

Final

Appendix F

*Certificate of Inclusion/
Certificate of Participation*

for

Candidate Conservation Agreement with Assurances
and integrated
Candidate Conservation Agreement
and
Conservation Agreement

Developed in partnership by

U.S. Fish and Wildlife Service
Bureau of Land Management
U.S. Forest Service
Thunder Basin Grasslands Prairie Ecosystem Association

February 8, 2017

Note: This example is for a CI/CP with participation in the CA. For Association Members participating in only the CCAA (developing a standalone CI), or those not participating in the CA, references to the CCA and/or CA will need to be removed when drafting the CI or CI/CP.

John Smith Corporation
Certificate of Inclusion and Certificate of Participation in the
Candidate Conservation Agreement with Assurances and Candidate
Conservation Agreement for Sagebrush Steppe Assemblage and
Shortgrass Prairie Assemblage

Preface

The signatures contained in this document certify that the participating property, as specifically designated and described below, is included within the scope of the Thunder Basin Grasslands Prairie Ecosystem Association's (Association) Candidate Conservation Agreement with Assurances (CCAA) for Sagebrush Steppe Assemblage and Shortgrass Prairie Assemblage and attached Candidate Conservation Agreement (CCA) and Conservation Agreement (CA) (collectively, Strategy).

The Strategy represents a collaborative effort among the US Fish & Wildlife Service, the Bureau of Land Management, US Forest Service, and the Association. It is a voluntary agreement, administered by the Association, covering CCAA, CCA, and CA participants that voluntarily implement the conservation Strategy for certain Covered Activities. In enrolled properties where future energy development is reasonably foreseeable to occur, the Strategy allows conservation effort to be placed within the Coverage Area where it is most likely to achieve conservation benefit. Conservation effort may thus be implemented off the enrolled property to achieve the desired conservation benefit.

This Certificate of Inclusion and Certificate of Participation (CI/CP) includes conservation measures that reduce or eliminate threats. These conservation measures are described below. By signing this CI/CP, the Participating Member agrees to carry out the described Conservation Measures. If a Participating Member chooses to no longer provide the conservation measures in the CI/CP, the protections described herein are no longer applicable.

CCAA Participation

For CCAA participation, the property so designated below is included within the scope of Permit No. (INSERT PERMIT NO.), issued on (INSERT DATE) to the Thunder Basin Grasslands Prairie Ecosystem Association (Association) under the authority of Section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended (ESA), 16 U.S.C. 1531-1544. Such permit authorizes incidental take of covered species on non-federal property, as part of a CCAA. This incidental take is conditional on implementation of Conservation Measures incorporated on the

enrolled property that will benefit Covered Species and/or their habitats within their range in the CCAA Coverage Area.

Pursuant to that permit and this CI/CP, the holder of this certificate is authorized to engage in Covered Activities on the described and designated property that may result in the incidental taking of the covered species, as appropriate, subject to the terms and conditions of the permit and the CCAA. Permit authorization is subject to carrying out the Conservation Measures described below and the terms and conditions of the permit and the CCAA.

During the life of this CI/CP, changes in the understanding of Covered Species and habitat management are anticipated. Additionally, events that lead to changes in habitats or uses cannot be ruled out (Changed Circumstances, as described fully in the CCAA). In the event that these Changed Circumstances do occur, the Association and the Participating Member will use adaptive management to address the Changed Circumstances in order to avoid impacts to survival of the Covered Species throughout their range. After review by the Conservation Advisory Committee, any modification of Conservation Measures specific to this CI/CP will occur through consultation and mutual agreement between the Association and the Participating Member, and FWS. Approved modifications will be incorporated into the Participating Member's CI or CI/CP.

By initialing one of the choices and signing below, the Participating Member agrees to allow Association employees or agents to enter the enrolled properties to complete the observation and monitoring as described in the Strategy.

Member requests reasonable notice prior to entry: _____
Courtesy notice not required: _____

By initialing one of the choices and signing below, the participating member agrees to allow the US Fish and Wildlife Service (FWS) biologists and representatives or its principal agents—when accompanied by an Association representative—entry to the enrolled properties as necessary to ascertain compliance with the CCAA or to conduct biological monitoring. This does not preclude the FWS from carrying out its duties as required and authorized by law, including law enforcement investigations.

Member requests reasonable notice prior to entry: _____
Courtesy notice not required: _____

CCA and/or CA Participation

For CCA and CA participation, the property so designated below is included within the scope of the CCA and/or CA attached to the Association's CCAA for Sagebrush Steppe Assemblage and Shortgrass Prairie Assemblage. The CCA and/or CA includes Covered Activities conducted pursuant to a BLM or USFS permit, lease or other authorization.

Participating Property Owner’s Name and Address

John Smith Corporation
Box 570
Gillette, Wyoming 82717
Attn: Nancy Smith

Supporting Information

Attachment 1: Legal Description of Enrolled Properties

Note: Clearly designate CCAA vs. CCA/CA covered properties

Attachment 2: Detailed Map(s) showing Enrolled Properties

Note: Map(s) must clearly show property boundaries, roads, fences, water developments, salt or mineral locations, areas of industrial development, Conservation Priority Area(s), key habitat areas, location of areas where conservation measures will be implemented, and other important features.

