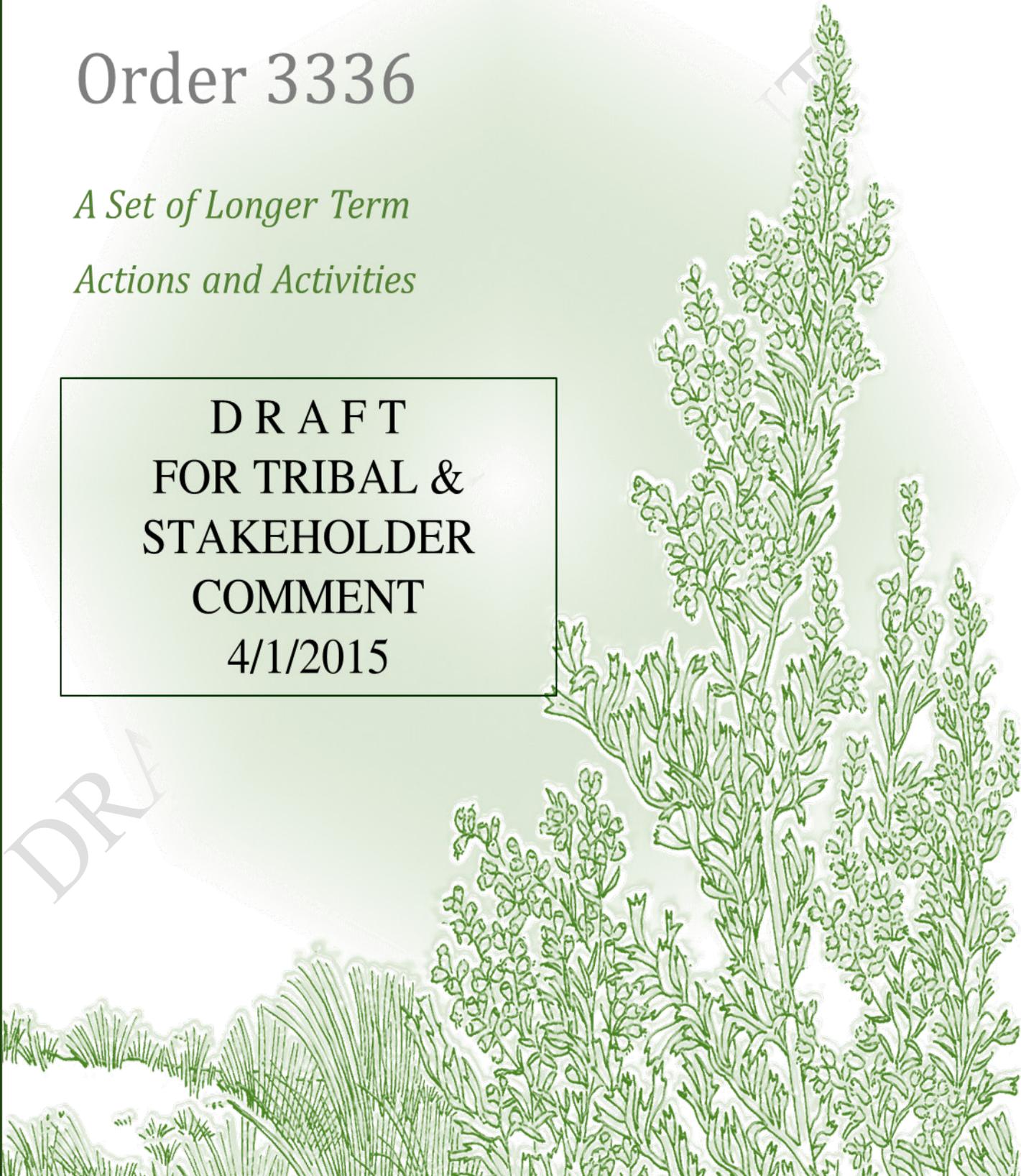


# Secretarial Order 3336

*A Set of Longer Term  
Actions and Activities*

D R A F T  
FOR TRIBAL &  
STAKEHOLDER  
COMMENT  
4/1/2015



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1 April 1, 2015

2  
3 Dear Reader,

4 The Secretary of the Interior signed Secretarial Order 3336 – Rangeland Fire Prevention,  
5 Management, and Restoration (the Order) on January 5, 2015, emphasizing the need to give  
6 greater attention to the threat of rangeland fire across the West as a critical fire management  
7 priority for the Department. The Order set in motion work to enhance policies and strategies for  
8 preventing and managing rangeland fire and for restoring sagebrush landscapes impacted by fire  
9 across the West.

10 Since the issuance of the Order, nine interagency task groups worked collaboratively with other  
11 Federal, tribal, state, and local governmental partners and stakeholders to develop and publish: 1)  
12 the [Implementation Plan](#), which established the approach to accomplish the nine actions outlined  
13 in Section 7(b) of the Order; and 2) [The Initial Report – A Strategic Plan for Addressing](#)  
14 [Rangeland Fire Prevention, Management, and Restoration in 2015](#) (Initial Report) that identified  
15 actions and activities to be implemented prior to the onset of the 2015 Western wildfire season.

16 Since the acceptance of the Initial Report, the task groups have worked to identify and  
17 recommend actions and activities to be implemented during the remainder of 2015, 2016, and  
18 beyond. This document includes the draft proposed actions developed by the task groups,  
19 drawing upon shared experience and success of addressing rangeland fire to date, as well as the  
20 broader wildland fire prevention, suppression, and restoration efforts including *The National*  
21 *Cohesive Wildland Fire Management Strategy* and the recommendations from *The Next Steppe:*  
22 *Sage-grouse and Rangeland Fire in the Great Basin* conference held in Boise, Idaho, the first  
23 week of November 2014.

