

RAC AGENDA – July/August 2016



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|----|---|----------------------|
| 1. | Welcome, RAC Introductions and RAC Procedure
- RAC Chair | |
| 2. | Approval of Agenda and Minutes
- RAC Chair | |
| 3. | Wildlife Board Meeting Update
- RAC Chair | |
| 4. | Regional Update
- DWR Regional Supervisor | INFORMATIONAL |
| 5. | R657-11 - Furbearer Rule Amendments
- Leslie McFarlane, Mammals Coordinator | ACTION |
| 6. | Bobcat Management Plan
- Leslie McFarlane, Mammals Coordinator | ACTION |
| 7. | Furbearer and Bobcat Harvest Recommendations for 2016-2017
- Leslie McFarlane, Mammals Coordinator | ACTION |
| 8. | Cougar Recommendations and Rule Amendments for 2016-2017
- Leslie McFarlane, Mammals Coordinator | ACTION |
| 9. | Proposed Fee Schedule
- Kenny Johnson, Administrative Section Chief | ACTION |

Regional Presentations Only

- | | | |
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| CRO | Wallsburg HMA Management Plan
- Mark Farmer, Habitat Program Manager | ACTION |
| NRO | WMA Habitat Management Plans
- Pam Kramer, Habitat Program Manager | ACTION |
| SERO | Lower San Rafael HMP Management Plan
- Makeda Hanson, Habitat Program Manager | ACTION |
| | Habitat Restoration Work Update | INFORMATIONAL |

Meeting Locations

- | | |
|---|---|
| CR RAC – July 26th, 6:30 PM
City Civic Center
110 S. Main Street, Springville | SER RAC – August 3rd, 6:30 PM
John Wesley Powell Museum
1765 E. Main St., Green River |
| NR RAC – July 27th, 6:00 PM
Brigham City Community Center
24 N. 300 W., Brigham City | NER RAC – August 4th, 6:30 PM
Wildlife Resources NER Office
318 North Vernal Ave, Vernal |
| SR RAC – August 2nd, 7:00 PM
Beaver High School
195 E. Center Street, Beaver | Board Meeting – September 1st, 9:00 AM
DNR, Boardroom
1594 W. North Temple, SLC |



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

GREGORY J. SHEEHAN
Division Director

MEMORANDUM

Date: July 16, 2016

To: Utah Wildlife Board/Regional Advisory Council Members

From: Leslie McFarlane, Mammals Program Coordinator

Subject: **FURBEARER RULE**

The attached version of Rule R657-11 Taking Furbearers contains a few new definitions and some minor changes which are contained in the highlights below. Other changes that may be found in the attached copy are clerical in nature and were made to help make the rule consistent and clear.

Highlights:

- 1) "Bait" means any lure containing animal parts larger than one cubic inch with the exception of white-bleached bones with no hide or flesh attached.
- 2) "Cage trap" means any enclosure containing a one-way door triggered by a treadle or pan that prevents escape of an animal after the door closes.
- 3) "Foothold trap" means any underspring or jump trap, longspring trap or coil-spring trap with two smooth arms or jaws that come together when an animal steps on a pan in the center of the trap.
- 4) "Good condition" means the carcass is fresh or frozen and securely wrapped to prevent decomposition so that the tissue remains suitable for analysis.
- 5) "Owner" means the person who has been issued a trap registration number associated with one or more trapping devices.
- 6) A person may not possess a green pelt or unskinned carcass from a bobcat or marten that does not have a permanent tag affixed after the second Friday in March.
- 7) All foothold traps must have spacers on the jaws which leave an opening of at least 3/16 of an inch when the jaws are closed, except traps that are completely submerged under water when set.
- 8) A person may not disturb or remove any trapping device except:
 - The landowner where a trap has been placed
 - The owner of a domestic pet that has been caught



R657. Natural Resources, Wildlife Resources.

R657-11. Taking Furbearers.

R657-11-1. Purpose and Authority.

(1) Under authority of Sections 23-14-18 and 23-14-19, the Wildlife Board has established this rule for taking furbearers.

(2) Specific dates, areas, number of permits, limits, and other administrative details which may change annually are published in the guidebook of the Wildlife Board for taking furbearers.

R657-11-2. Definitions.

(1) Terms used in this rule are defined in Section 23-13-2.

(2) In addition:

(a) "Artificial cubby set" means any artificially manufactured container with an opening on one end that houses a trapping device. ~~[Bait must be placed inside the artificial cubby set at least eight inches from the opening. Artificial cubby sets must be placed with the top of the opening even with or below the bottom of the bait so that the bait is not visible from above.]~~

(b) "Bait" means any lure containing animal parts larger than one cubic inch~~[, or eight cubic inches if used in an artificial cubby set,]~~ with the exception of white-bleached bones with no hide or flesh attached.

(c) "Cage trap" means any enclosure containing a one-way door triggered by a treadle or pan that prevents escape of an animal after the door closes.

(d) "Exposed bait" means bait which is visible from any angle, except when used in an artificial cubby set.

([e]e) "Foothold trap" means any underspring or jump trap, longspring trap or coil-spring trap with two smooth arms or jaws that come together when an animal steps on a pan in the center of the trap.

(e) "Fur dealer" means any individual engaged in, wholly or in part, the business of buying, selling, or trading skins or pelts of furbearers within Utah.

([e]f) "Fur dealer's agent" means any person who is employed by a resident or nonresident fur dealer as a buyer.

([f]g) "Good condition" means the carcass is fresh or frozen and securely wrapped to prevent decomposition so that the tissue remains suitable for analysis.

(h) "Green pelt" means the untanned hide or skin of any furbearer.

([g]i) "Owner" means the person who has been issued a trap registration number associated with one or more trapping devices.

(i) "Pursue" means to chase, tree, corner, or hold a furbearer at bay.

([h]k) "Scent" means any lure composed of material of less than one cubic inch that has a smell intended to attract animals.

R657-11-3. License, Permit and Tag Requirements.

(1) A person who has a valid~~[, current]~~ furbearer license may take furbearers during the established furbearer seasons published in the guidebook of the Wildlife Board for taking furbearers.

(2) A person who has a valid[,current] furbearer license and valid bobcat permits may take bobcat during the established bobcat season published in the guidebook of the Wildlife Board for taking furbearers.

(3) A person who has a valid[,current] furbearer license and valid marten trapping permit may take marten during the established marten season published in the guidebook of the Wildlife Board for taking furbearers.

(4) Any license, permit, or tag that is mutilated or otherwise made illegible is invalid and may not be used for taking or possessing furbearers.

R657-11-4. Bobcat Permits.

(1) Bobcat permits can only be obtained and are only valid with a valid[,current] furbearer license.

(2)(a) A person may obtain up to the number of bobcat permits authorized each year by the Wildlife Board.

(b) Permit numbers shall be published in the guidebook of the Wildlife Board for taking furbearers.

(3) Bobcat permits will be available during the dates published in the guidebook of the Wildlife Board for taking furbearers and may be obtained by submitting an application through the division's Internet address.

(4) Bobcat permits are valid for the entire bobcat season.

R657-11-5. Tagging Bobcats.

(1) The pelt or unskinned carcass of any bobcat must be tagged in accordance with Section 23-20-30.

(2) The tag must remain with the pelt or unskinned carcass until a permanent tag has been affixed.

(3) Possession of an untagged green pelt or unskinned carcass is prima facie evidence of unlawful taking and possession.

(4) The lower jaw of each bobcat taken must be removed and tagged with the numbered jaw tag corresponding to the number of the temporary possession tag affixed to the hide.

R657-11-6. Marten Permits.

(1) A person may not trap marten or have marten in possession without having a valid[,current] furbearer license and a marten trapping permit in possession.

(2) Marten trapping permits are available free of charge from any division office.

~~[(3)(a) Applications for marten permits must contain the applicant's full name, mailing address, phone number, and valid, current furbearer license number.]~~

~~[(b) Permit applications are accepted by mail or in person at any regional division office.]~~

R657-11-7. Permanent Possession Tags for Bobcat and Marten.

(1) A person may not:

(a) possess a green pelt or unskinned carcass from a bobcat or marten that does not have a permanent tag affixed after the ~~[first]~~second Friday in March ;

(b) possess a green pelt or the unskinned carcass of a bobcat with an affixed temporary bobcat possession tag issued to another person, except as provided in Subsections (5) and (6); or

~~(b)~~(c) buy, sell, trade, or barter a green pelt from a bobcat or marten that does not have a permanent tag affixed.

(2) Bobcat and marten pelts must be delivered to a division representative to have a permanent tag affixed and to surrender the lower jaw for each harvested bobcat.

(3) Bobcat and marten pelts may be delivered to the following division offices, by appointment only, during the dates published in the guidebook of the Wildlife Board for taking furbearers:

(a) Cedar City - Regional Office;

(b) Ogden - Regional Office;

(c) Price - Regional Office;

(d) Salt Lake City - Salt Lake Office;

(e) Springville - Regional Office; and

(f) Vernal - Regional Office.

(4) There is no fee for permanent tags.

(5) Bobcat and marten which have been legally taken may be transported from an individual's place of residence by an individual other than the ~~[fur harvester]~~furharvester to have the permanent tag affixed; bobcats must be tagged with a temporary possession tag and accompanied by a valid furbearer license belonging to the ~~[fur harvester]~~furharvester.

(6) Any individual transporting a bobcat or marten for another person must have written authorization stating the following:

(a) date of kill;

(b) location of kill;

(c) species and sex of animal being transported;

(d) origin and destination of such transportation;

(e) the name, address, signature and furbearer license number of the ~~[fur harvester]~~furharvester;

(f) the name of the individual transporting the bobcat or marten; and

(g) the ~~[fur harvester]~~furharvester's marten permit number if marten is being transported.

(7) Green pelts of bobcats and marten legally taken from outside the state may not be possessed, bought, sold, traded, or bartered in Utah unless a permanent tag has been affixed or the pelts are accompanied by a shipping permit issued by the wildlife agency of the state where the animal was taken.

(8)(a) ~~[Fur harvesters]~~Furharvesters taking marten are ~~[requested]~~required to present the entire skinned carcass ~~[intact, including the lower jaw,]~~to the division in good condition when ~~[the pelt is presented]~~brought for permanent tagging.

~~[(b) "Good condition" means the carcass is fresh or frozen and securely wrapped to prevent decomposition so that the tissue remains suitable for lab analysis.]~~**R657-11-8. [Purchase of License by Mail.]**

~~[A person may purchase a license by mail by sending the following information to a division office: full name, complete mailing address, phone number, date of birth, weight, height, sex, color of hair and eyes, Social Security number, driver license number (if available), proof of furharvester education certification, and fees.]~~**R657-11-9.]****Trap Registration Numbers.**

(1) ~~[For the purposes of this section, "owner" means the person who has been issued a trap registration number, which is permanently marked or affixed to the trapping device.]~~~~(2)~~ Each trapping device used to take furbearers must be permanently marked or tagged with the ~~[trap]~~registered trap number of the owner.

~~(3)~~2 No more than one trap registration number may be on a trapping device.

3 Trap registration numbers must be legible.

(4) Trap registration numbers ~~[must be legible.]~~~~(5)~~ Trap registration numbers are permanent and may be obtained by ~~[mail or]~~mailor in person from any division office.

~~(6)~~5 Applicants must include their full name, including middle initial, and complete home address.

~~(7)~~6 A registration fee of \$10 must accompany the request. This fee is payable only once.

~~(8)~~7 Each individual is issued only one trap registration number.

~~(9)~~8 Any person who has obtained a trap registration number must notify the division within 30 days of any change in address or the theft of traps.

R657-11-~~[10.]~~9. Traps.

(1) All ~~[long spring, jump, or coil spring]~~foothold traps must have spacers on the jaws which leave an opening of at least 3/16 of an inch when the jaws are closed, except;

(a) rubber-padded jaw traps,

(b) traps with jaw spreads less than 4.25 inches, and

(c) traps that are ~~[not]~~ completely submerged under water when set.

2(a) All cable devices (i.e snares), except those set in water or with a loop size less than 3 inches in diameter, must be equipped with a breakaway lock device that will release when any force greater than 300 lbs. is applied to the loop.

3(b) Breakaway cable devices must be fastened to an immovable object solidly secured to the ground.

4(c) The use of drags is prohibited.

(3) On the middle section of the Provo River, between Jordanelle Dam and Deer Creek Reservoir, the Green River, between Flaming Gorge Dam and the Utah Colorado state line; the Colorado River, between the Utah Colorado state line and Lake Powell; and the Escalante River, between Escalante and Lake Powell, trapping within 100 yards of either side of these rivers, including their tributaries from the confluences upstream ½ mile, is restricted to the following devices:

(a) Nonlethal-set foot hold traps with a jaw spread less than 5 1/8 inches, and nonlethal-set padded foot hold traps. Drowning sets with these traps are prohibited.

(b) Body-gripping, killing-type traps with body-gripping area less than 30 square inches (i.e., 110 Conibear).

(c) Nonlethal dry land cable devices equipped with a stop-lock device that prevents it from closing to less than a six-inch diameter.

(d) Size 330, body-gripping, killing-type traps (i.e. Conibear) modified by replacing the standard V-trigger assembly with one top side parallel trigger assembly, with the trigger placed within one inch of the side, or butted against the vertical turn in the Canadian bend.

(4) A person may not disturb or remove any trapping device, except:

(a) ~~[a person who possesses a valid, current furbearer license, the appropriate permits or tags, and who has been issued a trapper registration number, which is permanently marked or affixed to]~~ the owner of the trapping device; ~~[or]~~

(b) peace officers in the performance of their duties; ~~[or]~~

~~(c) the landowner where the trap has been placed; or~~

~~(d) the owner of a domestic pet that has been caught.~~

(e) as provided in Subsection (6).

(5) A person may not kill or remove wildlife caught in any trapping device, except:

(a) ~~[a person]~~ the owner who ~~[possesses]~~ must possess a valid permit, ~~[-current furbearer license, the appropriate permits or tags, and who has been issued a trapper registration number, which is permanently marked or affixed to the trapping device; or]~~ license or tag(s) for the species that has been captured;

(b) a peace officer in the performance of their duties;

(c) as provided in Subsection (6)[.]; or

~~[(6) For the purposes of this section, "owner" means the person who has been issued a trap registration number, which is permanently marked or affixed to the trapping device.]~~

~~[(7)d] as provided in R657-11-12.~~

(6) A person, other than the owner, may possess, disturb or remove a trapping device; or possess, kill or remove wildlife caught in a trapping device provided:

(a) the person possesses a valid~~[-current]~~ furbearer license, the appropriate permits or tags; and

(b) has obtained written authorization from the owner of the trapping device stating the following:

(i) date written authorization was obtained;

(ii) name and address of the owner;

(iii) owner's trap registration number;

(iv) the name of the individual being given authorization;

(v) signature of owner.

~~[(8)7]~~ The owner of any trapping device[.] providing written authorization to another person under Subsection ([6]5)[.] shall be strictly liable for any violations of this guidebook resulting from the use of the trapping device by the authorized person.

([9]8) The owner of any trapping device[;] providing written authorization to another person under Subsection ([6]5)[;] must keep a record of all persons obtaining written authorization and furnish a copy of the record upon request from a conservation officer.

([10]9)(a) A person may not set any trap or trapping device on posted private property without the landowner's permission.

(b) [~~Any trap or trapping device set on posted property without the owner's permission may be sprung by the landowner.~~][~~——(c)~~]Wildlife officers should be informed as soon as possible of any illegally set traps or trapping devices.

([11]10) Peace officers in the performance of their duties may seize all traps, trapping devices, and wildlife used or held in violation of this rule.

([12]11) A person may not possess any trapping device that is not permanently marked or tagged with that person's registered trap number while engaged in taking wildlife.

([13]12) All traps and trapping devices must be checked and animals removed at least once every 48 hours, except;

(a) killing traps striking dorso-ventrally[;];

(b) drowning sets[;]; and

(c) lethal cable devices that are set to capture on the neck, that have a nonrelaxing lock, without a stop, and are anchored to an immovable object; which must be checked every 96 hours.

(14) A person may not transport or possess live protected wildlife. Any animal found in a trap or trapping device must be killed or released immediately by the trapper.

R657-11-[11.]10. Use of Bait.

(1) A person may not use any protected wildlife or their parts, except for white-bleached bones with no hide or flesh attached, as bait or scent; however, parts of legally taken furbearers and nonprotected wildlife may be used as bait.

(2) Traps or trapping devices may not be set within 30 feet of any exposed bait.

(3) [~~A person using bait is responsible if it becomes exposed for any reason.~~]Traps may be placed near carcasses of protected wildlife provided the carcass has not been moved or relocated for the purpose of trapping furbearers and the trap is not located within 30 feet of the carcass.

(4) White-bleached bones with no hide or flesh attached may be set within 30 feet of traps.

(5)(a) Bait used inside an artificial cubby set must be placed at least eight inches from the opening.

(b) Artificial cubby sets must be placed with the top of the opening even with or below the bottom of the bait so that the bait is not visible from above. (c) A person using bait is responsible if it becomes exposed for any reason.

R657-11-[12.]11. Accidental Trapping.

(1)(a) Any bear, bobcat, cougar, marten, otter, wolverine, any furbearer trapped out of season, or other protected wildlife accidentally caught in a trap must be released unharmed.

(b) ~~Written permission~~ Permission must be obtained from a division representative to remove the carcass of any of these species from a trap.

(c) The carcass remains the property of the state and must be turned over to the division.

(2) All incidents of accidental trapping of any of these animals must be reported to the division within 48 hours.

(3) Black-footed ferret, lynx and wolf are protected species under the Endangered Species Act. Accidental trapping or capture of these species must be reported to the division within 48 hours.

R657-11-~~13~~.12. Methods of Take and Shooting Hours.

(1) Furbearers, except bobcats and marten, may be taken by any means, excluding explosives and poisons, or as otherwise provided in Section 23-13-17.

(2) Bobcats may be taken only by shooting, trapping, or with the aid of dogs as provided in Section R657-11-26.

(3) Marten may be taken only with an elevated, covered set in which the maximum trap size shall not exceed 1 1/2 foothold or 160 Conibear.

(4) Taking furbearers by shooting or with the aid of dogs is restricted to one-half hour before sunrise to one-half hour after sunset, except as provided in Section 23-13-17.

(5) A person may not take any wildlife from an airplane or any other airborne vehicle or device or any motorized terrestrial or aquatic vehicle, including snowmobiles and other recreational vehicles.

R657-11-~~14~~.13. Spotlighting.

(1) Except as provided in Subsection (3):

(a) a person may not use or cast the rays of any spotlight, headlight, or other artificial light to locate protected wildlife while having in possession a firearm or other weapon or device that could be used to take or injure protected wildlife; and

(b) the use of a spotlight or other artificial light in a field, woodland, or forest where protected wildlife are generally found is prima facie evidence of attempting to locate protected wildlife.

(2) The provisions of this section do not apply to:

(a) the use of the headlights of a motor vehicle or other artificial light in a usual manner where there is no attempt or intent to locate protected wildlife; or

(b) a person licensed to carry a concealed weapon in accordance with Title 53, Chapter 5, Part 7 of the Utah Code, provided the person is not utilizing the concealed weapon to hunt or take wildlife.

(3) The provisions of this section do not apply to the use of an artificial light when used by a trapper to illuminate his path and trap sites for the purpose of conducting the required trap checks, provided that:

- (a) any artificial light must be carried by the trapper;
- (b) a motor vehicle headlight or light attached to or powered by a motor vehicle may not be used; and
- (c) while checking traps with the use of an artificial light, the trapper may not occupy or operate any motor vehicle.
- (4) Spotlighting may be used to hunt coyote, red fox, striped skunk, or raccoon where allowed by a county ordinance enacted pursuant to Section 23-13-17.
- (5) The ordinance shall provide that:
 - (a) any artificial light used to spotlight coyote, red fox, striped skunk, or raccoon must be carried by the hunter;
 - (b) a motor vehicle headlight or light attached to or powered by a motor vehicle may not be used to spotlight the animal; and
 - (c) while hunting with the use of an artificial light, the hunter may not occupy or operate any motor vehicle.
- (6) For purposes of the county ordinance, "motor vehicle" shall have the meaning as defined in Section 41-6-1.
- (7) The ordinance may specify:
 - (a) the time of day and seasons when spotlighting is permitted;
 - (b) areas closed or open to spotlighting within the unincorporated area of the county;
 - (c) safety zones within which spotlighting is prohibited;
 - (d) the weapons permitted; and
 - (e) penalties for violation of the ordinance.
- (8)(a) A county may restrict the number of hunters engaging in spotlighting by requiring a permit to spotlight and issuing a limited number of permits.
- (b) A fee may be charged for a spotlighting permit.
- (9) A county may require hunters to notify the county sheriff of the time and place they will be engaged in spotlighting.
- (10) The requirement that a county ordinance must be enacted before a person may use spotlighting to hunt coyote, red fox, striped skunk, or raccoon does not apply to:
 - (a) a person or his agent who is lawfully acting to protect his crops or domestic animals from predation by those animals; or
 - (b) a wildlife service's agent acting in his official capacity under a memorandum of agreement with the division.

R657-11-~~15~~14. Use of Dogs.

- (1) Dogs may be used to take furbearers only from one-half hour before sunrise to one-half hour after sunset and only during the prescribed open seasons.
- (2) The owner and handler of dogs used to take or pursue a furbearer must have a valid, current furbearer license in possession while engaged in taking furbearers.

(3) When dogs are used in the pursuit of furbearers, the licensed hunter intending to take the furbearer must be present when the dogs are released and must continuously participate in the hunt thereafter until the hunt is completed.

R657-11-~~16~~15. State Parks.

(1) Taking any wildlife is prohibited within the boundaries of all state park areas except those designated by the Division of Parks and Recreation in Section R651-614-4.

(2) Hunting with a rifle, handgun, or muzzleloader on park areas designated open is prohibited within one mile of all park facilities including buildings, camp or picnic sites, overlooks, golf courses, boat ramps, and developed beaches.

(3) Hunting with shotguns, crossbows, and archery equipment is prohibited within one quarter mile of the above stated areas.

R657-11-~~17~~16. Transporting Furbearers.

(1)(a) A person who has obtained the appropriate license and permit may transport green pelts of furbearers. Additional restrictions apply for taking bobcat and marten as provided in Section R657-11-6.

(b) A registered Utah fur dealer or that person's agent may transport or ship green pelts of furbearers within Utah.

(2) A furbearer license is not required to transport red fox or striped skunk.

R657-11-~~18~~17. Exporting Furbearers from Utah.

(1) A person may not export or ship the green pelt of any furbearer from Utah without first obtaining a valid shipping permit from a division representative.

(2) A furbearer license is not required to export red fox or striped skunk from Utah.

R657-11-~~19~~18. Sales.

(1) A person with a valid furbearer license may sell, offer for sale, barter, or exchange only those species that person is licensed to take, and which were legally taken.

(2) Any person who has obtained a valid fur dealer or fur dealer's agent certificate of registration may engage in, wholly or in part, the business of buying, selling, or trading green pelts or parts of furbearers within Utah.

(3) Fur dealers or their agents and taxidermists must keep records of all transactions dealing with green pelts of furbearers.

(4) Records must state the following:

(a) the transaction date; and

(b) the name, address, license number, and tag number of each seller.

(5) A receipt containing the information specified in Subsection (4) must be issued whenever the ownership of a pelt changes.

(6)(a) A person may possess furbearers and tanned hides legally acquired without possessing a license, provided proof of legal ownership or possession can be furnished.

(b) A furbearer license is not required to sell or possess red fox or striped skunk or their parts.

R657-11-~~[20-]~~19. Wasting Wildlife.

(1) A person may not waste or permit to be wasted or spoiled any protected wildlife or their parts as provided in Section 23-20-8.

(2) The skinned carcass of a furbearer may be left in the field and does not constitute waste of wildlife.

R657-11-~~[21-]~~20. Depredation by Badger, Weasel, and Spotted Skunk.

(1) Badger, weasel, and spotted skunk may be taken anytime without a license when creating a nuisance or causing damage, provided the animal or its parts are not sold or traded.

(2) Red fox and striped skunk may be taken any time without a license.

R657-11-~~[22-]~~21. Depredation by Bobcat.

(1) Depredating bobcats may be taken at any time by duly appointed animal damage control agents, supervised by the animal damage control program, while acting in the performance of their assigned duties and in accordance with procedures approved by the division.

(2) A livestock owner or his employee, on a regular payroll and not hired specifically to take furbearers, may take bobcats that are molesting livestock.

(3) Any bobcat taken by a livestock owner or his employee must be surrendered to the division within 72 hours.

R657-11-~~[23-]~~22. Depredation by Nuisance Beaver.

(1) Beaver doing damage or other nuisance behaviors may be taken or removed during open and closed seasons with either a valid furbearer license or a nuisance permit.

(2) A nuisance permit to remove beaver must first be obtained from a division office or conservation officer.

R657-11-~~[24-]~~23. Survey.

Each permittee who is contacted for a survey about their furbearer harvesting experience should participate in the survey regardless of success. Participation in the survey helps the division evaluate population trends, harvest success and collect other valuable information.

R657-11-~~[25-]~~24. Prohibited Species.

(1)(a) A person may not take black-footed ferret, fisher, lynx, otter, wolf, or wolverine.

(b) Accidental trapping or capture of any of these species must be reported to the division within 48 hours.

R657-11-~~26~~.25. Season Dates and Bag Limits.

Season dates, bag limits, and areas with special restrictions are published annually in the guidebook of the Wildlife Board for taking furbearers.

R657-11-~~27~~.26. Approval to Trap on State Waterfowl Management Areas.

(1)(a) Trapping on state waterfowl management areas is a property management tool used to protect waterfowl populations and infrastructure improvements found on the property.

(b) The authorization to trap on state waterfowl management areas shall be provided through a certificate of registration that is awarded to an individual or individuals through a competitive proposal solicitation process.

(c) On or before October 1 of each year, the division shall publicly notice which state waterfowl management areas are available for proposal by publishing the notice on its website and by publishing a notice in a newspaper of general circulation at least once a week for two consecutive weeks.

(d) The notification and advertising shall include:

(i) the deadline for applying for the certificate of registration;

(ii) a general description of the trapping area authorized under the certificate of registration;

(iii) the desired form of compensation to the division, whether monetary, in-kind, or both;

(iv) the division's management objectives for the state waterfowl management area; and

(v) any special considerations or limitations the division will require of the trapper or trappers while they are on the state waterfowl management area.

(2)(a) Applications must include the following:

(i) a nonrefundable application fee;

(ii) the name of the state waterfowl management area being applied for;

(iii) a description of the applicant's familiarity with the state waterfowl management area being applied for;

(iv) a list of the individuals who will conduct trapping activities under the certificate of registration;

(v) a description of each individual's experience trapping and their ability to utilize removal of targeted species to protect waterfowl populations and infrastructure found at state waterfowl management areas;

(vi) the projected number of animals, specifically muskrat, that may be removed via trapping;

(vii) how the proposal accomplishes the identified management objectives for the waterfowl management area;

(viii) how the proposal conforms with any special considerations or limitations identified by the division in its public notice; and

(viii) a bid amount to be paid to the Division in exchange for the authorization to trap on the state waterfowl management area.

(c) All individuals listed on the application who will conduct trapping activities under the certificate of registration must meet all age requirements, proof of hunter education and furharvester requirements, and youth restrictions as provided in Utah Code 23-19-24, 23-19-11 and 23-20-20.

(d) The bid amount described in Subsection (vi) above may include non-monetary, in-kind contributions.

(3)(a) Late or incomplete applications may be rejected.

(b) A separate application must be submitted for each state waterfowl management area an individual wishes to trap on.

(c) In the event that there is more than one application for a certain state waterfowl management area, the division will analyze each application and select a successful applicant or applicants whose proposal best accomplishes the division objectives identified in the public notice.

(4) The selected applicant will be issued a certificate of registration authorizing trapping activities on the state waterfowl management area for a period of up to two years.

(5) A certificate of registration issued pursuant to this Part may be revoked, suspended, or terminated consistent with the terms of Utah Code 23-19-9 and Utah Admin. Code R657-26.

R657-11-~~28.~~27. Fees.

(1) Upon verified payment of trapping fees, permits will be mailed to successful applicants are granted trapping rights for management areas.

(2) If a successful applicant fails to make full payment within 14 days of the results posting date, an alternate trapper will be selected.

(3) Permits are not valid until signed by the superintendent in charge of the area to be trapped.

R657-11-~~29.~~28. Vehicle Travel.

Vehicle travel is restricted to developed roads. However, written permission for other travel may be obtained from the waterfowl management area superintendent.

R657-11-~~30.~~29. Trapping Hours.

On waterfowl management areas traps may be checked only between one-half hour before official sunrise to one-half hour after official sunset.

R657-11-~~34.~~30. Responsibility of Trappers.

(1) All trappers are directly responsible to the waterfowl management area superintendent.

(2) Violation of management or trapping rules, including failure to return a trapping permit within five days of cessation of trapping activities, or failure to properly trap an area, as determined and recommended by the superintendent, may be cause for cancellation of trapping privileges, existing and future, on all waterfowl management areas.

R657-11-~~32~~31. Closed Area.

Davis County - Trapping is allowed only on the dates published in the guidebook of the Wildlife Board for taking furbearers, on those lands administered by the state lying along the eastern shore of the Great Salt Lake, commonly known as the Layton-Kaysville marshes. In addition, there may be a portion of the above stated area that is closed to trapping. This area will be posted and marked.

R657-11-~~33~~32. Wildlife Management Areas.

(1) A person may not use motor vehicles on division-owned wildlife management areas closed to motor vehicle use without first obtaining written authorization from the appropriate division regional office.

(2) For purposes of coyote trapping, the division may, in its sole discretion, authorize limited motor vehicle access to its wildlife management areas closed to such use provided the motor vehicle access will not interfere with wildlife or wildlife habitat.

KEY: wildlife, furbearers, game laws, wildlife law

Date of Enactment or Last substantive Amendment: November 10, 2015

Notice of Continuation: July 13, 2015

Authorizing^[7] and Implementing or Interpreted Law: 23-14-18; 23-14-19; 23-13-17



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

GREGORY J. SHEEHAN
Division Director

MEMORANDUM

Date: July 16, 2016
To: Regional Advisory Council and Wildlife Board
From: Leslie McFarlane, Mammals Program Coordinator

SUBJECT: BOBCAT MANAGEMENT PLAN V.2

The Utah Bobcat Management Plan was developed in 2007 by the UDWR with the assistance of a group of Utah citizens representing major stakeholders concerned with bobcat management and conservation. This “Bobcat Working Group” consisted of a representative from the Utah Trappers Association (UTA) (Stan Bassett), a houndsman representative (Ernie Millgate), a representative of non-consumptive views (John Weis), an academic (Dr. Jerran Flinders) and two representatives from UDWR (Kevin Bunnell and Heather Hill). This group operated on the basis of consensus and all members of the group endorsed the Utah Bobcat Management Plan. UDWR wishes to thank the members of the Bobcat Working Group Team for the time and efforts they devoted to the development of the plan.

The Bobcat Management Plan was approved for a period of 10 years and is set to expire at the end of 2016. Overall, the plan has worked very well for the protection and management of bobcats in Utah. The division recently completed an internal review of the current document, along with gathering some input from the Utah Trappers Association and the Utah Houndsmen Association we submit the following document. There are several clerical and reorganizational changes within the attached document you will find the actual changes that affect bobcat management mentioned below in the highlights.

Highlights:

- Performance targets were reduced from 4 to 3 with the removal of set/days per bobcat as a variable. This variable was not a biological variable and does not reflect the biological status of the bobcat population.
- The baseline strategy has been changed to include a longer season that will run from the 3rd Wednesday in November to March 1 each year.



- If ≥ 2 of the performance targets are outside of the historical range in a negative direction for population growth then the number of permits and the season length will be decreased by 1-2 respectively.
- The number of permits and the season length will remain the same as the previous year if the performance target variables begin to move back toward historical ranges in a positive direction for population growth.
- If all 3 performance target variables are outside the historical range in a negative direction for population growth then the number of permits available per individual will be capped at 80% of the permits offered the previous season in addition to decreased permits available per individual and decreased season length.
- After a cap as been implemented the season length and the number of permits available per person may be increased by 1-2 back toward baseline when the performance targets fall within or outside the historical ranges in a positive direction for population growth.

Utah Bobcat Management Plan V.2

~~2007-2016~~



Prepared by:

The Bobcat Working Group

**Utah Division of Wildlife Resources
1594 West North Temple
Salt Lake City, Utah 84116**

**Gregory Sheehan Jim Karpowitz
Director**

Publication No. ~~06-10~~

Utah Bobcat Management Plan

~~2007-2016~~ Version 2

Prepared by The Bobcat Working Group:

Kevin Bunnell, Utah Division of Wildlife Resources
Stan Bassett, Utah Trappers Association
Ernie Millgate, Houndsmen Representative
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Internal Review July 2016

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Publication No. ~~06-10~~

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INTRODUCTION

Kevin Bunnell

~~The purpose of the Utah Bobcat Management Plan is to direct the management of bobcats (*Lynx rufus*) to assure the future of the species through protection, propagation and management. While considering the species distribution, intrinsic, scientific, educational and recreational value to the citizens of Utah. The purpose of the Utah Bobcat Management Plan is to direct the management of bobcats (*Lynx rufus*) in Utah in accordance with the mission of the Utah Division of Wildlife Resources (UDWR) through 2016. The UDWR will conduct an internal review of this plan every 10 years.~~

The mission of UDWR is:

~~to To assure the future of protected wildlife for its intrinsic, scientific, educational and recreational values through protection, propagation, management, conservation and distribution throughout the State of Utah.~~

~~A combination of increasing numbers of bobcat trappers and high fur prices resulted in an unprecedented period of higher than average bobcat harvest in Utah beginning in 2001 and continuing through 2006. As a result, UDWR decided to evaluate and formalize the process by which bobcat harvest is regulated in the State.~~ The Utah Bobcat Management Plan was developed by UDWR with the assistance of a group of Utah citizens representing major stakeholders concerned with bobcat management and conservation. This "Bobcat Working Group Team" consisted of a representative from the Utah Trappers Association (UTA) (Stan Bassett), a ~~houndsmen~~ houndsman representative (Ernie Millgate), a representative of non-consumptive views (John Weis), an academic (Dr. Jerran Flinders) and two representatives from UDWR (Kevin Bunnell and Heather Hill). This group operated on the basis of consensus and all members of the group endorse the Utah Bobcat Management Plan. UDWR wishes to thank the members of the Bobcat Working Group Team for the time and efforts they devoted to the development of this plan.

NATURAL HISTORY

Kevin Bunnell

Distribution

The bobcat is the most widely distributed felid native to North America. It ranges from as far north as central British Columbia and south to Oaxaca, Mexico (Rolley 1987). With the exception of Delaware, the bobcat occurs in all of the lower 48 states, although its distribution is restricted in Illinois, Indiana, Iowa, Michigan, Missouri, and Ohio (Woolf and Hubert 1998). In Utah, bobcats occur in all 29 counties and in most habitat types.

Description

Bobcats can be various shades of buff and brown with dark brown or black stripes and spots. In Utah, bobcats from lower elevations tend to be more spotted than those at

higher elevations, leading trappers to refer to higher elevation bobcats as “lynx cats”. Bobcats are distinguished from other felids, except Canada Lynx, by a short tail, tufted ears, relatively small head, and a flared facial ruff or mane. Lynx can be distinguished from bobcats by their large furred feet, long legs, slightly shorter tail, longer ear tufts (>2 in), and relatively spotless and grayer pelage. One of the best ways to distinguish between bobcats and lynx is by their tails. Bobcat tails are banded only on the upper surface with a black spot on the upper surface of the tip. Lynx tails are not banded on either the upper or lower surfaces and have a black tip that completely encircles the tail, as if the tail was dipped in black ink. ~~(Figure 1).~~

Bobcats are sexually dimorphic with males being larger than females. Adult bobcat weights vary throughout their range with adult males and females averaging 21.2 (14.1 – 40.3) lbs and 15.0 (9.0 – 33.7) ~~lbs~~ lbs., respectively (Banfield 1897). In Utah, ~~Bobcats~~ bobcats trapped on the Sheeprock and Tintic Mountains ~~of west central Utah~~ averaged 26.9 lbs and 14.3 lbs for adult males and females, respectively (Blackwell 1991). Total length of male bobcats averages 86.9 (47.5 – 125.2) cm and adult female length averages 78.6 (61.0 – 109.2) cm (McCord and Cardoza 1982). Bobcat body size appears to follow Bergmann’s rule, with size increasing with latitude and elevation (Sikes and Kennedy 1992).

Reproductive Biology

Bobcats are seasonally polyestrous and ~~probably~~ probably spontaneous ovulators, experiencing up to three estrous cycles between March and June if not impregnated during one of the ovulations (Crowe 1975). However, early researchers assumed bobcats were induced ovulators and there is some evidence to support this contention. Male bobcats possess a barbed penis and engage in repeated coitus, both characteristics of induced ovulators (Merher 1975). ~~Evidence clearly indicates that F~~ female bobcats can ovulate without ~~the stimulation from a~~ of the male, but coitus may induce or hasten ovulation (Anderson and Lovallo 2003). The majority of bobcat breeding occurs between during February and March, however, breeding can occur at any time with because litters being reported in ~~have been reported~~ in every month (Duke 1954; Young 1958; Gashwiler et al. 1961; Fritts 1973; Crowe 1975). The breeding season for bobcats ~~probably~~ varies with latitude, longitude, altitude, climate, photoperiod, and prey availability (McCord and Cardoza 1982).

Habitat Selection

In general, any habitat that supports abundant prey in terms of leporids and other small mammals, and is suitable for hunting by either ambush or stalking, is suitable for bobcats. This generalization is supported by the broad distribution of the species in the United States, which includes forested bottomlands of the southeast, arid deserts regions of the southwest, boreal forests of Minnesota, tropical regions of Florida and montane habitats in the Rocky Mountains (Anderson and Lovallo 2003). In Utah, bobcat habitat selection has been characterized by 2 separate research efforts (Karpowitz 1981; Blackwell 1991; Appendix I). Karpowitz (1981) characterized bobcat

habitat selection in the Wasatch Mountains and found that pinyon-juniper and mountain brush vegetative types were preferred, and also reported that cliffs and rocks were important components of bobcat habitat. The preference for rocky habitats was believed to be important for providing escape terrain for evading coyotes. Blackwell (1991) studied bobcat habitat selection in the Sheeprock and Tintic mountains and determined that pinyon-juniper mixed with sagebrush, closed pinyon-juniper communities and riparian zones were preferred habitats.

Prey Selection

Bobcats are almost exclusively carnivores and most frequently kill prey that weighs between 1.5 and 12 ~~lbs~~lbs. (Anderson and Lovallo 2003). Throughout most of their range, rabbits and hares are the most important prey items, sometimes exceeding 90% of their diet (Bailey 1979; Parker and Smith 1983). However, there are regional variations. In the northern portion of the range, snowshoe hare and white-tailed deer predominate bobcat diets (Nussbaum and Maser 1975; Berg 1979; Parker and Smith 1983) while ~~in~~ in the southeast, cotton rats ~~may~~ constitute the majority of their ir diet (Knight 1962; Beasom and Moore 1977; Miller and Speake 1979). In western Washington, the mountain beaver makes up the majority of bobcat diets (Knick et al. 1984). In Utah, Blackwell (1991) found that 78.6% of bobcat scats collected in the Sheeprock and Tintic mountains contained the remains of desert cottontails. Other prey items found in the scats included deer mice, great basin pocket mice, wood rats, chipmunks and mule deer.

Behavior and Home Range

Bobcats are essentially solitary with brief, infrequent social interactions. The exceptions to this generalization are females with kittens and adult males and females during breeding season. Three social classes seem to exist in all populations, including residents, transients and kittens. Most adults are considered residents and generally remain in a home range or territory. Transients are generally yearlings dispersing from their natal home ranges (Bailey 1974; Rolley 1983).

Estimates of bobcat home range sizes vary widely among studies and range from 0.4 mi² to 26.9 mi² for females and 1.0 mi² to 53.5 mi² for males. However, there are several consistent generalizations that have been discovered. Home ranges in northern latitudes are considerably larger than those in the south. Male home ranges are generally 2-3 times larger than those of females. Home range size seems to be most strongly correlated to prey abundance (Anderson and Lovallo 2003). In Utah, Karpowitz (1981) reported home range sizes of 6.3 mi² for female and 8.7 mi² for male bobcats in the Wasatch Mountains. Daily movement distances also vary widely by region, sex, weather conditions and individuals (Anderson and Lovallo 2003).

Competitive Interactions

The most significant and influential competitors of bobcats are coyotes. Coyotes often use the same habitats and utilize the same prey as bobcats. Buskirk et al. (2000) hypothesized that coyotes have a significant ecological advantage over bobcats due to their larger size, broader diet, wider habitat niche, higher reproductive rates, wider behavioral plasticity and higher human tolerance. Litvaitis and Harrison (1989) reported that a sharp decline in bobcat harvest in Maine was highly correlated with a dramatic increase in coyote populations. Likewise, a 3-year experiment in western Texas in which coyote populations were artificially reduced led to increases in bobcat and rodent populations, whereas no similar population changes were observed in a control area (Henke and Bryant 1999). In addition to coyotes, cougars have been documented killing bobcats. For example, Blackwell (1991) found an instance where a cougar killed and mostly consumed a radio-collared bobcat, and a female with kittens reduced her activity to portions of her home range with rocks and crevices in seeming response to the presence of a resident cougar, which also had kittens.

MANAGEMENT HISTORY IN UTAH

Heather Hill

History

Prior to the 1970s, bobcats were classified as predators (non-protected wildlife) and therefore not under the jurisdiction of the Utah Division of Wildlife Resources (UDWR). Bounties were offered on bobcats in Utah from the late 1800s to 1975, with the greatest number of bounties, 4,396, occurring in 1969 and again in 1970 (Stiver 1982). Historically, bobcats had little economic importance, with an average pelt price of only \$5.00 between 1950 and 1970 (Anderson 1987). During the 1970s, bobcat harvest and average pelt price increased dramatically in the United States. With this increased demand, the bobcat trade came under heavy fire during the 1970s and early 1980s. In 1973, UDWR began attempts to gain management authority over bobcats, and met strong opposition by agricultural and livestock interests hoping to reduce loss caused by predators. UDWR and sportsmen successfully achieved a moratorium on bobcat trapping in Utah in 1976.

CITES

The 1977 listing of bobcats as an Appendix II species under the Convention on International Trade in Endangered Species (CITES) required that the exportation of bobcat pelts not cause detriment to the survival of the species. Bobcats became a protected wildlife species in Utah in 1979, and active management of harvest was implemented at this time. As a result of a suit brought by Defenders of Wildlife, a court order was issued in 1981 that required the collection of reliable population estimates and accurate harvest data prior to the lifting of a temporary export ban. The case was dismissed in 1982 and in 1983, CITES permitted the U.S. to redefine bobcats in Appendix II, under "similarity of appearance" to enable effective regulation of other listed cats. Due to the political uproar during this time, management and research efforts

were greatly increased in an attempt to collect more information on the biology and ecology of bobcats in the United States.

License Requirements

New regulations were also implemented in 1979 when bobcats received protection in Utah. Any person intending to harvest bobcat were required to obtain possession tags from UDWR and check-in each pelt to have a permanent CITES tags affixed, as well as surrender the lower jaw. A bobcat season was also implemented, restricting the take of bobcats to a fixed-length season. In 1982, UDWR added bobcat to its annual fur harvest questionnaire. This questionnaire included questions about bobcat harvest and trapping effort by county, as well as questions to collect fur harvester suggestions on management decisions.

Harvest History

During the last ~~several~~^{three} decades, bobcat harvest has been primarily open statewide. The bobcat season length fluctuated between 6 and 12 weeks, and ~~permit tag~~^{limits} were between ~~4-3~~ and 10 ~~permits per person~~. Harvest also fluctuated during this time, from ~~a mere 527 bobcats during the 1990-91 season, to~~ a high of ~~2,640~~^{3,377} bobcats during the ~~1983-1984~~²⁰⁰⁶⁻²⁰⁰⁷ season, ~~to a mere 527 bobcats during the 1990-1991 season, and back up to 2,176 in 2002-2003~~ (Table 1). Years of low harvest were partly attributed to a decrease in the rabbit population and decreased pelt prices (Bates 1987; McDonald 1990).

Population Monitoring

Each year, biologists and managers used population trend indicators to determine the status of the bobcat population in Utah. Most of these indicators, such as set-days per bobcat, bobcats per trapper, ratio of juveniles to adult females, abundance, and suggested ~~permits tags, are were~~ obtained from the annual fur harvest questionnaire and a mandatory reporting of harvest to have permanent CITES tags affixed to pelts. In 1985, UDWR began to age teeth from the lower jaws of harvested bobcat. This information provided additional population trend indicators, such as adult survival and age structure of the harvest (Table 2).

UDWR initiated two studies during the mid-1980s in an effort to gain a better understanding of ~~the~~ bobcat population~~s~~ in Utah. One was a 1986-~~1993~~ study to determine the relationship between prey base levels and bobcat juvenile recruitment (Bates 1987), and another was a 1988-~~1989~~ study examining habitat selection, prey base, home range and reproduction of bobcats in western central Utah (Blackwell 1991; Appendix I). Other important research on bobcats in Utah included a 1978-1981 study examining home ranges and movements of bobcats with radio telemetry and habitat selection and the relationship of bobcats to their prey base (Karpowitz 1981; Appendix I).

Table 1. Bobcat harvest in Utah, 1979–80 to –2015–16.

Trap year	Hunters afield	Total harvest	Bobcat / person	Incidental harvest*	Set-days / bobcat	Bobcats / trapper	Pelt price
1979–80	1360	1593	1.2	—	—	—	—
1980–81	1017	1646	1.6	—	—	—	—
1981–82	1051	2535	2.4	—	—	—	\$155.14
1982–83	1145	2540	2.2	—	185	2.2	\$171.00
1983–84	1050	2640	2.5	—	152	2.5	\$189.00
1984–85	1253	2532	2.0	—	221	2.0	\$202.00
1985–86	1083	1530	1.4	—	269	1.4	\$197.00
1986–87	1036	1024	1.0	—	220	1.0	\$309.00
1987–88	1108	1023	0.9	—	247	0.9	\$245.00
1988–89	941	1042	1.1	—	169	1.1	\$221.00
1989–90	1167	843	0.7	—	169	0.7	\$102.00
1990–91	542	527	1.0	—	145	1.0	\$87.00
1991–92	726	968	1.3	—	122	1.3	\$104.00
1992–93	827	1171	1.4	—	120	1.4	\$90.00
1993–94	900	1256	1.4	—	152	1.4	\$118.60
1994–95	914	1293	1.4	—	163	1.4	\$70.02
1995–96	749	896	1.2	—	121	1.2	\$79.51
1996–97	615	866	1.4	—	160	1.4	\$147.80
1997–98	619	1234	2.0	—	207	2.0	\$60.89
1998–99	1031	2092	2.0	—	303	2.0	\$55.86
1999–00	828	1430	1.7	—	167	1.7	\$82.64
2000–01	852	2008	2.4	—	199	2.4	\$93.56
2001–02	666	1866	2.8	—	184	2.8	\$147.66
2002–03	984	2176	2.2	—	273	2.2	\$270.33
2003–04	1133	2027	1.8	—	346	1.8	\$203.17
2004–05	1300	1954	1.5	—	236	1.5	\$221.65
2005–06	1523	2926	1.9	0	289	2.7	\$358.56
2006–07	1379	3377	2.4	—	289	3.0	\$197.53
2007–08	1479	2437	1.6	376	400	2.1	\$388.43
2008–09	1928	2062	1.1	295	701	1.1	\$238.69
2009–10	1088	1167	1.1	24	481	1.4	\$223.71
2010–11	1056	1002	0.9	121	492	1.1	\$368.95
2011–12	1011	1245	1.2	43	400	1.4	\$456.16
2012–13	979	1365	1.4	50	392	1.5	\$560.96
2013–14	1091	1870	1.7	117	333	1.8	\$407.44
2014–15	1320	2919	2.2	78	373	2.5	\$223.11
2015–16	1215	1683	1.4	141	479	1.6	\$151.63
Average	1045	1676	1.6	123	269	1.7	\$207.17

*Projected afield from 1979–80 to 1981–82 is actually total number of permits sold, and bobcat/person is actually bobcat/permit.

Table 2. Bobcat population trend indicators in Utah, 1985–86 to 2015–16.

Trap year	Juveniles / adult	Juv. males / juv. females	Proportion juveniles in harvest	Proportion females in harvest	Males / females	Adult survival		Juvenile* survival	
						S	95% C.I.	S	95% C.I.
1985–86	—	—	—	—	1.2	63	60–65	42	40–45
1986–87	—	—	—	—	1.1	63	60–65	35	32–39
1987–88	—	—	—	—	1.1	65	61–68	35	32–38
1988–89	—	—	—	—	1.3	64	60–68	38	35–40
1989–90	—	—	—	—	1.4	67	63–71	41	38–44
1990–91	—	—	—	—	1.2	58	53–62	36	31–41
1991–92	—	—	—	—	1.5	58	55–60	32	29–36
1992–93	—	—	—	—	1.4	59	56–63	29	25–33
1993–94	—	—	—	—	1.3	54	52–57	40	36–43
1994–95	0.6	1.1	0.36	0.44	1.3	57	54–59	34	30–37
1995–96	0.5	1.0	0.35	0.44	1.3	64	61–66	30	25–34
1996–97	0.7	1.1	0.41	0.41	1.4	68	65–70	34	30–38
1997–98	0.4	0.9	0.30	0.42	1.4	71	69–74	34	28–40
1998–99	—	—	—	—	1.3	71	70–73	29	26–33
1999–00	1.0	1.4	0.50	0.39	1.6	66	64–68	35	33–38
2000–01	0.9	1.3	0.47	0.39	1.6	64	62–66	36	33–39
2001–02	0.6	1.2	0.38	0.39	1.4	65	63–67	39	36–42
2002–03	0.4	1.0	0.28	0.41	1.2	67	65–68	39	35–42
2003–04	0.5	1.0	0.31	0.47	1.1	71	70–72	22	19–25
2004–05	1.2	1.1	0.55	0.44	1.3	74	73–76	36	33–38
2005–06	2.5	1.4	0.72	0.43	1.4	68	65–70	16	14–18
2006–07	1.5	1.4	0.60	0.43	1.3	53	48–58	35	30–39
2007–08	1.4	1.1	0.56	0.43	1.3	58	54–62	39	35–43
2008–09	0.7	1.0	0.42	0.45	1.2	57	54–61	43	39–48
2009–10	0.6	1.2	0.38	0.47	1.1	59	56–62	34	29–39
2010–11	0.5	1.2	0.31	0.43	1.4	69	66–71	31	26–37
2011–12	0.5	1.2	0.35	0.45	1.2	70	66–73	29	22–36
2012–13	0.5	0.9	0.35	0.48	1.1	75	72–78	34	26–41
2013–14	0.8	0.9	0.46	0.45	1.2	70	66–74	33	27–39
2014–15	1.5	1.2	0.60	0.45	1.2	74	71–77	33	29–37
2015–16	1.6	1.4	0.62	0.44	1.3	73	70–76	39	35–42
Average	0.9	1.1	0.44	0.44	1.3	65	—	34	—

*Prior to 2005–06, the "juvenile" age category referred only to kittens (age 0.5) while "adults" included all bobcats age 1.5 and older. Beginning with 2005–06 the term "juvenile" now refers to kittens and yearlings (ages 0.5-1.5), while "adults" include all bobcats age 2.5 and older.

BOBCAT TRAPPING

Stan Bassett

Most ~~of the~~ bobcats ~~that are~~ harvested in Utah are harvested by trapping. ~~(Table 3).~~ There are a multitude of reasons why an individual traps bobcats. There ~~are~~ also a multitude of techniques ~~that are~~ used to trap bobcats. Harvesting a bobcat by trapping offers an individual a unique and rewarding experience by allowing the trapper to match wits with the bobcat while experiencing the bobcat's demanding environment.

Reasons for Trapping

~~Some trappers trap bobcats for the opportunity to harvest a trophy that they will be able to admire for a lifetime. Trappers that target a trophy bobcat are usually very selective as to the size and color of the bobcat that they harvest. They want the best possible bobcat they can harvest for their mount or rug. Trappers that target bobcats for a trophy may only harvest one or two bobcats in a lifetime.~~

The vast majority of bobcats that are harvested are harvested for the sale of their pelts. Many trappers harvest bobcats to help supplement their income. Bobcat pelts are sold to fur buyers and the fur buyers sell the bobcat pelts to manufacturers, who process the pelts into coats and fur garments. The price of bobcat pelts is determined by fashion trends. When fashion trends encourage the use of bobcat pelts then the price of bobcat pelts increase. When bobcat pelts are not the focus of the fashion designers then the price of bobcat pelts decreases. Trappers who harvest bobcats for income usually experience a roller-coaster ride for their pelts. They may receive low prices for their pelts and then as soon as the fashion market warrants the need for bobcat pelts then the price will begin to increase.

Many trappers trap bobcats just for the enjoyment of getting to experience the beauty of nature. Trophies or supplemental income are secondary to the general overall experience of being able to be in the bobcats' habitat with a chance to match wits with this elusive feline. Finding a travel route that the bobcat routinely uses, or finding bobcat tracks in the snow is reason enough for many trappers to pursue bobcats.

Trapping bobcats can be hard work. It usually requires hiking through snow or up steep mountains. The recreational possibilities for trapping bobcats are vast. Trappers can snowshoe, use ATV's, snowmobiles, boats and skis to get into bobcat habitat. Bobcat trappers can and do use many different recreational avenues while trapping bobcats.

Methods of Trapping

Trappers use several different types of traps to trap bobcats. The most common type of trap that is used for bobcats is the foothold trap. When the bobcat steps in the trap, jaws close on the bobcat's foot and hold the bobcat until the trapper arrives. This restraining type trap allows for the release of the bobcat if the trapper does not want to

harvest a particular bobcat. Trappers must use traps with an offset jaw (a gap between the jaws), and they must check their traps every 48 hours. This will help to ensure that the bobcat will not have to endure any unneeded discomfort.

Lethal traps are traps that will dispatch the bobcat as soon as it is captured. Snares that are set to catch the bobcat around the neck typically dispatch the bobcat with little discomfort to the bobcat. Conibears are another type of lethal trap that is used for bobcats. When the bobcat puts its head in the jaws of a conibear, the jaws close on the bobcat's neck, and death occurs in seconds. The major disadvantage of using lethal traps is that the trapper cannot be selective in harvesting and releasing unwanted bobcats.

Some bobcat trapping is done with box or live traps. These are wire cages with a door that closes when the bobcat steps inside. They are designed to catch bobcats so they will be alive and unharmed. Box traps are used in urban areas where catching pets may be a problem. They are also used when bobcats need to be trapped for research or for relocation to another area.

Trapping bobcats is a sport that offers many unique opportunities for those that participate. Bobcat trapping is typically taught and passed down from generation to generation. Fathers and sons or daughters tend to be trapping partners as soon as many children are old enough to walk. It is not uncommon to see grandparents, parents and grandchildren all on the same trap line together. Children are taught at an early age to understand the balance of nature and they soon learn to respect the environment as well as the animals that they pursue. Young trappers are taught the trapping techniques that have taken their parents a lifetime to learn. As a result, these young trappers learn the most efficient, as well as humane, techniques for harvesting bobcats.

There is far more to bobcat trapping than merely harvesting a bobcat. Bobcat trappers learn to use the best possible equipment for bobcat trapping to minimize any discomfort that the bobcat will have to endure. But most importantly, they learn to truly respect the bobcat and the bobcat's environment. With parents teaching young trappers the proper trapping ethics, and with mandatory fur harvester education classes being taught in the state, bobcat trapping should continue to be a rewarding experience for those individuals that choose to trap bobcats.

BOBCAT HARVEST WITH HOUNDS

Ernie Millgate

The history of hunting with hounds can be traced back to our forefathers. As we know, George Washington had a pack of hounds imported from the old country in order to carry on the sport here in this country. But soon the poorer class families found that hounds could contribute in securing food for their families.

As people came west to settle and raise livestock, the need for hounds was realized again as a tool for taking predatory animals such as bear, lion, bobcat, and coyotes. It

seemed that, in the early days, almost every ranch house had its own pack of hound dogs. Neighboring ranches would help each other with not only working cattle, but would also get together with their hounds for big hunts.

Today, a lot of houndsmen just want to carry on the tradition of the early settlers of the west. Though many of us are not full-time cowboys or full-time hunters, it is a romantic part of the western life we don't want to see end.

In the eyes of many houndsmen, bobcats are trophy class animals because it takes a well-trained pack of dogs to catch them consistently. More times than not, after turning dogs loose on a bobcat track, a houndsman is just happy at the end of the day to get ALL the dogs back and loaded in the truck without even putting a cat up the tree. Bobcats use every trick in the book when pursued by dogs: climbing ledges, jumping from tree to tree, and lots of circles back over their own tracks to elude their pursuers. In different parts of the country, hunters use this trick to their advantage. They lay in wait to shoot the bobcat ahead of the dogs as they come around on one of their famous circles.

The majority of houndsmen in Utah do this for the thrill of the chase, to see and know that their dogs can actually put a bobcat up a tree. That is why we as hunters can be selective in our own harvest by taking home only mature cats or leave them in the tree to run another day. ~~The taking of bobcats by houndsmen in this state is not much of a threat to the species, as shown by the statistics, 7 – 13% of the total harvest (Table 3). In recent years, houndsmen are spending more time in bobcat country, as there seems to be fewer lions to run due to the decline in deer numbers and the predator management plan that is now in place.~~

In order to get dogs to the point where they are considered "good bobcat dogs", you must spend more time working with them than most dog owners can relate to. It is an ongoing, year-round program, training dogs on scent and raccoons. You can't let a week slip by without working your dogs, which in turn makes serious houndsmen very passionate about their sport. As for the physical demands that are put on a person, you not only have to hike into prime bobcat areas, but also must keep within hearing distance of the dogs so you don't lose any. The elements can have you past your limits in waist deep snow on a sixty degree plus slope in temperatures that, some days, can be well below zero degrees. But there is nothing better to a houndsman on a below zero morning than listening to hound music echo across the canyon, and to hear the long drawn out bawl of a hound change to an excited, choppy bark and know you have just treed your first bobcat.

VALUE OF BOBCATS TO NON-CONSUMPTIVE USERS

John Weis

Bobcats are an indigenous predator that few Utah residents have observed in the wild. Bobcats are solitary hunters, leery of human contact and well camouflaged within their habitat. These cats, like the lynx, occupy a physical and emotional niche that many non-consumptive users find intriguing. Bobcats, unlike the mountain lion, are not a feline predator to be feared, and contact with them in the wild would be an unexpected pleasure. Developing management plans to increase the numbers of bobcats that would, in turn, increase the probability of chance meetings should be encouraged as long as the additional bobcats would not negatively impact other native species. Bobcats should not be targeted for harvest under any predator control initiatives.

Bobcat Viewing Opportunities

Most Utah residents would prefer see ~~a the~~ bobcat in the wild, rather than in their backyard stalking quail or ~~domestic pets. their chihuahua.~~ Non-harvest areas represent the best viewing opportunities, including National Parks ~~acreages~~ and State parks such as Antelope Island. The Utah Division of Wildlife Resources should survey state and federal lands, and identify regions in which bobcat viewing could be productive. The identity of such areas should be publicized as long as the area is protected from bobcat harvest. While habitat restoration and protection is critical for the maintenance and expansion of many species, the same is not likely to be as true for bobcats due to their prey base and opportunistic feeding habits.

Attitudes of Non-consumptive Users Toward Harvest

The attitudes of non-hunters towards the killing of bobcats ranges from acceptance of harvest objectives to rejection that any harvest should be permitted. A common ethic of many non-hunters, especially concerning a species such as a bobcat, is that they should be left alone, not hunted, and appreciated for their wildness. Bobcats rightfully occupy many of their traditional habitats in the state of Utah (unlike some other predator species) and their presence there must be protected. Encroachment of urban areas in foothill and mountainous areas guarantees that conflicts between the bobcat and households will increase, especially if accessibility of food is linked to the human dwellings. Such problems should be anticipated and homeowners educated to prevent unwanted interactions.

The two major methods of hunting bobcats in the state of Utah, hounds and trapping, are objectionable to many non-consumptives. Using hounds to track and tree a bobcat is seen by some as providing an unfair advantage to the hunter, eliminating a reasonable chance of escape for the bobcat. Trapping and snaring of bobcats is perhaps more objectionable than the use of hounds because the opportunity of release of the bobcat is limited - leg trapped animals can be held for a time before the trap is checked, and snaring is designed to suffocate the animal. Although trained trappers can design the positioning of their traps/snares to catch adult animals, those trappers

with less experience can catch immature bobcats or other animals, including endangered lynx, should they return to Utah.

It is difficult to reconcile the wants and desires of the bobcat hunters and trappers with those of non-consumptive appreciators of wildlife who do not agree with any level of harvest. Finding common ground for compromise could include requiring greater hunter/trapper education to prevent inadvertent killing of immature animals and animals of different species. Regulations on trap maintenance and supervision must be enforced. Setting aside regions, other than national or state parks, for bobcat protection and viewing opportunities should be explored, as should re-introduction of the animal into areas in which the feline has been eliminated by hunting and trapping.

|

GOAL, OBJECTIVES AND STRATEGIES

Goal

Maintain a healthy bobcat population within existing suitable habitat and provide quality recreational opportunities for bobcat harvest while considering the social aspects of bobcat harvest.

Population Objective

- 1) Maintain current statewide distribution of bobcats with a reasonable proportion of older age animals.

a. Performance Targets

Variable	Mean	95% Confidence Interval
Proportion of kittens and yearlings in the harvest	0.49	0.42 - 0.56
Adult Survival survival	0.68	0.65 - 0.72
% Females females in the harvest	0.43	0.41 - 0.45
Set days / bobcat	197	171 - 220

b. Strategies

~~b.~~

~~i.~~ i. Maintain baseline management strategy if ~~<=~~ ≥ 2 variables ~~(net)~~ are ~~within or above~~ outside the historical range (95% CI) in a positive direction for population growth.

~~i.~~ i. ~~or return to baseline if < variables (net) are outside the historic range for 2 consecutive years.~~

1. Baseline strategy :

a. ~~6 tags permits per/~~ individual

b. Season from third Wednesday in November to March 1. the second Sunday in February

c. No cap on the number of ~~tags permits~~ sold

~~e.~~

ii. ~~Decrease~~ Adjust the number of bobcat ~~permits tags~~ available to individuals (~~+ or -~~ $1-2$ ~~tags permits~~) if ~~any~~ ≥ 2 ~~(net)~~ of the ~~above~~ performance targets are ~~below~~ outside the historical range (~~outside the~~ 95% CI) in a negative direction for population growth. ~~the same direction.*~~

~~ii.~~

*-Keep the # of ~~tags permits~~ available to individuals consistent with the previous year if ~~variables performance targets~~ are moving back toward the historical range averages in a positive direction for

~~population growth from the previous year. , or if fewer variables are outside the historic range then the previous year.~~

~~iii. Decrease Adjust the length of the bobcat harvest season on the front end of the season (+ or - 1-2 weeks) if ≥ 2 of the performance targets if allny 3 (net) of the above performance targets are outside the historical range (outside the 95% CI) in a negative the same direction for population growth.*~~

~~iii. *Keep the season length consistent with the previous year if performance targets are moving back toward the historical range averages in a positive direction for population growth from the previous year. Implemented in addition to Strategy i.~~

~~iv. If all 3 performance targets are outside the historical range (95% CI) in a negative direction for population growth the number of permits may be capped at Cap the total number of bobcat tags available at 80% of the number of permitstags sold the previous year. if all 4 of the above performance targets are outside the historical range (outside the 95% CI) in the direction indicating that harvest needs to be reduced. These permittags would be sold on a first-come, first-served basis. Implemented in addition to Strategies ii and iii.~~

~~iv-v. After a cap has been implemented, the season length and number of permits available per individual may be increased by 1-2 (weeks, permits tags, respectively) per year back toward baseline, if performance targets are moving back toward historical ranges in a positive direction for population growth.~~

Outreach and Education~~Recreation Objectives~~

Objective 1:

Increase awareness and appreciation of the general public for the role of bobcats in Utah's ecosystems.

Strategies:

1. Determine the public's knowledge and attitudes towards the role of bobcats in Utah's ecosystems.
2. Develop educational programs on the role of predator/prey interactions in our ecosystems.
3. Provide educational opportunities on the role and use of trapping and hounds in bobcat management.

Objective 2:

Maintain quality ~~hunting and trapping~~recreation opportunities ~~for~~related to bobcat harvest and / or viewing opportunities ~~for a minimum of 1,250 people annually.~~

i. Strategies:

1. Promote ethical and legal hunting and trapping practices through the Furharvester Education Program.

2. Develop incentives to help attract new Furharvester Education teachers.

~~2) 3. es.~~

~~a. Strategies~~

~~1. Encourage trappers to keep each other honest by promoting and developing incentive programs that encourage the reporting of violations.~~

~~2. 4. Advertise monetary reward program available through UTA newsletter and the Division Furbearer Guidebook Proclamation.~~

~~3. 5. UTA and the UHA houndsmen associations will appoint a contact person for reporting violations.~~

~~6. UDWR will work to develop additional incentive programs, with input from UTA and UAHoundsmen associations.~~

~~4. 7.~~

~~ii. Work with and help the Utah Trappers Association promote ethical trapping practices. Emphasize trapping ethics through the FurHarvester Education Program in accordance with Utah Code.~~

~~iii. Advertise and promote additional educational opportunities, such as the trappers convention, in the furbearer proclamation.~~

Advertise and promote trapping “Best Management Practices” for ~~trapping bobcats being~~ developed by the ~~International~~ Association of Fish and Wildlife Agencies

8. Hold an annual coordination meeting that will include UDWR wildlife and law enforcement sections with the Utah Trappers and Utah Houndsmen Associations to discuss issues and solutions.

~~iv. _____.~~

~~v. _____~~

~~3) Maintain and develop productive relationships between UDWR and user groups, and other Utah citizens concerned with bobcats and their management.~~

a. ~~Strategies~~

~~4) Hold an annual meeting between the Mammals Program Coordinator and the Utah Trappers Association to discuss problems and concerns and potential solutions.~~

~~i.~~

~~5) 9. Hold an annual meeting between UDWR Law Enforcement personnel and the leadership of the Utah Trappers Association to discuss conflicts, concerns and potential solutions.~~

~~i. 2) Maintain and develop productive relationships between UDWR and user groups, and other Utah citizens concerned with bobcats and their management. Reduce conflicts between bobcat trappers and houndsmen.~~

ii. Trappers should use the smallest trap sizes they can in order to minimize damage to hounds when trapping for bobcats in areas that might also be used by houndsmen.

~~iii.~~

~~iv. 10.~~ Trappers should avoid using lethal sets when trapping in areas frequented by houndsmen.

~~11.~~

~~v.~~ Houndsmen should avoid conflicts with trappers by avoiding running their dogs in areas that are known to be frequented by trappers.

~~12.~~

~~vi.~~ When hounds are caught in traps, they should be released in a way that leaves traps undamaged and trap sites undisturbed.

~~6) **Objective 3:**~~

~~7) Reduce conflicts between those involved in bobcat harvest (trappers and houndsmen) and other recreationists.~~

~~a. **Strategies:**~~

~~1. Promote the setting of traps and snares away from popular hiking and recreation sites and that they should not parallel established hiking trails.~~

~~2. Encourage houndsmen and trappers to avoid trapping or pursuing bobcats in highly urbanized or populated areas and popular recreation areas to avoid conflicts or capture of domestic pets.~~

~~3. Trappers should avoid using lethal sets when trapping in areas where it is likely they may catch a domestic pet.~~

~~i.~~ 4. Recreationists have an obligation to respect the private property of trappers and houndsmen. The traps, snares, and dogs used in lawful pursuit of game are the property of trappers and houndsmen and should not be abused. If traps or captured animals are encountered they should be left undisturbed.

5.

~~ii. Houndsmen and trappers have an obligation to carry out their pursuit of wild game with as little confrontation with the non-hunting public as possible. Traps and snares should be set away from popular hiking and recreation sites and should not parallel established hiking trails. Houndsmen, if possible should avoid chases through popular recreation areas and/or populated areas.~~

iii. Trappers and houndsmen should avoid displaying dead animals in ways that others may find offensive.

Research Objective

~~1)~~

Objective: Increase base understanding and knowledge regarding bobcat populations in the state of Utah. Provide funding to an in-state university to conduct research designed to address questions relative to bobcat management in the State of Utah. Potential research topics include:

~~2)~~

- a. Population estimation
- b. Survival
- c. Population connectivity
- d. Identification of sources and sinks

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APPENDIX I – ABSTRACTS FROM THESE

(Blackwell 1991) **Abstract:** Prey base, habitat selection, and home range use by bobcats were studied for two and one-half years on the Sheeprock and Tintic mountains of Utah. Most of the study area was closed to commercial trapping for bobcats during the period of research. Fourteen bobcats were radio instrumented, including 3 kittens. An assessment of fecal pellet numbers determined that each bobcat location was associated with 20.8 leporids per ha for females and 9.6 for males in 1988, and 28.3 per ha for females in 1989. Diets were dominated by desert cottontails with an average of 78.6% occurrence in scats (n=40) that were analyzed. Other diet items were field mice, Great Basin pocket mice, wood rats, chipmunks, and mule deer. Single needle pinion and/or Utah juniper mixed with sagebrush and closed pinion-juniper communities were preferred habitats. Riparian zones were also important habitat. Mean home range size of adult males was found to be significantly larger than that of adult females.

(Karpowitz 1981) **Abstract:** Home ranges and movements of bobcats (*Lynx rufus*) were studied for 3 years in the Wasatch Mountains of Utah. Thirteen bobcats were radio instrumented including 5 kittens. Home ranges of resident males ($x = 22.5 \text{ km}^2$) were larger than those of resident females ($x = 16.4 \text{ km}^2$). A minimum density of 1 resident per 16.1 km^2 was estimated. Boundaries of home ranges were prescribed by social interactions and by physical features of the study area. Seasonal uses of home ranges were defined by elevation and directional aspect of slope. Pinyon-juniper and mountain brush vegetative types were determined to be preferred habitats. Rocky habitats were also selected as high use areas. Dispersal was observed for 1 kitten but not for 2 other kittens that remained in the study area for more than 1 year. Relative densities of bobcats increased in the study area despite decreases in 2 main prey categories.



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

GREGORY J. SHEEHAN
Division Director

MEMORANDUM

Date: July 16, 2016
To: Regional Advisory Council and Wildlife Board
From: Leslie McFarlane, Mammals Program Coordinator
Subject: **2017 FURBEARER SEASON DATES**

The Division recommends the following regarding the management of furbearers in Utah:

Furbearer Seasons by Species:

Beaver and Mink:

September 24, 2016 to April 5, 2017

Badger, gray fox, kit fox, ringtail, spotted skunk, and weasel:

September 24, 2015 to March 1, 2017

Marten

September 24, 2015 to March 1, 2017

Bobcat

RECOMMENDATION

The Division recommends the following bobcat permit numbers and season lengths for 2016-2017

Permits:

No cap on the number of permits sold. Limit of 6 permits per individual.