Attachment 3: Existing habitat conditions, threats, conservation needs and priorities, and site-specific conservation measures that have been or will be applied to benefit the covered species

Attachment X: Label and include as needed

Total Acres of Enrolled Properties – 10,084.5 acres total

- Subtotal of CI acres to be enrolled under the CCAA – 3,861.4 acres
- Subtotal of CP acres to be enrolled under the CCA – 6,223.1 acres
- Participation in CA: Yes No

Duration of CI/CP from date of last signature - 30 years

Certification

This CI/CP is tied to the land described above and cannot be transferred to other land, and shall be binding on successors and assigns. The participating member agrees to give 30 days written notice to the Association of their intent to sell or transfer all or part of the enrolled property and must give the US Fish and Wildlife Service an opportunity to relocate affected Covered Species within 30 days of the notice. The Association will offer the new owner the option of receiving conservation coverage by agreeing to perform appropriate Conservation Measures and signing a new CI/CP. If the property is transferred, the new owner(s) will have the option to have this CI/CP continue as the previous owner had agreed, if they choose. For oil and gas participating members, the CI/CP is good for the term of the lease, or as long as the lease is held by production.

If the new buyer rejects the terms and protections of the CI/CP, the selling participating member will reimburse the Association or contributing member a prorated amount of the cost for Conservation Measures which involve funding from the Association or other members.

Reimbursement will be based on the time the Conservation Measures have been in place and the total amount contributed by the Association or other members for the Conservation Measures.

Through this CI/CP, the Participating member voluntarily commits to implement or fund specific conservation actions that will reduce and/or eliminate threats to the Covered Species. Funds contributed as part of this CI/CP will be used to implement Conservation Measures. The funds will be directed to the highest priority habitat area, which may or may not be this enrolled property.

By signing this CI/CP, the Participating Member agrees to carry out conservation measures with total values equivalent to a minimum of 30 points per 50,000 acres. If a Participating Member chooses to no longer provide Conservation Measures meeting these thresholds for the CI/CP, the protections described herein are no longer applicable.

In addition to implementing Conservation Measures to meet the above point requirements, the Participating Member intends to implement additional Conservation Measures to provide a set of alternatives to replace other Conservation Measures, if they prove to be unsuccessful. The plans and implementation of these additional Conservation Measures are above and beyond the point requirements addressed above. Compliance with and participation in the Strategy is not reliant on implementation of these additional Conservation Measures, so long as the minimum point requirements are met.

Participating Member
John Smith Corporation

_____ Date _____
Nancy Smith

State of Wyoming
County of _____

This CI/CP was acknowledged before on _____ by the participating
Association member _____

Notary public _____
My commission expires: _____

Thunder Basin Grasslands Prairie Ecosystem Association

Frank G. Eathorne, Jr. - Chairman

Date _____

State of Wyoming
County of _____

This CI/CP was acknowledged before on _____ by the Association
Chairman _____

Notary public _____
My commission expires: _____

John Smith Corporation

Attachment 1

Legal Description of Enrolled Properties

Legal Description of Enrolled Properties

The following table contains a legal description of the enrolled property for the John Smith Corporation. See Map 6 Surface Ownership.

TOWNSHIP	RANGE	SECTION	LEGAL DESCRIPTION	ACRES	TOTAL
93	54	19	a portion of NW1/4SW1/4	6.3	
				Total	6.3
93	53	2	S1/2S1/2	144.9	
				Total	144.9
93	53	3	W1/2	307.7	
93	53	3	W1/2SE1/4	73.5	
93	53	3	SE1/4SE1/4	36.3	
				Total	417.4
93	53	4	ALL	643.2	
				Total	643.2
93	53	5	ALL	664.1	
				Total	664.1
93	53	6	ALL	830.9	
				Total	830.9
93	53	7	N1/2N1/2	207.9	
93	53	7	a portion of SE1/4SE1/4	2.1	
93	53	7	a portion of NE1/4SE1/4	21.6	
93	53	7	a portion of SE1/4NE1/4	44.9	
93	53	7	a portion of SW1/4NE1/4	0.1	
				Total	276.6
93	53	8	N1/2	334.0	
93	53	8	N1/2SW1/4	81.6	
93	53	8	SE1/4	160.7	
93	53	8	a portion of SW1/4SW1/4	36.2	
93	53	8	SE1/4SW1/4	40.0	
				Total	694.4
93	53	9	ALL	635.5	
				Total	635.5

TOWNSHIP	RANGE	SECTION	LEGAL DESCRIPTION	ACRES	TOTAL
93	53	10	ALL	579.9	579.9
93	53	11	ALL	580.2	580.2
93	53	12	ALL	575.3	
				Total	575.3
93	53	13	N1/2N1/2N1/2N1/2SW1/4	2.3	
93	53	13	N1/2	290.4	
93	53	13	N1/2SW1/4	53.6	
93	53	13	a portion of NW1/4SE1/4	11.0	
93	53	13	a portion of SE1/4SW1/4	0.3	
93	53	13	a portion of SW1/4SE1/4	9.0	
				Total	385.6
93	53	14	N1/2	294.5	
93	53	14	E1/2SW1/4	73.5	
93	53	14	SE1/4	132.0	
93	53	14	a portion of NW1/4SW1/4	32.5	
93	53	14	a portion of SW1/4SW1/4	8.7	
				Total	541.4
93	53	15	N1/2	294.6	
93	53	15	N1/2SW1/4	73.7	
93	53	15	NW1/4SE1/4	36.9	
93	53	15	a portion of NE1/4SE1/4	35.0	
				Total	440.2
93	53	16	N1/2N1/2	157.6	
93	53	16	SW1/4NW1/4	39.7	
93	53	16	SE1/4NE1/4	39.6	
93	53	16	NW1/4SW1/4	39.9	
93	53	16	NE1/4SE1/4	39.8	
				Total	316.7
93	53	17	NE1/4	157.3	
93	53	17	E1/2NW1/4	79.1	
93	53	17	N1/2SE1/4	80.6	
93	53	17	a portion of NW1/4NW1/4	14.2	
				Total	331.2

