



United States Department of Agriculture

NOV 06 2018

Mr. James Kurth  
Deputy Director  
United States Fish and Wildlife Service  
1849 C Street Northwest  
Washington, DC 20240-0001

Dear Deputy Director Kurth:

The Natural Resources Conservation Service (NRCS) has worked alongside partners for many years, proactively conserving and restoring the unique rangeland resources straddling the California and Nevada border. These working lands not only provide an important agricultural base for local families and rural communities, but also provide habitat for many wildlife species, including the Bi-State Sage Grouse. Our investments in this landscape have been substantial and focused on addressing large-scale landscape threats to mutually benefit both people and wildlife.

With this letter, I wish to provide you with a summary of the progress we have made implementing our 2014 commitments to the Bi-State Action Plan (enclosed). Additionally, I seek to clearly indicate my agency's continued commitment to conserving this important landscape. We will continue to maintain close relationships with your staff and our partners to deliver focused conservation actions to benefit working lands, both public and private, and the Bi-State Sage Grouse. Upon authorization of a new farm bill, NRCS will work to utilize both existing and any new applicable programmatic authorities to continue building on the conservation work accomplished under the Agricultural Act of 2014.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Leonard Jordan". The signature is written in a cursive, flowing style.

Leonard Jordan  
Acting Chief

Enclosure

Natural Resources Conservation Service  
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Mr. James Kurth

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cc: (w/ enclosure)

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## *NRCS Commitments to Conservation in the Bi-State*

The Bi-State landscape is comprised mostly of federally owned public lands which comprise 92% of the area. Although federally owned rangelands dominate the landscape, much of the ground and surface water is located on irrigated and non-irrigated meadows within a small portion of the privately-owned lands. This private / public land matrix makes ranchers and wildlife both dependent upon healthy functioning habitats across public and privately-owned lands.

Threats impacting the Bi-State are largely not regulatory; instead top priorities to address loss of suitable sage grouse habitat, as defined by the US Fish and Wildlife Service (USFWS) and agreed to by the Executive Oversight Committee (EOC) and the Sage Grouse Local Work Groups (LWG) are to purchase conservation easements on private lands that perpetually ensure critical brood habitats remain; and remove encroaching conifers, primarily on public lands, which enhances those degraded habitats and reduces predation levels characteristic of conifer encroached sagebrush communities. The Bi-State Action Plan serves as a roadmap to strategically address these threats and identifies specific locations and extents of needed conservation actions required for success. NRCS has embraced this plan as a key part of the Sage Grouse Initiative's (SGI) national conservation strategy.

NRCS invested heavily in Bi-State conservation from 2010 through 2014 through SGI and helped conserve 11,800 acres of key brood rearing habitat by establishing perpetual conservation easements and restored another 5,450 acres of key sagebrush-steppe through selective removal of encroaching conifers. The total conservation investment in these projects topped \$19.7 million. Additionally, NRCS assisted The Nature Conservancy to complete a separate 4,000-acre Bi-State easement in fall 2013.

In June of 2014, NRCS coordinated with other Bi-State partners to make a landmark announcement that committed \$45 million to fully carry out the remainder of the Bi-State Action Plan items. This combined investment marked the single largest Bi-State sage-grouse restoration commitment in history and was designed to help ensure full implementation of the science-based action plan, regardless of listing decisions associated with the Endangered Species Act (ESA). NRCS's commitment totaled \$12 million and was specifically designed to further conservation work associated with easements and conifer removal through June 2019.

Over the past 4 years, NRCS has been focused on transforming those commitments to tangible on-the-ground conservation actions. We've made great progress on our objectives and tasks. Below is a summary detailing the 2014 commitments and the current status in meeting those commitments. Following the summary is a brief explanation on the scientific rationale behind these investments along with the associated citations in peer review publications.

### ***Outreach to Bi-State landowners***

2014 Commitment Summary- Communication with Bi-State landowners is critical and the number one job is to clearly convey our plans to join forces to proactively implement the Bi-State Action Plan. This outreach will be directed to landowners within Bi-State Action Plan priority areas and conducted by an interagency team with a unified message. Specifically, we will inform ranchers about project prioritization as defined by updated Bi-State Action Plan, opportunities for participation and funding, and establish a schedule to provide frequent communication and updates.

