APPENDIX F. CULTURAL AND HISTORICAL RESOURCES TECHNICAL SUPPORT DOCUMENT

1.0 BENCHMARK SITES

The Class I Regional Overview (Bureau of Land Management [BLM] 2004) identifies and summarizes, by period of significance, the sampling of benchmark sites that have been confirmed in the Moxa Arch Area (MAA) of southwestern Wyoming (Project Area). As a baseline and sampling, these benchmark sites are not meant to capture the entire population of area sites that have substantially contributed knowledge of area prehistory and history. Benchmark sites represent the periods and phases that they help to culturally and chronologically define within the region.

Numerous significant archaeological sites from all Prehistoric periods and nationally significant historic sites have been recorded in the MAA. The Class I Regional Overview describes sites that have established the baseline and furthered the direction of regional investigations as 'benchmark' sites:

> Dozens of benchmark prehistoric sites have been scientifically studied [in the Green River Basin], most significantly including Austin Wash, Church Butte Four, Cow Hollow Creek, Dixie Cup, Disney, Fontenelle Twelve, Gemma, Hams Fork, MAK, Moxa Twenty-eight, Moxa Housepit, Old-and-in–the-way, Porter Hollow, Sevenmile Wash, Shute Creek Plant, Taliaferro and Vegan sites. Nationally significant historic resources also pass through this area, including the Oregon, California, Mormon, and Pony Express Trails and most of their variants, the Union Pacific Transcontinental Railroad and the Oregon Short Line Railroad, and the Lincoln Highway. Regionally significant routes also lie partially within the subregion, including the Opal Wagon Road and a small portion of the Bryan to South Pass City Road (BLM 2004:147).

Benchmark archaeological sites in the MAA represent the prehistoric era from the Paleoindian period; the Early Archaic period, Great Divide and Opal phases; the Late Archaic period, Pine Spring and Deadman Wash phases; and the Late Prehistoric, Uinta and Firehole phases. As such, the MAA has produced archaeological data from significant site investigations that have contributed to the definition of regional prehistory across all periods.

Benchmark historical sites in the MAA are defined by the nationally significant transcontinental transportation corridor that crossed the Continental Divide throughout the historic and modern eras in Wyoming, southern Wyoming in particular. These include the Emigrant Trails and their variants, such as the Oregon/California/Mormon trail and the Blacks Fork, Hams Fork, and Slate Creek cutoffs; stage, freight, and mail routes, such as the Overland Trail and the Pony Express; railroads, such as the Union Pacific Railroad main line and the Oregon Short Line Railroad; and highways, such as the Lincoln Highway.

2.0 BENCHMARK ARCHAEOLOGICAL SITES

Benchmark archaeological sites are primarily represented by prehistoric components in the MAA. No Protohistoric or Historic period Native American archaeological sites have been specifically identified. Archaeological sites are described below in chronological order by period of significance.

2.1 Paleoindian Period

Five Paleoindian period sites are established in the MAA. These include sites 48LN373, 48LN1658, 48LN2287, 48SW6911, and 48UT401. The Class I Regional Overview (BLM 2004) describes these sites as follows:

> The Shute Creek Plant site (48LN373) was first recorded in 1982 during the Belco Cow Hollow Unit #202 Well Pad and Access Road, Class III Cultural Resource Inventory. This site is described as an immense quarry that also features intact subsurface features and stratigraphy (Wheeler et al. 1986). Features were dated from 8,980+/-130 to 770+/-50 years ago [other components date to the Deadman Wash Phase of the Late Archaic period]. Confusion surrounds the interpretation and boundaries of this site, although it is understood that portions of this site are located within the Shute Creek Lithic Landscape. The Shute Creek Plant site is considered to be somewhat significant to the study of regional prehistory (Wyoming SHPO 2004c). (BLM 2004:16)
>
> Site 48LN1658 was identified in 1985 during the Exxon USA, LaBarge to Shute Creek Sourgas feed trunkline (85-WWC-6d) project (Miller and Bower 1986). This occupation consists of three buried hearth features, charcoal stained soils, bone, lithic debitage, and fire-cracked rock. The buried items were exposed during trenching operations. A single hearth was dated to 9,530+/-300 years BP. Artifacts observed in surface contexts included flakes and fire-cracked rock (BLM 2004:16).
>
> The Sevenmile Wash site (48LN2287) was first surveyed during the Amoco Production Company Whiskey Buttes Well Pad #55 survey in 1990. The site was described as an occupation site, possibly dating to the Paleoindian Period (Berrigan and Jess 1991). It included lithic scatters, assorted lithic tools, and hearth features. This site was considered significant because of the presence of good site conditions, early Paleoindian Period diagnostic artifacts [Goshen complex], and the probability of intact cultural deposits. Additionally, Paleoindian Period sites such as the Sevenmile Wash site are extremely rare west of the Green River (Wyoming SHPO 2004c). (BLM 2004:16)
>
> The Dixie Cup site (48SW6911) was initially recorded in 1987 in preparation for the ITR Pipeline. Resurvey occurred in 1994 as part of the Legacy 20-10 pipeline and again in 1998 as part of the Mountain Gas Resources 16" Loop Pipeline. During excavation three hearths dating to the Paleoindian [7,130±70 BP] and Archaic Periods [6,460±80 BP and 5,990±80 BP] were recorded below lag gravel-bearing levels (Rood et al. 1992). Additionally, fire-cracked rock, lithic debitage, and tool fragments were observed. Due to the existence of buried artifact-bearing deposits, this site was recommended as eligible for the NRHP (Wyoming SHPO 2004c). (BLM 2004:16-17)
>
> The Porter Hollow site (48UT401) is a multi-component site with Paleoindian [10,090±120 BP], Late Archaic [2,400±80 and 2,200±80 BP] and Late Prehistoric occupations. It was excavated in 1980 in preparation for a MAPCO project. Excavations have indicated that the site was used for tool manufacture and limited bison and antelope processing activities (Hoefer 1987). Site components remain intact and buried (Wyoming SHPO 2004c). (BLM 2004:17)

2.2 Archaic Period

The Class I Regional Overview (BLM 2004) identifies 17 sites with sufficiently confirmed Archaic period components within the MAA. These include Early Archaic period site components (48LN127, 48LN616, 48LN1296, 48LN1334, 48LN1404, 48SW7226, 48UT370, and 48UT1241), two Late Archaic period site components (48LN919 and 48SW1612), and seven sites with multiple Archaic period components (48LN373, 48LN1185, 48LN1468, 48LN1738, 48LN2450, 48SW1242, and 48UT199). Of these, 19 benchmark site investigations are described, encompassing 14 Early Archaic period and 5 Late Archaic components.