24 We request comments and recommendations for improving this strategy from tribes, the affected  
25 states, our partner agencies, and interested stakeholders by April 21, 2015, as we prepare the  
26 Final Report for Secretary Jewell.

27  
28 Members of the Rangeland Fire Task Force  
29 U.S. Department of the Interior  
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## 67 Approach

68 The [Implementation Plan](#), published on February 1, 2015, identified nine task groups to address  
69 the various elements identified in Section 7(b) of the Order. Each group used the approach  
70 defined in the Implementation Plan to recommend longer-term actions and activities for  
71 inclusion in the Final Report. In short, the common approach included:

- 72 • **Guiding Principles and Overarching Expectations** - use of the 10 elements of Section  
73 5 of the Order as guiding principles and Section 6 as overarching expectations;
- 74 • **Collaboration with partners and stakeholders** – as outlined and defined in Section 6c  
75 of the Order; and
- 76 • **Tribal Consultations and Stakeholder Engagement** – use a series of listening,  
77 sessions, conference calls, and government-to-government consultations with tribal  
78 leadership, the relevant states, and interested stakeholders to gain feedback throughout  
79 the process of developing the reports associated with the Order.

80 Several of the longer-term actions and activities proposed in this draft report build on the short-  
81 term activities, identified in *The [Initial Report: A Strategic Plan to Addressing Rangeland Fire](#)*  
82 *Prevention, Management, and Restoration in 2015* (Initial Report), for implementation prior to  
83 the onset of the 2015 Western wildfire season. These previously approved actions and activities,  
84 currently underway, are reflected in [Appendix A](#) of this report for your convenience and  
85 reference.

86 Notes:

- 87 (1) All dates refer to calendar year quarters (First quarter: January – March; Second quarter:  
88 April – June; Third quarter: July – September; and Fourth quarter: October – December).
- 89 (2) Responsible parties are the individuals or organizations responsible and accountable for  
90 taking the actions identified.
- 91 (3) This document is a rough draft of actions and activities, proposed by the nine task groups,  
92 and intended for review and comment by interested tribes, our partners, and interested  
93 stakeholders. This document does not represent the full final report. *The Final Report:*  
94 *An Integrated Fire Prevention, Management and Restoration Strategy* will be prepared  
95 after careful consideration of all comments and recommendations received during the  
96 comment period from April 2 through April 21, 2015.

## 97 Section 7(b) i. – Integrated Response Plans

### 98 *Issue Description/Overview*

99 *Design and implement comprehensive, integrated fire response plans for the [Fire and](#)*  
100 *[Invasives Assessment Tool \(FIAT\) evaluation](#) and other Great Basin areas that prioritize*

101 ***protection of low resilience landscapes most at-risk to detrimental impacts of fire and***  
102 ***invasives.***

103 Agencies will apply a risk-based, cross-boundary approach to wildland fire response planning  
104 and preparedness by incorporating rangeland fire suppression priorities into the revision of Fire  
105 Management Plans (FMPs), Land Use Plans (LUPs), and update computer assisted dispatch  
106 (CAD) systems. Although the Order identifies protecting, conserving, and restoring the health of  
107 the sagebrush-steppe ecosystem as a critical fire management priority for the Department of the  
108 Interior (Department or DOI), it does not reprioritize the protection of the ecosystem over the  
109 safety of the public and firefighters. Our priorities remain consistent with the [\*Guidance for\*](#)  
110 [\*Implementation of the Federal Wildland Fire Management Policy\*](#), dated February 13, 2009, and  
111 those outlined in the Order. The safety of the public and our firefighters remains paramount.

112 Actions and activities relevant to this section for implementation prior to the onset of the 2015  
113 Western fire season include:

- 114 • Increase the capabilities and use of rural/volunteer fire departments and Rural Fire  
115 Protection Agencies (RFPAs) and enhance the development and use of veteran fire  
116 crews.
- 117 • Ensure local, multi-agency coordination (MAC) groups are functional, and MAC plans  
118 are updated.
- 119 • Develop and implement minimum draw-down level<sup>1</sup> and step up plans<sup>2</sup> to ensure  
120 availability of resources for protection in priority greater sage-grouse habitat.
- 121 • Apply a coordinated, risk-based approach to wildfire response to assure initial attack  
122 response to priority areas.
- 123 • Develop a standardized set of briefing materials.
- 124 • Review and update local plans and agreements for consistency and currency to ensure  
125 initial attack response to priority greater sage-grouse areas.
- 126 • Develop supplemental guidance for the use of “severity funding”<sup>3</sup>.
- 127 • Evaluate the effectiveness of action plans.
- 128 • Increase the availability of technology and technology transfer to fire management  
129 managers and suppression resources.

---

<sup>1</sup> The minimum level of personnel and equipment resources needed (at either the local or national level) without compromising response capability.

<sup>2</sup> Step-up plans, (also called staffing plans), are designed to direct incremental preparedness actions in response to increasing fire danger.

<sup>3</sup> Suppression funds used to increase the level of pre-suppression capability and fire preparedness when predicted or actual burning conditions exceed those normally expected, due to severe conditions.

- 130       • Improve the description and awareness of critical resource values threatened in various  
131       stages of the fire response process including large fire management.
- 132       • Ensure compliance and evaluation of the implementation plan action items.

