

Sagebrush Ecosystem Program

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**STATE OF NEVADA
Sagebrush Ecosystem Program**

June 9, 2014

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Public Comments Processing
Attn: FWS-R8-ES-2013-0072
Division of Policy and Directives Management
US Fish and Wildlife Service
4401 N Fairfax Dr., MS 2042-PDM
Arlington, Virginia 22203

Tracking Number
for regulations.gov
1jy-8ckp-s1en

Greetings:

As the Chairman of Nevada's Sagebrush Ecosystem Council (SEC), and through authority provided by the Council's unanimous vote at their meeting held on May 13, 2014, I submit the following comments on their behalf regarding the Proposed Listing of the Bi-state Distinct Population Segment (BSDPS) of the Greater Sage-grouse as Threatened. Thank you for the extension of the Comment Period and for allowing us the opportunity to comment on this critically important decision.

The SEC is the lead state entity regarding sagebrush ecosystems and the Greater Sage-grouse, as memorialized in statute by AB 461 of the 2013 Legislative Session of the Nevada Legislature. This bill has been codified into the Nevada Revised Statutes, and can be found in NRS 232.162 and NRS 321.594. The Council consists of the highest state-level leadership from the BLM, USFWS, USFS, three state Department Directors, and nine gubernatorial appointees representing various industry and conservation constituencies throughout Nevada. Our staff, known as the Sagebrush Ecosystem Technical Team (SETT), is a multi-agency, multi-disciplinary team of five people that focus 100% of their work effort on improving the sagebrush ecosystem in Nevada.

In a letter from Nevada Governor Sandoval to DOI Secretary Sally Jewell dated November 18, 2013; Governor Sandoval stated his deep disappointment in the proposed listing of the BSDPS. He further noted this action was especially troubling that the listing was proposed, "in the face of more than a decade of conservation and restoration initiatives, and in spite of the fact that over the last twelve years, sage-grouse populations in the BSDPS have exhibited a stable-to-increasing trend in Nevada, and monitored leks in California have displayed record to near-record-high numbers."¹

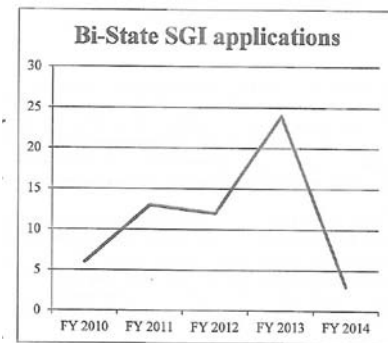
We strongly concur with the Governor's sentiment throughout that letter, particularly the above citation and the fact that "the listing could result in gratuitous impediments for Nevada ranchers, renewable energy companies, and everyday citizens who enjoy access to our beautiful public lands."²

¹ Letter from the Office of the Governor, State of Nevada, to The Honorable Sally Jewell, Secretary of the US Department of Interior, date November 18, 2013; p 1.

² Ibid.

In the letter from Secretary Jewell to Governor Sandoval comprising her response, she states, “The FWS recognizes and values the long term efforts of the State of Nevada in monitoring sage-grouse populations within the Bi-State area.”³ This almost seems as though Secretary Jewell and the Service, is using the exceptional work accomplished by the State, as well as the Local Area Work Group (LAWG), and the Executive Oversight Committee (EOC), against the people of Nevada in their proposed listing decision. This is very concerning and highlights a situation that has manifested itself since the proposed listing decision was published on October 28, 2013.

The most graphic way to exemplify what impact a final listing decision may have is to look at the recent reaction of the key stakeholders, (private property owners), toward this decision. In a letter dated April 25, 2014, to Governor John Hickenlooper of Colorado, the Chairman of the Western Governors’ Association, NRCS Chief Jason A. Weller stated that there has been significant withdrawal of participation by producers in the bi-state area. In addition to the graphic to the right, the following is quoted from Chief Weller’s letter:



*“Although we experienced significant growth in Bi-State SGI participation in the period of FY 2010 through FY 2013, landowner interest has declined precipitously in FY 2014. While several factors likely influence landowner participation, it appears this decline is associated with the FWS proposal to list the bird in the fall of 2013. There were 13 producers who had submitted early SGI applications for FY 2014 funding and withdrew their applications shortly after the listing announcement. Many expressed continued desire to participate in SGI, but **are fearful that listing of the Bi-State sage-grouse will reduce or eliminate their use of Federal grazing allotments, thereby rendering their private agricultural operations unviable** (emphasis added). Today, our FY 2014 applications total 3, down from 24 the prior year (FY 2013). None of the FY 2014 applications are for establishment of new conservation easements.”⁴*

It is also critically important to understand Chief Weller’s further writings in his letter to Governor Hickenlooper;

*“It is important to note, however, that NRCS does not directly implement any conservation practices on our own. Instead, our voluntary and incentive-based approach **depends completely on the willingness of private landowners to voluntarily sign up, agree to implement beneficial practices, and invest their own resources to put conservation on the ground** (emphasis added). Because of this, any action, such as an Endangered Species Act (ESA) listing, or otherwise, that negatively impacts private landowner desire ultimately affects our ability to implement SGI in the future. Additionally, new critical habitat designations for*

³ Letter from The Secretary of the Interior, to The Honorable Governor Brian Sandoval, dated January 27, 2014; p 1.

⁴ Letter from USDA NRCS Chief Jason A. Weller, to The Honorable Governor John Hickenlooper, Governor of Colorado and Chairman of the Western Governors’ Association; p 6.

sage-grouse could also increase NRCS consultation requirements and impact landowner desire to participate.”⁵

It is well known that when the west was settled the pioneers chose areas that contained the rare commodity of water. Without the volunteer efforts of local ranchers and farmers, all wildlife will suffer considerably. It is apparent through the results of NRCS’ efforts in FY 2014, clarified numerically by Chief Weller’s comments that a listing decision will result in a largely negative reaction by these key stakeholders.