Nine of the Early Archaic period sites are from the Opal Phase (48LN127, 48LN616, 48LN1334, 48LN1404, 48LN1468, 48LN1738, 48LN2450, 48SW7226, and 48UT1241); one is from the Great Divide Phase (48UT370); and five are multi-component Archaic period sites (48LN1296, 48LN1738, 48SW1242, 48UT199, and 48UT1185), including from the Opal and Pine Spring phases of the Archaic period. The Class I Regional Overview (BLM 2004) describes these sections as follows:

> The Cow Hollow Creek site (48LN127) is a sizeable multi-component campsite initially excavated in the late 1970s and early 1980s (Van Essen et al. 1982). Site dates range from possibly as early as 5,000 BP (Early Archaic [Opal Phase]) to 1,400/900 BP (Late Prehistoric). This site includes hearth features, lithic scatters, stone tools, projectile points and ground stone (BLM 2004:24).
>
> The Moxa Housepit site (48LN616) was surveyed numerous times between 1980 and 1999 with mixed results. Initially, the site was noted to be an expansive, disturbed, lithic scatter. A house pit (the only such feature recorded in the Moxa Arch Gas Field) and associated features were recorded later. Radiocarbon dates from the site date to 5,790+/-50 BP [Early Archaic, Opal Phase.] A house pit feature is rare in southwestern Wyoming, and the site may hold potential to address research questions pertaining to subsistence, settlement and mobility (Wyoming SHPO 2004c). (BLM 2004:23)
>
> The Old and in the Way site (48LN1296) was initially surveyed in 1984 as part of the Exxon LaBarge Project Rail Spur and Access Road. The site is described as an Early Archaic through Late Prehistoric Period occupation site with a quarry component and a Historic Period sheepherder refuse scatter (Wheeler et al. 1986). The site is composed of a variably dense scattering of lithics and diagnostic tools, ground stone, ceramics and a light scattering of fire-cracked rock (Wyoming SHPO 2004c). Two burials were also recorded at this site (Wheeler et al. 1986:172-174). (BLM 2004:18)
>
> Site 48LN1334 was identified in 1983 during the Exxon Air Quality Monitoring Station project. This site was interpreted as an occupation site with a quarry and other activity areas. Lithic debitage, gravers, scrapers, fleshers, hammerstones and other tools were observed along with a single hearth feature (Wheeler et al. 1986). The site was well preserved… (Wyoming SHPO 2004c). (BLM 2004:24)
>
> Site 48LN1404 was initially identified in 1984 during the Exxon-Shute Creek Plant North-South Access project. This site was surveyed a second time during the Class III Cultural Resource Inventory of the proposed Farson Road No. 2-13 lateral pipeline project in 1994. It was described as consisting of three hearth features, fire-cracked rock, and lithic scatters. Some site features and artifacts were located in surface contexts, while others were observed eroding from dunes. Testing located a buried component with a date of 5,480+/-80 years BP [Early Archaic period, Opal Phase]. Subsurface investigations revealed eight more hearth features, fire-cracked rock, burned bone, broken bone and lithic scatters (Wheeler et al. 1986). Tools

recovered included: bifaces, flake tools, a knife and five projectile points. Postexcavation monitoring activities uncovered ten additional features (BLM 2004:24).

The Taliaferro site (48LN1468) was initially identified and partially excavated during a site inventory of the ExxonFeed Gas Pipeline in 1984. It was considered eligible for the NRHP following excavation and analysis. Since avoidance could not be accomplished, this site was excavated as part of the Exxon Company, USA, LaBarge Natural Gas Project in 1985. Eight occupation components dated between [the Early Archaic, Opal Phase] 5,290 and [the Late Prehistoric, Uinta Phase] 960 years BP (Smith and Creasman 1988). Diagnostic projectile points excavated from discrete cultural deposits at this site have refined the southwestern Wyoming cultural chronology. This excavation revealed the utility of large scale excavation with regard to data collection, and added a great deal of information to the southwestern Wyoming archeological record. Since much remains buried and possibly intact at the Taliaferro site, the site continues to be considered eligible for the NRHP (Wyoming SHPO 2004c). (BLM 2004:23)

Site 48LN1738 was initially recorded in 1987 during the Mountain Fuel Resources Shute Creek Pipeline project. In 1994, the site was re-surveyed during procedures involved with the Williams Field Services Bannon Cow Hollow 59 Pipeline. This site was described as an [Early Archaic, Opal Phase to Late Archaic, Pine Spring Phase] occupation site with lithic scatters, two projectile points, fire-cracked rock, burned sage, and charcoal [5,410 BP and 3,920±90 BP radiocarbon dates] (Hoefer and Darlington 1991). Subsurface testing indicated that buried horizons may contain cultural material (BLM 2004:25).

The Hams Fork site (48LN2450) was recorded in 1992 as part of the UPRC Kern River Tie-in to the Overland Trail Pipeline Class III site inventory. Surface and subsurface features and artifact scatters were recorded during pedestrian and subsurface investigations. Site dating is confused – possibly three site components have been dated. The oldest component dates to the Early Archaic Period, Opal phase or to the Late Archaic Period, Pine Spring phase at 3280+/-70 years BP, while the second dates to the Protohistoric Period. The existence of a third component that dates to the Historic Period remains a possibility (McKern 1996). Site activities included lithic tool maintenance or manufacture and food processing. The site has been interpreted as being a long term base camp based on its location on a terrace of the Hams Fork River. This site has been recommended as eligible for the NRHP due to its intact, buried features that may contribute to regional chronological and settlement and subsistence pattern studies (Wyoming SHPO 2004c) (BLM 2004:24).

The Fontenelle Twelve site (48SW1242) was surveyed in preparation for construction of the Amoco State of Wyoming AI Well & Access (Project# 1AC 89-WY-175) in 1986 (Hoefer 1986), and again 1993 as part of the Class III Inventory for the Williams Field Services State of Wyoming AI #2 pipeline... This is a Middle [Plains] Archaic [Opal Phase based on projectile point types and Pine Spring Phase, 3,000 to 4,200 BP from geomorphologic analysis] to Late Prehistoric [800 to 2,000 BP from geomorphologic analysis and 1,350±70 BP radiocarbon dated] occupation site which has been disturbed and was initially considered ineligible for the NRHP. Some intact components remain, so the site was later recommended as eligible for the NRHP. Lithic debitage, tools, ground stone, fire-cracked rock, a large number of hearth features, and rich quarry areas surround the site (Wyoming SHPO 2004c).

> Site 48SW7226 was first recorded in 1988 as part of the Questar Shute Creek Pipeline (88-WWC-45). The site consisted of five buried hearth features (Hoefer and Darlington 1991). One hearth was dated to [the Early Archaic Period, Opal Phase] 4,900+/-70 years BP. Very little fire-cracked rock was observed. No artifacts or features were recovered from surface contexts (BLM 2004:25).
>
> The Church Butte Four site (48UT199) was initially investigated by the University of Utah and others prior to 1979. It was officially recorded during the Trailblazer Pipeline Project. In the past 25 years, this site has been investigated and tested a number of times in preparation for various energy and fiber optic cable projects (Batterman and Smith 1989). Investigations have recorded Early through Middle [Plains] Archaic Period and Late Prehistoric Period occupations. These components include: lithic scatters, fire-cracked rock, bone and Late Prehistoric Period ceramics. Excavated features include: tri-hearths and stone-filled basins. The Church Butte Four site has been recommended as eligible for the NRHP due to intact subsurface deposits (BLM 2004:21).
>
> Site 48UT370 was initially recorded in 1980 during the MAPCO project (Metcalf and Anderson 1982). A second survey took place in 1982 as part of the Frontier Pipeline project. A third survey of the site took part in 1999 as part of the Williams Communications, Inc Midwest Cross Phase IIIB fiber optic cable project. Site 48UT370 was described as an occupation site where metates, manos, hearths, lithic scatters, and a fragment of a stone drill, were located in surface and subsurface deposits (Schroedl 1985). The site was dated to the Archaic Period [Great Divide Phase]… (Wyoming SHPO 2004c). (BLM 2004:22)
>
> The Moxa Twenty-Eight site (48UT1185) was recorded in 1982 and 1983 during the Amoco Moxa Arch Open Pipeline Trench Inspection (Project# ACB-82-231). This occupation site was described as three subsurface hearth features with surface components. The site included lithic scatters, stone tools, projectile points, and hearths (Hoefer and Darlington 1991; McDonald 1993). It dates from the Archaic through Late Prehistoric Periods [3,590±80 and 1,600±110 BP] (BLM 2004:21).
>
> Site 48UT1241 was initially recorded in 1987 and 1988 in association with the AT&T fiber-optic cable project (McNees 1989a). The site was rerecorded in 1993 in preparation for the US West fiber-optic cable project. Site artifacts and features included lithic and fire-cracked rock scatters, four fire-cracked rock concentrations, two lithic tool fragments, and assorted side-notched dart points. The site dates from the Early Archaic Period [Opal Phase, 5,500±100 and 5,110±90 BP]… (Wyoming SHPO 2004c). (BLM 2004:25)

