APPENDIX M. BEST MANAGEMENT PRACTICES FOR RAPTORS AND THEIR ASSOCIATED HABITATS IN UTAH, AUGUST 2006

M.1 INTRODUCTION

Raptors, or *Birds of Prey,* are found on public lands throughout Utah. Approximately 31 species of raptors utilize public lands for at least a portion of their life cycle. These include 20 diurnal raptors, including the eagles, hawks, falcons, osprey, turkey vulture and California condor; and 11 mostly nocturnal owl species. At least 16 of the diurnal raptors are known to nest, roost and forage on public lands; while 2 others are probable nesters within the southern part of the state. The California condor is known to utilize public lands for roosting and foraging, but is not currently known to nest within the state. The rough-legged hawk is a winter resident that uses public lands for foraging. All of the owl species nest, roost and forage on public lands in Utah.

Eight of Utah's raptors are considered to be Special Status Species by the BLM, and currently receive enhanced protection, in addition to the regulatory authority provided by the Migratory Bird Treaty Act (MBTA), which covers all raptor species. The bald eagle and Mexican spotted owl are listed as Federally threatened species and are afforded the protection, as well as the Section 7 consultation requirements, of the Endangered Species Act (ESA). The bald eagle is currently being proposed for delisting by the Fish and Wildlife Service. Both the bald eagle and golden eagle are protected by the provisions of the Eagle Protection Act. The California condor is a Federally endangered species, however, the birds found in southern Utah are part of an Experimental Non-essential Population reintroduced to northern Arizona under Section 10(j) of the Endangered Species Act. The BLM is required to treat the condor as a species proposed for listing for Section 7 purposes of the ESA. The northern goshawk is managed by a multi-agency Conservation Agreement. The ferruginous hawk, short-eared owl and burrowing owl are listed as Wildlife Species of Concern by the Utah Division of Wildlife Resources (UDWR, May 12, 2006), and are therefore recognized as BLM state-sensitive species under the Bureau's 6840 Manual. The BLM's 6840 Policy states that "*BLM shall…ensure that actions authorized, funded, or carried out…do not contribute to the need for the species to become listed".*

Future raptor management on BLM lands in Utah will be guided by the use of these Best Management Practices (BMPs), which are BLM-specific recommendations for implementation of the U.S. Fish and Wildlife Service, Utah Field Office's *"Guidelines for Raptor Protection From Human and Land Use Disturbances"* (*"Guidelines"*). The *"Guidelines"* were originally developed by the Fish and Wildlife Service in 1999, and were updated during 2002 to reflect changes brought about by court and policy decisions and to incorporate Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds.* The *"Guidelines"* were provided to BLM and other land-managing agencies in an attempt to provide raptor management consistency, while ensuring project compatibility with the biological requirements of raptors, and encouraging an ecosystem approach to habitat management.

These Best Management Practices, or specific elements of the BMP's which pertain to a proposal, should be attached as Conditions of Approval to all BLM use authorizations which have the potential to adversely affect nesting raptors, or would cause occupied nest sites to become unsuitable for nesting in subsequent years.

Raptor management is a dynamic and evolving science, and consequently, as the science evolves, these BMP's will undergo subsequent revision. As more information becomes available through implementation of these raptor BMP's, and as our knowledge of raptor life cycle requirements increases, findings will be incorporated into future revisions of the BMP document. Additionally, BLM and the Department of Energy are initiating a 3-year Raptor Radii study which will test traditional spatial and seasonal nest buffers during actual oil and gas development activities for a select suite of species. Study results would be incorporated into new BMP revisions as well.

To adequately manage raptors and their habitats, and to reduce the likelihood of a raptor species being listed under the Endangered Species Act (ESA), BLM-authorized or proposed management activities and/or land disturbing actions would be subject to the criteria and processes specified within these BMPs. The implementation of raptor spatial and seasonal buffers under the BMPs would be consistent with Table 2 of the "*Guidelines"*, included here as Attachment 2. As specified in the "*Guidelines"*, modifications of spatial and seasonal buffers for BLM-authorized actions would be permitted, so long as protection of nesting raptors was ensured. State and/or Federally-listed, proposed, and candidate raptor species, as well as BLM state-sensitive raptor species, should be afforded the highest level of protection through this BMP process; however, all raptor species would continue to receive protection under the Migratory Bird Treaty Act. Modification of the buffers for threatened or endangered species would be considered pending results of Section 7 Consultation with USFWS.