As we collectively proceed through a period of fiscal contraction in terms of funds available from the federal government to address issues on federally managed lands, it is imperative that we do not dismiss funding from any source. This, as mentioned above, includes funds that are only available through cooperative voluntary agreements with the private sector in addition to funds from local government and federal land dependent industries.

We are confident you will be receiving comments from the Bi-State EOC that will highlight some newly discovered scientific data regarding population increase of the BSDPS. Therefore we will not address that directly here, but we strongly encourage that it be included in your deliberations. Additionally, the EOC has made further commitments to fund additional meaningful conservation work in the area through the continued implementation of the Bi-State Action Plan. Additional removal of encroaching pinyon-juniper in the area, and funding of other priority conservation actions is included in the proposal to avoid a listing decision. This includes the funding to close an area landfill in an effort to prevent anthropogenic subsidies accruing to ravens and other predators of the sage-grouse.

Closing an area landfill, even with the funding in place, will take time just as improvement in habitat will also take time. Habitat improvements in particular oftentimes take years, if not decades, to provide the preferred ecosystem for sage-grouse. It is during these temporal lags that nature, assisted by man, develops improved habitat all while predation continues. With reduced beneficial habitat, sage-grouse are at an increased risk of predation which can dramatically affect the recruitment in the species. Raven populations have increased dramatically over the past decade in Nevada, and due to this fact, must be addressed in the immediate future if the habitat improvements that will be implemented are to be enjoyed by future generations of grouse. If we don’t assist them with predator control at this time, there will be fewer grouse available in the future when the habitat is fully restored.

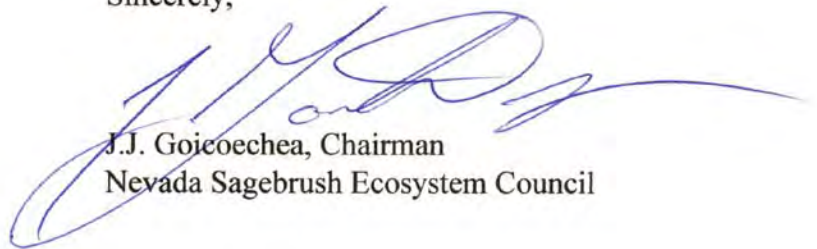
The proposed listing decision begins to discuss predation, but then dismisses the issue quickly. We believe that it needs to be an important part of any plan to improve habitat in order to allow the birds to survive the interim. The SEC, through their work in developing a State Plan for the Greater Sage-Grouse in Nevada, has developed a strategic methodology to assist the sage-grouse get through this important time. It is science based, well researched, and the foundational science included in the plan is from peer-reviewed documents. The Council believes this type of comprehensive, science-based management of predation needs to be incorporated in all aspects of ecosystem management while

⁵ Letter from USDA NRCS Chief Jason A. Weller, to The Honorable Governor John Hickenlooper, Governor of Colorado and Chairman of the Western Governors’ Association; p 7.

improvements are made. The chapter of our State Plan dealing with this issue has been attached to this document for your convenience.

In closing we would like to thank you for allowing us to comment on this important matter. We look forward to working collaboratively in any way we can to avoid a listing. Please don't hesitate to contact me at any time.

Sincerely,



J.J. Goicoechea, Chairman
Nevada Sagebrush Ecosystem Council

JG/tr

Attachments-4

c: file

The Honorable Governor Brian Sandoval
Ted Koch, State Director FWS
Bi-State EOC
Sagebrush Ecosystem Council Members

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Office of the Governor

November 18, 2013

The Honorable Sally Jewell
Secretary, U.S. Department of Interior
1849 C Street, N.W., Room 6151
Washington, DC 20240

Dear Secretary Jewell:

I am deeply disappointed and concerned about the U.S. Fish and Wildlife Service's proposal to list the Bi-State Distinct Population Segment (DPS) of greater sage-grouse as threatened under the Endangered Species Act (ESA). It is especially troubling that this listing has been proposed in the face of more than a decade of conservation and restoration initiatives, and in spite of the fact that over the last twelve years, sage-grouse populations in the Bi-State DPS have exhibited a stable-to-increasing trend in Nevada, and monitored leks in California have displayed record- to near-record-high numbers.

Through this proposal, more than 1.8 million acres of habitat could be declared "critical" under the ESA. If ultimately approved, the listing could result in gratuitous impediments for Nevada ranchers, renewable energy companies, and everyday citizens who enjoy access to our beautiful public lands. Beyond these unwarranted impacts, proposing this listing – in light of all the work that has been done – raises serious concerns about the sincerity of the USFWS in working with states to develop programs that can help protect species, while avoiding the need to list under the ESA.

The Bi-State Local Area Working Group (LAWG), comprised of local, state, and federal partners as well as the private and non-profit sector, has been working for more than a decade to develop and implement strategies to conserve the Bi-State DPS. In 2002, the group began work on a conservation plan that was approved in 2004 and has been implemented over the course of the past decade; it has yielded significant results for the Bi-State DPS.

Since the 2004 plan was approved, 298 projects aimed at conserving, expanding and improving habitat for sage-grouse have been implemented in both Nevada and

California by various agencies. Conservation easements have been established on more than 16,000 acres; more than 7,000 acres of important seasonal sage-grouse habitats have been acquired; greater than 16,000 acres of encroaching pinyon and juniper have been removed; grazing management strategies aimed at improving habitat on more than one million acres have been instituted through permit terms and conditions modifications. Again, these actions have yielded meaningful results for the Bi-State DPS: population trends are stable-to-increasing in Nevada and biologists have observed record and near-record lek attendance in California.

Recognizing the need for continued focus, the 2004 conservation plan was reviewed in 2011. In 2012, the 2012 Bi-State Action Plan was endorsed by the Bi-State Executive Oversight Committee, which includes state and federal resource agency directors. The 2012 Bi-State Action Plan is currently being implemented by private, state and federal entities. Notably, the efforts of the Natural Resources Conservation Service to secure conservation easements are proving to be successful in providing habitat protection that is beneficial to sage-grouse.