Although not yet among the list of benchmark sites, preliminary results from 48LN3156 (McKern and Sines 1996; Reed et. al. 2006) suggests future Archaic-period research potential for this habitation site, contemporaneous to Middle Archaic studies for surrounding regions. Based upon McKean-complex projectile points, known for the Middle Archaic period on the Northern Plains, and identified in association with habitation features at 48LN3156, which was tested to positively contain subsurface archaeological deposits, MAA sites hold the potential for further elucidating the connection of the Early Archaic to Late Archaic transition in the Wyoming Basin in comparison to Middle Archaic traditions from neighboring regions.

In addition to the Middle Archaic period site (48LN3156), the two multi-component Opal Phase/Pine Spring Phase sites (48LN2450 and 48LN1242), and one Paleoindian/Deadman Wash Phase site (48LN373), described above, two Late Archaic period sites in MAA are from the Deadman Wash

Phase (48LN919 and 48SW1612) and another is estimated to be from the Pine Spring Phase (48SW1242). The Class I Regional Overview (BLM 2004) describes them as follows

> Site 48LN919 was initially recorded in 1981 as part of the Amoco Production Company's Cultural Resources Inventory of Shute Creek Unit #11 project. A second survey recorded this site in 1983 during the Shute Creek project. The site was rerecorded in 1984 during the Cow Hollow #1 Well Pad & Access Route Survey (IAC 84-49). The latest recording occurred in 1985 as part of the Exxon LaBarge Project Feed Gas Trunkline project (Wheeler et al. 1986; Miller and Bower 1986). The site was described as a large occupation site with lithic scatters, lithic tools, projectile points, manos, grinding slabs, ground stone, a ceramic sherd, bone and fire-cracked rock. Eroded hearth features, an intact buried hearth feature, and charcoal stains were also recorded. It was recommended as eligible for the NRHP because it contains information that may be important to an understanding of southwestern Wyoming prehistory, due to the presence of intact buried deposits and rare artifact types (Wyoming SHPO 2004c). (BLM 2004:28-29)
>
> The MAK site (48SW1612) was surveyed in 1979 as part of the Amoco Champlin 206 D-1 project. The site was resurveyed in 1981 as part of the Northwest Pipeline Corporation Amoco Champlin Federal 1-6a project. It was surveyed once again in 1988 as part of the 88-WWC-071 CIG Pipeline–Granger to Opal project. The final survey occurred in 1990 during a Presidio Oil Company-related project. This site was described as an occupation site and quarry that exhibited lithic scatters and tool assemblages. Bone was recovered as were fragments of a marine shell. A single hearth feature [from the Deadman Wash Phase, 1950±70 B.P.], possibly related to bone processing, was identified (Thompson and Pastor 1991). (BLM 2004:28)

In addition to the sites described above, a series of other sites identified along the edge of the Hams Fork River floodplain in 1979 (Lau 1981) produced additional radiocarbon dates indicating transitional or repeat occupation use of this region of the MAA from the Deadman Wash phase of the Late Archaic period into the Uinta phase of the Late Prehistoric period. Although arguably not a benchmark site or sites (Del Bene and Harrell 1994), the Wilson Ranch Road site complex (48LN541) produced seven radiocarbon dates across four site localities.

> These samples from [48LN541's] Locality 77 (assumed destroyed by 1979 excavation), Locality 71 (48LN2912), Locality 52 (48LN2902), and four from Locality 19 (48LN2888), resulted in dates ranging from 2320 B.P. to 1075 B.P. with a maximum range of error of ±130 years (Lau 1981). This places the… sites primarily in the Late Archaic period with transition into the Late Prehistoric period… Site 48LN2902 has a Late Archaic period date, consistent with the Deadman Wash phase, at 2320 B.P. ±130 years. Sites 48LN2888, 48LN2913, and Locality 77 all have dates consistent with the Uinta phase of the Late Prehistoric period at 1565 B.P. ±70 years, 1220 B.P. ±55 years, 1075 B.P. ±75 years, 1515 B.P. ±95 years, and 1460 B.P. ±75 years, respectively (with the first three dates being from 48LN2888). Additionally, 48LN2888 produced one date in transition between the Deadman Wash and Uinta phases at 1850 B.P. ±70 years (Reed et al. 2006:Appendix C).

2.3 Late Prehistoric Period

The Class I Regional Overview identifies 12 sites with sufficiently confirmed Late Prehistoric period components within the MAA: 48LN123, 48LN269/48UT122, 48LN919, 48LN1697, 48LN1813, 48LN3040, 48SW2302, 48SW3370, 48UT390, 48UT779, 48UT845, and 48UT1846. Sites

48LN269/48UT122, 48LN919, and 48UT390 are multi-component Archaic period sites, but 48LN269/48UT122 and 48UT390 are most notable for their Late Prehistoric components.

Six sites (48LN1697, 48LN1813, 48LN3040, 48SW3370, 48UT845, and 48UT1846) produced only Late Prehistoric (Uinta Phase) grayware ceramic sherds in the MAA, and have not yet had intensive testing excavation to prove that significant subsurface deposits are associated (BLM 2004:33). Of these, in addition to 48LN919 described above, five benchmark site investigations are described below (48LN123, 48LN269/48UT122, 48SW2302, 48UT390, and 48UT779):