133    ***Proposed Actions***

134    Longer-term actions will begin in 2015, with full implementation in subsequent years, to  
135    improve program effectiveness and efficiency and reduce costs include:

136    **Action Item #1**

137    *Enhance protection of the sagebrush-steppe from wildfire.* Update FMPs to include sagebrush-  
138    steppe conservation and restoration efforts, include relevant FIAT components, LUP goals and  
139    objectives, and identified FIAT suppression priority areas.

140    *Responsible Parties:* Local Unit Fire Management Officers (FMOs); reviewed by State/  
141    Regional Fire and Aviation staffs.

142    *Target:* Second Quarter 2017

143    **Action Item #2**

144    *Increase the availability of technology and technology transfer to wildland fire managers and*  
145    *resources by completing a National Strategic Plan, with implementation starting in*  
146    *2016.* Building on a recommendation included in the Initial Report (see [Appendix A](#)), provide  
147    access to real time maps, information, and data increases the success of suppression resources  
148    responding to the wildfire threats, including priority greater sage-grouse habitat. Agencies  
149    should make available the most current hardware and software and increase the rate of radio  
150    system upgrades to improve availability.

151    *Responsible Parties:* DOI national bureau leadership, DOI state/regional and local unit  
152    managers

153    *Target:* Second Quarter 2016

154    **Action Item #3**

155    *Improve the description and awareness of critical resource values threatened in various stages*  
156    *of the wildfire response process including large wildfire management.* Improve the collection  
157    of information about critical resource values threatened, including greater sage-grouse habitat  
158    and populations, by including a specific block for this purpose on the existing Incident Status  
159    Summary (ICS 209) and by ensuring that this information is captured in the Incident  
160    Management Situation Report (SIT Report).

161    *Responsible Parties:* National Interagency Coordination Center (NICC), Predictive Services  
162    with direction from the NICC governance board

163 *Target:* Second Quarter 2016

164 **Action Item #4**

165 *Improve initial attack capabilities in FIAT designated states (Idaho, Nevada, Oregon,*  
166 *California and Utah) by increasing suppression equipment (dozers, engines and aircraft).* The  
167 Bureau of Land Management (BLM) will complete an initial attack assessment/decision tool that  
168 identifies the best mix of resources in the FIAT states and the other BLM states. This tool will  
169 be used to assist in making decisions on budget and resource allocation in the FIAT states for  
170 implementation in 2016. Data and information from the FMP updates identified in Action Item  
171 #1 will also be used to inform the decision process, as they are completed.

172 *Responsible Parties:* BLM national leadership

173 *Target:* Second Quarter 2016

## 174 Section 7(b) ii. – Prioritization and Allocation of Resources

### 175 *Issue Description/Overview*

176 *Provide clear direction on the prioritization and allocation of fire management resources and*  
177 *assets.*

178 Prioritization and allocation of fire management resources takes place on multiple scales by the  
179 “organizational owners<sup>4</sup>” of the resources and assets, both within the individual organizations  
180 and in coordination and collaboration with each other. Those organizations prioritize assets and  
181 resources prior to incidents through pre-incident response plans (often known as “run cards”),  
182 and make determinations to retain certain resources and assets for local use only and identify  
183 those available for assignment to other locations. MAC groups, or the equivalent, composed of  
184 agency managers, set guidelines and parameters for response (mobilization guides), including  
185 priorities and criteria for allocation of resources and assets.

186 At the national level, the National Multi-Agency Coordinating (NMAC) Group prioritizes  
187 allocation of resources and assets among the nine geographic areas, as identified by the [NICC](#).  
188 Geographic Multi-Agency Coordinating (GMACs) Groups prioritize allocation of resources and  
189 assets among fires within their respective geographic areas. Overall, agency fire management  
190 policies guide priorities for allocation of wildland fire management resources and assets.  
191 “Direction to leaders” documents – issued by national agency leadership—typically set national  
192 priorities. Command responsibility for each incident lies with the local line officer or agency  
193 administrator, usually through a delegation of authority to an incident commander.

194 The Order places added emphasis on the need to protect, conserve, and restore the health of  
195 sagebrush-steppe ecosystem by emphasizing that this is a critical fire management priority  
196 (see [Section 4 of the Order](#)).

197 In preparation for the 2015 western fire season a number of actions are underway to address the  
198 prioritization and allocation of wildland fire management resources:

- 199 • Develop a communication plan to establish protocols for providing Federal agency  
200 leadership with regular briefings and information on wildfire activity, fire conditions, and  
201 significant issues in relation to rangeland fire and the implementation of the Order  
202 throughout the 2015 wildfire season;
- 203 • Review and update the delegation of authority for the NMAC Group;
- 204 • Issue a national level “Leaders’ Intent;”
- 205 • Engage GMAC Groups;
- 206 • Develop “Delegation of Authority” template for use by local line officers; and

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<sup>4</sup> Organizational Owner is the organization (Federal, state, or local) that funds the resource

- 207 • Engage line officers to communicate Leaders' Intent and expectations.

## 208 ***Proposed Actions***

209 Beginning in 2015, specific actions (identified below) will be initiated to improve utilization of  
210 fire management resources and assets in relation to rangeland fire and increase efficiency and  
211 reduce costs.

### 212 **Action Item #1**

213 ***Reduce administrative barriers.*** Identify and initiate actions to reduce administrative barriers  
214 (e.g., the lack of a travel credit card for fire crews limits the expeditious assignment and  
215 reassignment of fire personnel resources from one incident to another) that adversely affect the  
216 mobility of rangeland fire resources and assets.

217 ***Responsibility:*** Wildland fire leadership groups will identify barriers and propose recommended  
218 solutions; agency leadership takes appropriate action to remove or mitigate the barriers.