As stated in the "*Guidelines"*, spatial and seasonal buffers should be considered as the best available recommendations for protecting nesting raptors under a wide range of activities state-wide. However, they are not necessarily site-specific to proposed projects. Land managers should evaluate the type and duration of the proposed activity, the position of topographic and vegetative features, the sensitivity of the affected species, the habituation of breeding pairs to existing activities in the proposed project area, and the local raptor nesting density, when determining site-specific buffers. The BLM would be encouraged to informally coordinate with UDWR and USFWS anytime a site-specific analysis shows that an action may have an adverse impact on nesting raptors. The coordination would determine if the impact could be avoided or must be mitigated, and if so, to determine appropriate and effective mitigation strategies.

Potential modifications of the spatial and seasonal buffers identified in the *"Guidelines"* may provide a viable management option. Modifications would ensure that nest protection would occur, while allowing various management options which may deviate from the suggested buffers within the *"Guidelines"*, which, if adequately monitored, could provide valuable information for incorporation into future management actions.

Seasonal raptor buffers from Attachment 2 should be reviewed by local raptor nesting authorities who are knowledgeable of raptor nesting chronologies within their local area. For those nesting raptors for which local nesting chronologies remain uncertain, the seasonal buffers provided in Attachment 2 should serve as the default. However, for those raptor species whose known nesting chronologies differ from the seasonal buffers provided in Attachment 2, the local seasonal buffers may be utilized as a modification of the "*Guidelines"*.

Criteria that would need to be met, prior to implementing modifications to the spatial and seasonal buffers in the "*Guidelines"*, would include the following:

1. Completion of a site-specific assessment by a wildlife biologist or other qualified individual. See example (Attachment 1).
2. Written documentation by the BLM Field Office Wildlife Biologist, identifying the proposed modification and affirming that implementation of the proposed modification(s) would not affect nest success or the suitability of the site for future nesting. Modification of the "Guidelines" would not be recommended if it is determined that adverse impacts to nesting raptors would occur or that the suitability of the site for future nesting would be compromised.
3. Development of a monitoring and mitigation strategy by a BLM biologist, or other raptor biologist. Impacts of authorized activities would be documented to determine if the modifications were implemented as described in the environmental documentation or Conditions of Approval, and were adequate to protect the nest site. Should adverse impacts be identified during monitoring of an activity, BLM would follow an appropriate course of action, which may include cessation or modification of activities that would avoid, minimize or mitigate the impact, or, with the approval of DWR and F&WS, BLM could allow the activity to continue while requiring monitoring to determine the full impact of the activity on the affected raptor nest. A monitoring report would be completed and forwarded to UDWR for incorporation into the Natural Heritage Program (NHP) raptor database.

In a further effort to provide additional support and expertise to local BLM Field biologists, a network of biologists from various agencies with specific expertise in raptor management has been identified and included as Attachment 3. The personnel identified have extensive backgrounds in raptor management issues and are available, upon request, to assist BLM Field biologists on a case by case basis. Field biologists are encouraged to use this network, via informal conference, with one or more of the individuals identified. This coordination should be clearly distinguished from the consultation process required under Section 7 of the ESA. Individuals on the expert panel should not be expected to provide formal advice, but should serve as a sounding board for discussing potential affects of a proposal, as well as potential mitigation measures on specific projects which may be useful to BLM biologists.