> Site 48LN123 was first recorded in 1979 as part of the Stauffer Chemical Company's Whiskey Buttes Prairie Dog Lateral Project. A second recording occurred in 1991 as part of the NWP Lateral A-24 Pipeline project. This site was interpreted as an occupation site with buried components [apparently Firehole phase]. Trenching revealed hearth features. One large feature may be a house pit feature. Additionally, fire-cracked rock, charcoal stains and lithic scatters were located in areas that were previously disturbed by pipeline construction (BLM 2004:34).
>
> The Gemma site ([48LN269 and] 48UT122) was first recorded in 1978, but subsequent resurveys occurred in 1987 during the Mountain Fuel Resources Shute Creek Pipeline project, and in 1990 for the Northwest Pipeline A-16 Pipeline project. Site investigations recorded buried and surface site contexts with fire-cracked rock, lithic debitage, bone, egg shell, charcoal stains, and a hearth feature (Pastor et al. 1995). The [first] hearth feature was dated to 1,480+/-80 BP [Uinta phase, while a second hearth dated to 5,900 ± 80 years BP, Early Archaic, Opal phase]. [Other 1990 excavations produced single-component data elucidating Late Prehistoric period, Uinta Phase occupations of the site, averaging between 1,344 to 1,688 BP in age (Pastor 1998).] The Gemma site is believed to contain additional buried site components, and is recommended as eligible for the NRHP (BLM 2004:32).
>
> Site 48SW2302 was first recorded in 1982 during the MAPCO project (Metcalf and Anderson 1982). A subsequent investigation occurred during 1998 in preparation for the Questar Gas Management Blacks Fork Plant to the Northwest Pipeline Facility pipeline. The site was described as a Late Prehistoric Period occupation site dating from 1,345 +/-45 years BP and 1,189+/-95 years BP [Uinta phase]. The site also contained an historic component [EuroAmerican]. It includes a lithic scatter, fire-cracked rock, and an assortment of stone tools (BLM 2004:33).
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> The Austin Wash site (48UT390) was identified and tested in 1981 during the MAPCO Pipeline Project (Metcalf and Anderson 1982), in 1982 during the Frontier Pipeline Project, in 1990 in preparation for the Halliburton Geophysical Seismic Line 15 project, in 1999 for the Williams fiberoptic cable project, and in 1999 for the PPLE project. This Late Prehistoric Period [1,070±80 BP, Uintah phase, and 3,030±70 BP, Late Archaic Period, Pine Spring phase], single-episode, antelope processing site features lithic tools, possible remnants of charcoal lenses and antelope bone. Excavation revealed the presence of postholes that may indicate the use of an antelope trap (Reese and Walker 1982; Schroedl 1985; Rood et al. 1992). Despite excavation and disturbance of half the recorded site, the Austin Wash site remains eligible for NRHP nomination because it holds research potential relating to the understanding of southwestern Wyoming prehistory (Wyoming SHPO 2004c). (BLM 2004:30)
>
> Site 48UT779 was first recorded in 1982 and 1983 as part of the Frontier Pipeline project (Schroedl 1985). [That pipeline project performed data recovery on the site,

> defining components that apparently include that of the Firehole phase.] The site was investigated again in 1987 in preparation for the AT&T fiber-optic cable project [but was not relocated]. The final investigation[s] occurred in 1993 [and 1997] during the US West fiber optic cable project [and the Eakin Ranch No. 1 Pipeline project, but were unsuccessful in relocating the site]. This site was described as a surface manifestation of an occupation site. It included fire-cracked rock, lithic scatters, and assorted tools. Initially it was recommended as eligible for the NRHP, but the later excavations were unable to relocate the site (Wyoming SHPO 2004c). (BLM 2004:34-35)

No specifically Protohistoric or Historic period Native American archaeological sites are known in the MAA. Two Protohistoric sites, 48UT1 (the Bridger Antelope Trap) and 48UT920 (the Bridger Gap Burial), are known in the Green River Basin subregion (BLM 2004:37).

3.0 BENCHMARK HISTORICAL SITES

The most significant historic sites present in the MAA are from the great westward emigration National Landmark Trails or historic transportation corridors that follow the general westward route of the Emigrant Trail system. The following is the Class I Regional Overview (BLM 2004) description of the history of historic transportation across the MAA using the Oregon/California/Mormon Trail (and their Blacks Fork, Hams Fork, and Slate Creek cutoffs), the Pony Express route, the Overland Trail, the Union Pacific Railroad main line, the Oregon Short Line Railroad, and the Lincoln Highway as benchmarks:

> Some 350,000 emigrants followed the Oregon Trail westward during the great 19th century migration to Oregon, California, and Utah… Farmers bound for the fertile valleys of Oregon, Mormons seeking religious freedom bound for the Salt Lake Valley, and adventurers bound for the California gold mines all ventured across the plains and mountains by way of the Oregon Trail. This route was also used for the first transcontinental telegraph, the federal Overland Mail service, and the Pony Express. From Independence, Missouri, to western Oregon, a wagon traveled 1,932 miles. For a journey of such magnitude, emigrants needed dependable sources of water and grass and a passable grade through the mountains. The Oregon Trail, crossing the mountains at the gentle South Pass in Wyoming, met these requirements and became the pathway of commerce, settlement, and development. All travelers followed the same "Emigrant Road" with only minor variations as far as Fort Bridger in southwestern Wyoming. Here the Mormon Trail diverged to reach the Salt Lake Valley in Utah. The California-bound travelers branched off from the main route near Fort Hall, Idaho. Although "Oregon Trail" is the name most commonly used today, emigrants who followed it simply called it "the road" (Natrona County Historic Preservation and Rosenberg Historical Consultants 2001:1). (BLM 2004:45)

Of these benchmark sites, only the Blacks Fork Cutoff and Slate Creek Cutoff trails retain known intact, integral trail segments within the MAA contributing to each site's National Register of Historic Places (NRHP) eligibility. The other transportation sites may retain NRHP-contributing portions outside of the MAA, but within the MAA their historic structures or their integral historic qualities have been substantially displaced or destroyed.

3.1 Emigrant Trail – Main Branch (48SW827/48UT261)

This main branch, or Bridger route, of the Emigrant Trail was the principal route used during the great westward migration and was used continuously from 1843 to the early twentieth century. Unfortunately, the Emigrant Trail corridor that passes through the MAA is largely not intact, disturbed

by previous development. Improved roadways, transmission lines, buried cables, pipelines, and well field facilities have been built along and across the structure in this area. Much of this portion of the historic transportation routing is displaced by the recent Sweetwater County Road 2 and Road 8 and the Uinta County Road 233 structures. The Emigrant Trail segment, as known across the core MAA, has previously been considered a non-contributing portion of an otherwise eligible historic trail.

From east to west, the main branch of the Emigrant Trail enters the eastern flank of MAA along the north side of the Blacks Fork River. Across Sections 24, 23, 22, 21 (Township 19 North, Range 111 West) and crossing Highway 30 to Granger, Wyoming, the trail route is overlaid by Sweetwater County Road 8 and the Union Pacific Railroad line (48SW6357), which has destroyed the integrity of the Emigrant Trail according to Wyoming Cultural Resource Office (WYCRO) files for historic site portion 48SW827. In addition, several variants of the main branch of the Emigrant Trail are reviewed in WYCRO files where they connect between Green River crossings, at east, and the Blacks Fork River, at south-southwest. In the eastern flank of the MAA, the routings of these variants appear primarily set to maneuver around Sevenmile Wash, a north-northwestern tributary of the Blacks Fork River with confluence in Section 18, Township 19 North, Range 110 West. One trail variant intersects the eastern border of the MAA in Section 36, Township 20 North, Range 111 West, and Sections 1, 12, and 13, Township 19 North, Range 111 West, trending southward to cross Sevenmile Wash near the point of confluence. Another route crosses Sevenmile Wash upstream in Sevenmile Gulch, entering the eastern Flank of the MAA in Section 24 (Township 20 North, Range 111 West) and trending south-southwestward toward Granger, across Sections 23, 26, 27, 28, and 33 (Township 20 North, Range 111 West) and Sections 4, 5, 8, 16, 17, 18, 19, 30, 31, and 32 (Township 19 North, Range 111 West), as well as a southeastward split along an unnamed intermittent stream across Section 16 (Township 19 North, Range 111 West). These variant routes are primarily missing or overlaid by graded access roads accessing well field development around the Sevenmile Wash area. The Pony Express route (48SW6274) overlaid the Emigrant Trail from Senvenmile Wash southwestward. The Overland Trail (48SW1226) joins the Emigrant Trail on the north side of the Blacks Fork River at the east border of the MAA.