The value of the 2012 Action Plan, as well as the work of the LAWG, cannot be understated; it is a model effort, demonstrating consistent engagement and presenting a comprehensive set of objectives, strategies, and actions to accomplish specific goals. The conservation actions that have occurred to date, coupled with the 2012 Action Plan and measure that will be implemented are effective for the long-term conservation of the Bi-State DPS. Unfortunately, the USFWS has chosen to cast aside these important efforts and meaningful, measurable outcomes, instead opting to propose listing the species.

Moreover, through the 4(d) special rule, the listing proposal essentially endorses the Action Plan and the work of the Natural Resources Conservation Service's Sage Grouse Initiative. It is my understanding that our Action Plan may likely serve as the foundation – if not the entirety – of the recovery plan that the USFWS must develop after listing the species. The proposed listing will not enhance or expedite conservation actions for the Bi-State DPS; it will call for the same conservation measures we have already identified. What then will the federal government accomplish through this proposed listing, other than alienating the groups who have been working so diligently on this issue for more than a decade and taking management responsibility of this species away from the states?

Finally, although viewed biologically as distinct from the greater sage-grouse, the Bi-State DPS has important policy implications for the greater sage-grouse. States across the West are currently engaged in unprecedented efforts to develop plans to address the potential listing of the greater sage-grouse. Many parallels can be drawn between the significant effort and action that has gone into addressing the Bi-State DPS and the initiatives also underway for the greater sage-grouse. In light of all the work that has been done, this proposed listing puts into question the USFWS's sincerity in promising to work with states and to truly value and honor our efforts.

Madam Secretary, Nevada remains committed to protecting, restoring and enhancing habitat for the Bi-State DPS. We will continue to implement the strategies identified in our 2012 Action Plan. I respectfully urge you to work with the USFWS and BLM, as well as with your partner agencies at the USDA, to help identify ways to support the implementation of the 2012 Action Plan, while protecting local economies and land users. It is my hope that with your full support, we can preclude the need to list the Bi-State DPS.

Should you wish to discuss this matter further, please do not hesitate to contact me at (775) 684-5670, or Mr. Tony Wasley, Director of the Nevada Department of Wildlife at (775) 684-1599.

Sincere regards,



BRIAN SANDOVAL
Governor

CC: Bi-State Local Area Working Group
Carson City Board of Supervisors
Lyon County Commission
Mineral County Commission
Esmeralda County Commission
Douglas County Commission
Nevada Congressional Delegation
California Governor Jerry Brown
Honorable Tom Vilsack, Secretary, USDA
Jason Weller, Chief, NRCS
Bruce Petersen, State Conservationist, NRCS
Bill Dunkelberger, Forest Supervisor, Humboldt-Toiyabe National Forest
Dan Ashe, Director, USFWS
Ren Lohoefer, Regional Director, USFWS
Ted Koch, State Director, USFWS
Principal Deputy Director Neil Kornze, BLM
Amy Lueders, State Director, BLM



THE SECRETARY OF THE INTERIOR
WASHINGTON

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Office of the Governor
Carson City, NV

The Honorable Brian Sandoval
Governor of Nevada
Carson City, Nevada 89701

Dear Governor Sandoval:

Thank you for your letter dated November 18, 2013, regarding the U.S. Fish and Wildlife Service's (FWS) proposed rules to list the Bi-State Distinct Population Segment (DPS) of greater sage-grouse as threatened with critical habitat under the Endangered Species Act.

The FWS recognizes and values the long term efforts of the State of Nevada in monitoring sage-grouse populations within the Bi-State area. Historical and recent population data from multiple sources are being fully considered in the listing determination process. The FWS looks forward to further discussions with the State of Nevada on interpreting Nevada and California population data, as well as on the overall status of the Bi-State DPS.

The Bi-State Technical Advisory Committee's 2012 Bi-State Action Plan has been a tremendous resource for the FWS in identifying threats to the Bi-State DPS of greater sage-grouse and for identifying opportunities for conservation actions and partnership. The Bi-State DPS is fortunate to have had continued involvement of the Bi-State Local Area Working Group (LAWG) in implementing conservation actions under both the 2012 and 2004 versions of the Action Plan. As an active LAWG participant, the FWS is well positioned to appreciate the partnerships and associated support for Action Plan implementation. Such strong partnerships are vital for conservation of listed and non-listed species.

The FWS's listing and critical habitat proposals for the Bi-State DPS in Nevada and California should not be considered predictive of future listing actions for the greater sage-grouse ranging across 11 western States. As discussed in the FWS's status review of March 23, 2010 (75 FR 13910), the DPS and greater sage-grouse are being evaluated separately with the Bi-State DPS having a higher listing priority number.

On December 20, 2013, the FWS published a notice extending the comment period on the proposed listing and critical habitat rules to February 10, 2014. Further input from the State of Nevada during these comment periods is welcome.

I am encouraged that Nevada remains committed to the species and habitat conservation identified in the 2012 Action Plan. The FWS and other Department of the Interior agencies intend to continue to work with Nevada, as well as other State, local, private, tribal, and Federal partners to ensure the success of these efforts. Thank you for the conservation leadership and investments the State of Nevada has and continues to make on behalf of greater sage-grouse.

Sincerely,

Sally Jewell



United States Department of Agriculture

COPY

APR 25 2014

The Honorable John Hickenlooper
Governor, State of Colorado
Chairman, Western Governors' Association
400 North Capitol Street, N.W., Suite 376
Washington, D.C. 20001

Dear Governor Hickenlooper:

Thank you for your letter of March 25, 2014, cosigned by Governor Brian Sandoval of Nevada, expressing appreciation and support of voluntary conservation efforts, such as those undertaken as part of the Department of Agriculture (USDA), Natural Resources Conservation Service's (NRCS) Sage-Grouse Initiative (SGI).

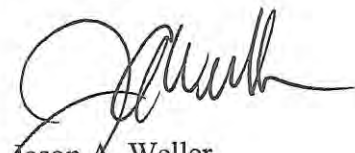
My objective for the collective SGI efforts, "on-the-ground" conservation work and the results of science-based evaluations documenting the effectiveness of that work have always been to support a "not-warranted" listing decision for sage-grouse. I still believe this objective is possible.