M.2 HABITAT ENHANCEMENT

As recommended in the "*Guidelines"*, raptor habitat management and enhancement, both within and outside of buffers, would be an integral part of these BMPs, with the understanding that in order for raptors to maintain high densities and maximum diversity, it is necessary that the habitat upon which they and their prey species depend be managed to promote healthy and productive ecosystems. Habitat loss or fragmentation would be minimized and/or mitigated to the extent practical and may include such measures as; drilling multiple wellheads per pad, limiting access roads and avoiding loop roads to well pads, effective rehabilitation or restoration of plugged and abandoned well locations and access roads that are no longer required, rehabilitation or restoration of wildland fires to prevent domination by non-native invasive annual species, vegetation treatments and riparian restoration projects to achieve Rangeland Health Standards, etc.

In some cases, artificial nesting structures, located in areas where preferred nesting substrates are limited, but where prey base populations are adequate and human disturbances are limited, may enhance some raptor populations, or may serve as mitigation for impacts occurring in other areas.

M.3 PROTECTION OF NEST SITES AND BUFFER ZONES

As stated in the *"Guidelines"*, protection of both occupied and unoccupied nests is important since not all raptor pairs breed every year, nor do they always utilize the same nest within a nesting territory. Individual raptor nests left unused for a number of years are frequently reoccupied, if all the nesting attributes which originally attracted a nesting pair to a location are still present. Nest sites are selected by breeding pairs for the preferred habitat attributes provided by that location.

Raptor nest buffer zones are established for planning purposes because the nest serves as the focal point for a nesting pair of raptors. The buffer should serve as a threshold of potential adverse affect to nest initiation and productivity. Actions proposed within these buffer zones are considered potentially impacting and, therefore, trigger the need for consideration of site-specific recommendations.

Seasonal (temporal) buffer zones are conservation measures intended to schedule potentially impacting activities to periods outside of the nesting season for a particular raptor species. These seasonal limitations are particularly applicable to actions proposed within the spatial buffer zone of a nest for short duration activities such as, pipeline or powerline construction, seismic exploration activity, vegetative treatments, fence or reservoir construction, permitted recreational events, etc., where subsequent human activity would not be expected to occur.

Spatial buffer zones are those physical areas around raptor nest sites where seasonal conservation measures, or surface occupancy restrictions may be applied, depending on the type and duration of activity, distance and visibility of the activity from the nest site, adaptability of the raptor species to disturbance, etc. Surface occupancy restrictions should be utilized for actions which would involve human activities within the buffer zone for a long duration (more than one nesting season) and which would cause an occupied nest site to become unsuitable for nesting in subsequent years.

M.3.1 UNOCCUPIED NESTS:

All Activities, including All Mineral Leases: Surface-disturbing activities, occurring outside of the breeding season (seasonal buffer), but within the spatial buffer, would be allowed during a minimum three-year nest monitoring period, as long as the activity would not cause the nest site to become unsuitable for future nesting, as determined by a wildlife biologist. Facilities and other permanent structures would be allowed, if they meet the above criteria.

Some examples of typical surface disturbing actions, occurring outside of the seasonal buffer, which may not be expected to affect nest production or future nesting suitability, would include; pipelines, powerlines, seismographic exploration, communication sites, an oil or gas well with off-site facilities which does not require routine visitation, recreation events, fence or reservoir construction, vegetative treatments, and other actions with discreet starting and ending times, and for which subsequent human activity or heavy equipment operation within the spatial buffer would not be expected to occur, or could be scheduled outside of the seasonal buffer in subsequent years.

Surface disturbing activities that would be expected to potentially affect nest production or nest site suitability, include; oil and gas facilities requiring regular maintenance, sand and gravel operations, road systems, wind energy projects, mining operations, and other actions requiring

continual, random human activity, or heavy equipment operation during subsequent nesting seasons.

A nest site which does not exhibit evidence of use, such as; greenery in the nest, fresh whitewash, obvious nest maintenance or the observed presence of adults or young at the nest, for a period of three consecutive years, (verified through monitoring), would be deemed abandoned and all seasonal and spatial restrictions would cease to apply to that nest. All subsequent authorizations for permanent activities within the spatial buffer of the nest could be permitted. If the nest becomes reoccupied after authorized activities are completed, conservation measures would be considered to reduce potential adverse affects and to comply with the Migratory Bird Treaty Act and the Eagle Protection Act.