In the core of the MAA, Union Pacific Railroad and Granger development appear to have displaced the Emigrant Trail at the confluence of the Blacks Fork River and the Hams Fork River. Where the Emigrant Trail crosses the Hams Fork River and then the Blacks Fork River westward, WYCRO records indicate that the trail is non-intact and not contributing to NRHP eligibility of the National Historic Trail from Sections 32 and 31 (Township 19 North, Range 111 West) to where it is joined by Sweetwater County Road 2 and Uinta County Road 233, which parallel and overlap the Emigrant Trail corridor across the rest of the MAA. Recent WYCRO files for 48SW827 and 48UT133 documentation of the Emigrant Trail indicate it to be non-intact along county road corridors from Sections 6 and 7 (Township 18 North, Range 111 West); Sections 12, 11, 10, and 9 (Township 19 North, Range 112 West); Sections 24, 25, 26, and 35 (Township 19 North, Range 113 West); and Sections 2, 3, 10, 15, 16, 21 and 28 (Township 18 North, Range 113 West) to exit the western flank of the MAA along the Blacks Fork River. These county road corridors also represent the route of the Lincoln Highway (48SW1834/48UT255) and Old Highway 30 (48UT1633). Church Butte (48UT251) appeared as a landmark on this route for historic travelers from all eras.

Exceptions occur in sections where the Emigrant Trail remains unassessed as to whether the trail trace is intact or not. In Sections 8, 17, and 18 (Township 19 North, Range 112 West), the Emigrant Trail diverges from the county road corridor in crossing Porter Hollow. In 1992, Western Wyoming Community College addressed a segment of trail in Section 18, which has been designated as contributing to the NRHP eligibility of site 489UT261 (Western Wyoming Community College 1992); however, the 1992 documentation gave no description of the trail condition or structure at this location, so it actually remains unassessed. Additionally, where the Emigrant Trail exits the western flank of the MAA in Section 28 and 33 (Township 18 North, Range 113 West) and Section 6 (Township 17 North, Range 113 West), before it reaches the Interstate 80 corridor, it remains

unassessed where it crosses private lands encompassing the Blacks Fork River plain in these sections. These unassessed portions include the Names Rock site (48UT650) in Section 33 (Township 18 North, Range 113 West).

The Emigrant Trail was designated a National Historic Trail by Congress in 1978, recognizing historic development of the Oregon Trail. The majority of segments in the core and flank of the MAA have been severely damaged by previous development, seriously impacting overall integrity. This assessment is based on the lack of any visible presence of intact trail portions by previous studies in the MAA, as well as the lack of integrity and feeling resulting from development of the area. The Emigrant Trail site has been changed sufficiently here, such that its setting and feeling no longer contribute to a historic sense of place. The corridor generally lacks visual integrity and historical associations, given infrastructure development in the vicinity (e.g., other equally prominent raised and paved roads, utility lines, buried cables, mineral wells, and pipelines).

3.2 Blacks Fork Cutoff (48LN946/48SW4196/48UT666)

The Class I Regional Overview (BLM 2004) describes the history of the Blacks Fork Cutoff trail corridor within the MAA as follows:

> The Blacks Fork Cutoff of the Oregon Trail is a poorly documented shortcut of the main Oregon Trail. The main trail headed southwesterly to Fort Bridger and then swung northwesterly before heading west out of present-day Wyoming. The Blacks Fork Cutoff proceeded due west from Granger, following a portion of the Blacks Fork and the current Lincoln-Uinta County line, bypassing Fort Bridger to close the top of an imaginary "V" formed by the main Oregon Trail. It rejoined the main trail east of Cumberland Gap. The primary evidence for this trail is the General Land Office survey plats dating to 1874… Maps drawn for the Wyoming Recreation Commission by Paul Henderson… also depict the Blacks Fork Cutoff. However, no emigrant diaries or guidebooks have been located describing this cutoff. The prominent ruts and swales along its course indicate that the Blacks Fork Cutoff received heavy usage in the past (BLM 2004:60).

In this region, the trail has generally been replaced by many improved roads within the Moxa Arch well field, which itself has infrastructure that is widely visible across the landscape surrounding the current Project Area. The Blacks Fork Cutoff has been previously determined eligible for nomination to the NRHP under Criterion A because of its association with a nationally significant event: the emigration to, and settlement of, the Western United States. However, the Bureau of Land Management (BLM) has previously determined that segments of the Blacks Fork Cutoff in the core MAA are non-contributing segments of this otherwise NRHP eligible trail site. Only fragments in the core MAA and segments departing the core MAA into the MAA flank at west, in Uinta County, still retain intact trail traces, contributing to NRHP eligibility. Determination of non-contributing portions is generally based on the lack of any visible indications of the trail at the proposed crossing and the lack of integrity and feeling caused by modern infrastructure construction and gas development in the area.

Across Lincoln County, intact trail segments (48LN946) remain in Sections 27, 28, and 30 in Township 19 North, Range 112 West, and Sections 35 and 36 in Township 19 North, Range 113 West (Retter et al. 2006). In Sweetwater County, intact trail segments (48SW4196) remain in Sections 27 and 36 in Township 19 North, Range 112 West (Retter et al. 2006). The integrity and intactness of the trail as it crosses Section 31, Township 19 North, Range 112 West, in Sweetwater County, remain unassessed eastward to where the Blacks Fork Cutoff splits from the main Emigrant Trail Route near present-day Granger, Wyoming. In Uinta County, intact trail segments (48UT666) remain in Section 4, Township 18 North, Range 113 West along the north bank of the Blacks Fork River (Frizell 1991),

and appear to extend east into adjacent Section 3, where the trail remains unassessed. An intact segment of the trail appears to descend the ridge spine in the northeast corner of Section 3, Township 18 North, Range 113 West, southwestward to the Blacks Fork River floodplain, following a U.S. Geological Survey (USGS)-mapped two-track road route (Polk 1991). Where the trail exits the flank of the MAA westward along the Blacks Fork River, the trail remains unassessed through Sections 5, 6, and 7, Township 18 North, Range 113 West. The Uinta County portions of the trail are in the western flank of the MAA where the visual setting of the trail may retain integrity, while the Lincoln and Sweetwater County portions of the Blacks Fork Cutoff are in the core of the MAA, which generally has impacted visual setting.

3.3 Hams Fork Cutoff (48LN947/48SW4162)

The Class I Regional Overview (BLM 2004) describes the history of the Hams Fork Cutoff trail corridor within the MAA as follows:

> This poorly documented cutoff was a well-watered route that diverged from the main Oregon Trail at Granger and followed the Hams Fork upstream in a northwesterly direction to the Sublette Cutoff, north of today's Kemmerer, bypassing Fort Bridger. Today most of this route is paralleled by U.S. Route 30 between Granger and Kemmerer. The Oregon Shortline Railroad was built along this same route in 1881 and 1882. Portions of the Hams Fork Cutoff are depicted on 1874 General Land Office plats. It is also associated with the Trappers' Rendezvous of 1834, which was held along Hams Fork, and the Mormon War of 1857-58. Several government expeditions of the U.S. Geological Survey also used portions of the route in the 1870s (BLM 2004:59).