Update- NRCS Field Office staff along with State Biologists Tom Moore and Thad Heater conducted an outreach meeting with ten Bi-State landowners on February 3, 2015 at Smith Valley, NV Library (2:30-6:00pm). This meeting was followed by NRCS meetings with several other individual ranchers during February and March 2015. Each meeting provided ranchers information on overall NRCS funding commitments to implementing prioritized projects in the Bi-State Action plan, along with specific opportunities to utilize Farm Bill Agricultural Conservation Easement Program (ACEP) and Environmental Quality Incentives Program (EQIP) funds to address identified threats on their properties. NRCS staff continues to systematically provide additional outreach directly to Bi-State landowners, local partners and during local Bi-State work group meetings.

### ***Outreach to Tribes***

Following up on issues that arose during the 2015 Conifer Workshop and a request at a Bi-State Local Work Group (LWG) meeting, NRCS California and Nevada staff and leadership presented to five tribal representatives at the Stewart Indian School, Carson City on EQIP, SGI, Environmental Compliance as it mostly relates to how the NRCS consults with Tribes. We also discussed restoration opportunities through EQIP, on tribal, private and public lands, where tribes could apply for funding the restoration of pinion pines and other culturally important plant community beneficial to the tribes. The Bureau of Land Management (BLM) and

US Forest Service (USFS) expressed interest in allowing such plantings on public lands that they control.

### *Perpetual Conservation Easements*

2014 Commitment Summary- Establishing perpetual conservation easements with private landowners is identified as a top priority in the Bi-State Action Plan. NRCS has made significant investment in Bi-State easements, having closed on many Bi-State Action Plan priority transactions already and plan to finalize easements on three additional high priority properties in FY14. The estimated cost for establishing easements on the remaining priority properties is \$13 million with additional lands also identified to increase protections of critical sage-grouse brood rearing habitats. NRCS will dedicate and utilize funding from the ACEP to assist partners with establishing identified conservation easements in the Bi-State.

Specifically, NRCS proposes the following:

- Designate the Bi-State region as 'Grasslands of Special Environmental Significance' (GSS) under ACEP allowing NRCS to provide 75% of the easement costs versus the standard 50%. Properties designated as GSS are required to maintain the conservation values of the grassland community for which NRCS has designated as GSS. Grazing on these easement acres is allowed as long as those conservation values are maintained or improved.
  - Completed- NRCS designated the range and pasture lands in the Bi-State restoration focus areas as "grasslands of environmental significance" under the ACEP in 2014. This designation enabled NRCS to provide up to 75 percent of a conservation easement purchase cost. These properties with the perpetual easements have exceptional conservation values, which are being maintained on these grazing working lands.
- Conduct targeted outreach to landowners and provide details about ACEP and opportunities for participation.
  - Completed- NRCS Field Office staff along with State Biologists Tom Moore and Thad Heater conducted an outreach meeting with ten Bi-State landowners on February 3, 2015 at Smith Valley, NV Library

(2:30-6:00pm). This meeting was followed by NRCS meetings with several other individual ranchers during February and March 2015. Each meeting provided ranchers information on overall NRCS funding commitments to implementing prioritized projects in the Bi-State Action plan, along with specific opportunities to utilize Farm Bill ACEP and EQIP funds to address identified threats on their properties. NRCS staff continues to systematically provide additional outreach directly to Bi-State landowners, local partners and during local Bi-State work group meetings.