Season:

November 16, 2016 to March 1, 2017





State of Utah

DEPARTMENT OF NATURAL RESOURCES

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Executive Director

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Governor

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Division of Wildlife Resources

GREGORY J. SHEEHAN
Division Director

MEMORANDUM

Date: July 16, 2016

To: Utah Wildlife Board/Regional Advisory Council Members

From: Leslie McFarlane, Mammals Program Coordinator

Subject: 2017 COUGAR RECOMMENDATIONS

The attached table summarizes the Utah Division of Wildlife Resources recommended limited entry, split, and harvest objective permit allocations for the 2017 cougar hunting season. These recommendations are based upon evaluation of information from 2016 cougar harvests as well as population management data from the previous 3 years mule deer and bighorn sheep populations. The number of permits proposed for 2017 should help achieve and maintain desired objectives for maintaining Utah's cougar populations, addressing nuisance and livestock depredation issues, and hunting opportunity under Utah's cougar management plan.

Highlights:

- 1) In this recommendation cycle 29 of 49 cougar management units are under predator management. Seven of the 29 are under predator management for mule deer, 7 for both deer and bighorn sheep, 12 for bighorn sheep, 2 for mule deer transplants and 1 for urban and nuisance issues.
- 2) We recommend a decrease in permits/quotas on the following units: Beaver (9 to 8), Box Elder, Desert (6 to 5), Morgan, South Rich (7 to 6), Ogden (14 to 13) and Zion (20 to 18).
- 3) We recommend an increase in permits/quotas on the following units: Cache (20 to 22), Central Mountains, Nebo (9 to 12), Central Mountains, Northeast Manti (10 to 13), Central Mountains, Southeast Manti (13 to 16), Chalk Creek/Kamas (8 to 10), East Canyon (6 to 8), Fillmore, Pahvant (10 to 11), Nine Mile, North (20 to 22), Oquirrh-Stansbury (9 to 11), Pine Valley, North (8 to 10), Pine Valley, South (10 to 11), Plateau, Fishlake (12 to 13), Wasatch Mtns, Currant Creek-North (8 to 10), Wasatch Mtns, Timpanogas (5 to 7), Wasatch Mtns, West-Strawberry (9 to 11), West Desert, Mtn Ranges (4 to 8), West Desert, Tintic-Vernon (4 to 6).
- 4) We recommend that the boundary of the Box Elder, Pilot Mountain unit be changed to be consistent with the Box Elder, Pilot Mountain unit for bighorn sheep and elk. Cougar are included in the Memorandum of Understanding with the state of Nevada that allows a hunter with a cougar permit issued in Utah to harvest that animal within the state of Nevada included in the boundary description



- 5) We recommend a new cougar management unit with a new boundary to be called San Juan, Desert. We recommend that this unit be an unlimited harvest unit to address predation issues on bighorn sheep which are the primary source of prey for cougars in this area.
- 6) We recommend that the boundary of the San Juan be changed to exclude the portion of the unit that will be called San Juan, Desert. The new boundary of the San Juan for cougars will be called San Juan, Mountains.
- 7) We recommend no changes to permits/quota or harvest strategies on the remaining cougar hunting units not mentioned above.
- 8) We recommend a decrease in the number of limited entry and split permits from 246 to 223.
- 9) We recommend an increase in the number of harvest objective permits from 249 to 299.
- 10) We recommend that season dates remain similar to previous years:

Limited Entry

November 9, 2016 through May 31, 2017

Split

Limited Entry

November 9, 2016 through February 24, 2017

Harvest Objective

March 2, 2017 through May 31, 2017

Harvest Objective

November 9, 2016 through November 4, 2017

Unlimited Quota

November 9, 2016 through November 8, 2017

Pursuit Season

November 9, 2016 through May 31, 2017

JUSTIFICATION

These permit numbers and season dates are recommended because the performance targets are either within or outside of the historical range for population growth in a positive direction, which is in accordance with the Bobcat Management Plan. The number of juveniles in the harvest is outside the historical range for juvenile harvest in a positive direction that indicates recruitment. The percent survival is also outside the historical range in a positive direction that indicates population growth being 73%. The percent female is within the desired historical range. In accordance with the Bobcat Management plan it is recommended that we continue with baseline strategy.

Source Data and Target Ranges:

Variable	2014	2015	2016	Target
% Juvenile	46	60	62	42-56
% Survival	70	74	73	65-72
% Female	45	45	44	41-45

Unit Name	PMP (Deer/Sheep/No)	Data from the last 3 years (2014-2016)					Recommended permits/quota	Strategy (LE, split, HO)	COMMENTS
		Male harvest	Female harvest	Total harvest	% females	% ≥5 yrs old			
Beaver	No	19	8	27	30%	12%	8	Split	-1
Book Cliffs, East	Deer	51	27	78	35%	31%	29	HO	
Book Cliffs, Rattlesnake Canyon/Nine Mile, South	Deer/Sheep	2	0	2	0%	#DIV/0!	unlimited	HO	
Box Elder, Desert	Deer/Sheep	3	0	3	0%	0%	5	Split	-1
Box Elder, Pilot Mtn	Deer/Sheep	1	0	1	0%	17%	6	HO	
Box Elder, Raft River	Deer	9	2	11	18%	45%	6	Split	
Cache	No	27	13	40	33%	33%	22	HO	+2
Central Mtns, Nebo	Deer/Sheep	20	11	31	35%	23%	12	Split	+3
Central Mtns, Nebo-West Face	Deer/Sheep	11	7	18	39%	17%	10	Split	
Central Mtns, Northeast Manti	Deer	12	6	18	33%	18%	13	Split	+3
Central Mtns, Northwest Manti	Deer	14	10	24	42%	22%	9	LE	
Central Mtns, Southeast Manti	Deer	23	9	32	28%	23%	16	Split	+3
Central Mtns, Southwest Manti	Deer	13	5	18	28%	31%	5	LE	
Chalk Creek/Kamas	No	16	3	19	16%	41%	10	LE	+2
East Canyon	No	10	3	13	23%	33%	8	LE	+2
East Canyon, Davis	Other	2	3	5	60%	20%	5	Split	
Fillmore, Oak Creek	Sheep	7	5	12	42%	33%	12	HO	
Fillmore, Pahvant	No	14	8	22	36%	18%	11	Split	+1
Henry Mtns	Sheep	10	6	16	38%	15%	12	HO	
Kaiparowits	Sheep	5	1	6	17%	25%	unlimited	HO	
La Sal	Deer/Sheep	16	10	26	38%	32%	15	HO	
Monroe	No	18	5	23	22%	17%	9	Split	
Morgan-South Rich	No	11	10	21	48%	35%	6	LE	-1
Mt Dutton	Transplant	8	10	18	56%	40%	14	Split	
Nine Mile, North	Sheep	29	19	48	40%	23%	22	HO	+2
North Slope, Summit/West Daggett	Sheep	8	5	13	38%	60%	10	HO	
North Slope, Three Corners	Sheep	7	3	10	30%	22%	10	HO	
Ogden	No	21	16	37	43%	24%	13	HO	-1
Oquirrh-Stansbury	Sheep	15	5	20	25%	61%	11	LE	+2
Panguitch Lake	No	23	6	29	21%	17%	10	Split	
Paunsaugunt	Deer	12	9	21	43%	50%	10	HO	
Pine Valley, North	No	8	2	10	20%	20%	10	HO	+2
Pine Valley, South	Sheep	10	6	16	38%	13%	11	HO	+1
Plateau, Boulder	No	16	9	25	36%	33%	11	Split	
Plateau, Fishlake	No	23	11	34	32%	26%	13	split	+1
Plateau, Thousand Lakes	No	3	2	5	40%	20%	4	split	
San Juan, Mountains	Deer	34	21	55	38%	15%	25	HO	
San Juan, Desert	Sheep						unlimited	HO	
San Rafael	Sheep	1	6	7	86%	33%	unlimited	HO	
South Slope, Bonanza/Diamond Mtn/Vernal	No	26	15	41	37%	29%	18	HO	
South Slope, Yellowstone	No	12	8	20	40%	33%	10	HO	
Southwest Desert	No	11	2	13	15%	31%	11	HO	+2
Wasatch Mtns, Avintaquin-Wildcat	Sheep	31	10	41	24%	19%	15	HO	
Wasatch Mtns, Cascade	Sheep	10	6	16	38%	7%	5	HO	
Wasatch Mtns, Currant Creek-North	No	18	1	19	5%	50%	10	LE	+2
Wasatch Mtns, Timpanogos	Sheep	7	4	11	36%	20%	7	HO	+2
Wasatch Mtns, West-Strawberry	No	9	4	13	31%	50%	11	LE	+2
West Desert, Mountain Ranges	Transplant	3	1	4	25%	50%	8	HO	Transplant
West Desert, Tintic-Vernon	No	6	0	6	0%	33%	6	Split	
Zion	No	22	15	37	41%	11%	18	HO	-2
STATEWIDE TOTALS		687	348	1,035	34%	27%	522		



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

GREGORY J. SHEEHAN
Division Director

To: Regional Advisory Council
Re: Proposed Fee Schedule FY2018

The purpose of this action item is to propose modifications to the current fee schedule. The division will be proposing a strategic adjustment in fees that will provide significant savings for youth turkey hunters, possible new opportunities for elk hunters, and provide some flexibility for funding division sanctioned outreach programs designed for youth recruitment, retention, and reactivation of hunters and anglers.

Kenneth Johnson
Administrative Services
Utah Division of Wildlife Resources



2017 FEES	2016 Fee	2017 Fee	Actual 2015/Est.	Current Revenue	New Revenue	Difference	Action
Resident Turkey General Season Youth	\$ 35.00	\$ 25.00	2,011	\$ 70,385	\$ 50,275.00	\$ (20,110.00)	Reduction
Resident Premium Multi Season Deer	\$ 168.00	\$ 305.00	6	\$ 1,008	\$ 1,830.00	\$ 822.00	Increase
Nonresident Premium Multi Season Deer	\$ 568.00	\$ 1,025.00	-	\$ -	\$ -	\$ -	Increase
Resident Limited Entry Multi Season Deer	\$ 80.00	\$ 145.00	23	\$ 1,840	\$ 3,335.00	\$ 1,495.00	Increase
Nonresident Limited Entry Multi Season Deer	\$ 468.00	\$ 845.00	2	\$ 936	\$ 1,690.00	\$ 754.00	Increase
Resident General Season Elk Multi Season	\$ -	\$ 150.00	500	\$ -	\$ 75,000.00	\$ 75,000.00	New
Nonresident General Season Elk Multi Season	\$ -	\$ 700.00	65	\$ -	\$ 45,500.00	\$ 45,500.00	New
Antlerless Elk Mitigation	\$ 50.00	\$ 30.00	1,500	\$ 75,000	\$ 45,000.00	\$ (30,000.00)	Reduction
* Outreach Program Participation Materials and Supplies Reimbursement	\$ -	Variable	1,000	\$ -	\$ 10,000.00	\$ 10,000.00	New-Reflects Actual Costs
Shooting Center RV Camping Fee/Night	\$ -	\$10 - \$50	50	\$ -	\$ 1,500.00	\$ 1,500.00	New
TOTALS				\$ 149,169.00	\$ 234,130.00	\$ 84,961.00	

* Fees shall be determined on an event by event basis; we propose allowing the division to charge fees that will cover the actual costs of outdoor recreation programs in supplies and materials.

Habitat Management Plan for Wallsburg Wildlife Management Area

March 2016



Utah Division of Wildlife Resources

Central Region

1115 North Main Street

Springville, UT 84663



Executive Summary

Habitat Management Plan for Wallsburg Wildlife Management Area (WMA) March 2016

This habitat management plan (HMP) contains the following sections:

- **Background information** (purpose of Division ownership, public recreation opportunities, historic uses, key wildlife species, etc.),
- **Property information** (property description, acquisition history, encumbrances, etc.),
- **Property inventory** (capital improvements, existing habitats, etc.),
- **Management goals and objectives**
- **Strategies for property management**
- **Strategies for habitat management**
- **Appendices** contain location maps of the WMA and the access plan which explains public access opportunities.

This HMP provides management direction to Utah Division of Wildlife Resources personnel for the WMA contained herein. Listed below is a short summary of the contents of the HMP.

Primary purpose of Wallsburg WMA: To preserve and protect big game summer and winter range and reduce depredation by deer and elk on surrounding private lands.

Wildlife species: The Wallsburg WMA has habitat for the following wildlife species: mule deer, elk, moose, sage grouse, chukar partridge, blue grouse, ruffed grouse, mourning dove, Hungarian partridge, turkey, cottontail rabbit, white-tailed and black-tailed jackrabbit, golden eagle, bear, cougar, coyote, and neotropical birds.

The Wallsburg WMA was originally purchased for big game habitat values. As a result, mule deer and elk are the primary beneficiaries of the WMA, especially during winter months when they come down from higher elevation summer ranges on the Wasatch Plateau to winter in the Wallsburg Valley. The WMA is also home to several predatory species, primarily mountain lion, bobcat, and coyote.

A variety of upland game species also inhabit the WMA including chukar partridge, ruffed grouse, blue grouse, Rio Grande turkey, cottontail rabbit, and mourning dove. Neotropical migratory birds can also be found in sagebrush and mountain brush habitats during their breeding and nesting seasons in spring and early summer months.

Sensitive Species: The greater sage-grouse (*Centrocercus urophasianus*), a wildlife species of concern, has been observed in low numbers on the WMA. A historic lek (strutting ground) is located on the WMA, but has not been active since the year 2000. The WMA provided nesting, brood rearing and wintering habitat for the sage-grouse in the past, but due to the lack of activity those habitat distinctions have been removed from the WMA.

Habitat conditions/problems: The Wallsburg WMA contains a variety of habitat types beginning with mountain big sagebrush at the lower elevations, transitioning to Gambel oakbrush mixed with sagebrush, then mixed mountain brush and aspen conifer types at the highest elevations. Overall the habitat conditions are in fair to good condition. Mountain big sagebrush densities in some areas of the WMA have declined over the years primarily due to poor recruitment and competition with perennial and invasive annual grasses.

While an approved activity on the WMA, motorized vehicle recreation, including OHV's, needs to be better managed. Unmanaged motorized vehicle traffic, especially during winter and spring months, can and has resulted in the degradation of access roads and critical habitats. The creation of new unauthorized roads and trails on the WMA is an on-going problem that is difficult to control. The Division will work with Wasatch County, local municipalities and law enforcement agencies, private landowners, and other state and federal land management agencies to manage OHV activity in a responsible manner that does not negatively impact the WMA and still allows for management goals to be met.

Littering and dumping of trash is a frequent occurrence on the WMA. The Division will work to adequately sign the WMA to inform the public that littering is prohibited.

The Division will work with WMA visitors to ensure that all activities are in compliance with administrative rule R-657-28, Use of Division Lands.

Access plan: Motorized vehicle traffic will be confined to existing roads and trails. Roads will be maintained as needed to maintain public access. Unauthorized user created roads and trails will be closed and rehabilitated.

Maintenance activities: Fence inspection, repairs, replacement, gates, locks, road grading as needed, road closures, boundary signs, entry signs, surveys and noxious weed control will occur annually. The noxious weed squarrose knapweed is established on private lands adjacent to the WMA and annual weed control is a priority to keep this weed from expanding.

History of Wildfires: Wildfire has occurred on the property in the past, many started along the highway 189 right-of-way. Fire can have a significant impact on the WMA and the mule deer carrying capacity due to the destruction of winter forage in the form of big sagebrush and bitterbrush, both of which are not fire tolerant.

Habitat improvement: In order for the WMA to reach its potential as critical big game winter range, browse communities need to be enhanced and protected. The Division may employ a variety of methods to achieve this including prescribed grazing, prescribed burning, reseeding and seedling transplants, and mechanical treatments. Priority areas will include maintaining a vegetated green-strip/fuel break along the highway right-of-way with highway 189 and the sagebrush-steppe communities on the property.

Grazing will be utilized as a habitat management tool. High intensity, short duration grazing systems during spring and early summer months will be used to improve browse communities for wintering big game.

Water developments should only be pursued if they help reach the management objectives of the WMA. Water developments that would result in big game becoming year-round residents on these important winter ranges should be discouraged. Water development projects to help with the grazing management plan should be pursued.

DRAFT

Habitat Management Plan for Wallsburg Wildlife Management Area (WMA)

I. Background Information

Purpose of Division Ownership

The Wallsburg WMA was acquired primarily to protect, preserve and enhance critical big game winter and summer range. The WMA also provides a variety of recreational and access opportunities including hunting, hiking, camping and limited OHV use, as long as they are compatible with the primary purpose of WMA.

Historic Uses

Prior to Division ownership, the WMA was primarily used for hunting, camping, hiking, off-highway-vehicle (OHV) use, livestock grazing, and antler hunting.

Public Recreation Opportunities

All activities occurring on Division lands are managed under the direction of the Division's land use rule. This rule, R657-28, discusses approved uses, prohibited activities and the process for applying and receiving the various permits required to use Division lands. The Division will work with WMA visitors to ensure that all activities are in compliance with this rule.

The Wallsburg WMA is popular for big game hunting. There are limited opportunities for upland game hunting as well as hunting and trapping for mountain lions and furbearer species. Non-consumptive uses include hiking, horseback riding and wildlife viewing. Open fires will be allowed on the WMA but this activity is subject to state and federal policies and guidelines including closures during high risk fire season.

OHV use is permitted, but is restricted to authorized roads and trails. The Wallsburg unit has been heavily impacted by motorized recreation resulting in the creation of numerous new trails which are not authorized by the Division. Regional personnel annually work to close and rehabilitate unauthorized trails and roads in an attempt to preserve and protect wildlife habitat. These efforts will not be successful unless sportsmen and the public adhere to the Division's OHV and motorized vehicle rules by staying on existing roads and trails.

The WMA is located near the Big Hollow Shooting Range, and target shooters sometimes use the WMA when the range is closed. The Division will explore options for signing the property to alert both target shooters and other users.

Seasonal closures are implemented on all roads for all motorized vehicle access on the WMA from December 1 – April 30. This includes the county road in Big hollow. In accordance with Fourth Judicial District Court (Wasatch County) Stipulation and Order No. 010500388 (2003), DWR maintains the right to seasonally close this county road but must provide access from May 1st through November 30th. Seasonal closures are used to protect wildlife, wildlife habitat or

wintering big game from disturbance during critical winter months and to preserve habitats from being negatively impacted during wet, winter months.

Camping

Camping is permitted on the WMA and, unless posted otherwise, is limited to 14 days as noted in Rule R657-28-4(1)l. The Division reserves the right to change the length of camping stays if this action is needed to reach the goals and objectives of the habitat management plan. If the Division determines this is needed, changes in camping regulations will be posted on the WMA.

Campfires

Open fires will be allowed but this activity is subject to state and federal policies and guidelines, including closures during high-risk fire seasons. The building of bonfires is prohibited on the WMA. Non-combustible materials cannot be used in the building of fires and must be removed. The Division reserves the right to ban open fires on the WMA if needed to protect valuable wildlife habitat on the WMA and adjacent private and municipal lands. The Division may also restrict open fires to designated areas if the use of open fires becomes a management problem.

OHV Use

OHV use is permitted but is restricted to authorized roads and trails (see Appendix B, Access Management Plan). The WMA has been heavily impacted by motorized recreation resulting in the creation of numerous unauthorized roads/trails. Regional personnel annually work to close and rehabilitate unauthorized roads/trails in an attempt to preserve and protect wildlife habitat. These efforts will not be successful unless WMA visitors adhere to the Division's OHV and motorized vehicle rules by staying on existing roads and trails.

Public Access

Currently there are abundant opportunities for access to the WMA. Motorized access is limited to authorized routes as shown on the unit access maps in Appendix B. At the present time there are seasonal restrictions from December 1 to April 30.

Additional information on public access and motorized vehicle use on the WMA can be found in the access management plan which is included as Appendix B.

Big Hollow Shooting Range

The Division of Wildlife Resources (DWR) in cooperation with Wasatch County and the Heber Valley Gun Club manage Big Hollow shooting range at the mouth of Big Hollow on the Wallsburg Wildlife Management Area. The shooting range includes trap, skeet, rifle and pistol ranges. Heber Valley Gun Club manages the trap and skeet ranges and DWR volunteers (trained range safety officers) supervise shooting on the rifle and pistol ranges. The trap and skeet range is open for public shooting Wednesday evenings and Saturdays and the rifle and pistol ranges are open Wednesday evenings, Saturdays and Sundays.

Key Wildlife Species

As previously described, the WMA contained in this HMP were originally purchased for big game habitat values, primarily for mule deer. As such, mule deer and elk are the primary beneficiaries, especially during winter months.

The WMA is also home to numerous other species at some time during the year including: black bear, mountain lion, fur bearers (bobcat), upland game (chukar, dove, cottontail, etc.), raptors, neotropical migratory birds and small mammals.

Grazing

Grazing is used as a management tool to enhance wildlife habitat, primarily big game winter range. Grazing can help the Division achieve wildlife habitat goals by reducing fire danger and releasing browse species to provide winter forage for big game. The 'Livestock Grazing Plan' is included on page 17 of this HMP and outlines specific grazing activities and a complete grazing schedule.

II. Property Information

Property Descriptions

The Wallsburg Wildlife Management Area (WMA) is located south of Heber City, in Wasatch County. It is comprised of 11,390 acres located in Township 4S, Range 4E, sections 23, 24, 25, 26, 34, 35, and 36; Township 4S, Range 5E, sections 19, 20, 26, 27, 29, 30, 31, 32, 33, 34, and 35, Township 5S, Range 4E, sections 1, 2, and 3, and Township 5S, Range 5E, sections 3, 4, 5, 6, 8 and 10, SLM. This unit was acquired from several landowners, the federal government, the School Institutional Trust Land Administration (formerly State Land Board), sheriff's sale (for unpaid property taxes) and minor land trades with private landowners and Wasatch County, from as early as 1946, through 2014. Refer to appendix C for a summary of land acquisitions. All water rights owned by the grantor and appurtenant to the 11,390 acres were transferred to UDWR. However, water rights numbers were not specified in the property transfer documents. Copies of deeds and exchange agreements of DWR acquired lands and the SITLA grazing lease can be found in the Salt Lake Office of the Utah Division of Wildlife Resources (UDWR), 1596 West North Temple, Salt Lake City, UT, 84114, or in the Central Region of the UDWR at 1115 North Main Street, Springville, UT, 84663 (SITLA grazing lease no. 22424 =1,560 acres in T5S, R5E, Sec 3 (lots 1,2,3,4, S2N2, E2SW4, SE4), 4 (Lots 1,2,3,4, S2NE4), 9 (all), and 10 (E2NE4, SW4NE4)).

The Utah Division of Wildlife Resources (UDWR) also leased 1,560 acres of rangeland from State Institutional Trust Lands Administration (SITLA) (grazing lease no. 22424 which expired on 6/30/2008) on parcels adjacent to the southeast part of the Wallsburg WMA, for wildlife habitat. A 1,092 acre parcel of this SITLA land was acquired in 2014 as part of a land trade. There are also approximately 1,500 acres of Bureau of Reclamation (BOR) administered lands along the unit's west boundary, managed by the Division as wildlife habitat (see appendix F for

copy of MOU with BOR). The Bureau also holds title to approximately 360 acres of the MacAfee Hill area (on the north side of Hwy 189), contiguous with Deer Creek Lake State Park, which the Park manages as a natural area. This 360 acre property is not managed by the DWR but it is important mule deer habitat and there is a wildlife migration corridor (across the highway) to the Wallsburg area. This migration corridor will be maintained with a wildlife crossing structure and fencing to be built in 2016 as part of a UDOT highway widening project. In the vicinity of the Wallsburg Unit, there are approximately 14,985 acres of land managed for wildlife habitat.

Land Acquisition History

This unit was acquired from several landowners, the federal government, the School Institutional Trust Land Administration (formerly State Land Board), sheriff's sale (for unpaid property taxes), and minor land trades with private landowners and Wasatch County, from as early as 1946 through 2014. For more detailed property acquisition history see appendix C.

All water rights owned by the grantor and appurtenant to the 11,390 acres were transferred to UDWR. However, water rights numbers were not specified in the property transfer documents. The majority of the acquisitions have involved federal grants through the Federal Aid to Wildlife Restoration Program, often referred to as the Pittman-Robertson or P-R Act, which authorizes federal participation in cooperative wildlife restoration projects with state wildlife agencies. This program is managed by the U.S. Fish and Wildlife Service (USFWS), Federal Aid Division which the Division partnered with to acquire the WMA.

Because federal funds were used in the acquisition of these properties, the Division is required to comply with National Environmental Policy Act (NEPA) guidelines when considering actions that could affect the environment. The USFWS is the responsible party for issuing the record of decision with regards to proposed actions on the WMA.

Encumbrances

The UDWR generally obtained only the surface rights to the lands they acquired. The oil, gas, mineral, (sometimes coal) and geothermal rights appurtenant to the lands were generally retained by the sellers or grantors of those respective lands, including the State Institutional Trust Lands Administration (SITLA). The sellers or grantors generally also retain the right to lease the rights of egress and ingress for the exploration, development and removal of those minerals. However, the seller or lessee shall compensate UDWR for interference with or damages to UDWR's surface lands which have resulted from activities related to minerals exploration or removal. Without going to the Wasatch County Recorder's Office and searching each parcel number that comprises the UDWR lands, there is no easy way of determining whether oil and gas leases have been issued by the private sector. Refer to appendix C for a summary of acquisitions and encumbrances.

There is an easement from the year 2000 with Qwest for buried fiber optic cable, which expires in 2030. Another utility easement exists for an 8" cement water pipeline to Allen F. Frandsen and Kenneth Witlock, but there is no description of where this pipeline is located.

Conservation Partners Involved in Acquisition

The U.S. Fish and Wildlife Service, through its federal aid program, has been a major partner in acquiring the WMA described in this HMP.

III. Property Inventory

Existing Capital Improvements

Most of the existing improvements on the WMA include roads and fences. Roads and fences are maintained on an annual basis or as needed. There are 6 big game guzzlers on the WMA which provide water to mule deer and elk as well as other wildlife which use the property.

Big hollow shooting range

In February 2010, the Division entered into a cooperative agreement with Wasatch County and the Heber Valley Gun Club to manage the shooting range at the mouth of Big Hollow on the Wallsburg Wildlife Management Area. The shooting range includes trap, skeet, rifle and pistol ranges. Heber Valley Gun Club resumed their primary responsibility for management of the trap and skeet ranges and DWR volunteers (trained range safety officers) assumed responsibility for supervising shooting on the rifle and pistol ranges. The three parties developed an operations and development plan to guide management on all ranges. In a 2011 addendum to the agreement, the parties agreed to establish an oversight committee within Wasatch County's committee system. The Shooting Range Standing Committee has representatives from DWR, Wasatch County and the Heber Valley Gun Club and currently is chaired by Councilman Greg McPhie. The purpose of the committee is to oversee the day to day operations of the range and to coordinate funding of improvements specified in the development plan.

The rifle and pistol range is used frequently by law enforcement personnel from the Wasatch County Sheriff's Office, Heber City Police Department and DWR for training and regular certifications. The trap and skeet range is open for public shooting Wednesday evenings and Saturdays and the rifle and pistol ranges are open Wednesday evenings, Saturdays and Sundays. A copy of the agreement and addendum can be found in the appendix D of this document. A lead assessment was completed on the shooting range in 2009, to determine the potential environmental and health risks associated with the use of lead ammunition. A copy of this report can be provided upon request. Findings show that there does not appear that there is a current risk to human health from lead at the shooting range.

Cultural Resources

The Wallsburg WMA has had very little acreage inventoried for cultural resources. A single linear survey was conducted by the BLM on the western side of the WMA in 1977; 77-BL0051. No sites were documented. An additional 1,094 acres located on the eastern side of the WMA was inventoried in 2006 (06-UM-1477). No sites were documented. Along the northern boundary a single inventory within the Wasatch County Gun Club was conducted by DWR 10-

UQ-0396 for the removal of lead. No sites were documented. Several small block inventories have also been conducted by the Bureau of Reclamation (BOR) in 1981 - 81-BE-1006. No sites were documented.

The lack of cultural resources is likely due to a limiting visibility by ground cover which reduces the chances of encountering cultural resources. Cultural resources identified on property adjacent to this WMA are dominated by historic roads, power lines, canals and historic trash scatters. Prehistoric rock art and chipped stone scatters are present but rare. Caution should be used before any ground disturbing activities are planned or approved within the WMA to ensure that cultural resources are adequately identified and avoidance measures are taken.

Sensitive Species

A search of the Division's Natural Heritage database resulted in the following sensitive species information.

Birds

There is a historic sage grouse lek located on the Wallsburg WMA. This lek was active through the late 1980's with a high of 19 cocks counted strutting in 1988 and 1990. Numbers of male sage grouse counted on the lek declined dramatically after 1991 with only 6 males being counted in 2000. No sage grouse were counted on the lek from the year 2000 through 2008.

Important Fish and Wildlife Habitats

The Wallsburg WMA provides important habitat for several species of wildlife. The property was originally purchased for big game winter range. In most winters six to eight hundred mule deer spend the winter on the property (See appendix A for wildlife maps) then move southeast to higher elevations in the spring and summer. Several hundred elk also winter on the WMA on most years. Moose can occasionally be found in the winter and spring on the east side of the property adjacent to Daniels canyon. The Wallsburg WMA provides important habitat for several species of upland game birds including chukar and Hungarian partridge, mourning dove and blue grouse. Wild turkey can also be found in and around Daniels canyon on the far east side of the WMA. The property also provides important habitat for cougar, coyote and bobcat. There is a small area of black bear habitat mapped on the far southeast corner of the WMA along Daniels canyon.

Some lands adjacent to the WMA are private agriculture tracts and as a result big game depredation issues with private landowners are common. It is extremely important that the WMA is maintained and protected to assist the Division in minimizing big game depredation on private lands.

Wildlife Action Plan

The Utah Wildlife Action Plan (WAP; see additional information in Section IV, Management Goals and Objectives) identifies several key terrestrial habitats that occur on the Wallsburg

WMA. The WAP includes a statewide threat assessment which identifies threats to each key habitat, and then ranks the impact of that threat (scope and severity; S&S) according to the number of species of greatest conservation need that could be affected from that threat. These key habitats and their priority threats include:

- **Mountain Sagebrush:** Mountain big sagebrush habitats on the Wallsburg WMA are widespread at the lower elevations before transitioning into the Gambel oakbrush type at high elevations. The dominate type consists of the inter-mountain basins montane sagebrush steppe - mountain big sagebrush type. This type is key to providing browse forage for wintering big game animals on the WMA.
 - Priority threats include:
 - Invasive plant species – non-native (medium S&S)
 - Roads - transportation network (medium S&S)
 - Droughts (high S&S)
 - Inappropriate fire frequency and intensity (medium S&S)
 - Housing and urban areas (medium S&S)
 - Improper grazing - current (high S&S)
- **Gambel Oak:** Gambel oak type habitats are common on the property consisting primarily of the rocky mountain Gambel oak - mixed montane shrubland - patchy type. There are small areas at the higher elevations on the southeast portion of the WMA consisting of the rocky mountain Gambel oak - mixed montane shrubland - continuous type.
 - Priority threats include:
 - Invasive Plant Species – Non-native (medium S&S)
 - Inappropriate fire frequency and intensity (high S&S)
- **Mountain Shrub:** Mountain shrub key habitats on the Wallsburg WMA are primarily rocky mountain lower montane foothill shrubland and rocky mountain big tooth maple ravine woodland habitats. This habitat includes some species which resprout after fires, while other species do not resprout. Mountain shrub communities are susceptible to cheatgrass invasion on drier sites.
 - Priority threats include:
 - Invasive Plant Species – Non-native (medium S&S).
- **Aspen Conifer:** Aspen conifer key habitats occur on the southeast side of the Wallsburg WMA and consist primarily of rocky mountain aspen forest and woodland. Small areas of the intermountain basins aspen mixed conifer low and high elevation types occur on the property.
 - Priority threats include:
 - Inappropriate fire frequency and intensity (very high S&S)
 - Droughts (medium S&S)
 - Problematic animal species - native (medium S&S)
 - Improper grazing (current) (high S&S).

General Condition of Habitats

Habitat Types

Most of the Wallsburg WMA consists of big sagebrush/grass and mixed oak/sagebrush habitat types with increasing amounts of mountain shrubland at higher elevations to the southeast. Elevation of the property ranges from 5,800 feet near Deer Creek reservoir to over 8,000 feet on the southeastern portion of the property. Much of the sagebrush habitat on the west side of the property was burned in a wildfire in 1976. Rehabilitation efforts reseeded the burned areas resulting in the prominence of exotic seeded perennial grasses and forbs.

Range and Watershed Conditions

The Division's Big Game Range Trend Studies program monitors big game habitat conditions statewide by sampling permanently placed vegetation transects that have been established in key areas. Transects are read on a 5-year rotational schedule based upon the Division's five administrative regions. There are 6 Range Trend study sites on or adjacent to the Wallsburg WMA. The following list contains each study by name and study number.

- Lower Big Hollow - #17-9
- Wallsburg Turn - #17-11
- North Wallsburg Reseed - #17-12
- North Wallsburg - #17-13
- Island Boat Camp - #17-15
- Rainbow Bay - #17-16

These study sites were established in 1983 and reread in 1989, 1996, 2002, 2007, and 2012. Three sites monitor big sagebrush/grass sites and the other 3 a mixture of sagebrush and other shrubs species. In general these sites are in fair condition with stable trends. Statewide range trend data and digital photographs for specific sites can be found at the following web address: <http://dwrapps.dev.utah.gov/rangetrend/rtstart>

A large portion of the WMA occurs within the Wallsburg Coordinated Resources Management Plan boundaries. The Wallsburg CRMP can be found at the following web address: <http://www.deq.utah.gov/ProgramsServices/programs/water/watersheds/docs/2015/08Aug/Wallsburg.pdf>

Personnel from the Division's Central Region office participated in the watershed planning process and continue to be active in management activities within this watershed.

Habitat Limitations

Healthy sagebrush is limiting in some areas of the WMA. Keeping sagebrush stands healthy will be a key goal in managing the property into the future. Livestock grazing is currently used as a tool to improve the health of sagebrush stands. However, as these stands mature, recruitment becomes more important. Competition with perennial and annual grasses and weeds makes sagebrush seedling recruitment difficult. Sagebrush and bitterbrush seedling planting projects have been undertaken in the past with poor success.

Open water is also a limiting factor on the Wallsburg WMA. Most of the water rights were retained by the grantors when the Division acquired these lands. Acquiring shares or rights to water will be difficult in the future. In some cases, lack of water does limit the ability of the Division to adequately graze livestock on the WMA. However, because the primary purpose of the WMA is to provide big game winter range, water is not as limiting to wildlife as in some other areas, especially at higher elevations. There are 5 big game guzzlers on the WMA and one on the adjacent BOR lands that the Division manages. These water sources provide critical perennial water for big game and other wildlife. More water facilities may be needed in the future as Highway 189 is widened and big game fencing is installed. This project will provide 1 wildlife crossing underpass between the Wallsburg turn and Rainbow bay.

A more detailed discussion of these limitations and their associated solutions can be found in the habitat improvement section of this HMP.

Human Use - Related Problems

The Wallsburg WMA is heavily used by the public for recreation and hunting. Unauthorized activities do occur on the WMA and often create conflicts between users and place a heavy maintenance burden on the Division. While public recreation is encouraged, use of these lands by the public must be conducive to the purpose for which these parcels were acquired and should not become barriers to the Division being able to reach the management goals and strategies presented in this HMP.

Motorized Vehicles

The WMA receives significant motorized vehicle use, especially from OHVs. While this is an approved activity, OHV and motorcycle use of the WMA needs to be closely managed. Unmanaged motorized vehicle traffic, especially during winter and spring months, can and has resulted in degradation of access roads and critical habitats and fragmentation of crucial big game winter ranges. The Division will work with Wasatch County, local municipalities, law enforcement agencies, private landowners, OHV groups, and other state and federal land management agencies to manage OHV activity in a responsible manner that maintains public access to the WMAs, while helping the Division achieve its management objectives.

Littering

Littering and trash dumping related to target shooting is a problem in certain areas of the WMA, especially adjacent to the Big Hollow road. Littering and dumping of all forms of trash, including yard waste, is prohibited on the WMA. The prohibition of littering will be enforced. The Division will work to adequately sign the WMA to inform the public that littering and dumping of garbage is prohibited and encourage better stewardship of these important areas for wildlife.

Camping

Most camping that occurs on the WMA is related to big game hunting. Camping is limited to 14

consecutive days unless otherwise posted and/or a special use permit has been obtained from the Division authorizing a different term.

Adjacent Land Uses and Potential Impacts

Some of the lands adjacent to the WMA are privately held agricultural lands, county/municipal lands or National Forest lands within the Uinta-Wasatch-Cache National Forest. Big game depredation on adjacent private agricultural lands is an on-going problem faced by the Division. Continued growth in the Heber and Wallsburg valleys has placed increasing market pressures for private landowners to sell land for housing developments. This has resulted in the loss of critical wildlife habitat throughout the area especially lands east of the town of Heber. The Division has identified section 9, south east of the town of Wallsburg and currently owned by SITLA for a possible future land exchange. No other lands are currently being considered for expansion of the WMA.

Zoning and Land Use Ordinances

Wasatch County has the following zoning designations:

- A-20 Agriculture 20-acres
- C Commercial
- HS Highway Services
- I Industrial
- M Mountain
- OBP Office and Business Park
- P-160 Preservation
- PF Public Facilities
- RA-1 Residential Agriculture 1-acre
- RA-5 Residential Agriculture 5-acre
- SR Strawberry Resort

The Wallsburg WMA falls within the P-160 Preservation zone of Wasatch County. These are lands where development may be limited due to the remoteness of services, topography and other sensitive environmental issues.

The proposed management of the WMA does not conflict with the zoning ordinances established by Wasatch County. However, because the WMA provides a large portion of the critical winter range available to big game in Wasatch County, some conflict does arise as deer and elk move into private agricultural fields, haystacks, and municipal boundaries during winter months.

IV. Management Goals and Objectives

The management of these WMA will take into account the goals, objectives, and strategies of other Division planning efforts. These other plans are briefly discussed below.

UDWR Strategic Plan

The management of the Wallsburg WMA has relevance to the following goals and objectives outlined in the Division's most current strategic plan:

Resource Goal: Expand wildlife populations and conserve sensitive species by protecting and improving wildlife habitat.

- *Objective R1: Protect existing wildlife habitat and improve 500,000 acres of critical habitats and watersheds throughout the state.*
- *Objective R2: Increase fish and game populations to meet management plan objectives and expand quality fishing and hunting opportunities.*
- *Objective R3: Conserve sensitive species to prevent them from being listed as threatened or endangered.*

Constituency Goal: Achieve broad-based support for Division programs and budgets by demonstrating the value of wildlife to all citizens of Utah.

- *Objective C2: Improve coordination with organizations, public officials, private landowners, industry, and government agencies to obtain support for Division programs.*

These goals and objectives will be achieved through a variety of measures specified in the property and habitat management sections of this plan and include development and maintenance activities, habitat improvements, access management and fire management. Current and future partnerships and cooperative efforts will also aid the Division in addressing and reaching these goals and objectives. Examples of this are the Division's participation in local Coordinated Weed Management Area's (CWMA's) and watershed planning committees.

Wildlife Action Plan

The 2015-2025 edition of the Utah Wildlife Action Plan (WAP) was created with the express purpose and goal of managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act. To help achieve this goal, the WAP provides a statewide approach for the partnership-based, coordinated planning and implementation of wildlife and habitat conservation practices. The WAP addresses the following elements:

- Conservation targets include: species of greatest conservation need, and those species' key habitats; information about the status and distribution of these species; information about the location and condition of these key habitats.
- Threats and limiting factors facing these species and habitats, and research required to help managers more effectively address these problems. Threats are measured and prioritized on a statewide basis, based on how many targets they impact, and how severely the targets are impacted.
- Conservation actions required to abate the highest-priority threats, and improve the supply of these limiting factors.
- Monitoring the status of these targets, and in particular the effectiveness of these actions.
- Approaches for including the public, partners, and stakeholders, in consideration of the mission and authority of partners.
- Provisions for coordinating the WAP with other natural resource management plans.

The Wallsburg WMA HMP process is used to address wildlife species and habitats found on the WMA by including their needs in management activities. This aligns well with the intent of the WAP, which identifies specific management actions that can be taken to reduce priority threats to these species and habitats.

The Wallsburg WMA has several key habitats of statewide and local concern which include: mountain big sagebrush, oakbrush, mountain shrub, and aspen-conifer habitats. One of the intents of the WAP in identifying these habitats is that local-area management efforts can better focus actions on those specific habitats where actions can have the most benefit for species of greatest conservation need. Management of the WMA attempts to address threats to these habitats to the extent possible, by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the property. For more information on habitat types and threats, please see the discussion in Section III Property Inventory, Wildlife Action Plan.

Wildlife Species Management Plans

The Wallsburg WMA lies within the boundaries of wildlife management unit 17, Wasatch Mountains. Elk and deer management plans were completed for this unit in 2012. The management of the WMA will address the limiting factors and habitat needs identified in those plans and seek to implement habitat management strategies that are needed to reach population objectives. Revisions to these plans are typically done every 5 years, and will be incorporated into the management of the WMA as needed. Deer and elk management plans can be found at the following web addresses: Deer http://wildlife.utah.gov/hunting/plans/deer_17.pdf
Elk https://wildlife.utah.gov/public_meetings/info/2012-05_elkplans_CRO.pdf

V. Strategies for Property Management

Development Activities

The Division will maintain existing capital improvements on the WMA. The WMA has established boundaries and fences that are maintained regularly. Surveys will be completed where boundary disputes occur and fences will be constructed to establish legal boundaries. Where fences are in disrepair replacement fences will be constructed. Property boundaries are signed and additional signage identifying road closures, rehabilitation areas, etc. will be placed as needed. The Division has also replaced all the large entrance signs on the WMA. Perennial water sources are limited. Water development projects that would improve the Division's capacity to adequately administer a grazing program on the WMA should be pursued. Unauthorized roads and trails will be closed and rehabilitated. Authorized roads will be signed and maintained to ensure access and safety to the public. The Big Hollow shooting range will continue to be managed as per the signed agreement with Wasatch county and other partners.

Property management strategies:

- Establish property boundary
 - Maintain fencing to delineate WMA boundaries,

- Resolve existing trespass issues, both livestock and human, with neighbors,
- Install structures and signs to reduce and prevent vehicle trespass and damage to the WMA,
- Signage
 - Establish information kiosks at entry points to the WMA,
 - Install signs relating to harassment of wildlife,
 - Sign authorized motorized vehicle routes,
 - Sign unauthorized trails/roads and explain closures and rehabilitation efforts,
 - Identify WMA boundaries with fences and/or property boundary signage,
 - Maintain seasonal closure signs,
- Public access
 - Work with agencies and adjacent landowners to prepare access plans or agreements that enhance wildlife habitat, range conditions, escape opportunities for big game, hunting opportunities and that reduce trespass from unauthorized vehicles. Such plans or agreements may emphasize a mix of permanent and seasonal road closures and vehicle type restrictions.

Annual Maintenance Activities

Assessments by Division personnel will be made annually, and a maintenance budget will be requested for the following types of activities:

- Inspect boundaries and fences and repair as needed to prevent unauthorized access into additional areas, especially by ATVs,
- Road maintenance/closures: Maintain existing roads and road closures to protect habitat and minimize abuse. Maintain close relationship with adjacent private landowners and Wasatch County on access agreements and issues,
- Parking areas: Monitor and maintain parking areas including gates, signs and fencing to facilitate non-motorized access to the WMA,
- Noxious weed control:
 - Implement an integrated weed management program using herbicide applications and biological controls. This will include an annual inventory of known infestations, the documentation of new infestations and chemical applications in these areas. Target species include Dalmatian toadflax, thistles and squarrose knapweed. If available, biological controls will be used where appropriate to help control Dalmatian toadflax and squarrose knapweed.
 - Monitor for yellow star thistle and leafy spurge, both of which are found in other areas of the county and will likely invade onto the WMA in the future.
 - Work cooperatively with the Wasatch County CWMA (Coordinated Weed Management Area) on noxious weed activities on the WMA.
- Sign replacement: Annual inspection and replacement of missing or vandalized signs. Maintain a main entrance sign to identify ownership; utilize additional signs for WMA restrictions and problems.
- Maintenance of water developments: Guzzlers will be checked and cleaned annually and repairs made as needed.

VI. Strategies for Habitat Management

Unit Management Plans for Wildlife Species

Strategies for habitat management will be consistent with those outlined in the deer and elk management plans for unit Wildlife Management Unit 17 Wasatch Mountains, previously mentioned. Strategies consistent with the Wallsburg WMA include:

- Work with land management agencies, conservation organizations, private landowners and local leaders through the regional Watershed Restoration Initiative working groups to identify and prioritize mule deer habitats that are in need of enhancement or restoration.
- Initiate broad scale vegetative treatment projects to improve mule deer habitat with emphasis on drought or fire damaged sagebrush winter ranges, ranges that are being taken over by invasive annual grass species, and ranges being diminished by encroachment of conifers into sagebrush or aspen habitats.
- Work with county, state and federal agencies to limit the negative effects of roads by reclaiming unused roads, properly planning new roads and installing fencing and highway passage structures where roads disrupt normal mule deer migration patterns.
- Cooperate with federal land management agencies and private landowners in carrying out habitat improvement projects. Protect deer winter ranges from wildfire by reseeding burned areas, creating fuel breaks and vegetated green strips and reseed areas dominated by cheatgrass with desirable perennial vegetation.
- Cooperate with federal land management agencies and local governments in developing and administering access management plans for the purposes of habitat protection and escape or security areas (deer plan).
- Cooperate with USFS, BLM, and local governments to prepare access management plans to enhance wildlife habitats, range conditions and escape opportunities for elk. Such plans may emphasize a mix of permanent and seasonal road closures and vehicle type restrictions (elk plan).

Habitat Strategies Specific to the Wallsburg WMA

- Improve sagebrush and bitterbrush habitats with seed and/or seedling transplant projects,
- Utilize mechanical treatments to enhance sagebrush seedling establishment in over mature sagebrush stands,
- Utilize target grazing to improve the health of sagebrush and bitterbrush and as a fuel load reduction strategy to reduce threats of wildlife,
- Maintain vegetated fuel break/green strip along the Highway 189 right-of-way.

Habitat Improvement Plan

Specific, detailed habitat improvement plans are beyond the scope of this HMP. However, when needed and as determined by Division personnel, habitat improvement projects will be submitted to the Division's Habitat Council and other potential partners for funding. Habitat improvement project plans will include specific recommendations including treatment methods, seed mixes and a total acreage targeted for treatment.

Improve Browse Communities

In order for the WMA to reach its potential as critical big game winter range, browse communities need to be enhanced and improved. The Division will employ a variety of methods to achieve this including prescribed grazing, prescribed burning, reseeding and seedling transplants, and mechanical treatments. Priority areas will include sagebrush-steppe and mountain browse communities.

Livestock Grazing as a Management Tool

Grazing will be utilized as a habitat management tool. High intensity, short duration grazing systems during spring and early summer months will be used to improve browse communities for wintering big game.

Water Developments

Water developments should only be pursued if they help reach the management objectives of the WMA. Water developments that would result in big game becoming year-round residents on these important winter ranges should be discouraged. Water development projects to help with the grazing management plan should be pursued.

Access Management Plan

The Access Management Plan for the Wallsburg WMA is found in Appendix B.

Fire Management Plan

All activities dealing with wild and prescribed fire will be coordinated with the Division of Forestry, Fire and State Lands (DFFSL) according to guidelines established in the Memorandum of Understanding (2005) between DWR and DFFSL. Fire management provisions include:

- When prescribed fire is needed as a habitat management tool, DWR will provide all applicable information to DFFSL to ensure burn plans are complete and submitted by deadlines.
- Wildfires will be aggressively battled at lower elevations in sagebrush habitats to protect the browse communities on crucial winter ranges.
- As needed, green strips will be seeded to reduce the threat and spread of wildfire.
- Open fires are allowed, but cannot be unattended and adequate provisions must be taken

to prevent the spread of fire (R657-28). State, federal or local fire restrictions will apply to the WMA when deemed necessary by fire officials and UDWR.

- The use of fireworks and explosives are prohibited on the WMA (R657-28).

Wood Products

Wood products are limited on the Wallsburg property. Any wood products are managed according to Administrative Rule R657-28, Use of Division Lands.

Livestock Grazing Plan

Livestock grazing is managed according to Administrative Rule R657-28, Use of Division Lands. Livestock grazing is used as a management tool to reduce fire danger and release browse species for wintering big game. The WMA will be evaluated by regional personnel and grazed when habitat conditions indicate the need for herbaceous fuel reduction and/or when shrubs show suppression by perennial grasses.

The Wallsburg WMA is typically grazed annually on a rotational basis at a rate of 300 Animal Unit Months. Stocking rates and season of use will be adjusted as needed to obtain desired habitat conditions. Grazing will typically be administered through a high intensity/short duration strategy with a grazing season from mid-May through June. Division personnel reserve the right to make changes to stocking rates, season of use and the grazing schedule as needed. The Division also reserves the right to prescribe graze the WMA if needed to reach habitat objectives. Prescribed grazing may result in permits being issued to a grazer outside of the competitive bid process in order to find willing parties that are able to follow a prescribed grazing plan.

Livestock Trespass

At times, trespass livestock are found on the WMA due to poor boundary fences and/or gates being left open by WMA visitors. Occurrences of trespass livestock will be handled by Division personnel according to the guidelines outlined in the Division's Land Use, R657-28-10.

VII. Summary Statement of Proposed Uses

The primary goals and objectives of the Wallsburg WMA presented in this HMP are to preserve, enhance and protect big game winter range and wintering wildlife and reduce deer and elk depredation on surrounding private lands. The Division will allow for and provide wildlife-related recreational activities that are consistent with the goals and purposes for which this WMA was acquired.

VIII. Monitoring and Evaluation

Regional habitat section personnel, the area wildlife biologist and the district conservation officer will be responsible for monitoring overall effectiveness of the program. Appropriate sections will provide expertise as required. The lead and assistant habitat maintenance specialists will monitor the needs and effectiveness of physical facilities and improvements. Range Trend

program personnel will continue to monitor the existing trend studies on a 5-year rotation and will add additional monitoring sites as needed. The regional habitat section will amend this habitat management plan as needed.

IX. Appendices

- Appendix A - Maps
 - A1 - General location
 - A2 - Land Ownership
 - A3 - Wallsburg 1:100 topographic map
 - A4 - Mule deer habitat map
 - A5 - Elk habitat map

- Appendix B - Access Management Plan and Access Map of WMA
 - B1 – Wallsburg WMA access map

- Appendix C - Summary of Land Acquisitions

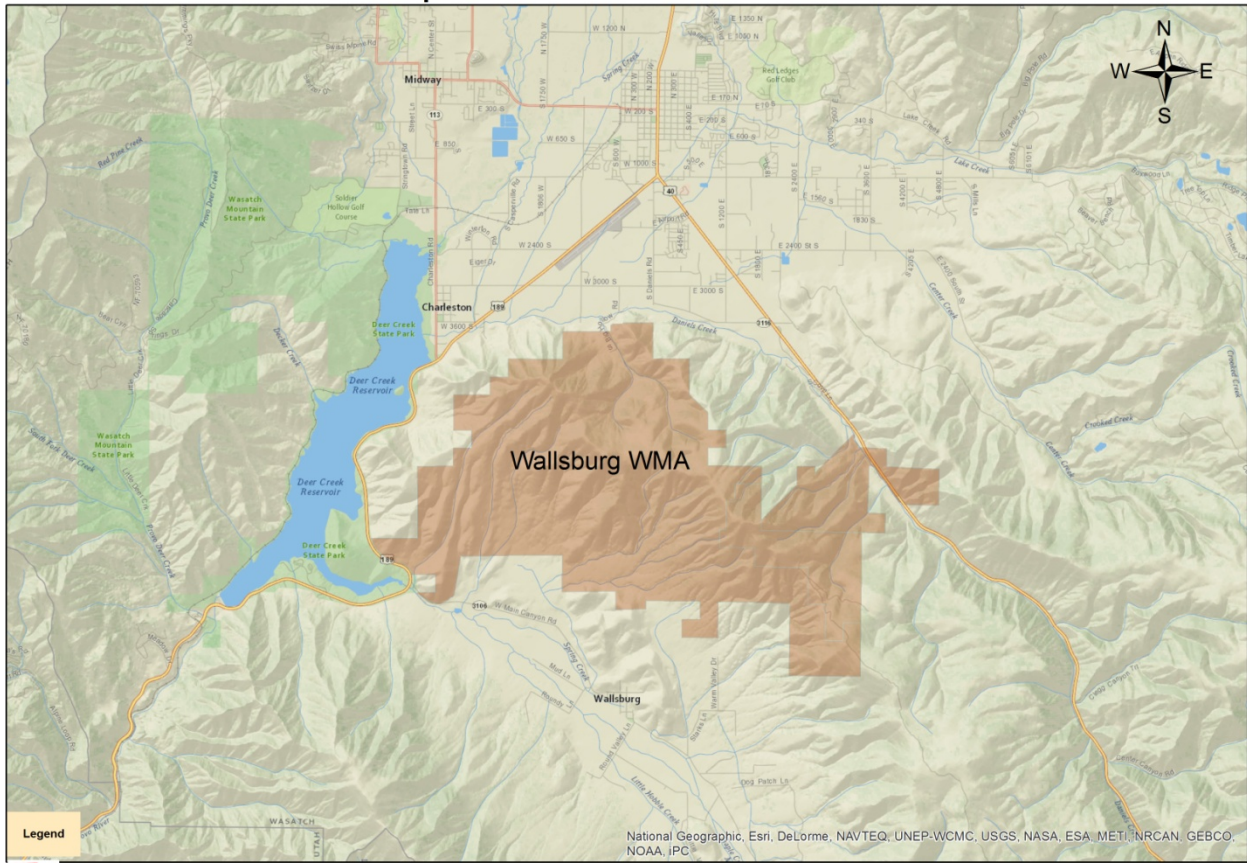
- Appendix D - Big Hollow Shooting Range Agreement

- Appendix E - MOU with Bureau of Reclamation

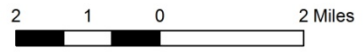
Appendix A – Maps

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Map A1 - General Location

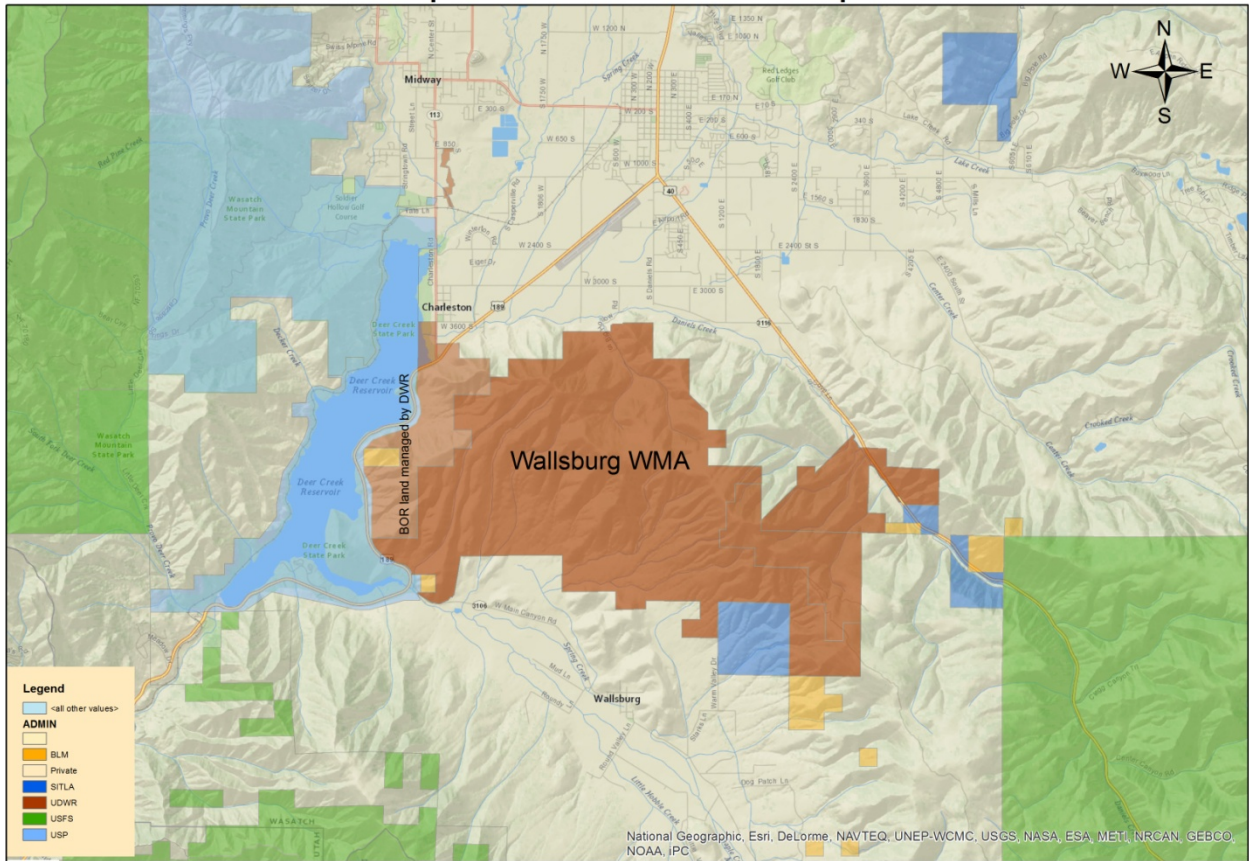


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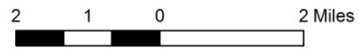


DNR

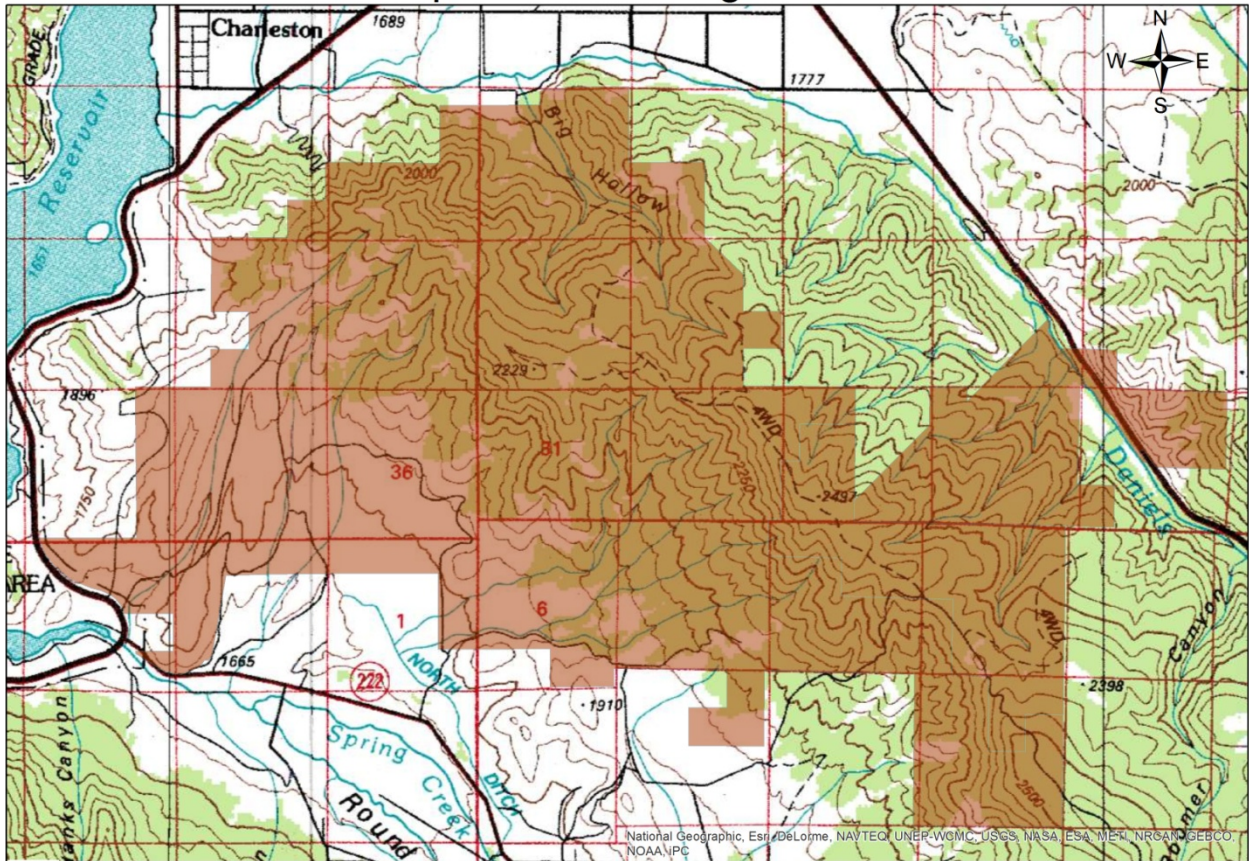
Map A2 - Land Ownership



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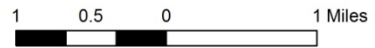


Map A3 - Wallsburg WMA



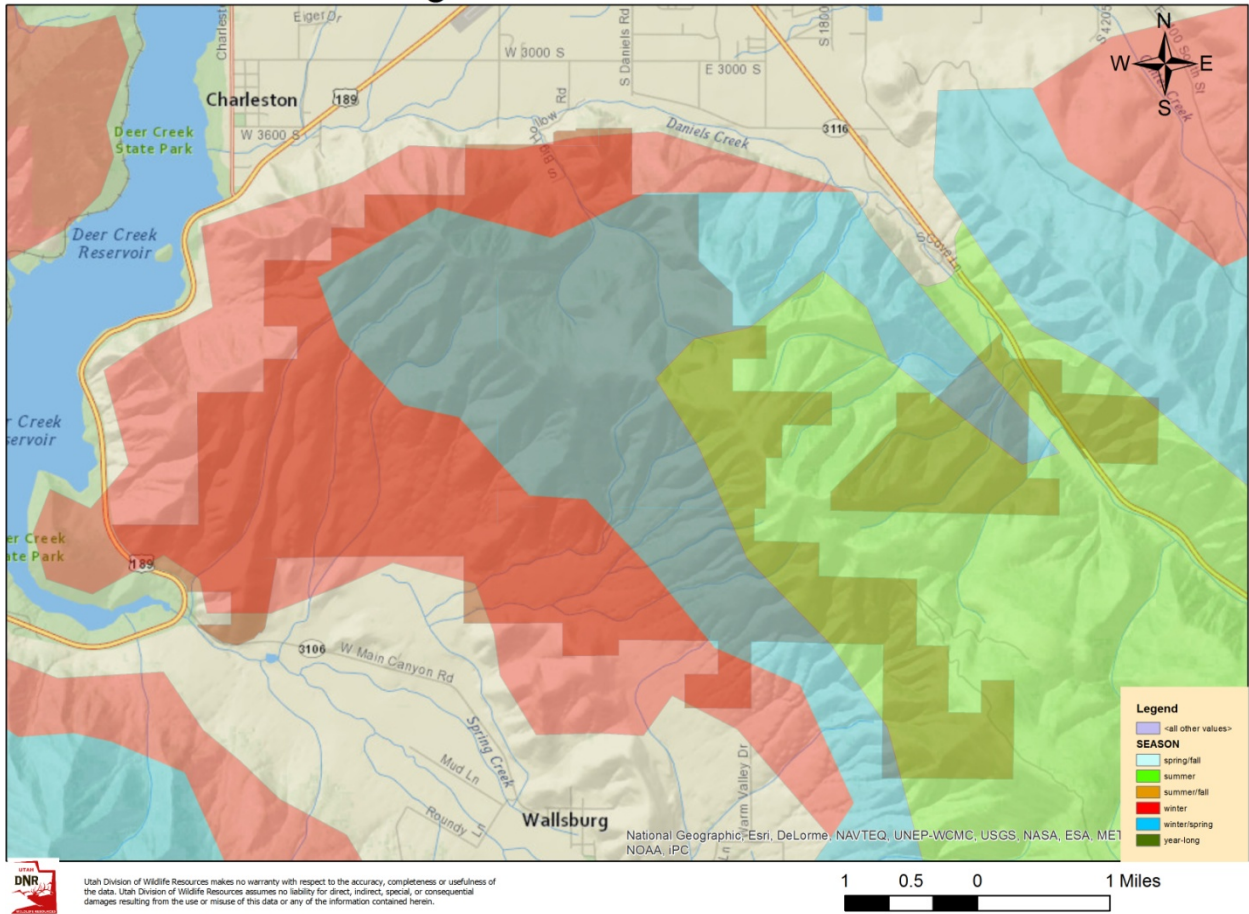
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National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC



Map A4

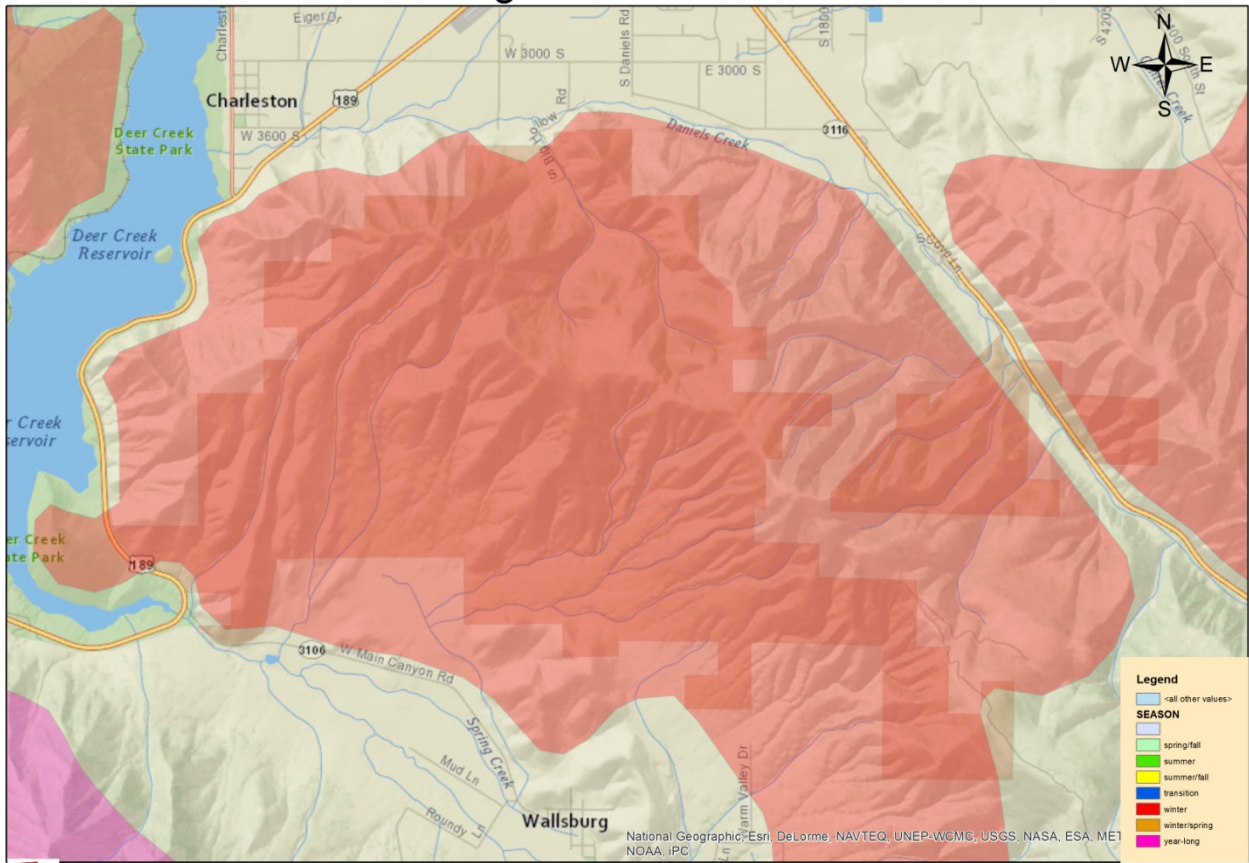
Wallsburg WMA Mule Deer Habitat



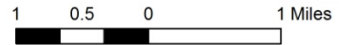
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Map A5

Wallsburg WMA Elk Habitat



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Appendix B – Access Management Plan

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Access Management Plan - Wallsburg WMA

Purpose

The WMA contained in this plan was acquired to preserve and protect big game winter range and wintering animals. These lands provide some of the most crucial winter habitat for big game in Wasatch County. The access management plan will ensure that public access and use of the WMA is done in a manner that assists the Division in achieving the goals and objectives outlined in the habitat management plan.

Background

In addition to providing crucial habitat for wintering big game, the Division recognizes the importance of these lands as popular hunting, trapping and outdoor recreation areas for local residents in Wasatch County as well as sportsmen statewide. As such, the Division organized a public meeting in February of 2015, for the purpose of including key stakeholder and constituent interests in determining how access should be managed on the WMAs. Maps of the WMAs showing proposed authorized routes were presented and comments taken and included in the final access maps for the property.

The Wallsburg WMA is closed to motorized vehicles during the traditional winter closure period of December 1st through April 30th.

Road Designation

Roads are typically categorized as one of three types: Open year round, seasonally closed, or permanently closed.

Open Roads

These are roads that are open year round due to agreements and/or established rights-of-ways with counties, other agencies, and private landowners with in-holdings to a Division property. Roads that do not occur within crucial habitat and/or do not result in habitat damage may also be left open year round.

Seasonally Closed Roads

These are roads that are closed for a portion of the year and are not on established rights-of-way or under an agreement with another entity to be left open year round. Roads that fall within this category are closed to motorized vehicles generally during the winter and early spring. The purpose of seasonally closed roads is to limit disturbance to wintering wildlife, protect sensitive and crucial habitats and to prevent excessive road damage during wet winter and spring months.

Permanently Closed Roads

These are roads that serve no useful purpose for management or recreational use and that fragment and damage crucial habitats. User created roads and trails not authorized by the Division also fit into this category. These roads will be closed using signs, berms, fencing or other means. Where needed, roads may be ripped and seeded. Others will be closed and allowed to return to their natural state.

As needed, seasonal and/or permanent road and trail closures are done under the authority of Administrative Rule R657-28, Use of Division Lands.