NRCS remains committed to working with the U.S. Fish and Wildlife Service to increase the visibility and consideration of voluntary conservation efforts within the legal framework of the Endangered Species Act. I welcome assistance the Western Governors' Association is willing to offer in this regard.

Enclosed are answers to your questions explaining NRCS SGI. I hope the responses are useful. Please let me know if you need additional information.

Again, thank you for writing and for your continued conservation efforts for the greater sage-grouse. An identical letter has been sent to Governor Sandoval.

Sincerely,



Jason A. Weller
Chief

Enclosure

Enclosure

1. How much money has NRCS invested (through the SGI and other programs) in sage-grouse conservation between 2010 and 2013? What dollar amount did landowners and other partners contribute for these activities over the same period?

A total of \$354.3 million has been invested through the Sage-Grouse Initiative (SGI) from fiscal years (FY) 2010 to 2013 to strategically address threats facing sage-grouse and western rangelands. Of this total, NRCS provided \$246.8 million, while partners and landowners invested an additional \$107.4 million.

NRCS primarily fuels SGI through individual contracts with ranchers offered from Farm Bill conservation programs, including the Environmental Quality Incentives Program, Wildlife Habitat Incentive Program, Farm and Ranch Lands Protection Program, Grasslands Reserve Program, and the Wetlands Reserve Program. NRCS and partners invested \$338.4 million through these programs, resulting in direct on-the-ground conservation (Table 1). Examples include developing grazing management practices to maintain nesting cover, removal of encroaching conifers that have invaded former historic sagebrush-steppe, securing conservation easements to keep working lands working as intact range in perpetuity, and making fences more visible to reduce sage-grouse collisions.

Additionally, NRCS and partners invested \$14.7 million through a creative partnership called the SGI Strategic Watershed Action Team (SWAT). This agreement teams NRCS with over 40 conservation partners, including many State agencies, to expand field-delivery capacity, communications, and science. SWAT has been highly effective, resulting in a doubling of SGI implementation. We've further bolstered our investments in science to quantify resulting benefits of applied conservation with a \$1.2 million investment through the Conservation Effects Assessment Project.

Table 1 - Sage Grouse Initiative: Number of NRCS agreements, contracts, projects, and financial dollars obligated for fiscal years 2010-2013.

- a) Source 2010: EQIP/WHIP data were queried from NRCS' ProTracts October 1, 2010, GRP data from NEST as of March 2011. Note: The FY 2010 tabular summary for SGI does not reflect contracts developed in Nevada. Six EQIP contracts were developed for a total obligation of \$1,136,303, but were not coded in the system. In addition, Oregon used EQIP to fund 8 EQIP contracts (\$451,107) to benefit Sage Grouse.
- b) Source 2011: EQIP/WHIP data were queried from NRCS' ProTracts 10/1/2011 with 12/24/2012 file update, FRPP/GRP/WRP data derived from State office spreadsheets, 10/19/2011 (Acreages estimates from Program Manager 8/22/2012), State program manager estimates for CO and NV GRP acreages 10/12/2012.
- c) Source 2012: EQIP/WHIP data were queried from NRCS' ProTracts 10/2/2012, NRCS' FMMI query via state office for FRPP and WRP financial information as of 4/25/13-4/30/13 obtained through state program manager query 4/25/13, GRP Financial Assistance from LTP-50 "Agreement to Purchase Conservation Easement" obtained through state program manager query 4/25/13-4/30/13.

d) Source 2013: EQIP/WHIP data were queried from NRCS' ProTracts 10/25/2013, FRPP/GRP/WRP data derived from State office spreadsheets, 3/17/2014.

State	Environmental Quality Incentives Program			Wildlife Habitat Incentive Program			Farm & Ranchland Protection Program		
	No. of Contracts	FA Obligated	Acres	No. of Contracts	FA Obligated	Acres	No. of Contracts	FA Obligated	Acres
California	55	\$9,552,540	358,308	21	\$2,615,732	49,109	0	\$0	-
Colorado	20	\$1,936,841	63,439	5	\$186,429	10,060	12	\$16,372,500	47,776
Idaho	96	\$8,121,491	434,114	6	\$173,942	18,168	0	\$0	-
Montana	38	\$8,333,599	435,585	25	\$1,319,513	26,181	3	\$4,000,000	46,278
Nevada	36	\$3,862,856	378,966	22	\$1,303,027	15,561	1	\$5,001,790	4,064
North Dakota	47	\$1,716,541	88,797	6	\$243,504	14,935	0	\$0	-
Oregon	93	\$10,576,761	129,573	44	\$3,366,781	38,190	0	\$0	-
South Dakota	24	\$2,939,423	175,093	16	\$1,656,809	78,976	0	\$0	-
Utah	46	\$5,775,471	85,270	4	\$308,788	10,165	0	\$0	-
Washington	94	\$4,139,919	49,327	10	\$793,296	24,183	0	\$0	-
Wyoming	80	\$12,606,629	884,026	18	\$1,485,650	76,591	49	\$49,001,116	120,372
Total	629	\$69,562,072	3,082,499	177	\$13,453,472	362,118	65	\$74,375,406	218,490

Table 1 continued.