219 ***Target:*** Second Quarter 2016

### 220 **Action Item #2**

221 ***Enhance predictive services and fire intelligence capabilities to anticipate, plan for, and utilize***  
222 ***firefighting resources and assets.*** Develop and enhance tools to determine and understand  
223 expected rangeland fire conditions (e.g., weather and fuels). Improve analytical ability to  
224 acquire, pre-position, and mobilize firefighting assets to effectively prepare for and respond to  
225 the increased threat of wildland fire, with priority given to rangeland areas.

226 ***Responsibility:*** Fire Management Board (FMB), in concert with non-federal partners, develops  
227 recommendations for enhancing predictive services capabilities. Fire Executive Council (FEC),  
228 in concert with non-federal partners, provides direction, implementation, and oversight.

229 ***Target:*** Second Quarter 2016; additional enhancements in future years.

### 230 **Action Item #3**

231 ***Engage international and Department of Defense (DoD) partners.*** Update and strengthen  
232 existing arrangements to utilize skills, assets, capabilities, and build capacity through the use of  
233 international and DoD partners to supplement domestic Federal and non-federal wildland  
234 firefighting capabilities. Complete and implement updated international agreements with  
235 Mexico, Australia, and Canada. Review, update, and expand agreements and protocols with the  
236 DoD to utilize a wide range of capabilities including information and intelligence gathering and  
237 analysis, ground and aviation assets, and personnel.

238

239 **Responsibility:**

- 240 • International agreements: DOI Office of Wildland Fire (OWF) and U.S. Forest Service  
241 (USFS) Fire and Aviation Management (FAM), working with appropriate legal and  
242 international affairs program offices.

243 Department of Defense agreements: National Multi-Agency Coordinating (NMAC) Group  
244 develops requirements. DOI OWF and USFS FAM work with Department of Defense to  
245 determine appropriate mechanisms.

246 **Target:**

- 247 • International Agreements: Fourth Quarter 2015  
248 • DoD Agreements: Second Quarter 2016, with continued enhancements in future years

249 **Action Item #4**

250 **Improve cooperative agreements between Federal, tribal, and state entities.** Review, revise,  
251 and update the approach to cooperative wildland fire management (WFM) agreements to  
252 improve the utility of those agreements to ensure that interagency wildland firefighting resources  
253 and assets are available to meet priorities.

254 **Responsibility:** FEC, in coordination with non-federal partners, provides direction and  
255 oversight. National Wildfire Coordinating Group (NWCG), and FMB, in coordination with non-  
256 federal partners, develop appropriate templates, guides, and protocols for cooperative  
257 agreements.

258 **Target:** Second quarter 2016, with continued improvement in future years.

259 **Action Item #5**

260 **Improve management of the radio spectrum.** Develop mechanisms for better management and  
261 allocation of radio spectrum during peak use.

262 **Responsibility:** FEC provides direction and oversight. NWCG and FMB, in coordination with  
263 Federal agency chief information officers (CIOs), identify requirements and options for  
264 improving spectrum management. CIOs are responsible for establishing appropriate  
265 mechanisms and protocols.

266 **Target:** Second quarter 2016, with continued improvement in future years.

267 **Action Item #6**

268 **Enhance ability of communities to provide local protection.** Pursue opportunities within  
269 existing and future Federal wildland fire management budgets for providing technical assistance  
270 to communities. Assistance may take the form of firefighting capability, fuels management, and/  
271 or fire prevention. Through implementation of the National Cohesive Wildland Fire

272 Management Strategy, the Department, working together with the USFS and other Federal and  
273 non-federal partners, will support the goal of creating fire-adapted communities and give added  
274 emphasis to opportunities to enhance local efforts to significantly reduce wildfire risk in priority  
275 sage-steppe areas. We will explore funding options to support those opportunities.

276 *Responsibility:* OWF, BLM, Interior bureaus, and USFS wildland fire management programs,  
277 and the Wildland Fire Leadership Council (WFLC).

278 *Target:* Third Quarter 2015 and ongoing

#### 279 **Action Item #7**

280 *Address the state and private areas without previously defined protection responsibilities.*

281 Defining protection responsibility for all lands provides a greater level of assurance that  
282 appropriate, effective fire response takes place. Designation of appropriate protection  
283 responsibility is primarily a responsibility of state and local governments. Federal agencies may  
284 be able to assist with technical advice or other support.

285 *Responsibility:* The Department and the USFS will work with state and local governments to  
286 assist with resolving and defining protection responsibilities across all lands.

287 *Target:* Ongoing

#### 288 **Action Item #8**

289 *Expand capabilities of tribal, state, and local agencies to provide fire protection.* Pursue  
290 opportunities within existing and future Federal wildland fire management budgets to expand  
291 capabilities of tribal, state, and local agencies provide fire protection, particularly when such  
292 protection is of direct benefit to Federal protection responsibilities. Examples of expanded  
293 capabilities include training, equipment, and technical assistance. The Department will identify  
294 opportunities to enhance tribal, state, and local fire protection capabilities in priority sage-steppe  
295 areas and give added emphasis in the allocation of funding and other resources to support those  
296 opportunities.

297 *Responsibility:* OWF and Interior bureaus and USFS wildland fire management programs

298 *Target:* Ongoing

#### 299 **Action Item #9**

300 *Develop a mechanism to capture and analyze data regarding wildfire impacts to priority*  
301 *sagebrush-steppe ecosystems.* Currently, some data are collected through the ICS 209 incident  
302 reporting form and other means. However, the existing ICS 209 is designed to prioritize fires  
303 and create situation reports. Agencies have no systematic means for organized collection,  
304 analysis, and use of the data to understand the impacts of wildfire and to mitigate those impacts.  
305 A mechanism to improve collection, analysis, and use of this information will be developed,

306 starting with identification of business/user requirements to design appropriate tools to capture,  
307 collect, and analyze the necessary data.