General Access Provisions

Motorized access is restricted to existing roads and trails as authorized by the Division. All authorized roads and trails, including their designation, are shown on the WMA access maps at the end of this plan. Roads and trails not shown on WMA access maps are considered unauthorized. The Division reserves the right to close all unauthorized roads and trails. Authorized travel routes will be signed as open making them easy to distinguish.

Motorized vehicles, including OHV's, are restricted to existing and designated roads (Utah Code Section 41-22-10.1) and this policy will be enforced. Harassment of wildlife or damage to the environment, including abuse of lands, watershed, or impairment of plant or animal life while operating an OHV is illegal (Utah Code Section 41-22-13), and this policy will be enforced. The creation of new roads or trails by unauthorized motorized and non-motorized traffic is prohibited.

The Division cautions against motorized travel on the WMA during extended periods of wet weather. Under these conditions, roads become slick and difficult to navigate and are also easily degraded resulting in permanent damage.

Enforcement of Access Management Plan

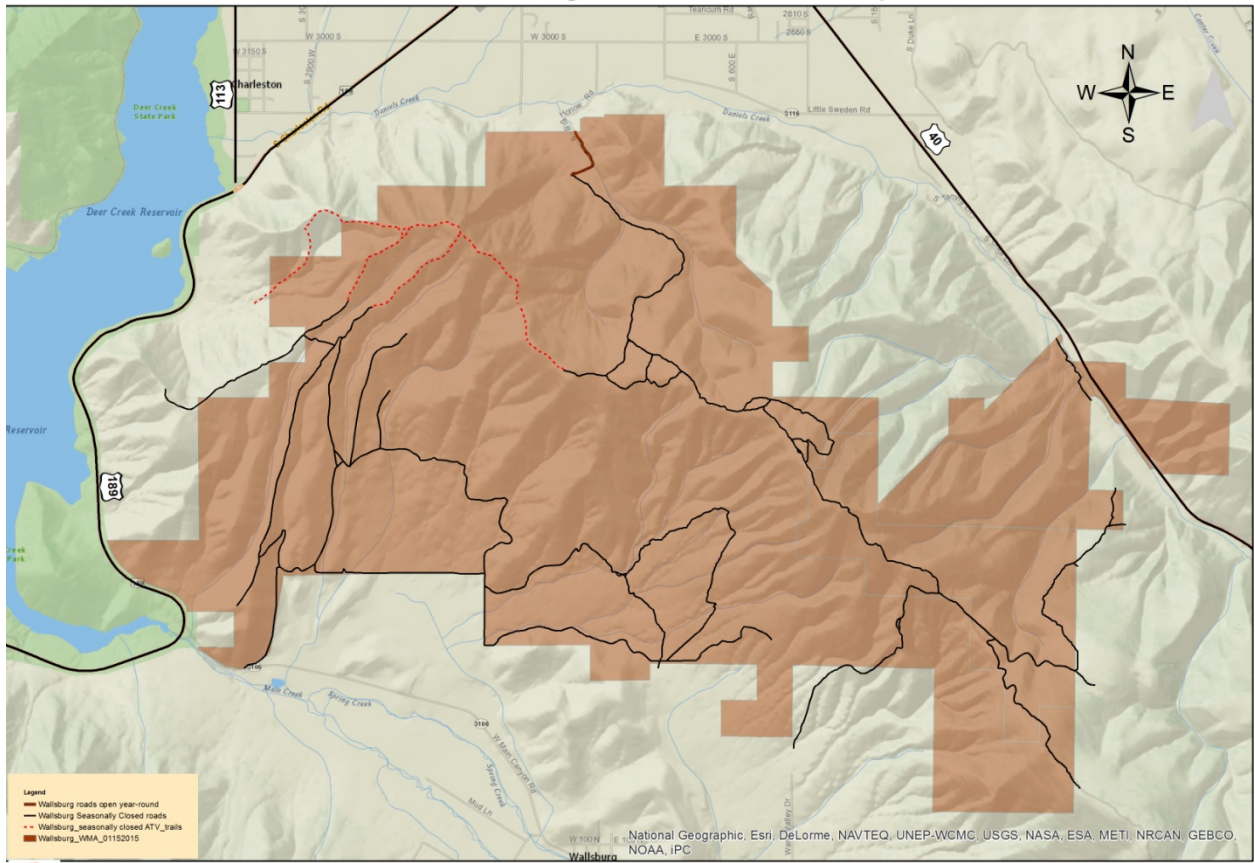
Enforcement of the access management plan will be carried out by Division personnel. However, due to the high amount of public use on the WMA, the Division will work closely with the county Sheriff's Office and other local law enforcement agencies to keep motorized vehicle travel on authorized travel routes.

Informing the Public

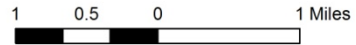
Division personnel will inform the public of the access plan by adequately signing access points, roads and trails, parking areas and fence lines. In addition, media coverage may be used to disseminate information regarding the access plan and how it relates to the overall goals and objectives of the WMA contained in this plan. Seasonal closures or other issues relating to access will also be included in hunting proclamations that are published annually by the Division.

The Division will work with local municipalities, the county, and other state and Federal agencies to coordinate access and travel plans that are consistent with other planning efforts.

B1 - Wallsburg WMA Access Map



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Appendix C – Summary of Land Acquisitions

Wallsburg WMA Land Acquisition Summary

	Acquisitions	Location T, R & Sec	Description	Acres	Encumbrances
1	<p>Federal Aid Acquisition 1977, Agreement No. 860; Entry No. 111499, 10 November 1977. Book 115, pages 66-68, Wasatch County Recorder (combined with Twelve-Mile WMA acquisitions), Fed Aid Project # W-45-L, Segment 5.</p> <p>Title is to revert to USA if land is used for another purpose.</p>	<p>T4S R4E, Sec. 23 Sec. 24 Sec. 25</p> <p>Sec. 34 Sec. 35</p> <p>T4S R5E, Sec. 29 Sec. 31</p> <p>T5S R5E, Sec. 5 Sec. 6</p> <p>Sec. 8</p>	<p>SE1/4SE1/4. S1/2SW1/4. SE1/4NE1/4; NE1/4NW1/4; S1/2NW1/4; SW1/4; and E1/2SE1/4.</p> <p>E1/2E1/2. N1/2; N1/2SW1/4; and E1/2SE1/4. N1/2SE1/4. lot 5; and NE1/4SW1/4. NW1/4SW1/4. Lots 3, 5, 6, 8, & 10, SE1/4NW1/4;NE1/4SW1/4; and NW1/4SE1/4. E1/2NE1/4; and SW1/4NE1/4.</p>	<p>40 80 400</p> <p>160 480</p> <p>80 59</p> <p>40 583</p> <p>120</p>	<p>ROW for ditches/canals & mineral deposits and right to prospect for, mine & remove deposits. Utility easements for buried phone line and 8" concrete water line. Minerals reserved</p>
2	<p>Parley Probst--1959 Besides more than 6,000 acres of land, Mr. Probst also sold Spring Grazing Permits on adjacent Federal range for 850 head of sheep from May 1 to May 31.</p> <p>Federal Aid Grant #W45L, Seg 4 Mr. Probst also transferred his State Land Board Grazing Leases now in effect to Sections 3, 4, and 10 of T5SR5E to UDWR.</p>	<p>T4S, R4E Section 24</p> <p>Section 25</p> <p>Section 36</p> <p>T4S R5E, Sec. 19</p> <p>Section 20 Section 29</p> <p>Section 30 Section 31</p> <p>Section 32</p>	<p>SE1/4; SE1/4NE1/4; (NW1/4NE1/4); S1/2NE1/4NE1/4; and (SW1/4NW1/4). NE1/4NE1/4; NW1/4NW1/4; W1/2NE1/4; and W1/2SE1/4. N1/2; SW1/4. All of Section 19, except north parcels (see deed) SW1/4 NW1/4; SW1/4; SW1/4SE1/4; SW1/4NE1/4; plus additional odd shaped parcel--see deed. All of Section 30. NE1/4; E1/2NW1/4; N1/2SE1/4; Lots 1, 2, 3, 4, 6, and 7. N1/2NE1/4; N1/2NW1/4; and</p>	<p>300</p> <p>240</p> <p>480 583</p> <p>160 400</p> <p>640 545</p> <p>240</p>	<p>Minerals reserved</p>

		T5S R4E , Sec. 1	S1/2NW1/4. Lots 1, 2, 3, 4; SE1/4NE1/4; and NE1/4SE1/4.	240	
		Section 2	Lots 1, 2, 3, 4; SW1/4NW1/4; NW1/4SW1/4; and additional odd shape parcels--see deed..	373	
		Section 3	Odd shaped parcel in N1/2 of the section -- see deed.	192	
		T5S R5E , Sec. 3	W1/2SW1/4.	80	
		Section 4	S1/2; and S1/2NW1/4.	400	
		Section 5	All of Section 5, except NW1/4SW1/4.	633	
		Section 6	Lots 1, 2, 4, 9, & 11; SW1/4NE1/4; and SW1/4SE1/4.	583	
		Section 10	S1/2; NW1/4; and SE1/4NE1/4.	520	
3	Wasatch County Sheriff's Sale, 1980 Fed. Aid Proj. # W-45-L, Seg. 6	T4S R5E , Sec 26	SW1/4SW1/4.	40	
		Sec 35	NE1/4; NE1/4NW1/4; see deed and/or plat sheet for more parcels and exceptions on northeast side of Daniels Creek	160	
4	Montgomery & Montgomery--1946	T4S R5E , Sec 34	NW1/4SW1/4; and W1/2NW1/4.	320	Minerals reserved.
5	John E. Jensen, 1946	T4S R5E , Sec 27	SE1/4SE1/4 (part)	40	
		Section 33	SE1/4 (part--see deed description)	121	
		Section 34	see deed for various parcel descriptions	137	
		Section 35	Lot 4, and S1/2NW1/4SW1/4.	208	
6	Thomas Jay Smith, 1948; Federal Aid Grant No. W45L, Seg. 1	T4S R4E , Sec 26	SE1/4, E1/2NE1/4, NW1/4NE1/4, and SE1/4SW1/4,	320	Minerals reserved.
7	George Coleman, 1951; Federal Aid Grant No. W45L, Seg. 3	T4S R4E , Sec. 35	W1/2SE1/4; and S1/2SW1/4	160	Minerals reserved.

8	State of Utah--1949; Federal Aid Grant W45L, Seg. 2.	T4S R4E , Sec 26	SW1/4NE1/4; and E1/2NW1/4.	120	
9	Wasatch County, 1980	T4S R5E , Sec 19	25.5 acres, mostly in NW1/4NE1/4--see description of parcel in deed or plat sheet.	25.5	
10	Land Disposal--1980;	T4S R4E , Sec. 19	N1/2NW1/4NW1/4 (20 acres) traded to Wasatch County, except for 7.25 acres as described in documents	-20	-
11	SITLA--2001	T4S R4E , Sec. 36 T4S R5E , Sec. 32 Section 33	SE1/4. Lots 1, 2, 3, 4; S1/2NE1/4; and N1/2S1/2. N1/2NW1/4 and W1/2SW1/4NW1/4.	160 100	
12 a	C.A. & M.W. Shelton-- 1964 exchange	T4S R4E , Sec 24	DWR acquired N1/2SW1/4 from Shelton's	80	Minerals reserved
12 b	Land Disposal--1964-- probably to Shelton's	T4S R4E , Sec. 24	NW1/4NE1/4 and SW1/4NW1/4--land records show exchanges, but CRO does not have deed copies to indicate who the land went to.	80	
13	Land Leases--1952 10- year lease from State Land Board on N side of Daniels Cyn.	T4S R5E , Sec. 35	Lot 1 and N1/2SE1/4.		
14	Land Leases--1954 10- year lease from State Land Board	T4S R4E , Sec. 36	SE1/4 (purchased from SITLA by DWR in 2001)	160	
15	Land Lease--1959, from State Land Board	T5S R5E , Sec. 3 Section 4 Section 9 Section 10 T4S R5E , Sec 32	Lots 1, 2, 3, & 4; S1/2N1/2; SE1/4; and E1/2SW1/4. NE1/4 and N1/2NW1/4. All of the section. N1/2NE1/4, SW1/4NE1/4 S1/2NE1/4; N1/2S1/2; and Lots 1, 2, 3, & 4.	326	

		T4S R5, Sec 33	N1/2NW1/4, W1/2SW1/4NW1/4	100	
16	SITLA Land Trade - 2014	T4S R5E, Sec 33: lots 3 & 4	N1/2 SW1/4, E1/2 SW1/4 NW1/4, SE1/4 NW1/4	185. 5	Minerals reserved
		T4S R5E, Sec 3: lots 1- 4	E1/2 SW1/4, S1/2 N1/2, SE1/4	560. 6	
		T4S R5E Sec 4: lots 1- 4	S1/2 NE1/4, SW1/4	236. 4	
		T4S R5E Sec 10:	N1/2 NE1/4, SW1/4 NE1/4	120	

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Appendix D – Big Hollow Shooting Range Agreement

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INTERLOCAL COOPERATIVE AGREEMENT (1/28/10 DRAFT)

This agreement is entered into the 3rd day of February, 2010 by and between the Utah State Division of Wildlife Resources, hereinafter referred to as DIVISION, Wasatch County, hereinafter referred to as COUNTY and Heber Valley Trap and Skeet Club hereinafter referred to as CLUB.

This agreement is entered into by the DIVISION under the authority granted by section 23-22-1, Title 23 Utah Code and Utah Interlocal Agreement Act, Section 11-31 – et seq., Utah Code Annotated 1953 as amended.

Whereas, the Big Hollow Shooting Range (BHSR) Complex is located on property owned by the DIVISION; and

Whereas, the CLUB has entered into a prior agreement with the Division to operate the trap and skeet range (Interlocal Cooperation Agreement #010243, valid through August 31, 2010); and

Whereas, the CLUB has invested in a clubhouse, trap and skeet equipment and other improvements; and

Whereas the BHSR complex includes the trap and skeet range and the rifle and pistol range operated by range safety officer volunteers; and

Whereas the DIVISION, COUNTY and CLUB have developed a plan for the operation and development of the entire shooting range complex (Appendix A).

Now therefore, in consideration of the mutual agreement contained herein, the parties agree as follows:

1. All parties will provide support for implementing the plan (in-kind or direct contributions) pending availability of funds in any fiscal year.
2. All parties will meet annually to review potential improvements for the BHSR and identify potential funding sources.

3. All parties will review and must approve all project plans prior to any construction.
4. All parties will review and must approve any proposed changes to the operation and development plan (Appendix A).
5. DIVISION will assume primary responsibility for training prospective range safety officers (RSOs) for the rifle and pistol range.
6. DIVISION will assume responsibilities for supervising all RSOs to ensure that range operation safety standards are met.
7. DIVISION, through the Rifle and Pistol RSO Coordinator, will schedule Rifle and Pistol RSOs to supervise shooters on the rifle and pistol ranges.
8. COUNTY will be responsible for maintaining the schedule for any special events (all ranges) and all law enforcement training (rifle and pistol ranges only).
9. COUNTY (Sheriff's Dispatch) will check out the BHSR main entrance gate key to rifle and pistol range RSOs and keep track of when the rifle and pistol range is being used (public and private use) and when it is closed.
10. COUNTY (Sheriff's Department) and DIVISION will work to control unsupervised shooting at the BHSR by enforcing trespass during "after hours."
11. CLUB has the exclusive right to schedule use of the trap and skeet range.
12. CLUB will notify COUNTY when the trap and skeet range is open for public or private use outside of the normal hours of operation (Thursdays and Saturdays).

13. CLUB shall collect and be the sole beneficiary of usage fees and any other revenues collected from trap and skeet range use.
14. CLUB will assume primary responsibility for training RSOs to supervise shooting at the trap and skeet ranges.
15. CLUB will schedule RSOs to supervise shooters on the trap and skeet ranges.
16. CLUB will be issued five main entrance keys (nonduplicate) for use by the trap and skeet range RSOs. CLUB will identify the five “key owners” and forward their names to DIVISION. The key owners will be responsible for checking their key out to other trap and skeet range RSOs for use during their shift only.
17. In the event DIVISION, COUNTY, or CLUB wishes to terminate this agreement, written notice must be given to the other parties at least 180 days prior to the effective date of termination.

STATE OF UTAH
DIVISION OF WILDIFE RESOURCES

By _____
Jim Karpowitz, Director

WASATCH COUNTY

By _____
Kip Bangerter, Wasatch County Council Chair

HEBER VALLEY TRAP & SKEET CLUB

By _____
Jeff Lloyd, President

APPENDIX A

Big Hollow Shooting Range Operations and Development Plan

HOURS OF OPERATION

Trap and Skeet Range (operated by the Heber Valley Trap and Skeet Club)

- Open year-round
- Open Thursdays at 5:00 p.m. and Saturdays at 9:00 a.m.
- By agreement with DWR, the HVTSC can be open Wednesday-Sunday from 9:00 AM to 10:00 PM for scheduled events, trainings and competitions
- Closed Mondays and Tuesdays (except for special events scheduled with Wasatch County)

Rifle and Pistol Range (operated jointly by DWR, Wasatch County and local volunteers)

- Open year-round
- 16 hours of operation per week (40 Range Safety Officers)
Thursdays 4:00 PM – 8:00 PM
Saturdays 8:00 AM – 4:00 PM
Sundays 10:00 PM – 2:00 PM
- 24 hours of operation (60 Range Safety Officers)
Thursdays 4:00 PM – 8:00 PM
Fridays 4:00 PM – 8:00 PM
Saturdays 8:00 AM – 8:00 PM
Sundays 10:00 PM – 2:00 PM
- 32 hours of operation (80+ Range Safety Officers)
Wednesdays 4:00 PM – 8:00 PM
Thursdays 4:00 PM – 8:00 PM
Fridays 4:00 PM – 8:00 PM
Saturdays 8:00 AM – 8:00 PM
Sundays 10:00 PM – 6:00 PM
- Closed Mondays and Tuesdays (except for special events scheduled with Wasatch County)

RANGE SAFETY OFFICER PROGRAM (Rifle and Pistol Ranges)

Duties

- The range officer's main responsibility is to ensure the safety of the people who are using the rifle and pistol ranges at all times.
- To maintain RSO status and access to the shooting range when it's closed to the public, RSOs will be expected to work at least 4 hours each month.

- Opening the range on Thursday evenings and Saturdays will be the first priority. When those shifts are filled, RSOs can sign up to work other shifts.
- The RSO will display the range flag whenever firearms are in use and will notify the Wasatch County Sheriff's Office (whether open for public use or not). The RSO will contact the Sheriff's Office when the range is closed.
- Trap shooting will be restricted to the HVT&SC trap and skeet range. Shooters can pattern their shotgun on the rifle or pistol range but the use of target holders is not allowed.
- The RSO must remain at the firing line at all times when the range is in operation. When the firing line is closed for target changes, and/or when people are in front of the firing line, no one is allowed to handle any firearms.
- In the event of an accident, follow the directions on the back of the Accident Report Form. If the accident involves an injury from a firearm, the Wasatch County Sheriff must be notified.

Training

- Lead Agency – Division of Wildlife Resources
- Participants – Local Shooting Sports Representatives (Mike Lehner and Scott McGregor), WCSO (Mark Ahlberg), DWR Hunter Education Coordinators (Gary Cook and Kirk Smith), Conservation Officers (SGT. Paul Davis and Hollie Riddle)
- Training Format
 - RSO Orientation (classroom)
 - Shooting Range Practical
 - Partner Training (novice and experienced RSOs will be paired up to work shifts)

Liability Coverage

- Liability coverage will be provided by the State of Utah for DNR-approved volunteers
- RSO candidates must be accepted into the DNR-approved volunteer program and pass a BCI background check
- Coverage will not be extended to clubs, just individual volunteers
- RSO must complete the Accident Report Form (attached) immediately following an accident. Submit original to the Utah Division of Wildlife Resources Central Region Office no later than 24 hours after the accident.

Administration

- RSO scheduling will be handled by Big Hollow Shooting Range RSO representative (Scott McGregor)
- RSOs will notify the county dispatch prior to opening the range (for public or personal use)
- Time spent by RSOs supervising the public will qualify for Dedicated Hunter service hours

- Keys to the main gate will be numbered and distributed to Heber Valley Trap and Skeet Club members (5), Paul Davis (5) and WCSO (10).

RANGE SAFETY OFFICER PROGRAM (Trap and Skeet Range)

Training

- The Heber Valley Trap and Skeet Club (HVTSC) will be responsible for RSO training

Liability Coverage

- Liability coverage will be provided by the State of Utah for DNR-approved volunteers
- RSO candidates must be accepted into the DNR-approved volunteer program and pass a BCI background check
- Coverage will not be extended to clubs, just individual volunteers
- RSO must complete the Accident Report Form (attached) immediately following an accident. Submit original to the Utah Division of Wildlife Resources Central Region Office no later than 24 hours after the accident.
- The HVTSC carries liability insurance for the club, its directors and officers.

Administration

- The HVTSC Board is responsible for administering the RSO program on the trap and skeet ranges
- Except for regularly scheduled shooting hours (Thursdays and Saturdays), RSOs will notify the county dispatch prior to opening the trap and skeet range (for public or club use)
- Time spent by RSOs supervising shooters (members and non-members) will qualify for Dedicated Hunter service hours

RANGE OPERATIONS

Check-In Process (both ranges)

- Shooters will be required to sign up and check in with the RSO (pistol and rifle range) or office staff (HVTSC)
- Ear and eye protection will be required
- Targets will be available at the RSO facility (rifle and pistol range)
- Clay birds will be available at the HVTSC (thrown from trap houses)

Range Rules (both ranges)

- No trespassing when range is closed, unauthorized users will be cited for trespass
- Follow all range commands
- Shotguns only (12 gauge or smaller)

- Only standard trap loads will be allowed (1 1/8 oz. 7 1/2 shot, 3 drams of powder or less)
- Alcoholic beverages are prohibited
- Keep the range clean, no littering
- Always keep gun pointed in a safe direction
- Always wear eye and ear protection

Range Rules (rifle and pistol ranges)

- Check in with RSO upon entering range
- Fire only at targets in your lane when other shooters are present
- Children must stay behind firing line at all times
- Children (under 14 years of age) must be accompanied by a parent or guardian
- Youths (14-16) must be with an adult 21 years of age or older
- RSO must check guns and ammo
- Do not go beyond the firing line until the “cease fire” has been called
- Ground or rack all firearms during a “cease fire”
- In the event your gun doesn’t fire or jams, wait for range safety officer to assist you

Range Rules (trap and skeet range)

- Check in with office staff upon entering range
- Children under 14 must be with a parent or guardian
- Youth 14-16 must be with an adult 21 years or older
- Different parental supervision requirements apply to minors who are on a junior or family membership
- No hand-thrown targets allowed on trap or skeet ranges.
- Always keep gun open and empty until it’s your turn to call for the target
- Only load one shell at a time (unless you are shooting doubles, then you may load a maximum of two shells)
- Always keep finger off the trigger until ready to call for a target
- In the event of a gun malfunction, wait for a RSO to assist you

IMPROVEMENTS

Shooting Range Complex (all ranges)

- Security fencing (completed, for now)
- Restroom facility (portable outhouses now, flush toilets when water is available)
- Area signs (ordered from Utah Correctional Industries June 2009)
Main Entrance - Big Hollow Shooting Range
Boundary – Trap and Skeet Range – Do Not Enter
Wallsburg WMA
- Trap house removal (the two closest to the road)
- Water development (well water developed or hook up to Daniel system)

- Gravel or pave parking lots
- Weed control

Trap and Skeet Range

- Trap and skeet range interior boundary fence/gates
- Skeet towers and throwers (completed)
- Lighting (completed, but check for compliance with county code)
- Signs (ordered from Utah Correctional Industries June 2009)

Trap and skeet range

Range rules

Standard safety “reminders”

- Additional storage shed
- Five Stand range
- Shotgun pattern board

Pistol and Rifle Range

- Pistol and rifle range interior gate
- RSO check-in facility (built by Wasatch HS and installed July 2009)
- Flagpole and flag (raised when range is open)
- Level and gravel area between RSO facility and pistol range
- Storage unit (installed June 2009)
- Rifle range benches (August 2009)
- Rifle range canopy (completed June 2009)
- Pistol range canopy (TBA)
- Target stands and mounts (purchased June 2009)
- Signs (ordered from Utah Correctional Industries June 2009)

Pistol Range

Rifle Range

Trap Range

Range Rules

Standard safety “reminders”

Big Hollow Shooting Range
Accident Report

***IMPORTANT:** Complete this form immediately following an accident. Submit original to the Utah Division of Wildlife Resources Central Region Office no later than 24 hours after the accident.

Name of injured person _____ Age _____

Address _____ Phone () _____

Range Safety Officer(s) on duty _____

Exact location where injury occurred _____

Description of the injury _____

Describe in full detail how the injury occurred (use additional sheets if necessary): _____

To whom was accident reported? _____

To whom was the injured party released? _____

Was injured party given First Aid? Yes ___ No ___ Describe: _____

Was 911 called? Yes ___ No ___ Did injured party report to a doctor? Yes ___ No ___

Were they transported by professional medical assistance? Yes ___ No ___

Witness

Witness

Name: _____

Name: _____

Address: _____

Address: _____

Phone: _____

Phone: _____

Name of RSO filling out the report: _____

Signature

ACCIDENT REPORTING INSTRUCTIONS

1. If someone is injured while on the range, they should get appropriate first aid or emergency medical treatment as soon as possible.
2. For emergency situations, contact Wasatch County Dispatch immediately (435-654-1411).
3. Notify the Utah Division of Wildlife Resources (801-491-5678 during work hours and 801-885-8140 after hours). Complete an accident report. Be sure to answer all questions, give a detailed description of how the accident happened, get witness contact information and sign the report. Send report to: Utah Division of Wildlife Resources, 1115 North Main St., Springville, Utah 84663.

ADDENDUM TO INTERLOCAL COOPERATIVE AGREEMENT

This agreement entered into on this ____ day of _____ 2011 between the Utah State Division of Wildlife Resources (hereinafter, Division), Wasatch County (hereinafter, County) and the Heber Valley Trap and Skeet Club (Hereinafter, Club) is an addendum to the Interlocal Cooperative Agreement (hereinafter, original agreement) entered into by the same parties on February 3, 2010 (a copy of which is attached hereto as exhibit A).

This addendum shall not modify any of the provisions of the original agreement, but is intended to further the provisions of the original agreement.

1. There is hereby established a Big Hollow Shooting Range oversight committee consisting of five members. Two members shall be appointed by the Division, two members shall be appointed by the County and one member shall be appointed by the Club. The Committee shall include non-voting ex-officio members as follows: Two Range Safety Officers from the Rifle and pistol range and two Range Safety Officers from the trap and skeet range. Each party may also appoint up to two additional non-voting ex-officio members to the committee as such party deems necessary. Non voting members shall be active range safety officers or full time residents of Wasatch County who have an interest in the shooting range.
2. Voting committee members appointments will be for a four year term, however, any member may be removed or replaced at any time by and in the sole discretion of the entity who appointed such member.
3. The Committee shall have the following powers and duties
 - a. The committee shall oversee and manage the day to day operations of the Range. Any management decisions which would constitute a change to the existing operation and development plan shall be submitted to the parties to the original agreement for prior approval.
 - b. Each year the Committee will develop and recommend a written plan setting forth how each party to the original agreement could best provide support for the coming year. Such plan would be submitted to each party to the original agreement for approval by such party.
 - c. Each year the Committee will make a written proposal for any potential improvements considered necessary or beneficial for the continued operation or

improvement of the Range. Said plan will be submitted to each party to the original agreement for approval by such party.

4) Committee Procedures.

a. The Committee shall meet at least quarterly and at any other time at the call of the Chair or whenever the Committee deems necessary and appropriate. The Committee shall maintain minutes and records of its proceedings in accordance with the requirement of State law.

b. Three members of the committee shall constitute a quorum. The vote of three committee members is necessary to render any decision or take any action.

c. The Committee shall elect a Chair and Vice-Chair to serve for a period of one year.

d. The committee may make and enforce such rules, regulations and by-laws for the government of itself, the preservation of order as it performs its duties and the transaction of its business as may be necessary.

e. Members of the committee shall serve without compensation.

STATE OF UTAH
DIVISION OF WILDLIFE RESOURCES

By _____
Jim Karpowitz, Director

WASATCH COUNTY

By _____
Mike Kohler, Wasatch County Council Chair

HEBER VALLEY TRAP & SKEET CLUB

By _____
Jeff Lloyd, President

Appendix E – Memorandum of Agreement with Bureau of
Reclamation and DWR

DRAFT

PROVO AREA OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MEMORANDUM OF AGREEMENT BETWEEN THE UNITED STATES OF AMERICA,
AND THE STATE OF UTAH FOR THE ADMINISTRATION,
OPERATION, MAINTENANCE, AND DEVELOPMENT OF THE
WILDLIFE MANAGEMENT AREA AT DEER CREEK RESERVOIR, PROVO RIVER
PROJECT, UTAH

July 2009

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MEMORANDUM OF AGREEMENT BETWEEN THE UNITED STATES OF AMERICA
AND THE STATE OF UTAH FOR THE ADMINISTRATION,
OPERATION, MAINTENANCE, AND DEVELOPMENT OF THE
WILDLIFE MANAGEMENT AREA AT DEER CREEK RESERVOIR, PROVO RIVER
PROJECT, UTAH

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Exhibit A – Deer Creek Reservoir Area Map

Exhibit B - Environmental Requirements

Exhibit C - Equal Opportunity Requirements

Exhibit D - Title VI, Civil Rights Act of 1964

Exhibit E - Nonexpendable Government Property Requirements

Exhibit F - Deer Creek Management Area Wildlife Habitat Management Plan

MEMORANDUM OF AGREEMENT BETWEEN THE UNITED STATES OF AMERICA
AND THE STATE OF UTAH FOR THE ADMINISTRATION,
OPERATION, MAINTENANCE, AND DEVELOPMENT OF THE
WILDLIFE MANAGEMENT AREA AT DEER CREEK PROVO RIVER PROJECT, UTAH

EXPLANATORY REMARKS

THIS MEMORANDUM OF AGREEMENT, made this 17th day of July 2009, by and between THE UNITED STATES OF AMERICA, acting through the Bureau of Reclamation, Department of The Interior, hereinafter referred to as the "United States," and the STATE OF UTAH, Division of Wildlife Resources, acting through the Director, hereinafter referred to as the "State." Pursuant to the statutory authority and discretion of the United States and the State, this agreement is made in accordance with the Act of June 17, 1902, (32 Stat. 388) and amendatory and supplementary Acts collectively referred to as Federal Reclamation Laws, particularly the Federal Water Project Recreation Act of July 9, 1965, (79 Stat. 213), as amended particularly by Title XXVIII of the Reclamation Recreation Management Act of October 30, 1992, (102-575, 106 Stat. 4690-4693) and pursuant to Contract Ilr-874 between the United State and Provo River Water Users' Association, as amended and in accordance with the Fish and Wildlife Coordination Act of August 14, 1946, (60 Stat. 1080) as amended and the General plan which was approved as provided in Section 3 of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended: 16 U.S.C. 661 et seq.); the State pursuant to the Utah Code and Constitution, Title 23 Chapter 21-1.

WITNESSETH THAT:

WHEREAS, the United States has constructed Deer Creek Dam and Reservoir under the National Industrial Recovery Act of June 16, 1933 (48 Stat.195), for the storage, diversion, and beneficial use of the water of the Provo, Weber, and Duchesne rivers and their tributaries, for irrigation and other purposes; and

WHEREAS, the parties hereto desire to enter into a Memorandum of Agreement for the transfer of identified lands for administration, operation, maintenance, and development of the Wildlife Management Area at Deer Creek Reservoir to the State of Utah.

WHEREAS, the United States pursuant to Article 34 of Contract Ilr-874 desires to establish a wildlife refuge upon lands that were acquired for Deer Creek Dam or reservoir. The lands for the wildlife refuge were identified in the Resource Management Plan prepared July 1998 by Reclamation.

NOW, THEREFORE, it is agreed as follows:

1. GENERAL DEFINITIONS

Where used in this document:

(a) "United States" means the United States Department of the Interior acting by and through the Bureau of Reclamation, or its duly authorized representative(s).

(b) "State" means the State of Utah, Department of Natural Resources, acting by and through the Utah Division of Wildlife Resources, or its duly authorized representative(s).

(c) "Federal Estate" is the Federal land and water areas under the jurisdiction of the Department of the Interior, Bureau of Reclamation. These lands were acquired in fee title by the United States or withdrawn from the public domain for project purposes, and which are covered by this agreement.

(d) "Wildlife Management Area" includes all, or any part thereof, of the Federal Estate as shown on Exhibit A for which management of wildlife resources and public use facilities are transferred pursuant to this agreement. Lands covered by flood easements are exempted from this definition.

(e) "Resource Management Plan" means the plan prepared by the United States in accordance with Title XXVIII of Public Law 102-575 and Reclamation Directives and Standards on Resource Planning.

(f) "Primary Jurisdiction Zone" (PJZ) means that area within each of the reservoir areas surrounding the dam, outlet works and distribution works, wherein the United States retains primary jurisdiction for the protection, operation, and maintenance of said project facilities, as shown in Exhibit A.

(g) "Rights-of-use" means various land use or resource management documents or instruments including, but not limited to, license agreements, contracts, rights-of-way, easements, leases, permits, and other rights of use issued or granted, according to law, by the United States on, over, across or under the Federal Estate.

(h) "Federal fiscal year" means that annual period, from October 1 of one calendar year to September 30 of the next calendar year, on which the United States bases its budget.

(i) "Federally appropriated funds" means any appropriated funds provided to the State from the Federal government without regard to the authorization for such funds or the manner in which they were transferred.

(j) "Wildlife Management Area facilities" means those facilities constructed or installed for wildlife management purposes including any facilities for the public for support of such wildlife management purposes. Said facilities may include, but are not limited to, water and irrigation systems, green belts, hiking paths, planting of trees or wildlife food plots, boundary and interior fencing, signs, parking areas, roads, buildings and other structures (boat docks and ramps, electrical lines, culinary water systems, roads, parking areas, sewer systems, trash facilities, etc.).

(k) "Wildlife Management Area revenues" means all receipts derived from entry and other use fees which the State is permitted to collect pursuant to their authority under this agreement.

(m) "Administration, operation, maintenance, and development" means the acts or processes used to direct management of the wildlife area; manage and enhance resources and facilities, law enforcement, wildlife opportunities and responsibility; and keeping facilities and

equipment in good repair and usable working condition. The term maintenance includes the replacement and/or construction of equipment and/or facilities as may be agreed to by the parties hereto.

(n) "Good repair" means maintaining functional use and longevity of facilities and equipment through use of appropriate actions including controlled maintenance, standard operating procedures, O&M manuals, etc.; meeting Federal or State standards.

(o) "Project Facilities" means those water diversion, collection, storage, and carriage facilities, and appurtenant ancillary facilities built under the project authorizing acts to fulfill the primary purposes of those acts.

(p) "Mutually agreed" means both parties' designated representatives are in agreement on a proposed action. Such agreements shall be in writing.

(q) A "Concession" is a non-Federal commercial business that supports appropriate public wildlife uses and provides facilities, goods, or services for which revenues are collected. A concession involves the use of the Federal Estate and may involve the development of improvements.

(r) "Fixed Assets" are any structure, fixture, or capital improvement placed on the Federal Estate.

(s) "Exclusive Use" is any use which excludes other appropriate public uses or users for extended periods of time.

(t) "Hazardous Material" means any substance, pollutant, or contaminant listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. section 9601, et seq., and the regulations promulgated pursuant to that Act.

(u) "Standard Operating Procedures" means the written document that includes all applicable operating instructions to adequately, safely, and reliably operate the dam and its appurtenant structures and equipment and is based on the Standing Operating Procedures Guide for Dams, Reservoirs, and Power Facilities.

(v) "Accessibility" refers to the Americans with Disability Act (ADA) of 1990 and further defined by the Americans with Disability Act Accessibility Guidelines (ADAAG). The Bureau of Reclamation's Automated Data Management System (ADMS) can be used to achieve full accessibility required by ADA.

(w) "State Fiscal year" means that annual period, from July 1 of one calendar year to June 30 of the next calendar year, on which the State of Utah bases its budget.

(x) "State appropriated funds" means any appropriated funds provided by the State of Utah for the wildlife administration, operation, maintenance, and development of wildlife resources at Deer Creek Reservoir, without regard to the authorization for such funds.

(y) "General Plan" means the Wildlife Habitat Management Plan prepared in accordance with Section 3 of the Fish and Wildlife Coordination Act of August 14, 1946 (60 Stat. 1080) as amended, and approved jointly by the Regional Director, Bureau of Reclamation, and the State of Utah.

2. TERM OF AGREEMENT

The term of this agreement shall be twenty (20) years from the date first written above, unless

terminated sooner as provided herein. During the last two years prior to expiration of this agreement, the parties hereto shall, in good faith, attempt to negotiate a new administration, operation, maintenance, and development agreement or may extend, by mutual agreement the term for up to an additional 20 years, but in no event beyond 40 years from the date hereof.

3. TRANSFER OF RESPONSIBILITY

The United States hereby transfers to the State, subject to the provisions of this agreement, and the State hereby accepts responsibility for the administration, operation, maintenance and development of the Wildlife Management Area, facilities, and related responsibilities pursuant to this agreement as shown on Exhibit A.

4. ADMINISTRATION, OPERATION, MAINTENANCE, AND DEVELOPMENT

The United States has provided funding to construct the existing federally developed Wildlife Management Area and may provide additional funds to design and construct upgrades to these facilities. In its administration of the Wildlife Management area, the State shall:

(a) within the limits of its authority, adopt and enforce rules and regulations for public use of the Wildlife Management Area as are necessary and desirable to protect the health and safety of persons using the area; for the preservation of law and order; and for the protection of the subject resources and facilities. Said rules and regulations shall be consistent with applicable Federal laws, regulations, and policies currently in place or as may be adopted in the future.

(b) comply with all State of Utah and Federal laws and regulations, including those not specifically identified herein

(c) ensure that all land use and administration in the Wildlife Management Area shall conform to all applicable Federal laws, regulations, and Executive Orders. Where variations exist in Federal laws, orders, regulations, and policies, the most stringent shall be the required standard.

(d) coordinate, with the United States, any administration, operation, maintenance, and development activities pursuant to this agreement that could affect the project purposes of the United States within the Wildlife Management Area.

(e) manage, operate, and maintain all facilities in good repair meeting health, safety, and accessibility guidelines.

(f) be responsible for the full cost of any and all development, replacement, or alterations beyond those facilities for which cost sharing has been negotiated.

(g) coordinate with the United States, prior to any action, on all site planning, detailed drawings, site plans, and construction specifications for all proposed facilities.

(h) have the United States review and approve all development plans prior to the start of construction, ensure compliance with environmental and cultural resource laws for any management, operation and maintenance, ground-disturbing, or construction activities pursuant to this agreement, which would modify the environment, and receive written approval or disapproval by the United States' designated representative within forty-five (45) calendar days of receipt of a proposal from the State.

(i) agree, under Public Law 89-72, as amended, that as a part of its administrative responsibility, the United States may enter into a development program with the State for the upgrading and rehabilitation of the existing facilities transferred to the State under this

Agreement. This rehabilitation program may be a cost-shared arrangement with the United States paying not more than 75 percent of wildlife enhancements as mutually agreed upon by all parties.

(j) recognize that the United States may, upon mutual written agreement of the parties, provide technical assistance to the State. Such assistance may be subject to cost sharing as provided in this article.

(k) recognize that the United States may, in situations where operating costs exceed wildlife management collections, provide operating funds by way of a cost-share arrangement as authorized by law and agency policy.

(l) agree that both parties hereto shall ensure that adequate personnel are available to accomplish the work agreed to herein.

5. CONTINGENT ON APPROPRIATIONS OR ALLOTMENT OF FUNDS

The expenditure of any money and the performance of any work by the United States or the State as provided for by the terms of this Agreement is made contingent on the U.S. Congress or the Utah Legislature making the necessary appropriations or the allotment of funds, and shall be contingent upon such appropriation or allotment being made. The failure of the Congress or the Utah Legislature to appropriate funds or the absence of any allotment of funds shall not impose any liability on the United States or the State. If the necessary appropriations or allocations for either party to carry out this agreement are not made for any fiscal year, the parties hereto agree to work out a mutually agreeable and temporary course of action to be followed. If the non-appropriation or non-allocation of the necessary funds on behalf of either party becomes chronic, the other party may give notice of termination of this agreement pursuant to Article 29.

6. FEES AND REVENUES

(a) Fees shall be set in accordance with the State's fee schedule established for Wildlife Management Areas in accordance with State statutes. The State shall have the right to collect receipts derived from recreation related permits and contracts which it issues and administers for activities within the Wildlife Management Area.

(b) The State shall maintain accounting records for the Wildlife Management Area to satisfy the requirements of this agreement and shall furnish to the United States upon request, not later than 90 days following the close of the State's fiscal year, a financial report of all revenues received and expenditures for operation and maintenance, replacements, construction, and development of recreation facilities. The State shall keep all financial records in accordance with generally accepted accounting principles.

(c) All receipts in excess of the administrative, operation, maintenance and development costs shall be returned to the United States.

7. RESOURCE MANAGEMENT PLAN

(a) The State's administration, operation, maintenance, and development of the Wildlife Management Area shall be consistent with the United States' approved Deer Creek Reservoir Resource Management Plan. Said Resource Management Plan was prepared by the United States, in cooperation with the State and other appropriate Federal, State, and local entities. Parties acting under authority granted by the United States or the State shall be required to

comply with the requirements of said plan.

(b) The United States shall update the Resource Management Plan when necessary as funds are appropriated by Congress.

(c) The Resource Management Plan provides direction consistent with authorized project purposes and establishes a desired future condition of the reservoir area resources. The plan addresses the management frameworks and partnerships, water resources, recreation and visual resources, natural and cultural resources, and land management.

8. HEALTH AND SAFETY

The United States disclaims responsibility for the health and safety of the public involved with recreation use in the Wildlife Management Area.

9. RISK AND DAMAGES

The parties hereto shall each be responsible and liable only for the negligent acts or omissions of their respective employees or assigns to the extent provided by law. However, nothing in this contract shall be construed to be an admission of fault or liability, and nothing shall limit the defenses and immunities legally available to each party, as against each other and third parties.

10. ACCIDENT REPORTING

The State shall investigate, or cooperate in the investigation by the agency having jurisdiction, all accidents involving death, serious injury or property damage, hazardous material spills, or other incidents of a serious nature within the Wildlife Management Area. The State shall immediately advise the United States' designated representative of the incident. The State shall submit a written report to the United States' designated representative as follows: (a) Serious injury or death- within 4 calendar days of the incident; (b) Hazardous material spill- within 4 calendar days of the incident. The written reports shall describe the nature of the death, spill, injury or damage, the date of the occurrence, the cause if appropriate or known, and if appropriate, the estimated costs of repair, and the estimated date of repair. Hazardous material spills shall be reported to the appropriate agencies as required by federal, state and local laws, rules and regulations.

11. HAZARDOUS WASTE, RECYCLING AND WASTE REDUCTION

(a) The State shall take all steps reasonably necessary to protect the safety of persons and property within the reservoir area from hazardous or potentially hazardous materials. Unlawful use or storage of hazardous materials shall not be permitted in the Wildlife Management Area. The State shall take all steps reasonably necessary to protect the safety of persons and property within the reservoir area from hazardous or potentially hazardous materials.

(b) The parties hereto, and their respective contract entities, employees or assigns, shall report to the other party's designated representative immediately, any suspected significant pollution of any nature to the lands, waters, or facilities within or adjacent to the Federal Estate covered by this agreement. Materials that shall not be disposed of on the Federal Estate include but are not limited to: refuse, garbage, hazardous or toxic materials, sewage effluent outside of waste treatment facilities, industrial waste, petroleum products, mine tailings, and pesticides,

including misuse or use outside of approved programs. Any violation of these provisions by either party or their assigns shall result in grounds for termination of the agreement, in accordance with termination clauses contained in Article 28 of this agreement, and/or for assessment of penalties appropriate for full and complete remediation and restoration of the Federal resources. Any contract or agreement the parties hereto may enter into with a third party pursuant to this agreement shall contain the foregoing contract provision and any additional specifications necessary to protect Federal resources and prohibit the pollution of the Federal Estate, waters, and facilities within and adjacent to the Wildlife Management Area.

(c) The State shall develop and implement a recycling and waste reduction plan for the reservoir area.

12. DEBRIS AND WASTE REMOVAL

The State shall dispose of debris within the Wildlife Management Area to the extent necessary to maintain the area in a safe condition suitable for public use. The State shall provide litter control and trash removal in all areas where public use is permitted. The State shall properly dispose of all waste, discarded or abandoned items, and debris generated by its administration, operation, maintenance, and development activities in the Wildlife Management Area. Said waste and debris shall be disposed of in a properly permitted landfill.

13. PEST CONTROL

The State shall submit to the United States for approval an Integrated Pest Management Plan (IPM) for the reservoir area at least thirty (30) days in advance of pesticide application (see Article 31).

(a) The State shall not permit the use of any pesticides on the Federal Estate without prior written approval by the United States.

(b) All pesticides used shall be in accordance with the current registration, label direction, or other directives regulating their use.

(c) The State agrees to include the provisions of this article in any subcontract or third-party contracts it may enter into pursuant to this agreement.

14. HISTORIC, CULTURAL AND ARCHAEOLOGICAL VALUES

The State shall take reasonable and necessary precautions to protect and preserve any and all antiquities or other objects of archaeological, paleontological, cultural, historic, or scientific interests on the Federal Estate. Objects under consideration include but are not limited to, historic or prehistoric sites, buildings, structures, ruins, human remains, funerary objects, and other artifacts. Should such sites or objects, or evidence of sites or objects, be discovered, the State shall immediately suspend any and all work involving the area in question and make a reasonable effort to protect such discovery. The State shall immediately provide an oral notification to the United States of any discovery on the Federal Estate. The United States shall have the area inspected to determine its historical significance and the appropriate actions to follow. The United States shall work closely with the State on projects of mutual benefit on the Federal Estate. All objects salvaged from the Federal Estate are the property of the United States.

15. SOIL AND WATER CONSERVATION

The State and the United States shall take all reasonable measures necessary to minimize erosion and sedimentation; protect land and water resources; prevent and suppress fire; protect against introduction and spreading of noxious weeds and other pests detrimental to natural values including domestic or feral animals which are detrimental to natural resources, agriculture or public health and safety; and shall cooperate in soil and water conservation, and fish and wildlife management and enhancement practices. The State shall include suitable provisions for such controls in all third party contracts, concessions contracts, and permits issued by the State.

16. CONSUMPTIVE USE OF WATER BY STATE

(a) When the State, a concessionaire, or other third party furnishes water to the public, it shall furnish only suitably treated, wholesome and sanitary water which meets appropriate Federal, State, and local health standards. The United States does not warrant the quality of the available water supplies as to its suitability either for domestic purposes or for human consumption.

(b) The parties hereto, or either of them, may pursue acquisition of water, water wells, potable water supplies piped in from commercial sources, and/or water rights for consumptive use for wildlife and public use purposes within the Wildlife Management Area. Said water, water wells, water supplies, or water rights, except for commercial water sources, shall be obtained in the name of the United States and shall be retained for the use for which it was obtained.

17. MANAGEMENT BY THE STATE OF UNITED STATES PERSONAL PROPERTY

During the performance of this Agreement, the United States and the State agree, in accordance with Office of Management and Budget (OMB) Circular A-102, as follows:

(a) United States property is property provided at the United States' expense for performance of this Agreement regardless of the following methods by which it is provided:

(1) United States-furnished property is property that is transferred from United States stocks, or purchased directly by the United States, and delivered into the State's custody for performance of this Agreement. Title to United States-furnished property remains with the United States.

(2) State-acquired United States property is property purchased or fabricated by the State at a cost of \$5000 or more; the cost of which is reimbursable under this Agreement. Title to property purchased by the State vests in the United States on its delivery by the supplier. Title to property drawn from the States' stocks or stores or fabricated by the State vests in the United States upon reimbursement of the cost thereof by the United States in whole or in part.

(b) Subject to prior written approval by the United States, the State may purchase property and equipment and replace it if necessary during the tenure of this Agreement to the extent deemed necessary by the State and may seek reimbursement for such expenditures.

(c) The State shall meet the basic requirements prescribed in Exhibit E of this Agreement to establish and maintain control over United States property in its possession.

(d) The State shall return to the United States all United States-titled property that becomes excess to the performance requirements of this Agreement.

18. THIRD PARTY CONTRACTS, CONCESSIONS CONTRACTS AND PERMITS

(a) The State may enter into basic service contracts without prior review or written approval of the United States. Such contracts may include, but not necessarily be limited to, services for normal management, operations, and maintenance of the area, including, but not necessarily limited to, trash removal and disposal, toilet pumping, tree trimming, etc.

(b) The State may enter into and administer contracts or concession contracts with third parties to carry out any of the functions of the State relating to wildlife management and related administration, operation, maintenance, and development pursuant to this agreement. Such contracts or concession contracts would include, but not be limited to, wildlife concessions such as blinds or wildlife viewings areas, retail sales, etc. New, renewed, or modified contracts, concession contracts and permits shall include clauses that prohibit new exclusive use, and require existing exclusive use, if any, be phased out in accordance with an established timetable. If a contract, concession or permit expires or is terminated, the State shall require that all exclusive use be removed from the reservoir area. The State shall submit any such third party contract to the United States' designated representative for review and approval, prior to the State's approval. The United States' designated representative shall, within forty-five (45) calendar days of receipt, review and either approve or disapprove the contract in writing.

(c) All third party contracts issued by the State shall be subject to applicable Federal laws and regulations, policy, directives and standards, and applicable terms of this agreement. The term of such contracts shall not extend beyond the term of this agreement. Said contracts shall also provide that in the event of the termination of this agreement, the United States shall not stand in the stead of the State as grantor for the remainder of the term of said contract; however, in the event of such termination, the United States may prepare an interim letter of authorization for a short term until, at the discretion of the United States, a new concession contract is issued that is in compliance with Reclamation Manual LND 04-01. The United States shall not issue a new contract until all exclusive use has been removed.

(d) The United States reserves the right and is responsible for the issuance of Rights-of-Use for the Federal Estate. The United States shall, prior to approval, provide the State a copy of any such application for review and comment. The State shall review and make written comment to the United States' designated representative within 45 calendar days from receipt. The United States' designated representative shall consider the written comments and, if applicable, incorporate them into the Right-of-Use approval process. Rights-of-Use shall contain reasonable measures to protect wildlife habitat and facilities, and reclaim or repair damages which may occur.

19. LIABILITY OF CONTRACTORS, CONCESSIONAIRES AND PERMITTEES

(a) The State shall require all contractors, concessionaires and permittees operating within the Wildlife Management Area to carry adequate liability and property damage insurance. Said insurance shall be of sufficient amount to cover, at a minimum, the State's liability under its governmental liability act and shall be consistent with the services and facilities provided and the potential for injury or damage to life and property. The United States may be named as an additional insured on all such insurance, and a certificate of insurance shall be provided to the State.

(b) All contracts issued by the State for activities within the Wildlife Management Area pursuant to this agreement shall contain a provision that requires the contractor, concessionaire or permittee to indemnify and hold harmless the State, the United States, and their respective employees and assigns from liability for causes or actions resulting from the contractor's, concessionaires, permittees or their respective employees', subcontractors', or contract entities' negligence.

20. UNAUTHORIZED USE

The primary responsibility for identifying and preventing unauthorized uses or encroachment within the Wildlife Management Area belongs to the State. In cooperation with the United States, the State shall take all reasonable measures necessary to identify, investigate, and resolve incidents of unauthorized land, resource, or public use; or unauthorized encroachment within the reservoir area and notify the United States immediately. This includes any legal actions necessary to prevent or prosecute such unauthorized use. The United States hereby delegates to the State the right to bring action in the State's name in order to protect each party's interests and carry out their responsibilities in connection therewith. Resolution of boundary disputes shall be the responsibility of the United States. The State shall notify the United States' designated representative of boundary disputes or unauthorized incidents within thirty (30) calendar days of discovery.

21. RESERVATIONS

The State is subject to the following conditions and reservations in the administration, operation, maintenance, and development of the Wildlife Management Area:

(a) Existing land uses, rights, or interests within the reservoir area and lawfully held by the United States or persons or entities not party to this agreement.

(b) The right of the United States, its employees and contract entities, to enter upon the Wildlife Management Area on official business without charge, for the purpose of enforcing, protecting, and exercising the rights of the United States, and also to protect the rights of those not party to this agreement.

(c) The right of the United States, its employees and contract entities, to remove from the Wildlife Management Area, any and all materials necessary for the construction, operation, and maintenance of project works and facilities.

(d) The right of the United States, its employees and contract entities, to prospect for, extract, and carry on the management of oil, gas, coal, and other minerals, and the right to issue leases or permits to prospect for oil, gas, or other minerals on said lands under the Act of February 25, 1920, (41 Stat. 437), and amendatory acts, the Act of August 4, 1939, (53 Stat. 1187), as amended, and the Act of August 7, 1947, (61 Stat. 913).

(e) The rights of the State under this agreement are subordinate to the prior rights of the United States to use any portion of the reservoir area for the primary purposes of the project and any associated facilities or activities pursuant to Federal Reclamation Law. The United States shall give written notice to the State if the United States determines that changes in land use for the United States purposes are necessary.

22. TITLE TO LAND, IMPROVEMENTS, EQUIPMENT AND RESTORATION

(a) The United States shall be vested with title to land, and permanently fixed assets, such as structures, facilities, and equipment (buildings, fences, barriers, roads, utility lines, etc..) within the Wildlife Management Area. Permanent structures and improvements constructed on the Federal Estate which were funded by the United States shall remain the property of the United States.

(b) The State shall keep a current and accurate property record/inventory of all facilities, structures and improvements installed or constructed within the Wildlife Management Area and all equipment purchased with federal funds for use at the Wildlife Management Area pursuant to this agreement.

(c) Except as otherwise provided in this agreement, property, equipment, and supplies acquired with federal funds pursuant to this agreement shall be managed in accordance with Office of Management and Budget (OMB) Circular A-102.

(d) The State shall keep a current and accurate inventory of any structures and improvements installed or constructed solely at its own expense or at the expense of their contractors, concessionaires and permittees, and shall provide the United States such inventory within 30 days of completion of such installation or construction, so the United States inventory records can be maintained accordingly. Upon termination of this Agreement, the United States may purchase at the Cost Less Depreciation value those facilities determined necessary for the future operation and maintenance of the area, provided the facilities were exclusively constructed or financed by the State, their contractors, concessionaires or permittees.

(e) For a period of 120 days after termination of this Agreement, or such longer period as may be determined by the United States to be reasonable, the State and their contractors, concessionaires or permittees shall have the privilege of salvaging and/or removing, at their sole cost or expense, structures or facilities installed or constructed by the State, their contractors, concessionaires, or permittees that are not determined to be necessary for the continued operation and management of the Wildlife Management Area. After the expiration of such period, the title to all such remaining structures or facilities shall vest in the United States. The State, their contractors, concessionaires and permittees shall restore the land occupied by such removed structures or facilities to its original condition as determined to be satisfactory to the United States.

23. REVIEW OF ADMINISTRATION, OPERATION, MAINTENANCE, AND DEVELOPMENT

The parties hereto shall meet annually, if requested by either party, at a time mutually agreed to in order to review and inspect the administration, operation, maintenance, and development of the Wildlife Management Area including concession facilities. The Area Manager for the Bureau of Reclamation and the Director of the Utah Division of Wildlife Resources or their designees shall arrange the specific date and time. The purpose of the review and inspection is to ensure that administration, operation, maintenance, and development procedures are adequate; to identify and correct deficiencies and problems; and to ensure the administration of the reservoir area is in accordance with the intended purposes. Said review shall include, but not be limited to: monitoring items in the Resource Management Plan, health and safety; appropriate use of the Federal Estate, land interests and resources; and inspections of facilities and operations,

including third party or commercial concessions or permits, and basic service contracts. Recommendations based upon the review and inspection shall provide direction for achieving resolution of problem areas to improve the administration, operation, maintenance, and development responsibilities pursuant to this agreement.

24. EXAMINATION OF RECORDS

(a) The State agrees that the United States shall have access to and the right to examine any pertinent books, documents, papers, and records of the State and/or third party entities involving transactions related to this Agreement.

(b) The United States' designated representative may at any time request an independent audit of the State's financial activities for the Wildlife Management Area. Such independent audit shall be performed at the cost of the United States. Any discrepancies found during such audits shall be corrected by the responsible party.

(c) The United States' designated representative may at any time request an independent audit or examination of records of third party commercial concessions or other service contracts for the Wildlife Management Area. Such independent audit or examination of records shall be performed at the cost of the United States. Any discrepancies found during such audits shall be corrected by the responsible party.

25. MISCELLANEOUS PROVISIONS

(a) The State, its contractors, concessionaires or permittees, relative to this Agreement, shall be subject to the Environmental Requirements set forth in Exhibit B attached hereto and incorporated herein.

(b) The State, its contractors, concessionaires or permittees, relative to this Agreement, shall be subject to the Equal Opportunity requirements set forth in Exhibit C and Title IV of the Civil Rights Act of 1964 set forth in Exhibit D attached hereto and incorporated herein.

(c) The United States, at the request of the State, shall provide information on property boundaries, easements, and Rights-of-Use on the Federal Estate.

(d) The parties hereto understand and agree that the various terms and conditions within this agreement apply to the agreement as a whole to reduce redundancy, and, except as the context of this agreement may require, are not to be narrowly defined within the specific article under which a given term or condition is located.

(e) Each party hereto shall provide to the other party any additional reports or information which may be reasonably requested.

(f) All work done by the State, its contract entities, employees, or assigns, relative to this agreement within the reservoir area, and all contracts, concessions and permits issued by the State, its contract entities, employees, or assigns, relative to this agreement shall be subject to the provisions of the attached exhibits and the information in the attached appendices, as amended.

26. MODIFICATION OF AGREEMENT

(a) This agreement may be modified, amended, or superseded at any time during its term upon mutual agreement by the parties hereto.

(b) If any portion of this agreement is rendered null and void as a result of applicable

laws, regulations, executive orders, court rulings, or other actions, all remaining portions of the agreement shall remain in full force and effect, provided the voided portion or portions do not affect the primary purposes of this agreement.

27. TERMINATION

(a) This agreement shall terminate and all rights and obligations of the parties under this agreement shall cease under the following conditions:

(1) Upon expiration of the term of this agreement, as provided in Article 2;

(2) Upon receipt of a written notice of termination by either party for cause as provided in this Article.

(b) Either party may serve written notice of breach of this agreement upon the failure of the other party to abide by the terms or conditions of this agreement.

(c) Either party may serve written notice of termination of this agreement upon the failure of the other party to correct any default or contract violation of the other party within one hundred-twenty (120) calendar days following specific written notice of the breach or violation.

(d) Should a transfer or sale of all or any part of the reservoir area take place, the United States shall, to the fullest extent possible, ensure the entity receiving said area shall be bound by the terms of this Agreement. If the entity receiving the land is not bound by the terms of this agreement, the United States shall, as allowed by law, provide for the reimbursement to the State for all of the State's contributions to the transferred area at the current fair market value, subject to Article 24.

(e) If the United States Congress or the Utah Legislature fails to provide adequate funding to enable the United States or the State to carry out their respective obligations under this Agreement, either party may give written notice that this Agreement shall terminate on a certain date at least 120 days after the date of notice.

(f) For conditions other than those expressed in a, b, c, d and e herein, the State shall give to the United States at least 2 years written notice of its intent to terminate this Agreement.

28. DESIGNATED REPRESENTATIVES

The parties hereto agree that the designated representatives for administration of this agreement are as follows, or as may be further delegated in writing by the following:

United States - Area Manager, Provo Area Office, Bureau of Reclamation, Provo, Utah
State of Utah - Director, Utah Division of Wildlife Resources, Salt Lake City, Utah

29. NOTICES

(a) Any written notice, demand, or request, as required or authorized by this agreement, shall be properly given if delivered by hand, or by mail, postage prepaid, to the other party as herein listed:

United States: Area Manager
Bureau of Reclamation
302 East 1860 South,
Provo, UT 84606-7317
Phone: 801-379-1000

State: Director, Utah
Division of Wildlife Resources
1594 West, North Temple
Salt Lake City, UT 84116
Phone: 801-538-4700

Mailing address:
Utah Division of Wildlife Resources
P.O. Box 146301
Salt Lake City, UT 84114-6301

(b) Both parties hereto are responsible for notifying all affected parties of any subsequent change of address, organizational changes, responsibility adjustments, and other related changes as they take place.

30. OFFICIALS OR EMPLOYEES NOT TO BENEFIT

No member of or delegate to Congress or Resident Commissioner, and no officer, agent, or employee of the Executive, Legislative, or Judicial Branch of the Federal government, or official or employee of the State shall be admitted to any share or part of this agreement or to any benefit that may arise here from. This restriction shall not be construed to extend to this Agreement if made with a company or corporation for its general benefit.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the first date written above

STATE OF UTAH
Jon Huntsman Jr., Governor

THE UNITED STATES OF AMERICA
Department of the Interior

By _____
Director, Utah Division Wildlife Resources

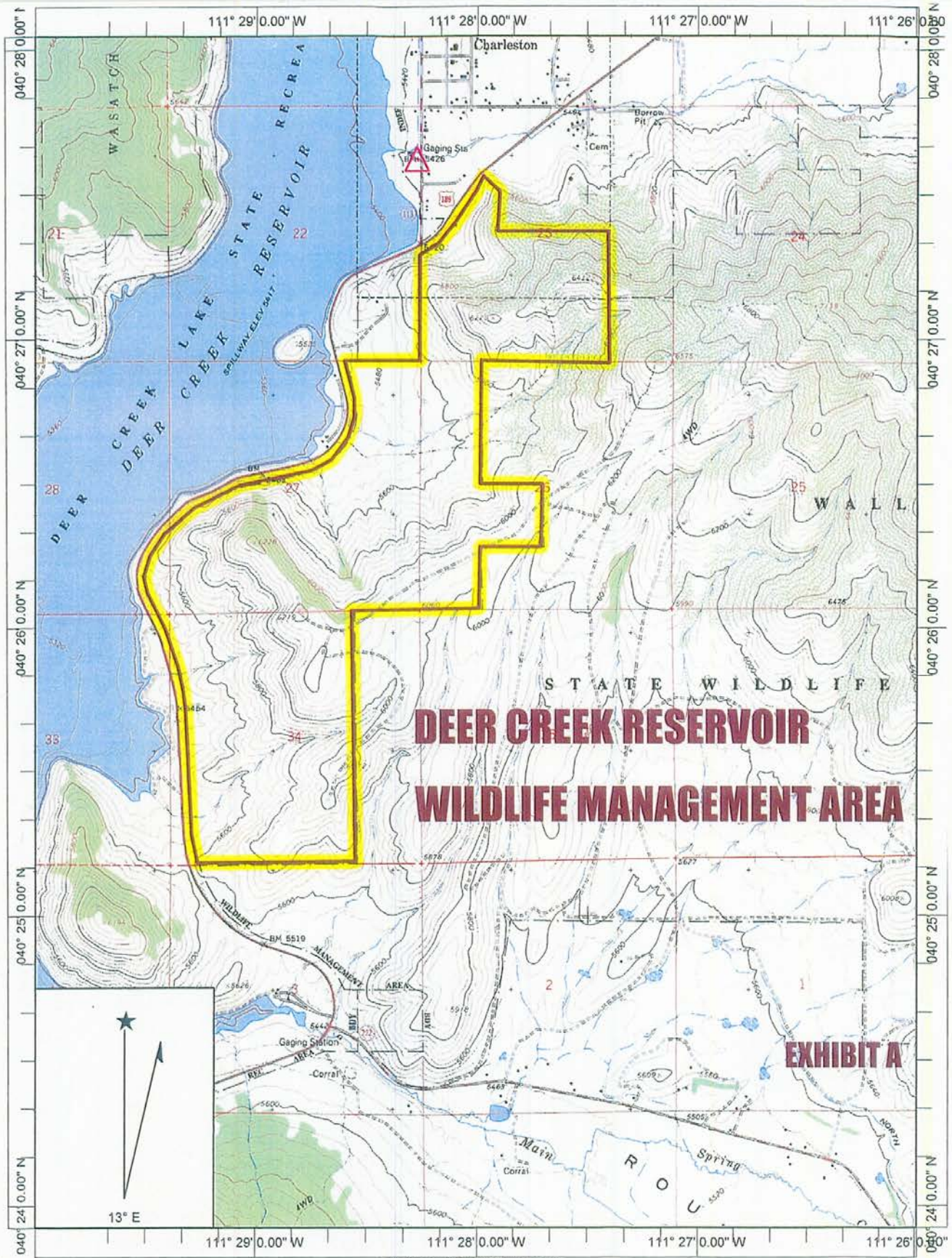
By _____
Regional Director
Upper Colorado Region
Bureau of Reclamation

Approved:

State Attorney General's Office

Approved:

Office of the Regional Solicitor



**STATE WILDLIFE
DEER CREEK RESERVOIR
WILDLIFE MANAGEMENT AREA**

EXHIBIT A

EXHIBIT B

ENVIRONMENTAL REQUIREMENTS

1. After the recreation facilities are constructed and transferred to the State, the State shall operate, maintain, and manage all structures and facilities on the premises to minimize environmental consequences. Consideration shall be given to alleviating potential harmful effects on landscape, soils, water, wildlife, cultural resources, timber, population, or other resources. Prior to any action, which would modify the environment beyond those currently covered by existing NEPA documents, the State shall submit any necessary environmental reports as directed by the United States. No such modifications of the environment shall be undertaken without prior written approval of the United States.

2. The State shall correct any pollution of soil, air, or water, and deterioration of all resources resulting from exercise of the privileges granted in accordance with rules, regulations, and directives of the Secretary of the Interior and in compliance with all Federal laws. Increased cost shall not justify noncompliance with environmental quality controls required by the United States.

3. State shall comply fully with all applicable Federal laws, orders, regulations, and the laws of the State of Utah concerning the pollution of streams, reservoirs, ground water, or water courses.

4. The State shall comply with all provisions of Federal and State pesticide laws and amendments. Further, in the use of all pesticides on lands owned by the United States, the State shall submit plans for such use annually and shall obtain prior written approval of the United States before implementing said plans.

5. In accordance with the National Historic Preservation Act of 1966, historic properties shall be given full consideration in any proposed actions initiated by the State beyond those approved in existing plans and documents. Compliance with the National Historic Preservation Act and 36 CFR800 shall be the responsibility of the United States. No surface disturbance operations can proceed until the requirements of this article have been met. This provision shall be included in all construction contracts.

6. Any person who knows or has reason to know that he or she has discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony must provide immediate telephone notification of the discovery, with confirmation by FAX to the designated representative. If the discovery occurred in connection with an on-going activity, the person must stop the activity in and around the area of the discovery and take immediate steps to secure and protect the discovery.

7. The Endangered Species Act of 1974 shall be given full consideration in all activities. In particular, wintering habitat of the bald eagle shall be preserved.

8. The State shall ensure that recognized standards and proper uses are achieved on the lands covered by this Memorandum of Agreement. Land use planning and administration of the Federal Estate shall conform to all applicable Federal laws, regulations, and Executive Orders. Following is a list of some of the more important of these:

- a. Executive Order 11990, Protection of Wetlands.
- b. Executive Order 11988, Floodplain Management.
- c. Safe Drinking Water Act of 1974, (Public Law 93-523, U.S.C. 300, 88 Stat.1660).
- d. Federal Land Policy and Management Act of 1976, (Public Law 94-579, 43 U.S.C.1701).
- e. Executive Orders 11664 and 11989 for Off-Road Use.
- f. National Trails System Act, (Public Law 95-43, 16 U.S.C. 1241 Et seq.).
- g. Fish and Wildlife Coordination Act, (Public Law 85-624, 16 U.S.C., 661, 662).
- h. Antiquities Act of 1906, (34 Stat. 225, 16 U.S.C., 431).
- i. National Historic Preservation Act of 1966 (NHPA), (Public Law 89-665, 80 Stat. 915, 16 U.S.C. 470) as amended by Public Laws 91-243, 93-54, 94-422, 94-458, and 96-515.
- j. Archaeological Resources Protection Act of 1979, (Public Law 95-95, 93 Stat. 721).
- k. National Environmental Policy Act, (Public Law 91-190, 83 Stat. 852).
- l. Endangered Species Act, (Public Law 93-205, 16 U.S.C. 1531 et seq.).
- m. Executive Order 12088, Federal compliance with Pollution Control Standards.
- n. The Clean Air Act, (Public Law 88-206, as amended, 42 U.S.C., 7401 et seq.).
- o. Clean Water Act of 1978, (Public Law 95-217, 33 U.S.C., 1288 et seq.).
- p. Resource Conservation and Recovery Act (RCRA), (Public Law 94-580).
- q. Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund), Public Law 96-510.

- r. 43 Code of Federal Regulation, Part 420 (off-road vehicle use on Bureau of Reclamation lands).
- s. 36 Code of Federal Regulation, Part 800, Protection of Historical and Cultural Properties.
- t. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended (7 U.S.C. P.L. 100-460, 100-464, to 100-526 and 100-532).
- u. Rehabilitation Act of 1973, Section 504, as amended (29 U.S.C. 700, et seq., P.L. 93-516 and P.L. 95-602).
- v. Architectural Barriers Act of 1968, as amended (ABA) (42 U.S.C. 4151-4157, P.L. 90-480).
- w. Uniform Federal Accessibility Standards (UFAS) (49 CFR 31528), August 7, 1984.
- x. Native American Protection and Repatriation Act P. L. 101-601 November 16, 1990
- y. Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712).
- z. Executive Order 13112, Invasive Species,

EXHIBIT C

EQUAL OPPORTUNITY REQUIREMENTS

During the performance of this contract, the State agrees as follows:

a) The State shall not discriminate against any employee or applicant for employment because of race, color, age, religion, sex, or national origin. The State shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, age, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The State agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the United States setting forth the provisions of this Equal Opportunity clause.

b) The State shall, in all solicitations or advertisements for employees placed by or in behalf of the State, state that all qualified applicants shall receive consideration for employment without regard to race, color, age, religion, sex, or national origin.

c) The State shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the United States, advising the labor union or workers representative of the States commitments under this Equal Opportunity clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d) The State shall comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

e) The State shall furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant, thereto, and shall permit access to its books, records, and accounts by the United States and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

f) In the event of the States noncompliance with the Equal Opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, by the United States and the State may be declared ineligible for further Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rules, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

g) The State shall include the provisions of paragraphs a) through g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of said amended Executive Order, so that such provisions shall be binding upon each subcontractor or vendor. The State shall take such action with respect to any subcontract or purchase order the United States may direct as a means of enforcing such provisions, including sanctions for noncompliance: provided, however, that in the event the State becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the United States, the State may request the United States to enter into such litigation to protect the interests of the United States.