TOWNSHIP	RANGE	SECTION	LEGAL DESCRIPTION	ACRES	TOTAL
93	53	24	a portion of SE1/4NE1/4	8.5	
93	53	24	a portion of NE1/4NE1/4	2.0	
93	53	24	a portion of NE1/4SE1/4	2.8	
93	53	24	a portion of NW1/4NE1/4	6.4	
				Total	19.6
93	54	1	E1/2	322.2	
				Total	322.2
93	54	12	NE1/4NE1/4	40.2	
				Total	40.2
94	53	31	S1/2N1/2	181.4	
94	53	31	S1/2	399.8	
				Total	581.2
94	53	32	SW1/4NW1/4	41.4	
94	53	32	W1/2SW1/4	82.1	
				Total	123.5
94	53	33	a portion of SE1/4SW1/4	7.3	
94	53	33	a portion of SW1/4SE1/4	7.8	
94	53	33	a portion of SW1/4SW1/4	1.5	
94	53	33	a portion of SE1/4SE1/4	3.5	
				Total	20.1
94	53	34	a portion of SW1/4SW1/4	0.05	
				Total	0.05
94	54	36	SE1/4SE1/4	42.4	
				Total	42.4

County of Yukon

Sub-total Acres:

9,194.1

TOWNSHIP	RANGE	SECTION	LEGAL DESCRIPTION	ACRES	TOTAL
94	53	34	a portion of SW1/4SE1/4	39.9	
			a portion of SE1/4SE1/4	35.8	
			NE1/4SE1/4	40.0	
			Total	115.7	
94	53	34	SW1/4SW1/4	40.0	
			NW1/4SW1/4	40.0	
			Total	80.0	
93	53	3	a portion of NW1/4NE1/4	21.0	
			a portion of SW1/4SN1/4	39.6	
			NE1/4SE1/4	40.0	
			a portion of SE1/4NE1/4	38.4	
			Total	139.0	
93	53	2	a portion of SW1/4NE1/4	39.3	
			a portion of NW1/4SW1/4	27.5	
			a portion of NE1/4SW1/4	39.1	
			Total	105.9	
93	54	7	NW1/4SW1/4	40.0	
			SW1/4NW1/4	40.0	
			NW1/4SW1/4	40.0	
			Total	120.0	
93	53	1	NE1/4SW1/4	40.0	
			NW1/4SW1/4	40.0	
			a portion of SW1/4NW1/4	32.4	
			Total	112.4	
93	53	18	NE1/4NE1/4	40.0	
			SE1/4NE1/4	40.0	
			NE1/4SE1/4	40.0	
			Total	120.0	
County of Westward			Sub-total acres		793.0
Total Enrolled Acres					10,084.5
CCAA acres					3,861.4
CCA acres					6,223.1

CCAA and CCA acres are current as of June 4, 2016. See Map 5 for delineation.

John Smith Corporation

Attachment 2

Detailed Maps with Enrolled Properties Identified

Detailed Maps with Enrolled Properties Identified

Map(s) must clearly show property boundaries, roads, fences, water developments, salt or mineral locations, areas of industrial development, Conservation Priority Area(s), key habitat areas, location of areas where conservation measures will be implemented, and other important features.

Maps:

Map 1: Premining Vegetation

Map 2: Postmining Vegetation

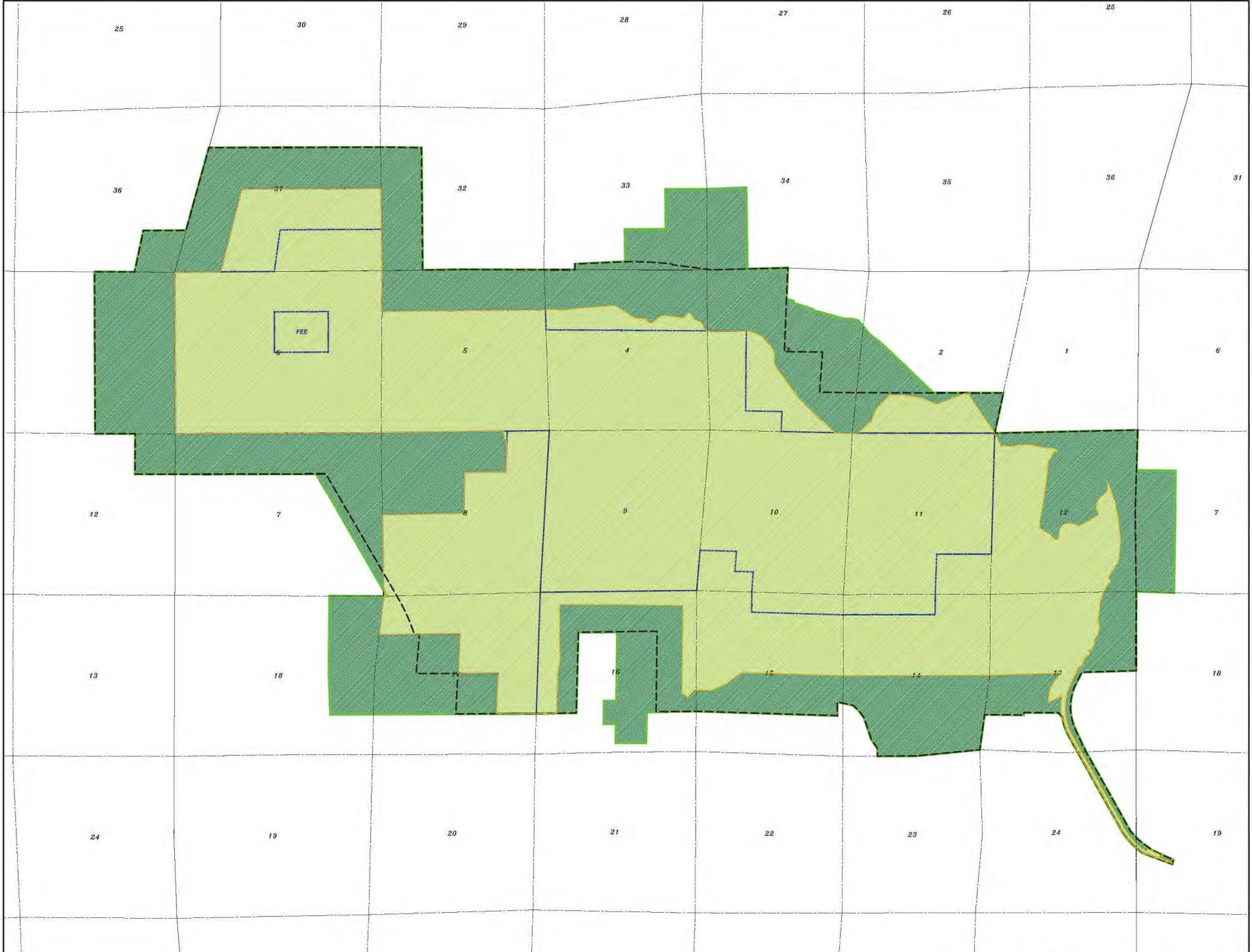
Map 3: Orthographic Imagery

Map 4: Wildlife and Infrastructure

Map 5: Conservation Strategy Lands (CCAA and CCA acreages)

Map 6: Surface Ownership

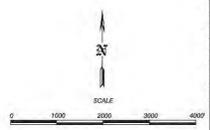
Map 7: Conservation Measures



CCA Total	6,223.1 acres
CCAA Total	3,967.4 acres
Enrolled Lands Total	10,084.6 acres

- Legend**
- Enrolled Lands
 - Conservation Strategy Boundary*
 - Candidate Conservation Agreement with Assurances (CCA)
 - Candidate Conservation Agreement (CCA)
 - Coal Lease
 - Mining Permit Boundary

*Note: The conservation strategy boundary overlays the CCAA and CCA enrolled lands as of August 31, 2014.



Revisions	Date

TBQPEA C/ICP
MAP 5
CONSERVATION STRATEGY LANDS

Design By: _____
Drawn By: _____
Check By: _____
Date Drawn: _____

Scale: 1" = 1000'
C.L.: N/A
Sheet:
File:

John Smith Corporation

Attachment 3

Existing Habitat Conditions, Threats, Conservation Needs and Priorities, and Conservation Measures

Existing Habitat Conditions:

Identify existing habitat conditions, threats, conservation needs and priorities, and specific conservation measures which will benefit the covered species

Three sagebrush steppe species and one shortgrass prairie specie have been observed in the past 5 to 10 years on the John Smith site.

Sagebrush Steppe Species

		Yes	No
Greater Sage-grouse	Observed in last 10 years?	X	
Sage Sparrow	Observed in last 5 years?		X
Brewer's Sparrow	Observed in last 5 years?	X	
Sage Thrasher	Observed in last 5 years?	X	

Shortgrass Prairie Species

Black-tailed Prairie Dog	Observed in last 5 years?		X
Mountain Plover	Observed in last 5 years?		X
Burrowing Owl	Observed in last 5 years?		X
Ferruginous Hawk	Observed in last 7 years?	X	

The following paragraphs briefly describe existing habitat and conditions at John Smith Corporation. Additional baseline and plan information may be found in the Wyoming Department of Environmental Quality Land Quality Division Permit #577 for the John Smith Corporation.

John Smith Corporation is located north of Raleigh in the Roanoke Basin in gently sloping uplands, with some relatively steep drainages and rough breaks located in the eastern third of the permit area.

Before mining commenced; vegetation in the enrolled area was dominated by sagebrush-grassland (20 %), dominated by big sagebrush (*Artemisia tridentata*), and upland grassland dominated by native cool season grasses (68 %). Bottomland habitat is restricted to corridors along three creeks. Little Moccasin Creek flows north through the middle of the permit area, Black Creek flows east along the northern edge, and the Dante River flows north along the eastern edge. Seeded improved pastures and croplands (6 %), and reclaimed grassland (5%) are also present in the enrolled area.