- Engage with Land Trusts, State Governors, County governments, and other partners to secure additional matching funds.
  - Completed- From FY 2014-2017, NRCS's \$11 Million investment in conservation easements was matched by over \$2.9 Million in matching funds from partners. NRCS continues to actively work with land trusts, State and local partners to secure additional easement matching dollars to ensure key habitat is protected.
- Dedicate a minimum of \$10 million in ACEP funding (75% of \$13 million) to establish priority conservation easements in the Bi-State.
  - Completed- NRCS obligated nearly \$11 Million of ACEP easement funding within the first 3 years of making the commitment in 2014. Funding helped protect 9,800 acres of key habitat. As a result of high landowner interest and hitting NRCS Bi-State easement pledge in just 3 years, in 2017 NRCS made a secondary commitment of \$8 Million to the Eastern Sierra Land Trust (ESLT). These funds are now being used to secure additional easements in the Bi-State and were made through the Regional Conservation Partnership Program (RCPP). Taken together, NRCS has nearly doubled the pledged contributions to Bi-State easements.
- Request ranchers' permission to provide current status of easement transactions to FWS to inform ESA listing decisions.

- Completed- NRCS Field Office staff along with NRCS State Biologists Tom Moore and Thad Heater conducted an outreach meeting with Bi-State ranchers on February 3, 2015 at Smith Valley, NV Library (2:30-6:00pm) and asked ranchers permission to provide the current status of their easement transactions to USFWS. Rancher's said they would and did at their own discretion before the 2015 ESA decision. This meeting was followed by meeting with individual ranchers in making this same request during February and March 2015.

**NRCS easement investments through the Agricultural Conservation Easement Program (ACEP)**

<b>Fiscal Year</b>	<b>Bi-State Activity</b>	<b>2014 NRCS Bi-State Commitment Projected Cost</b>	<b>Actual NRCS ACEP FA Dollars Obligated</b>	<b>Partner Match Dollars Committed</b>	<b>Acres Being Protected</b>	<b>Easement Status</b>
FY 14	Conservation Easement	\$4,000,000	\$2,047,500	\$682,500	2,400	Completed
FY 15	Conservation Easement	\$3,000,000	\$4,646,250	\$1,161,562	4,260	Underway
FY 16	Conservation Easement	\$1,000,000	\$4,300,000	\$1,075,000	3,186	Underway
FY 17	Conservation Easement	\$1,000,000	-	-	-	NRCS committed additional \$8M RCPP funds to meet need
FY 18	Conservation Easement	\$1,000,000	-	-	-	FY 2018 Applications are being evaluated and obligated
<b>Totals</b>		<b>\$10,000,000</b>	<b>\$10,993,750</b>	<b>\$2,919,062</b>	<b>9,846</b>	

## *Conifer removal*

Conifer removal is the other high priority action identified in the Bi-State Action Plan, that NRCS can assist both ranchers, BLM, and USFS in addressing. As determined by the Bi State Technical Advisory Committee (TAC) under the Bi-State Executive Oversight Committee (EOC), those highest priority encroachment areas are located primarily on public lands administered by the USFS and BLM. The USFS and BLM have recently developed aggressive implementation plans to ameliorate this threat and NRCS is prepared to help our federal partners by facilitating efficient delivery of large scale conifer removal projects and offering funding from the Environmental Quality Incentives Program EQIP to accelerate removal across both public allotments and private lands.

Specifically, NRCS proposes the following:

- Co-sponsor a 'Conifer Forum' where key ranchers, agency personnel, and partners from Oregon and Idaho can share their demonstrated success tackling large scale encroaching conifers across mixed ownerships with Bi-State partners and landowners.
  - Completed- NRCS co-sponsored a Conifer Forum with Bi-State partners on February 25-26, 2015. This workshop brought together 125 partners, landowners and members of the public to specifically discuss conifer encroachment in the western sage-steppe communities. This event showcased many of the leading researcher's new findings where panelists shared their approach for successful landscape level restoration involving conifer removal in other locations and provided a specific forum to discuss Bi-State centric opportunities and challenges. Overall the Forum was a resounding success. It also served as a catalyst for two very important related developments:
    - Provided insight into the identified need for increased coordination and consultation on treating conifer with Native American tribes in the Bi-State. The appreciation of the importance of this issue led to the Bi-State Traditional Ecological Knowledge Summit with Bi-State tribal member and partners held June 28-30, 2016.
    - Identification of the need to publish many of the new scientific evaluations in peer-reviewed publications. NRCS and the Sage



Grouse Initiative science team subsequently partnered with the Society for Range Management (SRM) to develop a 15-paper Special Issue on conifer expansion in their peer-reviewed journal *Rangeland Ecology and Management*. Findings contained in this publication were also presented at the 2017 National SRM conference.