308 *Responsibility:* OWF with support from Department bureaus (fire and non-fire programs), the  
309 USFS, and non-federal partners

310 *Target:* Second quarter 2016, continued improvement in future years

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314 **Section 7(b) iii. – Fuels**

315 ***Issue Description/Overview***

316 ***Expand the focus on fuels reduction opportunities and implementation.***

317 The Secretarial Order emphasizes application of risk-based, landscape-scale approaches for fuel  
318 treatments<sup>5</sup>; monitoring and adaptive management related to fuel treatments; and opportunities to  
319 expedite processes, streamline procedures, and promote innovations in fuels management<sup>6</sup>.

320 Fuels management in the sagebrush-steppe ecosystem involves many stakeholders, including  
321 Federal agencies, states, tribes, county and local governments, cooperators, and private land  
322 owners. For fiscal year (FY) 2016 and beyond, the Department will implement a risk-based  
323 allocation approach that will increase our preparedness and fuels capacity in relationship to  
324 implementing the Order. Each stakeholder must maintain sustained collaboration efforts to  
325 achieve these action items over time understanding these are multi-year investments and  
326 commitments.

327 The actions described in this chapter are the first steps toward achieving efficiencies, promoting  
328 collaboration, and eliminating barriers in fuels management actions. These actions support the  
329 need for increased capacity, staffing, and funding to continue to implement projects at the  
330 local/landscape scale that will ultimately lead to increased health of our nation’s sagebrush-  
331 steppe ecosystem.

332 Actions currently underway include:

- 333 • Collaborative efforts that address fuel treatments that serve as the building blocks for  
334 many of the actions identified in the sections below (e.g., *The National Cohesive*  
335 *Wildland Fire Management Strategy*; DOI’s Landscape Conservation Cooperatives  
336 [LCCs] and Resilient Landscapes [RL]; USFS’s Collaborative Forest Landscape  
337 Restoration Program [CFLRP]; BLM’s Healthy Lands and FIAT; and The Nature  
338 Conservancy’s Fire Learning Networks [FLNs]). The 2014 passage of The Farm Bill  
339 also includes the Good Neighbor Authority that provides for restoration work to occur  
340 across state and Federal boundaries. These national and regional efforts have resulted in  
341 numerous localized efforts that have a long history of collaboration among Federal  
342 agencies, states, tribes, and stakeholders.

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<sup>5</sup> RMRS-GTR-326: Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approach

<sup>6</sup> Candidate Conservation

343 **Proposed Actions**

344 **Action Item #1**

345 *Identify fuels management priorities.* Identify priority landscapes and fuels management  
346 priorities within landscapes. Continue to refine and assess criteria for determining fuels  
347 management investment priorities by applying resistance and resilience concepts<sup>7</sup>; use the results  
348 from the initial FIAT assessments to evaluate prioritization methods and include the definition of  
349 conditions where fuel treatments will not sufficiently support protection, conservation, and  
350 restoration of sagebrush-steppe ecosystems.

351 a. Land management agencies will collaboratively develop consistent criteria across  
352 agencies and private lands to identify priority landscapes, and expedite planning and  
353 implementation of fuel treatments in the initial FIAT assessment areas.

354 *Responsible Party:* BLM will lead, in coordination with USFS, Natural Resources  
355 Conservation Service (NRCS), U.S. Fish and Wildlife Service (FWS), state agencies,  
356 counties, and private landowners

357 *Target:* Third Quarter 2015, continued improvements in subsequent years

358 b. Propose methods for initiating FIAT-like assessments outside of the Great Basin that  
359 will result in priorities for fuels management.

360 *Responsible Party:* BLM will lead, in coordination with the USFS, and the Western  
361 Association of Fish and Wildlife Agencies (WAFWA)

362 *Target:* First Quarter 2016, continued improvements in subsequent years

363 **Action Item #2**

364 *Apply efficient National Environmental Policy Act (NEPA) processes for fuels management*  
365 *actions.*

366 Make efficient use of NEPA processes to allow for shorter planning times in conducting analysis  
367 of projects at a landscape scale; explore opportunities for streamlining NEPA compliance.  
368 Initiate one or more programmatic NEPA processes in the FIAT assessment areas for landscape-  
369 level fuel treatments and restoration and apply streamlining tools (e.g., tiering and incorporation  
370 by reference) and ensure maintenance of fuel treatments is analyzed.

371 *Responsible Party:* All Federal land management agencies, in collaboration with the Council  
372 on Environmental Quality (CEQ)

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<sup>7</sup> [RMRS-GTR-326: Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and greater sage-grouse: A strategic multi-scale approach](#), and Havlina Doug W., Anderson P., Kurth L., Mayer, K. E., Chambers J. C., Boyd C., Christiansen T., Davis D., Espinosa S., Lelmini M., Kemner D., Maestas J. D., Meador B., Pellant M., Tague J., and Vernon J. 2015. [Fire and Fuels Management Contributions to Sage-Grouse Conservation: A Status Report](#). Western Association of Fish and Wildlife Agencies, Unpublished Report, Cheyenne, Wyoming, 73pp.