There are few trees in the enrolled area. A windbreak associated with an old homestead, a small stand of cottonwoods (*Populus* spp.) around a stock reservoir, and other scattered cottonwoods and junipers (*Juniperus* spp.) represent the majority of trees present.

Soils on the John Smith Corporation range from deep loamy soils to steep, rocky outcrops. Loamy soils dominate the enrolled area encompassing approximately 54%. Soils on the remainder of the property consist of shallow clay soils which cover 38% and rocky slopes and disturbed sites covering the remaining 8 %.

John Smith Corporation's climate conditions are typical of those in southwestern Clarkston. The result of the high frequency of clear skies and the relatively high elevation, causes large diurnal temperature variations. The average annual precipitation is 15.67 inches, most of which occurs during late spring and early summer in the form of thunderstorms. (U.S. Dept. of Commerce, Western Regional Climate Center website, Roanoke Station) John Smith Corporation also has been collecting meteorological data including wind speed, wind direction, temperature, precipitation and barometric pressure.

John Smith Corporation's enrolled area contains habitat for many of the sagebrush obligates listed in the conservation strategy. The general location of the enrolled property is located approximately 7.6 miles from the Little Moccasin designated Core area. (see **Map 4**) The active South Sunnyside Lek is located 0.65 miles from the enrolled lands boundary.

The major disturbance on these enrolled lands is surface coal mining. However, all areas disturbed by mining will be reclaimed. John Smith Corporation proposes to reconstruct and reclaim disturbed areas to contours which will blend with the surrounding undisturbed topography and reclaimed areas of adjacent mines. The overall final topography will be somewhat flatter and more gently rolling than that of the premining conditions.

Disturbed areas will be reclaimed to represent premining shrub characteristics of the upland, erosional, meadow and big sagebrush plant communities. Numerous areas of high shrub density are proposed to comply with current shrub regulations.

John Smith Corporation enrolled areas encompass approximately 10,084 acres. Approximately 6,223 acres will be disturbed during the mining process. Active mining includes lands being disturbed by topsoil salvage and stockpiling, overburden removal, coal removal, overburden replacement and final topographic grading, and reclamation. Reclamation includes replacement of topsoil and reconstruction of drainages ending with seeding utilizing native species identified from premining surveys.

Additional lands will be disturbed to recover all coal currently under lease, even though that disturbance is not currently permitted with Land Quality Division. In addition, disturbance not associated with the mine has occurred on portions of the surface. CBNG activity was initiated prior to 2007. Those areas of disturbance included pipelines, well pad sites and access roads. Much of the CBNG disturbance will be mined and reclaimed.

Threats:

The major threat at this property is surface coal mining which disturbs habitat for sage-grouse and other sagebrush obligates. Conservation measures chosen for this CP will decrease fragmentation across the coverage area. The conservation measures were chosen that will help maintain resiliency and increase habitat heterogeneity.

Annual Compliance Monitoring and Reporting:

The TBGPEA CCAA/CCA/CA requires the submission of an annual report to the Association. John Smith Corporation will compile all compliance monitoring into the annual report to the Association to be submitted by January 15. The first submission will be the January after the CI/CP is approved and signed.

Conservation Needs and Priorities:

The John Smith Corporation agrees to provide additional habitat features in the reclaimed area. However, on-going coal extraction requires that some of the conservation measures be conducted off-property. Additional conservation measures for off-property implementation have been conducted in priority areas in Yukon County.

On-property:

- Sagebrush in the reclaimed area is essential for habitat of sagebrush obligates. John Smith Corporation will plant and establish 200 acres of additional sagebrush habitat above the required standard of one shrub per meter squared over 20% of the disturbed area.
- Due to proximity to Core Area and active leks, John Smith Corporation will develop a grazing plan that promotes high structure for nesting habitat.
- John Smith Corporation will commit to develop and field test new seed mixes that would better benefit sage obligates and candidate species.

On-property: Sagebrush Steppe Conservation Measures

Habitat Fragmentation and Destruction

Priority 1 - Energy Development: Mining

A2 Sagebrush Steppe Conservation Measure: Increase and sustain the extent of sagebrush and forb mosaic re-establishment on mined land reclamation above the minimum required and approved acreage in the permit-to-mine. Report success-failure to the Association and redo failed seeding until successful as compared to adjacent non-mined areas [2 points for every 100 percent increase above the minimum approved acreage, minimum 40 collective acres]

CI or CI/CP Information:

- Map increased areas of sagebrush/forb habitat to be established - **Map 7: Habitat Enhancement Features**
- Indicate proposed seeding parameters - pure live seed rate, seed mix composition, etc.
- Commit to increase sagebrush and forb mosaic re-establishment on mine lands as described and ensure success of re-establishment
- Baseline photo points with GPS locations: 1 per 40 acres

Total Points - 10 (200 additional acres of reclamation shrub land will be planted)

Additional acres of sage-brush habitat will be developed to provide habitat. Shrub mosaics will be located approximately 8 miles from the Little Moccasin Core area and 1 mile from the South Sunnyside sage-grouse Lek. Other sagebrush obligates inhabit the area.