A review of previous investigations and background research is available from previous investigations, such as the Preliminary Management Recommendations for the Hams Fork Cutoff, Site 48LN947, and the Oregon Short Line Railroad, Site 48LN2327, in the Proposed Hams Fork 3-D Geophysical Exploration Project Area, Lincoln County, Wyoming (Phillips 2004). That account notes that the Hams Fork Cutoff does not retain any identifiable portions other than at its northwest junction with the Sublette Cutoff Trail (48LN225). All other tracks previously investigated appear to be later roads or two-track developments unrelated to the Hams Fork Cutoff, mostly appearing after 1882 and after the Oregon Short Line Railroad was developed. These later roads and two-tracks do not tend to appear on GLO plat maps from 1904 and earlier. Previous recordings of the Hams Fork Cutoff indicate that the roads appearing on 1874, 1882, and 1904 plats along the Hams Fork River Valley have largely been displaced by railroad development, highway development, county road development, ditch development, hay field development, and general fluvial action of the Hams Fork River. Based on these observations, this portion of the site contains no integrity. However, lack of trail structure may not preclude the future discovery of archaeological sites associated with the trail route, such as 1834 Rendezvous campsites, 1857 Mormon campaign sites, or even the Hams Fork Station site (48SW939) at the confluence of the Hams Fork and Blacks Fork Rivers.

The overall Hams Fork Cutoff Trail has been determined eligible for listing on the NRHP under Criteria A and B. However, those portions in the MAA, and along the Hams Fork River between Granger and Kemmerer and beyond, have been previously considered non-contributing portions of this otherwise eligible property. BLM and SHPO have previously concurred with this recommendation. The setting of the Hams Fork Trail corridor has been humanly or naturally altered from its historic state, leaving no evidence of the historic trail (Phillips 2004; Tanner 2004). Previous records and the 2001-2002 BLM aerial fly-over of the corridor also resulted in no identifications of trail segments in this area. Thus, several efforts have determined that no physical remains of the Hams Fork Cutoff are present in this area (Tanner 2004). Because of the lack of physical integrity, the Hams Fork Cutoff no longer retains its original association with significant historic events, other than

general use of the travel corridor (Tanner 2004). Additionally, because the trail no longer retains integrity of location, the historic setting is no longer relevant or deserving of consideration, regardless of the quality of the surrounding landscape (Tanner 2004). Furthermore, no visual horizon protection is considered relevant or necessary.

3.4 Slate Creek Cutoff (48LN948)

The Class I Regional Overview (BLM 2004) describes the history of the Slate Creek Cutoff trail corridor within the MAA as follows:

> The Slate Creek Cutoff or Trail was one of the southerly shortcuts of the Sublette Cutoff of the Oregon Trail located between the Big Sandy River on the east and the Green River on the west. Many 19th century emigrants chose these shortcuts to avoid the almost 50-mile desert crossing of the Sublette Cutoff to the north. The Kinney Cutoff, the Baker and Davis Road, and the Mormon Road, shortcuts on the east side of the Green River, converged into one trail on the west side of the river. The Slate Creek Cutoff followed the Slate Creek drainages, then joined the main Sublette Cutoff on Slate Creek Ridge north of Kemmerer. The Slate Creek Cutoff was utilized mostly between 1852 and 1859, when the Lander Cutoff diverted much of the emigrant traffic. Emigrant diaries from the 1852 and 1853 seasons invariably used the general term Kinney Cutoff to describe all the southern shortcuts located in the triangle of land formed by the confluence of the Big Sandy and Green rivers. The names "Baker and Davis Road" and the "Mormon Road" (trails on the east side of the Green River) appear to have come into use after 1853 (BLM 2004:58).
>
> The Slate Creek Cutoff diverged from Big Timber Station on the main Oregon Trail. Emigrants followed the more northerly Baker and Davis Road or the more southerly trails variously known as the East Bank Kinney (Slate Creek Cutoff) or the Mormon Road (West Bank Kinney). These trails crossed rolling sagebrush country, reaching the Green River and crossing via one of several ferries. The various alternates generally converged at the Green River into the main Slate Creek Cutoff, which turned south to the Slate Creek drainage, then followed westward. Emigrants generally made camp about 10 miles west of the Green River; it was another 10 miles to Emigrant Springs, then 3 miles to the junction of the Slate Creek Cutoff and the main Sublette Cutoff. These distances are generally agreed upon by trail diaries.
>
> General Land Office plats dated 1892 clearly show trails labeled "Road from Slate Creek Ferry to Opal" running east-west on both the north and south sides of Slate Creek. By the early 1890s, more than 30 years had passed since the Slate Creek Cutoff was used as an emigrant route, and the area was being settled by ranchers dependent on Opal, the nearest railhead to the south (Rosenberg 1990a:2-13; 1995: 7-8). (BLM 2004:58)

The MAA contains the main Slate Creek Cutoff from its Green River crossing, near Fontenelle, westward to Highway 189 and paralleling Highway 372. It was first recorded on the ground in the Project Area in 1984 during the Exxon LaBarge Trunkline project. It was found to be a two-track road generally following the Slate Creek drainage, marked by historic trail monument posts and labeled "Emigrant Trail" on contemporary USGS topographic maps. At that time, the trail was noted to already be impacted by existing area pipelines and road use. That same year the Slate Creek Cutoff was described in *Overland Journal* (Decker 1984). Based on previous records, from near the Fontenelle town site approximately 1.5 miles westward to Slate Creek Butte, the trail is fairly displaced by improved road, powerline, and other modern developments. From Slate Creek Butte

west to Highway 189, the trail has intact segments variously retained and still used as two-track roads along Slate Creek and fading, eroded disused portions that are still visible.

In 1995, Robert Rosenberg noted intact portions, contributing to site NRHP eligibility, to occur for 3,300 feet across Section 11 (T23N, R112W), which experiences some erosion and an overhead powerline, but had no mineral field intrusions at the time; the 7,100-ft portion trending northeastward from Section 11 into Section 1 (T23N, R112W) was documented as non-contributing due to obliteration (gravel pit at the Green River) and the presence of powerlines, a relay tower, and a paralleling, non-trail roadway from a buried utility line (Rosenberg 1995a).

Also in 1995, Elizabeth Rosenberg investigated the trail route eastward from Section 11 through Section 7 (T23N, R112W) and Section 13 (T23N, R113W) across the MAA, including all possible variations. She found a 5,280-foot-long contributing segment in Section 11; 7,920 feet spanning Section 15 and 16; and an 11,760-foot segment beginning in Section 17 (T23N, R112W) and continuing through Section 13 (T23N, R113W) and beyond, westward (Rosenberg 1995b). These were interspersed with non-contributing portions, due to map inaccuracies, erosion, intervening non-trail roadways, pipeline corridors, fence line corridors, and similar interruptions.

The Slate Creek Cutoff appears to retain more intact trail portions than other Emigrant Trail variants across the MAA; although, it too is segmented and affected by surrounding infrastructure development and natural weathering. In this region, the trail appears alternately intact and replaced by many improved roads within the Moxa Arch well field, which itself contributes to the infrastructure that is widely visible across the landscape surrounding the current Project Area. The Slate Creek Cutoff has been previously determined eligible for nomination to the NRHP under Criterion A because of its association with a nationally significant event: the emigration to, and settlement of, the Western United States. Various segments within the core MAA, in Lincoln County, still retain integrity. Determination of non-contributing portions is generally based on the lack of any visible indications of the trail at the proposed crossing and the lack of integrity and feeling caused by modern infrastructure construction and gas development in the area.