373 **Target:** Third Quarter 2016

374 **Action Item #3**

375 *Convene a working group to develop common interagency metrics to define success related to*  
376 *fuels management activities in sagebrush-steppe ecosystems and improve techniques to ensure*  
377 *fuels management is most effective in protecting, conserving, and restoring sagebrush-*  
378 *steppe.* Metrics could consider priority metrics associated with Candidate Conservation  
379 Agreements<sup>8</sup> (CCAs), habitat protected/restored, cost-avoidance, etc. Metrics should be  
380 consistent with those developed to provide for monitoring and evaluation of greater sage-grouse  
381 land use plans and implementation of adaptive management strategy. Develop these metrics in  
382 coordination with the science/research needs described in the *Joint Fire Science Program (JFSP)*  
383 *Fuel Treatment Science Plan.* Tier these metrics into larger fuels management effectiveness  
384 monitoring to understand how fuel treatments are meeting diverse priorities in the context of  
385 ecosystem structure, function, and resilience. Consider these metrics in adaptive management.

386 **Responsible Party:** USGS, Federal land management agencies, JFSP, interested tribes, and non-  
387 federal partners (e.g., states, non-governmental organizations [NGOs], grazing associations, and  
388 members of Candidate Conservation Agreements with Assurances and Candidate Conservation  
389 Agreements)

390 **Target:** Convene before end Fourth Quarter 2015, metrics and guidance developed by end of the  
391 First Quarter 2016

392 **Action Item #4**

393 (Note: This action is also addressed in [7\(b\) iv.](#))

394 *Review and update current best management practices (BMPs) for rangeland fuel*  
395 *treatments.* Review and update BMPs for rangeland fuel treatments to better integrate resistance  
396 and resilience concepts, ecological resilience science, and to identify a specific suite of preferred  
397 design alternatives for fuel treatments in sagebrush-steppe.

398 **Responsible Parties:** BLM will lead, with agency specialists (BLM, USFS, and NRCS fuels  
399 managers, wildlife, range/vegetation, research scientists with fuel treatment experience),  
400 scientific community representatives, and non-federal partners (WAFWA, Western Governors'  
401 Association [WGA] representatives, other NGOs).

402 **Target:** Assessment of BMPs to be completed by end of Third Quarter 2015; BMPs will be  
403 updated and report prepared by end Third Quarter 2016.

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<sup>8</sup> Candidate Conservation Agreements are formal agreements between the FWS and one or more parties to address the conservation needs of the proposed or candidate species, or species likely to become candidates, before they become listed as endangered or threatened.

404 **Action Item #5**

405 *Coordinate the development of effective landscape-level fuel treatment plans for Federal land*  
406 *management agencies in collaboration with tribes and private, state, and county partners and*  
407 *interested stakeholders.*

408 Improvements are needed in 1) developing better vegetation dynamics in non-forest systems, 2)  
409 better characterization of sagebrush-steppe fuels, treatment actions, effects, and associated  
410 changes in potential fire behavior, and 3) linkages between fuels and habitat quality for key  
411 species, and 4) developing economic models (such as avoided cost) to describe the cost-effective  
412 return of investments. To ensure progress in this arena, new development in integrated modeling  
413 systems, either building off current systems or building new ones, is needed.

414 a. Initiate a pilot project to test existing tools and/or prototype versions of new tools.

415 *Responsible Party:* BLM and USFS - Research, Development and Analysis (RD&A)  
416 initiate pilot project to test Interagency Fuels Treatment – Decision Support System  
417 (IFT-DSS) and other systems, in coordination with NRCS. Additional pilot projects  
418 may be developed and led by other agencies and organizations.

419 *Target:* Results from initial pilot project by Fourth Quarter 2015; additional pilot  
420 project(s) to be initiated in the First Quarter 2016.

421 b. Use results from pilot project(s) to make improvements in models and identify  
422 appropriate tools for developing strategies for future landscape-level fuel treatments  
423 in sagebrush-steppe ecosystems.

424 *Responsible Party:* USGS and USFS (RD&A) to co-lead, in coordination with  
425 NRCS, DOI land management agencies, and USFS - National Forest Systems (NFS).

426 *Target:* Core capabilities developed by end of Third Quarter 2015; reviewed  
427 completed by end of Third Quarter 2016; and recommendations to the FMB by end of  
428 First Quarter 2017.

429 **Action Item #6**

430 *Enhance training to reinforce the fuels management program's role in protecting and*  
431 *conserving and restoring sagebrush-steppe.*

432 a. Review existing preparedness (e.g., Wildland Fire Decision Support System [WFDSS]  
433 decisions), prescribed fire<sup>9</sup>, and training materials to identify opportunities to enhance  
434 sagebrush-steppe ecosystem concepts and priorities. Revise selected training materials.

---

<sup>9</sup> Any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific objectives.

435 *Responsible Party:* To be determined (TBD); possibilities include National Advanced  
436 Fire and Resource Institute (NAFRI), NWCG, Great Basin Training Unit, JFSP, and  
437 Great Basin Science Exchange.

438 *Target:* End of Third Quarter 2016

439 b. Develop curriculums, and deliver fuels management training specific to planning and  
440 implementing fuels management and restoration actions in sagebrush-steppe ecosystems.  
441 This training would include science-technology transfer components to increase  
442 probability for success in achieving desired post-treatment conditions.

443 *Responsible Party:* BLM to lead with USFS and FWS, working with JFSP and  
444 NGO/universities to develop training.

445 *Target:* Training developed by the First Quarter 2016 to be delivered in 2016-17.

446 c. Develop training to enhance monitoring (effectiveness and implementation) of fuel  
447 treatments. Training would be compatible with agencies' monitoring protocols.