One-time Compliance Monitoring:

- Report details of seeding (map of seeded area, acres covered, seedbed preparation methods used, seeding equipment used, dates of seeding, seed invoices, seed mix tag, etc.) to the Association in the Annual Report

Performance Monitoring to Support Adaptive Management:

- Monitor vegetation species height and cover by species annually between June 15 and August 15; report data and seeding success / failure to the Association in the Annual Report
- Provide excerpt of DEQ report detailing increased sagebrush/forb area parameters
- Photograph sagebrush/forb habitat annually within + 2 weeks of baseline photograph anniversary date; provide digital photograph(s) to the Association in the Annual Report
- Association staff will visit the site at least once every 3 years to verify habitat practices

A2 Sagebrush Steppe Benefits: Increasing the area and extent of sagebrush stands in coal mine reclamation increases the potential total sagebrush steppe habitat and increases the likelihood for reclamation use by sagebrush obligates for nesting, brood-rearing, and/or winter use.

Priority 2 - Inappropriate Livestock and Wildlife Grazing Management

A14 Sagebrush Steppe Conservation Measure A: Develop and follow an Association approved grazing management plan throughout the CI or CI/CP term which provides high (≥ 6 inches) structure on a minimum of 5 percent of enrolled acres during the term of the CI or CI/CP and incorporates management objectives for sagebrush steppe habitat and drought/post-drought mitigation. The grazing plan will include deferment or rotation elements, providing at least cool-season (May 1 - June 30) rest for one out of every three years, and an average of 30 percent utilization [7 points for initial 5 percent, 2 points each additional 1 percent of enrolled acres covered]

CI or CI/CP Information:

- Specify details of selected management plans (covered acres, deferral/rest periods, rotation objectives, drought/post-drought mitigation plan, wildlife objectives, etc.); consult with NRCS, UW Extension as necessary
- Commit to implement selected management plan

Total Points - 7 Grazing will be conducted on enrolled lands which will include deferment or rotation elements, providing at least cool-season (May 1 - June 30) rest for one out of every three years, and an average of 30 percent annual utilization. Grazing lands are located approximately 8 miles from the Little Moccasin Core area and 1 mile from the South Sunnyside sage-grouse Lek. Other shrub obligates inhabit the area.

Performance Monitoring to Support Adaptive Management:

- Report plan details (livestock numbers, in/out dates, supplemental forage, Grazing Response Index for each covered pasture, anticipated plan modifications, etc.) to the Association in the Annual Report
- Association staff will visit the site at least once every 3 years to discuss management plan implementation, current year objectives, and anticipated plan modifications

A14 Sagebrush Steppe Benefits: Appropriate grazing management of both livestock and wildlife and siting of attractants will reduce loss of forb and perennial grass (especially bunchgrass) components which are necessary for functional sagebrush steppe habitat. Additional forb production will improve sage-grouse brood-rearing habitat, benefiting both adult females and their broods. Increased bunchgrass vigor will improve screening cover leading to increased nest success. Improved perennial grass health will also make the area more resistant to invasion by undesirable annual species such as cheatgrass.

Habitat Curtailment**Priority 3 - Inappropriate / Poor Quality Reclamation**

A29 Sagebrush Steppe Conservation Measure B: Develop and field test seed mixes comprised of native species suited to specific ecosites that provide competition against invasive species [5 points per unique test, maximum 10 points]

CI or CI/CP Information:

- Identify specific parameters of seed mixes - suitable for particular soil types, forb or shrub component, etc.
- Identify timeline for completion of seed mix and field tests
- Commit to develop and field test seed mixes and share test results
- Baseline photo points of seed test areas with GPS locations: 1 per seed test area

Total Points - 5 Develop and field test one seed mix.

Reporting Requirements:

- Provide details of each field test initiated during the year (location, acres covered, seedbed preparation methods used, seed mix used, seeding equipment used, dates of seeding, invoices, seed mix tag , etc.) to the Association in the Annual Report
- Photograph seeded area annually within + 2 weeks of baseline photograph anniversary date; provide digital photograph(s) to the Association in the Annual Report
- Association staff will visit site at least once every year to verify seed test status
- Provide the Association with final seed mix parameters and complete results of field tests in the Annual Report

A29 Sagebrush Steppe Benefits: Increasing the area of native plant communities will increase potential sagebrush steppe habitat. Development and field testing of seed mixes appropriate to the area and development of secure sagebrush and forb seed sources will increase our ability to restore and enhance sagebrush steppe habitat. The establishment of appropriate food sources, nesting conditions, brood-rearing, and/or

wintering habitat in reclaimed areas will reduce the potential for establishment of a reclamation vegetation community that is not usable by sagebrush obligates and will ultimately increase the total sagebrush steppe habitat available.

Off-property: Shortgrass Prairie and Sagebrush Steppe Conservation Measures

John Smith Corporation supported off-property conservation measures from 2006 through 2013 on Association member properties in Yukon County. (see Association files for specific locations) Points accumulated for the implemented Conservation Measures were divided among five participating John Smith Corporation properties. However, the Conservation Measures themselves were not divided.