State	Grassland Reserve Program			Wetlands Reserve Program			Grand Total		
	No. of Contracts	FA Obligated	Acres	No. of Contracts	FA Obligated	Acres	Contracts/Agreements	FA Obligated	Acres
California	1	\$1,464,710	2,037	0	\$0	-	77	\$13,632,982	409,454
Colorado	13	\$5,559,005	6,564	0	\$0	0	50	\$24,054,775	127,839
Idaho	33	\$21,504,694	52,617	0	\$0	-	135	\$29,800,127	504,899
Montana	4	\$4,085,982	10,742	0	\$0	-	70	\$17,739,094	518,786
Nevada	4	\$10,942,582	6,466	8	\$14,476,657	10,757	71	\$35,586,913	415,814
North Dakota	0	\$0	-	0	\$0	-	53	\$1,960,045	103,731

Oregon	0	\$0	-	0	\$0	-	137	\$13,943,542	167,762
South Dakota	0	\$0	-	0	\$0	-	40	\$4,596,232	254,069
Utah	8	\$7,423,395	33,765	0	\$0	-	58	\$13,507,654	129,200
Washington	0	\$0	-	0	\$0	-	104	\$4,933,215	73,510
Wyoming	11	\$13,530,651	40,222	0	\$0	-	158	\$76,624,046	1,121,211
Total	74	\$64,511,019	152,412	8	\$14,476,657	10,757	953	\$236,378,626	3,826,273

2. How many acres were put into conservation easements through SGI from 2010-2013? How many additional acres also received other conservation treatments -- such as conifer removal, new grazing systems, and fence marking/removal -- during that same period?

Through SGI, we partner with 953 ranches to implement conservation on 3.8 million acres across 11 Western States. Conservation practices are designed to address primary threats and targeted in priority landscapes containing the majority of birds. SGI uses outcome-based science to quantify the biological benefits of conservation, to assess effectiveness, and adaptively improve delivery. Listed is a summary of SGI accomplishments from FY 2010-FY 2013.

- Reduced the overarching threat of fragmentation by preventing subdivision of large and intact ranches through the establishment of 381,659 acres of conservation easements. These investments work in tandem with State and Federal policy to maximize benefits to birds. As an example, conservation easements in Wyoming are expected to help reduce by two-thirds anticipated bird losses by embedding conservation easements inside Wyoming's core areas (Copeland et al. 2013-PLos One).
- Additional hiding cover is expected to increase sage-grouse numbers by 8 to 10 percent within the 2.6 million acres of grazing systems implemented (Doherty et al. in press-Wildlife Biology).
- We have tripled the chance of maintaining viable populations by removing 276,250 acres of invasive conifer in core habitats and prevented a loss of 60 percent of the available forage (Baruch-Mordo et al. 2013- Biological Conservation; McClain 2012- MS Thesis).
- Preventing 2,800 sage-grouse fence collisions annually and reduce fence strike risk by 83 percent by marking or moving 537 miles of "high-risk" fence (Stevens et al. 2013-WSB).

3. What has been the trend in SGI enrollments? Did you see a change in enrollments after the U.S. Fish and Wildlife Service (FWS) proposed listing the Bi-State distinct population segment (DPS) of greater sage-grouse as threatened and, if so, by how much?

Since inception in 2010, agricultural producers across the West have embraced the voluntary and incentive-based approach to conservation offered through SGI. Producer interest has remained consistently high over the 4-year period with NRCS enrolling an average of 238 SGI participants each year (224 in FY 2010, 239 in FY 2011, 253 in FY 2012, and 237 in FY 2013).

The Bi-State DPS is included as a key part of SGI's conservation strategy. This unique landscape straddling the California and Nevada borders is comprised mostly of federally owned

public lands (92 percent) and ranchers here rely on their continued use of Federal grazing allotments to make their agricultural operations viable. Although Federal lands dominate the landscape, much of the water is located in irrigated meadows on the privately owned lands and is critical to sage-grouse brood survival. Top priorities for Bi-State conservation are establishing conservation easements on private lands to ensure critical brood habitats remain and removing encroaching conifers that degrade habitats and increase predation.

Initial interest and SGI participation from Bi-State landowners was low, resulting in only \$155,000 in SGI projects in FY 2010. Producer interest has grown each successive year and SGI investments have accelerated significantly. Through FY 2013, we finalized contracts for \$26 million of on-the-ground Bi-State projects addressing critical threats identified in the 2012 Bi-State Action Plan; primarily the establishment of perpetual conservation easements, removal of encroached conifer, and restoration of wet meadows to improve brood rearing habitat (Table 2).

Table 2- Funding totals including both CA and NV

Year	EQIP	WHIP	GRP	WRP	FRPP*	Total SGI \$
2010	\$119,778	\$36,209	\$ -	\$ -	\$ -	\$155,987
2011	430,294	90,353	-	-	-	520,647
2012	234,642	31,367	2,218,565	278,400	11,400,000	14,162,974
2013	303,447	47,492	9,570,557	0	1,240,000	11,161,496
Totals	1,088,161	205,421	11,789,122	278,400	12,640,000	26,001,104

** FRPP funding includes cooperative partnership dollars.*

Although we experienced significant growth in Bi-State SGI participation in the period of FY 2010 through FY 2013, landowner interest has declined precipitously in FY 2014 (Figure 1). While several factors likely influence landowner participation, it appears this decline is associated with the FWS proposal to list the bird in the fall of 2013. There were 13 producers who had submitted early SGI applications for FY 2014 funding and withdrew their applications shortly after the listing announcement. Many expressed continued desire to participate in SGI, but are fearful that listing of the Bi-State sage-grouse will reduce or eliminate their use of Federal grazing allotments, thereby rendering their private agricultural operations unviable. Today, our FY 2014 applications total 3, down from 24 the prior year (FY 2013). None of the FY 2014 applications are for establishment of new conservation easements.

4. How would a threatened or endangered listing of the greater sage-grouse affect NRCS's investment in sage-grouse conservation? Do you anticipate that landowners and other partners will still want to participate in SGI under a listing scenario?

NRCS is determined to provide SGI support until the threats facing sage-grouse are addressed.