CERTIFICATION OF NONSEGREGATED FACILITIES

The term segregated facilities means: any waiting rooms, work areas, restrooms and washrooms, restaurants or eating areas, time clocks, locker rooms, storage areas, dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habitat, local custom, or otherwise. The State certifies that it does not maintain or provide for its employees are segregated facilities are maintained. The State agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. The State agrees that (except where it has obtained identical certification from proposed subcontractors for specific time periods) it shall obtain identical certification from proposed subcontractors prior to the award of subcontractors exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it shall retain such certification in its files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

EXHIBIT D

TITLE VI, CIVIL RIGHTS ACT OF 1964

a) The State agrees that it shall comply with Title VI of the Civil Rights Act of July 2, 1964, (78 Stat. 241), and all requirements imposed by or pursuant to that title, to the end that, in accordance with Title VI of that Act and the Regulation, no person in the United States shall, on the grounds of race, color, sex, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the State receives financial assistance from the United States and hereby gives assurance that it shall immediately take any measures to effectuate this Agreement.

b) If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the State by the United States, this assurance obligates the State; or in the case of any transfer of such property or structure is used for a purpose involving the provision of similar service or benefits. If any personal property is so provided, this assurance obligates the State for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the State for the period during which the Federal financial assistance is extended to it by the United States.

c) This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts, or other Federal financial assistance extended after the date hereof to the state by the United States, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The State recognizes and agrees that such Federal financial assistance shall be extended in reliance on the representations and agreements made in this assurance, and that the United States shall reserve the right to seek judicial enforcement of this assurance. This assurance is binding on the State, its successors, transferees, and assignees.

EXHIBIT E

NONEXPENDABLE GOVERNMENT PROPERTY REQUIREMENTS

1. Nonexpendable government property is equipment which is complete in itself and does not ordinarily lose its identity or become a component part of another piece of equipment when put into use. Nonexpendable Government property includes the following:

- a. Any single item, having a useful life of 1 year or more, which is acquired at a cost of, or valued at \$5000 or more;
- b. Sensitive items identified in Article 5 below, regardless of acquisition cost;
- c. All office furnishings and furniture.

2. For each item of nonexpendable United States' property, the State is required to maintain an individual item record which shall adequately satisfy the requirements set forth in Article 15 of this MOA. In establishing and maintaining control over United States' property, the State shall include, at the minimum, the following information in their property accounting system:

- a. Contract number
- b. Name of item
- c. Manufacturer's name
- d. Manufacturer's model number
- e. Manufacturer's serial number
- f. Acquisition document reference and date
- g. Guarantee and warranty lapse date
- h. Location
- i. Unit price

3. Accessory and component equipment that is attached to, part of, or acquired for use with a specific item or equipment must be recorded on the record of the basic item. Any accessory or component item that is not attached to, part of, or acquired for use with a specific item of equipment must be recorded separately. Useable accessory or component items that are permanently removed from items of Government property must also be separately recorded.

4. The unit price of each item of government property must be contained in the State's property control system. The State's quantitative inventory record must contain the unit prices. The supplementary records containing this information must be identified and recognized as a part of the unit price of the item (less discount).

5. Firearms, museum property, motor vehicles, heavy equipment, and laptop computers are sensitive items of nonexpendable property which shall be included in the State's property accountability system, even if the original acquisition cost is under \$5000.

EXHIBIT F

DEER CREEK MANAGEMENT AREA WILDLIFE HABITAT MANAGEMENT PLAN

I. Introduction

This plan describes the management goals and strategies that will be used to manage wildlife habitat within the Deer Creek Management Area (DCMA) near Deer Creek Reservoir. The plan has been developed by the Utah Division of Wildlife Resources (UDWR) in cooperation with the Bureau of Reclamation (Reclamation). It is consistent with the 1998 Deer Creek Reservoir Resource Management Plan (RMP), and the Memorandum of Agreement (MOA) between Reclamation and UDWR for management of the DCMA. Deer Creek Dam and Reservoir are managed for Reclamation by the Provo River Water Users Association (PRWUA) under Repayment Contract No. Ilr-874 (signed June 27, 1936), as amended. The lands covered by the Deer Creek Wildlife Habitat Management Plan have historically been managed by PRWUA. It is now proposed to have these wildlife management lands managed by the State of Utah, Division of Wildlife Resources (UDWR). Coordination of all aspects of this management will involve Reclamation, PRWUA, and UDWR.

II. Management Area Description

Reclamation lands involved in the DCMA are located in Wasatch County northwest of Wallsburg, Utah, and east of Deer Creek Reservoir. The DCMA consists of approximately 1,400 acres, and lies adjacent to the 10,300 acre Wallsburg Wildlife Management Area (WMA) under UDWR ownership. Additional Reclamation lands adjacent to the DCMA is the area known as McAfee Hill, which lies west of US 189 immediately adjacent to Deer Creek Reservoir near the Wallsburg turn (see Map 1 in Appendix). McAfee Hill is the area between Snow's and Rainbow Bay, which according to the Recreation and Land Management Review for Deer Creek Reservoir compiled by Reclamation in 2003, is to be managed as a natural area with a wildlife migration corridor to the Wallsburg area by the Utah Division of Parks and Recreation.

Elevation ranges from 5,400 to 6,400 feet and aspect is generally to the west. Vegetation consists primarily of sagebrush-steppe and mountain brush communities with no aquatic, riparian, or wetland habitats present. Several wildfires have occurred

throughout the area that have impacted both the DCMA and the Wallsburg WMA. In areas impacted by fire, vegetation consists mostly of grasses and less desirable forbs. Many of the ravines and draws maintain important shrubs, primarily bitterbrush and big sagebrush, which have escaped the destructive fires. These species along with serviceberry provide important forage for mule deer and elk during winter months.

Soils on the DCMA can be grouped into the Gappmyer-Henefer-Wallsburg and Yeates Hollow-Watkins Ridge-Deer Creek Associations. These soils are derived from mixed sedimentary rock parent material and generally are low to moderate in slope. They are also characterized by moderate to high precipitation and provide good plant growth. Texture ranges from upland loam to mountain stony loam.

Precipitation ranges from 15 inches annually at the valley floor to more than 20 inches on the higher areas. Heaviest precipitation occurs during the winter months in the form of snowfall, with late summer thunderstorms providing the next highest amount.

In conjunction with the Wallsburg WMA, the DCMA provides crucial habitat for a variety of wildlife species, most notably big game. Mule deer and elk use the management area during fall, winter, and early spring. UDWR biologists estimate as many as 1,500 mule deer and 400 elk can inhabit the area during winter months. Greater sage grouse have historically inhabited the area as well, including a lek found on the Wallsburg WMA that is currently inactive. Additional wildlife species that inhabit the area include forest grouse, chukar, neotropical migratory birds, cougar, coyote, and a variety of small mammals.

III. Purpose and Need

Reclamation, the agency responsible for construction of the Provo River Project, has jurisdiction over the lands within the DCMA. These lands were acquired as part of the reservoir management area of Deer Creek Reservoir. As part of the Provo River Project, Reclamation will transfer surface management responsibility of the Deer Creek lands to UDWR. As UDWR implements the management strategies outlined in the plan, carrying capacity for wildlife is expected to increase which will serve as partial mitigation for habitat lost due to features of the Provo River Project.

Management of these lands will be incorporated into the management of the adjacent Wallsburg WMA under UDWR ownership. This important winter range will then be under one managing

agency, and will allow for better management control. The transfer of surface management authority to UDWR ensures that the DCMA will be managed in harmony with the goals of the Wallsburg WMA. Implementation of habitat management strategies presented in this plan will greatly increase the overall productivity of both wildlife populations and their habitats.

IV. Management Goals and Strategies

As previously stated, the DCMA provides crucial habitat, primarily winter range, for big game populations. The overriding goal of the DCMA is to protect and enhance existing habitat currently functioning as big game winter range. The strategies discussed below will assist Reclamation in achieving mitigation objectives, and assist UDWR in achieving the population and habitat management goals for mule deer and elk in the Heber Valley. These strategies are consistent with both area wide and area specific management directives presented in the Deer Creek Resource Management Plan (July 1998) that is used as the guiding document for the management of Deer Creek Reservoir and the surrounding project lands.

Strategy 1: Wildfire prevention and suppression

Fire prevention and suppression are necessary to ensure the DCMA continues to provide the necessary characteristics of big game winter range, most important of which are the shrub communities that provide winter forage for wildlife. The key winter forage on this range, mountain big sagebrush, is fire intolerant. Wildfire would greatly impact the DCMA, and jeopardize its usefulness as big game winter range.

Fire prevention and suppression activities will be coordinated through the Utah Division of Forestry, Fire and State Lands (DFFSL) and local municipalities. Wildfires will be aggressively battled due to the close proximity of several municipalities, and to protect the browse communities on crucial big game winter ranges. Open fires are allowed, but cannot be unattended, and adequate provisions must be taken to prevent the spread of fire. State, federal, and local fire restrictions will apply to DCMA lands when deemed necessary by fire officials and UDWR. The use of fireworks and explosives are prohibited.

As needed, green strips will be used to reduce the threat and spread of wildfire. Greenstrips are long, narrow bands of fire resistant vegetation that can act as barriers to the start and spread of wildfires. Strategically located, greenstrips can greatly increase the effectiveness of fire crews in fire suppression efforts. In the fall of 2006, UDWR, in cooperation with Reclamation, seeded an approximately 3-mile long greenstrip on the western boundary of the DCMA adjacent to US-189. The placement of this greenstrip was an initial step taken to protect the DCMA and the adjacent Wallsburg WMA from catastrophic wildfire. As needed, and when deemed appropriate by UDWR and Reclamation, additional greenstrips will be placed within or around the DCMA to continue the effort to suppress and prevent the spread of wildfire. One logical area where this could be accomplished would be as future highway projects are completed along US 189 UDWR will coordinate with the Utah Department of Transportation (UDOT) to reseed disturbed areas within the highway right-of-way with greenstrip vegetation that will act as an initial point of fire suppression.

Livestock grazing, when done appropriately, can also be used to minimize the threat of wildfire on the DCMA. Grazing can reduce heavy fuel loads and keep desirable vegetation in good vigor and health. Specific grazing strategies, including stocking rates and seasons, are discussed below.

In the event that DCMA lands are impacted by wildfire, UDWR will prepare fire rehabilitation plans, in coordination with

Reclamation, to restore affected areas. Both agencies will coordinate fire rehabilitation efforts, and specific fire rehabilitation activities will be dependent upon funding availability.

Strategy 2: Grazing management

Livestock grazing will be used as a vegetation manipulation tool to achieve desired wildlife habitat conditions. Grazing by domestic livestock will be used to suppress and/or maintain the grass density in favor of browse species, and to reduce heavy fuel loads in the understory to minimize wildfire danger.

The eastern boundary of the DCMA abuts the western boundary of the Wallsburg WMA. This common boundary is unfenced and past grazing management by Reclamation and UDWR independently has resulted in trespass problems between land parcels. To rectify this problem, grazing on the DCMA will be managed by UDWR as part of the grazing plan for the adjacent Wallsburg WMA. This will allow UDWR to permit grazing on both the DCMA and Wallsburg WMA to a single permittee which will prevent the need of constructing a boundary fence between the DCMA and Wallsburg WMA.

The Wallsburg WMA currently has 3 pastures, and DCMA lands will be part of the Wallsburg West pasture (see Map 2 in the Appendix). The ridges and slopes within this pasture are generally south and west facing and provide much of the crucial winter range for big game. As a result, using livestock grazing to improve the shrub communities within the Wallsburg West pasture will be the highest priority. The Wallsburg West Pasture will be grazed 2 consecutive years followed by one year of rest.

The Big Hollow and Wallsburg East pastures will be grazed one in 3 years which will correspond to the rest year for the Wallsburg West pasture. The total AUM's for any given grazing season will be 300. As a general rule, grazing will be done under a high intensity, short duration system in the spring typically in May and June. The table below summarizes the grazing plan including total AUM's and the rotation schedule that will be followed:

Pasture	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Big Hollow	100	Rest	Rest	100	Rest	Rest
Wallsburg East	200	Rest	Rest	200	Rest	Rest
Wallsburg West	Rest	300	300	Rest	300	300

UDWR will work with the permittee to reach specific grazing objectives including watering areas, on and off dates, etc. UDWR reserves the right to increase, reduce, or eliminate grazing

altogether if wildlife use or the need to implement restoration activities to reach big game winter range objectives warrants such a change.

Strategy 3: Control of noxious weeds and invasive species

The control of noxious weeds and other undesirable species is necessary to maintain the DCMA in a desirable condition to fulfill its primary goal as wildlife habitat. Several species of noxious weeds are either found on, or are in close proximity to the DCMA including squarrose knapweed (*Centaurea virgata*), Dalmation toadflax (*Linaria genistifolia*), Houndstongue (*Cynoglossum officinale*), and several species of thistle. The presence and spread of noxious weeds typically occurs with disturbance (wildfires, development, unauthorized OHV activity, etc.) so minimizing disturbance on the DCMA will be a main emphasis in managing noxious weeds.

Because eradication of noxious weeds is unrealistic, UDWR will focus on containing current and known populations of weed infestations and preventing future infestations from starting. In order to accomplish this, an integrated weed management plan will be implemented. This includes the use of many available tools including chemical and biological controls, adequate and proper vegetation rehabilitation following disturbance, and implementation of a public use and motorized vehicle travel plan which is discussed below. The primary means of controlling noxious weeds will be implementing an annual spraying program. This will include inventorying the DCMA to map current infestations, and then targeting these areas with chemical treatments as needed to keep weed populations from increasing. As new infestations are found, these will be targeted immediately to stop further spread. The use of biological agents such as weed specific insects may also be used as needed to assist in controlling weed populations when these agents are available and approved for use. UDWR's seasonal weed crew will implement the integrated weed management plan. Funding for these activities will be provided by UDWR, although UDWR can request assistance from other sources, including Reclamation, as needed.

In addition to the integrated weed management plan, UDWR will continue to be a partner in the Wasatch County Coordinated Weed Management Area (CWMA) which is a collaborative effort involving local citizens, Wasatch County, and state and federal entities. The Wasatch County CWMA meets regularly to coordinate weed control activities which includes planning weed spray days, providing technical assistance to other partners, writing grants and funding weed control programs, and providing education and outreach to county residents.

Strategy 4: Implement a travel and public use plan to enhance wildlife habitat

Public access, especially motorized forms, will be limited to authorized roads and trails. Motorized and horseback access will be entirely via the Wallsburg WMA according to the access points already established by UDWR for that property. To protect crucial winter habitat, and to minimize disturbance to wintering animals, motorized travel on the DCMA will be seasonally closed from December 1 -April 30 per the current UDWR access plan for the adjacent Wallsburg WMA. Foot travel will be allowed adjacent to Highway 189 year round.

Most of the motorized access on the DCMA occurs in two major areas: 1) Via the Wallsburg WMA, and 2) through unlocked gates and holes in the ROW fence along US 189. Unauthorized travel that results in the creation of new roads and trails will need to be monitored annually. UDWR will annually inspect the ROW fence to ensure gates remain locked and the fence is properly maintained to prevent unauthorized motorized access to the DCMA.

Where UDOT maintains jurisdiction over the ROW fence, UDWR will coordinate fence maintenance activities with them. UDWR will close and rehabilitate all unauthorized roads and trails, both those currently in existence as well as those created in the future. Unauthorized roads will be ripped and reseeded.

Signage will be placed regularly along the west boundary of the DCMA (adjacent to Highway 189) as well as other areas that are accessible to the public. Signage will identify the DCMA boundary and advise the public of the travel plan and any access restrictions.

Strategy 5: Conduct annual maintenance

UDWR conducts semi-annual inspections on all WMA's to assess conditions of the property and determine maintenance needs. This program provides UDWR personnel the opportunity to identify activities that are occurring on their lands and implement management actions that deter unauthorized uses. The DCMA will be inspected as part of the Wallsburg WMA which is conducted in the spring and fall by UDWR personnel from the Central Region office in Springville.

Annual maintenance is needed to ensure that property boundaries are protected and that activities occurring on DCMA lands do not

deleteriously affect habitat conditions on these lands. In addition to noxious weed control already discussed above, fencing, signage, and road maintenance will likely be the primary maintenance needs. UDWR will oversee implementing all maintenance needs on the DCMA. Funding for maintenance activities will be a provided by UDWR, although UDWRD can request assistance from other sources, including Reclamation, as needed.

V. Coordination and Monitoring

Representatives from Reclamation, UDWR, and Provo River Water Users Association (PRWUA) will meet on an annual basis to review this plan. This annual review will allow the partners to determine the effectiveness of the management plan, review the past years activities, and coordinate future management actions. The point of contact for each coordinating entity is included below:

Reclamation

Supervisor, Lands Group

Provo Area Office
302 East 1860 South
Provo, UT 84601
(801)379-1000

UDWR

Habitat Manager, Central Region Office

1115 North Main Street
Springville, UT 84663
(801)491-5678

PRWUA

Operations and Maintenance Manager

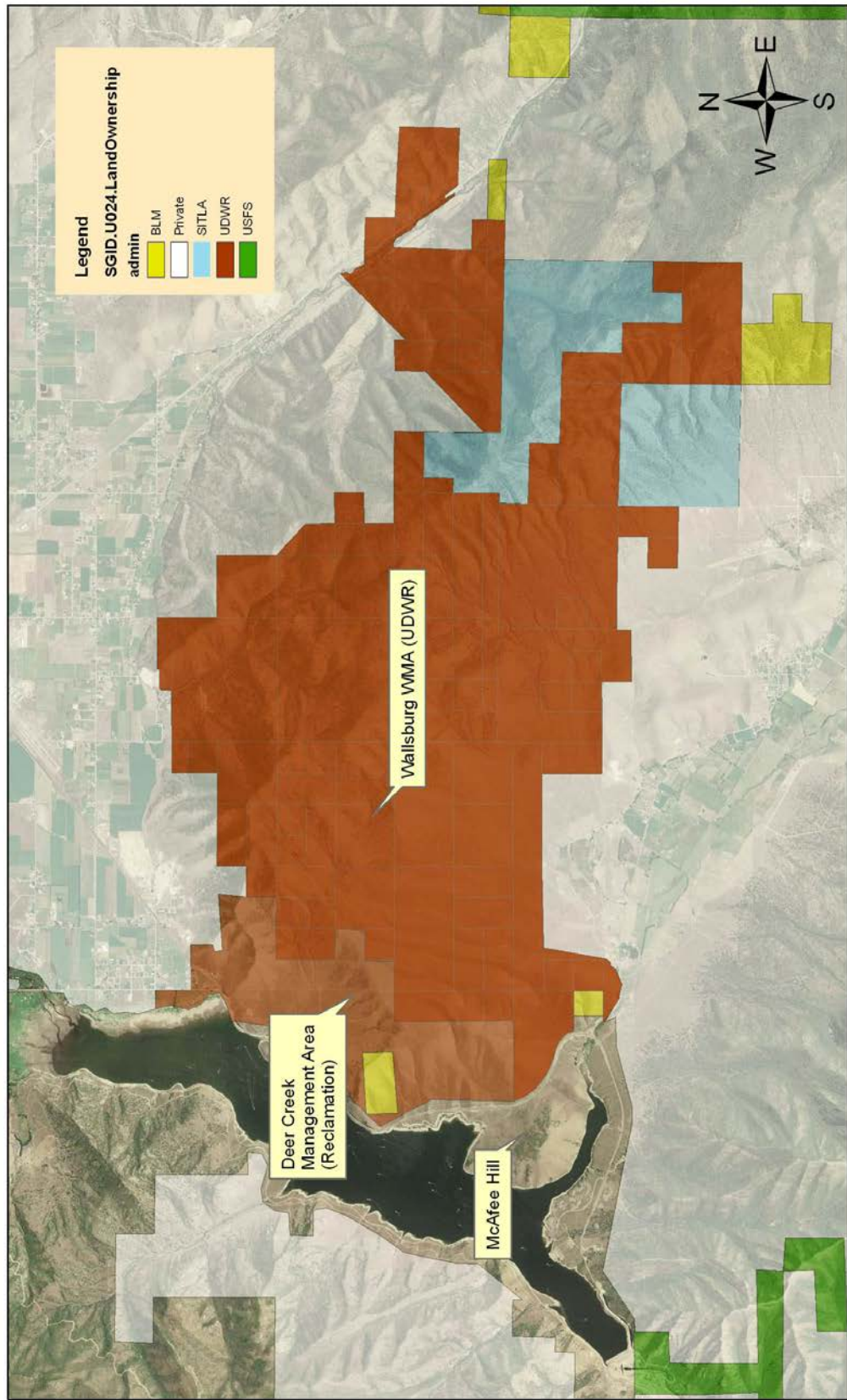
285 West 1100 North
Pleasant Grove, UT 84062
(801)796-8770

VI. Appendix

- a. Figure 1 - Land Ownership
- b. Figure 2 - Livestock Grazing Pastures

Appendix

Deer Creek Management Area and Surrounding Land Ownership



Utah Division of Wildlife Resources makes no warranty with respect to the accuracy, completeness or usefulness of the data. Utah Division of Wildlife Resources assumes no liability for direct, indirect, special, or consequential damages resulting from the use or misuse of this data or any of the information contained herein.



Figure 1 - Ownership of lands surrounding DCMA

Wallsburg WMA and Deer Creek Management Area Grazing Pastures

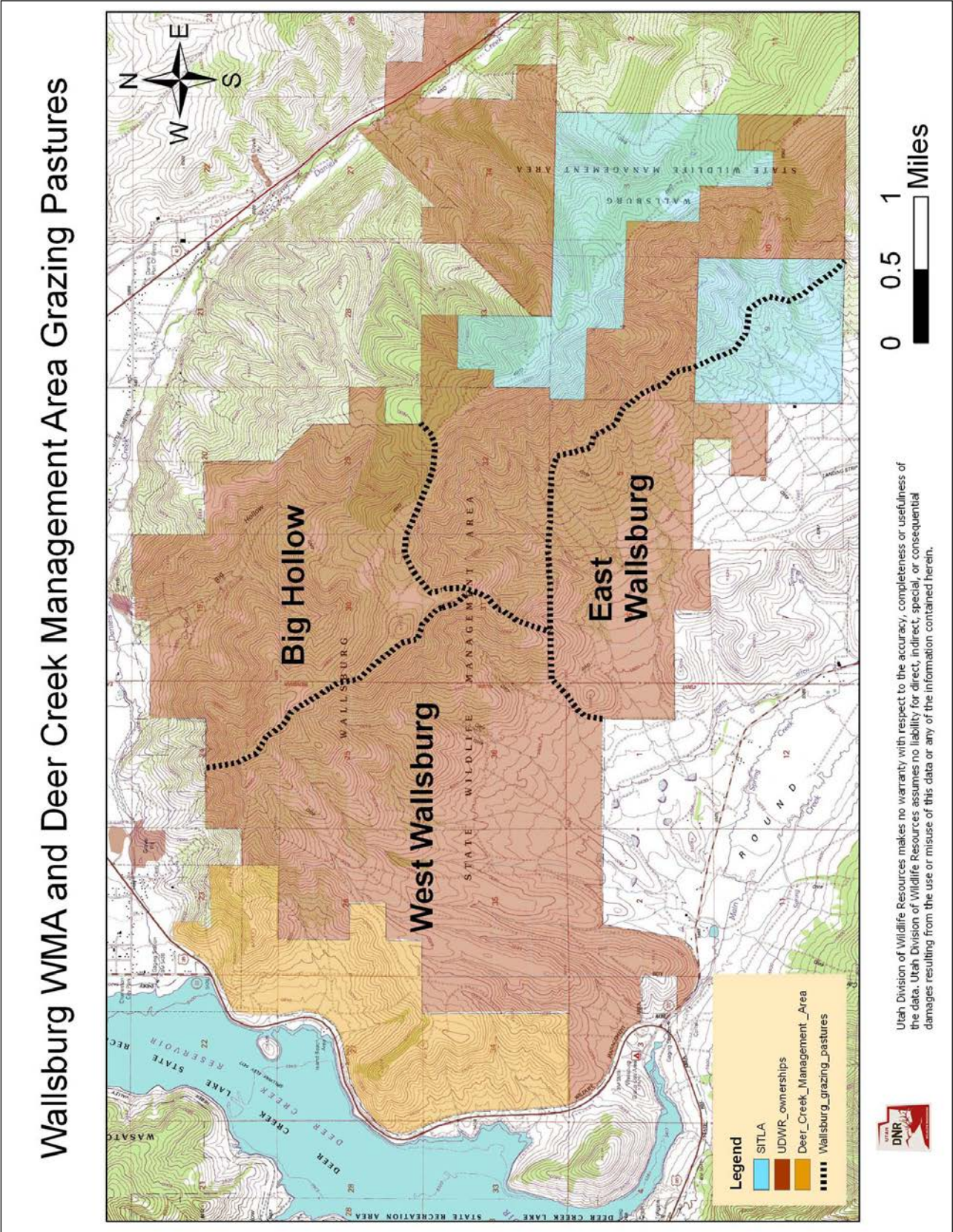


Figure 2 - Grazing pasture system on Wallsburg

Executive Summary
DRAFT
East Canyon Wildlife Management Area
Habitat Management Plan
July 2016

Primary Purpose of WMA:

The primary purpose of the WMA is to preserve and protect big game winter range and wintering wildlife, and to reduce deer and elk depredation on surrounding private property. Additional purposes include providing recreational opportunities which are consistent with, and support, these wildlife values.

Wildlife Species:

Primary wildlife species include: mule deer, elk, moose, Rio Grande turkey, upland game (grouse, chukar, and dove), neotropical migrant birds, small mammals, and raptors.

Habitat Conditions and Problems:

Forage conditions on the property range from poor to good. The south and south-western facing lower elevation slopes have lost many of the perennial grass and browse species important for wintering deer and elk. These species have been lost due to wildfires, drought, through the introduction and expansion of invasive weeds, and past grazing practices. The expansion of invasive weeds including Dalmatian toadflax (*Linaria dalmatica*), bulbous bluegrass (*Poa bulbosa*), yellow star-thistle (*Centaurea solstitialis*), and jointed goatgrass (*Aegilops cylindrica*) are a problem on the property. In addition, human development on crucial big game winter ranges in the herd unit has led to a decrease in available winter range resulting in a higher concentration of wildlife onto the WMA.

There is high public use of the property, especially by equestrian users, due to the proximity to the Wasatch Front. When the property is open to public use, some vandalism and litter problems occur. Concerns with trash and noise from target shooting near the parking lot have arisen from both neighboring landowners and the public using the WMA. Some public trespass occurs during the winter closure periods, likely by shed antler hunters.

Access Plan:

The intent of the WMA Access plan is to continue the annual winter access closure period to all public uses from January 1 – second Saturday of April. In addition, the WMA is closed year round to motorized vehicle access to protect wintering wildlife and wildlife habitats. In addition, the parking lot/trailhead area will be maintained to accommodate visitor day use, and to continue to provide access to the adjacent Walk-in-Access properties.

Maintenance Activities:

Typical WMA maintenance activities include: fence repair; parking lot maintenance; road grading; sign replacement; trash pick-up; and invasive and noxious weed control. These maintenance activities will be conducted on an “as needed” basis.

Habitat Improvements:

- Develop a weed spraying program targeting specifically Dalmatian toadflax and goat grass on the southwest side of the property.
- Use grazing as a management tool to create/enhance wildlife habitat.
- Install fire breaks in a large sagebrush area east of the WMA to help manage/contain wildfires and protect important sage grouse and wildlife habitat.
- Acquire water rights with the basin, if any become available, with the intent to move them to the WMA.
- Consider the movement of one range trend transect to a more suitable location.

**East Canyon
Wildlife Management Area**

DRAFT

-Habitat Management Plan-

July 2016

Prepared by:

Utah Division of Wildlife Resources

**Northern Region
515 East 5300 South
Ogden, Utah 84405**



East Canyon Wildlife Management Area Habitat Management Plan

July 2016
DRAFT

I. Background Information

Location

The East Canyon Wildlife Management Area (“ECWMA”) encompasses major portions of the Redrock Canyon drainage and a small part of the East Canyon Creek drainage. The ECWMA is within the Weber River drainage, and is located northwest of East Canyon Reservoir. The 3498.42 acre property includes 155.38 acres within Summit County and 3343.05 acres in Morgan County. The property is located in Township 3 North, Range 3 East Sections 22, 27, 32, 33, 34, and Township 2 North, Range 3 East Sections 4 and 5, SLB&M. Maps of ECWMA including its general location, and a property boundary map with surrounding land ownership is provided in Appendix A. A detailed legal descriptions is provided in Appendix B. The ECWMA property can also be found on the East Canyon Reservoir and Porterville 7 ½ minute quadrangle maps.

Encumbrances

Minerals:

Mineral right information is available at the Utah Division of Wildlife Resources UDWR Salt Lake Office. In summary, the mineral rights on the property have been retained by the grantors. Detailed information about these rights can also be found in the deeds or purchase contracts.

Water Rights:

There are no water rights filed by either UDWR or other entities on the ECWMA property.

When DWR purchased the property, there were several springs and ponds on the WMA. One of the springs had been developed with a pipeline and stockwatering trough. A review of the State Engineer's records revealed that no one had filed on the springs or ponds on the property. At this time the basin is closed to new appropriations and therefore cannot be filed upon. DWR is trying to find water rights to purchase so that a change application can be filed to cover these water sources.

Easements/ROWS/MOUs: A full summary of all easements, rights-of-way and memorandums of understanding can be found in Appendix B and the Division’s Salt Lake Office. The following easements currently have the greatest impact on land management activities:

- The Mountain Fuel Supply Company has a 50' wide right of way easement across Section 4 T2N, R3E, SLB&M. to lay, maintain, operate, repair, inspect,

protect, remove and replace gas transmission and distribution facilities.

- The City of Bountiful has a 50' wide easement across Sections 4 and 5 of T2N, R3E, SLB&M. (through four different easement deeds) for the purpose of installation and maintenance of an electric distribution line. The easements are all located along the north side of East Canyon Creek and run parallel to State Road 66.
- In 1989, the Kern River Gas Transmission Company acquired a 75' wide exclusive right-of-way through three easement deeds that together included parts of Section 5, and Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13 of Section 4, T2N, R3E, SLB&M. The purpose of these easements is for the construction, operation and maintenance of a natural gas transmission line.
- In 1989, the Kern River Gas Transmission Company acquired an additional 75 ft. wide exclusive easement through Lots 1, 2, 3, 4, 5, 6, 7, 10, 11, 12 and 13 of Section 4, T2N, R3E, SLB&M.
- In 2010, the Kern River Gas Transmission Company obtained a 30 year, 50' wide easement right-of-way located in Sections 4 and 5, T2N, R3E, SLB&M. The purpose of the easement is to construct and maintain a buried, natural gas pipeline.

Grazing:

Historically, the Redrock Canyon area was grazed with sheep, but since creation of the ECWMA, grazing practices have been converted to a cattle lease. Portions of the WMA are currently being grazed for the purpose of reducing grasses and weeds to assist the growth of shrub abundance on the property. Cattle grazing will be used as a management tool to achieve desired habitat conditions. This unit has typically been grazed in the spring with 50 AUM's on a 3-year rotational basis: 2 years grazing followed by 1 year of rest. Stocking rates and season of use will be adjusted as needed to obtain desired habitat conditions. Grazing will be administered through a high intensity/short duration strategy with a general grazing season of May through June. Regional personnel will evaluate the property annually to determine grazing needs on the unit. Any grazing activities use the division's grazing process as outlined in the UDWR Administrative Land Rule (R657-28).

Regional personnel will evaluate the property annually to determine grazing need on the unit. Livestock permittees will be chosen and grazing permits awarded through a competitive bid process. If the Division does not receive any bids during the competitive process, regional personnel will contact potential grazers until a willing party is found. Division personnel reserve the right to make changes to stocking rates, season of use, and the grazing schedule as needed. The Division also reserves the right to prescribe graze the unit, as needed, to reach habitat objectives. Prescribed grazing may also result in permits being issued to a grazer outside of the competitive bid process in order to find willing parties.

Land Acquisition History

The majority of the ECWMA property was procured in the mid to late 1980s through land purchases from several different landowners. Many of these land acquisitions used

funds from the U.S. Fish and Wildlife Service, Wildlife and Sportfish Restoration grant (Federal Aid) program: the East Canyon Big Game Winter Range (W-128-L) and Utah Big Game Habitat Acquisition (W-157-L). These PR funds come from a national tax on sporting goods and ammunition, with the money placed into an account which is then divided proportionally among each of the 50 United States, and is based on the land mass of each state and the number of licenses sold.

The most recent addition to the ECWMA was completed through a cooperative mitigation agreement with the Kern River Gas Transmission Company in 2010. The agreement enabled an easement for a natural gas pipeline and also provided for compensatory mitigation to UDWR through the acquisition of approximately 160 acres. A map of the ECWMA parcels and a table detailing each land acquisition’s legal descriptions are documented in Appendix B.

Historic Uses

A detailed history of the property is not known, but it has been identified that the Mortenson family historically used the land to graze sheep. Some sections of the land now within the ECWMA were sold by the Mortenson’s to the Goldfleck Corporation who leased out the property for sheep grazing. Subsequently, in the late 1980s and early 1990s, both the Mortenson family and the Goldfleck Corporation sold these ECWMA parcels to the Division.

Purpose of Division Ownership

The ECWMA land was obtained for the purpose of preserving and protecting big game winter range and wintering wildlife, and to reduce deer and elk depredation on surrounding private properties. With roughly 75% of mule deer habitat in Wildlife Management Unit 5 (East Canyon) being privately owned (See table 1 below), the ECWMA provides habitat for wildlife and protects historical crucial big game winter range. Currently, most of the properties around the ECWMA are managed for livestock grazing. However, these areas could be developed into residential or recreational properties, which could greatly affect the Unit's wildlife and habitat values.

Table 1: Unit 5 Mule Deer Habitat						
Ownership	Yearlong Range		Summer Range		Winter Range	
	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	561	14%	45802	19%	18626	21%
Bureau of Land Management	0	0%	173	<1%	314	<1%
Utah State Institutional Trust Lands	0	0%	754	<1%	59	<1%
Private	3516	86%	188243	79%	65865	75%
Department of Defense	0	0%	193	0%	773	<1%
Utah State Parks	0	0%	0	0%	840	<1%
Utah Division of Wildlife Resources	0	0%	2144	<1%	1354	1%
Total	4077	100%	237461	100%	87750	100%

The ECWMA also provides recreational opportunities that are consistent with and support the property's wildlife values. Primary recreation opportunities are upland game and big game hunting in the fall, and turkey hunting and shed antler gathering in the spring. Horseback riding, hiking, and camping are also popular uses of the ECWMA.

Roughly 95% of the ECWMA was acquired through federal grants from the U.S. Fish and Wildlife Services using monies from the Pittman-Robertson fund. The grant proposals, East Canyon Big Game Winter Range (W-128-L) and Utah Big Game Habitat Acquisition (W-157-L), described the land would be used to ensure that big game populations be managed at current levels during future years of urban expansion and changing land uses. The lands would also serve as open areas for public enjoyment and use, except when that access conflicts with the prime use of the area as winter range by wildlife.

Key Wildlife Species Occurring on the WMA

The East Canyon WMA provides crucial winter habitat for mule deer, elk and yearlong habitat for moose. This property is one of the only large protected crucial winter ranges remaining in East Canyon area. In a "normal" winter, the WMA may support approximately 200-600 deer. Within the general area, up to 20 moose can be found throughout the year.

Upland game species include: cottontail rabbit (*Sylvilagus nuttalli*); blue grouse (Dusky) (*Dendragapus obscurus*); ruffed grouse (*Bonasa umbellus*); Rio Grande turkey (*Meleagris gallopavo intermedia*); chukar (*Alectoris chukar*); and mourning dove (*Zenaida macroura*).

The ECWMA has not been formally surveyed for the presence of state sensitive terrestrial species nor for Species of Greatest Conservation Need (SGCN; see the 2015-2025 Utah Wildlife Action Plan). However, there have been sightings of sensitive species in the general area of the WMA. For more information, see the Sensitive Species section of this plan.

No aquatic wildlife surveys have been completed on the ECWMA. The presence of aquatic species on the property is possible, but except for a tiger salamander (*Ambystoma tigrinum*) found in one of the livestock troughs, no other species has been documented. Redrock Canyon Creek is intermittent with minimal flows at the higher reaches which come mostly from springs and seeps, so there likely is no fish component to the stream. The livestock trough, spring, and two ponds on the property may support other amphibians, such as the northern leopard frog, which has been found within the general area. Boreal toad may potentially be on the WMA as it is within the current range for the species.

Public Recreation Opportunities and Restrictions

The major public recreation opportunities on the property primarily include hunting for upland game and big game species. Additional uses also include horseback riding,

camping and sight-seeing. The ECWMA also provides access to two UDWR Walk-In-Access sites on private lands located adjacent to the WMA.

The ECWMA, on occasion, can experience high public use due to its close proximity to the Wasatch Front. In addition, privatization and development of lands throughout Morgan Valley and the East Canyon creek drainage has helped concentrate public users on the ECWMA. Morgan County has the most private lands of any county within the state of Utah, which results in limited access to public recreation opportunities on state or federal lands. As one of the only easily accessible publically owned properties in Morgan County, this contributes to the heavy uses on the WMA.

In the past, this heavy use has caused disturbances to wintering wildlife which contributed to big game animals moving onto adjacent agricultural and residential lands, consequently causing depredation problems. The winter closure period on the ECWMA was established to reduce or eliminate these disturbances; however some limited trespass still occurs during the winter and spring months by recreation seekers and shed antler gathers. Additional human caused issues include littering and noise. Trash accumulates at the parking areas from people camping and target shooting on the property. Areas away from the parking area and trails however remain primarily litter free. Noise from target shooting on the WMA has been a concern voiced by neighboring landowners. The intensity of these problems has been reduced following the construction of the new large parking lot, and the effort to keep vehicles limited to this area outside the big game hunting seasons.

Activities on the WMA will be considered according to the UDWR Administrative Land Rule (R657-28). In general, activities that do not promote or protect the goals and objectives of the unit will be prohibited, specifically those activities that disturb or harass wildlife, or degrade important habitats.

The ECWMA is closed to all public access during the winter months (Jan. 1 – to the second Saturday of April) to protect wintering wildlife and wildlife habitats. These dates may be adjusted if necessary for biological or management reasons. The property is also closed year long to all public motorized vehicle use. During the upland game and big game hunts, the outer gate adjacent to Hwy 66 will be opened to allow vehicles to drive the 1/3 mile into the WMA to the second interior gate and upper parking lot, where people can park to access the main portion of the WMA.

Camping is permitted on this WMA for 14 consecutive days. However, if resource damage occurs, the camping limit may be restricted and/or the area may be closed to camping.

Conservation Partners Involved in Acquisition

Roughly 95% of the ECWMA was acquired through federal grants from the U.S. Fish and Wildlife Services, Wildlife and Sportfish Restoration grant program monies (Federal Aid, Pittman-Robertson). The grant proposals, East Canyon Big Game Winter Range (W-128-L) and Utah Big Game Habitat Acquisition (W-157-L), described that the land would be used to ensure that big game populations would be managed at current levels

during future years of urban expansion and changing land uses. The lands would also serve as open areas for public enjoyment and use, except when that access conflicts with the prime use of the area as winter range by wildlife. These PR funds come from a national tax on sporting goods and ammunition, with the money placed into an account which is then divided proportionally among each of the 50 United States, and is based on the land mass of each state and the number of licenses sold.

The most recent addition to the ECWMA was completed through a cooperative mitigation agreement with the Kern River Gas Transmission Company in 2010. The agreement enabled an easement for a natural gas pipeline, and also provided for compensatory mitigation/acquisition of approximately 160 acres of land by the Division.

II. Property Inventory

Existing Capital Improvements

Roads: Public vehicle access on the ECWMA is limited to a 0.3 mile route (Redrock Canyon road) from the parking lot at State Road 66, to the upper parking area. This road has been crowned in the past to facilitate water runoff. This road is only open to motorized access during the fall hunting seasons. However, there are approximately 3.5 miles of additional dirt road or two-track trails that are available for administrative vehicle use and public non-motorized use, from the second Saturday in April to Dec. 31. In 2010, the Kern River Gas Transmission Company also reconstructed an existing administrative road located approximately 1.5 miles east of the main ECWMA entrance road. (Appendix A).

Parking Lots: To help maintain public access, a 30,000 square foot gravel parking lot is located at the main entrance off of SR-66. This parking lot was constructed by the Kern River Gas Transmission Company as mitigation to UDWR for their use of the main WMA entrance road for the construction of and staging for, the Kern River Apex Expansion natural gas pipeline. A second, upper parking area has minimal maintenance and is located at the second gate, approximately 0.3 miles up the Redrock Canyon Road.

Several unofficial vehicle pull-off areas are located along Hwy. 66 which provide additional access to other portions of the WMA.

Fences and Gates:

- As part of the Cooperative Mitigation Agreement with the Kern River Apex Expansion project (2010), a buck and pole fence was installed around the lower parking lot to prevent unauthorized vehicular travel. There are also metal gates installed in this lower parking lot to help manage vehicle use on the WMA, and a horse “walk-through” was also installed to facilitate equestrian uses.
- There are two metal gates located at the upper parking lot to prevent public vehicle access up Redrock Canyon. In addition, approximately 1.5 miles east

of the main ECWMA entrance road, there is a metal gate and fence to prevent vehicle use of an administrative access road.

- There is a short drift fence across the bottom of Redrock Canyon about halfway between the parking lot and trough to facilitate grazing.
- Except for the southern boundary fence and portions of the west and east boundary areas, the majority of the property boundary is not fenced.

Signs:

At the entrance to the Redrock Canyon parking area, there is a large sign identifying the property as a wildlife management area. Small signs indicating UDWR ownership and the WMA open dates are posted along the southern perimeter of the ECWMA, adjacent to Hwy. 66. In addition, there are also signs posted on metal fence posts at each section corner identifying the WMA boundary.

Facilities:

A wooden kiosk is located adjacent to the lower parking lot and is available for the posting of hunting regulations, along with educational and informational items.

Water rights:

There are no water rights on the ECWMA held by the Division or by any other entity. The East Canyon drainage is currently closed to new water right appropriations.

Water developments:

There are two spring fed ponds that are located up Redrock Canyon in sections 33 and 22. Both ponds are unmaintained, but are still accessible for livestock and wildlife usage. Northwest of the pond in Section 22 (lot 14), there is also a livestock trough.

Wood products:

There are no wood products available on the Property.

Cultural Resources

The East Canyon WMA has had four inventories across the WMA associated with various projects.

- U-85-NJ-060; Archaeological Survey of Coalville, Northland Anthropological Research. No sites found.
- U-89-BC-0481; A CRI of The Proposed WyCal Pipeline Through The State Of Utah. BYU - Office of Public Archaeology. No sites found.
- U09A10245; Kern Apex Pipeline. Alpine Archaeological Consultants. No sites found.
- U10UQ0509; East Canyon WMA Temporary Access Road. DWR - Utah Division of Wildlife Resources. No sites found.

Sensitive Species

Although the ECWMA has not been formally surveyed for the presence of Utah State Sensitive species, there are six wildlife species considered as either a Species of Greatest Conservation Need (SGCN from the 2015 Draft WAP; Section III of this plan) or a Utah

State Sensitive Species (Utah Sensitive Species list, 2007). Some species are found on both lists. These species have been either observed on the WMA, or would be expected to occur given habitats types present on the WMA: Golden Eagle, Bald Eagle (Both), Townsend's Big-eared Bat (Both), Fringed Myotis (Both), Little Brown Myotis, and possibly Flammulated Owls in the higher elevation areas where there is some forested habitat (aspen, pine, fir).

According to the Division's Natural Heritage Program there are recent records of occurrence of sensitive species within a 1/2 –1 mile radius of the ECWMA which include: northern flying squirrel (*Glaucomys sabrinus*). Within a 2 mile radius there are also records of greater sage-grouse (*Centrocercus urophasianus*), northern leopard frog (*Rana pipiens*), northern river otter (*Lontra canadensis*), Bonneville cutthroat trout (*Oncorhynchus clarki utah*), and western toad (*Anaxyrus boreas*). There are no documented sensitive plant species in the vicinity of the property.

Important Fish and Wildlife Habitats

Vegetation on the ECWMA is characteristic of mountain brush communities in northern Utah. Upland habitats range from lower elevation (below 6000 ft.) grass dominated shrub associations, primarily bunchgrass/cheatgrass with a sagebrush/bitterbrush component, to higher elevation (mostly above 7500 ft.) mixed conifer/maple stands. Important intermediate vegetative types include oak/maple mixes, as well as curl-leaf mahogany occurring mostly on xeric ridge-top sites. The limited riparian vegetation associated with canyon bottoms and springs/seeps is dominated by cottonwood, willow and wild rose. For more information about plant species on the property, refer to the Utah Big Game Range Trend Studies (<http://wildlife.utah.gov/range>).

These habitats are important to big game species like mule deer, elk, and moose which traditionally spend the winter and spring months on the ECWMA before migrating to higher elevation habitats for the summer and early fall. These habitats along the lower elevations of the ECWMA property are regarded as crucial winter range habitat for several wildlife species. With traditional winter ranges continually being lost due to human encroachment, these lower elevations of the property (~ under 7000ft.) are becoming more essential. The loss of winter range habitat is the major limiting factor for mule deer and other wildlife populations in the wildlife management unit. Not only is the quantity of winter range limited, but the quality of the habitat is being reduced due to the loss of critical browse species (sagebrush, bitterbrush, etc...) by conversion of shrub lands to grassland environments, the widespread expansion of invasive weeds and grasses, and the loss of habitat due to human developments.

Located within Redrock Canyon there are two off-channel ponds and an undeveloped spring. All three sites are suitable to provide water for livestock and wildlife. The upper pond located near the head of the canyon roughly covers 225 square feet and is very shallow. Its water capacity is low, but the stable water level is maintained by a perennial spring. Surrounding habitat is reduced to mainly grass species due to its concentrated use by livestock. The lower pond is approximately 1850 square feet in area, and is located midway up the canyon. It is also spring fed and eventually flows into the main stream

channel of the canyon. The pond is fairly shallow, but is entirely covered by duckweed (*Lemnaceae*). The surrounding habitat consists mainly of sparse cottonwood/willow stands with oak stands closer to the slopes.

The undeveloped spring is located on the east slope in the lower portion of Redrock Canyon (Section 4 lot 5). The spring has little standing water and is used heavily by livestock and wildlife. There is minimal water runoff from the spring as most of it is reabsorbed into the soil before flowing down the hill. Due to the heavy use, vegetation in the area is open and consists of a few aspens, maple trees, and sparse density of shrubs.

In addition there is a spring-fed 15' livestock trough located northwest of the upper pond in Section 22 (lot 14). The trough is currently active and maintained annually. Spillover from the trough creates a wet meadow area consisting of grass and sedges plants. Livestock grazing in the vicinity is heavy so vegetation is low growing and sparse.

In addition there are small sections of perennial riparian habitat in the bottom of Redrock Canyon. Water flows in the remaining sections of the channel are intermittent and ephemeral resulting in Redrock Canyon creek not supporting fish. The stream does however provide a healthy forested area mainly consisting of willows and cottonwoods. Due to its intermittent flow, the majority of the stream channel can't be categorized using the Rosgen Classification. Those sections with perennial flow may be classified a C or B type channel under the Rosgen Stream Classification method.

Utah Wildlife Action Plan

The Utah Wildlife Action Plan (WAP; see additional information in Section III, Management Goals and Objectives), identifies several key terrestrial and aquatic habitats that occur on ECWMA. The WAP includes a statewide threat assessment which identifies threats to each key habitat, and then ranks the impact of that threat (the scope and severity; S&S) according to the number of Species of Greatest Conservation Need that could be affected from that threat. These key habitats and their priority threats include:

- Mountain Shrub habitat: Mountain shrub habitats on ECWMA are primarily Rocky Mountain Lower Montane Foothill Shrubland habitats. This habitat includes some species which resprout after fires, while other species do not resprout. Mountain shrub communities are susceptible to cheatgrass invasion on drier sites. No specific management is done for mountain shrub habitats on the WMA
 - The priority threats include: Invasive Plant Species – Non-native (Medium S&S).
- Aquatic - Scrub/Shrub habitats: Scrub/Shrub aquatic key habitats include perennial and intermittent streams where woody vegetation is less than 6 meters in height. Redrock Canyon creek is the only creek on the WMA, with perennial spring flows at the top of the drainage, becoming intermittent as the creek flows south towards the parking lot. No specific management is done for scrub-shrub habitats on the WMA.
 - The priority threats include: Agricultural/Municipal/Industrial Water Usage (Very High S&S); Water Allocation Policies (Very High S&S); Presence of diversions (Very High S&S); Improper Grazing (High S&S); Channelization/Bank Alteration (direct, intentional) (High S&S); Droughts (High S&S).

Most of these threats are unable to be addressed directly at ECWMA. However, management at ECWMA addresses threats to these key habitats to the extent possible by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the WMA.

Most of the Species of Greatest Conservation Need and Utah State Sensitive Species do not have specific management plans to guide their management. In the future, as species management plans are written and adopted by the Utah Wildlife Board, they may be implemented at ECWMA.

General Condition of Habitats

Habitat conditions on the ECWMA currently vary with vegetation type and with the variety of disturbance conditions which have occurred due to human, wildlife, and livestock uses. Wildfire events have occurred on the property, which has also changed the habitat dynamics. The most recent fire was in 1992 when 1500 acres of the property burned. The burn area was later reseeded to help restore desirable herbaceous and browse plants, and also to combat invasive weeds. Oak brush quickly resprouted throughout the burn area. Noxious and invasive weed species, including Dalmation Toadflax, jointed-goat grass, Bulbous bluegrass and Yellow Star-thistle are found on the property and are aggressively sprayed each year. The major outbreak areas are located on steep slopes making it difficult to access and manage.

Range trend condition information has been collected for the last 30 years by the Division. Several range trend sites are located in the East Canyon area, with one site located on the ECWMA (Redrock Canyon), with another located just outside the eastern property boundary (Tucson Hollow). A summary of this information is provided below. For more information, please refer to the following documents: 1971 Utah Big Game Range Inventory; 1984-2011 Utah Big Game Range Trend Studies (<http://wildlife.utah.gov/range>). The Division will undertake another analysis of the range trend sites on the ECWMA in 2016.

The 1996 to 2011 Utah Big Game Range Trend Study reflect the following information for the two permanent range trend sites on or near the WMA:

Redrock Canyon – Trend Study No. 5-15 (located on the ECWMA)

Type	1996	2001	2006	2011
Browse	First year	Stable	Slightly up	Slightly down
Grasses	First year	Up	Stable	Slightly down
Forbs	First year	Up	Slightly down	Up
Winter Range Condition (DC Index)	17.0 Very Poor	36.6 Very Poor-Poor	36.8 Very Poor-Poor	40 Poor

**Desirable Components Index: The desirable components index (DCI) for deer was created by the UDWR Range Trend Program personnel as a tool to address condition and/or value of winter ranges for mule deer. This index was designed to score mule deer winter range based upon several important vegetation components (ie., preferred browse cover, shrub decadence, shrub young recruitment, cover of perennial grasses, cover of perennial forbs, cover of annual grasses and cover of noxious weeds). This index is used primarily to determine if a particular site has the vegetation components necessary to be a good winter range for mule deer. It can also be used to identify areas where habitat restoration projects may be needed and assist land managers in determining possible rehabilitation options.*

Browse: The 2011 report states that browse species are not abundant and are likely absent due to fires on the WMA. The key browse species found on the study site is mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*). The most common species include stickyleaf low rabbitbrush (*Chrysothamnus viscidiflorus* ssp. *viscidiflorus*) and some broom snakeweed (*Gutierrezia sarothrae*). Mountain big sagebrush is a small population that has varied in density, and is centered within the mature age class. Young sagebrush dominated the population in 1996 and 2001, but no new recruitment has been sampled since 2006. Decadence and poor vigor of sagebrush have been low over the course of the study. Other browse species include white rubber rabbitbrush (*Chrysothamnus nauseosus* ssp. *albicaulis*) and mountain snowberry (*Symphoricarpos oreophilus*).

Herbaceous Understory: The herbaceous understory is abundant and diverse. Seeded grasses established well after the fire and include crested wheatgrass (*Agropyron cristatum*), bluebunch wheatgrass (*A. spicatum*), and Great Basin wildrye (*Elymus cinereus*). The most frequent and dominant perennial grass species is crested wheatgrass, which is followed by the weedy species bulbous bluegrass (*Poa bulbosa*). Bulbous bluegrass was sampled in 2001 and has steadily increased over the duration of the study in frequency and cover. Other perennial grass species include Kentucky bluegrass (*P. pratensis*), Sandberg bluegrass (*P. secunda*), orchard grass (*Dactylis glomerata*), mountain rye (*Secale montanum*), and thickspike wheatgrass (*Agropyron dasystachyum*). The weedy annual species Japanese chess (*Bromus japonicus*) and cheatgrass (*B. tectorum*) were dominant species within the herbaceous understory in 1996, but have significantly decreased over the duration of the study in frequency and cover.

Forbs: Forbs are also abundant, and several useful species are found on the site. In 1996 and 2001, the annual species yellow salsify (*Tragopogon dubius*) was the dominant forb, but decreased significantly in 2006. The seeded species alfalfa (*Medicago sativa*) and small burnet (*Sanguisorba minor*) were also abundant in 1996, but have varied in frequency and production over the duration of the study. Overall, seeded forbs have established well. The nested frequency of perennial forbs increased in 2001, but decreased in 2006. Some utilization was noted on alfalfa and yellow salsify. Annual species included autumn willow weed (*Epilobium brachycarpum*), Douglas knotweed (*Polygonum douglasii*), tumble mustard (*Sisymbrium altissimum*), and pale alyssum (*Alyssum alyssoides*).

Tuscon Hollow- Trend Study No. 5-2 (located east and just outside of the ECWMA)

Type	1996	2001	2006	2011
Browse	First year	Slightly down	Down	Slightly up
Grasses	First year	Up	Down	Stable
Forbs	First year	Up	Down	Up
Winter Range Condition (DC Index)	33.8 Very Poor-Poor	59.7 Fair	60.2 Fair	64.6 Fair-Good

**It should be noted that the DC index score should only be used to identify range conditions for mule deer. Please see the footnote on the East Canyon Trend Study for more information on DC Index for mule deer.*

Browse: As indicated in the 2011 report, the site supports a variety of browse species, but basin big sagebrush and stickyleaf low rabbitbrush (*Chrysothamnus viscidiflorus* ssp. *viscidiflorus*) have provided the majority of the browse cover. Sagebrush on the site displays characteristics of both basin big sagebrush and mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), and is considered the key browse species. All sagebrush was classified as basin big sagebrush for the purposes of this study. The sagebrush population is moderately dense and is centered within the mature demographic. The decadent age class within the sagebrush population has varied little and is a moderate component of the population. The sagebrush population is all available for browsing, and is lightly to moderately hedged. Decadence in the population is moderate, but poor vigor is low. Recruitment of young basin big sagebrush plants was nominal over the early years of the study, but was good in 2011. The average height and crown measurements increased steadily from 1996-2006, but decreased slightly in 2011. Although the defoliator moth (*Aroga websteri*) was identified on the East Canyon Reservoir study (5-3) less than 1.5 miles to the east, no evidence of the moth was identified on this study. Other common shrub species sampled on the site include stickyleaf low rabbitbrush and Oregon grape (*Mahonia repens*). Less frequent shrubs found on the site are antelope bitterbrush (*Purshia tridentata*), Saskatoon serviceberry (*Amelachier alnifolia*) and chokecherry (*Prunus virginiana*), which are scattered throughout the site and display moderate to heavy

hedging. Bitterbrush has displayed the heaviest use with most of the available plants exhibiting a clubbed growth form.

Herbaceous Understory: The herbaceous understory is productive with high diversity.

The weedy annual species cheatgrass (*Bromus tectorum*) and Japanese chess (*B. japonicus*) have dominated the understory throughout the duration of the study. The undesirable perennial grass species bulbous bluegrass (*Poa bulbosa*) has increased steadily over the course of the study. Other common perennial species include Sandberg bluegrass (*P. secunda*), Kentucky bluegrass (*P. pratensis*), bluebunch wheatgrass (*Agropyron spicatum*), and Great Basin wildrye (*Elymus cinereus*). A compositional transition took place in 2001 with a decline in annual grasses, and an increase in perennial grasses.

Forbs: The forb community is highly diverse. Some of the common forbs include silvery lupine (*Lupinus argenteus*), cutleaf balsamroot (*Balsamorhiza macrophylla*), oneflower helianthella (*Helianthella uniflora*), yellow salsify (*Tragopogon dubius*), and Pacific aster (*Aster chilensis*). Other forbs occur in relatively low numbers and contribute little to the overall herbaceous understory cover.

Habitat Limitations

Over the years, the lower elevations and south slopes of the ECWMA have lost many of the perennial grass and winter browse component species important for wintering wildlife. This shift of habitat condition has been due to past grazing practices, drought, wildfire, etc... An area of roughly 50 acres could be targeted for future revegetation efforts; however most of these slopes on the WMA are steep and rocky making it difficult to prepare an adequate seedbed and subsequently seed the property. In addition, proliferation of invasive and aggressive annual grasses, such as cheatgrass and bulbous bluegrass, make it challenging for rangeland seeding to be successful.

Adjacent Land Uses and Potential Impacts

All lands surrounding the WMA are privately owned and many are used for livestock grazing. Two Walk-in-Access (WIA) properties (Kippen 1 and Kippen 2) border ECWMA and provide additional property for the public to access. Each property has provisions limiting the duration and types of activities allowed on the land. The parcels are of good size (Kippen 1 = 320 acres, Kippen 2 = 600 acres) and have similar habitat conditions to the WMA. See Appendix A for map of the WIAs.

All the neighboring properties within both Morgan and Summit Counties currently have low direct impacts on ECWMA, with trespassing livestock grazing being the most likely problem. However, trespassing livestock have not been a large factor to date. Potential and future impacts could include development and increased recreation uses of neighboring properties, which could potentially increase wildlife concentrations on the ECWMA or lead to public use of the WMA during the winter closure period. However, Morgan County has currently zoned the area of ECWMA and adjacent parcels as F-1 and MU-160, which restrict development and other land

uses on these properties. F-1 zoning requires parcels of 1/2 sections (320 acres) or larger for a particular development, while MU-160 zoning only needs 160 acres per parcel.

A small acreage (155.38 acres) of the WMA lies within Summit County. This area is zoned for Agricultural-Grazing 100 (AG-100), where 100 acres is needed for 1 unit of development.

III. Management Goals and Objectives

East Canyon WMA management is based primarily upon goals, objectives, and strategies of various plans, which are summarized below.

UDWR Strategic Plan (2007-2011)

The management of the East Canyon Wildlife Management Area has relevance to the following goals and objectives outlined in the Division's strategic plan:

Resource Goal – Expand wildlife populations and conserve sensitive species by protecting and improving wildlife habitat.

Objective R1- Protect existing wildlife habitat and improve 500,000 acres of critical habitats and watersheds throughout the state by 2011.

Objective R2- Increase fish and game populations to meet management plan objectives and expand quality fishing and hunting opportunities.

Objective R3- Conserve sensitive species to prevent them from being listed as threatened or endangered.

Constituency Goal – Achieve broad-based support for Division programs and budgets by demonstrating the value of wildlife to all citizens of Utah.

Objective C1- Increase public awareness of wildlife as a quality of life issue in order to expand our support base and achieve stable funding.

Objective C2- Improve Coordination with organizations, public officials, private landowners, industry, and government agencies to obtain support for Division programs.

These goals and objectives will be accomplished by properly managing the water, vegetation, wildlife and human components of the WMA according to those strategies mentioned in the property and habitat management sections below. These section's detail property maintenance and development, wildlife species and habitat management, and access and fire management on the WMA.

Utah Wildlife Action Plan

The 2015-2025 edition of the Utah Wildlife Action Plan (WAP) was created with the express purpose and goal of managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act. To help achieve this goal, the WAP provides a statewide approach for the partnership-based, coordinated planning and implementation of wildlife and

habitat conservation practices. The WAP addresses the following elements:

- Conservation targets include; species of greatest conservation need, and those species' key habitats; information about the status and distribution of these species; information about the location and condition of these key habitats.
- Threats and limiting factors facing these species and habitats, and research required to help managers more effectively address these problems. Threats are measured and prioritized on a statewide basis, based on how many targets they impact, and how severely the targets are impacted.
- Conservation actions required to abate the highest-priority threats, and improve the supply of these limiting factors.
- Monitoring the status of these targets, and in particular the effectiveness of these actions.
- Approaches for including the public, partners, and stakeholders, in consideration of the mission and authority of partners.
- Provisions for coordinating the WAP with other natural resource management plans.

The ECWMA HMP process is used to address wildlife species and habitats found on the WMA, by explicitly including their needs in routine, novel, and emergency management activities. This aligns well with the intent of the WAP, which identifies specific management actions that can be taken to reduce priority threats to these species and habitats.

The ECWMA has several key habitats of statewide and local concern which include: aquatic scrub/shrub habitats, and mountain shrub habitats. One of the intents of the WAP in identifying these habitats is that local-area management efforts can better focus actions on those specific habitats where actions can have the most benefit for species of greatest conservation need. Most of the threats to the key aquatic habitats are unable to be addressed directly at ECWMA. However, management at ECWMA attempts to address threats to these habitats to the extent possible, by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the WMA. For more information, please see the discussion in Section II Property Inventory, Wildlife Action Plan.

Wildlife Species Management Plans

Deer and Elk Management Plans – Unit 5 (East Canyon)

The deer management plan for Unit 5 was completed in 2013 with the deer population being slightly under objective. Since the previous management plan, the population objective was increased from 6500 to a target winter herd size of 13,500 deer. This change in population objective is based on new data and models available to the Division. Winter range condition is believed to be the major limiting factor on this unit. This is largely due to direct loss of crucial winter ranges from development and urbanization, and loss of critical browse species due to fires, agriculture, drought, invasive weedy species etc. The majority of this winter range loss occurs on the Wasatch Front area.

The elk management plan for Unit 5 was completed in 2012 with the elk population being above objective by 1000 elk. Winter range is the main limiting factor for the carrying capacity for this herd. Ninety-nine percent of the elk winter range in this unit is

in private ownership. Similar to the winter range problems facing the unit's deer population, elk winter range is also being lost to development.

The management of both the deer and elk on this wildlife management unit will address the limiting factors and habitat needs identified in those plans and seek to implement habitat management strategies that are needed to reach population objectives. Both of these plans seek to: manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and wildlife viewing; balancing herd impacts on human needs, such as private property rights, agricultural crops and local economies; and maintaining population levels that are within the long-term capability of the available habitat to support.

In addition, both of these plans discuss habitat improvements needed to improve winter range conditions unit wide, with specific attention given to rehabilitation efforts on ECWMA: working with private and federal agencies to maintain and protect critical and existing winter range from future losses; and to work cooperatively to utilize grazing, prescribed burning and other recognized vegetative manipulation techniques to enhance forage quality and quantity throughout the winter range areas. Revisions to these plans are typically completed every 5 years and will be subsequently incorporated into the management of this WMA as needed.

IV. Strategies for Property Management

Development Activities

- Survey needs: There are no survey needs at this time.
- Boundary fence needs: The entire property boundary has not been fenced due to its large size and its rough, steep terrain. Sections of the west boundary have been fenced along with the access points along SR-66. Fences will be repaired or replaced as needed.
- Sign needs: The perimeter boundary of the property has been posted with "entering/leaving" signs at every quarter section corner, and along SR-66. Additional signs need to be added in areas where terrain makes it difficult to identify the true boundary line. Existing signs will be replaced as needed.
- Land Trade: Efforts are underway to exchange the 80 acre parcel, which is not contiguous with the rest of the ECWMA, for property that is adjacent to the eastern side of and contiguous with the ECWMA.

Along portions of the northern and eastern boundaries of the property, Walk-In-Access (WIA) signs are posted to notify users they are leaving the WMA and entering private land registered with the WIA program. These signs will be replaced by the WIA biologist when needed.

Annual Maintenance Activities

- Fence, pedestrian walk-through, and gate maintenance: Annually inspect fences for breaks and efficiency. Repairs will be conducted on an "as needed" basis.
- Road maintenance/closures: Close and open the gates on appropriate dates and

- improve the road when deemed necessary.
- Parking areas: Inspect and clean garbage at both the lower and upper parking areas. If trash problems arise, enlist volunteer groups, i.e. Boy Scouts or dedicated hunters, to aid with clean-up. Rock rake parking lot areas when needed.
- Noxious weed control: Map invasive weeds on an annual basis to prevent further weed expansion on the property. Annually spray weeds as needed. Annually inspect for weeds along the Kern River Gas Transmission Company ROW's (see Appendix C.) and coordinate control with Kern River.
- Signs and kiosk: Inspect and replace signs and posted information on the kiosk as needed. Repair and paint the Kiosk every 2-3 years. The kiosk was last painted in 2012.
- Water developments:
Annually inspect and maintain the springs and water developments located in Sections 33 and 22.

At this time, the basin is closed to new appropriations and therefore cannot be filed upon. DWR is trying to find water rights to purchase so that a change application can be filed to cover these water sources.

Compatibility of Proposed Uses with Local Government General Plans and Zoning and Land Use Ordinances

The current and proposed uses for the ECWMA are compatible with the local government plans, zoning requirements and land use ordinances for both Morgan and Summit Counties.

Morgan County

In 2010, Morgan County approved the Morgan County General Plan to guide development activities within the county. One vision for the County is to value "it's distinctive natural landscapes for their beauty, solitude, recreational opportunities, and natural resources and will work to ensure their long-range conservation and preservation". Goals that have been identified for this vision include: protecting air quality and water resources; to identify, protect and conserve wildlife habitat and open space; and to reduce wildfire threats in Wildland Urban Interface areas.

The ECWMA is currently within two zoning districts. The northern sections of the WMA are zoned as Forest Zone 1 (F-1) and the southern sections zoned as Multiple Use 160 (MU-160). MU-160 zoning limits the property for multiple use, agriculture and rural residential uses.

Summit County

A small acreage (155.38 acres) of the WMA lies within Summit County. This area is zoned for Agricultural-Grazing 100 (AG-100), where 100 acres is needed for 1 unit of development. Summit County is currently in the process of reviewing and updating the Eastern Summit County Development Code language and Zoning map. The current proposal is for the zoning in this area to change to Ag-80, where 80 acres are needed for 1 development unit. Although no impacts to the ECWMA or changes to WMA

management are anticipated, once the Eastern Summit County Development Code language and Zoning map are completed, potential impacts to the ECWMA will be evaluated and management adjusted if needed.

V. Strategies for Habitat Management

Unit Management Plans for wildlife species

Strategies for habitat management will be consistent with those outlined in the deer and elk management plans for Unit #5, and the Wildlife Action Plan. These strategies include, but are not limited to:

- Continue to monitor the permanent range trend study site located on the WMA and the study site located on adjacent private land.
- Work cooperatively with land management agencies and private landowners to plan and implement projects that will improve wildlife habitat and range conditions in general on surrounding lands. Improvement projects will focus on improving winter range for deer and elk within Unit 5.
- The property should be surveyed for the presence of state sensitive terrestrial and aquatic species, and for WAP species.
- Recognize the value of the WMA for migrating and nesting neotropical bird species, and maintain and enhance high quality habitat for these birds, while minimizing disturbance impacts.

Habitat Improvement Plan

- Maintain entrance fences and gates to prevent habitat damage from unauthorized vehicles use.
- Monitor and spray noxious weeds to reduce and eliminate the spread of these weeds on the property
- Continue to use livestock grazing as a habitat management tool that may be utilized to assist with revegetation efforts, and to control noxious and invasive species. Monitor the intensity of the grazing and its effects on the WMA. Evaluate current grazing leases to determine if additional infrastructure is needed.
- Implement the wildfire management recommendations (see below) to reduce the risk of wildfire across the property.
- Undeveloped crucial winter range on private lands surrounding the WMA will be evaluated for potential protection and habitat enhancement efforts through conservation easements, fee title acquisition and habitat improvement opportunities to provide enhanced crucial big game winter range.
- At the current time, specific projects are currently being developed to enhance the habitat on the WMA. However, opportunities are limited due to the steepness of the property. Additional projects may be proposed in the future, along with continued weed treatments.
- Consider the movement of the range trend transects to more suitable locations which will provide for a better assessment of habitat conditions.

Access Management Plan

The purpose of an access plan is to provide for public use and access on the ECWMA in a way that supports the Division's goals and objectives, as indicated in the habitat management plan, and that support the primary purposes for the WMA acquisition. Activities on the WMA will be considered according to the UDWR Administrative Land Rule (R657-28). In general, activities that do not promote or protect the goals and objectives of the WMA will be prohibited, specifically those that disturb or harass wildlife and their habitats.

The ECWMA will be closed to all public access during the winter months (Jan. 1 – second Saturday in April) to protect wintering wildlife. When the property is within a hunt unit boundary where late season hunts are available, public non-motorized access to the WMA may be provided to hunters with valid hunting tags for this unit. The property is also closed year long to all public motorized vehicle use.

During the fall hunting seasons, the road between the upper and lower parking lots is available for vehicle use, with some public camping occurring along the road and in the upper parking area.

There are also two Walk-In-Access properties (Kippen 1 = 320 acres, and Kippen 2 = 600 acres) adjacent to the ECWMA that allow public access. Each property has provisions limiting the duration and types of activities allowed on the land. See Appendix A for maps of ECWMA access points and the adjacent Walk-In-Access properties.

Fire Management Plan

Although a specific fire management plan has not been developed for the ECWMA, the following are recommendations made by the Utah Division of Forestry, Fire and State Lands and the Morgan County Fire Marshall:

- Create a 150' fire break under the powerline corridor/road, or somewhere in this vicinity, to prevent a fire from starting at the road and moving north through the property.
- Create a minimum of 60' vegetated fuel breaks around the southern boundary.
- Create a patchwork of 50-60' fuel breaks across the landscape, especially on ridgelines.

The Division will work closely with these other agencies, specifically with the Utah Division of Forestry, Fire and State Lands, to develop and implement a plan to reduce the spread of fire onto and off of the ECWMA.

Wood Products

There are no wood products to be harvested from the ECWMA.

Livestock Grazing Plan

Cattle grazing will be used as a management tool to achieve desired habitat conditions. Portions of the WMA are currently being grazed for the purpose of reducing grasses and weeds to assist the growth of shrub abundance on the property. This unit has

typically been grazed in the spring with 50 AUM's on a 3-year rotational basis: 2 years grazing followed by 1 year of rest. Stocking rates and season of use will be adjusted as needed to obtain desired habitat conditions. Grazing will be administered through a high intensity/short duration strategy with a general grazing season of May through June. Regional personnel will evaluate the property annually to determine grazing needs on the unit. Any grazing activities will use the division's grazing process as outlined in the UDWR Administrative Land Rule (R657-28).