3.5 Overland Trail (48SW1226/48UT261)

The Class I Regional Overview (BLM 2004) describes the history of the Overland Trail corridor within the MAA as follows:

> The western end of the Overland Trail is located in the Kemmerer Planning Area. The history of the Overland Trail overlaps and postdates that of the early westward migration on the Oregon/Mormon Pioneer Trail [48UT261]. It was one of the major transportation routes in the Trans-Mississippi West between 1862 and 1869… The value of this route as an emigrant road was first officially recognized in 1850 by Captain Howard Stansbury of the Corps of Topographical Engineers… The route was first known as the Cherokee Trail and was used by the Evans party in 1849 bound for the California gold fields…
>
> This new route continued to be used by an unknown number of emigrant parties, as well as several military expeditions… But it was overland mail service that brought this route into prominence. Until the Civil War, overland mail had been transported on a southern route through Texas, Arizona, and New Mexico. With the onset of the war, a more northern route was encouraged, and in 1862 the southern route was discontinued in favor of an unspecified central route. Alternate routes were proposed, including one through Denver, but ultimately the mail was carried over the established Oregon Trail (Hafen 1926:92-93, 213-222; Root and Connelley 1901:41).

> On July 21, 1862, mail service began on the new line [provided by Ben Holladay's stage line], which was called the Overland Stage Line, and the route became known as the Overland Trail (Hafen 1926:232). The route diverged from the Oregon Trail near today's North Platte, Nebraska, swung through northeast Colorado and back north into southern Wyoming. It continued westward, generally paralleling the Oregon Trail to the south and rejoining that trail near the east boundary of the Kemmerer Planning Area. Stage stations were established at 10 to 12- or 15-mile intervals, and a telegraph line was constructed to connect many of the stations… Hams Fork or South Bend Station and Lone Tree Station were the only stops located in Kemmerer Planning Area (Rosenberg 1981:7). (BLM 2004:61-63)

In Sweetwater County, within the BLM Kemmerer Field Office area, the Overland Trail tends to lack integrity. In the MAA, the site is primarily represented by a bladed, crowned, ditched, and graveled county road (Sweetwater County Road 2/Uinta County Road 233), which is used as a major off-Interstate access road between Granger and Church Butte. These later road developments between Granger and Lyman, Wyoming, include overlap of the Overland Trail route with portions of the Emigrant Trail site (48SWUT261) and the historic Lincoln Highway (48SW1834/48UT255). Church Butte (48UT251) served as a historic landmark and a Church Butte stage station (48UT643) and Granger stage station (48SW939) historically served the Overland Trail in the MAA.

No historic integrity or evidence of the original historic transportation structures remain. Additionally, transmission lines, buried cables, and pipelines have been built along and across the structure at this location. This road segment has been previously recommended as a noncontributing portion of an otherwise eligible historic trail. This assessment is based on the lack of visible indication of historic road structure and the lack of integrity of setting and feeling caused by the construction of modern infrastructure and gas development facilities in the area. The road corridor lacks visual integrity and historical associations. The site has been changed sufficiently that its setting and feeling no longer contribute to a historic sense of place.

3.6 Pony Express (48SW6274)

The Pony Express route is not discussed separately from other Emigrant Trail routes in the Class I Regional Overview (BLM 2004). Through the MAA, the Pony Express route typically follows the main branch of the Oregon Trail or the Overland Trail and, like them, is principally overlaid by the later Lincoln Highway and recent Sweetwater County Road 2/Uinta County Road 233 developments. The only location in the MAA that the Pony Express diverges from the Emigrant Trail is from Sevenmile Wash (Section 27, T20N, R111W) northeastward toward the Green River; however, this stretch is displaced by the now bladed Lombard Road (Darlington 1996).

The Pony Express began running in 1860 between Saint Joseph, Missouri and Sacramento, California as a faster mail system than overland freight, but was discontinued six months later after a transcontinental telegraph system was established in 1861. The Lombard Road is a later, mid-nineteenth century variant of the Emigrant Trail connecting to the Lombard Ferry site (48SW1848) on the Green River. Based on previous records, the Lombard Road has been destroyed in the MAA by recent grading and both it and the Pony Express route lack integrity. Recent transmission lines also cross this route portion. Cement monument posts mark the Pony Express corridor.

No historic integrity or evidence of the original historic transportation structures remain. Additionally, transmission lines and well access roads have been built along and across the structure in the Project Area. This Pony Express segment has been previously recommended as a noncontributing portion of an otherwise eligible historic transportation route. This assessment is based on the lack of visible indication of historic trail trace and the lack of integrity of setting and feeling caused by the construction of modern infrastructure and gas development facilities in the area. The road corridor

lacks visual integrity and historical associations. The site has been changed sufficiently that its setting and feeling no longer contribute to a historic sense of place.

3.7 Transcontinental Railroad (48SW6357/48UT668)

The Class I Regional Overview (BLM 2004) describes the history of the Transcontinental Railroad corridor within the MAA as follows:

> Finding a suitable transcontinental route was one of the reasons for the military exploring and mapping expeditions across the West in the 1840s and 1850s. A charter for a transcontinental railroad was approved by Congress in 1861, but construction did not begin until after the close of the Civil War in 1865. From at least 10 possible routes that had been investigated, a central route was chosen from the Missouri River at Omaha, Nebraska, to the Pacific Coast in California. From Omaha, the route would course westward to a pass in the Medicine Bow Mountains in eastern Wyoming, with the future cities of Cheyenne to the east and Laramie to the west. The route then roughly followed the old Overland Trail westward to the Green River and then further westward toward the Great Salt Lake. The railroad route cut off the old trail dogleg to Fort Bridger, so that the railroad passed several miles to the north of the fort (Stone 1924:82)…
>
> After entering Uinta County, the UPRR [Union Pacific Railroad] coursed nearly due west to the junction of Muddy Creek with Blacks Fork River. The first station was Verne, which consisted only of a section house and a water tank. About five miles west of Verne was a station called Church Buttes, named for a nearby landform to the south. From Church Buttes, the railroad followed the valley of the Big Muddy Creek about six miles to a station called Hampton for an early ranch near the station. Six miles from Hampton Station was Elkhurst Station, and Carter was about six miles to the southwest of Elkhurst. Carter became the main shipping point for Fort Bridger, about 15 miles to the south, and for the agricultural settlement in Bridger Valley (BLM 2004:63-64).

The Union Pacific Railroad main line, connected coast to coast in 1869, is the Transcontinental Railroad. Today, the main line is a standard gauge railway on creosoted wooden ties on a raised and bermed bed. Recent investigations of the railroad in the MAA have noted that the majority of the site has undergone considerable modern changes since construction, losing all elements of integrity other than retaining its original location and remaining a functioning railroad in design. Potential for significant early historic structural remains could remain at the Granger, Verne, and Church Buttes sidings within the MAA; Granger rail yard is considered a contributing component to overall site NRHP eligibility.