The three-year non-use standard varies from the "*Guidelines*" suggested seven-year non-use standard before declaring nest abandonment. This variation is based upon a similar standard which has been applied for over 20 years in two administrative areas within Utah. Empirical evidence would suggest the three-year non-use standard has been effective in conserving raptor species. The three-year standard has been applied without legal challenge or violation of "Take" under the Migratory Bird Treaty Act or the Eagle Protection Act.

Because prey base populations are known to be cyclic, and because raptor nest initiation or nesting success can be affected by drought and other random natural events, care should be taken when applying the 3-year non-activity standard. The 3-year nest occupancy monitoring requirement should be viewed as a minimum time period during those years of optimal raptor nesting conditions. During sub-optimal raptor nesting years, when nesting habitat may be affected by drought, low prey base populations, fire, or other events, the monitoring standard should be increased to allow raptors the opportunity to reoccupy nesting sites when nesting conditions become more favorable.

M.3.2 Occupied Nests

All Activities: Land use activities which would have an adverse impact on an occupied raptor nest would not be allowed within the spatial or seasonal buffer.

M.4 Consideration of Alternatives and Mitigation Measures

Alternatives, including denial of the proposal, should be identified, considered and analyzed in a NEPA document anytime an action is proposed within the spatial buffer zone of a raptor nest. Selection of a viable alternative that avoids an impact to nesting raptors should be selected over attempting to mitigate those impacts. If unavoidable impacts are identified, mitigation measures should be applied as necessary to mitigate adverse impacts of resource uses and development on nesting raptors. Monitoring of the effectiveness of the mitigation measures should be mandatory and should be included as a Condition of Approval.

M.5 Specific Strategies to be Implemented Regarding Other Resource Uses

The following are management strategies designed to reduce or eliminate potential conflicts between raptors and other resource uses. This is a list of examples and is not intended to be an all-inclusive list. In all cases, when an activity on BLM lands is proposed, and a NEPA

document developed, the site-specific analysis process identified in Attachment 1 may be implemented to identify and either avoid or mitigate impacts to raptors from the proposal. These strategies apply to both BLM and applicant-generated proposals. The strategies are as follows:

M.5.1 CULTURAL RESOURCES

Excavation and studies of cultural resources in caves and around cliff areas should be delayed until a qualified biologist surveys the area to be disturbed or impacted by the activity for the presence of raptors or nest sites. If nesting raptors are present, the project should be rescheduled to occur outside of the seasonal buffer recommended by the *"Guidelines"*.

M.5.2 FORESTRY AND HARVEST OF WOODLAND PRODUCTS

Timber harvest would be subject to NEPA analysis and would be conducted in a manner that would avoid impacts to raptor nests. This could also apply to areas identified for wood gathering and firewood sales.

M.5.3 HAZARDOUS FUEL REDUCTION/HABITAT RESTORATION PROJECTS

Hazardous fuels reduction projects and shrubsteppe restoration projects should be reviewed for possible impacts to nesting raptors. Removal of trees containing either stick nests or nesting cavities, through prescribed fire, or mechanical or manual treatments, should be avoided.

It is important to note that certain raptor species are tied to specific habitat types, and that consideration must be made on a site-specific basis when vegetation manipulation projects are proposed, to determine which raptor species may benefit and which may be negatively affected by the vegetation composition post-treatment.

M.5.4 LIVESTOCK GRAZING

Manage rangelands and riparian areas in a manner that promotes healthy, productive rangelands and functional riparian systems. Rangeland Health Assessments should be conducted on each grazing allotment, and rangeland guidelines should be implemented where Rangeland Health Standards are not being met, to promote healthy rangelands.

Locations of sheep camps and other temporary intrusions would be located in areas away from raptor nest sites during the nesting season. Placement of salt and mineral blocks would also be located away from nesting areas.

Season of use, kind of livestock, and target utilization levels of key species affect vegetative community attributes (percent cover, composition, etc.) and influence small mammal and avian species diversity and density. While not all raptor species would be affected in the same way, livestock management practices which maintain or enhance vegetative attributes, will preserve prey species density and diversity which will benefit the raptor resource.