Regional personnel will evaluate the property annually to determine grazing need on the unit. Livestock permittees will be chosen and grazing permits awarded through a competitive bid process. If the Division does not receive any bids during the competitive process, regional personnel will contact potential grazers until a willing party is found. Division personnel reserve the right to make changes to stocking rates, season of use, and the grazing schedule as needed. The Division also reserves the right to prescribe graze the unit, as needed, to reach habitat objectives. Prescribed grazing may also result in permits being issued to a grazer outside of the competitive bid process in order to find willing parties.

Specific activities to improve the grazing program on the unit may include:

- Replace, rebuild, maintain and install new fences to manage livestock.
- Pursue water rights and water development opportunities which would assist with livestock distribution.
- Use the WMA as a grass bank to rest other private property that has a benefit to wildlife.

Compatibility of Proposed Plans with Local Government General Plans and Zoning and Land Use Ordinances

The current and proposed uses for the ECWMA are compatible with the local government plans, zoning requirements and land use ordinances for both Morgan and Summit Counties.

VI. Summary Statement of Proposed Uses

The primary goals and objectives of the East Canyon WMA are to preserve, protect and enhance big game winter range and wintering wildlife. This will help to reduce deer and elk depredation on surrounding private lands. The Division will allow for and provide wildlife related recreational activities that are consistent with the goals and purposes for which the property was acquired.

VII. Monitoring and Evaluation

Division will complete the following monitoring and evaluation on the ECWMA:

- Vegetation Transects at the range trend survey sites every 5 years.
- Completed habitat projects will also be monitored.

- Monitoring of conditions on right-of-ways and easements
- Annual to biennial fish and wildlife surveys/counts.

The Northern Region Habitat Section, area wildlife biologist, habitat maintenance specialist and the area conservation officer will be responsible for monitoring the overall effectiveness of this plan. Appropriate sections and staff will provide expertise as required. The habitat maintenance specialist will monitor the needs and effectiveness of physical facilities and improvements. If necessary, the district conservation officer will write or amend an action plan for this property. All individuals and sections will report to the Regional Management Team through their supervisors. The area wildlife biologist, with assistance from a regional team, will amend this plan as needed.

VIII. Appendices

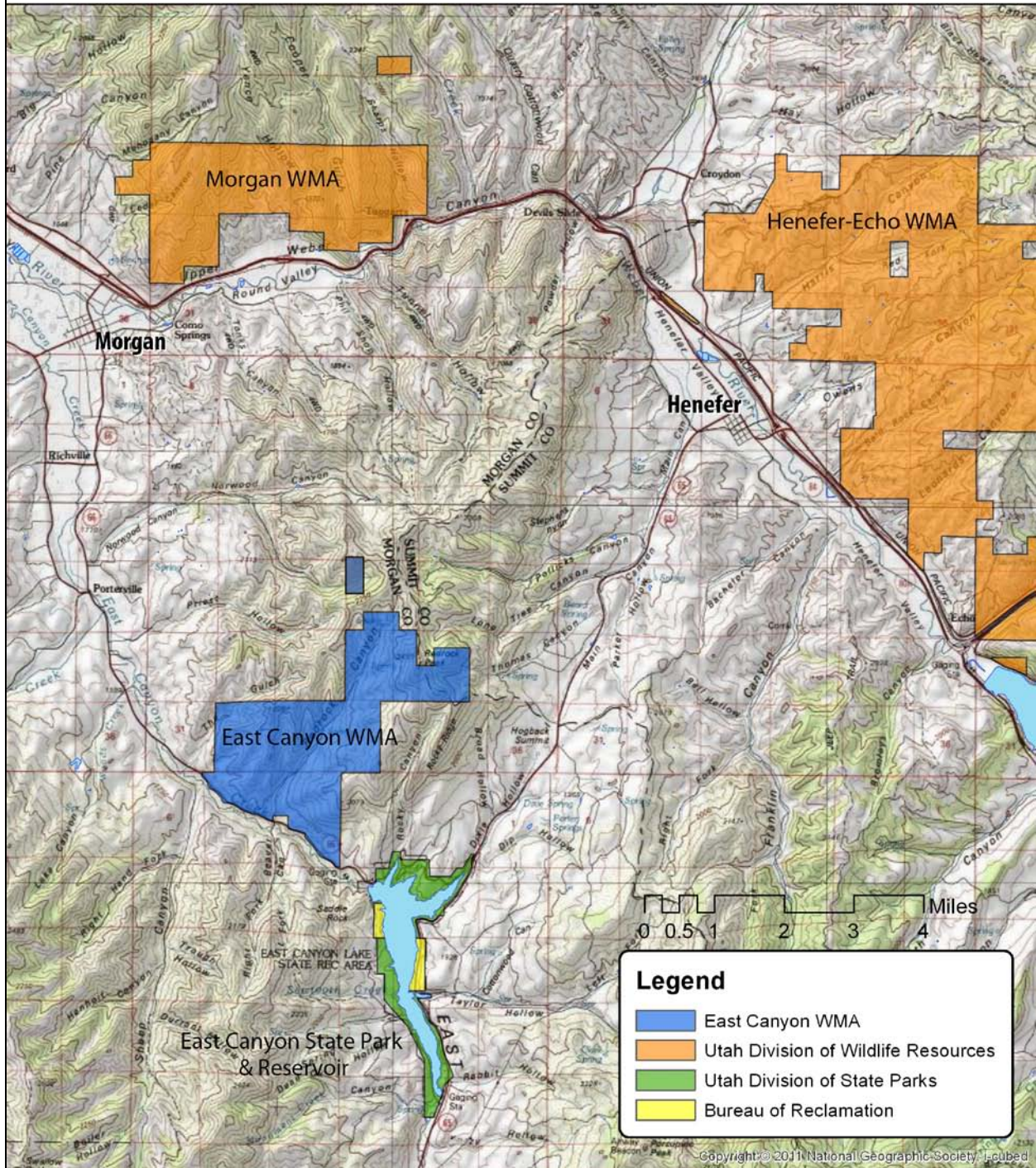
- A. Maps
 - General Location Map
 - Land Ownership Map
 - Road/Access Map
 - Kern River Pipeline Disturbance Map
- B. Legal Descriptions and Encumbrances
 - Parcel Deed Map
 - Legal Boundary Descriptions
 - Parcel Encumbrances

Appendix A

Maps

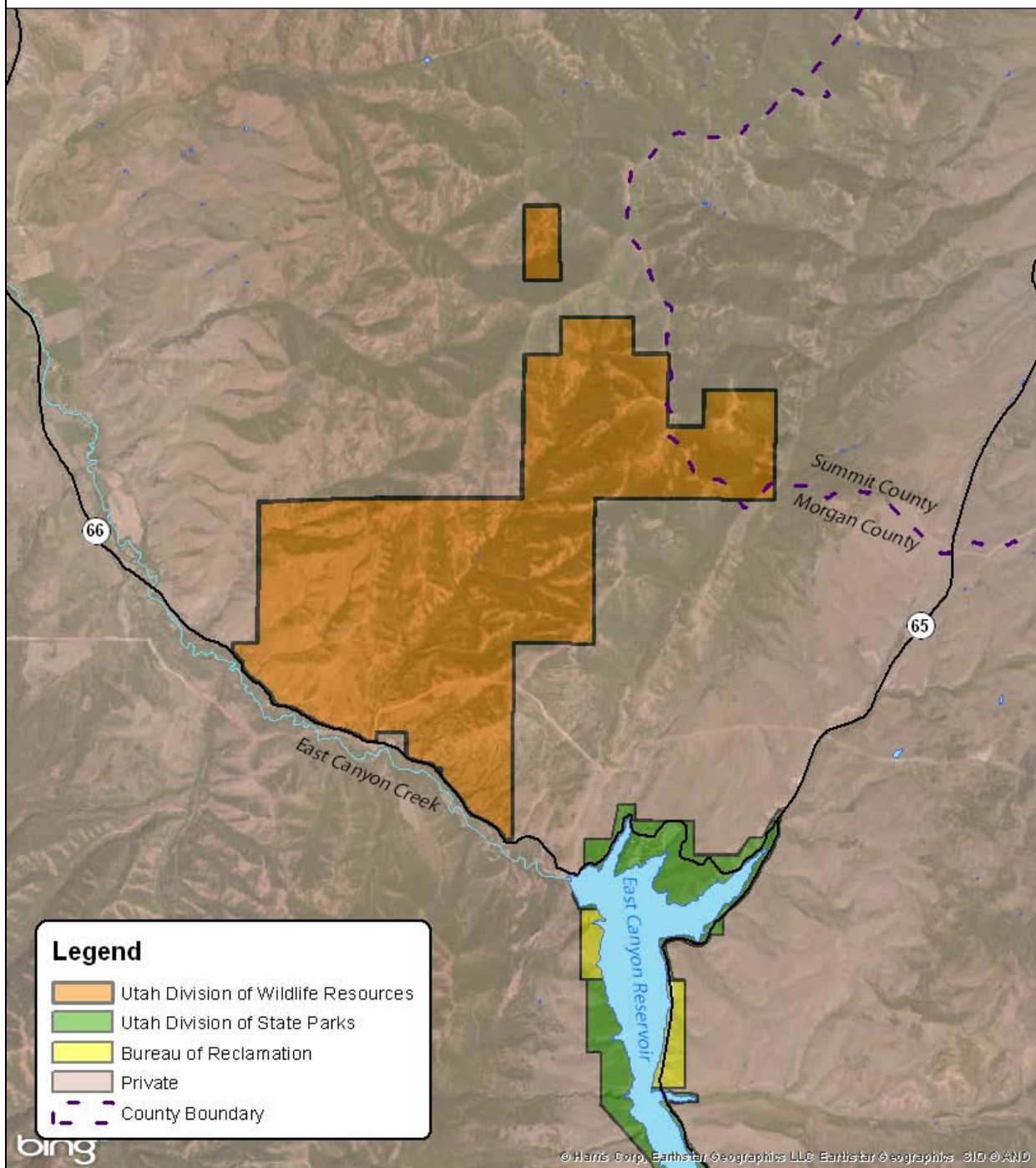


East Canyon Wildlife Management Area General Location Map





East Canyon Wildlife Management Area Land Ownership Map





East Canyon Wildlife Management Area

Map of Kern River Pipeline Disturbance

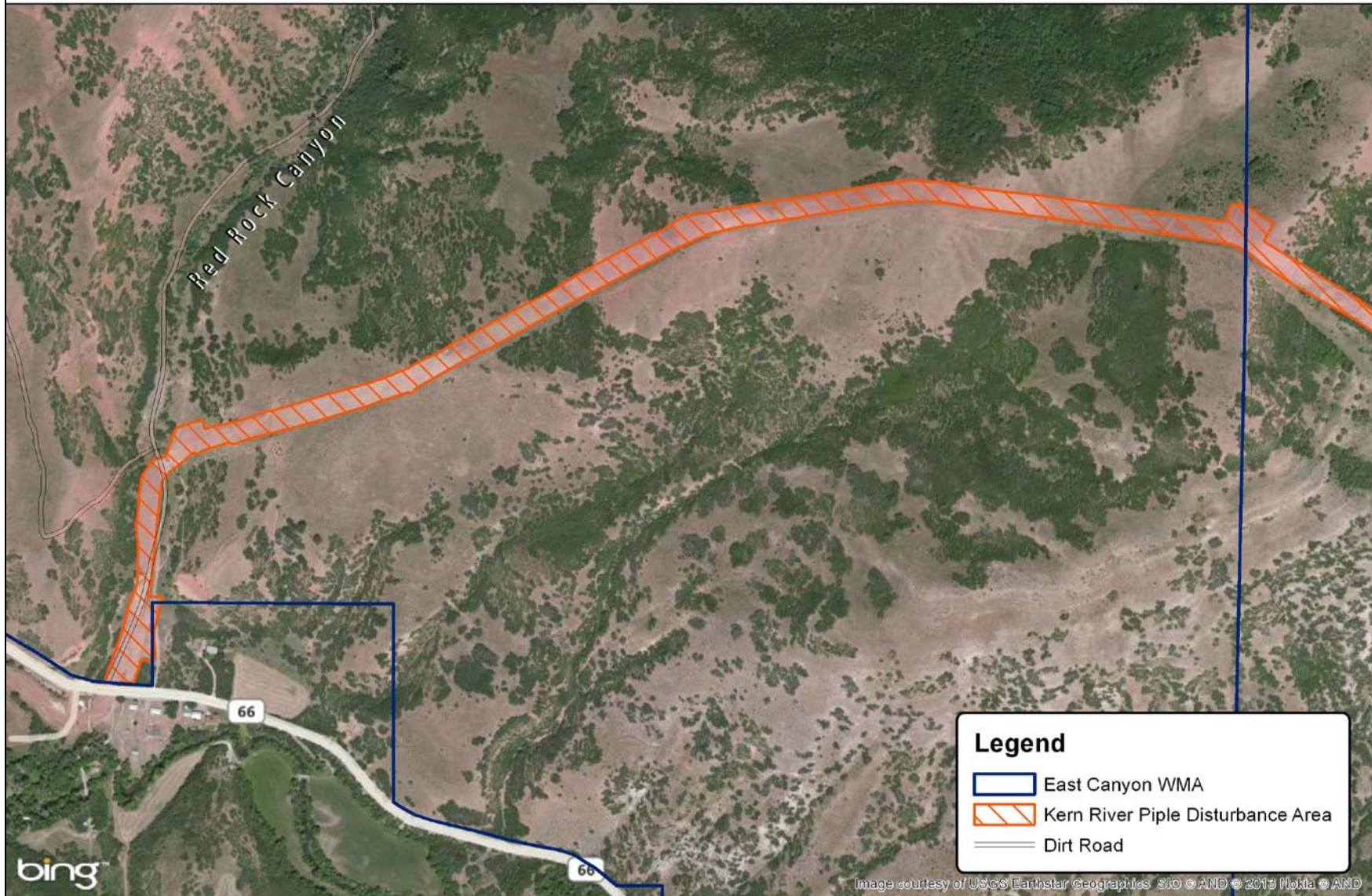
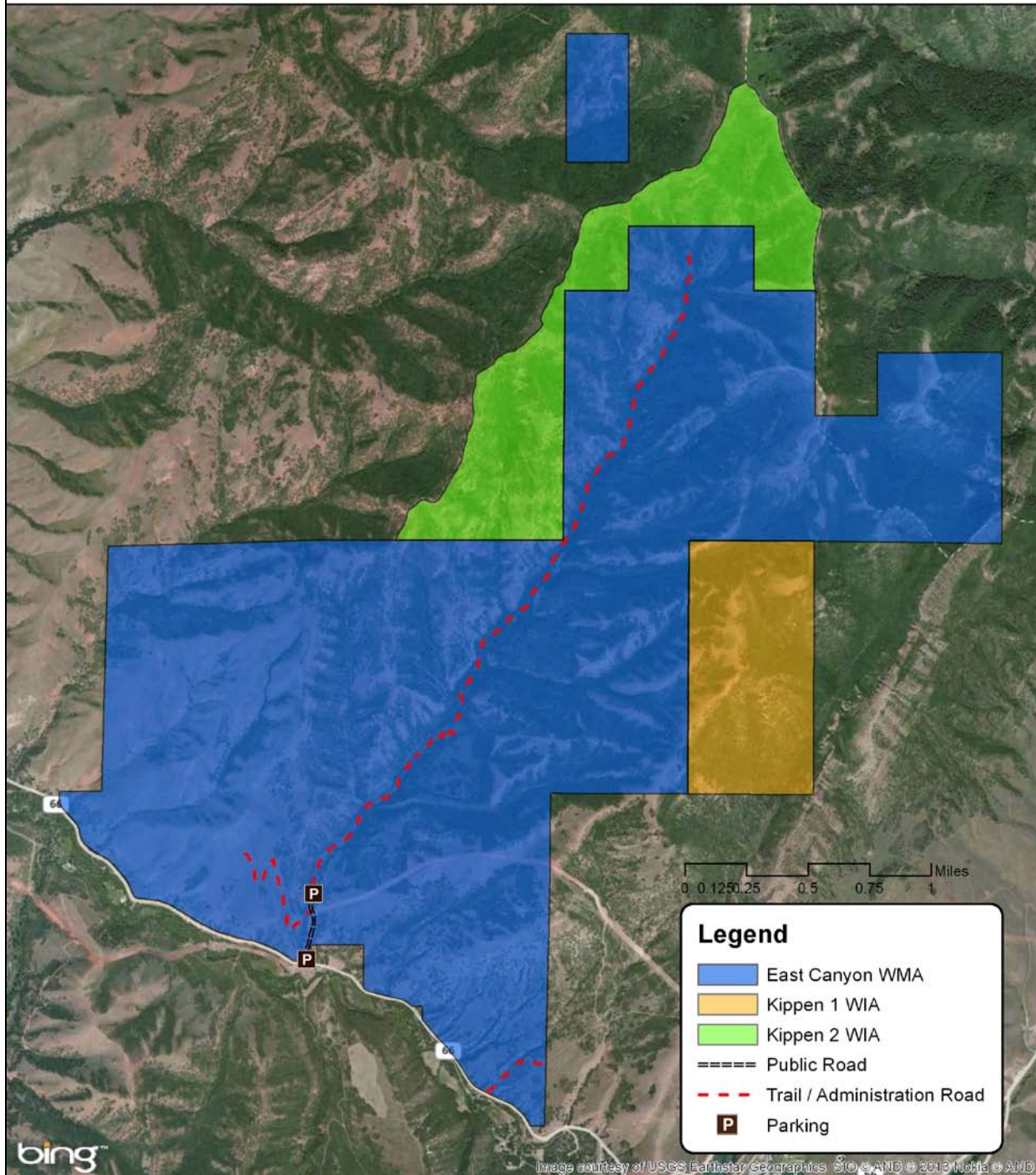


Image courtesy of USGS Earthstar Geographics SIO © AND © 2013 NOAA © AND



East Canyon Wildlife Management Area Road/Access Map

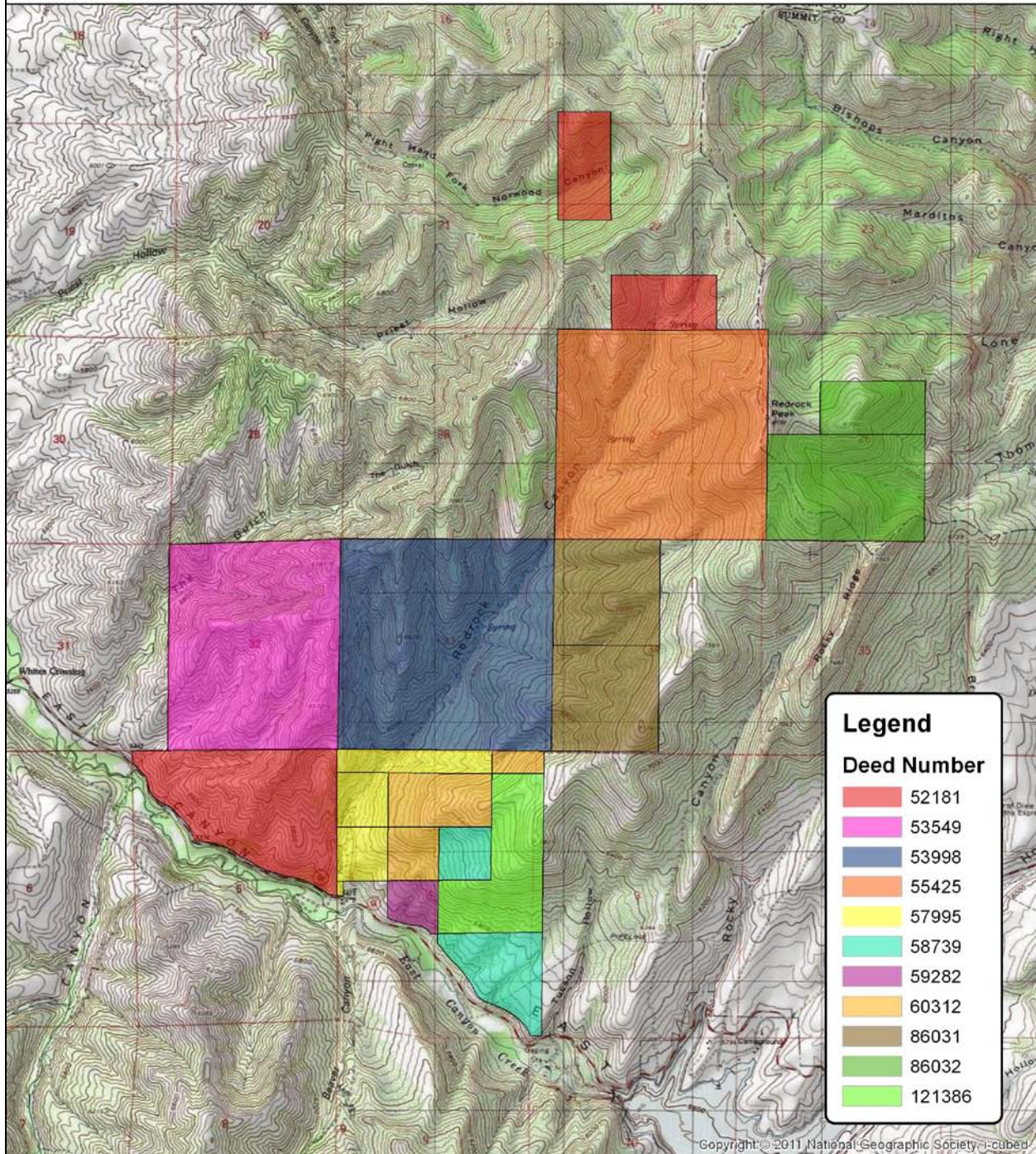


Appendix B

Legal Descriptions and Encumbrances



East Canyon Wildlife Management Area Parcel Deed Map



Parcel Legal Boundary Descriptions (B-1)

Previous Owner	Location	Deed #	Date
Goldfleck Corporation	T2N, R3E, Sec 5: Lots 1, 2, 3, 4, 6, 7, and 8 and portion of lots 5, 9, 10, 11, 12, and 16 located north of Hwy 66. T3N, R3E, Sec 22: Lots 4, 5, 14, and 15.	52181	July 11, 1985
Goldfleck Corporation	T3N, R3E, Sec 32	53549	June 1, 1986
Goldfleck Corporation	T3N, R3E, Sec 33	53998	October 23, 1986
Goldfleck Corporation	T3N, R3E, Sec 27	55425	October 8, 1987
Darlene Mortensen	T2N, R3E, Sec 4: Lots 2, 3, 4, 5, 12, and portion of lot 13 north of Hwy 66.	57995	July 20, 1989
Darlene Mortensen	T2N, R3E, Sec 4: Lots 10 and portion of South East Quarter of section north of Hwy 66	58739	January 8, 1990
Goldfleck Corporation	T2N, R3E, Sec 4: Portion of lot 14 north of Hwy 66	59282	June 25, 1990
Darlene Mortensen	T2N, R3E, Sec 4: Lots 1, 6, 7, and 11	60312	January 31, 1991
SITLA	T3N, R3E, Sec 26 Lots: 6, 7, 10, 11, 12, 13, 14, and 15	86032	August 21, 2001
SITLA	T3N, R3E, Sec 34: Lots 3, 4, 5, 6, 11, 12, 13, and 14	86031	August 21, 2001
ZBF Investments I	T2N, R3E, Sec 4: Lots 8, 9, 15, and 16	121386	October 4, 2010

Summary of Parcel Encumbrances and Easements

Grantor: Goldfleck Corporation

Warranty Deed # 52181 (442.99 acres), Contract of Purchase # 855364

Township 2 North, Range 3 East,
Sec. 5, Lots 1, 2, 3, 4, 6, 7, and 8 and that portion of lots 5, 9, 10, 11, 12,
and 16 located north of Utah Highway 66. (284.10 acres more or less)

Township 3 North, Range 3 East,
Sec. 22, Lots 4, 5, 14, and 15. (158.89 acres more or less)

Encumbrances & Limitations:

- Grantor reserves all mineral rights as indicated in contract of purchase.

Additional Easements:

- Bountiful City A Municipal Corporation: A 50' wide non-exclusive easement for purpose of construction and maintenance of an electric distribution line. Easement dated June 3, 1986.
 - The easement locations are described further in the following easement documents: UDWR 863034, Morgan County Entry No. 52795, 53889, 53890.
- Kern River Gas Transmission Company: A 75' wide easement for the purpose of construction, operation and maintenance of a natural gas transmission line. Easement dated May 15, 1989.
 - One easement contains 10.35 acres, more or less, and is recorded in the following easement documents: UDWR 863195, Morgan County Entry No. 58569, and 58640.
 - A second easement contains 8.65 acres for the construction, operation and maintenance of a natural gas transmission line. The easement was recorded in Morgan County, Utah volume M73, page 287 as entry number 58569. An amendment to this easement was signed in 1993 to allow Grantee access to the easement after construction.
- Kern River Gas Transmission Company: A thirty (30) year term 50' wide exclusive right-of-way and easement for the purpose to locate, survey a route, construct, entrench, maintain, protect, inspect and operate a pipeline and/or communications cable. Easement dated September 30, 2010.
 - The easement contains 5.81 acres, but only added .17 acres of land under easement due to the acreage overlapping with the 1989 easements (UDWR 104839). A map of the Kern River pipeline disturbance area is located in Appendix A. An additional, temporary access road easement agreement to cross the WMA was also acquired for the above construction and is described in UDWR document 701555.

Grantor: Goldfleck Corporation

Warranty Deed # 53549 (514.80 acres), Contract of Purchase # 855365

Township 3 North, Range 3 East,
Sec. 32 (514.80 more or less)

Encumbrances & Limitations:

- Grantor reserves all mineral, geothermal, oil and gas rights (not including sand and gravel) appurtenant to the land as indicated in contract of purchase.

Additional Easements:

- None

Grantor: Goldfleck Corporation

Warranty Deed # 53998 (640 acres), Contract of Purchase # 871515

Township 3 North, Range 3 East,
Sec. 33 (640 acres more or less)

Encumbrances & Limitations:

- Grantor reserves all mineral, geothermal, oil and gas rights (not including sand and gravel) appurtenant to the land as indicated in contract of purchase.

Additional Easements:

- None

Grantor: Goldfleck Corporation

Warranty Deed # 55425 (634.32 acres), Contract of Purchase # 881441

Township 3 North, Range 3 East,
Sec. 27 (634.32 acres more or less)

Encumbrances & Limitations:

- Grantor reserves all mineral, geothermal, oil and gas rights (not including sand and gravel) appurtenant to the land as indicated in contract of purchase.

Additional Easements:

- None

Grantor: Darlene Mortensen

Warranty Deed # 57995 (130.96 acres)

Township 2 North, Range 3 East,
Sec. 4: All of lots 2, 3, 4, 5, 12 and the West 150' of Lot 13 North of
Highway 66 (130.96 acres more or less)

Encumbrances & Limitations:

- City of Bountiful: A 50' wide non-exclusive easement for purpose of construction and maintenance of an electric distribution line. Easement dated January 22, 1986.
- Kern River Gas Transmission Company: A 75' wide exclusive right-of way and easement for the purpose of constructing, inspecting, repairing, protecting and maintain the facilities, and removal and replacement of pipeline. Easement dated November 30, 1986.
 - The easement contains 10.35 acres, more or less, and is recorded in the following easement documents: UDWR 863195, Morgan County Entry No. 58569, and 58640.
 - Amendment to easement was signed on July 30, 1993 to authorize Kern River Gas Transmission Company to perform a survey of the pipeline location after construction.
 - An additional easement contains 8.65 acres for the construction, operation and maintenance of a natural gas transmission line. The easement was recorded in Morgan County, Utah volume M73, page 287 as entry number 58569. An amendment to this easement was signed in 1993 to allow Grantee access to the easement after construction.
- Grantor reserves all mineral, geothermal, oil and gas rights (not including sand and gravel) appurtenant to the land as indicated in warranty deed.
- Kern River Gas Transmission Company: A thirty (30) year term 50' wide exclusive right-of-way and easement for the purpose to locate, survey a route, construct, entrench, maintain, protect, inspect and operate a pipeline and/or communications cable. Easement dated September 30, 2010.
 - The easement contains 5.81 acres, but only added .17 acres of land under easement due to the acreage overlapping with the 1989 easements (UDWR 104839). A map of the Kern River pipeline disturbance area is located in Appendix A. An additional, temporary access road easement agreement to cross the WMA was also acquired for the above construction and is described in UDWR document 701555.

Grantor: Darlene Mortensen

Warranty Deed # 58739 (130.25 acres), Land Contract # 893376

Township 2 North, Range 3 East,

Sec. 4: All of lots 10 and that portion of the South East Quarter of said section lying North of Highway 66. (130.25 acres more or less)

Encumbrances & Limitations:

- Mountain Fuel Supply Company: A 50' wide right-of-way and easement to lay, maintain, operate, repair, inspect, protect, remove and replace pipeline. Easement dated January 28, 1974.
 - The easement is recorded in Morgan County, Utah volume M15, page 52 as entry number 40507. Assignment of right of way was signed over to Mountain Fuel Resources, INC. on June 29th, 1984. Document recorded in Morgan

County, Utah volume M46, page 126.

- City of Bountiful: A 50' wide non-exclusive easement for purpose of construction and maintenance of an electric distribution line. Easement dated January 22, 1986.
 - The easement locations are described further in the following easement documents: UDWR 863034, Morgan County Entry No. 52795, 53889, 53890.
- Grantor reserves and excepts all minerals and mineral rights of every kind, except sand and gravel as indicated in Land Contract.

Additional Easements:

- None

Grantor: Goldfleck Corporation

Warranty Deed # 59282 (39.06 acres), Contract of Purchase # 902694

Township 2 North, Range 3 East,

Sec. 4: Portion of Lot 14 located North of Highway 66.

(39.06 acres more or less)

Encumbrances & Limitations:

- City of Bountiful: A 50' wide easement for the purpose of construction and maintenance of an electric distribution line. Easement dated January 7, 1986.
 - The easement locations are described further in the following easement documents: UDWR 863034, Morgan County Entry No. 52795, 53889, 53890.
- Grantor reserves and excepts all minerals and mineral rights of every kind, except sand and gravel as indicated in Warranty Deed.

Additional Easements:

- None

Grantor: State of Utah

State of Utah Patent # 19486 (315.90 acres), Certificate of Sale # 25582-B

Township 3 North, Range 3 East,

Sec. 26: Lots 6, 7, 10, 11, 12, 13, 14, 15 (315.90 acres more or less)

Encumbrances & Limitations:

- State of Utah, School and Institutional Trust Lands Administration reserves and excepts all coal and other mineral deposits as indicated in the Patent.

Additional Easements:

- None

Grantor: State of Utah

State of Utah Patent # 19485 (318.50 acres), Certificate of Sale # 25582-A

Township 3 North, Range 3 East,

Sec. 34: Lots 3, 4, 5, 6, 11, 12, 13, 14 (318.50 acres more or less)

Encumbrances & Limitations:

- State of Utah, School and Institutional Trust Lands Administration reserves and excepts all coal and other mineral deposits as indicated in the Patent.

Additional Easements:

- None

Grantor: ZBF Investments I, LLC

Warranty Deed # 121386 (164.46 acres), Coop. Mitigation Agreement # 701435

Township 2 North, Range 3 East,

Sec. 4: Lots 8, 9, 15, 16 (164.46 acres more or less)

Encumbrances & Limitations:

- Kern River Gas Transmission Company: A 75' wide exclusive right-of-way and easement for the purpose to locate, survey a route, construct, entrench, maintain, protect, inspect and operate a pipeline and/or communications cable. Easement dated December 18, 1989.
 - The easement contains 10.35 acres, more or less, and is recorded in the following easement documents: UDWR 863195, Morgan County Entry No. 58569, and 58640.
 - The easement contains 8.65 acres for the construction, operation and maintenance of a natural gas transmission line. The easement was recorded in Morgan County, Utah volume M73, page 287 as entry number 58569. An amendment to this easement was signed in 1993 to allow Grantee access to the easement after construction.
- Grantor reserves and excepts all minerals and mineral rights of every kind, except sand and gravel as indicated in Warranty Deed.

Additional Easements:

- None

DRAFT

Executive Summary

East Fork of the Little Bear River Wildlife Management Area Habitat Management Plan July 2016

Primary Purpose of the WMA

The UDWR purchased this property with the intent to protect terrestrial and aquatic wildlife species, and their respective habitats. In addition, UDWR desired to improve aquatic and riparian habitats on the property that had been degraded due to flood control activities in the 1980's.

Wildlife Species

Wildlife on the property mainly consists of non-threatened resident and migratory terrestrial, aquatic and avian species that are associated with riparian and mountain-brush habitats. The East Fork of the Little Bear River is an important stream fishery. It is managed primarily as a wild brown trout fishery (*Salmo trutta*), with brown trout densities approaching 2,000 fish/mile. Some Bonneville cutthroat trout (*Oncorhynchus clarkii Utah*) (BCT), a state sensitive species, also occur in this reach. They likely originated in the South Fork of the Little Bear River, and have moved upstream into the property. A few rainbow trout also occur in the stream.

Habitat Condition/Problems

The property is currently in overall good habitat condition. Previous East Fork of the Little Bear River restoration activities have created a healthy stream channel with an accessible, functional floodplain. Upland areas currently support healthy mountain brush and sagebrush communities. Ruby Pipeline reclamation activities will continue to be monitored by the company and UDWR, and any weed concerns will be addressed.

Vandalism sporadically occurs on the property. This vandalism includes: removing the wooden fencing along the entrance road to use as fire wood; pulling over the wooden fencing; attempting to access areas behind fences and gates to ride ATV's and/or snowmobiles; and ATV's and large trucks driving through the pull-outs when they are wet, creating large ruts and mud holes.

Access Plan

Access to the property is from the La Plata/East Canyon Road that runs parallel to the river. There are several pull-outs off this main road where the public can park next to the buck and pole wooden fence, and use pedestrian openings in the fence to gain access to the river. There is one main parking area adjacent to the highway bridge over the river. Fences were installed to prevent vehicle access to the stream and to control cattle access. While there are no formal campsites, camping is allowed under the UDWR Land Use Rule (R657-28).

Maintenance Activities

Annual maintenance activities include: Parking lots and pull-outs are graveled as necessary; the wooden buck and pole fence paralleling the entrance road needs to be periodically fixed; annual spraying of invasive and noxious weeds occurs as needed; signs are replaced as needed; litter is collected as needed.

Additional property needs include: the western boundary fence between the canal and La Plata road needs to be surveyed to determine the exact boundary line. The fence has been moved from its original location by an adjacent landowner, and needs to be replaced on the boundary; the property boundary needs to have UDWR boundary signs posted at all corners and quarter-corners.

Habitat Improvements

There are no proposed or planned terrestrial or aquatic habitat improvement activities for the property. Habitat improvements may be planned if needed to maintain aquatic or terrestrial habitats in a healthy condition to support resident and migratory wildlife populations.

East Fork of the Little Bear Wildlife Management Area

DRAFT

Habitat Management Plan

July 2016

Prepared by:

Utah Division of Wildlife Resources

Northern Region

515 E 5300 S

Ogden, UT 84405



East Fork of the Little Bear River
Wildlife Management Area
Habitat Management Plan

DRAFT

July 2016

I. Background Information

Property Description

The East Fork of the Little Bear River Wildlife Management Area (WMA) contains 239.84 acres of land located in Cache County, approximately 2.5 miles east of Avon, Utah, and 0.5 miles downstream from Porcupine Reservoir. The property is located in part of Section 18, Township 9 North, Range 2 East, SLB&M. The paved La Plata road is found in the southern portion of the property. The East Fork of the Little Bear River flows through the property and primarily supports a brown trout fishery, along with some Bonneville cutthroat trout (BCT) and rainbow trout.

Encumbrances

- Minerals
Mineral rights have been reserved by previous owners. Information is on file in the UDWR Salt Lake office.
- Grazing
UDWR issued a license agreement (contract number 70-1758) to an adjacent landowner, Mr. Cole Evans, for trailing cattle across the WMA. Mr. Evans owns property north of the WMA and grazes land north and east of the WMA. Trailing cattle through the WMA will allow his cattle to subsequently be trailed along the La Plata road and onto private property. To facilitate grazing access and prevent trespass onto private property, a locked gate has been placed between the UDWR and Cole Evans properties wherein each entity has their own lock.
- Water shares/Rights
The Division of Wildlife Resources monetarily participated in the construction of Porcupine Reservoir. As a result of this participation, UDWR received entitlement to 1,000 acre-feet of dead storage and 500 acre-feet of active storage capacity "to be used at the direction of the Division." This water can be used to maintain a conservation pool in the reservoir for fish populations or can be released to maintain instream flows in the river. The water is typically used to facilitate the movement of irrigation flows downstream.

Stream flow is usually maintained because of the release of water into the stream from Porcupine Reservoir to meet the water needs of Trout of Paradise, a local trout hatchery and recreational fishery, located downstream in Paradise, Utah. Although infrequent, depending upon the water year, sometimes the entire stream flow of the river is diverted into the Highline Canal (Jackson Ditch). When it does happen, water from the Division's conservation pool has been used to provide instream flows. The UDWR also works with Hyrum City (a downstream water right holder) to make sure there are appropriate amounts of water in the river to maintain aquatic

wildlife and riparian habitats. In addition, UDWR does have water rights specifically associated with the property (see table below).

Table 1. Water Rights on the East Fork of the Little Bear River WMA.

WUCNO	Name	Flow (cfs)	Source	Priority
25-922	UDWR	(No Flow) Stockwatering on Stream	East Fork Little Bear River	1860
25-923	UDWR	(No Flow) Stockwatering on Stream	Jackson Upper Spring Stream	1860
25-924	UDWR	(No Flow) Stockwatering on Stream	Jackson Lower Spring Stream	1860
25-319	Jackson Ditch Association	4.0	East Fork Little Bear River	1878
25-1551	Paradise Irrigation Company	38.0	East Fork Little Bear River	1860
25-1552	Utah Board of Water Resources	12.0	East Fork Little Bear River	1860
25-1553	Utah Board of Water Resources	10.0	East Fork Little Bear River	1860
25-1554	Utah Board of Water Resources	10.0	East Fork Little Bear River	1860
25-1102	LTD LRE	(No Flow)	East Fork Little Bear River	1860
25-906	Mary C. Summers	4.0	East Fork Little Bear River	1878
25-907	Doran and Philip Baker	4.0	East Fork Little Bear River	1878
25-910	G. Lynn and Denna Hulme Trust	4.0	East Fork Little Bear River	1878
25-948	Joseph and Lorna Broadbent	4.0	East Fork Little Bear River	1878

- Easements

- Porcupine Highline Canal: In 1962, a 100' wide right-of-way easement was granted to the Porcupine Highline Canal Company to erect, install, operate and maintain an irrigation canal with appurtenant structures. This concrete lined canal is located between Porcupine Reservoir and Paradise City. Approximately 6100' of this canal is located on the north hillside (south facing slope) of the WMA.
- Utah Power and Light easement: In 1986, Utah Power and Light was granted a "perpetual easement and right-of-way for the erection, operation, continued maintenance, repair, alteration, inspection, relocation and replacement of the electric transmission, distribution and communications circuits."
- Ruby Pipeline: In 2010, UDWR granted a non-exclusive easement to Ruby Pipeline L.L.C. (CAC-1002EA-125), for a buried 42" natural gas pipeline. The general location of the pipeline is in the bottom of Lime Kiln Canyon (coming onto the WMA from the north), then west along the north side of the East Fork of the Little Bear River. This easement for Ruby Pipeline is located in Section 18 of Township 9 North, Range 2 East, SLB&M. Infrastructure associated with this easement includes: one above ground main line valve, one cathodic ground bed, and one underground, ground bed wire. This permanent 50 foot easement was granted for the purpose of ingress and egress for the construction, installation, operation, maintenance, repair, and replacement as necessary of the pipeline, main line valve, cathodic ground bed, and underground ground bed wire. As per the UDWR Administrative Land Rule (R657-28), the maximum length of time UDWR can grant easements across state lands is for 30 years. It is anticipated that Ruby Pipeline will seek an extension of this easement at the appropriate future date. Easement term: 30 years.

In 2011, UDWR granted a second non-exclusive easement to Ruby Pipeline L.L.C. (CAC-1006EA-139) for the installation of a buried, single-phase power line extending from the existing distribution power pole, to the main line valve. As per the UDWR Administrative Land Rule (R657-28), the maximum length of time UDWR can grant easements across state lands is for 30 years. It is anticipated that Ruby Pipeline will seek an extension of this easement at the appropriate future date. Easement term: 30 years.

Land Acquisition History

In 1991, the UDWR purchased the WMA from landowners Marion O. Olsen, Todd G. Weston, and Joyce F. Weston. This acquisition included the use of U.S. Fish and Wildlife Service, Wildlife and Sportfish Restoration grant program monies (Federal Aid, Dingell-Johnson): Project F-57-L-10. These DJ funds come from a national tax on sporting goods, boats and motors, with the money placed into an account which is then divided proportionally among each of the 50 United States, and is based on the land mass of each state and the number of licenses sold. The UDWR desired to preserve wildlife habitat and increase wildlife recreation, especially angling opportunities, along with other recreational activities.

Historical Uses of Property

The land was historically used for grazing, angling and other outdoor recreational pursuits.

Purpose of Ownership

The UDWR purchased this property with the intent to protect terrestrial and aquatic wildlife species, and their respective habitats. In addition, UDWR desired to improve aquatic and riparian habitats on the property that had been degraded due to flood control activities in the 1980's. The East Fork of the Little Bear River was identified by UDWR as a Class II cold water trout stream which is defined as: "waters of great importance to the state fishery. These are productive

streams with high esthetic value and should be preserved.” The purchase of this land secured angler access to the river and increased wildlife recreation opportunities.

II. Property Inventory

Existing Capital Improvements

- Signs:

A large wooden, entrance sign is located at the main parking lot. Additional UDWR ownership and regulatory signs are posted on the buck and pole fences along La Plata road, at the vehicle pull-outs, in the main parking area, and on property gates.
- Interior fences:
 - There is approximately 1 mile of buck and pole fence located on both the north and south sides of the La Plata road to keep cars away from the river (note: the fence changes sides at the highway bridge so as to always be between the road and the river).
 - Approximately 500’ of buck and pole wooden fence is located along the western edge of the main parking lot to keep vehicles off of the administrative road/Ruby Pipeline easement along the north side of the river. A pedestrian walk-through is provided through the fence.
 - A small section of barbed wire fence (approximately 175’) was constructed by Ruby Pipeline to prevent motorized vehicle access over the newly piped High Line canal. This area is just north of the main parking lot.
 - Approximately 15 pedestrian walk-through fence openings can be found in the buck and pole wooden fence along the road.
- Boundary fences:
 - The western boundary is not completely fenced with the fence-line only in place from the High Line canal, south to the south-west property corner (approximately 1900’). Between the canal and La Plata road, this barbed wire fence is in relatively good condition. However, this fence line had been moved from the actual property boundary to an area approximately 225’ – 250’ east of the property boundary. Following Ruby Pipeline construction activities, a new fence line was constructed on this incorrect property line. UDWR has been in contact with the adjacent landowners who are suspected of moving the fence, but they have not yet moved the fence back to the correct location. The remainder of the western boundary fence, from the La Plata road, south to the south-west property corner, has fallen into disrepair with wires down and fence posts missing or bent.
 - The southern boundary fence is also old and in disrepair, and only exists along a small area of the western portion of the southern boundary.
 - There is no fence along the eastern property boundary.
 - There is only a small section (approximately 250’) of barbed wire fence along the northern property boundary. This fence was installed by Ruby Pipeline and serves to prevent motorized vehicle access up Lime Kiln Canyon and onto adjacent private lands. The remainder of this northern boundary is steep and rocky.
- Parking lots and pull-outs:
 - The main parking lot is approximately 350’ x 200’. As partial mitigation for the use of the main parking lot for staging of pipeline construction activities, Ruby Pipeline enhanced and refurbished the parking lot with several inches of pit-washed gravel. They also installed large rocks along the northern boundary of the parking lot (to prevent vehicle travel up to and over the newly piped section of the Highline canal).

- There are 4 additional vehicle pull-outs off of La Plata road. These areas provide for angler access to the river, and provide for dispersed day use activities. Some limited camping also occurs in these pull out areas.
- Porcupine-Highline Canal access roads and gates: There are 4 short access roads on the WMA with gates that provide administrative access from the paved road to sections of the canal.
- Gates: There are 4 metal gates that provide administrative access onto the property.
- Roads: There is one two-track dirt road that is located along the northern boundary of the East Fork of the Little Bear River. This road is for UDWR administrative access only. A small dirt track is located from the main parking lot, north over the Highline Canal land up to the property boundary in Lime Kiln Canyon.

Species of Greatest Conservation Need/Utah State Sensitive Species

Although the EFLBR WMA has not been formally surveyed for the presence of sensitive species, there are five wildlife species considered as either a Species of Greatest Conservation Need (SGCN from the 2015 Draft WAP; Section III of this plan) or a Utah State Sensitive Species (Utah Sensitive Species list, 2007). Some species are found on both lists. These species have been either observed on the WMA, or would be expected to occur given habitats types present on the WMA: Golden Eagle; Bald Eagle; Townsend's Big-eared Bat; Little Brown Myotis; and Bonneville Cutthroat Trout.

Important Fish and Wildlife Habitats

Three primary plant community types can be found on the WMA: lowland riparian habitats (primarily willow, cottonwood, dogwood, wild rose, river birch, and alders); upland habitats (primarily sagebrush, native shrubs, and grasses); and a Mountain shrub-tree habitat (primarily box elder, big-tooth maple, chokecherry, and hawthorne).

Mountain shrub habitats cover about 1% of Utah and are declining mostly due to human impacts. Disruptions in natural fire cycles, introduction of invasive plant species, improper grazing practices, and brush control are some of the causes of decline in the mountain shrub habitat. On the WMA, this mountain shrub-tree habitat is located at the toe of the slopes and the juxtaposition/transition of this habitat (between the lowland riparian and the sparse sagebrush plant communities) is rare as many of these habitat areas have been lost to development. Portions of this habitat type were either temporarily or permanently lost during construction activities associated with the Ruby Pipeline. To offset some of this loss, Ruby Pipeline mitigation actions on the WMA included the planting of trees and shrubs along the toe of the slope on the north side of the river, within a riparian oxbow of the East Fork of the Little Bear River, and at the mouth of Lime Kiln canyon.

Flowing water habitat is rare in Utah, which is the second driest state in the nation, covering less than 0.1% of the land area. Flowing water habitats are hugely diverse and support equally diverse plant and animal communities. Threats include: water loss; pollution, nutrient and sediment loads; channelization/straightening; and invasive species. On the WMA, previous flood control actions in the 1990's had "straightened" the stream corridor and eliminated most of the functional floodplain. Several years after acquiring the WMA, UDWR worked to restore the stream to a more natural and functioning system.

Within the arid west in general, riparian habitats cover less than 1% of the land area, yet support an abundance of wildlife, especially neotropical migratory songbirds. Within the Great Basin, approximately 82% of the total bird species are either totally or partially dependent upon riparian habitats. While the majority of riparian habitats on the property are of a relatively young age due to habitat restoration activities in the 1990's, these riparian areas already support a diverse

assemblage of bird populations. As these habitats become more mature, the diversity and abundance of both floral and faunal species is anticipated to increase. During the development of the Ruby Pipeline EIS, the riparian habitats on the WMA were surveyed for the presence of yellow-billed cuckoo a state sensitive species and federal species of concern. However, none were found.

Lowland riparian habitats cover about 0.2% of the state and are declining. Threats to riparian areas include channelization, land development, drought, and improper OHV use. On the WMA, riparian habitats were restored during previous actions to create a natural, meandering stream channel and active floodplain. Along the western edge of the WMA, the Ruby Pipeline easement crosses an oxbow channel of the river. To facilitate pipeline construction activities, riparian habitat was removed from the area. Mitigation requirements included planting of some shrubs and trees within this area, although tall trees will not be permitted to grow within 10' of the centerline of the pipeline.

The East Fork of the Little Bear River is an important stream fishery. It is managed primarily as a wild brown trout fishery (*Salmo trutta*), with brown trout densities approaching 2,000 fish/mile. Some Bonneville cutthroat trout (*Oncorhynchus clarkii Utah*) occur in this reach and they likely originated in the South Fork of the Little Bear River, and have moved upstream into the property. A few rainbow trout also occur in the stream, and these are likely fish that have come downstream from Porcupine Reservoir, as this stream section is not currently stocked with rainbow trout. Native sculpin also occur in this reach and they are likely mottled or paiute sculpin, or both. The habitat restoration activities completed in the area in the 1990's have increased fish condition and density.

Utah Wildlife Action Plan

The Utah Wildlife Action Plan (WAP; see additional information in Section III, Management Goals and Objectives), identifies several key terrestrial and aquatic habitats that occur on the EFLBR WMA. The WAP includes a statewide threat assessment which identifies threats to each key habitat, and then ranks the impact of that threat (the scope and severity; S&S) according to the number of Species of Greatest Conservation Need that could be affected from that threat. These key habitats and their priority threats include:

- Mountain Shrub habitat: Mountain shrub key habitats on EFLBR WMA are primarily Rocky Mountain Lower Montane Foothill Shrubland and Rocky Mountain Big Tooth Maple Ravine Woodland habitats. This habitat includes some species which resprout after fires, while other species do not resprout. Mountain shrub communities are susceptible to cheatgrass invasion on drier sites. No specific management is done for mountain shrub habitats on the WMA
 - The priority threats include: Invasive Plant Species – Non-native (Medium S&S).
- Aquatic - Scrub/Shrub habitats: Scrub/Shrub aquatic key habitats on EFLBR WMA are primarily associated with the East Fork of the Little Bear River and adjacent springs and seeps. This habitat includes perennial and intermittent streams where woody vegetation is less than 6 meters in height. Since restoration activities in the 1990's, riparian vegetation has been growing and expanding, and while some woody vegetation is above 6 meters, the majority of the area has not yet become a forested key aquatic habitat. No specific management is done for scrub-shrub habitats on the WMA.
 - The priority threats include: Agricultural/Municipal/Industrial Water Usage (Very High S&S); Water Allocation Policies (Very High S&S); Presence of diversions (Very High S&S); Improper Grazing (High S&S); Channelization/Bank Alteration (direct, intentional) (High S&S); Droughts (High S&S).

Most of these threats are unable to be addressed directly on the EFLBR WMA. However, management at EFLBR WMA addresses threats to these key habitats to the extent possible by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the WMA.

Most of the Species of Greatest Conservation Need and Utah State Sensitive Species do not have specific management plans to guide their management. In the future, as species management plans are written and adopted by the Utah Wildlife Board, they may be implemented at EFLBR WMA.

General Condition of Habitat

The East Fork of the Little Bear River flows through the entire length of the WMA. Heavy spring runoff during 1984 caused extensive erosion on the stream banks through the property. Under the stated goal of emergency erosion control, Cache County used a bulldozer to straighten the stream channel below the bridge, thus taking out the natural meander pattern of the stream. The result was essentially a 2200' long irrigation ditch. The channel straightening activities caused an increase in both the stream gradient and stream flow velocities. Pool habitat could not form and head-cutting progressed up stream to the bridge abutments. The combination of these factors contributed to excessive sediment loading in the system, and resulted in poor water quality conditions and reduced fishery habitat.

In 1996, following UDWR acquisition of the property, a project was undertaken to return the stream to the correct meander pattern with a functioning flood plain. DWR Habitat funds and Section 319 money were sought to stabilize the channel, add habitat diversity and to make it more productive for aquatic species. Rosgen channel design methods were employed in the design and the reach was transformed into a C-4 stream type. The wetted channel length was increased from 2200 to 3300 linear feet by the construction of several meanders. The original channel was left in place and the new channel was constructed over it leaving the downstream portion of the old channel connected to the reconstructed channel to provide back water habitat for juvenile fish, aquatic invertebrates and macrophytes. In-channel structures were also placed within the newly designed channel footprint. Vortex rock weirs (now called cross vanes) and j-hooks were placed in areas of high shear stress to armor the bank, creating stability and to increase habitat diversity.

The metric chosen to monitor the project was fish populations, particularly sportfish species. Post-project sampling indicated a dramatic increase in fish populations that stabilized to a moderate increase over time. Results sustained over a 10-year period showed an increase in brown trout population of approximately 50%. Variability due to drought conditions in the interim period was high. Although never documented by creel survey, anecdotal evidence exists that the area has seen a remarkable increase in angling pressure. Brown trout populations have still managed to increase despite the influence of that pressure increase.

Beavers have since colonized the reach further adding to the heterogeneity of the riparian corridor. Considerable pool habitat has been created and in an area where lateral river migration has been mitigated by bank armor (thereby prohibiting the natural formation of point bars), the rejuvenation of cottonwoods has been largely accomplished by beaver cutting rather than colonization of point bars from seed sources.

The eroded banks of the upper section of the stream above the bridge were not restored and were left to heal over time with the return of vegetation. According to the Rosgen stream channel classification system, the East Fork of the Little Bear River (upstream of the bridge, on the WMA) is likely a “B3”-“B4” Channel. “B” channels are stable channels with a moderate gradient. Downstream of the bridge, the channel was designed to be a “C” channel, more characterized by wider meanders and a lower gradient. Point bar formation will be a slow process due to heavy bank armoring, low sediment load and regulated flows.

Stream flow is usually maintained because of the release of water into the stream from Porcupine Reservoir to meet the water needs of Trout of Paradise located downstream in Paradise, Utah.

East Fork of the Little Bear River Restoration – At a Glance

Parameter	Before Restoration (pre-1996)	After Restoration
Linear Feet	2200'	3300'
% Stable Banks	60%	95-100%
Meander Bends	1	4 1/2
Nursery Areas/Backwaters	None.	4
Fish/mile	Brown Trout = 1023 All Fish = 1116	Brown Trout = 1264 All Fish = 1238
Adult Fish Biomass	136.51 kg/ha	262.32 kg/ha (1998) 1139.91 kg/ha (2000) 509.50 kg/ha (2003) 351.09 kg/ha (2005)
Beaver Dams	< 5	15+ (as of 2014)
Angling Pressure	Low	Moderate
Extent of Riparian Area (width)	200'; Patchy	300'; Full

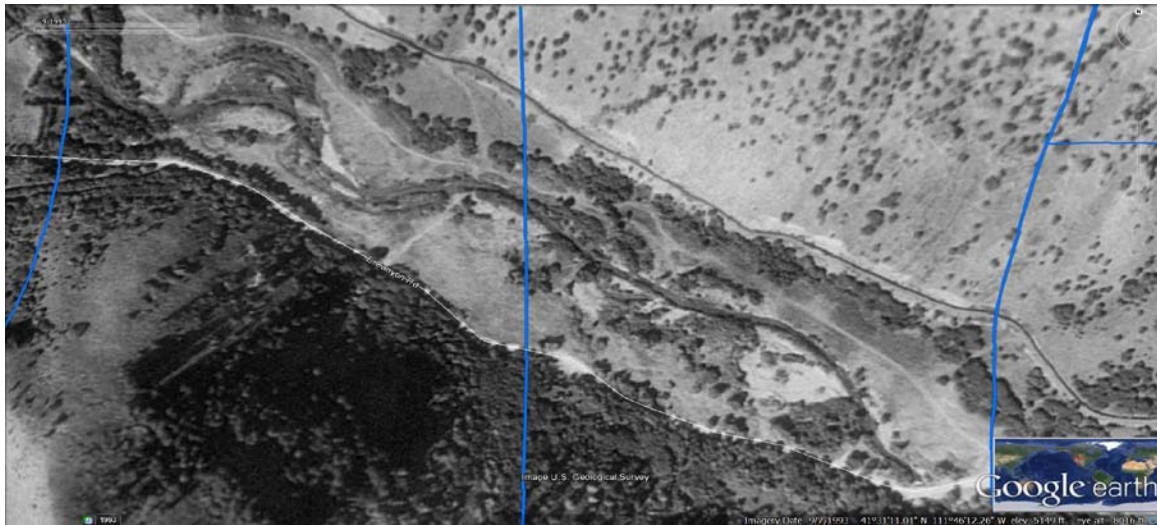


Photo 1. East Fork of the Little Bear River WMA, pre-1996. Highway bridge on East Canyon Road (on the south side of the river) is at lower right of picture (near the Google Earth logo). Highline canal is on the north side of the river. The river is flowing to the west (to the left side of picture).



Photo 2. East Fork of the Little Bear River WMA, post construction. Highway bridge on East Canyon Road (south of the river) is at lower right of picture (near the plane wing). Highline canal is on the north side of the river. The river is flowing to the west (to the left side of picture).

Ruby Pipeline

UDWR has granted a pipeline easement to Ruby Pipeline, L.L.C. The pipeline comes onto the WMA, down the east side of Lime Kiln canyon, just above the canyon bottom. Just north of the Porcupine-High Line canal and the WMA main parking area, the pipeline turns southwest. The pipeline continues south, going under the canal and down a small drainage, and onto the valley bottom. Then, the pipeline continues west through the WMA, located in a narrow area between the north side of the East Fork of the Little Bear River and the toe of the hillside. A mainline valve and underground wire bed was installed a few hundred feet west of the main parking lot.

Lime Kiln canyon does not support perennial stream flows, but does support isolated springs and seeps, and it does carry flood flows down from the plateau above. During Ruby pipeline construction activities, all the vegetation in the canyon bottom was removed. Before reclamation activities were completed and during a several day period of heavy rains, a large amount of water flowed down the canyon, and into the Porcupine-High Line canal. These flows dumped a large amount of rock and sediment into the canal. Since the canyon does not support perennial flows, there was no defined “channel” and the water leaving the canyon simply flowed along the path of least resistance, cutting a “channel” to the canal. As a result of this event and Ruby boring activities which cracked the canal, the canal was placed into a new buried water pipe through the area at the mouth of the canyon. This event also led to Ruby working with UDWR and the Porcupine-High Line Canal Company to design a new “channel” to carry any future flood flows. This new “channel” begins at the mouth of Lime Kiln canyon and directs water flow to the southwest, over the new High Line canal pipeline, and then down a small, rock lined drainage to the valley bottom. Small berms and swales were also placed at the canyon mouth and bottom, and along the slope between to “direct” water into the new “channel”.

Ruby worked with UDWR to locate the pipeline along the valley bottom in such a manner as to avoid several sensitive habitats (floodplains, wetland springs and seeps, and large trees at the toe of the hillside). The result is that instead of being completely straight, the pipeline slightly “meanders” through the area.

UDWR and Ruby also prepared a mitigation and reclamation plan for the WMA. Ruby reseeded the area with a seed mixture of shrubs, forbs, and grasses, and planted some upland and riparian seedlings around the mouth of the canyon, as specified by UDWR biologists. This reclamation effort must be monitored for 3 years to assure reclamation activities are successful, and they will also monitor and treat invasive weed species.

The EFLBR WMA parking lot was used during pipeline construction as a staging area. As mitigation for this use, Ruby replaced the wooden fencing around the lot, installed large rocks to prevent vehicle access above the parking lot, and spread several inches of pit washed gravel throughout the lot area.

Adjacent Land Uses and Impacts

Lands surrounding the property are privately owned and are primarily used for cattle grazing. Single family homes are located along the La Plata road, immediately west of the WMA border. Additional homes are proposed to be located within this same vicinity, west and south of the WMA. As development increases in this area, there could be some additional recreational pressure and impacts to the WMA.

Vandalism sporadically occurs on the property. This vandalism includes: removing the wooden fencing along the entrance road to use as fire wood; pulling over the wooden fencing; attempting to access areas behind fences and gates to ride ATV’s and/or snowmobiles; and ATV’s and large trucks driving through the pull-outs when they are wet, creating large ruts and mud holes.

Claimed Non-Possessory Interest

A party owning property adjoining the WMA has notified UDWR that it claims an unwritten and unrecorded non-possessory access interest in the WMA. This access interest claim, located in the floodplain and running the length of the WMA north of the East Fork of the Little Bear River and west of the parking area, would negatively impact the function and value of the WMA. Under Utah law, any party claiming a non-possessory interest in the property of another carries the burden of proof for establishing the legitimacy of its claim. UDWR is working to resolve this issue.

III. Management Goals and Objectives

UDWR Strategic Plan (2007-2011)

The management of the East Fork of the Little Bear River WMA has relevance to the following goals and objectives as outlined in the Division’s strategic plan:

Resource Goal: Expand wildlife populations and conserve sensitive species by protecting and improving wildlife habitat.

Objective R1- Protect existing wildlife habitat and improve 500,000 acres of critical habitats and watersheds throughout the state by 2011.

Objective R2- Increase fish and game populations to meet management plan objectives and expand quality fishing and hunting opportunities.

Objective R3- Conserve sensitive species to prevent them from being listed as threatened or endangered.

Constituency Goal: Achieve broad-based support for Division programs and budgets by demonstrating the value of wildlife to all citizens of Utah.

Objective C1- Increase public awareness of wildlife as a quality of life issue in order to expand our support base and achieve stable funding.

Objective C2- Improve coordination with organizations, public officials, private landowners, industry, and government agencies to obtain support for Division programs.

These goals and objectives will be accomplished by properly managing the water, vegetation, wildlife and human components of the WMA according to those strategies mentioned in the property and habitat management sections below. These section's detail property maintenance and development, wildlife species and habitat management, and access and fire management on the WMA.

Utah Wildlife Action Plan

The 2015-2025 edition of the Utah Wildlife Action Plan (WAP) was created with the express purpose and goal of managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act. To help achieve this goal, the WAP provides a statewide approach for the partnership-based, coordinated planning and implementation of wildlife and habitat conservation practices. The WAP addresses the following elements:

- Conservation targets include; species of greatest conservation need, and those species' key habitats; information about the status and distribution of these species; information about the location and condition of these key habitats.
- Threats and limiting factors facing these species and habitats, and research required to help managers more effectively address these problems. Threats are measured and prioritized on a statewide basis, based on how many targets they impact, and how severely the targets are impacted.
- Conservation actions required to abate the highest-priority threats, and improve the supply of these limiting factors.
- Monitoring the status of these targets, and in particular the effectiveness of these actions.
- Approaches for including the public, partners, and stakeholders, in consideration of the mission and authority of partners.
- Provisions for coordinating the WAP with other natural resource management plans.

The EFLBR WMA HMP process is used to address wildlife species and habitats found on the WMA, by explicitly including their needs in routine, novel, and emergency management activities. This aligns well with the intent of the WAP, which identifies specific management actions that can be taken to reduce priority threats to these species and habitats.

The EFLBR WMA has several key habitats of statewide and local concern which include: aquatic scrub/shrub habitats, and mountain shrub habitats. One of the intents of the WAP in identifying these habitats is that local-area management efforts can better focus actions on those specific habitats where actions can have the most benefit for species of greatest conservation need. Most of the threats to these key habitats are unable to be addressed directly at EFLBR WMA. However, management at

EFLBR WMA attempts to address threats to these habitats to the extent possible, by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the WMA. For more information, please see the discussion in Section II Property Inventory, Wildlife Action Plan.

IV. Strategies for Property Management

Development Activities

- **Survey Needs:** The western boundary fence between the canal and La Plata road needs to be surveyed to determine the exact boundary line. The fence has been moved from its original location and needs to be replaced on the boundary.
- **Sign Needs:** The property boundary needs to have UDWR boundary signs posted at all corners and quarter-corners.
- **Resolution of the Non-Possessory Interest Claim:** Along with the survey proposed above, efforts will continue to resolve the non-possessory property interest claim identified above.

Annual Maintenance Activities

- **Parking lots and pull-outs:** These are graveled as necessary.
- **Fencing and gates:** The wooden buck and pole fence paralleling the entrance road needs to be periodically fixed as vandals remove logs to burn for firewood or to access areas closer to the river.
- **Weed Control:** Annual spraying of invasive and noxious weeds occurs as needed. Notify Ruby Pipeline of weed issues on their easement.
- **Signs:** Signs are replaced as needed.
- **Litter:** Litter is collected as needed.

Compatibility with Local Government Plans and Land Uses

There are no known conflicts with local government general plans, zoning or land use ordinances that exist at this time. The East Fork of the Little Bear River WMA occurs within unincorporated Cache County. Cache County currently zones the area as Forest Recreation. This zoning is compatible with UDWR management of the property and with the rural agricultural conditions of surrounding properties.

V. Strategies for Habitat Management

Unit Management Plans for Wildlife Species

The East Fork of the Little Bear WMA is located in Deer Herd Unit 3 and Elk Herd Unit 3. There is very little deer or elk activity on the WMA, and the property is not heavily used by sportsmen during the fall hunting seasons.

Conservation Agreement and Strategy for Bonneville Cutthroat Trout (*Oncorhynchus clarki utah*) in the State of Utah (UDWR Publication #97-19)

Under this 1997 Agreement, Bonneville cutthroat trout are currently managed as a Conservation Agreement Species by the U.S. Fish and Wildlife Service. As part of the Agreement and Strategy, all the signatories to the Agreement, including UDWR, have agreed to work towards restoration of the species to prevent further population declines and to prevent the species from being listed as threatened or endangered. As part of this overall strategy, efforts to protect existing Bonneville cutthroat trout populations are undertaken, along with efforts to restore or recover the trout into historical habitats.

Habitat Improvement Plan

There are no proposed or planned terrestrial or aquatic habitat improvement activities for the property. Habitat improvements may be planned if needed to maintain the property in a healthy condition to support resident and migratory wildlife populations.

Noxious and invasive weed control is done on an annual basis as needed, using various methods (chemical, biological, mechanical) deemed appropriate at the time.

Access Plan

Access to the property is from the La Plata/East Canyon Road that runs parallel to the river. There are several pull-outs off this main road where the public can park next to the buck and pole wooden fence, and use gaps in the fence to gain access to the river. There is one main parking area adjacent to the bridge over the river. Fences were installed to prevent vehicle access to the stream and to control cattle access. While there are no formal campsites, camping is allowed under the UDWR Land Use Rule (R657-28). The property is open yearlong to pedestrian public access.

Fire Plan

There are no current plans to use prescribed fire to manage habitats on this property. If a wildfire occurs in the area, the Paradise Fire Department is the closest fire station and will respond to the fire, with assistance, if needed, from the Utah Division of Forestry, Fire and State Lands.

Water from Porcupine Reservoir, including water from the UDWR conservation pool, has been used in the past to extinguish wildfires in the local area. Currently, a partnership of local, state and federal agencies (including UDWR) is discussing the development of an MOU to enable the use of Porcupine Reservoir water in emergency wildfire events.

Wood Products

There are no wood products to be harvested from the WMA.

Livestock Grazing Plan

Some minor grazing and the trailing of cattle is done on the property by an adjacent landowner. The grazing is completed using the guidelines specified in the UDWR Land Use Rule (R657-28). UDWR issued a license agreement (contract number 70-1758) to Mr. Cole Evans, for trailing cattle across the WMA. Mr. Evans owns property north of the WMA and grazes land north and east of the WMA. Trailing cattle through the WMA will allow his cattle to subsequently be trailed along the La Plata road and onto private property. To facilitate grazing access and prevent trespass onto private property, a locked gate has been placed between the UDWR and Cole Evans properties wherein each entity has their own lock. No additional grazing is being considered on the property at this time. If additional grazing is determined necessary for habitat management objectives, the UDWR Administrative Land Rule (R657-28) will be used to solicit, advertise and bid for grazing opportunities on the WMA.

Compatibly with Local Uses

The surrounding land is privately owned and primarily used for grazing. Stream flow is usually maintained because of the release of water into the stream from Porcupine Dam to meet the water needs of Trout of Paradise, a local fish hatchery and recreational angling location, located downstream in Paradise, Utah. Cache County zones the area as forest recreation.

VI. Summary and Statement of Proposed Uses

The goals and objectives of the East Fork of the Little Bear River WMA are primarily to: preserve, restore and enhance both aquatic and terrestrial habitat for all wildlife on the property; and to provide recreational opportunities (especially for anglers) that are compatible with the purpose of functioning aquatic and upland ecosystems. The UDWR will allow for and provide wildlife-related recreational activities that are consistent with the goals and purposes for which the property was acquired.

VII. Monitoring and Evaluation

The Northern Region Habitat Section, the area aquatic wildlife biologist, the Habitat maintenance specialist and the area conservation officer will be responsible for monitoring the overall effectiveness of this plan. Appropriate sections and staff will provide expertise as required. The Habitat Maintenance Specialist will monitor the needs and effectiveness of physical facilities and improvements. If necessary, the district conservation officer will write or amend an action plan for this property. All individuals and sections will report to the Regional Management Team through their supervisors. The area aquatic wildlife biologist, with assistance from a regional team, will amend this plan as needed.