Within the MAA, the Union Pacific Railroad has generally lost historical integrity. Due to the continuous upgrade of the railroad and incorporation of new materials, as well as development of the adjacent gas field, the integrity of association, setting, materials, workmanship, and feeling have by in large been compromised on this portion of the site. Within the MAA, physical features and attributes of the original railroad have generally been altered by regular maintenance and upgrades over time. Although the railroad is still used to transport materials among population centers in the rural West, the railroad has been substantially modified from its circa-1869 origins in an effort to function safely and efficiently. The structure itself has changed sufficiently so that the setting and feeling no longer contribute to the property's historic sense of place. Given the diminished integrity of the railroad's historical features and recent infrastructure development in the vicinity (e.g., raised and paved roads, utility lines, mineral wells and plants, pipelines, and radio towers), the railroad corridor in the MAA tends to lack visual integrity and historical associations.

3.8 Oregon Short Line Railroad (48LN2327/48SW1838)

The Class I Regional Overview (BLM 2004) describes the history of the Oregon Short Line Railroad corridor within the MAA as follows:

> In February 1881, the UPRR announced plans to build a standard gauge railway from its main transcontinental line at Granger, Wyoming, to Baker City, in eastern Oregon. The UPRR incorporated the Oregon Short Line Railroad in April 1881, with a stated purpose not only to build to Baker City but also from that point to 'such point or points on the Columbia River or the Pacific Ocean as the Company may select.'…
>
> From the Union Pacific main line at Granger, the Oregon Short Line Railroad route ran up the Hams Fork Valley, over a relatively low gap between Oyster Ridge and the Hogsback, descended Twin Creek, and then followed Bear River northward into Idaho. Initial and subsequent stations along the main line of this railroad were, from southeast to northwest, Moxa, Nutria, Opal, Waterfall, Hams Fork (Kemmerer), Fossil, Nugget, Sage, Beckwith, Pixley, Cokeville, and Marse. From Granger to Sage Station, the route closely followed the Hams Fork Cutoff of the Oregon Trail. The railroad was completed from Granger to Sage in 1881, to Shoshone, Idaho in 1882, and to Portland, Oregon in 1884 (Rosenberg 1984).
>
> The Oregon Short Line Railroad… encouraged coal mining development and other economic changes in the Kemmerer Planning Area. Opal and Fossil became important livestock shipping points for the extensive ranches of the region, and annual stock drives terminated at the railroad yards (Henry 1940:35; Rosenberg 1984). Opal and Kemmerer became important collection and shipping points for the pioneer LaBarge oil field, and the first pipeline in the region was built from the LaBarge field to Opal in 1928. By far the most important effect of the railroad was encouragement of coal mining… (BLM 2004:65).
>
> Previous inventories in, or near, the current Project Area indicated that the operating portions of the Oregon Short Line Railroad in the MAA, and along the Hams Fork River from Granger past Opal, are non-contributing portions of an otherwise eligible site. One 2004 investigation described the site condition as follows:

The physical features and attributes of the OSLR (Site 48LN2327) have been altered by regular maintenance and upgrades through the years. Although still working to transport materials between population centers and the rural West, the railroad has been substantially modified to maintain its viability in transition from its locomotive beginnings, circa 1883, and its diesel-powered present. The structure itself has changed enough for its setting and feeling to no longer be applicable to the property's historic sense of place. The visual integrity of the railroad corridor lacks historical associations, given the diminished integrity of the historical features of railroad structures and recent infrastructural development in the vicinity (e.g., raised and paved roads, utility lines, mineral wells and plants, pipelines, and radio towers) (Phillips 2004).

3.9 Lincoln Highway (48SW1834/48UT255)

The Class I Regional Overview (BLM 2004) describes the history of the Lincoln corridor within the MAA as follows:

> Automobile travel was a relatively new phenomenon in the U.S. in 1903, when the first transcontinental automobile journey was made… Their route was from San Francisco northeastward to Sacramento and then to Caldwell, Idaho; then southeastward through Pocatello and Soda Springs, Idaho and Diamondville,

> Wyoming, to Green River; and then eastward along the old Overland Trail route… A great automobile race from New York to Paris in 1908 followed much the same route from New York to Rock Springs, but from that point the route diverted to Granger, Wyoming, Ogden, Utah, and southwestward to Los Angeles (Nicholson 1969:8)…
>
> …in 1912… began… a plan to create a "Coast-to-Coast Rock Highway" that could be traveled in all seasons… the prospective highway became known as the Lincoln Way or Lincoln Highway… Most of the route was marked with stakes in 1913, but the route actually included multiple wagon trails in several locations across Wyoming. From Rawlins westward nearly to Wamsutter, the route adopted a grade of the UPRR that had been abandoned in 1901. Beginning at Point of Rocks, the Lincoln Highway route coursed westward along the old Overland stage route, and the highway route followed the main Oregon/Mormon/California trail from Granger to Fort Bridger. The highway followed the Mormon/Utah trail for many miles westward from Fort Bridger toward the Great Salt Lake. The highway also followed the Pony Express Route from near Granger most of the way to California (Hokanson 1988:60-61)… As originally improved in the 1920s, the highway had a graveled surface 16 feet wide on a 24-foot-wide grade. Multiple improvements were made to the highway in the following years, including realignments and paving (Franzwa 1999:1-2, 40).
>
> In 1925, a simplified numbering system was initiated for major highways, to replace the confusing names applied to many major roads, including the Lincoln Highway. Most of the Lincoln Highway was designated as part of U.S. Highway 30, which ran from Atlantic City, New Jersey to Astoria, Oregon, and the Lincoln Highway officially ceased to exist. In Wyoming, U.S. Highway 30 diverted from the Lincoln Highway route at Granger, and followed a course to the northwest. To the west of Granger, the Lincoln Highway was initially known as 30 South, and segments of the road were subsequently incorporated into other roads (Franzwa 1999:50-58). Franzwa (1999) prepared maps showing the precise location of the Lincoln Highway through the Kemmerer Planning Area (BLM 2004:66-68).

The Lincoln Highway through the MAA both corresponds to and splits from its later transformation into historic U.S. Highway 30 (48UT1633). The portion of the Lincoln Highway at Sweetwater County Road 2/Uinta County Road 233 corresponds to a 1920s era Highway 30 alignment, when the highway came into being, and the southerly alignment along the I-80 corridor corresponds to a 1940s era realignment of Highway 30. Sweetwater County Road 2 is also the "Old Little American Road," and the original, historic Little America site (48SW1835) was along this route of Old Highway 30 in the MAA. Uinta County Road 233 is a Granger Road.

As with many other historic linear features crossing the Moxa Arch well field and following the I-80 corridor, most segments of the Lincoln Highway here have been destroyed or redeveloped such that they no longer retain their historic character. Transmission lines, buried cables, pipelines, and other infrastructure have been built along and across the structure at this location. This road segment has been previously considered a noncontributing portion of an otherwise eligible historic trail. This assessment is based on the lack of visible indication of historic road structure in the vicinity and the lack of integrity of setting and feeling caused by the construction of recent roadways, modern pipelines, utility lines, and gas development facilities in the area.

Although still working as a rural connector rather than an interstate highway, this roadway has been substantially modified to meet modern improved road standards, including widening the crown and deepening and clearing the ditches. The site has been changed sufficiently that its setting and feeling no longer contribute to a historic sense of place. The road corridor lacks visual integrity and historical

associations, given infrastructure development in the vicinity (e.g., other equally prominent raised and paved roads, utility lines, buried cables, mineral wells, and pipelines).

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