M.5.5 OHV USE

Special Recreation Management Areas (SRMAs) that are developed for OHV use would not be located in areas that have important nesting, roosting, or foraging habitat for raptors.

Off highway vehicle use would be limited to designated roads, trails and managed open areas. Lands categorized as "Open" for OHV use should not be in areas important to raptors for nesting, roosting, and foraging

When proposals for OHV events are received, the area to be impacted would be surveyed by a qualified wildlife biologist to determine if the area is utilized by raptors. Potential conflicts would be identified and either avoided or mitigated prior to the issuance of any permit.

M.5.6 Oil and Gas Development

The Code of Federal Regulations (CFR), 43 CFR 3101.1-2, allows for well site location and timing to be modified from that requested by the lessee to mitigate conflicts at the proposed site, and states that the location can be moved up to 200 meters and the timing of the actual drilling can be delayed for up to 60 days to mitigate environmental concerns. The regulation also allows BLM to move a location more than 200 meters, or delay operations more than 60 days to protect sensitive resources, with supporting rationale and where lesser restrictions are ineffective. The Site Specific Analysis (Attachment 1) would provide the supporting rationale. Provisions are also present within Sections 3 and 6 of the Standard Lease Form which require compliance with existing laws and would allow the BLM to impose additional restrictions at the permitting phase, if the restrictions will prevent violation of law, policy or regulation, or avoid undue and unnecessary degradation of lands or resources.

M.5.7 Realty

Lands proposed for disposal which includes raptor nesting, roosting, or important foraging areas would be analyzed and evaluated for the relative significance of these resources before a decision is made for disposal or retention.

A priority list of important raptor habitat areas, especially for Federally listed or state sensitive raptor species, on state and private lands should be developed and utilized as lands to be acquired by BLM when opportunities arise to exchange or otherwise acquire lands.

Lands and realty authorizations would include appropriate conservation measures to avoid and/or mitigate impacts to raptors.

M.5.8 Recreation

Development of biking trails near raptor nesting areas would be avoided.

Rock climbing activities would be authorized only in areas where there are no conflicts with cliff nesting raptors.

In high recreation use areas where raptor nest sites have been made unsuitable by existing disturbance or habitat alteration, mitigation should be considered to replace nest sites with artificial nest structures in nearby suitable habitat, if it exists, and consider seasonal protection of nest sites through fencing or other restrictions.

Dispersed recreation would be monitored to identify where this use may be impacting nesting success of raptors.

M.5.9 Wild Horse Program

In areas where wild horse numbers are determined to be in excess of the carrying capacity of the range, removal of horses, as described in the various herd management area plans, would continue, to prevent further damage to rangelands.

M.6 INVENTORY AND MONITORING

Each Field Office should cooperatively manage a raptor database, with UDWR and USFWS, as part of the BLM Corporate database. Raptor data should be collected and compiled utilizing the Utah Raptor Data Collection Standards developed by the Utah State Office, so that personnel from other agencies can access the data. Appropriate protocols for survey and monitoring should be followed, when available. This database should be updated as new inventory and monitoring data becomes available. The data should also be forwarded to UDWR and the Natural Heritage Program, which has been identified as the central repository for raptor data storage for the State of Utah.

Use of Seasonal Employees and volunteers, as well as "Challenge Cost Share" projects, should be utilized to augment the inventory and monitoring of raptor nests within a planning area, with the data entered into the above-mentioned databases at the close of each nesting season. Project proponents, such as energy development interests, would be encouraged to participate and help support an annual raptor nest monitoring effort within their areas of interest.

Active nest sites should be monitored during all authorized activities that may have an impact on the behavior or survival of the raptors at the nest site. A qualified biologist would conduct the monitoring and document the impacts of the activity on the species. A final report of the impacts of the project should be placed in the EA file, with a copy submitted to the NHP. The report would be made available for review and should identify what activities may affect raptor-nesting success, and should be used to recommend appropriate buffer zones for various raptor species.