- Coordinate with USFS and BLM to identify priority areas where NEPA is complete or underway and offer EQIP to permittees to accelerate implementation.
  - Completed- NRCS State biologists in CA and NV participated in the TAC to identify and prioritize and rank the top 30 conifer- encroached areas. That list was further reduced to the top 12 projects. Availability of EQIP funding was consistently announced at all EOC, TAC and LWG meetings as part of the NRCS outreach.
- Conduct focused outreach to potential ranchers holding allotments about restoration opportunities through a second FY14 EQIP SGI sign-up period. Several changes in the new Farm Bill coupled with outreach will encourage additional interest.
  - Completed- NRCS staff met with partners on May 5, 2014 followed by coordinated outreach to Bi-State landowners in May and June 2014. The outreach resulted in 3,000 acres of conifer work being implemented.
- Dedicate a minimum of \$2 million in EQIP funding to accelerate implementation on public allotments.
  - Completed- NRCS Field Office staff continue ongoing work with the BLM and USFS in identifying locations where NEPA is completed and interested producers can use Farm Bill funds to treat conifer. NRCS continues to make EQIP funds available each year to treat encroaching conifer. To date \$392,400 of the \$2 million committed funding has been utilized, treating nearly 2,300 acres of public land.
- Explore options to utilize SGI SWAT partnership to help facilitate accelerated implementation similar to arrangement with Idaho BLM.

- Completed- Nevada partners are working cooperatively to scale up proactive conservation efforts across ownership boundaries. To this end, a new agreement has been developed with a collective goal effectively leveraging various forms of conservation dollars for strategic implementation of landscape scale conservation. The agreement was modeled after the highly successful Burley project in Idaho that resulted in the restoration of 28,000 acres by removing encroaching conifer across mixed ownerships. A signing event for this new agreement is planned in October 2018.
- Secure additional partners to help implement projects.
  - Completed- Existing and new partners have formalized a partnership to leverage resources and strategically address issues such as encroaching conifers in the Bi-State. The MOU includes Pheasants Forever, Nevada NRCS, Nevada BLM, FWS, Nevada Department of Fish and Wildlife, and the Forest Service Humboldt-Toiyabe National Forest and is scheduled to be signed in October 2018.
- Continue conifer encroachment treatments on private lands. Request ranchers' permission to provide current status of these treatments to FWS to inform ESA listing decisions.
  - Completed- NRCS continues to work with Bi-State ranchers in removing conifer on their private land. However the majority of Bi-State conifer encroachment is on the public land. NRCS requested rancher permission to provide current status of their private land conifer work. Rancher's said they would report at their own discretion on their private land conifer treatment work and did so before 2015 ESA decision.

**NRCS conifer restoration investments through the Environmental Quality Incentives Program (EQIP)**

<b>Fiscal Year</b>	<b>Activity</b>	<b>Action Plan ID #</b>	<b>Action Plan Priority</b>	<b>Activity/ Restoration Goals</b>	<b>2014 Projected Cost</b>	<b>Private Acres Treated</b>	<b>NRCS SGI Dollars on Private Land</b>	<b>Public Land Acres Treated</b>	<b>NRCS SGI Dollars on Public</b>	<b>Goal</b>
FY 14	PJ Removal	NA	H,M,L	Accelerate P J removal on public allotments	\$300,000	467	\$84,136	1,485	\$269,914	Short
FY 15	PJ Removal	NA	H,M,L	Accelerate P J removal on public allotments	\$500,000	271.4	\$36,536	811	\$122,282	Short
FY 16	PJ Removal	NA	H,M,L	Accelerate P J removal on public allotments	\$500,000	0	0	0	0	Missed
FY 17	PJ Removal	NA	H,M,L	Accelerate P J removal on public allotments	\$500,000	0	0	0	0	Missed
FY 18	PJ Removal	NA	H,M,L	Accelerate P J removal on public allotments	\$200,000	0	0	Acres being planned for contracting		Unknown
<b>Totals</b>					<b>\$2,000,000</b>	<b>738.4</b>	<b>\$20,671</b>	<b>2,296</b>	<b>\$392,196</b>	

