlled access, designation of areas of avoidance, or special management designations should be considered.

Class U – Unknown Potential. Geologic units that cannot receive an informed PFYC assignment. Characteristics of Class U may include:

1. Geological units may exhibit features or preservational conditions that suggest significant paleontological resources could be present, but little information about the actual paleontological resources of the unit or area is known.
2. Geological units represented on a map are based on lithologic character or basis of origin, but have not been studied in detail.

3. Scientific literature does not exist or does not reveal the nature of paleontological resources.
4. Reports of paleontological resources are anecdotal or have not been verified.
5. Area or geologic unit is poorly or under-studied.
6. BLM staff has not yet been able to assess the nature of the geologic unit.

Until a provisional assignment is made, geologic units that have an unknown potential have medium to high management concerns. Lacking other information, field surveys are normally necessary, especially prior to authorizing a ground-disturbing activity. An assignment of “Unknown” may indicate the unit or area is poorly studied, and field surveys are needed to verify the presence or absence of paleontological resources. Literature searches or consultation with professional colleagues may allow an unknown unit to be provisionally assigned to another Class, but the geological unit should be formally assigned to a Class after adequate survey and research is performed to make an informed determination.

Class W – Water. Includes any surface area that is mapped as water. Most bodies of water do not normally contain paleontological resources. However, shorelines should be carefully considered for uncovered or transported paleontological resources. Reservoirs are a special concern because important paleontological resources are often exposed during low water intervals. In karst areas sinkholes and cenotes may trap animals and contain paleontological resources. Dredging river systems may result in the disturbance of sediments that contain paleontological resources.

Class I – Ice. Includes any area that is mapped as ice or snow. Receding glaciers, including exposed lateral and terminal moraines should be considered for their potential to reveal recently exposed paleontological resources. Other considerations include melting snow fields that may contain paleontological resources with possible soft-tissue preservation.

According to the Instruction Memorandum, the PFYC system is utilized for land use planning efforts and for the preliminary assessment of potential impacts and proper mitigation needs for specific projects. It is intended to provide a tool to assess potential occurrences of significant paleontological resources. It is meant to be applied in broad approach for planning efforts, and as an intermediate step in evaluating specific projects. Map #44 shows the Potential Fossil Yield Classifications identified for lands in Duchesne County. Table CHP 2 shows the percentage of land area in each of the PFYC categories.

Table CHP2. Duchesne County Acreage of Potential Fossil Yield Classifications

Classification	Acres
Class 1 (Very Low)	289,875.9
Class 2 (Low)	199,269.6
Class 3 (Moderate)	472,790.4
Class 4 (High)	0
Class 5 (Very High)	1,109,934.8
Class W (Water)	6,934.8
Total	2,078,805.5

Source: Bureau of Land Management

Remnants of early life forms, geological history and cultures have evolved as an important segment of the local economy and have become the signature of the local tourist trade. Considerable investment has been made in museums and visitors centers to promote these important resources.

When considering undertaking ground-disturbing development, or when evaluating such potential development by others, questions to keep in mind are:

- a. Is the developing entity aware of (or does it intend to determine) what areas within the project site may contain important fossil resources?
- b. Does the developing entity have a mitigation plan that spells out how fossil resources will be handled? (For example, pre-disturbance paleontological survey, real-time onsite evaluation of fossils during excavation activities, etc.)
- c. Does the developing entity allow access for qualified individuals/institutions to collect (remove) important fossils that may otherwise be lost to scientific study if merely left in the near-surface to decompose?
- d. If a major and important fossil discovery is made, does the County want a say in where the materials are ultimately housed or displayed (degree of involvement)?

Potential conflict issues regarding paleontological resources are:

- a. Limiting road or trail access (land preservation) to important fossil sites.
- b. Allowing extractive industries to operate in areas of high paleontological sensitivity.

This is not an “all-or-nothing” issue; there can be a range of management options that vary depending on the paleontological sensitivity of the geologic formations exposed in a specific study area. The paleontological resources of each Utah county range from almost non-existent to highly significant, so paleontological resource management plans for each county will be equally diverse.

Geologic Hazards

Unlike areas along the Wasatch Front, where urban development has crept up hillsides into geologically unstable areas, Duchesne County has been relatively free of landslides in privately owned areas. The Utah Geological Survey has a database of landslide history in Utah from 1850 to 1978. This database was compiled from archived newspapers and other sources. Of the 356 documented landslides in Utah during that time period, only four were located in Duchesne County. The latest one occurred somewhere in the Indian Canyon area south of Duchesne in 1958. Another landslide occurred in the Moon Lake area in 1935. A landslide was reported “five miles above Tabiona” in 1916. The same year had a report of a landslide in Roosevelt at the “electric light plant.”

Energy Considerations

Findings: In the development of energy resources, Cultural, Historical, Geological and Paleontological Resources shall be protected in accordance with state and federal laws. However, the presence of Cultural, Historical, Geological and Paleontological Resources should not, by themselves, prevent the development of energy resources. Surface disturbance associated with energy development may expose Cultural, Historical, Geological and Paleontological Resources that add to the body of scientific knowledge.