448 *Responsible Party:* USGS to lead, with BLM, USFS and FWS

449 *Target:* Training developed in Fourth Quarter 2015, to be rolled out in 2016-17

#### 450 **Action Item #7**

451 *Identify (and make know to Federal agencies, tribes, states, and key partners) available*  
452 *Federal funding tools for work within and outside of Federal agencies to implement fuel*  
453 *treatments across jurisdictions, on Federal, tribal, state, and private lands.* Tools may include:  
454 Stewardship Contracting, Wyden Amendment, Sikes Act, Service First, NRCS Programs,  
455 Interagency Agreements, Good Neighbor Authority, etc.

456 *Responsible Party:* DOI OWF to lead, in partnership with DOI agencies and USDA (USFS,  
457 NRCS), state foresters, RFPAs, and counties.

458 *Target:* Content updated by end of Third Quarter 2015

#### 459 **Action Item #8**

460 *Leverage and expand current collaborative landscape restoration efforts that integrate*  
461 *partnership interactions among Federal, tribal, state, and local governments and NGO*  
462 *collaborators, and expand local and smaller projects into landscape scale efforts.* Examples of  
463 programs include: DOI-Resilient Landscapes (RL) and BLM's Healthy Lands program; and  
464 USDA-Joint Chiefs' Initiative, USFS-Collaborative Forests Landscape Restoration Program, and  
465 the Good Neighbor Authority.

466 Develop projects to demonstrate the value of collaborative landscape restoration/fuels  
467 management programs in the sagebrush-steppe.

468 **Responsible Party:** Parties developing landscape restoration/fuels management programs

469 **Target:** As programs are developed

470 **Action Item 9**

471 Promote and showcase collaborative landscape-scale fuels management projects. Post success  
472 stories on the [Rangeland Management webpage](#).

473 **Responsible Party:** BIA, BLM, USFS, FWS, National Park Service (NPS), NRCS, state/local  
474 governments, and RFPAs

475 **Target:** Ongoing

476 **Action Item #10**

477 **Expand technical support and incentives for livestock producers to voluntarily implement**  
478 **targeted fuel treatments as part of strategic, landscape efforts to protect, conserve, and restore**  
479 **sagebrush-steppe habitats.** Evaluate results of FIAT planning efforts to identify priority  
480 landscapes and opportunities to further engage private landowners and permittees in  
481 implementing fuels and restoration treatments. BLM and NRCS will collaboratively identify  
482 priority landscapes where NRCS Sage-Grouse Initiative technical and financial assistance can be  
483 targeted on private lands to compliment public land fuel treatments to effectively address threats.  
484 In response to interest from private landowners and grazing permittees, BLM and FWS to  
485 support the development of Candidate Conservation Agreements with Assurances (CCAA) on  
486 private lands and the Candidate Conservation Agreements (CCA) for Federal lands that provides  
487 for livestock grazers, where feasible, with the ability to voluntarily implement actions (fuel  
488 treatments) to reduce threats to greater sage-grouse in sagebrush-steppe habitat.

489 **Responsible Party:** BLM, FWS, USFS, NRCS, Soil and Water Conservation Districts, private  
490 land owners, states, counties, and RFPAs

491 **Target:** Evaluate opportunities for livestock producer engagement in FIAT priority project areas  
492 in Fourth Quarter 2015 and 2016. Expand assistance/incentives to producers and permittees in  
493 priority landscapes in 2016 – 2017.

494 **Action Item #11**

495 **Utilize risk-based, landscape-scale approaches to identify and facilitate investments in fuel**  
496 **treatments and restoration in the Great Basin.** Risk-based assessments will consider  
497 sagebrush-steppe values and FIAT priorities and other values/priorities, incorporate adaptive  
498 management principles, and are science-supported.

499 a. Bureaus manage their allocations.

500 **Responsible Party:** DOI-OWF

501 **Target:** For Fourth Quarter 2015 allocations to bureaus

502 b. DOI agencies to apply a risk-based approach to allocate fuels management program to  
503 units that facilitate investments in fuel treatments and restoration in the Great Basin.

504 *Responsible Party:* DOI fire management agencies

505 *Target:* For Fourth Quarter 2015 and First, Second, and Third Quarters of 2016  
506 allocations

#### 507 **Action Item #12**

508 *Explore and support state and local authorities for implementation for fuel treatments on non-*  
509 *federal lands in greater sage-grouse habitat* by encouraging incentives for work done on non-  
510 federal lands to implement landscape resiliency projects. The Department will suggest a  
511 resolution to WFLC to explore authorities with state and county collaborators.

512 *Responsible Parties:* DOI-PMB with National Association of Counties (NACo) - Western  
513 Region, WGA and states, WFLC, Western State Foresters, etc.

514 *Target:* Discuss and propose next steps at Fourth Quarter 2015 WFLC meeting.

#### 515 **Action Item #13**

516 *Develop criteria and methods for reducing fine fuels through targeted grazing methods to*  
517 *diminish fire risk in priority sage-grouse areas.* For example, during seasons with above-  
518 normal winter and spring rainfalls, utilize more targeted grazing methods to reduce fine fuels  
519 adjacent to priority habitats. Targeted grazing would be a cooperative engagement on both  
520 private and Federal lands. Utilization rates on cheatgrass-infested areas on Federal lands may  
521 exceed Animal Unit Month (AUM)'s on existing grazing allotments to achieve this effective  
522 fuels reduction method.

523 *Responsible Party:* BLM to lead in coordination with Federal agencies, states, counties, and  
524 private landowners.