***Scientific Rationale for NRCS Conservation Investments***

**Easement acquisition:**

Ranching represents a land use compatible with sage grouse conservation, and easement acquisitions in the Bi-state keep in place the riparian, wet meadow and other wetland habitats (hereafter, mesic resources) that hens rely upon to raise their growing young<sup>1,2</sup>. Each summer, seasonal drying and senescence of herbaceous vegetation (July-August) cause female sage-grouse to move their broods from xeric sagebrush uplands to more productive mesic resources<sup>3</sup>. Chick survival in part determines population growth, thus the loss of these late-summer habitats to higher land uses would create a bottleneck in the species lifecycle<sup>4</sup>.

Recent SGI-sponsored science shows that mesic resources cover less than 2% of the landscape, of which 80% reside on privately-owned ranchlands<sup>5</sup>. Conserving them builds drought resilience, boosts forage productivity<sup>6</sup> and benefits wildlife including grouse. The high level of funding provided by NRCS in the Bi-state is critical for helping maintain the current density of mesic resources because the large leks are clustered within 6 miles of mesic resources<sup>5</sup>. During drought, grouse find fewer options for late summer foraging and may rely more on irrigated fields and wet meadows, when natural sites dry out.

### **Targeted conifer removal:**

Expansion of conifers in sagebrush shrublands of the Bi-state region is one threat with well-documented impacts on vegetation, water, nutrient and energy cycles, and carbon storage<sup>7</sup>. Increasing encroachment of trees results in the decline of perennial grasses, perennial forbs, and herbaceous productivity and species richness. Population declines of sage grouse are symptomatic of woodland expansion impacts on their obligatory ecosystems. Sage grouse habitat suitability and distribution decline with the increasing presence of trees, and conservationists long suspected that removal of encroaching woodlands would benefit the species. The capacity of the landscape to support sage-grouse is reduced with increasing conifer canopy with no leks remaining active when conifer cover exceeds 4% in surrounding breeding area<sup>8</sup>.

In the Bi-state itself, local sage grouse distributions and demographic rates are negatively influenced by pinyon-juniper, especially in areas of higher primary productivity but relatively low conifer cover<sup>9</sup>. Furthermore, these productive, early-phase woodland sites may function as ecological traps that are attractive for grouse but adversely affect population vital rates. To maximize sage-grouse population benefits, researchers recommend reducing actual pinyon-juniper cover to as low as 1.5% and prioritizing thorough treatment of early-phase woodlands, particularly in productive areas, over thinning denser woodland stands. Additional evidence across 12 Great Basin study areas documented faster movements and lower survival of sage grouse, especially in juvenile birds, when navigating conifer-invaded sagebrush habitats<sup>10</sup>. Findings identify a likely behavioral mechanism in which pinyon-juniper expansion decreases habitat suitability. The implications are that sage grouse encounters with pinyon-juniper stimulates faster, yet riskier movements that may make birds more vulnerable to visually acute predators, like ravens.

Measuring efficacy of restorative treatments is a desired goal of adaptive management in the Bi-state, and recently published are the first replicated studies documenting positive sage grouse responses to mechanical removal of conifers. In a before-after control-impact study, nesting hens in southern Oregon were quick to use restored habitats made available by conifer removal<sup>11</sup>. Within 3 years of initiating treatments, 29% of the marked females were nesting within and near restored habitats; no such response was apparent in the nearby control landscape where conifers were not removed. Relative probability of nesting in newly restored sites increased by 22% annually, and females were 43% more likely to nest near treatments. In northwest Utah, most hens (86%) avoided conifer-invaded habitats and those using restored habitats were more likely to raise a successful brood<sup>12</sup>. Taken together, studies show that conifer removal can increase habitat availability for nesting and brooding sage-grouse with potential demographic benefits. Removing encroaching conifer stands from sagebrush ecosystems may have the added benefit of increasing late-season water retention by holding snow longer in spring, which in turn can increase productivity of sage grouse habitats the following spring<sup>13</sup>.