VIII. Appendices

Appendix A: Maps

- General Location
- Surrounding Land Ownership
- Access

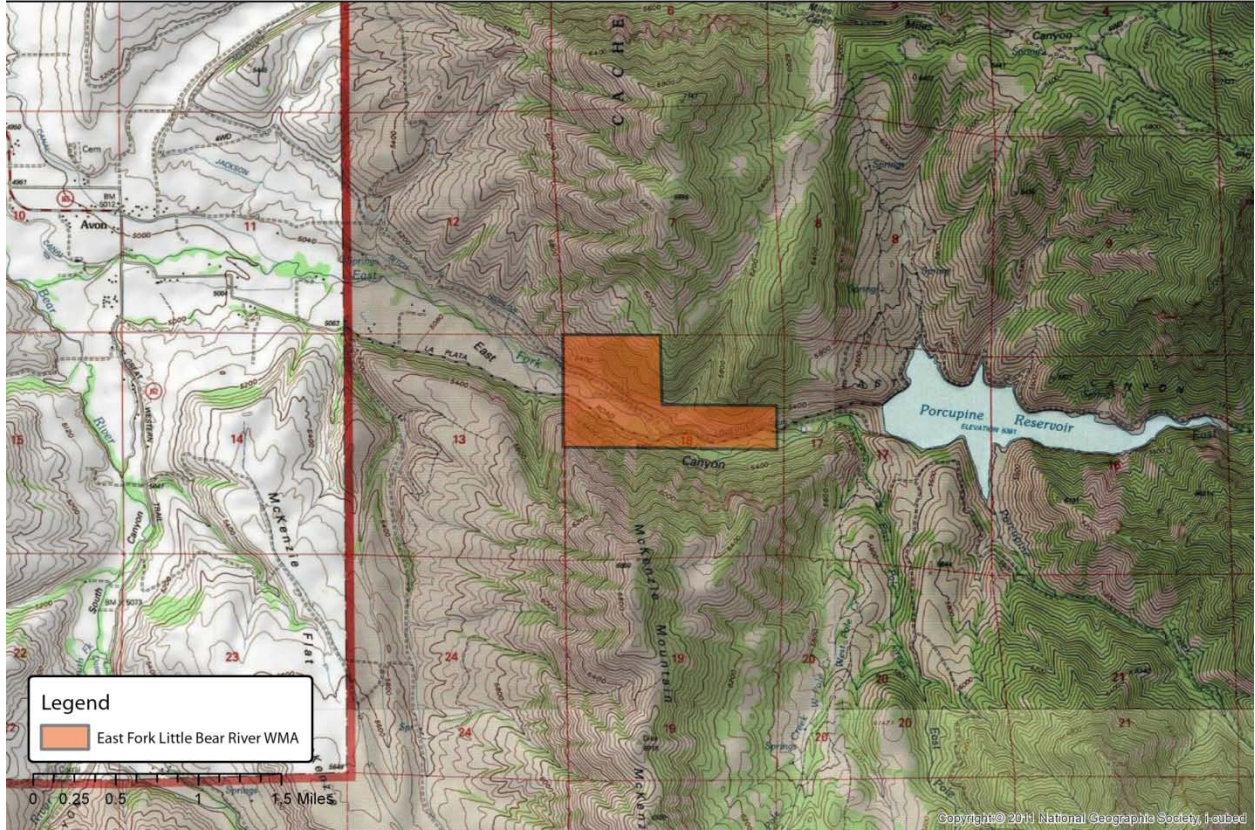
Appendix B: Legal Descriptions and Encumbrances

- Deed Information, Legal Descriptions and Encumbrances

Appendix A: Property Maps

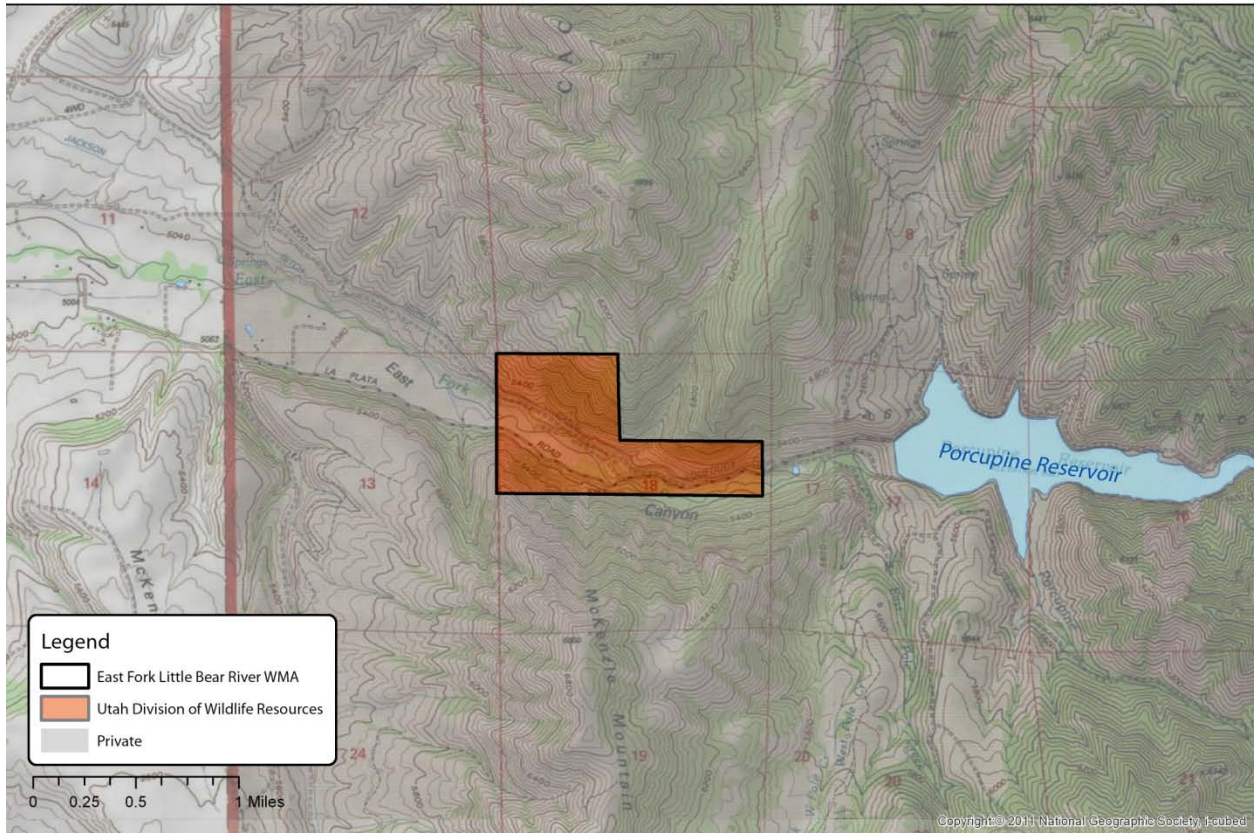


East Fork Little Bear River Wildlife Management Area General Location Map



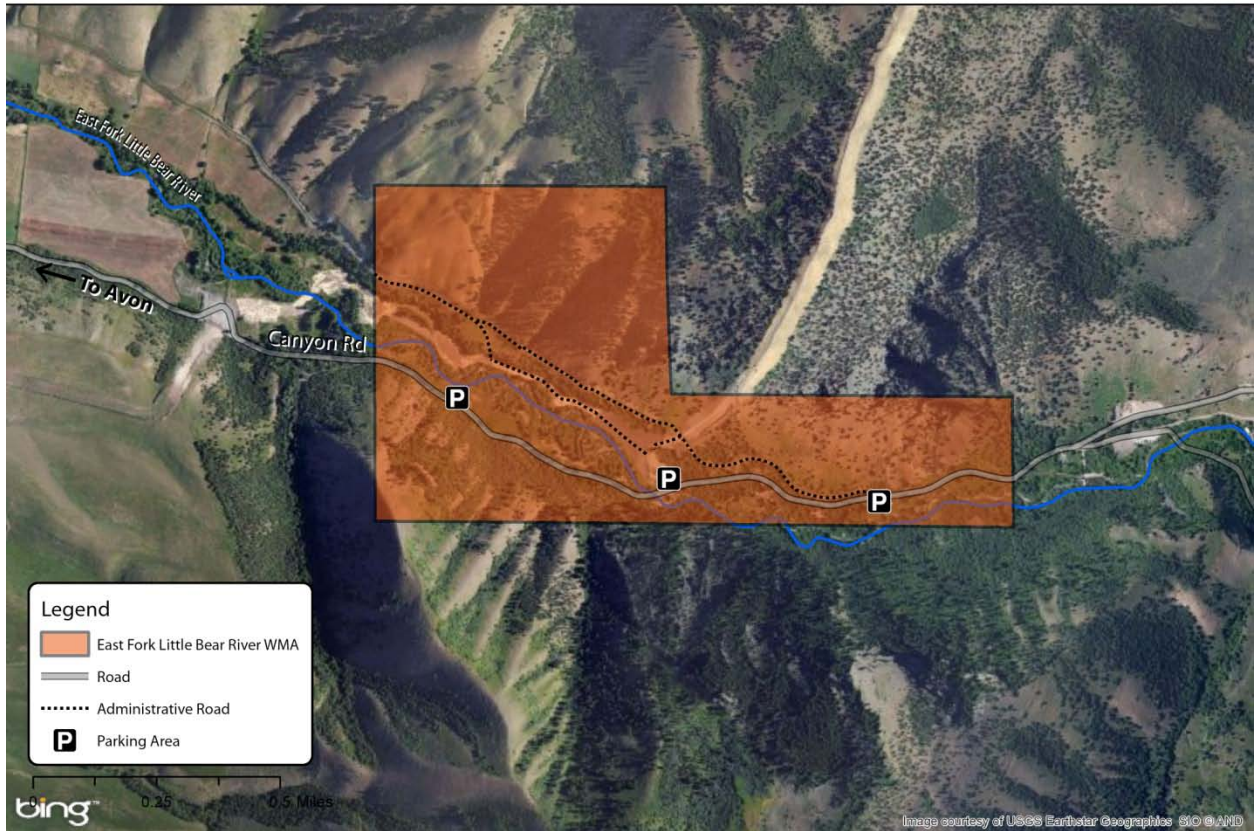


East Fork Little Bear River Wildlife Management Area Land Ownership Map





East Fork Little Bear River Wildlife Management Area Road/Access Map



Appendix B: Legal Descriptions and Encumbrances

Grantor: Marion Olsen, Todd G. Weston, Joyce F. Weston

Warranty Deed 543410 (239.84 acres)

Township 9 North, Range 2 East,
Sec. 18, lots 1 and 2; and SE ¼ NW ¼; and S ½ NE ¼; and NE ¼ NW ¼

Encumbrances & Limitations:

- Porcupine Highline Canal Company: Right of way 100' wide for irrigation canal and appurtenant structures. Easement dated October 4, 1962.
- Utah Power and Light Company: Right of way for the erection, operation, maintenance, repair, alteration, inspection, relocation and replacement of electric transmission, distribution and communication circuits. Perpetual easement dated September 26, 1986.
- Cache County Road: Right of way for the county road designated "La Plata" on the official plat for Cache County.
- Grantor reserves all mineral rights.

Additional Easements:

- UDWR Non-exclusive Easement Lease No. CAC-1002EA-125, granted July 5, 2010. Purpose of easement is for the ingress and egress for the construction, installation, operation, maintenance, repair and replacement as necessary of: one buried 42" natural gas transportation pipeline; one above ground main line valve; one cathodic ground bed; and one underground ground bed wire. Easement term: 30 years.
- UDWR Non-exclusive Easement No. CAC-1006EA-139, granted January 31, 2011. Purpose of the easement is for the ingress and egress for the construction, installation, operation, maintenance, repair and replacement as necessary of one powerline. Powerline will be a buried, single-phase line to service the Ruby Pipeline project, main-line valve. Easement term: 30 years.

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EXECUTIVE SUMMARY

Farmington Bay Waterfowl Management Area Habitat Management Plan Summary July 2016

Primary Purpose of Farmington Bay Waterfowl Management Area:

The primary purposes of Farmington Bay Waterfowl Management Area (FBWMA) are: to preserve, restore, and enhance both aquatic and terrestrial habitat for wildlife; increase wildlife populations to meet wildlife management objectives; conserve, protect, and recover sensitive wildlife species and their habitats; protect cultural resources; and provide for recreational opportunities that are compatible with the purposes of upland and wetland ecosystems. In addition, providing wetlands and wildlife educational opportunities associated with the Great Salt Lake ecosystem has recently become an additional purpose of the WMA.

Background

In the spring of 1935, the National Park Service (NPS), the Utah Fish and Game Department (UFGD; now the Utah Division of Wildlife Resources (UDWR)), and the Civilian Conservation Corps (CCC) joined forces to begin improving the original 3,800 acres of prime avian habitat on the eastern shores of the Great Salt Lake adjacent to Farmington, Centerville, and Bountiful cities. Population growth and agricultural uses were both encroaching upon and diverting water from critical wetlands in the region. The original 3,800 acres developed as Farmington Bay Refuge (Farmington Bay Waterfowl Management Area), were owned and controlled by the State of Utah. Through the consent of the state land board, and subsequent action by the state legislature, the refuge was established. Private lands purchased for the original 3,800 acres included approximately 4.5 acres for an access road.

The total traditional boundary acreage of FBWMA is approximately 18,400 acres. The UDWR currently has fee title to 2,464.85 acres. The Utah Division of Forestry Fire and State Lands (UDFFSL) owns and administers 15,935.15 acres of the Great Salt Lake (GSL), with these acres managed by the UDWR for wildlife, as per Utah State Code (23-21-5).

Wildlife Species:

FBWMA provides crucial year-round habitat for a variety of avian species, but particularly for waterfowl, wading birds and shorebirds. Principle waterfowl species that nest at FBWMA include Canada geese and a variety of ducks, such as the northern pintail, mallard, cinnamon teal, gadwall, northern shoveler, redhead, and ruddy duck. Principle shorebirds that nest at FBWMA include American avocet, black-necked stilt, and snowy plover. Other birds that also nest at FBWMA include ring-necked pheasant, mourning dove, white-faced ibis, snowy egret, black-crowned night heron, great blue heron, eared grebe, Clark's grebe, western grebe, pied billed grebe, killdeer, yellow-headed blackbird, red-winged black bird, and marsh wren.

FBWMA is also an important area for migrating waterfowl and shorebirds such as: lesser scaup; canvasback; redhead; ruddy duck; bufflehead; common goldeneye; American green-winged teal; northern shoveler; gadwall; American wigeon; northern pintail; mallard; Canada geese; long-billed dowitcher; common snipe; Wilson's phalarope; American avocet; black-necked stilt; marbled godwit; long-billed curlew; and willet.

FBWMA provides important winter loafing and foraging habitat for the bald eagle, a state species of concern. Other wildlife considered a Species of Greatest Conservation Need or a Utah State Sensitive Species that either currently occurs on the WMA or are suspected to occur include: American bittern; American white pelican; bald eagle; boblink; burrowing owl; Caspian tern; long-billed curlew; peregrine falcon; short-eared owl; snowy plover; Preble's shrew; and little brown myotis.

Habitat Conditions/Problems:

FBWMA has water rights to approximately 290 cfs of water. Several of these rights have old priority dates and are senior to most other water rights in the area. There are over 47 miles of dikes and roads that have approximately 225 water control structures within them. These water control structures allow the water to be distributed over the entire management area and manipulated to create productive wetland habitats. In 2001, a bypass canal was constructed that provides the ability to bypass high water flows from the Jordan River directly to the Great Salt Lake.

Excess nutrients, toxins, and other contaminants are found in water from the Jordan River which subsequently flows into FBWMA. Excessive phosphorus in the water leads to extensive algae blooms in the summer months. Water quality issues are currently being studied in depth by the Utah Division of Water Quality (DWQ), along with many outside researchers, to better understand these blooms.

Contamination of ground water is a concern around the Bountiful landfill which is immediately adjacent to FBWMA. There is potential for toxins or contaminants to reach FBWMA surface waters, however there is extensive groundwater monitoring that occurs quarterly at several locations north, south, and west of the landfill to protect FBWMA waters. The landfill also poses other concerns due the presence of avian and mammalian predators, such as gulls, ravens, foxes, raccoons, skunks, and feral cats, which move from the landfill onto FBWMA lands, significantly impacting bird nesting efforts. In addition, trash from the landfill blows onto FBWMA.

Development encroachment is occurring on the north and northeast sides of FBWMA. Sheep Road is a buffer from development on the east, but on the very north end of Sheep road, development is beginning to occur with several barns and mini farms in the area. On the north end of FBWMA, Glover's Lane provides a buffer from development occurring along 1325 West. Directly north of the headquarters area, there are 33 privately owned acres that would be optimal to obtain so that additional critical nesting cover for upland birds and waterfowl could be enhanced and created. In addition, development on these lands would complicate management efforts on the WMA.

The common reed (*Phragmites australis*) is the number one habitat concern at FBWMA, as it has invaded and taken over several thousand acres. *Phragmites* is being sprayed with glyphosphate as a means of chemical control, as well as mechanical control through grazing cattle. Other invasive species that are treated at FBWMA include: Canada thistle (*Cirsium arvense*); dalmation toadflax (*Linaria genistifolia*); dyers woad (*Isatis tinctoria*); field bindweed (*Convolvulus arvensis*); hoary cress (*Cardaria draba*); musk thistle (*Carduus nutans*); perennial pepperweed (*Lepidium latifloium*); poison hemlock (*Conium maculatum*); purple loosestrife (*Lythrum salicaria*); Russian knapweed (*Centaurea repens*); salt cedar (*Tamarix ramosissima*); scotch thistle (*Onopordum acanthium*); and yellow starthistle (*Centaurea solstitialis*).

Avian diseases are a concern with frequent mild outbreaks of Avian Botulism, and the presence of mosquitoes carrying the West Nile Virus. Predator management is required to control raccoon, skunk, raven and red fox. Undesirable fish species, such as carp, constantly migrate from the Jordan River and into the ponds of FBWMA. Carp compete directly with birds for food and reduce plant production by increasing turbidity. Managers conduct annual control efforts to reduce carp numbers. Any reduction of water quantity or water quality would be detrimental to the area.

Access Plan:

Public access is prohibited on the majority of FBWMA from March 1st to August 1st to protect nesting wildlife. However, during this time, the main gate at the north entrance is open from 8:00 AM to 5:00 PM, seven days a week. Visitors can park at Goose Egg Island and walk south for 2 miles to the other three gates (Turpin, South Dike and East Dike); however access beyond these gates is not permitted. Beginning August 1st, walk-in access is allowed beyond these three gates, along with the gate just south of the FBWMA headquarters heading east. The gate at Goose Egg Island opens in mid-September, and remains open until the last day in February for visitors to drive down the dike to the four way stop. During this time, the gate is open 24 hours/day, 7 days/week.

Although walk-in access is allowed at the south and east entrances between August 1st and mid-September, the parking areas are not open until mid-September. These parking areas are then open until the last day in February. A more detailed access plan can be found in Appendix C.

FBWMA has one vaulted toilet and two hunting blinds for persons with disabilities. They are located near the headquarters area at the north entrance. Two additional vaulted toilets are located at the Robert N. Hasenyager Nature Center, west of the north entrance.

Maintenance Activities:

All fences and gates will be maintained to protect habitat quality. FBWMA's access roads and parking lots will be maintained, including posting appropriate signs to communicate rules and regulations. All equipment, water control structures, bridges, and other capital resources will have continual maintenance and will be updated as necessary. Information and regulatory signs will be replaced as needed. Noxious and invasive weeds will be monitored and controlled using herbicide applications supplemented with prescribed burns and cattle grazing. Water will continued to be managed for wildlife and wildlife habitat benefits.

Habitat Improvement:

Habitat conditions are annually evaluated, and enhancement, restoration, or development activities are selected for implementation on specific sites. Numerous methods are used for these activities including: water management; planting; mechanical manipulation; burning; grazing; and herbicide treatments.

The number one habitat improvement activity for Farmington Bay WMA is *Phragmites* control. *Phragmites* is being controlled through a combination of cattle grazing, herbicide treatments, and water management. Habitat improvements are also being undertaken on uplands, where native and beneficial shrubs and grasses are being planted to improve nesting habitat for upland game and waterfowl, and to provide forage for upland game birds. Also, noxious weeds are being controlled on upland areas. Finally, carp control is conducted annually to increase the productivity of open water habitats.

A new 200 acre impoundment was constructed in 2013 on the southeast side of unit one. This impoundment, known as the Fullencamp unit, was created to increase the functions and values of the wetland, including increasing wetland productivity and bird use.

Further improvements will be made as personnel time and budget allow.

Public Education

The Robert N. Hasenyager Nature Center (Center) is located at the FBWMA. The Center's mission statement is: "To foster curiosity, understanding and pride in the Great Salt Lake Ecosystem among Utahans and the global community through world-class education and recreational opportunities."

The Center is a popular destination for school children and tourists alike. Between 2,000 -5,000 school children will visit the nature center each year to learn about wetlands, birds, and other wildlife on the WMA. In addition to the elementary school children, many high school and college classes come to learn about wetlands, birds and wetland management techniques.

The mobile learning center, which currently sits on land purchased by URMCC for this purpose, has served as a temporary nature center since 2003. The mobile learning center was first located near Farmington Bay headquarters, and was moved to URMCC property in 2006. A new nature center has been funded by the Utah Legislature, and is anticipated to open within the next few years. Trails near the nature center may be expanded in the future to connect to other trail systems in Davis County.

DRAFT
Farmington Bay
Waterfowl Management Area

-Habitat Management Plan-

July 2016

Prepared by:

Utah Division of Wildlife Resources

Northern Region

515 East 5300 South
Ogden, Utah 84405



Farmington Bay Waterfowl Management Area Habitat Management Plan

Draft
July 2016

I. Background Information

Property Description:

Farmington Bay Waterfowl Management Area (FBWMA) is located in Davis and Salt Lake Counties, Utah (Appendix A), at the end of the Jordan River delta, along the southeast bay of the Great Salt Lake. The towns of Farmington, Centerville, Bountiful, and Woods Cross are all located east of the WMA. FBWMA is divided into four main units: Unit 1, Unit 2, Turpin, and Crystal. Private lands surround FBWMA to the north, east, and south, with the Great Salt Lake to the west of the WMA (Appendix A).

The total traditional boundary acreage of FBWMA is approximately 18,400 acres. The Utah Division of Wildlife Resources (UDWR) currently has fee title to 2,464.85 acres. The Utah Division of Forestry Fire and State Lands (UDFFSL), owns and administers 15,935.15 acres of the Great Salt Lake (GSL), with these acres managed by the UDWR for wildlife, as per Utah State Code (23-21-5). The UDFFSL lands were initially surveyed in 1855, with a total of 18 surveys between 1855 and 1966, and with a range of GSL elevations during this time from 4,202 to 4,212 feet above mean sea level. The official meander line was adjudicated on June 28, 1976 (State of Utah v. United States, 31 Original, U.S. Supreme Court, June 28, 1976).

An additional 70.8 acres is owned by PacifiCorp (Appendix A), with UDWR holding a conservation easement on the acres. FBWMA has also accepted additional wetland mitigation acreage to manage through agreements with the U.S. Army Corps of Engineers. Two of these lands are still pending transfer to UDWR and include: 43.6 acres for the UDOT Shepard wetland mitigation property; and 56.4 acres for the UTA mitigation property (Appendix A). Copies of all these agreements are on file at the FBWMA headquarters. UDWR manages all 18,400 acres of the aforementioned properties for the benefit of wildlife.

FBWMA occurs north and west of the adjudicated 1976 GSL meander line. Specifically, the above mentioned area lies within the following sections: T3N and T2N, R1W & R2W with the exception of portions in the following areas: T2N, R1W; Sections 1, 9, 11, 12, 14, 16, 17, 18, 19, 22, 29, 30, and T2N, R2W; Sections 25, 26, 27, 32, 33, 34, and T3N, R1W; Sections 26, 35, 36. The PacifiCorp conservation easement occurs in sections 26 & 36, T3N, R1W (70.8 acres). The pending transfer of the UDOT Shepard mitigation property occurs in sections 35 & 36, T3N, R1W (43.6 acres). The pending transfer of the UTA property occurs in section 26, T3N, R1W (56.4 acres). The Chamberlain property (an additional wetland mitigation property) occurs in sections 11 & 12, T2N, R1W (21.04 acres).

Minerals

The following is information on mineral rights for each deed, with additional information included in Appendix B. UDWR would be concerned with the development of any of these mineral right interests, as they could impact wildlife through the disruption of surface uses.

Deed number	Status of mineral rights
912098	Rights reserved to the State of Utah
1684263	Silent on mineral rights
1261236	Silent on mineral rights
726109	Silent on mineral rights
864584	Reserves minerals to Grantor, Woolley
165904	Subject to covenants and terms of an agreement
61072	Silent on mineral rights
6527906	Silent on mineral rights
2605779	Silent on mineral rights
2613881	Reserved mineral rights to USA or third parties.

*Silent on mineral rights means that the deed isn't clear and more research needs to be done.

Water rights/shares

The UDWR has made application on 14 water rights which total 290.537 cubic feet per second. All but one of the FBWMA water rights have been perfected with the Utah Division of Water Rights, State Engineer's Office. All water rights are discussed in further detail in the Existing Capital Improvements section of this plan. A Water Management Plan is being developed and will be available at the FBWMA office.

Water Right	Name	Flow (cfs)	Source	Priority
57-7662	UDWR/Jordan Fur & Reclamation Co.	13.812	Jordan River	1886
57-3572*	UDWR/Jordan Fur & Reclamation Co.	48.688	Jordan River	1890
57-7533**	UDWR	35.000	Jordan River	1926
57-3576	UDWR	30.000	Jordan River	1952
57-3577***	UDWR	20.000	Jordan River	1952
31-81	UDWR	0.037	Underground Well	1955
31-2715	UDWR	8.000	Baer Creek	1961
31-2782	UDWR	30.000	Farmington Creek	1964
31-3864	UDWR	10.000	So. Davis Sewer District Effluent	1967
59-3571	UDWR	50.000	Spring Creek	1968
59-3459	UDWR	9.000	Crystal Creek	1968
59-3582	UDWR	30.000	Crystal Creek	1969
59-1754****	North Point Fur and Reclamation Club	4.000	North Point Club; South Crystal flow	1886
31-2714	UDWR	2.000	Hillfield Air Base Storm Drain	1988

*This water right is 75% Jordan Fur and Reclamation Company and 25% UDWR. However, at some point in the past, water right number 57-7662 was created using 13.812 cfs from 57-3572. So the final cfs flow is shown as 236.188 cfs, of which 48.688 cfs is the UDWR 25% portion of the flow. In addition, this water right also has New State Inc. associated with it. The Division should separate this right from the Jordan Fur and Reclamation Company to show 100% UDWR ownership. Our 25% interest is 48.688 cfs (62.50 cfs) with 2,460 acres irrigated as shown in the chart.

** This water right was acquired using federal dollars from the Land and Water Conservation Fund (LWCF) (Project #43-00002). Acquisition costs were split between the LWCF and the Utah Dept. of Fish and Game. UDWR acquired the right in 1965 (Certificate # 3754) from the South Davis County Water Improvement District. As stated in the LWCF contract, the water right must be used for public outdoor recreation use, and the asset can't be disposed of or diverted.

*** This water right has not been approved by the Utah Division of Water Rights, State Engineer.

****This water agreement comes from the UDWR Agreement #79-5272 with the North Point Fur and Reclamation Club, signed May 8, 1979. The initial water right priority date is 1886 with the North Point Fur and Reclamation Club filing date as 1955.

Easements/ROWS/MOUs

The state has entered into agreements with adjacent hunting clubs concerning water conveyance systems, water delivery procedures, water rights, buffer zones, access, and land exchanges. The complete documents can be found at FBWMA headquarters and the UDWR Northern Region office. They are listed as follows:

- Utah Improvement Company: A 1935 and 1983 Right of Way Deed. This right of way deed is for the Burnham Dam. The Burnham Dam is where water is diverted from the Jordan River and into the State Canal, and then to FBWMA. The water that is not diverted into the State Canal, flows to both the Burnham duck club and the Newstate duck club, and then ends up at FBWMA after it passes through the duck club dikes.
- Jordan Fur Reclamation Company: A 1956 Agreement and 1995 Memorandum of Agreement. The original agreement was made between the Jordan Fur and Reclamation Company and the Utah Fish and Game Commission (now known as the Utah Division of Wildlife Resources). The agreement cancels and rescinds several agreements from the 1930's and 1940's. Then, the agreement gives the "Commission" 1/4 of all water reaching the Burnham Dam and the Company also agreed to send all excess water to the Commission once it passes through their property. The Company will also quitclaim back to Utah all those lands that were owned by the State of Utah (The Company had a long term lease on over 500 acres). The company would also convey to the Commission all of the property owned by it situated in sections 8, 9, 15, 17, 29, and 30 (another 340 acres), it being understood that such conveyance shall be subject to the easement heretofore granted by the Company for the Salt Lake City sewer canal as relocated and now being used. The Company also permitted the Commission to use all existing water control structures on their outer dike. The Commission agreed to construct a new dike and a 5' deep moat on the west line of Section 15. The Commission then established a 150' buffer zone that is closed to hunting and trespass on all boundaries where the Commission's and Company's lands adjoin.

The Commission will repair and maintain the bridge over the state canal at the entrance of the Company's property. The Commission also agreed to deed to the company all of its right, title and interest in certain lands. The Commission will also pay the Company a sum of \$5,000 for maintenance and improvements of dikes that were on Company relinquished property.

The Memorandum of Agreement allowed the Company and Commission to access the other parties property for the purpose of construction and maintenance. This agreement expressly excludes access for any purpose, other than access necessary for land management, and expressly excludes access for hunting.

- North Point Fur and Reclamation Company: A 1978 Agreement. This agreement is between the State of Utah and the North Point Fur and Reclamation Company where lands below the surveyed meander line of the GSL were traded for certain uplands and water rights. The State of Utah conveyed 162.76 acres to the North Point Fur and Reclamation Company and in return, the company conveyed 6.85 acres of upland habitat to the State of Utah. The East Crystal dike would also be improved and maintained by the company. The Utah Division of Wildlife Resources also provided necessary fencing materials, and the Company constructed and continues to maintain the fence along property lines. In addition, the Company agreed to deliver to the Division of Wildlife Resources

a minimum water flow in perpetuity of four cfs through the existing water control structures in the Enoch Smith dike from January 1- December 31. The Division of Wildlife Resources has the sole and exclusive control over the water control structures in the Enoch Smith dike. The DWR shall establish, sign and maintain a 150 foot buffer zone from the Enoch Smith dike and the East Crystal dike. The buffer zone shall restrict access from the public and prohibits hunting from both the public and the Company members.

- Lake Front Fur and Reclamation Company: A 1984 Special Surface Lease Agreement No. 630.

This is a forty year agreement between the State of Utah, Sovereign Lands and the Lake Front Fur and Reclamation Company, that allows the Lake Front Fur and Reclamation Company to lease 261 acres for maintenance of waterfowl habitat, waterfowl propagation and recreation, including all activities relating to waterfowl hunting by Club members and their guests. These state sovereign lands are adjacent to FBWMA, and are located southwest of Crystal pond. When the agreement expires in 2024, these lands will become part of FBWMA.

The state has entered into other agreements concerning the operation and management of FBWMA. The complete documents can be found at FBWMA headquarters office. These agreements are as follows:

- Federal Government: This is a 1955 contract (Agreement) for the construction of an inlet, and for the discharge of water into FBWMA's State Canal via the A-1 drain.
- Utah Power and Light Company (UP&L): This is a 1985 (amended 1987) Agreement for the construction and maintenance of a raised dike on the east side of the management area. This Agreement addresses UP&L concerns about the rising level of GSL waters and potential impacts to power infrastructure and facilities. The raised dike will protect power lines to the east and will provide a road for Division administrative access and public non-motorized access at certain times of year. The 1987 amendment provides information about what UP&L will do as the Great Salt Lake recedes below a level of 4205'. Utah Power and Light reserved the right to erect upon and traverse the premises with electric transmission and distribution lines. UP&L also has the right to enter the premises at any time to construct and maintain such electric lines. UP&L also agreed to asphalt on the main entrance road when construction is finished and before the lake recedes to a level of 4202'. UP&L recently honored the expired agreement in November of 2014.
- South Davis Sewer District: This is a 1985 Agreement concerning the construction of a raised dike to the elevation of 4217' to protect their facilities during the 1980's flood event of the GSL. Raising the dikes encroached on 0.7 acres of UDWR property on the south end of FBWMA. The dike has no affect on water flows or water management.
- Bountiful City: This is a 1994 Agreement where UDWR assisted Bountiful City with wetland mitigation requirements set forth by the Army Corps of Engineers for the realignment of Barnard and Stone Creeks. UDWR assisted by flooding all of lot 3 and portions of lots 1 and 2 in the NW ¼ of Section 14, T2N, R1W.

Letters detailing these activities were written in 1994. Specifically, UDWR allows water impounded by the state canal dike to flow through existing culverts within the service road leading from the south parking lot.

- Utah Transit Authority: This is a 2006 Agreement between UDWR and UTA. The Agreement stipulates the Division will design and implement the enhancement and rehabilitation of emergent marsh and wet meadow habitats, and also undertake enhancement of uplands on the Wilcox property. The Wilcox property was purchased by UTA as wetland mitigation for wetlands impacted by the Frontrunner/Station Park project. The property will be given to UDWR to manage in perpetuity. The project was completed and the property has been accepted by the Army Corps of Engineers. UDWR and UTA need to finalize the transfer of this property to UDWR.
- PacifiCorp: This is a 2010 Agreement allowing PacifiCorp to install another transmission power line within their existing easement. This power line was built on the east dike in several areas. This dike is the same dike as mentioned in the earlier UP&L agreement. The easement is 66' wide.
- Chamberlain mitigation: This is a 2004 wetland mitigation agreement with Symphony homes where Symphony homes filled wetlands to construct a residential subdivision in Centerville. The mitigation for this wetland fill was to acquire and enhance another wetland parcel located directly west of Parrish Lane in Centerville. The Army Corps of Engineers accepted the mitigation (21.04 acres) and the property was transferred to UDWR for perpetual ownership and maintenance of the property as a wetland mitigation site.
- Utah Division of Forestry, Fire and State Lands (FFSL): There are two Memoranda of Understanding's between FFSL and UDWR that provide for 1) UDWR management of FF&SL GSL lands for the benefit of wildlife under Utah Code 23-21-5 (1993); and 2) The FFSL authorizes UDWR activities to eradicate, suppress, and control noxious and invasive weeds on lands that are essential to the sustainability and/or reestablishment of critical waterfowl habitats adjacent to FBWMA (2012).
- Shepard mitigation: This is a 2002 wetland mitigation agreement between UDWR and UDOT, where UDOT filled 5.78 acres of wetlands to expand US-89 to a six-lane expressway from Cherry Lane to Burke Lane in Farmington. The wetland mitigation required for this wetland fill included the acquisition of wetland habitats on one parcel, and the creation of woody riparian habitat in FBWMA. The mitigation property is 43.6 acres of playa, mudflat, and wet meadow habitats, located directly east of the FBWMA headquarters. The 2.4 acres of woody riparian habitat was created on the old Farmington Creek channel through FBWMA. The U.S. Army Corps of Engineers has accepted the mitigation and the property is waiting to be transferred to UDWR for perpetual ownership and maintenance as a wetland mitigation site.

The UDWR has developed and/or granted several easements, leases, and agreements. They are as follows:

- *South Davis Sewer District*: This is a 1960 perpetual easement granted by UDWR for the construction, reconstruction, operation, repair, replacement and maintenance of an effluent discharge pipeline on Division land in the south east corner of Section 15, T2N, R1W.
- *Utah Power and Light*: In 2001, UDWR entered into a conservation easement with Utah Power and Light on 75 acres in Sections 26 and 36, T3N, R1W. The purpose of the easement is to maintain the property in a natural and open condition in perpetuity for wildlife habitat, recreational activities, and such other uses consistent with UDWR's statutory authority to manage, conserve, enhance, and protect wildlife and wildlife habitat.
- *Bountiful City*: This is a 2003 Memorandum of Understanding between UDWR and Bountiful City where Bountiful City and UDWR agree that the south entrance road to FBWMA can be used as part of the Bountiful Pond walking trail.
- *Gillmor flooding agreement*: This agreement is to allow UDWR to seasonally flood the "Gillmor Pond" from September 1-January 20 of each year. The pond is located south of the East Crystal pond. The UDWR restored 2,100 linear feet of dike on FBWMA and installed 2 water control structures to assist with this flooding. The UDWR agrees to manage the water levels within the entire wetland complex.

Grazing

The process for grazing on UDWR lands is identified in the UDWR Administrative Land Rule (R657-28). Grazing by cattle is used annually at FBWMA. Grazing prescriptions are designed to achieve specific goals and objectives. These goals and objectives will be described in the FBWMA grazing plan and will contain all applicable restrictions, limitations and terms of the agreement. A grazing plan is currently being developed for the WMA. When the plan is completed, it will be on file at the FBWMA headquarters office.

Land Acquisition History

Population growth, agricultural expansion, botulism outbreaks, providing public hunting opportunities, and the draining of critical wetlands were the reasons conservationists spearheaded an effort in 1935 to construct Farmington Bay Waterfowl Management Area on state sovereign lands. FBWMA is located at the end of the Jordan River and historically, there were hundreds of acres of natural wetlands present. However, by the end of the summer, anoxic conditions in the water would cause botulism outbreaks that would kill millions of waterfowl and other waterbirds GSL-wide. By constructing impoundments with water control structures, managers have the ability to maintain consistent water levels and prevent anoxic conditions.

The National Park Service, in cooperation with the Civilian Conservation Corps (CCC), began construction of FBWMA on July 1, 1935. The Roosevelt Administration created the CCC, along with the Emergency Conservation Work Act, during the U.S. Great Depression of the 1930s. The CCC provided the general labor workforce as these initiatives put young, single, unemployed men to work on projects that helped stabilize and preserve the Nation's natural resources, such as

forests, wetlands and grasslands. In fact, the CCC was informally called the “Tree Army” and was organized around a military model. In October 1935, CCC Company 536 rolled into Utah under the command of Captain Joseph Knowles and set up Camp SP-2 near the intersection of I-89 and 500 S. in West Bountiful. The camp was comprised of 12 structures, 170 human residents and one large dog. The majority of camp inhabitants, called Junior Enrollees, ranged in age from 17 to 28 and hailed from Kentucky, Ohio, Indiana and West Virginia. They were required to put in a six-month term of service in exchange for which they received a \$30-\$50 monthly stipend, valuable on-the-job training and other educational opportunities. Work terms could be extended for up to two years and contracts stipulated that 80% of every enrollee’s monthly stipend had to be sent back to help their families.

The Utah Fish and Game (now UDWR), was responsible for the initial design and development of the original 3,800 acres which belonged to the State of Utah. In 1940, core construction was finished on the first impoundments, Units 1 and 2, and the UDWR began managing this area for wildlife. The initial development consisted of three 600 acre freshwater ponds, 9 miles of dikes, 13 miles of graded road, 16 water control structures, 28 artificial islands, many miles of boundary fencing and several thousand acres of improved freshwater marshlands.

In 1956, additional land was added to the management area, south and west of Unit 2. The land that was added was state sovereign land that was taken back from the Jordan Fur and Reclamation Company, and fee title land from Newstate duck club (details can be found in the 1956 agreement with the company).

The Turpin unit was completed in 1959 and was named after the late Director of the UDWR, R.L. Turpin. After several decades of ownership dispute with the Northpoint Fur and Reclamation Club over the Crystal unit, the boundary between state and private land was finally established in 1979, and consists of the unit as we know it today. Additional details on this dispute can be found in the 1979 agreement with the Northpoint Club. FBWMA contains ideally suited habitat for waterfowl production, foraging, loafing and roosting, and provides numerous recreational opportunities.

Financial support for management area operation, maintenance and development programs comes from two sources: 1) Utah sportsmen and women who purchase hunting and fishing licenses, which is combined with 2) U.S. Federal Aid to Wildlife Restoration monies (Pittman-Robertson or PR funds). These PR funds come from a national tax on sporting goods and ammunition, with the money placed into an account which is then divided proportionally among each of the 50 United States, and is based on the land mass of each state and the number of licenses sold.

The first resident manager was assigned to FBWMA in 1954. The manager lived in a house located where the current FBWMA office is located. The management program continued uninterrupted until 1984 when the rising waters of the GSL began to back flood into the freshwater impoundments. A huge landslide in Farmington Canyon in 1984 resulted in the construction of Goose Egg Island at FBWMA, with Davis County hauling in dump trucks filled with this dirt. It was thought that the UDWR could use the landslide material to help rebuild

dikes when the lake receded. However the lake receded fairly quickly and the material wasn't needed. Goose Egg Island currently serves as a great viewing area/overlook of FBWMA.

In 1986, the FBWMA manager's house was sold to a private individual who moved the house to downtown Farmington. Other buildings were also disassembled and moved off of the premises.

By 1987, the GSL had reached an elevation of 4,211.85 feet above sea level and had flooded the entire FBWMA area with several feet of salt water. FBWMA was flooded out until 1989.

A manager was rehired in 1992 and reconstruction began at that time. Fortunately most dikes were not heavily damaged. Draglines were used by the UDWR heavy equipment crew and by private contractors to gather sediment from the borrow areas, and then the sediment was placed on damaged areas of the dikes. Reconstruction of FBWMA dikes and roads cost in excess of \$1 million dollars.

The current land status at FBWMA includes fee title property, a conservation easement and sovereign lands dedicated for wildlife management purposes. Some of this property was purchased by the UDWR, other tracts were acquired through agreements with private hunting clubs, and additional lands were received through donations or wetland mitigation properties.

Recent acquisitions include the Chamberlain mitigation property (21.04 acres), Utah Reclamation Mitigation Conservation Commission (URMCC) (234 acres) property, and the Davis County Wildlife Federation property (16 acres). Acquisitions that are currently pending include the Wilcox mitigation property (UTA) (56.4 acres) and the UDOT Shepard mitigation property (43.6 acres).

Current UDWR fee-title ownership includes: 2,464.85 acres. Please see the table below for more information on property acquisition.

FBWMA Land Acquisition Table.

Date Acquired	Previous Owners & Deed Reference #	Property name	Acquisition Method	Acreage	Section; Township; Range
1935	Mary J. Argyle # 61072	N/A	Warranty Deed	3.0	Township 2 North, Range 1 West; Section 14
1957	Jordan Fur and Reclamation Company #165904	N/A	Grant Deed	348.65	Township 2 North, Range 1 West Sections 9, 15
1957	Jordan Fur and Reclamation Company #165903	N/A	Quit Claim Deed	542.90	Township 2 North, Range 1 West Section 30
1958	Jordan Fur and Reclamation Company #1600610	N/A	Quit Claim Deed	474.16	Township 2 North, Range 1 West Sections 9, 10, 15, 17, 19
1958	Jordan Fur and Reclamation Company #1600611	N/A	Grant Deed	470.57	Township 2 North, Range 1 West Sections 8, 30
1979	North point Fur & Reclamation Company #3289892	N/A	Warranty Deed	6.89	Township 2 North, Range 2 West Section 25
1986	The Utah Wetland Foundation # 726109	N/A	Quit Claim Deed	67.16	Township 3 North, Range 1 West Section 36
1989	Alvira Wooley #864584	N/A	Warranty Deed	120.00	Township 2 North, Range 1 West Section 22
1990	State of Utah #18929	N/A	Patent	7.62	Township 3 North, Range 1 West Section 36
2000	The Nature Conservancy	TNC/Equipment yard	Quit Claim Deed	93.50	Township 3 North, Range 1 West, Section 35
2001	Davis County	Davis Creek/ C. Taylor Burton property	Special Warranty Deed	64	Township 2 North, Range 2 West, Section 26
2004	Symphony Homes Development; U.S. Army Corps of Engineers mitigation #1305203	Chamberlin property	Warranty Deed; wetland mitigation	20.72	Township 2 North, Range 1 West Section 12
2011	Wheeler Property; purchased by URMCC for mitigation #2613881	URMCC	Quit claim deed: Mitigation	233.59	Township 3 North, Range 1 West Parts of Sections 27 & 26
2011	Davis County Wildlife Federation #2605779	Davis County Wildlife Federation	Quit claim deed: Donation	12.09	Township 2 North, Range 1 West Section 11
Pending	Wilcox Property, purchased by UTA for mitigation; #200450469	Utah Transit Authority	Wetland Mitigation	56.4	Township 3 North, Range 1 West, Section 26
Pending	Shepard Property, purchased by UDOT for mitigation	Shepard/UDOT mitigation	Wetland Mitigation	43.71	Township 3 North, Range 1 West; Sections 35, 36

Historic Uses

Historically, the Jordan River delta was used by Native Americans who would gather on the delta during waterfowl migrations to gather food (waterfowl and shorebirds). Since development of FBWMA, the area has been used by the public for hunting, trapping, bird watching and

outdoor education. These recreational uses will continue, but additional emphasis will be placed on a formal visitor service program. This educational program will not displace these other uses at FBWMA, but will instead provide wildlife enthusiasts with a greater opportunity to appreciate and understand the importance of wetlands and wildlife within the GSL ecosystem.

Purpose of Division Ownership

The purpose of acquiring lands was to establish a state managed waterfowl management area for the protection of wildlife resources, propagation of wildlife, providing recreational opportunities for waterfowl hunting, and protecting and enhancing the wetlands and associated uplands. These lands also provide opportunities for public viewing of wildlife, photography, and ring-neck pheasant hunting and trapping. An additional purpose has emerged over time and includes public education of wetlands and wildlife found within the Great Salt Lake ecosystem.

Key Wildlife Species Occurring on FBWMA

FBWMA provides crucial year round habitat for a variety of waterfowl and shorebirds. The wide array of avian species present on the WMA in all seasons, ranges from large birds, such as the American White Pelican and tundra swan, to small birds such as the least sandpiper. This diversity of avian species may be attributed to the extensive food resources and the diversity and mosaic of habitats that are available. An abundance of bald eagles utilize the WMA for winter loafing and foraging. Principle waterfowl that nest on the WMA include Canada geese and a variety of ducks such as northern pintail, mallard, cinnamon teal, gadwall, northern shoveler, redhead, and ruddy duck. Prior to the flooding of the GSL in the 1980s, FBWMA was globally significant for its production of redheads.

The WMA provides important nesting and brooding habitat for waterfowl and shorebirds, and serves as feeding and staging habitat for millions of migratory birds that fly over the Great Salt Lake each year as part of the Pacific and Central flyway migrations. In fact, due to the large abundance of birds (1,000,000 bird-use days occur annually representing over 250 species) that utilize the fresh, mixosaline and saline GSL habitats along their migratory routes, Farmington Bay WMA is considered a critical component to GSL's designation as a "Western Hemispheric Shorebird Reserve Network" site. In addition, the FBWMA, along with several other wetland areas around the GSL, was declared by the National Audubon Society and the American Bird Conservancy as a globally "Important Bird Area" (IBA). All Utah state sensitive species and species of greatest conservation need known to occur or possibly occur on the WMA are discussed in the "Sensitive Species" section of this plan, and are summarized in Appendix D.

FBWMA is attractive to a variety of water birds during both the migration and nesting seasons. In the spring, migrants flock to gather food exposed by the melting ice. Waterfowl are some of the first to arrive in late February, followed by several species of shore and wading birds in March and April. Nesting season starts in early March when Canada geese and great blue herons begin preparations for egg laying and incubation. In fact, a great blue heron rookery was constructed in 2001 by PacifiCorp using old power poles. This rookery was established through an Eagle Scout project, and it is located near the Robert N. Hasenyager Nature Center. Each year there are between 10 and 20 great blue herons that nest on the platforms.

Overall, March through August is a critical time on FBWMA because most birds are either incubating eggs or attending to their young.

During July and August, phalaropes are commonly observed feeding in shallow water to gather energy for their southward migration to Argentina. September marks the beginning of the fall migration for waterfowl with some waterfowl beginning to fly south for the winter, new waterfowl flying to the GSL from Canada, and tundra swans arriving sometime around the end of October.

By the end of December, most species have moved southward with the exception of hardy northern pintails, American green-winged teal and several waterfowl “diver” species, as well as bald eagles which winter at FBWMA. Winter is a quiet time as the wetlands rest and wait for spring to return.

A total of 250+ bird species have been documented on FBWMA, and of these, 57 species have been observed nesting within the boundaries of the management area (A FBWMA bird list can be found in Appendix D). In any given year, the peak fall migration for waterfowl can exceed a quarter million individuals at one time.

There are 18 mammal species that have been observed on FBWMA. Resident species include mule deer (*Odocoileus hemionus*), red fox (*Vulpes vulpes*), coyote (*Canis latrans*), weasel (*Mustela spp.*), rock squirrel (*Spermophilus variegates*), muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), black-tailed jack rabbit (*Lepus californicus*), deer mouse (*Peromyscus maniculatus*), meadow vole (*Microtus pennsylvanicus*), mink (*Mustela vison*), beaver (*Castor canadensis*), Norway rat (*Rattus norvegicus*), house mouse (*Mus musculus*), and feral cat (*Felis catus*). Transient species include white-tailed deer (*Odocoileus virginianus*) and porcupine (*Erethizon dorsatum*).

There are four snakes that occur on the area: garter snake (*Thamnophis elegans*), western yellow-belly racer (*Coluber constrictor*), western gopher snake (*Pituophis catenifer*), and nightsnake (*Hypsiglena torquata*). Three frogs, western chorus frog (*Pseudacris triseriata*), northern leopard frog (*Rana pipiens*), American bullfrog (*Lithobates catesbeianus*) and one toad, Woodhouse's toad (*Buffo woodhousii*) have been found at FBWMA. The western painted turtle (*Chrysemys picta*) has also been found on the area. The non-native (to Utah) American bullfrog is an aggressive species which now occupies a majority of habitats on the WMA, has displaced native frog and toad species, and also forages upon these native species. As a result, these native frog and toad species have declined.

Eight fish species have been found on the area: common carp (*Cyprinus carpio*); western mosquitofish (*Gambusia affinis*); channel catfish (*Ictalurus punctatus*); Utah chub (*Gila atraria*); walleye (*Sander vitreus*); rainbow trout (*Oncorhynchus mykiss*); green sunfish (*Lepomis cyanellus*); and bluegill (*Lepomis macrochirus*).

Public Recreation Opportunities and Restrictions

FBWMA offers a variety of recreational opportunities. With the close proximity to Salt Lake City, more visitors come to FBWMA than any other waterfowl area in the state. Good wildlife

viewing exists year round. To witness the spring migration, visit during March, April and May. The fall migration, which spans August, September, October and November, is a good opportunity to observe large concentrations of water birds. Binoculars or a spotting scope can be helpful to get a closer look at the abundant wildlife. One of the advantages of wildlife viewing at FBWMA is that some of the best viewing can be done from the seat of your car.

Permits are also required for special use activities on the WMA, such as group events with more than 25 people. These permits must be applied for several months in advance of the specific activity to ensure adequate time to process each request (UDWR Administrative Land Rule R657-28).

The Robert N. Hasenyager Nature Center

The Robert N. Hasenyager Nature Center (Center) is located at the FBWMA. The Center's mission statement is: To foster curiosity, understanding and pride in the Great Salt Lake Ecosystem among Utahans and the global community through world-class education and recreational opportunities.

The Center is a popular destination for school children and tourists alike. Almost 5,000 school children will visit the nature center each year to learn about wetlands, birds and other wildlife on the WMA, and to learn about the Great Salt Lake ecosystem. In addition to the elementary school children, many high school and college classes come to learn about wetlands, birds and wetland management techniques.

The Center's goals include:

- Host school field trips, scout programs and other outreach to youth groups, and over time develop additional programming (ie, a class/camp during the summers for youth groups, girl scouts, etc...).
- To broaden programming to reach additional audiences, such as adults and families. Develop programming on Saturdays such as bird walks, etc... Create activity materials for families to borrow and use on the trails; host events at the Nature Center.
- To recruit and retain additional Volunteer Naturalists and host interns when available.
- To maintain and create new exhibits and activities to educate the public about the wetlands of the Great Salt Lake.
- To further use of the Nature Center facility by internal and external groups associated with wildlife activities.
- To educate visitors on and to promote the role of UDWR in management of wildlife in the state.

The mobile learning center which currently sits on land purchased by URMCC and given to UDWR, has served as a temporary nature center since 2003. The mobile learning center was funded by the Great Salt Lake Interpretative Trust, and constructed by the Davis School District, Viewmont High School construction class. It was first located near Farmington Bay headquarters, and was later moved to URMCC property in 2007. UDWR subsequently purchased the buildings from the Trust.

A new nature center facility has been funded by the Utah Legislature, and is anticipated to be open in the next few years. Trails may be expanded in the future to connect to other trail systems in Davis County. The possibility exists to have the main entrance road to FBWMA moved to the location of the nature center.

Great Salt Lake Bird Festival

Each May, many events for the Great Salt Lake Bird Festival occur at FBWMA. These events can include scout activities at the Robert N. Hasenyager Nature Center, bird viewing walks on the nature trail, photography classes, Dutch oven dinners and “behind the gates” bus tours of FBWMA with the manager.

Bald Eagle Day

Every February, about 3,000 visitors typically arrive for Bald Eagle Day to see the hundreds of wintering bald eagles that congregate at FBWMA to eat carp. The month of February averages between 15,000 and 20,000 visitors, almost all visiting for the purpose of viewing eagles.

Hunting and Trapping

The FBWMA wetland complex supports a wide variety of hunting and trapping activities including: waterfowl hunting, pheasant hunting, and trapping during the appropriate seasons. On the opening weekend of the waterfowl hunt, between 1,500-2,200 hunters use FBWMA. On the opening day of the pheasant hunt, approximately 200-300 pheasant hunters can be found on FBWMA. The youth waterfowl hunt averages 275 aspiring waterfowl hunters. Trapping of muskrat, beaver, raccoon, fox, skunk, and mink is allowed for permit holders. No dog training is permitted on the WMA outside of the waterfowl hunting season.

Other Recreational Opportunities

Additional recreational opportunities include: bird watching and photography for waterfowl, shorebirds and raptors during the spring and fall migration seasons; and bald eagle viewing and photography opportunities, November through March. An auto tour to Goose Egg Island provides a unique experience. Local radio station 1690 AM provides general information about FBWMA and the many birds found along the way. Visitors can see many different species of waterfowl, passerines, shorebirds, wading birds and pheasants on the auto tour. Visitors appear to like the tour because birds have become habituated to vehicles and offer close viewing opportunities.

In the future, additional recreational opportunities may be considered according to the UDWR Administrative Lands Rule (R657-28). In general, activities that do not promote or protect the goals and objectives of the unit will be prohibited, specifically those that disturb or harass wildlife and their habitats.

Special Regulations

Of all the waterfowl management areas, FBWMA receives the greatest amount of public use. FBWMA gets over 100,000 visitors annually; however only 25-30% of visitors come for the purpose of a hunt. Other visitors come to watch birds, photograph wildlife, jog, ride bikes or to get away from city life. Due to the large variety of visitors pursuing the plethora of different

recreational options available, some special regulations have been established to provide for public access on the WMA, while protecting wildlife habitat and wildlife populations. Some of these regulations include:

- Dogs are welcome on the WMA **ONLY** from September 15 through February 28.
- There are no dedicated dog training areas on FBWMA.
- To reduce disturbances to nesting birds and other wildlife between March 1 - September 15, all vehicles and pedestrian traffic are to stay on open dikes and roads.
- Boating is allowed only from mid-September through February 28.
- Firearms are allowed only during the waterfowl hunting season.
- The main north entrance to FBWMA is open 8 am to 5 pm from March 1-mid-September. All gates are open from mid-September through the end of February.
- Access is closed on all of FBWMA during the nesting season (March 1-August 1), except for the main road from the north entrance down to the four-way intersection, and the trails around the nature center (See the Access management plan in Appendix C for more details).
- Handicap accessible restrooms are available at FBWMA headquarters and at the Robert N. Hasenyager Nature Center.
- Vehicle access on the main dike is permitted to Goose Egg Island year round and from Goose Egg Island to the four way intersection from mid-September to the end of February.
- Waterfowl and upland game hunting is limited to use of shotguns with non-toxic shot and archery equipment.
- No fishing is allowed on FBWMA, including bowfishing for carp.
- Signs are posted throughout FBWMA requesting the public respect “area closed” signs and refrain from approaching wildlife, especially during the nesting season.

Conservation Partners Involved in Acquisition

Property management and development of State Sovereign lands, DWR fee title and other donated lands began in 1935. A Civilian Conservation Corps project worked to restore wetlands associated with the Jordan River Delta. The Utah Wetlands foundation assisted with the acquisition of 67 acres to the east of FBWMA headquarters. Additional conservation partners include the Utah Transit Authority, Symphony Homes, the Utah Department of Transportation, The Nature Conservancy, Davis County, the Utah Reclamation, Mitigation and Conservation Commission, and the U.S. Army Corps of Engineers.

Unlike the creation of other waterfowl management areas, Federal Aid to Wildlife Restoration (Pittman-Robertson (PR)) monies were only used for the acquisition of 120 acres on the south end of FBWMA in 1989. This acquisition occurred because UDWR relinquished 4 acres of PR obtained property at Powell Slough WMA (on the east shoreline of Utah Lake) without the permission of the U.S. Fish and Wildlife Service.

Partnerships

Farmington Bay Waterfowl Management Area faces complex management challenges including the substantial costs of annual management actions, maintenance and improvement of infrastructure, and evaluating management outcomes. To address these challenges, FBWMA will seek opportunities to engage local and regional partners whose goals align with the management

objectives of FBWMA so financial and capacity resources can be leveraged to achieve shared objectives.

The [Intermountain West Joint Venture](#) (IWJV) is a diverse public-private partnership whose mission is to conserve priority bird habitats through partnership-driven, science-based projects and programs. Wetland habitats and resources in the Great Salt Lake Ecosystem have been identified as a high priority for the IWJV. Although the IWJV does not currently provide funding for direct management projects, their Capacity Grants Program may provide opportunities to build partnership capacity to address management projects and science to inform and evaluate management actions. The [IWJV Utah State Conservation Partnership](#) provides a forum and network for entities to identify conservation needs and develop partnerships to build conservation opportunities in Utah. Engaging the IWJV Utah State Conservation Partnership and IWJV staff can help facilitate the development of partnerships and projects important to FBWMA objectives. Potential examples include development of North American Wetland Conservation Act proposals that seek to leverage federal funds with state and private funding sources for wetland protection, enhancement, and restoration. Such grants could be leveraged for FBWMA infrastructure maintenance and improvements or treating invasives such as Phragmites.

Additionally, direct partnerships with non-governmental organizations (NGOs) such as Ducks Unlimited, Delta Waterfowl, Utah Wetlands Foundation, Audubon, among others should be explored to enhance management capacity.

II. Property Inventory

Existing Capital Improvements

- Roads: There are currently 47 miles of dikes and roads.
- Entrances: There are 5 entrances into FBWMA. The north entrance is accessed from Glover Lane in Farmington, west to 1325 West. The east entrance is accessed 1.5 miles south of Glover Lane in Farmington on 800 West. The Centerville access point is 3 miles south of Glover Lane on 800 West. The south entrance is located near the Bountiful landfill. To get to the south entrance go all the way west over Legacy highway on 500 S. in Bountiful. This turns into a frontage road (Sheep Road); head north for 2 miles and turn left just before the Bountiful landfill. Head west 0.65 miles to reach the parking lot. The 5th entrance gate is located at the Robert N. Hasenyager Nature Center.
- Channels: 20 miles
- Parking lots: 12. Two of these are located at the Robert N. Hasenyager Nature Center.
- Boat launches: 6
- Water control structures:
 - 203- 4'x4' or 5'x4' aluminum water control structures
 - 14 -4'x4' or 5'x4' cement water control structures
 - 8- Large cement water control structures
- Pedestrian bridges: 19
- Vehicle bridges: 8
- Kiosks: 7
- Nesting Islands: 27
- Walking trails: 2 miles

- Pedestrian gate openings: 11
- Informational signs: 150
- Boundary/Buffer zone signs: 182
- Interpretive signs: 8
- Fences: FBWMA has over 7 miles of boundary fences. The fences all consist of 4 or 5 strand barbed wire fence with both cedar posts and metal t-posts.
- Facilities: The FBWMA headquarters has 3 storage buildings, an office and an ADA assessible restroom (to the extent practical). In addition, a large outdoor yard is maintained as storage for vehicles, airboats and assorted other equipment. The Robert N. Hasenyager Nature Center supports two small, portable education buildings, a deck surrounding the buildings, and an ADA assessible restroom (to the extent practical). In addition, trails associated with the nature center are accessible to all of the public.

Farmington Bay WMA Capital Facilities at a Glance

ITEM	AS OF 2015
Entrances	4 (5 including the Nature Center)
Fences	7 miles
Parking Lots	12 (including both Nature Center lots)
Roads and Dikes	47 miles
Nesting Islands	27
Trails/Paths	2 miles
Waterfowl Rest Area	450 acres (near FBWMA office)
Water Control Structures	225
Pedestrian Gate Openings	11
Vehicle Bridges	8
Foot Bridges/Channel Crossings	19
Boat Launches	6
Kiosks	7
Ditches/Channels	20 miles
Signs <ul style="list-style-type: none"> • Interpretative • Informational • Boundary/Buffer 	<ul style="list-style-type: none"> • 8 • 150 • 182
Buildings/Structures	<p>Three storage buildings, an office, and an ADA accessible restroom (to the extent practical). A large outdoor yard is maintained for equipment.</p> <p>The Robert N. Hasenyager Nature Center supports two small, portable education buildings, a deck surrounding the buildings, and two ADA accessible restrooms (to the extent practical). In addition, trails associated with the nature center support boardwalks and are accessible to all of the public.</p>

- Water Rights: The UDWR currently has 290 cubic feet per second of water available at FBWMA. The water is delivered to FBWMA via the Jordan River, from Utah Lake. Utah Lake can gravity flow into the Jordan River, but when the lake is low during irrigation season, water must be pumped from the Lake into the river. The pumps which move water into the Jordan River only run from April 15 to October 15. Outside of these times, water is collected in the Jordan River via canyon streams, creeks, urban runoff, and sewer effluent. Water is extremely important from all of these sources between October 15 and April 15. The Jordan River water users meet each January to discuss the water situation (snowpack level, water predictions, the current water situation). All users are also assessed a fee based on water shares, which pays for the salary and operating expenses for the Lower Jordan Water Commissioner, and the conveyance system. The water commissioner monitors water levels and ensures that all parties receive their legal amount of the water. All FBWMA water rights, except one, have been perfected.

Water Developments:

By 1987, the GSL had risen to an elevation of 4,211.85 feet above sea level and had flooded the entire WMA with several feet of salt water. As quickly as it rose, the lake receded to a level that by late 1989, restoration of capital improvements began. By January 1996, an estimated 70% of the capital improvements had been restored to pre-flood condition. Capital improvements were 100% restored by 2000.

Pre-flood capital improvements at FBWMA consisted of 1 manager's residence, 1 storage and 1 headquarters building; 23 miles of dike; 8 miles of canal; 10 vehicle and 25 foot bridges; 21 miles of road; 13 miles of trail; 10 miles of boundary fence; 3 boat ramps; 4 parking lots; 50 informational and 240 boundary signs; 22 nesting islands; and 126 water control structures.

The water sources which feed this productive wetland resource are as follows:

- Jordan River: Jordan River flows can exceed 300 cfs during heavy runoff periods, but flows average about 75 cfs throughout most of the year. The Jordan River is the main water source for the management area with water coming through the State Canal. Water levels are monitored daily by the Jordan River water master. Essentially, the flows are split at 1700 South, with half of the water going west to the Surplus canal and the other half flowing north. More often than not, FBWMA does not receive all of the allotted water, simply because there is not enough water available.
- South Davis Sewer District (treated sewer effluent): The South Davis Sewer district flows about 8 cfs of water throughout the year. The water from the South Davis Sewer District flows through a pipe from the treatment plant and is delivered directly to the State canal, 1/2 mile south of the south bridge.
- Mill Creek: Mill creek flows about 3 cfs during summer, fall and winter; flows can be as high as 30 to 40 cfs during spring. The water from Mill Creek flows into State canal by the south parking lot.
- Stone Creek: Stone creek flows 1 to 2 cfs annually, with approximately 25 cfs flowing in the creek during spring runoff. Stone creek flows into the state canal, south of the south bridge.

- Hobb Creek: Hobb creek flows 1 to 2 cfs annually, with 5 cfs+ flowing during spring runoff. Hobb creek flows onto state sovereign lands north of FBWMA.
- Ricks Creek: Ricks creek flows 1 to 2 cfs annually, with 5 cfs+ flowing during spring runoff. The water flows from Ricks Creek into the Centerville pond, and then into Unit 1 secondary and Unit 1.
- Unnamed drainages east of Units 1 and 2: These unnamed drainages flow approximately 5 cfs during spring, and then intermittently the remainder of the year. The water flows from these creeks into the Centerville pond and then into Unit 1, secondary, and Unit 1.
- Weber Basin Water unnamed drain north of Unit 1: This unnamed drain flows about 10 cfs during irrigation season. The water from this drain flows directly onto State Sovereign Land, north of the blue silos of Buffalo Ranch.
- Farmington Creek: Farmington creek flows about 50 cfs or higher during late spring. This amount gradually tapers off throughout the summer. The water flows from Farmington creek into the big ponds east of the Robert N. Hasenyager Nature Center, with the excess flowing into the Great Salt Lake.
- Crystal Creek: Crystal creek flows about 50 cfs or higher during late spring with flows slowly dropping throughout summer period. During dry periods, a base flow from the North Point Fur and Reclamation Company, equal to their inflow at or below 4 cfs, is guaranteed to FBWMA. Crystal creek water comes from the Surplus canal, flows through the Rudy duck club, then through the Northpoint duck club, and finally into the South Crystal unit.
- Spring Creek: Spring creek flows about 50 cfs or higher during late spring, with flows slowly dropping throughout summer period. A base flow from the Lake Front Fur and Reclamation Company to the adjoining state ground is not guaranteed. Spring creek is about 1/2 mile west of the South Crystal pond.
- Unit 3 (Turpin) and Unit 4 (Crystal): All overflow water (approximately 50 cfs) from the Jordan Fur and Reclamation Company enters the Turpin Unit. In addition, about 10 cfs is diverted into the east Crystal Unit over the sewer canal. Once the water fills the Turpin Unit, it flows onto State Sovereign Land and into the Great Salt Lake.

Cultural Resources

The management area has been previously surveyed for cultural material resulting in the identification of several archaeological sites. Prior to conducting any surface disturbing activities, the site must be surveyed by a qualified archaeologist. Specific information is on file in the UDWR Salt Lake office.

Species of Greatest Conservation Need/Utah State Sensitive Species

On the WMA, there are twelve wildlife species considered either a Species of Greatest Conservation Need (SGCN from the 2015 Draft WAP; Section III of this plan) or a Utah State Sensitive Species (Utah Sensitive Species list, 2007). Some species are found on both lists. These species have been either observed on the WMA, or would be expected to occur given habitats types present on the WMA: American bittern; American white pelican; bald eagle; boblink; burrowing owl; Caspian tern; long-billed curlew; peregrine falcon; short-eared owl; snowy plover; Preble's shrew; and little brown myotis. Appendix D provides additional information on these species, including their classification, preferred habitats and scientific name.

Important Fish and Wildlife Habitats

FBWMA is managed primarily to optimize wetland and upland habitat conditions for waterfowl and shorebirds, although it provides important habitat for other wildlife as well. Nesting, brooding, summering and wintering habitats are available for the variety of avian species on the WMA. Previously endangered bald eagles frequently use the area, particularly for loafing and foraging during the winter months. The Great Salt Lake and surrounding areas, including the WMA, fall within the pathway of major migration corridors utilized by millions of birds each year (both the Pacific and Central flyways). The WMA provides important feeding, loafing and roosting habitat for these migratory birds.

FBWMA is attractive to numerous migratory and summer resident wildlife species. Over 250 bird species have been documented using the WMA, and of these, 57 species have been observed nesting within the boundaries of the management area. In any given year, the peak fall migration for waterfowl can exceed a quarter million individuals at one time.

Utah Wildlife Action Plan

The Utah Wildlife Action Plan (WAP; see additional information in Section III, Management Goals and Objectives), identifies several key aquatic habitats that occur on FBWMA. The WAP includes a statewide threat assessment which identifies threats to each key habitat, and then ranks the impact of that threat (the scope and severity; S&S) according to the number of Species of Greatest Conservation Need that could be affected from that threat. These key aquatic habitats and their priority threats include:

- Emergent vegetation habitats: Emergent marsh aquatic key habitats include palustrine (marsh-like) wetlands with emergent vegetation, often associated with groundwater discharge or shallow surface flows. FBWMA is currently managed to create and enhance these key habitats as they provide crucial foraging, nesting and staging habitats for many waterbird species throughout the year. FBWMA provides approximately 8,648 acres (47% of the WMA) of emergent marsh and wet meadow habitats. Although not considered as key aquatic habitats by the WAP (however these habitats are important habitats for wildlife), playas, mudflats and alkali lakes account for an additional 2,116 acres (11.5%) of the WMA.
 - The priority threats include: Drought Conditions (High S&S) and Water Allocation Policies (High S&S).
- Open water habitats: Open water aquatic key habitats include perennial bodies of standing water, including natural lakes, reservoirs and ponds. The majority of open water habitats on FBWMA have been created through the construction of dikes, which impound water into large open expanses. These areas provide important areas for foraging, staging and loafing for many waterbird species throughout the year. FBWMA provides approximately 6,698 acres (36.4% of the WMA) of open water habitats.
 - The priority threats include: Agricultural/Municipal/Industrial Water Usage (Very High S&S); Water Allocation Policies (Very High S&S); and Drought Conditions. (High S&S).
- Riverine habitats: Riverine aquatic key habitats include perennial streams constrained to a channel (includes canals and ditches). Several riverine habitats are found scattered on the WMA, but only one, Farmington Creek, supports large areas of

vegetation. The other creeks (Rick's Creek, Barnard Creek and Parish Creek) are basically incised straight ditches by the time they reach the WMA. The percentage of FBWMA that supports riverine habitat is small at less than 1%. No specific management is done for riverine habitats.

- The priority threats include: Agricultural/Municipal/Industrial Water Usage (Very High S&S); Water Allocation Policies (Very High S&S); Drought Conditions. (High S&S); and Channelization/Bank Alteration (direct, intentional) (High S&S).

Most of these threats are unable to be addressed directly at FBWMA. However, management at FBWMA addresses threats to these key aquatic habitats to the extent possible by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the WMA.

Most of the Species of Greatest Conservation Need and Utah State Sensitive Species do not have specific management plans to guide their management. In the future, as species management plans are written and adopted by the Utah Wildlife Board, they may be implemented at FBWMA.

General Condition of Habitats

Habitat Types

With the managed land area fluctuating between 12,000 – 18,400 acres on average, due to GSL seasonal and annual water elevation changes, the FBWMA elevation varies above and below 4200 feet above sea level. Water is supplied primarily by the Jordan River, but is supplemented by drains and creeks as identified earlier. Most of FBWMA is designated as wetland habitat with a variety of open water habitats and emergent marshes which gradually grade into mud flat and salt water habitats.

The WMA contains a variety of habitat types including open fresh water ponds, emergent marshes, wet meadows, saline wet meadows, mudflat/playa complexes, grasslands, saline/alkali lakes and upland areas. The quantity of each of these habitat areas varies with the elevation of the Great Salt Lake, but a tentative estimate includes: upland areas comprise approximately 772 acres (4.2%); open fresh water areas comprise approximately 6,698 acres (36.4%); emergent wetlands and wet meadows account for 8,648 acres (47%); sub irrigated meadows and grasslands comprise 166 acres (0.9%); and playas, mudflats and alkali lakes comprise 2,116 acres (11.5%).

Chevron Mitigation Monies and Habitat Improvements

FBWMA was the beneficiary of many habitat projects as a result of the Red Butte oil spill mitigation project. The Red Butte Creek oil spill was caused by a rupture in a crude oil pipeline that occurred on June 11 and 12, 2010. The Chevron Pipeline (CPL) is 10 inches in diameter and runs from western Colorado to a Chevron Corporation oil refinery near Salt Lake City, Utah. A half inch diameter hole in the pipeline was caused by an electrical arc from high voltage power lines to a metal fence post buried a few inches above the pipeline. Several hours after detection of pressure reduction in the line, the broken pipe was discovered flowing 50 to 60 gallons of oil per minute into Red Butte Creek. Of the roughly 800 barrels (33,600 gallons) of oil that were released, approximately 400 were recovered on land and 400 entered into the creek. It is

estimated that 778 of the 800 barrels of oil were recovered. Mitigation for this spill was required by the Utah Division of Water Quality, with monies awarded to various entities following a proposal review process.

FBWMA managers submitted several proposals for the mitigation monies in December 2011. This resulted in FBWMA being awarded with three funded projects: The FBWMA Oil Boom project; the FBWMA Channel Cleaning project; and the FBWMA Unit One Enhancement project.