As data are gathered, and impact analyses are more accurately documented, "adaptive management" principles should be implemented. Authorization of future activities should take new information into account, better protecting raptors, while potentially allowing more development and fewer restrictions, if data indicates that current restrictions are beyond those necessary to protect nesting raptors, or conversely indicates that current guidance is inadequate for protection of nesting raptors.

ATTACHMENT 1

Site Specific Analysis Data Sheet

Observer(s) _____ **Date**_____

1. Conduct a site visit to the area of the proposed action and complete the raptor nest site data sheet according to BLM data standards.

2. Area of Interest Documentation (**Bold** items require completion, other information is optional)

State___ Office _____ Management Unit _____

Project ID# _____

Location (Description)

Legal T_____, R __, Sec. __, 1/4, __ 1/4, __ or UTM Coordinates

Latitude_____Longitude_____

Photos Taken Y( ) N( )

Description of photos:

_____

_____

_____

_____

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_____

Raptor Species_____ Confirmed ___ Unconfirmed ___

Distance From Proposed Disturbance to: Nest _____
Perch _____
Roost _____

Line of Site Evaluation From: **Nest** _____
Perch _____
Roost _____

Extent of Disturbance: Permanent _____ Temporary _____
Distance from Nest/Roost _____ Acreage _____

Length of Time____Timing Variations_____ Disturbance Frequency_____

_____

_____

_____

Other Disturbance Factors: Yes No (If yes, explain what and include distances from nest to disturbances)

_____

_____

_____

_____

Approximate Age of Nest: New__ **Historical**: (Number of Years)__

Evidence of Use (Describe):

_____

_____

_____

Habitat Values Impacted: _____

_____

_____

Proportion of Habitat Impacted (Relate in terms of habitat available):

_____

_____

_____

Estimated Noise Levels of Project (db):_____

Available Alternative(s) (e.g., location, season, technology):

_____

_____

_____

Associated Activities:

_____

_____

_____

Cumulative Effects of Proposal and Other Actions in Habitat Not Associated With the Proposal:

_____

_____

_____

Potential for site Rehabilitation: High___ Low_____

Notes/Comments:

_____

_____

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_____

Summary of Proposed Modifications:
Possible modifications to the spatial and seasonal buffers within the FWS *"Guidelines"* include the following:

_____

_____

_____

Rationale:

_____

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_____

Summary of Proposed Mitigation Measures:
Possible mitigation measures related to the proposal include the following:

_____

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Rationale:

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Summary of Alternatives Considered:
Possible alternatives to the proposal include the following:

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Rationale:

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Recommendation to FO Manager Based on Above Findings:

_____

_____

_____

_____

_____

_____ _____
Field Office Wildlife Biologist Date

ATTACHMENT 2

NESTING PERIODS AND RECOMMENDED BUFFERS FOR RAPTORS IN UTAH

Nesting periods and recommended buffers for raptors in Utah

Species	Spatial Buffer (miles)	Seasonal Buffer	Incubation, # Days	Brooding, # Days Post-Hatch	Fledging, # Days Post-Hatch	Post-fledge Dependency to Nest, # Days[1]
Bald eagle	1.0	1/1-8/31	34-36	21-28	70-80	14-20
Golden eagle	0.5	1/1-8/31	43-45	30-40	66-75	14-20
N. Goshawk	0.5	3/1-8/15	36-38	20-22	34-41	20-22
N. Harrier	0.5	4/1-8/15	32-38	21-28	42	7
Cooper's hawk	0.5	3/15-8/31	32-36	14	27-34	10
Ferruginous hawk	0.5	3/1-8/1	32-33	21	38-48	7-10
Red-tailed hawk	0.5	3/15-8/15	30-35	35	45-46	14-18
Sharp-shinned hawk	0.5	3/15-8/31	32-35	15	24-27	12-16
Swainson's hawk	0.5	3/1-8/31	33-36	20	36-40	14
Turkey vulture	0.5	5/1-8/15	38-41	14	63-88	10-12
California condor	1.0	NN yet	56-58	5-8 weeks	5-6 months	2 months
Peregrine falcon	1.0	2/1-8/31	33-35	14-21	35-49	21
Prairie falcon	0.25	4/1-8/31	29-33	28	35-42	7-14
Merlin	0.5	4/1-8/31	28-32	7	30-35	7-19
American kestrel	NN[2]	4/1-8/15	26-32	8-10	27-30	12
Osprey	0.5	4/1-8/31	37-38	30-35	48-59	45-50
Boreal owl	0.25	2/1-7/31	25-32	20-24	28-36	12-14
Burrowing owl	0.25	3/1-8/31	27-30	20-22	40-45	21-28
Flammulated owl	0.25	4/1-9/30	21-22	12	22-25	7-14
Great horned owl	0.25	12/1-9/31	30-35	21-28	40-50	7-14
Long-eared owl	0.25	2/1-8/15	26-28	20-26	30-40	7-14
N. saw-whet owl	0.25	3/1-8/31	26-28	20-22	27-34	7-14
Short-eared owl	0.25	3/1-8/1	24-29	12-18	24-27	7-14
Mex. Spotted owl	0.5	3/1-8/31	28-32	14-21	34-36	10-12
N. Pygmy owl	0.25	4/1-8/1	27-31	10-14	28-30	7-14
W. Screech owl	0.25	3/1-8/15	21-30	10-14	30-32	7-14
Common Barn-owl	NN[2]	2/1-9/15	30-34	20-22	56-62	7-14

[1] Length of post-fledge dependency period to parents is longer than reported in this table. Reported dependency periods reflect the amount of time the young are still dependent on the nest site; i.e. they return to the nest for feeding. [2] Due to apparent high population densities and ability to adapt to human activity, a spatial buffer is not currently considered necessary for maintenance of American kestrel or Common barn-owl populations. Actions resulting in direct mortality of individual bird or take of known nest sites is unlawful

ATTACHMENT 3

UTAH RAPTOR MANAGEMENT EXPERTS FROM VARIOUS AGENCIES

The following list of personnel from various agencies in Utah, are recognized experts in the field of raptor ecology or have extensive field experience in managing raptor resources with competing land uses. The list is provided to inform BLM field biologists and managers of this network of specialized expertise that may be able to assist, as time permits, with specific raptor management issues. Individuals in this Utah Raptor Network, also have well established contacts with an informal extended network of highly qualified raptor ecologists outside the state (i.e. USGS, State Wildlife Agencies, and Universities etc.) which could provide an additional regional perspective.

It should be pointed out that this list is not intended to replace or interfere with established lines of communication but rather supplement these lines of communication.

Utah BLM	David Mills	**david_mills@blm.gov**	435-896-1571
Utah BLM	Steve Madsen	**steve_c_madsen@blm.gov**	801-539-4058
Utah DWR	Dr. Jim Parrish	**jimparrish@utah.gov**	801-538-4788
Utah DWR (NERO)	Brian Maxfield	**brianmaxfield@utah.gov**	435-790-5355
USFWS	Laura Romin	**laura_romin@usfws.gov**	801-975-3330
USFWS	Diana Whittington	**diana_whittington@usfws.gov**	801-975-3330
USFS	Chris Colt	**ccolt@fs.fed.us**	801-896-1062
HawkWatch Intl	Jeff Smith	**jsmith@hawkwatch.org**	801-484-6808

ATTACHMENT 4

REFERENCES CITED

Code of Federal Regulations; 43 CFR 3101.1-2, Leasing Regulations.

Endangered Species Act (ESA); 16 U.S.C. 1513-1543

Migratory Bird Treaty Act (MBTA); 16 U.S.C. 703-712

Romin, Laura A. and James A. Muck, 2002, "Utah Field Office Guidelines For Raptor Protection From Human And Land Use Disturbances." U.S. Department of Interior, U.S. Fish and Wildlife Service, Utah Field Office, Salt Lake City, Utah.

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U.S. Department of the Interior, Bureau of Land Management; 6840 Manual.

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