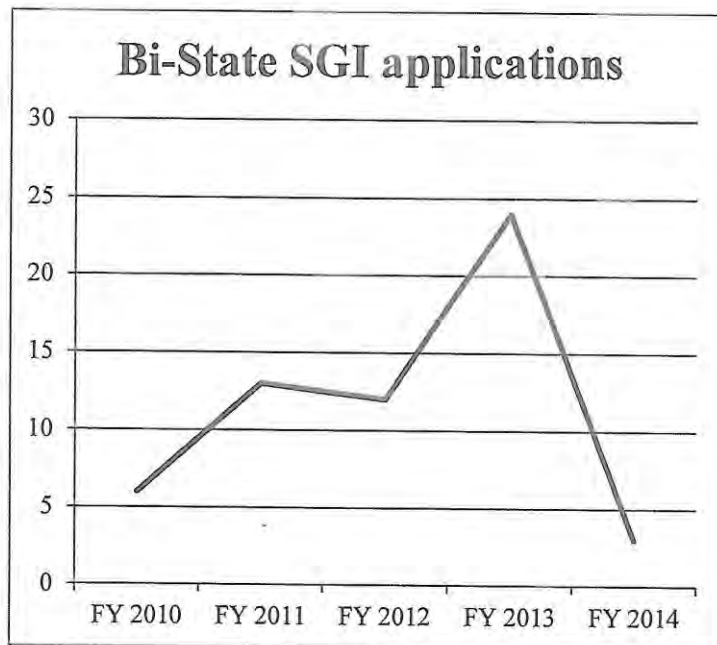
It is important to note, however, that NRCS does not directly implement any conservation practices on our own. Instead, our voluntary and incentive-based approach depends completely on the willingness of private landowners to voluntarily sign up, agree to implement beneficial practices, and invest their own resources to put conservation on the ground. Because of this, any action, such as an Endangered Species Act (ESA) listing, or otherwise, that negatively impacts private landowner desire ultimately affects our ability to implement SGI in the future. Additionally, new critical habitat designations for sage-grouse could also increase NRCS consultation requirements and impact landowner desire to participate.

To help address landowner concerns regarding additional ESA regulations, NRCS partnered with FWS in 2010 and created the first-ever Sage-Grouse Conference Report. SGI participants benefit by obtaining "ESA predictability" meaning that if sage-grouse are ultimately listed under ESA, landowners can continue implementing approved practices on their private lands and still be in full compliance with the law. This approach is likely to be effective for producers who primarily operate on private land. Our agreement does not offer similar predictability for public land allotments and a solution for this concern is needed as the majority of western ranches operate on a combination of public allotments and private land.

Predicting future landowner and partner participation if sage-grouse are listed is very hard. SGI is based on the belief that we can achieve wildlife conservation through sustainable ranching and adherence to this vision and voluntary framework has fostered an enthusiastic and unprecedented participation rate among diverse partners and landowners across the West. Coupled with the historic actions taken by the States and other Federal land management agencies, I sincerely hope this question will remain hypothetical and we will succeed by proactively conserving sage-grouse and avoiding ESA designation altogether.

5. If the greater sage-grouse is not listed under the Endangered Species Act, will NRCS continue to provide funding for voluntary conservation efforts and if so, at what level?

SGI is not a program, rather it is a strategic way of delivering many existing Farm Bill programs to achieve desirable outcomes. This is the premise of all of our Landscape Conservation



Initiatives designed to focus necessary resources to solve conservation challenges of national importance. Working together over the past 4 years, we have improved the outlook for sage-grouse and have implemented unsurpassed conservation on a watershed scale. We also recognize the significant threats facing sage-grouse and the need for a sustained long-term investment from all of us to finish the job. I cannot commit to a specific future monetary or program contribution level, but I can assure you that SGI will remain a highly prioritized and desirable business model for NRCS as long as it continues to net positive conservation outcomes.

7.3 Predation

Predation is a natural factor operating on all sage-grouse populations. Historically, given appropriate quality and quantity of habitat, sage-grouse populations have persisted despite naturally high levels of predation with which they evolved (Schroeder and Baydack 2001, Hagen 2011). Prey species have evolved ways to avoid predation such as coloration that conceals them, behavioral adaptations, and specialized reproductive strategies. Sage-grouse populations typically mitigate impacts of predation through cryptic nesting, increased chick production, re-nesting efforts, and response to annual habitat variation. When population levels become depressed below a particular threshold, quantity and quality of habitat may be diminished, or predator populations may become abundant enough to serve as a limiting factor, the behaviors and life-history strategies of prey species may not be able to compensate for losses from predators depending on numerous factors influencing predator densities. These factors include: predator search efficiency, prey switching, and food subsidies (Cote and Sutherland 1997, Schroeder and Baydack 2001, Hagen 2011).

Predator Species

Predators can affect sage-grouse during various life stages in three ways: 1) nesting success, 2) survival of chicks during the first few weeks after hatch, and 3) annual survival of breeding age birds (juveniles and adults) (Schroeder and Baydack 2001). Table 7-1 outlines potential predator species in Nevada that may influence each life stage.

Table 7-1 Potential Sage-grouse Predator Species in Nevada

Predator Species	Life Stage		
	Nest	Chick	Juvenile and Adult
American badger (<i>Taxidea taxus</i>)	X		X
Bobcat (<i>Lynx rufus</i>)	X		
Coyote (<i>Canus latrans</i>)	X		X
Fox (<i>Vulpes</i> spp.)	X		
Great Basin gopher snake (<i>Pituophis catenifer</i>)		X	
Raptors (<i>Buteo</i> spp., <i>Aquila</i> spp. <i>Circus</i> spp, etc.)			X
Common raven (<i>Corvus corax</i>)	X	X	
Weasels (<i>Mustela</i> spp.)	X	X	

(Connelly et al. 2004, Coates et al. 2008, Lockyer et al. 2013)

None of these predators depend on sage-grouse as their primary prey species. Many depend primarily on rodents or lagomorphs but will opportunistically consume sage-grouse, especially during specific life phases (e.g. badgers during the nesting season (Coates and Delehanty 2010).

The common raven (*Corvus corax*) is identified as the most frequent predator during nesting season in sage-grouse predator studies conducted recently in the Great Basin (Coates et al. 2008, Lockyer et al. 2013). Raven populations have increased over 200 percent from 1992 to 2012 in both the Great Basin and in Nevada, based upon USGS Breeding Bird Survey results (Sauer et al. 2014). Subsidized food

sources such as landfills and road kill; elevated nest platforms provided by transmission lines; and landscape alterations such as transitions to annual grasses, can increase raven populations (Boarman 2003, Boarman and Heinrich 1999, Webb et al. 2004). Raven abundance is often tied to habitat quality, particularly in areas where recently burned areas abut unburned habitat (Howe et al. 2014, Coates et al., In Review). Raven control has been shown to be an effective, short-term, tool during the early nesting season to gain increased survival through the nesting and early brood life cycle stages (Coates et al. 2007) when ravens are the limiting factor affecting nest success. Long-term effects at the population level are still not understood.