John Smith Corporation has contributed the following conservation measures in Yukon County:

- A3b Conduct studies on short grass prairie species
- A7b Sage-grouse collaring and monitoring studies
- A9a Fence removal in close proximity of leks
- A 14b Grazing incentive to provide high structure
- A16a1 Treatment of annual bromes

The Association managed the Compliance Monitoring, Biological Monitoring and reporting as required.

Allocated Conservation Measures and Points 2006 through 2013

Year	Conservation measure	Point Allocation	Total Points
2006	2006 A16a1 Vegetation monitoring and cheatgrass spraying	0.66	0.66
2008	2008 A 16a 1 Vegetation monitoring and cheatgrass spraying	1.40	
	A7b Sage-grouse monitoring	0.40	1.80
2009	A 14b Grazing incentive	2.80	2.80
2010	A1 6a1 Vegetation monitoring and cheatgrass spraying	3.85	
	A7b Sage-grouse monitoring	0.13	3.98
2011	A7b Sage-grouse monitoring	1.24	
	A1 6a1 Vegetation monitoring and cheatgrass spraying	0.20	
	A7b Sage-grouse monitoring	0.50	
	A3b Prairie dog monitoring	0.13	2.06
2012	A16a1 Vegetation monitoring and cheatgrass spraying	4.39	
	A7b Sage-grouse monitoring	0.33	4.72
2013	A9a Fence removal in close proximity of lek	0.75	

	A7b Sage-grouse monitoring	0.85	1.60
TOTAL			17.62

Off-property Completed Shortgrass Prairie Conservation Measures

Habitat Fragmentation and Destruction - Facilities: Detrimental Siting Due to Lack of Information

A3 Shortgrass Prairie Conservation Measure B: Collect information necessary to maintain and update shortgrass species life cycle information and habitat use maps. This includes such items as prairie dog active/inactive burrow surveys, mountain plover nest success surveys, ferruginous hawk and/or burrowing owl nest surveys, resource selection functions, environmental analysis, or other studies. Where applicable, the participating member will utilize this information to avoid new fragmentation of suitable habitat and/or remove existing infrastructure that may cause habitat fragmentation. The Association will share this information with appropriate agencies and will publish pertinent information in a timely manner [4 points per annual study, depending on study parameters; additional points are possible if identified habitat use areas are permanently protected from fragmentation through a conservation easement]

CI or CI/CP Information:

- Collect information necessary to maintain and update shortgrass species life cycle information and habitat use maps. This includes such items as prairie dog active/inactive burrow surveys, mountain plover nest success surveys, ferruginous hawk and/or burrowing owl nest surveys, resource selection functions, environmental analysis, or other studies
- Commit to avoid new fragmentation and/or remove existing infrastructure that may cause habitat fragmentation where applicable
- GPS location of known shortgrass species use areas (include any known ferruginous hawk nest sites, burrowing owl nesting areas, etc.)
- Map current prairie dog colony boundaries
- Identify study parameters (location, timing, objectives, etc.)

Reporting Requirements:

- Participating member will provide a summary report of studies to the Association in the Annual Report
- A complete report which includes all collected data will be provided to the Association
- Document how information was utilized for surface use purposes; report to the Association in the Annual Report

A3 Shortgrass Prairie Benefits: Active collection of shortgrass species use and shortgrass prairie habitat information will reduce fragmentation of suitable habitat by increasing the identification of suitable habitats, allowing for better planning, maintenance, and conservation of these areas. The Association will use this information to update and disseminate habitat maps to its members, thereby reducing the potential for placement of infrastructure in or near suitable shortgrass prairie habitats. This will

improve the potential for nesting and brood-rearing success and prairie dog colonization.

Off-property Completed Sagebrush Steppe Conservation Measures

Habitat Fragmentation and Destruction

Facilities: Detrimental Siting Due to Lack of Information

A7 Sagebrush Steppe Conservation Measure B: Conduct sage-grouse collaring studies, daily lek usage studies, nesting studies, genetic testing, resource selection functions, environmental analysis, or other studies necessary to maintain and update sagebrush obligate life cycle information and habitat use maps. Where applicable, the participating member will utilize this information to avoid new habitat fragmentation and/or remove existing infrastructure that may cause habitat fragmentation. The Association will report this information to appropriate agencies annually and will attempt to publish pertinent information in a timely manner [4 points per annual study, depending on study parameters; additional points are possible if identified habitat use areas are permanently protected from fragmentation through a conservation easement]

CI or CI/CP Information:

- Conduct sage-grouse collaring studies, daily lek usage studies, nesting studies, genetic testing, resource selection functions, environmental analysis, or other studies necessary to maintain and update sagebrush obligate life cycle information and habitat use maps.
- GPS location of existing sage-grouse leks and map of known sagebrush obligate use areas
- Commit to avoid new habitat fragmentation and/or remove existing infrastructure that may cause habitat fragmentation where applicable
- Identify study parameters (location, timing, objectives, etc.)

Reporting Requirements:

- Participating member will provide a summary report of studies to the Association in the Annual Report
- A complete report which includes all collected data will be provided to the Association in the Annual Report
- Document how information was utilized for surface use purposes; report to the Association in the Annual Report

A7 Sagebrush Steppe Benefits: Active collection of sagebrush obligate use and sagebrush habitat information will reduce fragmentation of suitable habitat by increasing the identification of suitable habitats, allowing for better planning, maintenance, and conservation of these areas. The Association will use this information to update and disseminate habitat maps to its members, thereby reducing the potential for placement of infrastructure in or near suitable sagebrush steppe habitats. This will improve the potential for nesting and brood-rearing success and/or capacity of winter habitat.