- The FBWMA oil boom project consisted of purchasing oil booms and other cleanup items in case an oil spill could potentially affect FBWMA in the future. In addition, some of the money went towards a storage building for storing these items.
- The FBWMA channel cleaning project consisted of cleaning the sediment from 13 miles of channels and placing the sediment on existing dikes. Typically, high flows carry sediment from upstream habitats and it is deposited in the FBWMA channels. To maintain the ability to manipulate water levels, this sediment needs to be frequently cleaned out. The removed sediment was then planted with a seed mix that will provide nesting habitat for waterfowl and pheasants.
- Finally, the FBWMA Unit 1 enhancement project consisted of constructing 8,400 linear feet of dike and adding 4 water control structures. The resulting enhancement improved nearly 300 acres of once unproductive wetland habitats. The water control structures now allow managers to manipulate water levels and maximize wetland productivity. The project was finished in November of 2013 and water was added in March 2014. Tens of thousands of bird use days have already been observed.

Plant Community species

- Vegetation in emergent wetland communities includes a variety of bulrush species, ranging from alkali bulrush (*Scirpus maritimus*), in the shallowest waters; Olney's bulrush (*Scirpus americanus*), in semi-permanent water and less saline soils; and Hardstem bulrush (*Scirpus acutus*), in the freshest and deepest water. Other emergent vegetation types include three species of cattail: broad leaf (*Typha latifolia*); narrow leaf (*Typha angustifolia*); and a hybrid (*Typha x glauca*). The exotic and invasive common reed (*Phragmites australis*) is also found throughout the WMA.
- Mudflats support red saltwort (*Salicornia rubra*), saltgrass (*Distichlis spicata*), and in slightly less alkaline areas, foxtail barley (*Hordeum jubatum*).
- Aquatic vegetation includes mainly sago pondweed (*Potamogeton pectinatus*) with some wigeon grass (*Ruppia maritima*), horned pondweed (*Zannichellia palustris*), and the invasive Eurasian watermilfoil (*Myriophyllum spicatum*).
- Upland vegetation includes mainly saltgrass (*Distichlis spicata*) in seasonally flooded areas. In higher elevation sites, saltgrass, sweet clover (*Melilotus sp.*), smartweed (*Polygonum sp.*), alkali sacaton (*Sporobolus airoides*), cheatgrass (*Bromus tectorum*), wheatgrass (*Agropyron sp.*), Great Basin wildrye (*Elymus cinereus*), and saltbush (*Atriplex sp.*) can be found. The slope areas of the dikes support saltgrass, kochia (*Kochia scoparia*), sumpweed (*Iva axillaries*), bassia (*Bassia hyssopifolia*), hoary cress (*Cardaria draba*) and pepperweed (*Lepidium latifolium*). Also, over 300 acres of uplands have been seeded with various perennial grass, shrub and forb species (such as alfalfa, sanfoin and

small burnet), as well as annual food crops (such as corn, sunflower, sorghum and triticale).

- A number of noxious plant species, as declared by the State and County weed boards, do occur on the WMA and include: Canada thistle (*Cirsium arvense*), dalmation toadflax (*Linaria genistifolia*), dyers woad (*Isatis tinctoria*), field bindweed (*Convolvulus arvensis*), hoary cress (*Cardaria draba*), musk thistle (*Carduus nutans*), perennial pepperweed (*Lepidium latifolium*), poison hemlock (*Conium maculatum*), purple loosestrife (*Lythrum salicaria*), Russian knapweed (*Centaurea repens*), salt cedar (*Tamarix ramosissima*), scotch thistle (*Onopordum acanthium*), and yellow starthistle (*Centaurea solstitialis*). The common reed (*Phragmites australis*) also has a significant presence in all moist soil areas on the WMA and is a major target in weed control efforts.

Habitat Limitations

Several resource problems exist on FBWMA. These problems include:

- Phragmites: Since the late 1990's, several of the UDWR Waterfowl Management Areas have been inundated with massive (thousands of acres) monotypic stands of non-native *Phragmites*. These monotypic stands provide little wildlife value and aggressively expand outward from their initial colonization points to out-compete other essential, wildlife beneficial vegetation. *Phragmites* is a very tough and resilient plant that has become an economic hardship to control. Many control methods are being studied that may help eliminate or help control this invasive species. A multi-year treatment effort consisting of spraying (Year 1), burning and spraying (Year 2), spraying (Year 3), spraying (Year 4), with continued monitoring in subsequent years. This effort has shown some success in setting back extensive stands of *Phragmites*. Chemical use alone has succeeded in many areas, but is expensive and very time consuming.

A new grazing management plan will be developed which will propose cattle grazing and subsequent monitoring, in certain areas, to determine if grazing can be implemented as a widespread tool for controlling or maintaining *Phragmites*. The timing of grazing should start around the first of May and continue through mid-September. This is the time when *Phragmites* is actively growing and when it is the most palatable for cattle, thus this is the time cattle can have the biggest impact on *Phragmites*. In addition, the best success occurs when there is high intensity grazing for a short duration, and then cattle are rotated off for a short period of time, and then put back onto the site. When *Phragmites* is intensively grazed for a short duration, the plant puts a lot of energy into re-growing. When there is rotation involved, the cows will intensively graze the same plants several times and this will stress the *Phragmites* to the point that other, more beneficial, plants are able to outcompete it. When this plan is completed, it will be available at the FBWMA office.

Water management is another tool used to manage *Phragmites*. Managers can either flood areas with 12" of water or more, over the top of the plants to prevent *Phragmites* from spreading by rhizomes, or keep certain areas dry or "drought stressed", so *Phragmites* is not able to grow at all.

- Contaminants: Contaminant problems are suspected to occur on or adjacent to the WMA. These problems include: industrial waste collected over the years in a series of

evaporative ponds at the Phillips Refinery, located within 1/2 mile of the south boundary to FBWMA; municipal, storm drain and industrial runoff from surrounding towns and cities; residual oil possibly left from previous spills, and pollutants from the northwest oil drain, located on the west side of FBWMA. Contaminants are known to be flowing into the State Canal from many sources.

- **Water Quality:** Water quality is studied annually at FBWMA. Researchers have identified the impounded wetlands of FBWMA as being nutrient-rich. Phosphorous concentrations from various FBWMA impoundments have shown higher concentrations than those taken from the Jordan River, approximately 4 miles upstream. This tells researchers that the sediment is saturated with high concentrations of phosphorous, leading to the higher concentration in the water column. The high phosphorous concentrations, likely from the four major municipal waste water treatment plants along the Jordan River, lead to extensive algal surface mats that decrease sago pondweed production.
- **Bountiful landfill:** The Bountiful landfill poses additional resource problems such as attracting avian (gulls, ravens, magpies) and mammalian (skunks, raccoons, feral cats, red fox) predators which move from the landfill and onto FBWMA lands. In addition, during strong wind events, trash from the landfill blows off the landfill, and onto FBWMA lands due to lack of containment.
- **Undesirable vegetation:** Undesirable vegetation is present and expanding within the management area. Canada thistle (*Cirsium arvense*), common reed (*Phragmites australis*), dalmation toadflax (*Linaria genistifolia*), dyers woad (*Isatis tinctoria*), field bindweed (*Convolvulus arvensis*), hoary cress (*Cardaria draba*), musk thistle (*Carduus nutans*), perennial pepperweed (*Lepidium latifolium*), poison hemlock (*Conium maculatum*), purple loosestrife (*Lythrum salicaria*), Russian knapweed (*Centaurea repens*), salt cedar (*Tamarix ramosissima*), scotch thistle (*Onopordum acanthium*), and yellow starthistle (*Centaurea solstitialis*) are all species that need annual attention. A weed management plan has been developed and is on file at the FBWMA office.
- **Bullfrogs:** Bullfrogs, a non-native species, have proliferated to such an extent at FBWMA that they have displaced native amphibian species from the area.

Human Use-Related Problems

Sign vandalism is the main human related problem. However, there has also been vandalism to gates, vehicles, windows and equipment, as well as a \$10,000 boat that was stolen out of the equipment yard at night. The solution of closing the main gate at 5:00 P.M., every night, has decreased vandalism issues. Each year, there are several truck loads of garbage dumped on or adjacent to the area which require personnel time and cost to remove.

Adjacent Land Uses and Potential Impacts

Many of the lands south of FBWMA are primarily privately-owned wetlands which are managed as waterfowl hunting clubs. Although these lands are not open to the public, they compliment FBWMA management efforts and are considered a valuable adjacent land use.

The area east of FBWMA includes incorporated city property, subdivisions, industrial parks, refuse disposal sites, agricultural land, the Legacy Highway, and the Legacy Nature Preserve. Because several of these uses tend to complicate management efforts, they are considered competing adjacent land uses. The competing land uses are those that are either developing

wildlife habitat, or converting wildlife habitat into refuse disposal sites. The Legacy Nature Preserve, owned by The Nature Conservancy, is a complementary land use to FBWMA. This wetland mitigation property is managed to benefit wildlife.

The area north of FBWMA is dominated by agriculture and low density rural housing. At its current status, this land is considered a neutral adjacent land use, where there isn't too great of a negative impact on wildlife. Farmington City holds a conservation easement on the Buffalo Ranch (northwest of FBWMA), which includes undeveloped open lands which wildlife can use, although the property is not actively managed for wildlife.

The Farmington Bay of the GSL is located north and west of FBWMA. This salt saturated system compliments the UDWR fresh water marsh management program by allowing for the establishment of numerous salinity gradients below (downstream) the FBWMA dikes. Depending upon the GSL elevation level, the extent of these gradients can vary annually and seasonally. This variation therefore guarantees a high level of natural diversity.

The Salt Lake County sewer canal (northwest oil drain) flows through FBWMA between the Turpin unit and the Crystal unit. Soil/sludge samples were collected in 1998 by the EPA, with the results identifying moderate to high levels of Total Petroleum Hydrocarbons (both diesel and gasoline residuals), along with oil, grease and lead. In 2003, many cubic yards of the soil/sludge were removed throughout the whole 8.6 mile length of the canal, including the part through FBWMA. In FBWMA, the soil/sludge was removed and then hauled away.

III. Management Goals and Objectives

Farmington Bay WMA management is based primarily upon goals, objectives, and strategies of various plans, which are summarized below:

Management Goals:

1. Protect the existing resources, wildlife, habitat, public use and capital improvements from deterioration on FBWMA.
2. Maintain, manage and enhance wetland habitat diversity for waterfowl, shorebirds and other wildlife associated with wetland habitats.
3. Educate and inform the public about the Great Salt Lake ecosystem, with an emphasis on wetlands and wildlife.
4. Protect adjacent wetlands and uplands through land acquisition and conservation easements when opportunities arise.

Management Objectives:

1. Restore and, when possible, upgrade and improve capital improvements found on FBWMA.
2. Pursue funding for technician time.
3. Capitalize on opportunities to study water quality. Participate in current studies as appropriate.
4. Maintain capital improvements found on FBWMA.

5. Manage access.
 - a. Manage livestock access when appropriate.
 - b. Manage vehicle and pedestrian access.
 - c. Manage year round recreational uses.
 - d. Maintain and insure compliance of established agreements, easements and leases.

Standard Operating Procedures Plan

The Standard Operating Procedures Plan consists of all biological aspects that FBWMA personnel need to do annually. The plan outlines all of the times for the following activities: Waterfowl census; nongame bird census; breeding pair counts for geese and ducks; and goose production counts. The plan also provides the opening day waterfowl forecast, muskrat trapping recommendations and other report deadlines.

UDWR Strategic Plan (2007-2011)

The management of the Farmington Bay WMA has relevance to the following goals and objectives as outlined in the Division's Strategic Plan:

Resource Goal: Expand wildlife populations and conserve sensitive species by protecting and improving wildlife habitat.

Objective R1- Protect existing wildlife habitat and improve 500,000 acres of critical habitats and watersheds throughout the state by 2011.

Objective R2- Increase fish and game populations to meet management plan objectives and expand quality fishing and hunting opportunities.

Objective R3- Conserve sensitive species to prevent them from being listed as threatened or endangered.

Constituency Goal: Achieve broad-based support for Division programs and budgets by demonstrating the value of wildlife to all citizens of Utah.

Objective C1- Increase public awareness of wildlife as a quality of life issue in order to expand our support base and achieve stable funding.

Objective C2- Improve coordination with organizations, public officials, private landowners, industry, and government agencies to obtain support for Division programs.

These goals and objectives will be accomplished by properly managing the water, vegetation, wildlife and human components of the WMA according to those strategies mentioned in the property and habitat management sections below. These section's detail property maintenance and development, wildlife species and habitat management, and access and fire management on the WMA.

Utah Wildlife Action Plan

The 2015-2025 edition of the Utah Wildlife Action Plan (WAP) was created with the express purpose and goal of managing native wildlife species and their habitats to help prevent listings

under the Endangered Species Act. To help achieve this goal, the WAP provides a statewide approach for the partnership-based, coordinated planning and implementation of wildlife and habitat conservation practices. The WAP addresses the following elements:

- Conservation targets include; species of greatest conservation need, and those species' key habitats; information about the status and distribution of these species; information about the location and condition of these key habitats.
- Threats and limiting factors facing these species and habitats, and research required to help managers more effectively address these problems. Threats are measured and prioritized on a statewide basis, based on how many targets they impact, and how severely the targets are impacted.
- Conservation actions required to abate the highest-priority threats, and improve the supply of these limiting factors.
- Monitoring the status of these targets, and in particular the effectiveness of these actions.
- Approaches for including the public, partners, and stakeholders, in consideration of the mission and authority of partners.
- Provisions for coordinating the WAP with other natural resource management plans.

The FBWMA HMP process is used to address wildlife species and habitats found on the WMA, by explicitly including their needs in routine, novel, and emergency management activities. This aligns well with the intent of the WAP, which identifies specific management actions that can be taken to reduce priority threats to these species and habitats.

The FBWMA has several aquatic habitats of statewide and local concern which include: lowland riparian areas (aquatic forested and scrub/shrub habitats, and riverine habitats); emergent marshes and open water. One of the intents of the WAP in identifying these habitats is that local-area management efforts can better focus actions on those specific habitats where actions can have the most benefit for species of greatest conservation need. Most of the threats to the key aquatic habitats are unable to be addressed directly at FBWMA. However, management at FBWMA attempts to address threats to these habitats to the extent possible, by managing for a diverse range of habitats in various successional stages which maintain and benefit the wide variety of wildlife species found on the WMA. For more information, please see the discussion in Section II Property Inventory, Wildlife Action Plan.

Great Salt Lake Comprehensive Management Plan and Mineral Leasing Plan

In order to more specifically articulate the Utah Department of Natural Resources (DNR) management objectives for the resources of GSL, and to reconcile the diverse mandates of the seven divisions within DNR, the Great Salt Lake Planning Project was initiated. The UDWR has authority for managing wildlife in, on and around the Great Salt Lake, and participated in the development of the Great Salt Lake Comprehensive Management Plan and the Mineral Leasing Plan (documents final March 2013). However, the final decision has been appealed and is currently moving through the appeal process.

The purposes of the Great Salt Lake Planning project are:

- To establish unifying DNR management objectives and policies for GSL trust resources

- To coordinate the management, planning, and research activities of DNR divisions on GSL
- To improve coordination among DNR divisions, establish a decision-making proposal review and appeal process, resolve some issues between divisions, and improve management of the lake and its resources.
- To develop a sovereign land and resource management plan for the lake that balances multiple-uses and sustainability issues
- To establish processes for plan implementation, monitoring, evaluation, and amendment

The comprehensive management plan covers a wide range of elements of the Great Salt Lake including information about the hydrology, chemistry, water quality, air quality, biology, ecosystem, land, minerals & hydrocarbons, recreation, tourism & cultural resources, commercial & industrial use, agriculture, transportation, law enforcement, search & rescue, open space, critical lands, and visual resource management. It also developed a GSL lake level matrix and lake level management strategies to help guide the timing of various management strategies to minimize impacts to trust resources

The mineral leasing plan identifies the extractive resources found on, in, adjacent to or under the GSL. It further identifies critical wildlife habitat areas where habitat protection is the preferred option. One of the goals of this planning effort is to integrate mineral resource planning with other resources and resource planning efforts.

North American Waterfowl Management Plan, Intermountain West Joint Venture

UDWR is supportive of the North American Waterfowl Management Plan and the state has benefitted from several Intermountain West Joint Venture Projects.

Annual Work Plan

The annual work plan is a guiding document that provides guidelines for where the Federal Aid grant money can be used. As part of the annual work plan, FBWMA conducts all waterfowl and non-game surveys and provides the numbers to the Utah Waterfowl Coordinator. UDWR and FBWMA managers diligently follow the Clean Water act and work with the Army Corps of Engineers whenever there may be a wetland impact.

IV. Strategies for Property Management

Development Activities

- **Survey needs:** The J-dike area needs to be surveyed for elevation for the purpose of reconstruction. In addition to the survey, an engineer will be hired to delineate wetland habitats in the area, design the dike, apply for Army Corps of Engineers permits, and oversee the dike reconstruction.
- **Fence needs:** Fence needs primarily consist of maintaining the existing 7 miles of boundary fence.
- **Sign needs:** The entrance signs have been replaced with the new UDWR logo as well as several other signs. However, there are over 100 other signs that need to be updated.
- **Habitat needs:**
 - The need for herbicides to control noxious weeds, carp control, and technician time to help with the management of the area, are all critical needs.

- Several properties on the north end of FBWMA should be pursued for possible acquisition or conservation easements as they would create a complete buffer from encroaching development. In addition to creating a buffer from development, the properties would add upland habitat acreage that would provide great nesting habitat. The most important acquisition would be the 16.98 acres that is on the east side of the north entrance road. Four acres of the 16.98 acres are wetlands that occur on the north end of the pond that is on the east side of the road as you enter FBWMA. The next most important acquisition would be the 15.61 acres east of the 16.98 acres. An additional 83 acres north-east of headquarters would also be a great acquisition that would add upland habitat along with a fair amount of wet meadow habitat.
- Perfecting the one water right also needs to be pursued.

Annual Maintenance Activities

Annual maintenance activities at FBWMA include: fence maintenance; road maintenance; parking area maintenance; headquarters area maintenance; dike maintenance; channel maintenance; trail maintenance; bridge maintenance; noxious weed control; maintaining water control structures and replacing deteriorating structures; replacing old and damaged signs; and maintaining buildings and equipment. These maintenance activities are conducted on an "as needed" basis. Temporary electric fences may be incorporated in the area for grazing purposes.

- **Fence maintenance:**
Fence maintenance is an annual job duty along the 7 miles of existing boundary fence.
- **Road maintenance/closures:**
Road maintenance occurs as needed and roads are typically graded twice each year. Road base will be added to sections of the road as needed over time. Dikes will be graveled when necessary and when funds are available. Annual maintenance will be done to dikes to repair muskrat damage. Most of the dikes and roads are closed to driving for the public. (See the FBWMA Access Plan in Appendix C for more information).
- **Parking areas:**
Routine parking area maintenance is ongoing.
- **Noxious weed control:**
Aggressive noxious weed control has been conducted on the area since the late 1990's and will continue in perpetuity. Progress has been made and containment has been achieved for some species, however continuous control efforts are necessary. Total eradication will never be achieved, due to upstream seed sources and adjacent landowners who neglect weed control. However, some areas have been eradicated of some species, and more desirable plant species have taken over these sites. The desired outcome of treatment efforts is competition from desirable plant species, reduction and containment of noxious weeds, and maintaining a diverse plant community of desirable native and introduced plants. Because these are public lands managed by UDWR that are adjacent to private agricultural lands, it is imperative to control and contain noxious weed species. This type of stewardship is not only expected, but also appreciated by neighboring landowners and the public.

This waterfowl management area is a part of a greater noxious and invasive weed control project being implemented in UDWR Northern Utah wetlands. The project includes

intensive efforts using multi-year, multi-pronged approaches to target and eliminate many weed species. The specific weed species included in this project are common reed (*Phragmites australis*), perennial pepperweed (*Lepidium latifolium*), Dyer's woad (*Isatis tinctoria*), hoary cress (*Lepidium latifolium*), salt cedar (*Tamarix spp.*), poison hemlock (*Conium maculatum*), purple loosestrife (*Lythrum salicaria*) and four thistle species, which includes Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), musk thistle (*Carduus nutans*), and scotch thistle (*Onopordum acanthium*).

- **Predator control:**

A statewide Predator Management Plan (on file at the FBWMA office) identifies criteria to determine when lethal or non-lethal control is necessary. The current criteria for FBWMA, is tied to a three-year running species average of indicated breeding waterfowl pairs to determine the need for predator control. Once the three-year species average for the indicated breeding pair count on a WMA is above objective for four or more of the six species identified, then lethal predator control should cease the following year for native predators. The objectives are based on a 10 year breeding pair count average from the 1970's. The 6 waterfowl species that are monitored include: northern shoveler; mallard; cinnamon teal; redhead; northern pintail; and gadwall. Actions include applying necessary control methods annually to keep non-native predators in check, and applying these control methods when the three year average of indicated breeding waterfowl pairs is below the long term objective. Predators that are controlled at FBWMA include skunks, raccoons, red fox, and feral cats.

- **Carp Control:**

Conduct annual treatments to decrease carp numbers and to increase wetland productivity. Treatment areas are chosen annually based on the water turbidity and the lack of sago pondweed production.

- **Sign replacement:**

Maintain boundary, entrance, and regulatory signs to clearly identify ownership, access, vehicle restrictions, and rules and regulations enforced on the WMA. Assure that all signs are clear, legible, and in place prior to hunting season. Rebuild, repaint or replace signs as needed. Update signs as resources become available.

- **Maintenance of water developments:**

- Routine maintenance and replacement of water control structures is ongoing. Several structures are in need of replacement. A map with the locations, existing conditions and tentative schedule(s) for structure replacement has been developed and is on file at headquarters office.
- All FBWMA water rights, except for one right, have been perfected. The Division should separate water right 57-3572 from the Jordan Fur and Reclamation Company to show 100% UDWR ownership. Our 25% interest in this right 48.688 cfs (62.50 cfs) with 2,460 acres irrigated.
- Sediment accumulation is a huge problem in most channels at FBWMA. However, as of 2012 a \$171,000 grant was received from DWQ/Chevron to remove sediment from several channels. In 2013 there were 4 miles of channels cleaned of sediments, and in 2014, an additional 9 miles of channels were cleaned of sediments. Cleaning the channels provides for the increased ability to move water for efficient management of FBWMA wetland habitats.

- **Habitat Enhancement and Development:**

Habitat enhancements will occur through noxious weed control, and the planting of nesting and foraging habitat on the uplands. The Unit 1 enhancement project was completed in November 2013. This enhancement provides the ability to control water on 300 acres within Unit 1 by constructing a dike around the perimeter of the acreage.

Development of additional wetlands to increase productivity and assist with noxious weed control will occur as resources/funds become available. Another proposed enhancement/development project includes the reconstruction of the J-dike, located west of Unit 1. The existing J-dike was constructed prior to the GSL flood and it was damaged by rising flood waters. It was never reconstructed.

- **Equipment:**

Maintain all equipment and machinery and make necessary repairs. Winterize equipment as season approaches.

Zoning and Land Use Ordinances

There are no known conflicts with existing local government general plans, zoning regulations or land use ordinances. Most of Farmington Bay WMA occurs within unincorporated Davis and Salt Lake counties. Farmington City, Centerville City, and West Bountiful City are all adjacent to FBWMA. All of the incorporated city planning and zoning infrastructure adjacent to FBWMA is zoned for agricultural uses, or very low density housing (one house per 5 acres). All of these cities are supportive of FBWMA, and the open space, wildlife habitat and recreational opportunities that are available. In addition, all of the cities have streams, creeks, or storm drains that flow into FBWMA, and they recognize the importance of the wetlands in treating water before it flows into the GSL. The cities maintain the storm drains and there is frequent communication between the city public works departments and FBWMA personnel.

In 2012, Centerville City initially proposed to close hunting west of Legacy highway, from the highway to their western city boundary (which included a section of FBWMA). City residents walking on the Legacy Parkway Trail were concerned about shooting that was happening west of the trail. FBWMA managers attended a city council meeting and clarified exactly what kind of hunting was occurring: hunters were using shotguns and not rifles, and that people walking on the trail were not in the hunting area. Centerville City compromised and decided to close hunting from Sheep road (800 West) east to the Firebreak road on the eastern foothills. Centerville City presented this proposal to the Utah Wildlife Board which approved closing this area to hunting. A small section of FBWMA lies within the Centerville City limits, but this area is outside the hunting closure area.

V. Strategies for Habitat Management

Unit Management Plans for Wildlife Species

There are no management plans for any individual waterbird species, so the management strategy on the WMA is to make the habitat desirable for all species of waterfowl. If the habitat is desirable for waterfowl, other birds, such as shorebirds and wading birds will also benefit. There are no individual management plans for any Species of Greatest Conservation Need or

Utah State Sensitive Species. In the future, as species management plans are written and adopted by the Utah Wildlife Board, they may be implemented at FBWMA.

Strategies for habitat management will be based on a holistic approach that takes into account the wildlife, habitat and human components of the WMA. They include:

- Provide an array of different habitat types in structure, composition, and plant phenology that address the diverse number of species and chronological annual life cycle needs of wildlife that use the area, with a special focus on improving conditions for waterfowl, while minimizing negative impacts to other species that use the area.
- Maintain a diverse plant and wildlife community using the available tools, technology and knowledge.
- Maintain control of undesirable plant species, increase food quality and production, and enhance cover quality.
- Minimize negative impacts to wildlife in the area.

Other Plans, Guidelines or Regulations

- FBWMA has the standard operating procedures manual that all WMA's follow, but there is not an actual waterfowl specific management plan for the WMA.
- UDWR is supportive of the North American Waterfowl Management Plan and the state has benefitted from several Intermountain West Joint Venture Projects. .
- The annual work plan is a guiding document that provides guidelines for where waterfowl staff will coordinate their efforts throughout the year and to identify where Federal Aid money may be used. As part of the annual work plan, FBWMA conducts all waterfowl and non-game surveys and provides the numbers to the Utah Waterfowl Coordinator.
- FBWMA managers diligently follow the Clean Water act and work with the Army Corps of Engineers whenever there may be a wetland impact resulting from habitat enhancement activities.

Habitat Improvement Plan

The management of the area is directed to maintaining, enhancing and developing diversified habitats which in turn, support a diverse wildlife species compliment. A highly functional system in a healthy condition benefits the wildlife resources and the user public, and demonstrates the UDWR is a good land steward. This also provides evidence that the public investment (license/permit sales, general fund etc.) is being used effectively to protect wildlife for its intrinsic, scientific, educational and recreational values.

The tools used to manipulate vegetative habitat are mechanical, fire, chemical (natural or synthetic), herbivores (wildlife, domestic animals, or insects) and water regulation.

- Fire has been used to remove residual treated *Phragmites* stands, and overgrown stands of emergent vegetation. Prescribed burns on areas greater than 20 acres are completed under the direction of the Utah Division of Forestry, Fire and State Lands (FFSL), fire management personnel. An MOU is in place between the UDWR and FFSL to facilitate prescribed burning of UDWR lands. Burning is becoming increasingly more difficult each year due to fire restrictions, smoke management and FBWMA's proximity to Salt Lake City and other nearby cities.

- Chemical treatment is directed mainly at noxious and invasive weeds. However, chemicals can be used to open dense stands of wetland plants (cattail, bulrush, etc...) that are difficult to access, or are non-accessible with equipment. Chemicals can also be used when the affects of fire do not provide the desired results or if fire cannot be considered due to other limitations/restrictions.
- The Noxious and Invasive Weed Control and Containment Project identified 11 species of weeds that occur on the WMA which are annually targeted for control efforts. These weeds include: common reed (*Phragmites australis*); perennial pepperweed (*Lepidium latifolium*); Dyer's woad (*Isatis tinctoria*); hoary cress (*Lepidium latifolium*); salt cedar (*Tamarix spp.*); poison hemlock (*Conium maculatum*); and purple loosestrife (*Lythrum salicaria*). In addition four thistle species are included in this plan and include: Canada thistle (*Cirsium arvense*); bull thistle (*Cirsium vulgare*); musk thistle (*Carduus nutans*); and scotch thistle (*Onopordum acanthium*).

Additional weeds are on a watch list to monitor for expansion of existing populations or establishment of new infestations. These plants include: mosquito fern (*Azolla spp.*); ErAsian watermilfoil (*Myriophyllum spicatum*); and curly leaf pondweed (*Potamogeten crispus*).

- Livestock grazing is a useful tool for *Phragmites* management. High intensity, short duration grazing, and the use of allotment rotation has been extremely effective at opening up monotypic stands of *Phragmites*. A new grazing management plan is being developed for FBWMA, which will allow the use of this tool for widespread habitat manipulation on the area. When completed, this plan will be on file at the FBWMA office.
- The use of Biological Control Agents (BCA) (such as insects, rust, fungi, etc...) to control noxious and invasive weeds are becoming more acceptable and available. When these controls are approved for use they should be evaluated for introduction into the area on a case by case basis.
- Water regulation is the most widely used tool for manipulating habitat in wetlands. Water level management is an ongoing management activity for this area.
- Muskrats occur on the area and population management is conducted through permitted trapping.
- Carp control is conducted on an annual basis. Effective carp control can be accomplished through water control, which essentially consists of cutting off water flows during ice up and applying a chemical treatment to kill the fish.

The upland habitat at FBWMA is very limited consisting of only 4% of the entire WMA. Each year several acres of food plots (corn, sorghum, triticale) are planted throughout the area. The food plots provide green grass for grazing geese in the spring and forage for pheasants and other seed eating bird species in the fall and winter. Upland habitats are also sprayed, disked, fallowed and then planted with grasses and forbs to create quality nesting habitat.

Future habitat improvement plans may include:

- Creation of artificial nesting islands in the rest area of Unit one. Floating islands (www.floatingislandinternational.com) will provide critical nesting habitat for redhead ducks and other waterbird species during the breeding season, as well as loafing areas during spring and fall migrations. In addition, the artificial islands are a natural water purification system that will help reduce high nutrients loads in FBWMA. Floating islands provide many of the same ecological benefits as natural wetlands such as: improving water quality; producing large biomass of insects which are food for birds and fish; and providing habitat for birds, frogs and other species. By providing food and cover for fish and frogs, fish-eating birds will also benefit from the floating islands.
- Land acquisitions through mitigation opportunities. As development increases in the area, there are frequently development projects that impact wetlands. FBWMA managers are willing to assist developers in writing up management plans for adjacent properties and assuming long term ownership and management. For example, the UTA frontrunner project impacted wetlands and UDWR developed a management plan for the acquisition and habitat enhancement of 56 acres of property. UTA subsequently purchased the property and FBWMA managers are managing the property to the Army Corps of Engineers standards. This property will eventually be deeded to UDWR.
- All major water delivery systems were cleaned of sediment in 2013 and 2014. Managers will monitor sediment levels and the channels will likely need to be cleaned again in the next 5-10 years.

Access Management Plan

The access management plan for the Farmington Bay WMA is included in Appendix C. The plan discusses access to the WMA, rules and regulations for motorized vehicle operation in the area, and how this system is compatible with achievement of WMA management goals and objectives. A map is included which shows authorized roads and parking facilities.

Fire Management Plan

The use of fireworks is prohibited on the WMA (R657-28-4) and open campfires are not allowed.

VI. Summary Statement of Proposed Uses

The primary purposes of Farmington Bay Waterfowl Management Area (FBWMA) are: to preserve, restore, and enhance both aquatic and terrestrial habitat for wildlife; increase wildlife populations to meet wildlife management objectives; conserve, protect, and recover sensitive wildlife species and their habitats; protect cultural resources; and provide for recreational opportunities that are compatible with the purpose of upland and wetland ecosystems. The overall management goals for the area are directed to maintaining, enhancing and developing a diversified habitat which supports a diverse wildlife species compliment. This goal can be accomplished by maintaining a highly functional system in a healthy state to benefit the wildlife resources and the user public. This will also demonstrate that UDWR is a good land and wildlife steward.

VII. Monitoring and Evaluation

Monitoring and evaluation is accomplished through site assessments, surveys (wildlife and public), data collections (species presence and harvest) and analysis, and through observations. The WMA Supervisor is responsible for monitoring projects to ensure they meet all stated goals and objectives. Assistance will be required from other sections and will be requested as needed.

VIII. Appendices

- Appendix A- Maps
 - General Location
 - Surrounding land ownership
 - FBWMA Unit locations
 - Road/Access
- Appendix B- Legal Description and Encumbrances
 - Land Parcels and Legal Information
- Appendix C- Management Plans
 - Access Management Plan
- Appendix D- Wildlife/Plant Information
 - Species of Greatest Conservation Need and Utah State Sensitive Species
 - Farmington Bay WMA Bird Field Checklist
 - Noxious and Invasive Weed List and BCA Availability

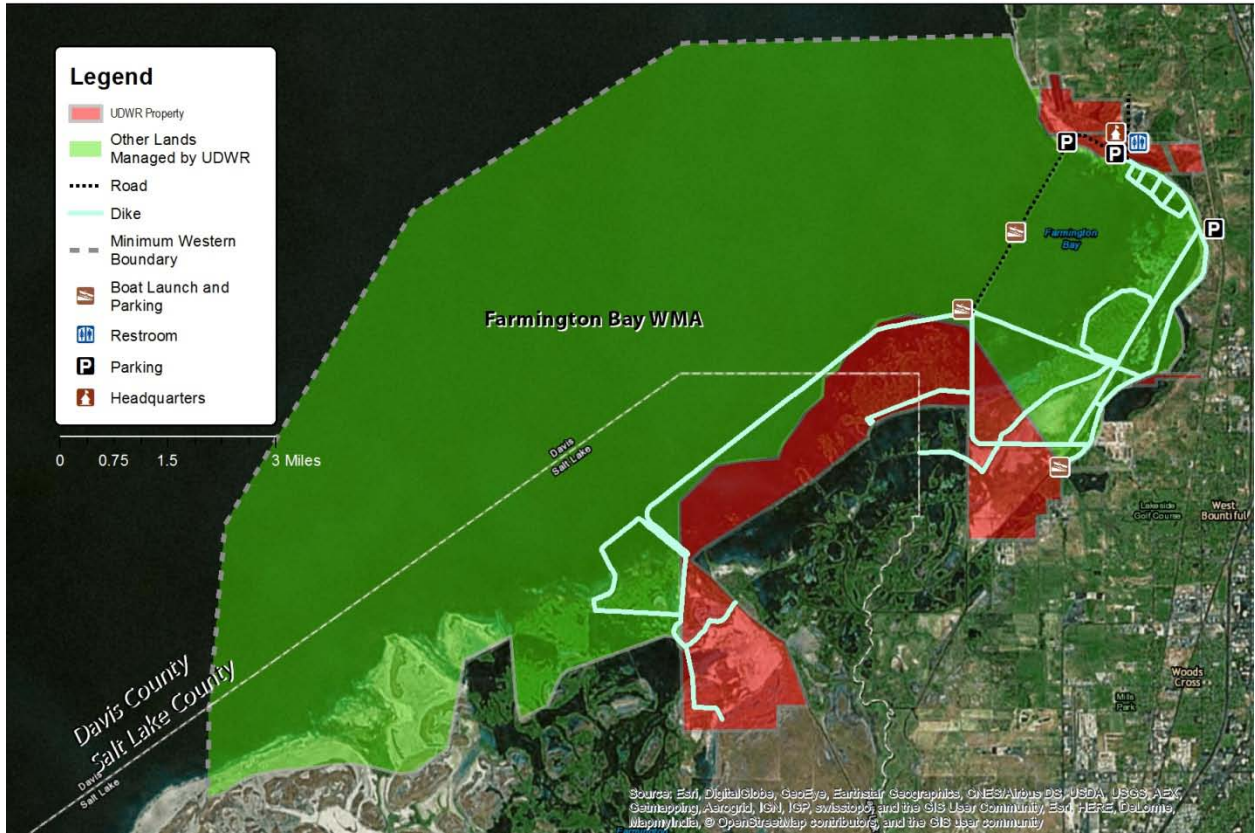
Appendices

Appendix A

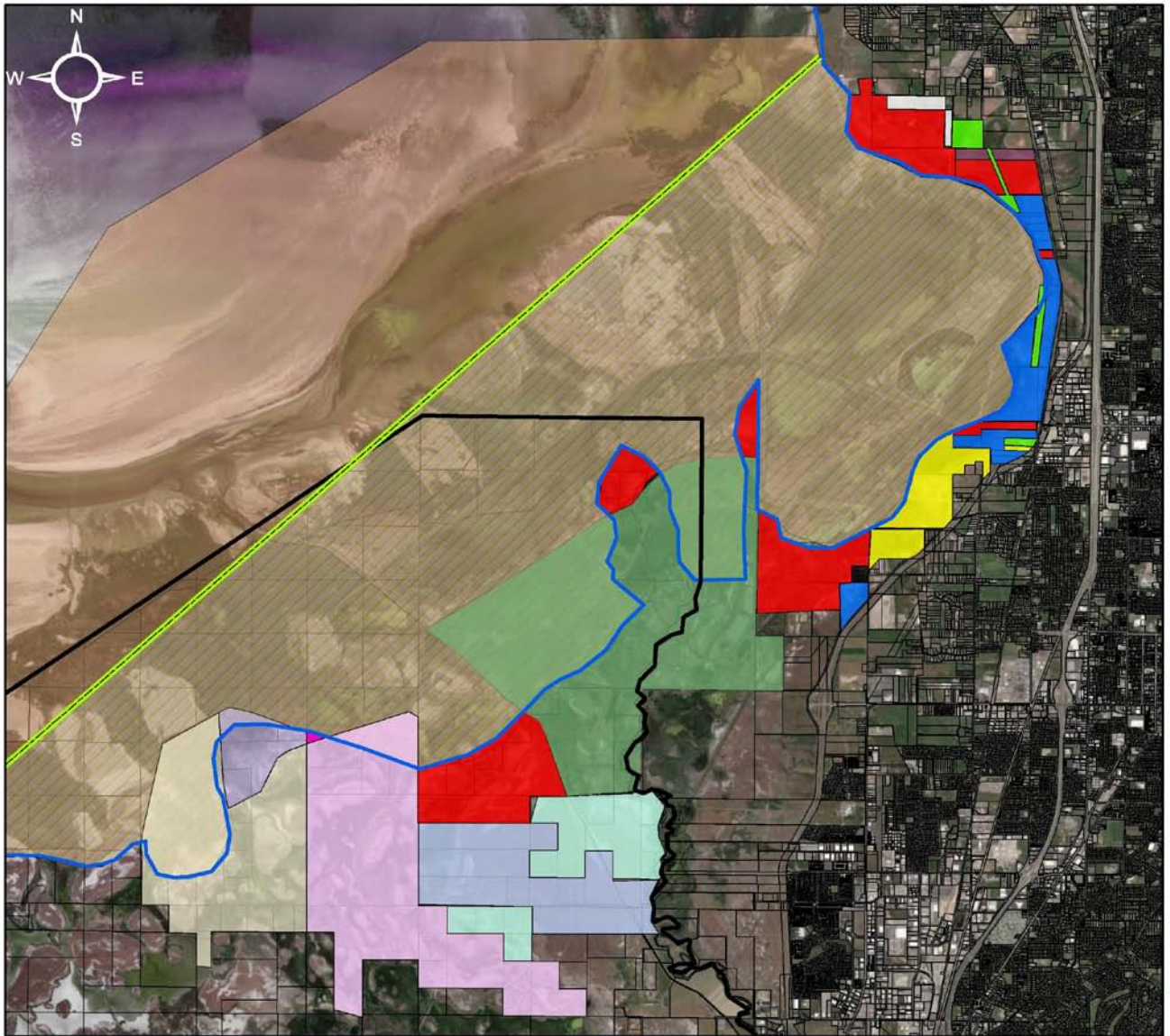
Maps



Farmington Bay Waterfowl Management Area General Location Map



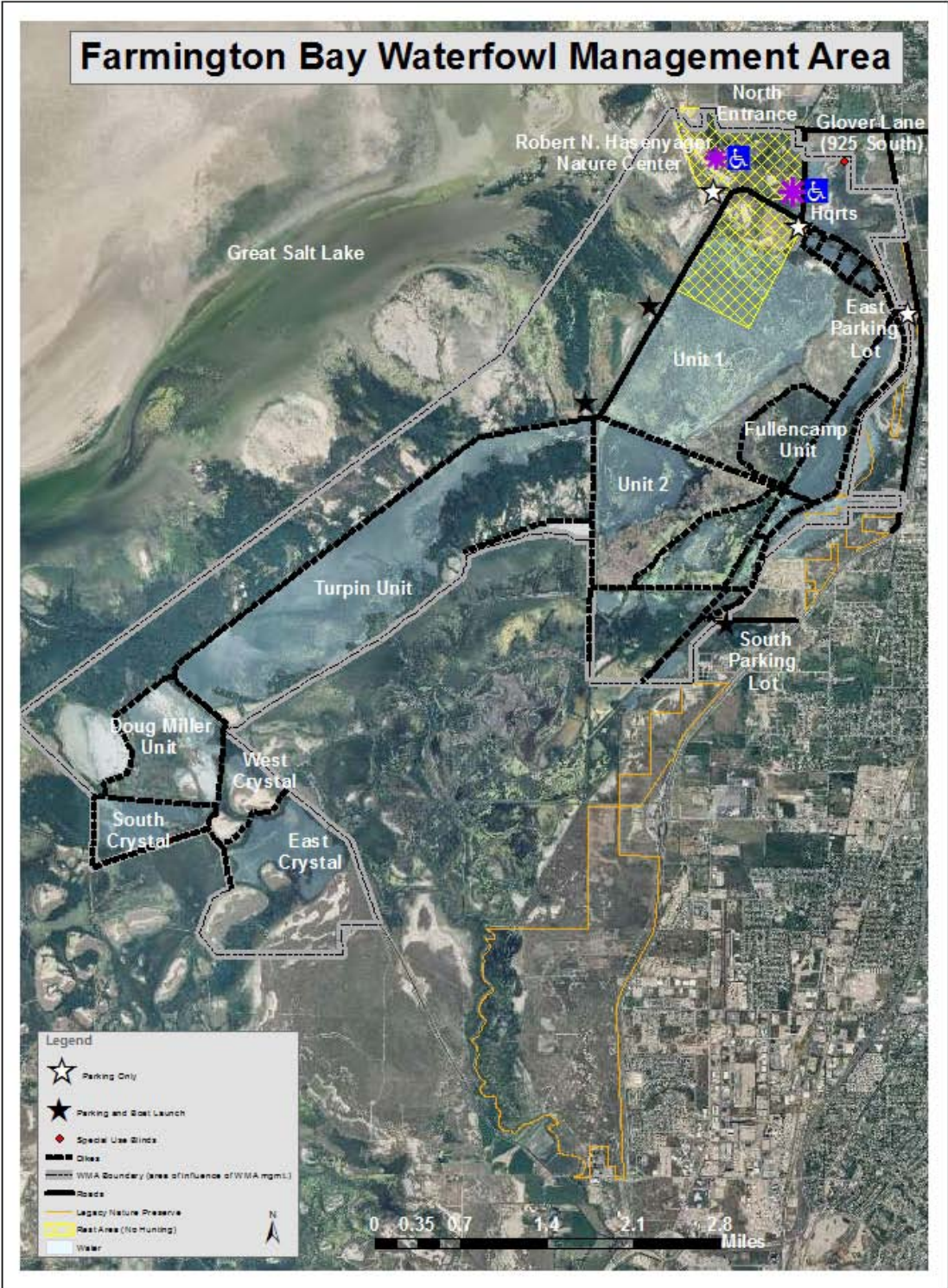
Landownership



0 0.5 1 2 Miles

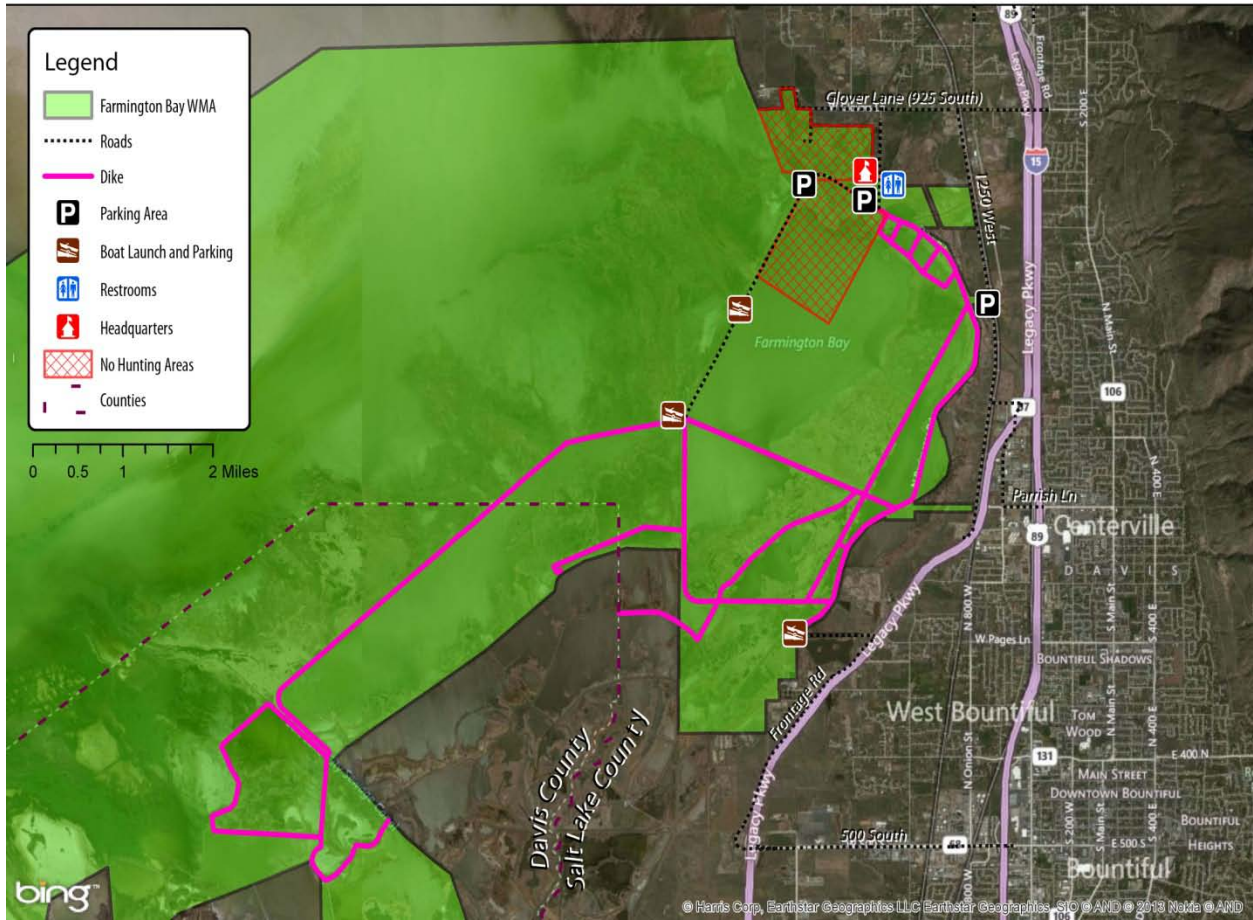
- Intermediate Western Boundary
- County line
- GSLMeanderLine
- Lakefront Lease
- Fee Title DWR from Northpoint
- UTA Property - Pending
- FBWMA Fee Title Land
- South Davis Sewer
- Bountiful City
- Shepard Mitigation-Pending
- Lakefront Duck Club
- Newstate Duck Club
- Nature Conservancy (LNP)
- Northpoint Duck Club
- Gilmore
- Swaner
- Pacificorp
- Sovereign Land
- Sovereign Land UDWR management

Map represents Landownership
around Farmington Bay Waterfowl
Management Area.
Map Author: Jason Jones
NAD_1983_UTM_Zone_12N





Farmington Bay Waterfowl Management Area Road/Access Map



Appendix B

Legal Description and Encumbrances, Agreements, Enhancements, and Easements

Legal Description and Encumbrances, Agreements, Enhancements, and Easements

Grantor: *Mary J. Argyle*

Warranty Deed # 61072 Book: 1-N Page: 81 **Signed:** 08/14/1935 **Recorded:** 10/01/1935
Township 2 North, Range 1 West
Section 14: *3.00 acres*

Encumbrances & Limitations:

- None listed

Grantor: *Jordan Fur and Reclamation Company*

Quit Claim Deed # 165903 Book: 1521 Page: 216 **Signed:** 03/29/1957 **Recorded:** 04/20/1957
Township 2 North, Range 1 West
Section 30: *542.90 acres*
*Exchange under legislative authority

Encumbrances & Limitations:

- None listed

Grantor: *Jordan Fur and Reclamation Company*

Quit Claim Deed # 1600610, Book: D-16; Page: 126-3, 130-7, 129-3, 119-5, 123-5, 121-15;
Signed: 03/29/1957 **Recorded:** 07/11/1958
Township 2 North, Range 1 West
Sections 9, 10, 15, 17, 19: *474.16 acres*
*Exchange under legislative authority

Encumbrances & Limitations:

- None listed

Grantor: *Jordan Fur and Reclamation Company*

Grant Deed # 1600611; Book: D-16; Page: 119-6, 123-6, 121-16, 129-4, 130-8; **Signed:**
03/29/1957; **Recorded:** 07/11/1958
Township 2 North, Range 1 West
Sections 8, 30: *470.57 acres*
*Exchange under legislative authority

Encumbrances & Limitations:

- Other: Covenants running with land

Grantor: *Jordan Fur and Reclamation Company*

Grant Deed # 165904; Book: 1521; Page: 219; Signed: 03/29/1957; Recorded: 04/20/1957

Township 2 North, Range 1 West

Sections 9, 15: *348.65 acres*

*Exchange under legislative authority

Encumbrances & Limitations:

- Other: Covenants running with land

Grantor: *Northpoint Fur & Reclamation Company*

Warranty Deed # 3289892; Book: 4875 Page: 153 Signed: 03/16/1979 Recorded: 07/06/1979

Township 2 North, Range 2 West

Section 25: *6.89 acres*

Encumbrances & Limitations:

- Minerals reserved

Grantor: *The Utah Wetland Foundation*

Quit Claim Deed # 726109 Book: 1072 Page: 1148 Signed: 01/31/1986 Recorded: 02/04/1986

Township 3 North, Range 1 West

Section 36: *67.16 acres*

Encumbrances & Limitations:

- Utility easement 66 feet wide
- Ditch (See title insurance)

Grantor: *Alvira Wooley*

Warranty Deed # 864584 Book: 1304 Page: 651 Signed: 07/26/1989 Recorded: 07/26/1989

Township 2 North, Range 1 West

Section 22: *120.00 acres*

Encumbrances & Limitations:

- Minerals reserved, except sand and gravel
- Ditch (See title insurance)

Grantor: *State of Utah*

Patent # 18929

Deed # 912098; Book: 1388; Page: 1; Signed: 12/04/1990; Recorded: 12/24/1990

Township 3 North, Range 1 West

Section 36: *7.62 acres*

Encumbrances & Limitations:

- Minerals reserved
- Subject to right-of-ways for ditches, tunnels, and telephone and transmission lines constructed by authority of the U.S.
- Title reverts to Division of State Lands & Forestry if not used for public purpose.

Grantor: *The Nature Conservancy*

Quit Claim Deed #1261236; Book: 2022 Page: 188 **Signed:** 6/6/1996 **Recorded:** 7/12/1996

Township 3 North, Range 1 West
Section 35: 93.50 acres

Encumbrances & Limitations:

- None.

Grantor: *Davis County*

Special Warranty Deed #1684263 Book: 2872 Page: 1128 **Signed:** 7/10/2001 **Recorded:** 8/24/2001

Township 2 North, Range 2 West
Section 26: 64 acres

Encumbrances & Limitations:

- Property is to be used only for the purposes of mitigation and recreation as defined within the 404 Wetlands Act of 1972.
- Property identified to come to UDWR from a North American Wetlands Conservation Act Agreement in 2001. Agreement was between Ducks Unlimited, The Nature Conservancy, Davis County and UDWR.

Grantor: *Symphony Homes Development*

Warranty Deed #1991455; Book: 3552 Page: 1317 **Signed:** 4/14/2004 **Recorded:** 4/14/2004

Township 2 North, Range 1 West
Section 12: 20.72 acres

Encumbrances & Limitations:

- U.S. Army Corps of Engineers wetland mitigation #1305203 (aka, the Chamberlain property)

Grantor: *Utah Reclamation, Mitigation and Conservation Commission (URMCC)*

Warranty Deed #2613881; Book: 5347 Page: 1119 **Signed:** 8/25/2011 **Recorded:** 8/30/2011

Township 3 North, Range 1 West
Section 27: 233.59 acres

Encumbrances & Limitations:

- Property is to be used, operated, managed and maintained for the use, benefit, conservation, propagation and management of wetland and wildlife resources or as for the education, interpretation or scientific study thereof. The property shall be developed in accordance with the *2005 Environmental Assessment and Finding of No Significant Impact for the Great Salt Lake Nature Center at Farmington Bay and Federal Land Transfer* and the August 24, 2006 supplement.
- Property also came with Water Right #31-2782

Grantor: *Davis County Wildlife Federation*

Quit Claim Deed #2605779; Book: 5308 Page: 113 **Signed:** 6/29/2011 **Recorded:** 7/05/2011

Township 2 North, Range 1 West

Section 11: 12 *acres*

Section 12: 0.9 *acres*

Encumbrances & Limitations:

- Utah Power and Light easements for several transmission lines.

Appendix C

Access Management Plan

Farmington Bay Waterfowl Management Area Access Management Plan

Purpose

To ensure that public use and access on the Farmington Bay Waterfowl Management Area is done in a manner that assists the Utah Division of Wildlife Resources (UDWR) in achieving the goals and objectives outlined in the habitat management plan.

Background

Farmington Bay WMA was acquired and habitat enhancements were completed to offer improved nesting, resting and feeding habitat primarily for waterfowl and other birds, and to provide an area for wildlife-related public recreation. This area provides critical habitat for waterfowl and shorebirds, but is also important for other wildlife species. The WMA is highly utilized by the public. It is most known for its waterfowl and pheasant hunting (in appropriate seasons). In addition, the WMA is a popular site for wildlife viewing and photography, hiking, biking, and scenic driving. The access management plan will allow for public access and use of the area, while ensuring that wildlife and habitat management objectives are reached.

Access to the WMA

The WMA is located west of Farmington in Davis County, along the south eastern shore of the Great Salt Lake. The WMA is closed to the public from March 1 to August 1 each year for the wildlife production season. Outside those dates, the WMA can be accessed at 1325 West and Glover Lane, by driving west on Glover lane to 1325 West and turning south on the road under the transmission power lines. Then travel 0.5 miles to the management area boundary. The main gate is open from 8 am and to 5 pm, seven days a week. Year round access is available at this, the north entrance.

Outer gates for the interior parking area open in mid-September and close at the end of February. Vehicle travel is restricted to gravel roads and the parking area. Hikers, bikers and canoeists are welcome, but must take precautions during hunting season. During waterfowl season, most of the area is open to the public for hunting. For hunter and vehicle safety, all vehicles must park in designated parking areas. Shooting is not allowed within 600 feet of travel roads and parking lots. Camping is allowed during waterfowl season at the far end of each of the parking lots, but the stay may not exceed 14 days. Smaller motorized boats may be used in the channels or diked impoundments; however, air boats are restricted to those areas along the Great Salt Lake shoreline west and north of the diked impoundments. An air boat launch is available at the main North entrance. One outhouse type restroom facility is provided for public use at the headquarters area and another outhouse is available at the Robert N. Hasenyager Nature Center. A map is included which displays all access features of the WMA (Appendix A).

Motorized vehicles, including OHV's are restricted to existing and designated roads (Utah Code Section 41-22-10.1). Harassment of wildlife or damage to the environment, including abuse of land, watershed, or impairment of plant or animal life while operating an OHV, is illegal (Utah Code Section 41-22-13).

The UDWR reserves the right to restrict motorized and non-motorized access on the WMA if these activities are believed to be incompatible with the habitat management goals and objectives.

Access to specific Areas:

North entrance to overlook (Goose Egg Island)

- Open year round to motorized vehicles to the gate at Goose Egg Island.
- March 1- mid-September, the main gate is open from 8:00A.M.-5:00P.M.;
- Mid-September-end of February, the main gate is open 24/7
- Open year round to pedestrians (foot and bicycle only)

South entrance

- Open mid-September to end of February to motorized vehicles
- Open August 1 to February 28 to pedestrians
- Closed March 1-August 1

East entrance

- Open mid-September to end of February to motorized vehicles
- Open August 1 to end of February to pedestrians
- Closed March 1-August 1

Other dikes and roads

- Open to pedestrians August 1 to end of February
- Closed March 1 to August 1
- Closed year round to motorized vehicles

Enforcement of Access Management Plan

Division personnel will enforce this access plan in conjunction with local law enforcement agencies.

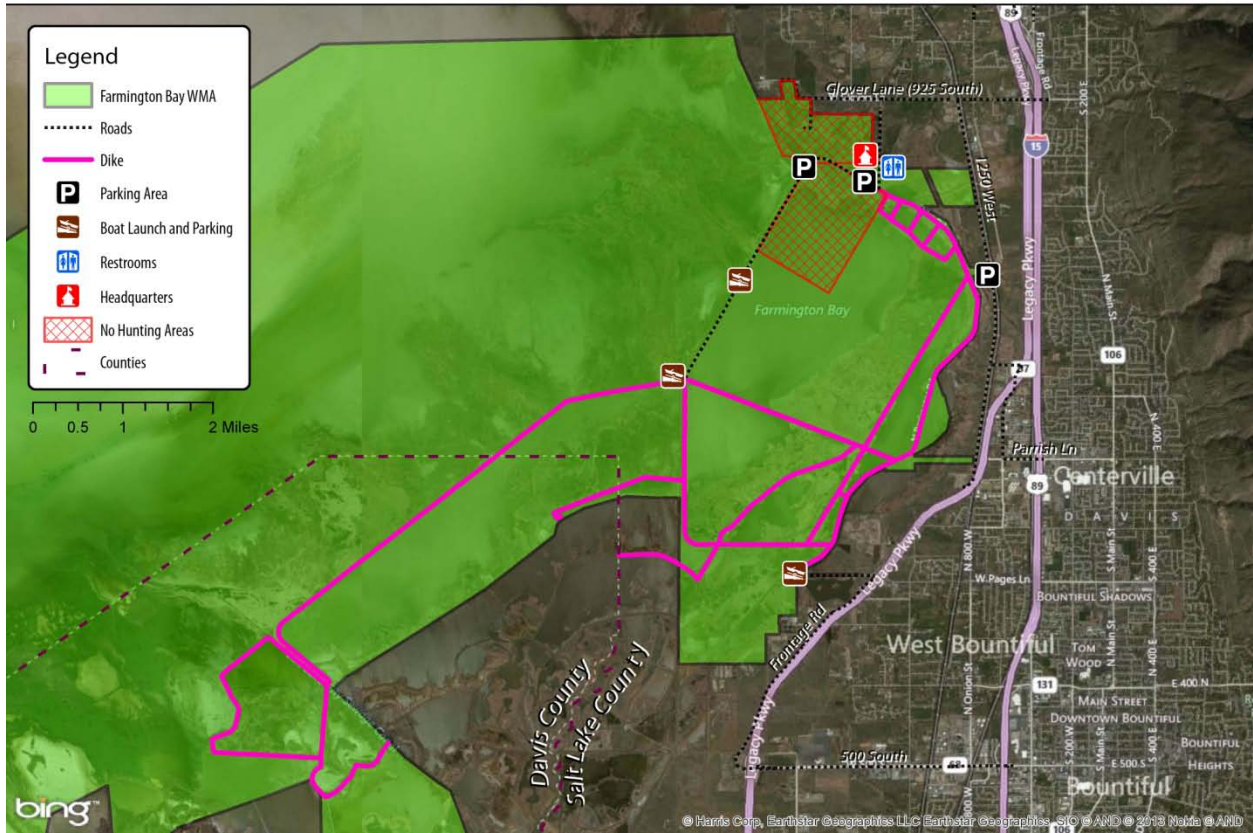
Informing the Public

Signs will be posted at entrances, roads, parking areas, fence lines and gates to notify the public of access boundaries, rules and regulations. Seasonal closures or other access issues will be included in the annual UDWR hunting guidebooks, which are available in hard copy at UDWR offices and where licenses are sold, or online at <http://wildlife.utah.gov/guidebooks>.

The UDWR will work with local, county, other state, and federal agencies to coordinate access plans that are consistent with the objectives and goals of FBWMA. The access management plan will be reviewed and changed as needed.



Farmington Bay Waterfowl Management Area Road/Access Map



Appendix D

Wildlife Information

- Wildlife Species List: Species of Greatest Conservation Need and Utah Sensitive Species
- FBWMA Bird Field Checklist
- Noxious and Invasive Weeds of FBWMA and those with Biological Control Agents (BCA) availability

Species	Scientific Name	Group	Classification	Habitats
American Bittern	<i>Botaurus lentiginosus</i>	Bird	Species of Greatest Conservation Need	Emergent marsh
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Bird	Species of Greatest Conservation Need and Utah State Sensitive Species	Water - Lentic
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Bird	Species of Greatest Conservation Need and Utah State Sensitive Species; De-listed in 2007 from Federal T&E list.	Lowland Riparian
Bobolink	<i>Dolichonyx oryzivorus</i>	Bird	Utah State Sensitive Species	Wet Meadow
Burrowing Owl	<i>Athene cunicularia</i>	Bird	Species of Greatest Conservation Need and Utah State Sensitive Species	High Desert Scrub; grasslands
Caspian Tern	<i>Sterna caspia</i>	Bird	Species of Greatest Conservation Need	Playa; lentic wetlands
Long-billed Curlew	<i>Numenius americanus</i>	Bird	Utah State Sensitive Species	Grassland
Peregrine Falcon	<i>Falco peregrinus</i>	Bird	Species of Greatest Conservation Need; De-listed in 1999 from Federal T&E list.	Cliffs; lowland riparian; wetland habitats
Short-eared Owl	<i>Asio flammeus</i>	Bird	Utah State Sensitive Species	Wetlands; grasslands
Snowy Plover	<i>Charadrius alexandrinus</i>	Bird	Species of Greatest Conservation Need	Playas; salt flats; river sandbars; agricultural ponds
Preble's Shrew	<i>Sorex preblei</i>	Mammal	Species of Greatest Conservation Need and Utah State Sensitive Species	Wetland habitats
Little Brown Myotis	<i>Myotis lucifugus</i>	Mammal	Species of Greatest Conservation Need	Various habitats across Utah

Table 1. Utah State Sensitive Species and Species of Greatest Conservation Need (adapted from Utah Sensitive Species List (2007) and draft Utah Comprehensive Wildlife Conservation Strategy Plan (2015))

Farmington Bay

Waterfowl Management Area

Field Checklist

From the bird list compiled by the
Utah Division of Wildlife Resources
Updated Nov. 2015
(Shyloh Robinson)

Date _____

Time ____ to ____

Observer _____

Species _____

Individuals ____

Notes _____

Relative Abundance Codes

C = Common (Found consistently in fair numbers in appropriate habitat and season)

U = Uncommon (Found consistently in small numbers in appropriate habitat and season)

R = Rare (Found infrequently but regularly in very small numbers in proper habitat and season)

O = Occasional, (Seldom found in the state and not reported annually)

Status Codes

P = Permanent Resident (Found year round at FBWMA)

S = Summer Resident (Present at FBWMA during the nesting season)

W = Winter Visitant (Present at FBWMA during January and/or February)

T = Transient (Migrates through FBWMA in spring and/or fall)

() = Nests at FBWMA

Species for which documentation is requested. (Utah Ornithological Society)

* Common Moorhen and Lapland

Longspur were added to original list.

"Utah Birds"

www.utahbirds.org

Bird List

Grebes

- __ Pied-billed Grebe(CS),UW
- __ Horned Grebe UT, RW
- __ Eared Grebe.....(CS), RW
- __ Western Grebe (CS)
- __ Clark's Grebe (CS)
- __ Common Loon.....OT

Pelicans & Cormorants

- __ American White Pelican....CS
- __ Double-crested Cormorant..... (US)
- __ Neotropic Cormorant OT, OS

Bitterns & Herons

- __ American Bittern.....RS
- __ Great Blue Heron.....(CP)
- __ Great Egret.....UP
- __ Snowy Egret (CS)
- __ Tricolored Heron #O
- __ Cattle Egret.....US,UT
- __ Black-crowned Night-Heron...(CS),UW
- __ Green Heron.....OT

Ibises & Spoonbills

- __ White-faced Ibis.....(CS)
- __ Glossy Ibis..... OS

Vultures

- __ Turkey VultureUS

Swans, Geese & Ducks

- __ Greater White-fronted Goose#....RT
- __ Snow Goose..... UT
- __ Ross's Goose.....RT
- __ Canada Goose..... (CP)
- __ Brant #O
- __ Trumpeter Swan #O
- __ Tundra Swan..... CT, RW
- __ Mute Swan.....RT
- __ Wood Duck.....RP
- __ Gadwall(CS), UW

- __ Eurasian WigeonRT
- __ American Wigeon.CT, UW
- __ MallardCP
- __ Garganey#.....O
- __ Blue-winged Teal . UT, US
- __ Cinnamon Teal ..(CS), RW
- __ Northern Shoveler(CS),CW
- __ Northern Pintail .(CS), CW
- __ Green-winged Teal.....US, CT, CW
- __ Canvasback..... CT, RW
- __ Redhead(CS), RW
- __ Ring-necked Duck RW
- __ Greater ScaupRT
- __ Lesser Scaup.....CT, UW
- __ Harlequin Duck #OT
- __ Surf ScoterRT
- __ Black Scoter#..... OT
- __ White-winged Scoter ...RT
- __ Long-tailed Duck.....RT
- __ BuffleheadCT, CW
- __ Common Goldeneye...CT, CW
- __ Barrow's Goldeneye... RW
- __ Hooded Merganser RT, RW
- __ Common Merganser.....CT, CW
- __ Red-breasted Merganser CT, CW
- __ Ruddy Duck.....(CS), UW

Hawks & Falcons

- __ Osprey.....RT
- __ White-tailed Kite #O
- __ Bald Eagle CW
- __ Northern Harrier (CP)
- __ Sharp-shinned Hawk...UW
- __ Cooper's Hawk.....U
- __ Swainson's Hawk..... CP
- __ Red-tailed HawkCP
- __ Ferruginous HawkRT
- __ Rough-legged Hawk .. CW
- __ Golden EagleRP
- __ American Kestrel (CP)
- __ Merlin RW
- __ Peregrine FalconUP
- __ Prairie Falcon.....UP

Pheasants, Grouse & Quail

__ Ring-necked Pheasant. (CP)
__ California QuailUP

Rails & Cranes

__ Virginia Rail(CS), UW
__ Sora..... (CS)
__ Common Gallinule #... OS
__ American Coot..... (CP)
__ Sandhill Crane (US)

Plovers & Sandpipers

__ Black-bellied Plover ... UT
__ American Golden-
Plover.....RT
__ Snowy Plover..... (US)
__ Semipalmated Plover .. UT
__ Killdeer (CP)
__ Black-necked Stilt.... (CS)
__ American Avocet (CS)
__ Greater YellowlegsCT
__ Lesser Yellowlegs.....CT
__ Solitary SandpiperRT
__ Whimbrel#.....RT
__ Willet (CS)
__ Wandering Tattler #.....O
__ Spotted Sandpiper..... (CS)
__ Long-billed Curlew....(US)
__ Marbled Godwit.....CT
__ Hudsonian Godwit#.....OT
__ Ruddy Turnstone #RT
__ Red Knot.....RT
__ Sanderling..... UT
__ Semipalmated Sandpiper
.....RT
__ Western Sandpiper.....CT
__ Least Sandpiper .. CT, RW
__ Baird's Sandpiper..... UT
__ Pectoral Sandpiper UT
__ Dunlin.....RT
__ Stilt SandpiperRT
__ Short-billed Dowitcher.RT
__ Long-billed Dowitcher..CT
__ Common Snipe .(CS), UW
__ Wilson's Phalarope.... (CS)
__ Red-necked Phalarope .CT
__ Red Phalarope#.....O

Gulls, Terns, & Alcids

__ Parasitic Jaeger #O
__ Franklin's Gull (CS)

__ Bonaparte's Gull UT
__ Little Gull#..... O
__ Mew Gull.....O
__ Ring-billed Gull..... CW
__ California Gull..... (CP)
__ Herring GullUW
__ Glaucous-winged Gull.RW
__ Western Gull#RW
__ Lesser Black-backed
Gull#.....RW
__ Iceland Gull#.....OW
__ Thayer's Gull RW
__ Glaucous Gull..... RW
__ Sabine's Gull #.....O
__ Caspian Tern.....US
__ Common Tern.....RT
__ Forster's Tern..... (CS)
__ Least Tern#.....OT
__ Black TernUS

Pigeons & Doves

__ Mourning Dove (CS)
__ Eurasian Collared-Dove (CP)

Owls

__ Barn Owl(RP)
__ Great Horned OwlCP
__ Short-eared Owl..... (UP)
__ Long-eared Owl.....OP

Goatsuckers

__ Common NighthawkCT
__ Common Poorwill.....OT

Swifts

__ White-throated SwiftRT

Hummingbirds

__ Black-chinned Hummingbird
..... UT
__ Calliope
Hummingbird.....RT
__ Broad-tailed
Hummingbird.....RT
__ Rufous Hummingbird.. RT

Kingfishers

__ Belted Kingfisher.....UP

Woodpeckers

__ Red-naped Sapsucker ...RT
__ Downy Woodpecker....UP
__ Northern Flicker.....UP

Flycatchers

__ Say's PhoebeRS
__ Western Kingbird (CS)
__ Eastern Kingbird.....(US)
__ Gray Flycatcher.....OT
__ Dusky Flycatcher.....RT
__ Willow Flycatcher.....RT
__ Western Wood-Pewee..RT

Shrikes

__ Loggerhead Shrike.....UP
__ Northern Shrike RW

Vireos

__ Plumbeous VireoRT
__ Warbling Vireo.....RT
__ Cassin's Vireo.....OT

Jays & Crows

__ Black-billed Magpie . (CP)
__ Common Raven (CP)
__ American Crow.....(CW)

Larks

__ Horned Lark.....(CP)

Swallows

__ Purple Martin.....O
__ Tree Swallow.....CT
__ Violet-green Swallow...CT
__ Northern Rough-winged
Swallow CT
__ Bank Swallow.....CT
__ Cliff Swallow..... (CT)
__ Barn Swallow (CS)

Titmice, Verdin & Bushtit

__ Black-capped
Chickadee..... RP
__ Mountain Chickadee... RW

Nuthatches & Creepers

__ Red-breasted Nuthatch....O

Wrens

__House Wren..... UT
__Marsh Wren.....(CS), UW
__Rock Wren.....OP
__Pacific Wren#.....OW

Kinglets

__Ruby-crowned Kinglet.RW

Gnatcatchers

__Blue-gray Gnatcatcher..UT

Thrushes

__Mountain Bluebird.....UT
__Hermit ThrushRW
__American Robin..... (UP)
__Gray Catbird.....RT

Thrashers

__Sage Thrasher_RT
__Northern Mockingbird.OT

Starling

__European Starling(CP)

Pipit

__American Pipit.... CT, UW

Waxwings & Phainopepla

__Bohemian Waxwing ...RW
__Cedar WaxwingUP

Warblers

__Orange-crowned
Warbler.....UT
__Nashville Warbler.....RT
__Virginia's Warbler.....RT
__Yellow WarblerUT, US
__Yellow-rumped Warbler
.....CT, RW
__Townsend's WarblerRT
__Northern Waterthrush ..RT
__Common Yellowthroat
.....(CS)
__Wilson's WarblerRT
__Yellow-breasted Chat..RT

Tanagers

__Western Tanager.....UT

Sparrows

__Green-tailed Towhee.....RT
__Spotted TowheeRP
__American Tree Sparrow
.....UW
__Chipping Sparrow.....UT
__Brewer's Sparrow.....UT
__Vesper SparrowUT
__Lark Sparrow.....UT
__SagebrushSparrow.....RT
__Savannah Sparrow.... (CS)
__Song Sparrow (CP)
__Lincoln's Sparrow.....UT
__Swamp Sparrow.....O
__Harris's Sparrow.....O
__White-crowned Sparrow
.....UW
__Dark-eyed JuncoUW
__LaplandLongspur*#....OW

Grosbeaks & Buntings

__Black-headed Grosbeak
.....RT
__Lazuli Bunting..UT

Blackbirds & Orioles

__Red-winged Blackbird
..... (CP)
__Western Meadowlark.. (CP)
__Yellow-headed Blackbird
..... (CS)
__Brewer's Blackbird.... (CP)
__Brown-headed Cowbird US
__Bullock's Oriole (RS)
__Bobolink#.....RT, (OS)

Finches

__Cassin's FinchO
__House Finch..... (CP)
__Pine Siskin.....UW
__American Goldfinch ...UP
__Lesser Goldfinch.....UP
__Common Redpoll#.....OW
__Evening Grosbeak.....O

Weaver Finches

__House Sparrow (CP)

Noxious and Invasive Weeds of Farmington Bay WMA and those with Biological Control Agent (BCA) Availability

Table 2.