Given that ravens have been found to be increasing across the West and juvenile survival of ravens is tied to anthropogenic subsidies (Webb et al. 2004), localized lethal efforts are not likely to be successful in reducing state-wide populations (Webb et al. 2004). Thus, effective raven management needs to also include efforts to reduce food, water, and nesting subsidies.

Current State Predation Management Efforts for Sage-grouse

The following presents information on the State of Nevada's current predator control efforts to benefit sage-grouse populations.

Predator control

NDOW is partnered with USDA-APHIS-Wildlife Services for predator control focusing on carnivores (primarily badgers and coyotes) and ravens. NDOW currently has a depredation permit from the FWS for 2,500 ravens. Much of the take under this permit is conducted using poisoned eggs (hard-boiled chicken eggs that contain DRC-1339, an avicide). Poisoned eggs are placed at specific leks for ravens as a means of limiting raven populations during the sage-grouse nesting season. (See **Appendix XX** for additional details regarding FWS depredation permits for ravens.)

Road kill removal

In cooperation with NDOT, county road crews, USFWS, and UNR, NDOW has hired wildlife technicians to remove road carrion from three treatment areas in northern Nevada, in and around priority sage-grouse nesting habitat.

Landfill management

NDOW is working in cooperation with city and county municipalities, private entities, and the USFWS in Humboldt, Eureka, and Lander Counties to improve waste stream policies to minimize access by predator species and to increase the frequency of food waste and dead animal pit burials.

Goals, Objectives, and Management Actions

Goal 1: Reduce sage-grouse mortality due to predation where predation mortality is likely additive or is a limiting factor influencing sage-grouse populations.

The following three objectives should be carried out concurrently as part of an integrated predator management plan.

The management actions identified under Objective 1.1 should be carried out at the state-wide level, or at a more localized, targeted scale, as appropriate.

Objective 1.1: Reduce anthropogenic subsidies to ravens, such as food sources (e.g. road kill,

landfills), and nesting substrates (e.g. power lines), especially cognizant in landscapes with heterogeneous land cover, such as burned and unburned areas.

Management Action 1.1.1: Coordinate with NDOT and local governments to identify high density road kill areas to focus interagency road kill removal efforts. Provide information to agency staff that explains the need for the effort and outlines disposal options and procedures.

Management Action 1.1.2: Work with city and county governments to develop and adopt procedures that minimize availability of refuse in the urban interface that acts as food and water sources for predators.

Management Action 1.1.3: At landfills and waste transfer facilities, work with Nevada Division of Environmental Protection and facility managers to develop and adopt procedures that eliminate food and water sources for predators.

Management Action 1.1.4: Work with livestock owners, land managers, and regulatory authorities to develop and implement effective methods to reduce or eliminate exposed animal carcasses or other livestock by-products that may provide a food subsidy for predators.

Management Action 1.1.5: Collaborate with and provide informational material to stakeholders, such as Nevada Association of Counties, League of Cities, sportsmen's groups, Nevada Cattlemen's Association, and the general public on raven subsidy issues; such as refuse in urban areas, livestock carcasses and by-products, and wildlife carcasses (coyote, squirrels, rabbits).

Management Action 1.1.6: Research and develop management techniques to limit or reduce the availability of water subsidies to ravens. This may be very challenging and will likely require new technologies and techniques given Nevada's arid environment, distance between natural water sources, and the need for anthropogenic watering sites accessible to both livestock and wildlife.

Management Action 1.1.7: Reduce and eliminate artificial hunting perches and nesting substrate for aerial predators (e.g., removal of non-operational fences and power lines, installation of anti-perch devices on existing and new power lines).

Management Action 1.1.8: Encourage continued research in the development of more effective perching and nesting deterrent options.

Management Action 1.1.9: Monitor the effects of efforts to reduce anthropogenic subsidies on raven populations and adapt management accordingly.

Objectives 1.2 and 1.3 should be implemented in localized areas where predation has been identified as a limiting factor on sage-grouse population. Use the "Process to Prioritize Integrated Predator Management Projects" (See **Appendix XX**) before engaging in Objectives 1.2 and 1.3. .

Objective 1.2: Maintain or improve habitat integrity by increasing visual cover to reduce detection by predators or by reducing fragmentation to limit habitat for ravens.

Management Action 1.2.1: Maintain a mosaic of shrub cover conditions with $\geq 20\%$ sagebrush cover and ≥ 30 percent total shrub cover and decreasing opportunities for fires using pre-

suppression strategies in nesting habitat to provide increase cover for nesting and escape (Gregg et al. 1994, Coates and Delehanty 2010).

Management Action 1.2.2: Maintain residual grass cover in nesting habitat to provide increased cover for nesting and escape (Gregg et al. 1994, Gregg and Crawford 2009, Coates and Delehanty 2008). This factor is more important if shrub cover is low.

Management Action 1.2.3: Where appropriate, begin recovery of degraded sites to decrease edge of non-native annual grasses next to intact Core or Priority Management Areas and to reduce fragmentation.

Management Action 1.2.4: Minimize disturbance activities near leks during lek season (i.e., when males are inattentive and most vulnerable to predation) and near nest sites during nesting season that may result in adults flushing off nests or away from young. (In this instance, disturbance activities are anything that may cause birds to flush such as startling noise [explosions], road traffic, human presence, etc.). Use seasonal restrictions on activities, when appropriate, to minimize disturbances.

Objective 1.3: Conduct targeted predator control, based on monitoring and adaptive management.