Fences

A9 Sage-grouse Conservation Measure A: Selectively remove fences near sage-grouse leks and in suitable sage-grouse habitat to decrease fragmentation [1 point per 1/4 mile, maximum of 3 points]

CI or CI/CP Information:

- Identify and map sage-grouse leks and suitable sage-grouse habitat
- Map existing fences
- Indicate fences that will be removed
- Commit to remove identified fences
- Baseline photo points with GPS locations: 1 per 1/4 mile

One-time Compliance Monitoring:

- Report amount of fence removed to the Association in the Annual Report
- Photograph area of removed fence; provide digital photograph(s) to the Association in the Annual Report
- Association staff will visit site to verify fence status

Performance Monitoring to Support Adaptive Management:

- Association staff will visit site at least once 5 years to verify status of fence removal

A9 Sage-grouse Benefits: These measures will reduce habitat fragmentation and the risk of direct mortality from fence collisions, from predators using the fence lines as travel corridors, and/or from raptors using the fences as perch sites to hunt sage-grouse. These measures will provide the potential for increased survival rates of the sage-grouse population.

Inappropriate Livestock and Wildlife Grazing Management

A14 Sagebrush Steppe Conservation Measure B: Sponsor an Association approved grazing management plan throughout the CI or CI/CP term which provides high structure for a minimum of 5 percent of sponsor's enrolled acres during the term of the CI or CI/CP and incorporates management objectives for sagebrush steppe habitat and drought/post-drought mitigation. This can take the form of managed grass bank acres, agreements with other members to provide additional acreage above their minimum requirements, or other voluntary, cooperative conservation measures. The grazing plan will include deferment or rotation elements, providing at least cool-season (May 1 - June 30) rest for one out of every three years, and an average of 30 percent annual utilization [8 points for initial 5 percent, 2 points each additional 1 percent of enrolled acres covered]

CI or CI/CP Information:

- Specify details of selected management plans (covered acres, deferral/rest periods, rotation objectives, drought/post-drought mitigation plan, wildlife objectives, etc.); consult with NRCS, UW Extension as necessary
- Commit to implement selected management plan

Performance Monitoring to Support Adaptive Management:

- Report plan details (livestock numbers, in/out dates, supplemental forage, Grazing Response Index for each covered pasture, anticipated plan modifications, etc.) to the Association in the Annual Report each year
- Association staff will visit the site at least once every 3 years to discuss management plan implementation, current year objectives, and anticipated plan modifications

A14 Sagebrush Steppe Benefits: Appropriate grazing management of both livestock and wildlife and siting of attractants will reduce loss of forb and perennial grass (especially bunchgrass) components which are necessary for functional sagebrush steppe habitat. Additional forb production will improve sage-grouse brood-rearing habitat, benefiting both adult females and their broods. Increased bunchgrass vigor will improve screening cover leading to increased nest success. Improved perennial grass health will also make the area more resistant to invasion by undesirable annual species such as cheatgrass.

Invasive Species

A16 Sagebrush Steppe Conservation Measure A1: Treat annual bromes (cheatgrass) with imazapic or other herbicide approved by the Association within a contiguous block area of at least 160 acres, or 10 percent of landholdings if area is less than 1,000 acres, in order to maximize treatment effectiveness and reduce edge recruitment of cheatgrass. Treatments will utilize localized methodology developed by the Association. Current protocol includes 2 years of post-treatment deferment during the appropriate cool-season grass boot phenological stage and no more than moderate utilization for the remaining term of the grazing management plan. The Association initiated a study in 2012 to determine the most appropriate post-treatment protocol. Once the study is completed in 2016, the results will be incorporated into this conservation measure. Report success-failure to the Association and repeat treatment as necessary [4 points for 320 acres]

CI or CI/CP Information:

- Map suitable sagebrush steppe habitat areas
- Conduct baseline vegetation monitoring: height and cover by species
- Report information along with GPS location of established 100' vegetation transects: 1 per 80 acres
- Identify treatment areas
- Indicate herbicide application parameters
- Commit to treat identified areas as described and ensure success of treatment
- Baseline photo points with GPS locations: 2 per 160 acres

One time Compliance Monitoring:

- Report details of spraying (map of sprayed area, acres covered, spray equipment used, chemicals used, wind speed & direction, temperature, relative humidity, etc.) to the Association in the Annual Report

Performance Monitoring to Support Adaptive Management:

- Report vegetation cover by species, species height to the Association in the Annual Report

- Photograph treatment areas within + 2 weeks of baseline photograph
- Association will visit site to verify treatment performance

A16 Sagebrush Steppe Benefits: Reducing or removing the loss of available sagebrush steppe habitat, including both forb and grass components, will maintain or improve the potential for nesting and brood-rearing success and/or capacity of winter habitat. Treatments that appropriately utilize herbicides (including rates and time of application) and/or herbivores will reduce the risk of extensive wildfires and help reduce the potential spread and habitat impacts of invasive plants which frequently colonize burned areas. These measures will also help to maintain or improve the potential for nesting and brood-rearing success and/or capacity of winter habitat.