Objectives

1. Preserve the cultural, historical, and paleontological heritage of the Uintah Basin.
2. Support the protection, study, and excavation of unique cultural and historical resources that occur within the Uintah Basin, including the responsible stewardship of these resources through balancing resource protection with visitor values.
3. Provide for the protection of cultural, historical, and paleontological resources through management decisions that are based on the quality and significance of each individual resource.
4. Allow for public education, visitation opportunities, and site protection for cultural, historical, and paleontological resources (where appropriate).
5. Preserve and perpetuate the heritage and culture of the Uintah Basin for both the Native American community and other communities.

6. Mitigate to the furthest extent possible all adverse effects to cultural, historical, and paleontological resources.

Policies

1. Ensure that the county has appropriate opportunities to participate in all management decisions regarding cultural, historical, and paleontological resources.
2. Where significant prehistoric and historic sites and scientifically important resources can be protected, consider developing them for education and tourism (where appropriate).
3. Manage potential adverse effects to significant and scientifically important cultural, historical, and paleontological resources to the extent possible through avoidance before other protections are considered (such as removal/excavation and mitigation).
4. All federal undertakings that could affect significant cultural values require, under NHPA, an archaeological review and inventory before they are implemented. Historic and cultural sites inventoried will be evaluated for significance by a qualified archaeologist in cooperation with the state historic preservation officer.
5. Additionally, state legislation such as Utah Code 9-8-401 states that “The Legislature determines and declares that the public has a vital interest in all antiquities, historic and prehistoric ruins, and historic sites, buildings, and objects which, when neglected, desecrated, destroyed or diminished in aesthetic value, result in an irreplaceable loss to the people of this state.” Cultural and historical resources that have been evaluated and determined to be significant (such as those listed on the NRHP) will have special consideration.
6. In accordance with Utah Code 63J-8-104 (i) regarding state land use planning and management, federal lands shall be managed “so as to protect prehistoric rock art, three-dimensional structures, and other artifacts and sites recognized as culturally important and significant by the state historic preservation officer or each respective county by imposing reasonable and effective stipulations and conditions reached by agreement between the federal agency and the state authorized officer pursuant to the authority granted by the National Historic Preservation Act, 16 USC 470 et seq.”
7. Federal and state agencies must not jeopardize private property rights or existing land uses, such as oil and gas exploration, mining, logging and harvesting of forest products, road maintenance, and grazing, through the protection of cultural and archaeological sites. This can be accomplished by carefully assessing the sensitivity and importance of the site relative to the economic and cultural impacts associated with land management decisions based around cultural and archaeological sites in the Uintah Basin.

- 1 8. Consider a historic preservation committee for the purpose of protecting cultural
2 resources.
- 3
- 4 9. Establish a county register of cultural and heritage resources to discover and describe the
5 nature of cultural resources. Assess and rank resources according to need relevant to
6 preservation and enhancement.
- 7
- 8 10. Give priority to the retention and display of locally collected artifacts within the Uintah
9 Basin.
- 10
- 11 11. In the case of natural and built forms upon the land, and in accordance with the protocols
12 and rankings set forth above, measures to stabilize and enhance historic sites and objects
13 shall be an ongoing objective of the county and its historic preservation committee.
- 14
- 15 12. Many of the cultural and historical sites in the Uintah Basin represent a unique culture
16 and are closely related to early settlements of the area. They continue to have historical
17 significance and are held by many residents as reverent or consecrated sites. Preserve
18 these sites and keep them accessible.
- 19
- 20 13. Any alteration of landforms, waterways, closure of roads, and other such matters shall be
21 carried out only after full consideration of each county's prehistoric and historical cultural
22 heritage.
- 23
- 24 14. Develop mitigation measures and treatment options when it has been determined that a
25 project will have an adverse effect on significant cultural and historical resources.
26 Mitigation measures can range from preservation through avoidance to analysis and
27 research through scientific study, although they should be project specific and tailored in
28 such a way that each resource is specifically analyzed and dealt with.
- 29
- 30 15. Although this land use document addresses such issues as roadways and trails access,
31 wildlife, water, timber and range use, it shall be referred to on all matters regarding the
32 use of natural resources as part of cultural identity. Traditional ways of life such as
33 harvesting cedar posts, running cattle on the open range, and agriculture shall be
34 protected.
- 35
- 36 16. Preserve all remnants of prehistoric lifeforms, geological traces, and cultural elements in
37 accordance with existing laws, and ensure that they remain within the county, either in
38 appropriate museums or in the Utah State University Uintah Basin Special Collections
39 Archive. These items shall be made available to the public in an appropriate setting of
40 discovery and study.
- 41
- 42 17. Utah Code Sections 63-73-11 through 63-73-19 state that paleontological resources are
43 important and require the preservation of scientifically significant fossil resources on state
44 lands. These sections mandate that those removing or excavating critical fossils on state