Management Action 1.3.1: From the outcome of the Process to Prioritize Integrated Predator Management Projects (see below), establish a predator control program based on biological assessments appropriate to local conditions. Conduct predator control to coincide with the life stage impacted by predation. Program development needs to include specific goals and objectives and identification of triggers or endpoints for management practices. Monitor pre- and post-treatment predator numbers or densities as appropriate, and effects of predator control on sage-grouse vital rates and adapt control strategies accordingly.

Management Action 1.3.2: When conducting raven control programs using DRC-1339, the following points should be evaluated:

- The assumed ratio of number of ravens removed to baited eggs placed
- Need for pre-baiting to accustom ravens to their presence
- Length of time eggs should be left in the environment
- Spacing of egg and number of eggs placed together
- Consideration to implement treatment yearly, based on monitoring of raven population response
- Treatment should be conducted early in sage-grouse incubation period (within the first 40 days following first average nest initiation for the season) to coincide with greatest raven predation period (Coates and Delehanty 2008, Lockyer 2013)

[[This management action will be further fleshed out to provide a “how-to” guide based on best available science. Still to be developed.]Following objectives 1, then 2, then 3.]

Management Action 1.3.3: Consider option to oil or addle eggs in nests of territorial ravens found on anthropogenic structures as part of raven control program, when appropriate.

Management Action 1.3.4: Document success through a rigorous monitoring, analysis, and reporting of population responses to control efforts. For raven control programs, if there is a

demonstrated benefit to sage-grouse via scientifically valid documentation, submit a request to USFWS for increased allowable take of ravens, assuming personnel availability from NDOW and Wildlife Services to appropriately identify locations and conduct work.

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Appendix XX.

Cooperation of State and Federal Agencies for Depredation Permits for Common Raven

The USFWS can authorize depredation permits for the ‘take’ of common ravens, which are protected under the Migratory Bird Treaty Act. Currently in the State of Nevada, there are permits that authorize the ‘take’ of approximately 5,000 ravens annually, which constitutes five percent of the estimated 100,000 resident ravens (2003 estimate, Wildlife Services) in Nevada. NDOW is authorized to take 2,500 ravens; USDA-APHIS-Wildlife Services (WS) is authorized to take 1,500, and other private sources around 1,000. NDOW’s permit is specifically authorized for the protection of sage-grouse and other game species. WS’ permit is authorized for the protection of livestock. Other permits are authorized for the protection of property, public health and welfare (power companies, landfills, etc.). The most recent population estimate for Nevada is 190,000 ravens (2013 estimate, WS). This may potentially lead to an increase in permit allocations in the future if they can be justified

WS is a federal agency that works cooperatively with the Nevada Department of Agriculture’s Division of Animal Industry. Its primary objective is to protect livestock and farming interests from damage caused by predators or other nuisance species. WS is authorized to perform their duties on federal land and may enter into agreements with state, tribal, county, or private landowners to conduct their business. Predator control is a major component of their duties.

Specific to ravens, WS certified applicators are the only ones authorized by the EPA to either apply or directly supervise those applying the avicide DRC-1339 to execute the federal depredation permit authorized by the USFWS for the taking of migratory birds.

Currently, WS and NDOW are working jointly to reduce raven densities with the aim to enhance sage-grouse recruitment rates, which can be affected by raven predation of sage-grouse eggs and chicks. NDOW designates priority areas for treatment and WS treats hard-boiled chicken eggs with DRC-1339 and places them within the priority areas. Monitoring and data collection is done by both agencies as well as other partners to inform future implementation of the program and determine the efficacy of the protocols used.

Appendix XX

Process to Prioritize Integrated Predator Management Projects

The following frame work will be used to prioritize where Objective 1.1, 1.2, and 1.3 are implemented across the state.

Step 1: State level mapping for ravens and sage-grouse. This should be an ongoing process updated every few years.

- a. Contract with USGS to conduct landscape level modeling to estimate location of high raven occupancy (following methods for Raven Selection Probability Function (RSPF) as described in Coates et al., In Review).

If funding is not available to conduct modeling, regional biologists would submit areas of concern for evaluation.

- b. Conduct modeling of sage-grouse nesting habitat [[Methods still to be determined]]
- c. Intersect areas of raven concern with areas of sage-grouse nesting habitat. Select 5-15 sites to be evaluated at the site level.

Step 2: Site level analysis. This step should be conducted annually.

- a. Conduct raven surveys at 5-15 sites identified during Step 1 following a selected raven survey protocol to determine raven densities.
- b. Evaluate sage-grouse demographic data, as available, to determine if nest success is a limiting factor. Areas identified for potential raven removal should be prioritized for sage-grouse demographic data collection as feasible.
- c. Use information from the above two steps to identify 2-5 project sites for Integrated Predator Management around the State. Sites that have identified nest success as limiting to the populations due to raven predation should be prioritized for treatment. Sites that have greater than 0.46 ravens per km² should be prioritized for treatment (Coates et al., In Review). Exact number of project locations should be determined by number of raven take permits available, funding for projects, and personnel to carry out work.

Once Prioritized Integrated Predator Management Project locations are identified, the following steps should be completed.

1. Develop Integrated Predator Management Program for each project location.
 - a. Develop anthropogenic subsidies control plan for project location following recommendations in Objective 1.
 - b. Develop habitat integrity improvement plan for project location recommendations in Objective 2.
 - c. Develop predator control plan for project location following recommendations in Objective 3.
 - i. Develop treatment regime for project area
 1. Determine/set parameters of predator control area (where damage is occurring)

2. Determine/set parameters of predator control project timing (when resource is vulnerable)
3. Establish species to be targeted and methods/techniques which are acceptable
4. Determine what constitutes a “corrected” situation (when does project end, e.g. stop lethal control once raven density is below density thresholds or a lack of population response to actions is determined)
- ii. Establish predator monitoring regimes
 1. Pre-treatment monitoring of predator numbers (frequency, number & type).
 2. Treatment monitoring of predator numbers (frequency, number & type).
 3. Post-treatment monitoring of predator numbers (frequency, number & type).
- iii. Establish sage-grouse monitoring regimes
 1. Monitor sage-grouse population trends/demographic rates to determine effectiveness of predator control practices.