BCA Availability	Weed Common Name	Scientific Name
	<i>UPLAND WEEDS</i>	
	Bulbous Bluegrass	<i>Poa bulbosa</i>
	Bull Thistle	<i>Cirsium vulgare</i>
•	Canada Thistle	<i>Cirsium arvense</i>
	Cheat and Downy Brome	<i>Bromus spp</i>
•	Dyers Woad	<i>Isatis tinctoria L.</i>
•	Field Bindweed	<i>Convolvulus arvensis</i>
•	Hoary Cress	<i>Lepidium spp, formerly Cardaria spp.</i>
	Kochia	<i>Kochia scoparia L.</i>
•	Musk Thistle	<i>Carduus nutans</i>
	Perennial Pepperweed	<i>Lepidium latifolium L</i>
•	Poison Hemlock	<i>Conium maculatum</i>
	Scotch Thistle	<i>Onopordum acanthium L.</i>
	Western Water Hemlock	<i>Cicuta douglasii</i>
•	Yellow Starthistle	<i>Centaurea solstitialis</i>
	<i>RIPARIAN, WETLAND & AQUATIC WEEDS</i>	
•	Cattail	<i>Typha spp</i>
	Common Reed	<i>Phragmites australis</i>
	Curly Pondweed	<i>Potamogeton crispus</i>
•	Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>
•	Purple Loosestrife	<i>Lythrum salicaria</i>
•	Tamarisk	<i>Tamarix spp</i>

Lower San Rafael River
Wildlife Management Area
Habitat Management Plan

Southeastern Region Habitat Section

March 2016

**Utah Department of Natural Resources
Division of Wildlife Resources**

Executive Summary

Lower San Rafael River Wildlife Management Area Habitat Management Plan March 2016

Primary Purpose of WMA:

Protect habitat and water for indigenous fish species in the Lower San Rafael River. Provide recreational opportunities consistent with wildlife values of the WMA.

Wildlife Species:

Colorado pikeminnow, razorback sucker, bonytail, flannelmouth sucker, bluehead sucker, roundtail chub, deer, pronghorn, pheasant, rabbit, turkey, townsend's big-eared bat, lesser nighthawk, spadefoot toad, and neotropical migrant birds, raptors, small mammals, reptiles and amphibians.

Habitat Conditions and Challenges:

The condition of the lower San Rafael river has been degraded and is threatened by dewatering, sedimentation, lack of stream cover and shade, insufficient stream depth and lack of habitat complexity, undesirable fish migration barriers, high stream temperatures, pollution and turbidity. Upland habitats are limited by low precipitation, shallow rooting depth, and excess salt and sodium. Riparian and upland habitats are threatened by non-native vegetation encroachment that makes restoration difficult.

Livestock frequently trespass on the property and grazing occurs on the floodplain and along the banks of the river. Some OHV use and other recreational use occur in the area. Water use is the main challenge on the river with diversions being barriers to fish passage as well as dissolved solids as a result of upstream irrigation practices.

Access Plan:

The WMA is open to public access year round, with the exception of the leased property on Hatt Ranch. Access is provided on county roads, but may be restricted due to severe weather. No developed recreation opportunities exist on the WMA. The property is open to hunting, hiking, horseback riding, and primitive camping. Mountain biking and OHV use is allowed on county roads. There are no trash collection bins, restrooms, potable water, or fire pits on site.

Maintenance Activities:

Maintenance activities include fence maintenance, road maintenance, sign placement and repair, and noxious/invasive weed control. These activities are conducted on an "as needed" basis.

Habitat Improvements:

Potential habitat treatments on the property include connecting the floodplain, increasing habitat complexity by increasing woody material, pools, riffles and backwater habitats in the river, increasing native vegetation and removing invasive species such as tamarisk, and restoring river connectivity through the removal of barriers. Ideas will also be explored to increase upland game opportunities through planting food/cover plots. Weed control will remain a priority on the property, targeting tamarisk removal with secondary weed follow up.

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**LOWER SAN RAFAEL RIVER
WILDLIFE MANAGEMENT AREA
HABITAT MANAGEMENT PLAN**

BACKGROUND INFORMATION

Property Description

Location

The Lower San Rafael River Wildlife Management Area (WMA) includes 4,060 acres located in Emery County, Utah (see Map # 1). It is comprised of three historic ranches, Hatt Ranch, Frenchman Ranch, and Chaffin Ranch, located along the San Rafael River south of I-70 near the confluence with the Green River.

Hatt Ranch is located three miles south of the intersection of I-70 with Highway 24. It is approximately 13 air miles southwest of Green River, Utah. Access to Hatt Ranch is available via Highway 24 with interior access available using the abandoned highway. The Ranch is made up of several 40 acre parcels within the flood plain of the San Rafael River with a total approximated acreage of 841 acres. Elevation is 4,191 ft.

The Frenchman Ranch property is accessible from Highway 24 at a point approximately ½ mile north of the entrance to Hatt Ranch on a gravel road. It consists of approximately 2,009 acres along the San Rafael River. The property is approximately 7 miles long with all parcels within ¼ to 2 miles of the River. It is primarily flat, gently sloping river bottom property adjacent to rimrock, desert, and sand dunes. Elevation ranges from 4,140 ft to 4,250 ft.

Chaffin Ranch is more remote, located at the confluence of the San Rafael and Green Rivers. It is approximately 22 air miles south of Green River, Utah. Access is available along a graveled BLM road that runs south from the Green River airport road along the Green River. The ranch consists of roughly 1,210 acres with river frontage on both the Green and San Rafael rivers. Elevations range from 3,960 ft to 4,200 ft with mostly flat topography consisting of some rock outcroppings.

The legal description for the Hatt Ranch property is:

Township 22 South, Range 14 East, Salt Lake Base and Meridian

Section 27	E2NW4, SW4NW4, N2SW4, SW4SW4
Section 28	NE4SE4, SE4SE4
Section 33	SE4NE4, NE4NE4
Section 34	NW4NW4, SW4NW4, SE4NW4, W2SW4, E2SW4

Less Utah State Road Right of Way and the County Road Right of Way

Township 23 South, Range 14 East, Salt Lake Base and Meridian

Section 3 Lots 3 and 4, SE4NW4, NE4SW4

The legal description for the Frenchman Ranch property is:

Township 23 South, Range 14 East, Salt Lake Base and Meridian

Section 14 SW4NW4, SW4, SW4SE4
Section 15 W2NE4, SE4NE4, NE4SE4
Section 23 NW4, W2NE4, SE4NE4, E2SW4, W2SE4, SE4SE4
Section 25 NW4SW4, SW4NW4, NE4SW4, SW4SW4
Section 26 E2NE4, NW4NE4, SE4SE4
Section 35 E2NE4
Section 36 W2NW4, SE4NW4, SW4SW4, E2SW4

Township 24 South, Range 14 East, Salt Lake Base and Meridian

Section 1 E2NE4, SW4NE4, NE4SE4

Township 24 South, Range 15 East, Salt Lake Base and Meridian

Section 6 SW4NE4, S2NE4, NE4SW4
Section 7 NE4NE4
Section 8 W2NW4, SE4NW4

The legal description for the Chaffin Ranch property is:

Township 23 South, Range 16 East, Salt Lake Base and Meridian

Section 25 Lot 2
Section 26 Lots 2, 3, and 4, NW4SE4
Section 27 S2N2, N2SW4, NW4SE4, S2SE4
Section 28 E2NE4, SW4NE4, N2SE4, NE4SW4
Section 34 NW4NE4, S2NE4, N2SE4
Section 35 S2N2, N2SW4, NW4SE4

Encumbrances

PacifiCorp Energy (formerly Utah Power and Light Company, or UP&L) donated these ranches and two other properties along the San Rafael River to Utah Division of Wildlife Resources (UDWR) in 1994, along with accompanying water rights and grazing permits. UDWR is mandated by the transfer agreement with PacifiCorp to retain title to this property in perpetuity (See Appendix A-correction special warranty deed).

An Agreement was made and executed upon the following conditions and covenants:

- Title to the property, except for title to that part of the Property located north of the San Rafael river, described as T. 20 S., R 9 E., SLB & M, Section 1: Lots 1, 2, SE 1/4 NE 1/4, shall remain with UDWR in perpetuity.
- UDWR shall abstain from demanding PacifiCorp limit use of, or abstain from using, or release from storage, water owned or controlled by PacifiCorp.
- UDWR shall abstain from demanding PacifiCorp limit use of, or abstain from using, or release from storage, water owned or controlled by PacifiCorp for the purpose of improving the quality of or mitigating the chemical or biological condition of the water making up the Property Water Rights.
- UDWR shall not initiate, prosecute, maintain or voluntarily aid any action or other proceeding against PacifiCorp based on PacifiCorp's impairment of quality or quantity of the Property Water Rights caused, or alleged to be caused, by PacifiCorp's usual and customary use of water upstream at PacifiCorp's Hunter and Huntington steam electric generating plants.
- UDWR shall use its best efforts to maintain the Property Water Rights by using them with such frequency or regularity as to avoid their loss by forfeiture or abandonment.
- Only at such time as the Director of the Division of Water Rights issues a final Memorandum Decision and Order approving use of that portion of the Property Water Rights described in Application No. a17629 for instream flow, the Division shall thereafter:
 - Abstain from demanding any water user owning a perfected and valid water right with a point of diversion and place of use upstream of the Property Water Rights to limit use of, or abstain from using, or release from storage, water which would otherwise supply said Upstream Water Right to supply the Property Water Rights.
 - Abstain from demanding any Upstream Water Right user to limit use of, or abstain from using, or release from storage, water to improve the quality of or mitigate the chemical or biological condition of the water making up the Property Water Rights.
- UDWR will continue to use that part of the property water rights not approved for instream flow use in an authorized manner for the benefit of wildlife, recreation and the property, including, but not limited to, irrigation.
- For any of the property water rights not approved for instream flow use, UDWR agrees to file with PacifiCorp annual reports indicating use of the property water rights.
- UDWR agrees to evaluate and protest any new application to appropriate water between the highest point of diversion of the property water rights and the confluence of the San

Rafael River with the Green River, and to take any further action UDWR deems necessary to protect the property water rights on such new application after consultation with PacifiCorp, unless otherwise agreed to between UDWR and PacifiCorp at the time said new application is filed.

- PacifiCorp will make available to UDWR at its expense its records, personnel, and other expertise to support UDWR's change application and in any other judicial or administrative proceeding relating to the property water rights.
- Upon UDWR's request, PacifiCorp will make its personnel and records available at PacifiCorp's expense to defend the validity and use of the property water rights in the adjudication of the San Rafael River or in any other administrative or judicial proceeding relating to the property water rights. Each party agrees to use its best efforts to defend the validity and continued use of the property water rights in the adjudication of the San Rafael River.

Minerals

No mineral rights were transferred to Utah Division of Wildlife Resources in this transaction according to the Correction Special Warranty Deed (See Appendix B).

Water Rights

The Utah Division of Wildlife Resources was deeded water rights in the correction special warranty deed executed on June 8, 1994. The Division of Wildlife Resources would protect water rights for continued operation of upstream electric generating plants. The water rights were changed for the nature of use to be in-stream flows for wildlife and recreational purposes, with the option for irrigation if preferred. This change was filed on October 20, 1993 and it was approved. Water rights are subject to the memorandum of understanding between PacifiCorp and the Division of Wildlife Resources superseded by the correction special warranty deed.

Easements

The only easements identified in the legal description of the deed were a state and county road right-of-way in T 22S R 14E.

Roads

A right-of-way for State Highway 24 traverses the central portion of Hatt Ranch. This right-of-way is estimated to be 4,600' long by 100' wide occupying approximately 10.56 acres. The old highway right-of-way which ran through the ranch has reportedly been abandoned, but no deed has been conveyed.

A county right-of-way is established on BLM lands on a road system known as Gillies Ranch to Horse Bench and Gillies Ranch (Frenchman's) roads. The ROW for the BLM lands is for a width ranging from 20-28 feet with drainage features ranging up to 8 feet in length. There is no

known ROW for the portions of this road that cross the WMA. However, the DWR will work with the county on maintenance activities.

Grazing

Grazing is addressed here as an encumbrance due to the nature of the WMA in relation to the surrounding BLM. All properties (Hatt, Frenchman, and Chaffin) consist mostly of 40 acre parcels lining the flood plain of the San Rafael and Green rivers. These small parcels are surrounded mostly by BLM and SITLA (School and Institutional Trust Lands Administration) lands and grazing allotments. Without a lot of fencing and fence maintenance cattle grazing is difficult to control. Emery County is a “fence in” county by default, since they have never formally adopted a fencing ordinance. Unless a county adopts a fencing ordinance that specifies otherwise, their fencing policy defaults to state statute which essentially is “fence in” meaning that livestock owners have the responsibility to keep their livestock off neighboring property.

Land Acquisition History

Acquisition Dates

All rights, title and interest to the property were sold and conveyed from PacifiCorp to the Utah Division of Wildlife Resources on May 3, 1994.

Previous Owners

PacifiCorp, previously Utah Power and Light, purchased the three ranch properties in the late 70’s and early 80’s. Prior owners were ranchers and cattlemen.

Mechanism of Purchase

PacifiCorp acquired the Property in connection with the construction and operation of its Hunter and Huntington stream electric generating plants located in Emery County, Utah. PacifiCorp then donated the property to the Utah Division of Wildlife Resources subject to terms and covenants as outlined in the Agreement in Exhibit B to the Correction Special Warranty Deed (1994).

Historic Uses of the WMA

That Hatt Ranch was purchased by Utah Power and Light in 1979-1980 for its water rights so that they could be used for the Hunter Power Plant in Castle Dale, Utah. The property was then leased back to the Hatt’s who converted the historically operated year-round cattle ranch to a game bird farm and hunting club.

The Frenchman Ranch property was originally owned by three different sources, Moore Land and Livestock, Rey Lloyd and LuJuan Hatt, and George and Ruth Graham. Utah Power and Light purchased the property from these sources in 1979 for the water rights in order for UP&L to use the water at the Hunter Power Plant. The three properties had historically been used for agriculture, specifically beef cattle production.

Utah Power and Light purchased the Chaffin Ranch from George and Ruth Graham in 1979 for water rights that could be used at the Hunter Power Plant. The property had historically been used by the OX cattle company.

Purpose of UDWR Ownership

UDWR accepted this donation due to the inherent fish and wildlife value associated with the five San Rafael properties and their associated recreation and hunter access values. UDWR ownership can also protect the water rights from forfeiture or abandonment with instream flow rights, which will also prove beneficial to indigenous fishes of the San Rafael River, some of which are federally listed as threatened or endangered and protected under the Endangered Species Act of 1973.

Conservation Partners Involved in Acquisition

Utah Power and Light Company (now PacifiCorp Energy) donated this property to UDWR.

PROPERTY INVENTORY

Existing Capital Improvements

Roads

The San Rafael Valley Road spur, and Shadscale Mesa/Reef Road go through the northern portion of Hatt Ranch eventually connecting to county road 1028 (Hatt Ranch Bypass) toward the reef at Rattlesnake Flat Creek. The Hatt Ranch Road leaves the property to the north to Shadscale Mesa. The Hatt Ranch Road also cuts through the western end of the property and returns to Highway 24.

The Frenchman Road (also known as Horse Bench or Gillis Ranch Road) leads to the Frenchman Ranch. This road travels in and out of the WMA until it splits off toward Horse Bench in T 23 S R 14 E Section 25. The Gillis Ranch Road continues southeast through the Frenchman Ranch on the northeast side of the river. This road continues through the southeastern most end of the property, however, this road gets really rough in T24 S R 15 S 6. The Lower Cottonwood Wash Road enters the property in the SW4NE4 of T 24 S R 14 E Section 1 on the southwestern side of the river.

Access to the Chaffin Ranch is easiest along the Lower San Rafael Road. Entering the property, the Chaffin Ranch Road runs along the southernmost end of the Chaffin Ranch. This road splits into the North Chaffin Ranch Road (4WD) which heads north eventually to the Green River, and the Green River/Lower SR River Road which ends at the San Rafael River in the NW4SE4 T23 R 16 S 35.

Fences

A majority of the property remains unfenced due to the difficulty of fencing checkerboard parcels near the San Rafael River corridor. Fencing exists near an old cabin on the property (T 23S R 14E S 14) and near the Giles Ranch and Frenchman Cabin (T 23 S R 14 E S 25, T 23S R 14E S 36). These fences are maintained as needed. Additionally, there is an increasing effort to erect fencing for the purpose of protecting cottonwood galleries from grazing on the property. Priority areas for fencing cottonwood galleries includes approximately 110 acres in T 23S R 14 E S3, 330 acres south of the Frenchman Cabin, and a 165 acres near the Chaffin Ranch in T 23S R 16E S 35.

Facilities and Equipment

At Hatt Ranch there are a number of improvements on the property including a ranch house, outbuildings, sheds and pens used for raising pheasants, fuel and water storage tanks, etc. However, according to the deed between Hatt and UP&L, only the fences, gates, and corrals remain with the land. The cabin, ranch house, and other buildings, sheds, and pens for the raising of pheasants or game birds were not included in the transaction.

Structural improvements on the Frenchman Ranch property are modest and are in poor to fair condition. Fencing, corrals, sheds, and outbuildings are in fair condition. Building improvements in section 36 are fully depreciated. Equipment associated with the Frenchman Ranch property includes a 4 cylinder diesel powered pump with a Detroit 453 engine, and Berkeley Model No. B10QBN-1 pump. The engine and pump are mounted on a steel-frame and are accompanied by a fuel tank, radiator, and hardware.

There are no facilities at Chaffin Ranch; however, there is fencing along the portion of the property that was previously irrigated as well as along the southerly property line in Sections 34 and 35. Equipment includes a 4 cylinder Detroit 453 engine (model number 50437201 serial number 50437201) and a Gorman Rupp. pump. They are mounted on a steel frame with an accompanying fuel tank, radiator, and hardware.

Water Rights

Water rights on the property deeded to the Division of Wildlife Resources from PacifiCorp were changed to in-stream flow (change application number a17269, see Appendix D) with an option for irrigation in 1993. The change was subject to the MOU between PacifiCorp and the DWR. This MOU includes a covenant prohibiting the DWR from making a call on the water rights transferred to it as part of the property by subordinating the water rights to all valid upstream water rights. A combination of all water rights (including those on the Upper San Rafael WMA) may be used for irrigation from March 1-November 30 on 921.12 acres, stock watering from January 1-December 31 for 2452 Equivalent Livestock Units (ELUs), and instream flow from January 1- December 31. Total flow is 38.453 cfs. In-stream flow water rights allow water to remain in the San Rafael River where it can be maximized to benefit fish and wildlife without jeopardizing water rights.

Water rights associated with Hatt Ranch include eight diligence claims on the San Rafael River for a total of 7.5 cfs with a priority date of 1893. The combined water rights allow for year-round stock water for 812 ELUs and irrigation from April through October on 358.5 acres.

Water rights associated with the Frenchman Ranch property include three diligence claims and one certified water right on the San Rafael River for a total of 22.66 cfs with priority dates of 1887, 1900, and 1918. The combined water rights allow for year-round stock water for 205 ELUs, and irrigation on 182.05 acres for a period of use from April 1 to October 31. Additionally there are two applications to appropriate water rights for 4.73 acre-feet which allow irrigation on 1.1825 acres for wildlife propagation and to maintain stock water for 145.34 ELUs.

Water rights associated with Chaffin Ranch include one diligence claim and one certified water right on the San Rafael River for a total of 1.32 cfs with priority dates of 1885 and 1972. The combined water rights allow for irrigation on 56.56 acres and stock water for a total of 200 ELUs from April 1 to October 31.

The water rights on the Lower San Rafael WMA were defined as the following in the Memorandum of Understanding between PacifiCorp and the UDWR; excluding rights 93-3376 and 93-3777 which were approved in January 2016.

Priority Date	Water Right	Flow (cfs)
Hatt Ranch-San Rafael River		
3-11-1893	93-973 Diligence 45% 93-974 Diligence 17%, 93-975 Diligence 38%	7.50
Frenchman Ranch-San Rafael River		
1887	93-340 Diligence	15.00
1887	93-341 Diligence	4.00
1900	93-667 D3345	2.00
4-23-1918	93-941 (A7705) Cert. 1047	1.66
11-12-2015	93-3776	4.73 acre-feet
11-12-2015	93-3777	4.73 acre-feet
Chaffin Ranch- San Rafael River		
1885	93-1152 Diligence	1.00
10-30-1972	93-1158 (A41911) Cert. #13076	0.32

Cultural Resources

The property consists of several historical ranches with archaeological sites recorded near the Hatt Ranch, the old cabin, and the Frenchman Cabins. Sites contain materials for ranching, farming, and agriculture from as early as 1900. There are also areas containing debitage and tools as well as Fremont petroglyph panels on the property. Site presence on the southern and southeastern blocks of the property is unknown and has not been surveyed.

Important Fish and Wildlife Habitats

Utah Wildlife Action Plan

The 2015-2025 edition of the Utah Wildlife Action Plan (WAP) was created with the express purpose and goal of managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act. To help achieve this goal, the WAP provides a statewide approach for the partnership-based, coordinated planning and implementation of wildlife and habitat conservation practices. The WAP addresses the following elements:

- Conservation targets: Species of Greatest Conservation Need (SGCN), and those species' key habitats. Information about the status and distribution of these species. Information about the location and condition of these key habitats.
- Threats and limiting factors facing these species and habitats, and research required to help managers more effectively address these problems. Threats are measured and prioritized on a statewide basis, based on how many targets they impact, and how badly.
- Conservation actions required to abate the highest-priority threats, and improve the supply of these limiting factors.
- Monitoring the status of these targets, and in particular the effectiveness of these actions.
- Approaches for including the public, partners, and stakeholders, in consideration of the mission and authority of partners.
- Provisions for coordinating the WAP with other natural resource management plans.

The San Rafael Desert contains habitat for 17 of the 141 SGCN species identified in the plan. These species are ranked using state and national NatureServe ranks. The most likely species to occur within the WMA are six native fish species. Three endangered species have been documented in the San Rafael River including the federally protected Colorado pikeminnow (*Ptychocheilus lucius*) S3/N1, razorback sucker (*Xyrauchen texanus*) S2/N1, and bonytail (*Gila elegans*) S1/N1. Three additional state sensitive fish species found in the river, known collectively as the three species, are the flannelmouth sucker (*Catostomus latipinnis*) S3/N4, the bluehead sucker (*Catostomus discobolus*) S3/N4, and the roundtail chub (*Gila robusta*) S2/N3. Providing and protecting habitat for these native fish is a primary focus of this WMA. Other SGCN that may occur within the WMA include Great Plains Toad (*Anaxyrus cognatus*), Northern Leopard Frog (*Lithobates pipiens*), Bald Eagle (*Haliaeetus leucocephalus*), Black Rosy Finch (*Leucosticte atrata*), Burrowing Owl (*Athene cunicularia*), Golden Eagle (*Aquila chrysaetos*), Peregrine Falcon (*Falco peregrines*), Western Yellow-billed Cuckoo (*Coccyzus*

americanus), Kit Fox (*Vulpes macrotis*) and Townsend’s Big-eared Bat (*Corynorhinus townsendii*).

The Wildlife Action Plan identifies 13 key wildlife habitats in Utah. Three of these habitats exist in the Lower San Rafael; Terrestrial-desert grassland, Aquatic-scrub/shrub, and riverine. Desert grassland habitat occurs on just 0.6% of the state surface area in the inter-mountain basins semi-desert grassland biophysical setting. The current condition is an over dominance of shrubs (there is a large deficit in mid-age herbaceous grass and a surplus of older class moderate to high shrub coverage), soil compaction, invasion by non-native grasses and forbs, and disruption of the fire regime. Aquatic scrub/shrub habitats occur on just 0.10% of the state surface area. These habitats are characterized by woody vegetation less than 6 meters in height and can include areas adjacent to lotic systems dominated by woody vegetation. Riverine habitats occur on 0.22% of the state surface area and include perennial streams.

Desert streams and their associated habitat provide a valuable water source and riparian sanctuary for many different terrestrial and aquatic species. The surrounding upland area is a semi-arid, cold desert, with sparse shadscale/greasewood vegetation. Common San Rafael desert wildlife species identified in the Fauna of Southeastern, Utah include:

Amphibians

great basin spadefoot
great plains toad
northern leopard frog
red-spotted toad
tiger salamander
woodhouse’s toad

American goldfinch
American kestrel
American robin
American wigeon (summer)
ash-throated flycatcher**
(summer)
bald eagle (winter) *

black-throated sparrow
(summer)
blue grosbeak (summer)
blue-gray gnatcatcher
(summer)**
brewer’s blackbird
brewer’s sparrow**

Reptiles

collared lizard
eastern fence lizard
long-nosed leopard lizard
night snake
pine snake
sagebrush lizard
short-horned lizard
striped whipsnake
tree lizard
western whiptail
western terrestrial garter snake
western rattlesnake

bank swallow (migrant)
barn owl
barn swallow (summer)**
bewick’s wren
black rosy-finch (winter)
black-billed magpie
black-capped chickadee
(winter)
black-chinned hummingbird
(summer)**
black-crowned night heron
(summer)
black-headed grosbeak
(summer)**

broad-tailed hummingbird
(migrant)
brown-headed cowbird
Bullock’s oriole
bushtit
California gull (migrant)
Canada goose
canyon wren
cedar waxwing (winter)
common yellowthroat (summer)
Cooper’s hawk
loggerhead shrike
chipping sparrow (migrant)
chukar**

Birds

American avocet (migrant)
American coot

black-necked stilt
black-throated gray warbler
(migrant)

cinnamon teal (summer)
cliffswallow (summer)**

common nighthawk (summer)	northern rough-winged	western wood-peewee
common poorwill (summer)	swallow (migrant)	(summer)
common raven**	northern shoveler(summer)	white-breasted nuthatch
cordilleran flycatcher (migrant)	osprey (migrant)	(winter)
dark-eyed junco (winter)	peregrine falcon*	white-faced ibis (summer)
downy woodpecker (winter)	pinyon jay	white-throated swift (summer)
dusky flycatcher (summer)	plumbeous vireo (summer)	wild turkey (limited)
eastern kingbird (summer)	prairie falcon	willow flycatcher (migrant)**
Eurasian collared dove	pygmy owl (winter)	Wilson's phalarope (summer)
European starling	red-breasted nuthatch (winter)	Wilson's snipe
evening grosbeak (winter)	redhead (summer)	Wilson's warbler (summer)
franklin's gull (summer)	red-tailed hawk	Wood duck
gadwall (summer)	red-winged blackbird**	yellow warbler (summer)**
golden eagle	ring-billed gull (migrant)	yellow-bellied sapsucker
gray catbird (summer)	ring-necked duck (winter)	(migrant)
gray-crowned rosy finch	ring-necked pheasant	yellow-breasted chat (summer)
(winter)	rock dove	yellow-headed blackbird
gray flycatcher (summer)	rock wren**	(summer)
great blue heron	rough-legged hawk (winter)	yellow-rumped warbler
great egret (transient)	ruby-crowned kinglet (winter)	(transient)
great horned owl	ruddy duck (summer)	
green-tailed towhee (migrant)	rufous hummingbird (migrant)	<u>Mammals</u>
green-winged teal (summer)	sage thrasher (summer)	badger
hairy woodpecker	savannah sparrow (migrant)	beaver
hermit thrush (migrant)	say's phoebe**	big brown bat
horned lark	scrub jay	bighorn sheep (rare)
house finch**	sharp-shinned hawk (winter)	black-tailed jackrabbit
house sparrow**	snowy egret (summer)	bobcat
house wren (migrant)**	song sparrow	botta's pocket gopher
killdeer	spotted sandpiper	Brazilian free-tailed bat
lark sparrow (summer)**	Stellar's jay (winter)	brush mouse
lazuli bunting (summer)	Townsend's solitaire (winter)	bushy-tailed woodrat
lesser goldfinch	tree swallow (summer)	California myotis
lesser nighthawk (summer)	tree swallow (summer)	canyon bat
lesser yellowlegs (transient)	turkey vulture (summer)	canyon mouse
long-eared owl	vesper sparrow (summer)	cliff chipmunk
MacGillivray's warbler	violet-green swallow	cougar
(migrant)	(summer)**	coyote
mallard**	Virginia rail	deer mouse
mountain bluebird	Virginia's warbler (migrant)	desert cottontail
mountain chickadee (winter)	warbling vireo (summer)	desert shrew
mourning dove (summer)**	water pipit (migrant)	desert woodrat
northern flicker	western kingbird (summer)**	gray fox
northern harrier	western meadowlark**	great basin pocket mouse
northern mockingbird	western screech owl	house mouse
northern pintail (summer)	western tanager (migrant)	

kit fox	northern raccoon	rock squirrel
least chipmunk	Norway rat	spotted bat
long-tailed vole	ord's kangaroo rat	spotted skunk
long-tailed weasel	pallid bat	striped skunk
meadow vole	pinyon mouse	Townsend's big-eared bat
mule deer	plains pocket mouse	western harvest mouse
muskrat	porcupine	western small-footed myotis
northern grasshopper mouse	pronghorn	white-tailed antelope squirrel
northern pocket gopher	ringtail	Yuma myotis

*High interest because of economic, aesthetic, educational, scientific, or ecological value

**Birds observed at Hatt Ranch using Partners in Flight protocol

General Conditions of Habitat

Habitat Limitations

Aquatic

The condition of the lower San Rafael River has been degraded from altered flow regimes and non-native vegetation encroachment. This has resulted in habitat loss for the native fish species occupying the river. Riparian habitat associated with the river has been dominated with thick stands of tamarisk and Russian olive and recruitment of native vegetation is low. Tamarisk shades out other vegetation and competes for soil moisture. Crowding out of native vegetation, particularly cottonwood trees, has resulted in less large wood and debris accumulating in the river reducing habitat complexity from pools, backwater, and cover. Tamarisk also grows on sand bars within the river and traps sediment eventually narrowing and deepening the channel which reduces the rivers ability to carry large flows and flood waters. However, tamarisk removal projects between 2008-2010, combined with heavy flooding in 2011, have resulted in positive changes including: channel recontouring/widening, increases to in-stream habitat complexity and native vegetation recruitment and establishment.

The San Rafael River is one of the most perturbed ecosystems in the state and is currently on the 303D list of degraded waters due to high concentrations of total dissolved solids as a result of return flow over salty soils.

Non-native fish in the San Rafael River including, red shiner, sand shiner, fathead minnow, common carp, black bullhead, and channel catfish threaten aquatic life and habitat predation and competition. Small bodied fish such as red shiner have been shown to be highly predacious in the San Rafael River, giving them the ability to impact native fish population by feeding on eggs and larvae. Channel catfish in the San Rafael River are large enough to prey upon adult and juvenile native fish through predation and competition.

A combination of non-native species, occasional drying and freezing of the river, temperature extremes, and low habitat quality are all limiting to native fish survival.

Terrestrial

Lowland riparian habitats, in general, consisting of native cottonwood and willow communities are a key habitat supporting a high diversity of birds. Colonization of these habitats with non-native species has reduced the overall diversity and abundance of birds. Beaver may also be restricted due to a lack of desirable forage. Beaver are important to native fish species in the San Rafael River because they accumulate woody material creating scour pools and backwaters. Beaver ponds also trap sediment and maintain groundwater level during dry periods.

Upland habitats are limited by low precipitation, shallow rooting depth, and excess salt and sodium which make restoration difficult. These habitats are susceptible to annual weed invasion from species such as annual kochia, cheatgrass, halogeton, and Russian thistle. At this time, spotted knapweed is not at problem on the property; however introductions are likely due to its prevalence in surrounding drainages. Perennial grasses tend to decrease with overgrazing allowing shrubs like greasewood and shadscale to dominate. Wild burros are increasing in presence in the San Rafael desert. Overgrazing by burros can lead to soil compaction and competition with mule deer, pronghorn, and bighorn sheep for forage, water, and space. Upland habitats are currently missing a food component for upland game birds including pheasant, chukar, and turkey.

Habitat Threats

The Wildlife Action Plan lists specific threats to key habitats throughout the state of Utah. The priority threats to desert grassland include inappropriate fire frequency and intensity, OHV motorized recreation, invasive plant species (non-native), current improper grazing, and housing and urban areas (although this does not apply to the WMA). Strategies to mitigate these threats include allowing fire to return to a more natural regime, reducing inappropriate grazing by domestic livestock and wildlife, reducing the spread and dominance of invasive weeds and annual grasses, and developing plant materials suited to the habitat.

Scrub/Shrub aquatic habitats are threatened by sediment transport imbalance, roads, current improper grazing, channelization and bank alteration, dam/reservoir operation, inappropriate fire frequency and intensity, droughts, water allocation policies, housing and urban areas, agricultural/municipal/industrial water usage, and non-native invasive plant species. Improving condition in this habitat may include maintaining and restoring natural water and sediment flow regimes, reducing inappropriate grazing by domestic livestock and wildlife, reducing inappropriate siting of roads in riparian zones, reducing inappropriate residential and commercial development in floodplains, and reducing the spread and dominance of invasive weeds.

Riverine habitats experience similar threats as aquatic scrub/shrub including presence of dams, sediment transport and imbalance, roads, current improper grazing, channelization/bank alteration, presence of diversions, dam/reservoir operation, inappropriate fire frequency and intensity, droughts, water allocation policies, housing and urban areas, agricultural/municipal/industrial water usage, and non-native invasive plant species. Effective strategies to reduce these threats are maintaining and restoring a more natural hydrograph and sediment regimes, reducing inappropriate grazing by domestic livestock and wildlife, reducing

inappropriate siting of roads in riparian zones, reducing residential and commercial development in floodplains, and using appropriate methods to reduce the spread and dominance of invasive weeds.

The following specific threats have been identified within the San Rafael River drainage; dewatering of streams, sedimentation, lack of stream cover and shade, insufficient stream depth and lack of habitat complexity (pools, riffles, backwaters), undesirable fish migration barriers in streams, high stream temperatures, pollution, and turbidity. Dewatering of large sections of the river is one of the major impacts with almost 50 percent of the total length of the San Rafael River being dewatered during certain years. Nutrient and sediment loading also threaten the San Rafael River. Upstream farms have increased fertilizers and nutrients running into the river which can cause microscopic plants to grow too fast and cloud out sunlight critical for maintaining life underwater. Local agricultural practices have transitioned from flood irrigation to pressurized sprinkler systems which will help with management of soil and sediment reaching the river; however this practice has reduced overall river flows. Improper livestock grazing has impacted the river through bank sloughing and increased erosion; grazing impacts could be improved with better management including fencing off critical areas and providing off-stream water facilities. Burro populations within the San Rafael River are expanding. Burros are found nearest to Hatt's Ranch and could follow the San Rafael River corridor to the Green River. Burro expansion could lead to overgrazing, soil compaction, and competition with mule deer, pronghorn, and bighorn sheep for forage, water, and space; burros also pollute water sources making them unusable for wildlife.

Human Use Related Challenges

Water use is the main human-use related challenge on the San Rafael River. A diversion dam on the Hatt Ranch currently is a barrier to upstream fish passage. The diversion is in place to supply flood irrigation to the Hatt Ranch property. The diversion however, also keeps non-native fish from traveling upstream in the river. Dikes and levees, as well as highway crossings have also resulted in channel straightening near Hatt Ranch.

Dissolved solids threaten the San Rafael River and are increased as a result of irrigation practices. The Natural Resources Conservation Service (NRCS), and Bureau of Reclamation (BOR) have made efforts to convert cropland irrigation from flood irrigation to pressurized pipe sprinkler irrigation to reduce salt loads in the river.

Cattle grazing also occurs on allotments surrounding the WMA. Livestock frequently trespass on the property and grazing occurs on the floodplain and along the banks of the river. Much of the WMA is made up of small 40-acre parcels along the riparian corridor which makes fencing difficult.

Some off high-way vehicle use and other recreational uses occur in the area.

Adjacent Land Uses and Potential Impacts

A portion of the WMA, on Hatt Ranch, is leased for a pheasant hunting facility. Water rights are used to irrigate fields necessary to provide upland game habitat.

The San Rafael River BLM grazing allotment borders the WMA. It is currently permitted for 2,868 AUM's for 309 cattle from October 1-April 15th, effective until February 28, 2024. The grazing levels on key forage species (Indian ricegrass, needle and thread grass, and winterfat) must not exceed 35 percent in the spring (March 1-April 15) and must not exceed 50 percent in the fall and winter (October 1-February 28).

The Russian olive has been listed as a noxious weed in Emery County, and the county has been actively removing Russian olive trees along the San Rafael River.

The BLM is currently implementing a large ecological restoration project on the San Rafael River. The project will aim to restore and recover more natural channel processes to maintain fish habitat and native riparian vegetation.

MANAGEMENT GOALS AND OBJECTIVES

The acquisition and management of this property is consistent with the resource goal outlined in UDWR's most recent Strategic Plan which follows:

Resource Goal: Expand wildlife populations and conserve sensitive species by protecting and improving wildlife habitat.

Objective 1: Protect existing wildlife habitat and improve 500,000 acres of critical habitats and watersheds throughout the state.

Objective 2: Increase fish and game populations to meet management plan objectives, and expand quality fishing and hunting opportunities.

Objective 3: Conserve sensitive species to prevent them from becoming listed as threatened or endangered.

Constituency goals outlined in UDWR's Strategic Plan are as follows:

Constituency Goal: Achieve broad-based support for division programs and budgets by demonstrating the value of wildlife to all citizens of Utah.

Objective 1: Increase public awareness of wildlife as a quality-of-life issue in order to expand our support base and achieve stable funding.

Objective 2: Improve communications with wildlife organizations, public officials, private landowners and government agencies to obtain support for division programs.

Objective 3: Expand programs to recruit and retain young hunters, anglers and wildlife watchers.

The Lower San Rafael WMA will be managed to increase its functionality, appeal, availability and use by all fish and wildlife species. Habitat management will be consistent with sound ecological principles and wise land use practices.

STRATEGIES FOR PROPERTY MANAGEMENT

Development Activities

Establish Property Boundary/Fence

The three properties would be difficult and costly to survey professionally or fence due to the checker-board nature of the parcels. However, this remains an option if cattle grazing the property result in a detriment to the San Rafael River.

Sign Needs

Signs identifying access to the Frenchman Ranch property are needed off of Highway 24 and to the Chaffin property from Green River. A large kiosk identifying the property boundary as well as allowed activities on the Property would be beneficial to the visiting public.

Small boundary signs could be placed along the borders of the three properties, and on areas where roads enter or leave the property.

Signs reminding people that certified weed free hay is required would help reduce weed introduction to the WMA.

Public Access

Public access is provided to all classes of vehicles to the Hatt Ranch by way of Highway 24 through the old highway ROW, known as the Hatt Ranch Road. The Frenchman Road leads to the Frenchman Ranch property, and the Gillis Ranch Road continues down river through the property before becoming really rough. The road is accessible to all vehicles through most of the Frenchman property but eventually turns into an OHV only trail, however, storm events have made this road impassable at times. Access to Chaffin Ranch is available to all vehicles along the Lower San Rafael Road coming south out of Green River. Four-wheel drive vehicles are required on the North Chaffin Ranch road that leads to the Green River. No seasonal restrictions are in effect. The summer rain storms are magnificent to watch, however keep in mind that roads may become impassable after rainstorms, use caution when travelling the area when rain is likely.

Property access is managed according to Administrative Rule R657-28, Use of Division Lands. No developed recreation opportunities exist on the WMA. There are no trash collection bins, restrooms, potable water, or fire pits on site. The property is open to hunting, hiking, horseback riding/packing, and primitive camping. Mountain biking and OHV use is allowed on the county roads through the property. Horse travel is allowed on the WMA but certified weed-free hay is required. Corrals may not be used for holding facilities. The property provides hunting opportunities (see below for restrictions on Hatt Ranch) for deer, pronghorn, pheasant, and rabbit with the potential for turkey and mountain lion. Pheasants have been released since 2013 for increased upland game opportunity. Wildlife viewing opportunities are available for migratory birds, small predators, reptiles, amphibians, and bats. One species of interest to birders is the Lesser Nighthawk. An active geyser can be easily viewed at Chaffin ranch. Two historic cabin structures remain on the Frenchman Ranch property.

The Hatt Ranch property is closed to rifle hunting, but open for archery and muzzleloader for deer hunting prior to October 1st. Turkey hunting is open to the public after April 1st. The Hatt Ranch property is closed to the general public for pheasant/chukar hunting due to a private hunting lease on the Property. However, the lessor of the property agrees to allow and provide services for two youth hunts (one chukar, one pheasant) on two Saturdays each year. The Hatt Ranch is the DWR property bisected by SR 24 (Map #2). The Frenchman Ranch (Map #3) and Chaffin Ranch (Map #4) properties do not have the restrictions listed above.

Annual Maintenance Activities

Assessments by Division personnel will be made annually, and a maintenance budget will be requested for the following types of activities.

- Fences will be maintained annually to ensure pastures are maintained and cottonwood galleries are protected. Division personnel, leasees/permittees, and dedicated hunters will be the primary means for maintaining fences.
- Access roads will be monitored annually and maintenance will be conducted as needed to keep them passable and safe for the public. Roads and other rights-of-way that are administered by other parties (e.g. county) will be maintained by those parties. The Division will coordinate with local entities to resolve access issues.
- Signs will be inspected and replaced as needed.
- Noxious weeds will be inventoried and sprayed by Division personnel and a seasonal weed crew, as required by state law. Herbicides used near waterways will be reported annually to appropriate agencies. Care will be taken to limit opportunities for noxious weed introduction, and any hay used by visitors, hunters or livestock-men must be certified weed free. The Division participates in the Skyline Cooperative Weed Management Area to plan and coordinate noxious weed activities on the WMAs and surrounding lands.

Compatibility of Proposed Uses with Local Government Planning and Zoning Ordinances

The WMA is zoned Mining, Grazing, and Recreation (MF&R-1) under Emery County Zoning Regulations.

Declaration of Legislative Intent

The MG&R-1 Mining, Grazing and Recreation zone generally covers the dry mountain and desert areas of the County. Because of the limitations imposed by climate, topography, soil capability, inadequate water supply, and the presence of economically significant mineral deposits, this area has historically been utilized as a place for the grazing of livestock on the open range and as the location of numerous mining and mineral exploration sites. The peculiar characteristics and conditions present in this area make the land most appropriately suited for a continuation of these uses. However, because of the relatively fragile balance of nature in the area, all permitted activities must be carried out in a manner consistent with the limitations of the environment.

The most recent building and zoning articles can be found at <http://www.emerycounty.com/b&z/index.htm>

The website was accessed December 30, 2014 and at the time the Lower San Rafael WMA was compatible with Emery County's Zoning Ordinances.

STRATEGIES FOR HABITAT MANAGEMENT

San Rafael Drainage Management Plan- Hydologic Unit 14060009 (Appendix F)

Colorado Pikeminnow, roundtail chub, flannelmouth sucker, and bluehead sucker need special protection from factors which threaten their existence.

Objectives are to maintain or enhance populations of these species as well as maintain populations of other native, non-sport fish species. Strategies for maintaining or enhancing these populations include:

- Work with local, state, and federal authorizes to improve habitat in the lower drainage, specifically the removal of tamarisk
- Analyze impacts from resource development proposals and mitigate adverse effects
- Encourage private landowners to manage lands to maintain and improve habitat
- Secure and enhance stream flows so adequate habitat is provided year-round
- Increase information availability to interested parties through written reports
- Conduct research to fill information gaps
- Foster public involvement, ownership, and education
- Facilitating native vegetation establishment within tamarisk removal areas by continuing to control non-natives using herbicide treatments

In addition to fish, there are also strategies and objectives to attain more information about the amphibians and reptiles that are within the San Rafael River drainage.

Deer Herd Unit Management Plan for Deer Herd Unit # 12 (San Rafael)

The management plan sets a target objective of 1000 wintering mule deer for this unit; however the population is not directly monitored or modeled and the population is not estimated because deer cannot be reliably found and classified in natural habitat. This population often concentrates within agricultural corridors which provide food, water, and cover to deer. Limiting factors for this deer herd are identified as:

- Habitat – Very limited year-round habitat exists for deer on this unit and the majority of deer are on private land
- Crop Depredation – minimized as prescribed by state law and DWR policy
- Predation- managed by DWR predator management policy
- Highway Mortality

Habitat management objectives are described as:

- The focus of habitat projects in the unit will be toward desert bighorn sheep habitat in high priority areas
- Habitat protection through use of agreements
- Implement habitat management plans developed for wildlife management areas
- Develop access management plans for habitat protection and escape or security areas

Mule deer habitat on the WMA is considered year-long substantial. Use by mule deer occurs in the riparian corridor.

Pronghorn Herd Unit Management Plan for Herd Unit #12 (San Rafael)

The management plan sets a target objective of 1200 total pronghorn on this unit with a population estimate of 1279 in 2015. Of that, the San Rafael Desert subunit estimate was 236. Limiting factors are identified as:

- Predation (coyotes)
- Habitat
- Depredation loss
- Oil/Gas Development – shrinking and fragmented habitat due to well pad placement, associated roads, pipelines, etc.

Habitat management strategies are described as:

- Water development – construct guzzlers and ponds to distribute pronghorn over larger areas
- Vegetation management – support and encourage improved livestock grazing practices and season of use in an effort to improve the range for pronghorn and livestock

Pronghorn habitat on the WMA is considered year-long substantial.

Habitat Improvement Plan

Specific, detailed habitat improvement plans are beyond the scope of this HMP. However, when needed, habitat improvement plans will be submitted to the Division's Habitat Council, through Utah's Watershed Restoration Initiative, and other potential partners for funding. Habitat improvement project plans will include specific recommendations including treatment methods, seed mixes, and total acreage targeted for treatment. Potential habitat treatments on the property include connecting the floodplain, increasing habitat complexity by increasing woody material, pools, riffles and backwater habitats in the river, increasing native vegetation and removing invasive species such as tamarisk, and restoring river connectivity through the removal of barriers.

Ideas will be explored to increase upland game opportunities in terrestrial habitats on the WMA. Some irrigation will be used to increase winter forage for upland game species to increase survival. Ponds used for irrigating these food plots will also benefit amphibians; stockponds have been found to be the primary breeding habitat for spadefoot toads in the area.

Bat boxes have been placed on the property to benefit Townsend's big-eared bat. These boxes need to be maintained. Management on the property designed to benefit this species should be reported annually to the Western Association of Fish and Wildlife Agencies (WAFWA).

In addition to developing new habitat projects, an emphasis will be made to maintain past projects on the property. In 2008, the UDWR in conjunction with the Natural Resources Conservation Service began restoration efforts within the WMA by removing tamarisk on over approximately 15 river miles or 1,050 acres. Whole trees were plucked from the ground using an excavator and later piled and burned. Reseeding and cottonwood planting was conducted, as well as follow up treatment on secondary weeds. This treatment greatly benefitted amphibians on the property. Extensive flooding following habitat treatment in 2011 led to the inundation of cutoff oxbows on the Hatt's Ranch, which resulted in high densities of Northern leopard frog and Great Plains toad; these habitats are likely the most important habitats within the WMA for amphibians.

The tamarisk leaf beetle was also released at Hatt Ranch by the Emery County Weed Department and tamarisk has been annually defoliated since.

Access Management Plan

The WMA is open to public access year round, with exception to the leased property on Hatt Ranch (map). Access is available on county roads, but access may be restricted due to weather that makes the roads impassable for travel. Motorized access is restricted to authorized, existing and designated roads (Utah Code Section 41-22-10.1). Roads not shown on the WMA access maps are considered unauthorized. The Division reserves the right to close all unauthorized roads and trails. There are no developed trail systems on the WMA. Foot, horseback, and raft/canoe traffic is permitted throughout the WMA.

Fire Management Plan

All activities dealing with wild and prescribed fire will be coordinated with the Division of Forestry, Fire and State Lands (DFFSL) according to guidelines established in the Memorandum of Understanding (2005) between DWR and DFFSL. Fire management provisions include:

- When prescribed fire is needed as a habitat management tool, DWR will provide all applicable information to DFFSL to ensure burn plans are complete and submitted by deadlines.
- Wildfires will be aggressively battled to protect cottonwood trees and their associated riparian habitats.
- Open fires are allowed, but cannot be unattended, and adequate provisions must be taken to prevent the spread of fire (R657-28). State, federal, or local fire restrictions will apply to all WMAs when deemed necessary by fire officials and UDWR. The building of bonfires is prohibited on the WMA. Non-combustible materials cannot be used in the building of fires and must be removed. The Division reserves the right to ban open fires on the WMA if needed to protect valuable wildlife habitat on the WMA. The Division may also restrict open fires to designated areas if the use of open fires becomes a management problem. Only dead wood lying on the ground may be used for fires.
- The use of fireworks and explosives are prohibited on WMAs (R657-28).

Wood Products

Wood products are managed according to Administrative Rule R657-28, Use of Division Lands. Wood products are scarce on this WMA. Cottonwood trees are common, but not thick, and should be propagated and preserved for their wildlife and aesthetic value. Driftwood from the creeks and river can be used for firewood while camping on the WMA, but does not exist in sufficient quantities to transport off site. Should a market for tamarisk wood products become a possibility, this option may be considered in addressing the tamarisk problem, but most marketable trees require a trunk thickness of at least 8-10 inches. A tamarisk removal project would likely be under a contract agreement. If wood products are desired on the property, permits would be required.

Livestock Grazing Plan

Livestock grazing is managed according to Administrative Rule R657-28, Use of Division Lands. The WMA will be evaluated by regional personnel. Stocking rates and season of use will be adjusted as needed to obtain desired habitat conditions.

The WMA is surrounded by BLM and SITLA grazing allotments which are active from October 1 through April 15. These allotments are mostly controlled through natural boundaries with little control of livestock on the riparian corridor. The San Rafael BLM allotment currently has 2,002 AUMs with 866 suspended. The permit was most recently renewed for ten years on March 1, 2014 and will expire on February 28, 2024. The permittee currently runs roughly 309 cows on the allotment. The permittee also leases the Dugout allotment to the North and runs 229 cows and alternates allotments annually, resulting in roughly 560 cattle grazing the allotment. The

permittee hauls water and maintains ponds to disperse cattle throughout the allotment, but cattle can still be found using the riparian areas on the WMA. Due to the difficulty of controlling cattle and as a convenience to both parties, neither of which have the resources to fence their respective properties, the DWR has considered issuing a grazing lease with the permittee in accordance with the Divisions Land Use Rule R657-28.

SUMMARY STATEMENT OF PROPOSED USES

The primary function of the Lower San Rafael WMA is to protect and preserve habitat for native fish and wildlife species. An integral part of this is the protection and stewardship of the instream water rights that UDWR is obligated to safeguard in perpetuity. All other management decisions will be made with consideration for these uses and must be compatible with enhancing and maintaining fish and wildlife habitat and public wildlife opportunities. Uses that could be detrimental to wildlife or wildlife habitat are expressly denied. Livestock grazing and prescribed burning are acceptable management practices, so long as they enhance the primary function of the WMA.

MONITORING AND EVALUATION

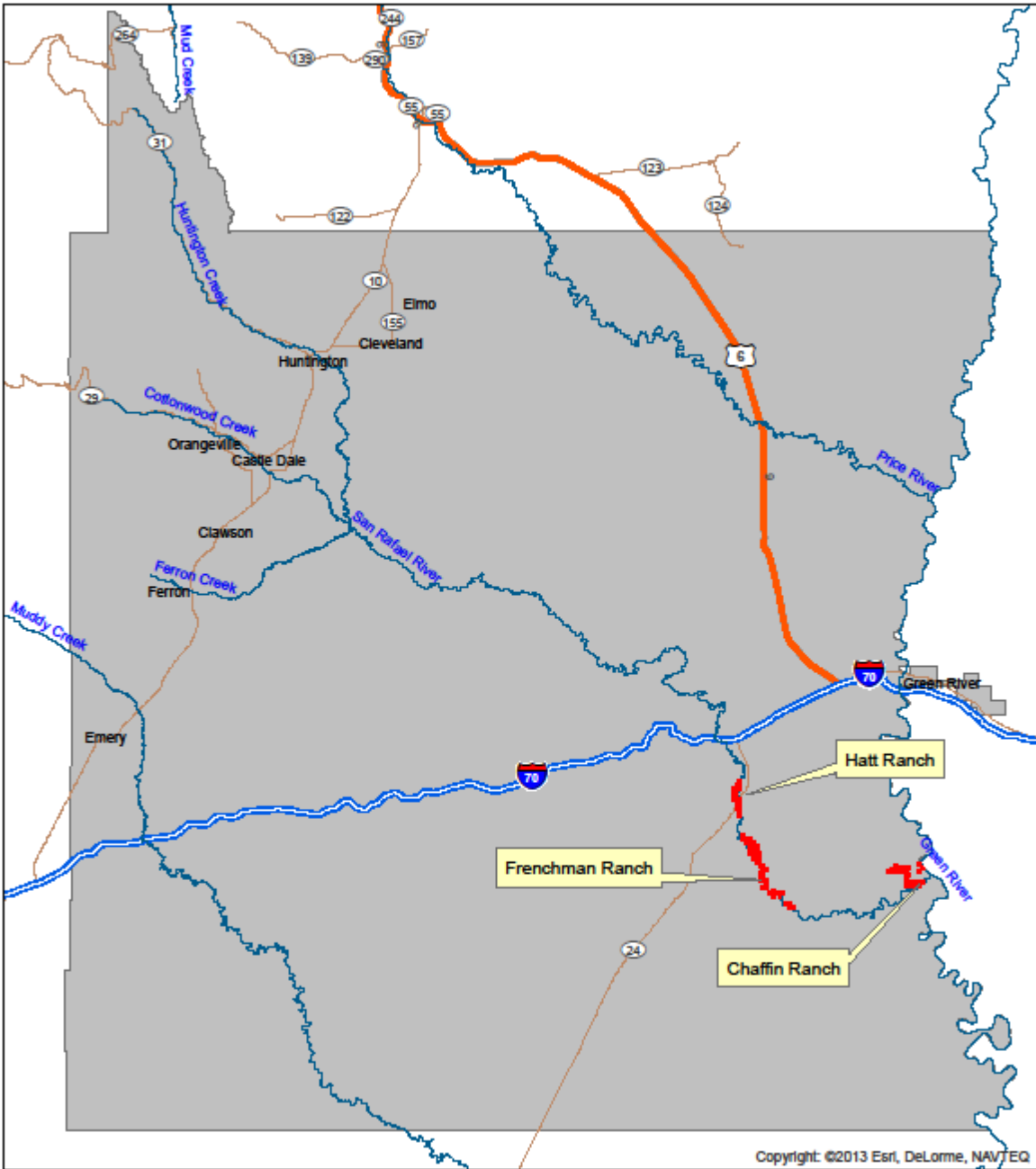
The Habitat Program Manager and his/her staff have the ultimate responsibility of making sure that the tenets of this Habitat Management Plan are scheduled and applied. It is also his/her responsibility to evaluate the quality of work done and its relevance to the Habitat Management Plan.

ATTACHMENTS

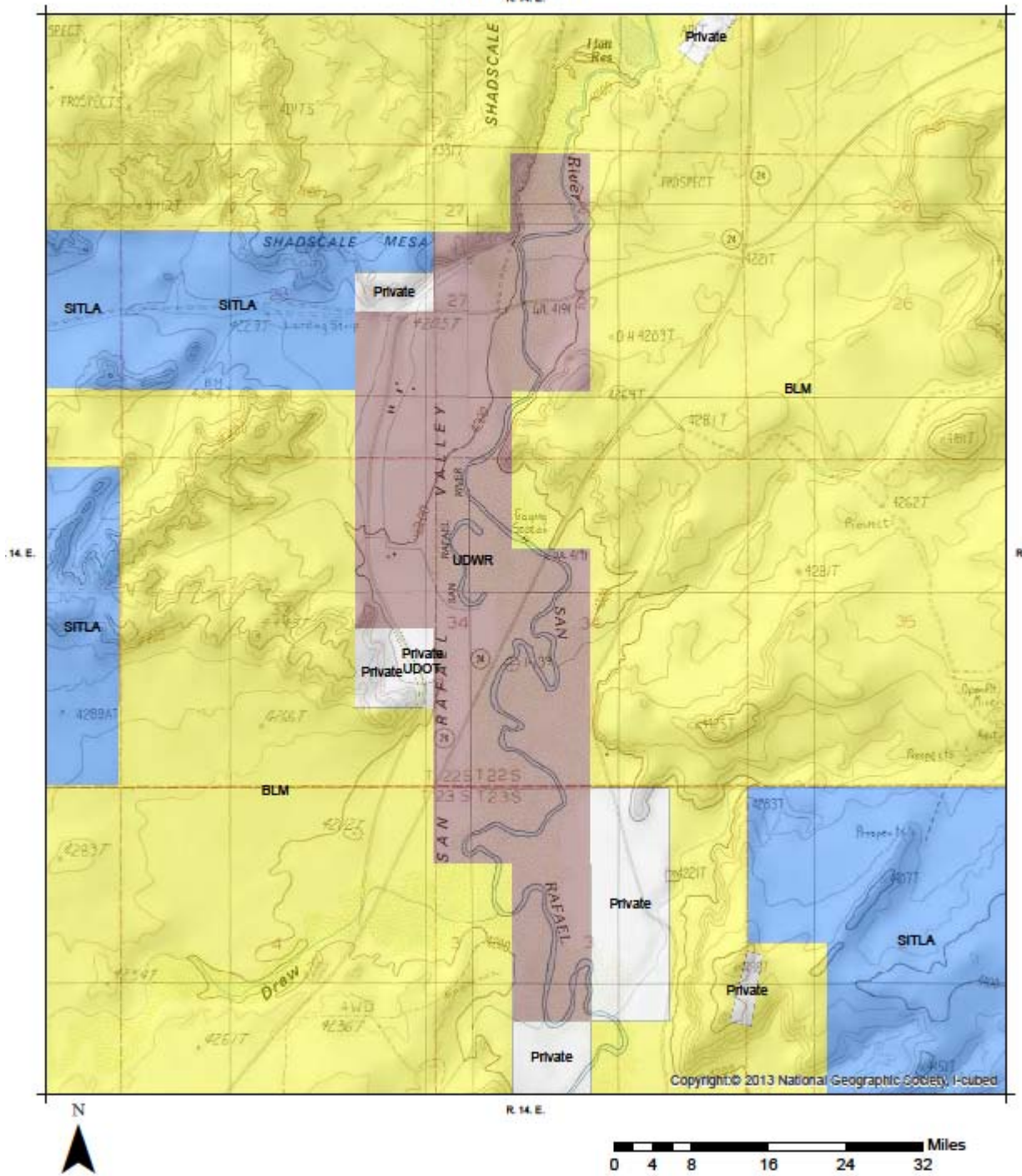
Map # 1. Location of Lower San Rafael River WMA, Emery County, Utah
Map # 2. Lower San Rafael River WMA, Hatt Ranch Property
Map # 3. Lower San Rafael River WMA, Frenchman Ranch Property
Map # 4. Lower San Rafael River WMA, Chaffin Ranch Property
Map # 5. Grazing Allotments Surrounding Lower San Rafael River WMA

Appendix A. Agreement (Exhibit B to Correction Special Warranty Deed)
Appendix B. Correction Special Warranty Deed
Appendix C. Memorandum of Understanding
Appendix D. Water Rights Change Application Number 93-340
Appendix E. Bill of Sale
Appendix F. Plans and Reports

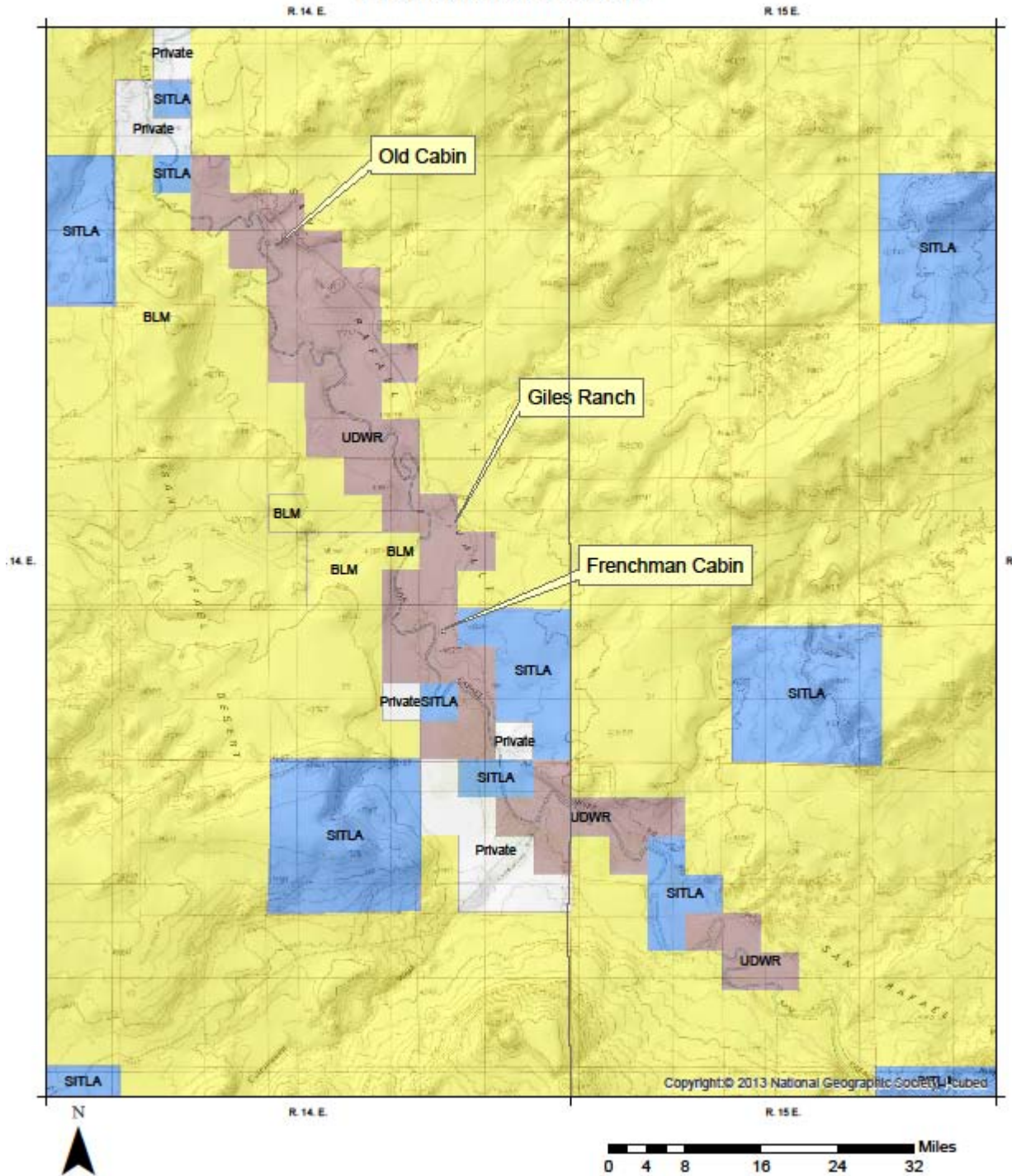
Lower San Rafael Wildlife Management Area Emery County, Utah



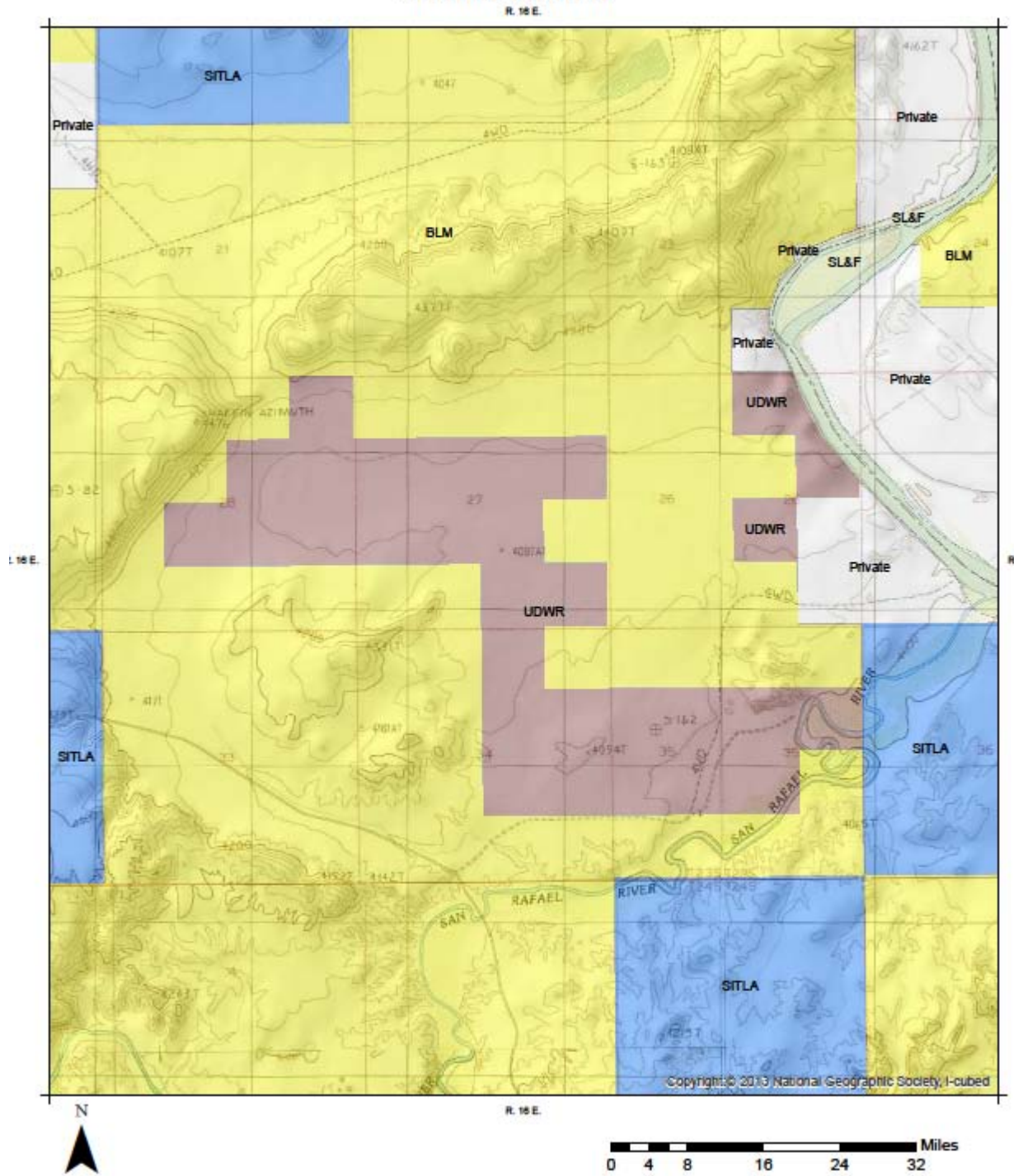
Lower San Rafael Wildlife Management Area Hatt Ranch



Lower San Rafael Wildlife Management Area Frenchman Ranch



Lower San Rafael Wildlife Management Area Chaffin Ranch



Appendix A.

Agreement

DRAFT

Appendix B.

Correction Special Warranty Deed

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Appendix C.

Memorandum of Understanding

DRAFT

Appendix D.

Water Rights Change Application Number 93-340

DRAFT

Appendix E.

Bill of Sale

DRAFT

Appendix F.

Plans and Reports

San Rafael Drainage Management Plan
Paul Birdsey, Justin Hart, Kenneth Breidinger, 2010

Effects of Flooding and Tamarisk Removal on Habitat for Sensitive Fish Species in the San Rafael River, Utah: Implications for Fish Habitat Enhancement and Future Restoration Efforts
Daniel L. Keller, Brian G. Laub, Paul Birdsey, David J. Dean, 2014

Application of Science-Based Restoration Planning to a Desert River System
Brian Laub, Justin Jimenez, Phaedra Budy, 2015

Restoration and Monitoring Plan for the San Rafael River, Utah
Brian Laub, David Dean, Jeremy Jarnecke, 2013

Appendix G.

Comments Received

DRAFT

Emery County Public Lands Council

February 2, 2016

Comments:

How were the water rights changed to instream flow and what is the agreement with Pacificorp?

The county does not have a ROW through DWR property? The county was told they could purchase ROW? Without purchasing a ROW, will they still be able to maintain the road?

The county will be able to maintain the road through a Special Use Agreement with the Division of Wildlife Resources

RDCC#52542

February 9- February 26

No comments were received

Habitat Council

February 18, 2016

Comments:

Grammatical corrections

Request for the addition of an executive summary

DRAFT