## Literature Cited

1. Atamian, M.T., J.S. Sedinger, J.S. Heaton and E.J. Blomberg. 2010. Landscape-level assessment of brood rearing habitat for greater sage-grouse in Nevada. *Journal of Wildlife Management* 74:1533–1543.
2. Blomberg, E.J., J.S. Sedinger, M.T. Atamian and D.V. Nonne. 2012. Characteristics of climate and landscape disturbance influence the dynamics of greater sage-grouse populations. *Ecosphere* 3:55.
3. Fischer, R.A., K.P. Reese and J.W. Connelly. 1996. Influence of vegetal moisture content and nest fate on timing of female sage grouse migration. *Condor* 98:868-872.
4. Taylor, R.L., B.L. Walker, D.E. Naugle and L.S. Mills. 2012. Managing multiple vital rates to maximize greater sage-grouse population growth. *Journal of Wildlife Management* 76:336-347.
5. Donnelly J. P., D. E. Naugle, C. A. Hagen and J. D. Maestas. 2016. Public lands and private waters: Scarce mesic resources structure land tenure and sage-grouse distributions. *Ecosphere* 7:e01208.
6. Silverman, N.L., B.W. Allred, J.P. Donnelly, T.B. Chapman, J.D. Maestas, J.M. Wheaton, J. White and D.E. Naugle. 2018. Low-tech riparian and wet meadow restoration increases vegetation productivity and resilience across semi-arid rangelands. *Restoration Ecology*: In Press  
<https://onlinelibrary.wiley.com/doi/abs/10.1111/rec.12869>

7. Miller R.F., D.E. Naugle, J.D. Maestas, C.A. Hagen and G. Hall. 2017. Targeted woodland and removal to recover at-risk grouse and their sagebrush-steppe and prairie ecosystems. *Rangeland Ecology and Management* 70:1-8.
8. Baruch-Mordo, S., J.S. Evans, J.P. Severson, D.E. Naugle, J.D. Maestas, J.M. Kiesecker, M.J. Falkowski, C.A. Hagen and K.P. Reese. 2013. Saving sage-grouse from the trees: A proactive solution to reducing a key threat to a candidate species. *Biological Conservation* 167:233-241.
9. Coates, P.S., B.G. Prochazka, M.A. Ricca, K.B. Gustafson, P. Ziegler and M.L. Casazza. 2017. Pinyon and juniper encroachment into sagebrush ecosystems impacts distribution and survival of greater sage-grouse. *Rangeland Ecology and Management* 70:25-38.
10. Prochazka, B.G., P.S. Coates, M.A. Ricca, M.L. Casazza, K.B. Gustafson and J.M. Hull. 2017. Encounters with pinyon-juniper influence riskier movements in greater sage grouse across the Great Basin. *Rangeland Ecology and Management* 70:39-49.
11. Severson J.P., C.A. Hagen, J.D. Maestas, D.E. Naugle, J.T. Forbes and K.P. Reese. 2017. Short-term response of sage-grouse nesting to conifer removal in the Northern Great Basin. *Rangeland Ecology and Management* 70:50-58.
12. Sandford, C.P., M.T. Kohl, T.A. Messmer, D.K. Dahlgren, A. Cook and B.R. Wing. Greater sage-grouse resource selection drives reproductive fitness under a conifer removal strategy. *Rangeland Ecology and Management* 70:59-67.
13. Kormos, P.R., D. Marks, F.B. Pierson, C.J. Williams, S.P. Hardegree, S. Havens, A. Hedrick, J.D. Bates, and T.J. Svejcar. 2017. Ecosystem water availability in juniper versus sagebrush snow-dominated rangelands. *Rangeland Ecology and Management* 70:116-128.