525 *Target:* Agreements and standards in place for utilization by Third Quarter, 2017

#### 526 **Action Item #14**

527 *Identify and prioritize science needs related to fuels management actions in sagebrush-*  
528 *steppe.* Review the existing reports such as [\*The National Cohesive Wildland Fire Management\*](#)  
529 [\*Strategy National Science Report\*](#), [\*JFSP Fuel Treatment Science Plan\*](#), the [\*Sage-Grouse National\*](#)  
530 [\*Technical Team Report\*](#), etc. Identify sources of funding and capacity to meet science needs.  
531 Suggest to JFSP a new or modified line of work to address priority science needs.

532 *Responsible Party:* USGS, Federal and state land managers, and JFSP

533 *Target:* For Third Quarter 2015, JFSP proposal solicitation; and by end of Third Quarter 2016  
534 and 2017, new or modified line of work to address priority science needs.

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DRAFT - FOR COMMENT

## 536 Section 7b (iv) - Fully Integrate Emerging Science

### 537 *Issue Description/Overview*

538 *Use emerging scientific knowledge on ecological resistance and resilience in design of future*  
539 *management actions. Integrate ecological resilience science into design and implementation*  
540 *of land management actions for habitat and fuels management and restoration projects.*

541 Resilience and resistance concepts provide a unifying framework for evaluating ecosystem  
542 responses to disturbance and potential management actions at multiple scales. These concepts  
543 originated in the 1970's, are increasingly used to describe societal goals and management  
544 objectives, and can be used for, "conserving habitat for the greater sage-grouse as well as other  
545 wildlife species and economic activity, such as ranching and recreation, associated with the  
546 sagebrush-steppe ecosystem in the Great Basin region," as identified in the Order.

547 Recently, a strategic approach, based on environmental factors and ecosystem attributes, was  
548 developed to evaluate relative resilience to disturbance and resistance to invasive annual grasses  
549 of sagebrush ecosystems. This approach can be used both to prioritize management actions at  
550 landscape scales and to determine best management practices at local scales (*Miller et al. 2013,*  
551 *2015; Chambers et al. 2014 a, b*). The relative resilience and resistance of sagebrush ecosystems  
552 can be linked with species habitat requirements for regional conservation planning to provide  
553 sustainable habitat for sage-grouse and other sagebrush obligate species.

554 A Conservation and Restoration Strategy (C&R Strategy) that considers ecological resilience and  
555 includes the extent of the sagebrush-steppe should be developed, then, stepped down from the  
556 state (regional) to local level. The Greater Sage-grouse, Wildfire, Invasive Annual Grasses and  
557 Conifer Expansion Assessments (FIAT), being conducted by the BLM, USFS, states, and other  
558 partners in the Great Basin and immediate surrounds, represents a first step to such a strategy.  
559 The assessments should be extended across the sagebrush-steppe and should be refined following  
560 consideration of other resource objectives, sage-grouse brood rearing habitat, climate change,  
561 and other considerations. This C&R Strategy can be used to inform a multi-partner, multi-year  
562 program of work. Other important steps include: a) identification of emerging scientific  
563 knowledge on ecological resistance and resilience that will increase the likelihood of sustaining  
564 greater sage-grouse habitat; b) improvement of the delivery and application of this science; c)  
565 consistent management direction and Leader's Intent to use this science; d) identification of staff  
566 training and decision support tools.

567 Actions currently underway include:

- 568 • Federal, state and tribal agencies are implementing processes to achieve the steps  
569 outlined above.
- 570 • Emerging scientific knowledge on ecological resistance and resilience that will increase  
571 the likelihood of sustaining greater sage-grouse habitat is being identified.

- 572 • The delivery and application of this science needs improved.
- 573 • Design and implement management actions/tools that utilize this science.
- 574 • Monitor treatment effectiveness and landscape change.

## 575 ***Proposed Actions***

### 576 **Action Item #1**

577 *Develop a directory of tech/science transfer groups and points of contact and directory of key*  
578 *NEPA subject matter experts.*

579 Many tech/science transfer groups currently exist in the Great Basin—the Great Basin Exchange,  
580 Great Basin Research and Management Partnership (GBRMP), Great Basin Landscape  
581 Conservation Cooperative (GBLCC), Great Northern Landscape Conservation Cooperative  
582 (GNLCC), Sagebrush Steppe Treatment Evaluation Project (SageSTEP), etc. Each organization  
583 specializes in different aspects of tech transfer. In order to streamline general and NEPA-  
584 specific information sharing and accessibility to conserve/restore sagebrush habitat, we need to:

- 585 • Assemble a diverse group of managers and scientists to (1) define the audience, (2)  
586 define what we mean by tech/science transfer, and (3) determine the methods and  
587 techniques that make tech/science transfer successful (FY15)
- 588 • Expand and potentially redesign the GB Fire Science Exchange website to address the  
589 needs identified in the product evaluation, increase functionality, and ensure that it meets  
590 user needs. (FY16)
- 591 • Maintain the website and ensure the information is up-to-date. (FY15 +) through the  
592 Great Basin Fire Science Exchange

593 ***Responsible Parties:*** Joint Fire Science Program – Great Basin Exchange, in collaboration with  
594 other science providers (GBRMP, GBLCC, GNLCC, SageSTEP) and affected Federal and state  
595 agencies.

596 ***Target:*** Third Quarter 2016

### 597 **Action Item #2**

598 *Refine the definition and understanding of what constitutes resilient and resistant greater*  
599 *sage-grouse habitat and what it means to apply resilience science to decision making at the*  
600 *site and at a landscape scale.*

601 The multi-scale strategic approach recently developed provides the basis for applying resilience  
602 science to prioritize management actions at landscape scales and determine the most appropriate  
603 activities at site scales. Collaborative research and management projects designed to refine  
604 understanding of what constitutes landscape resilience for sage-grouse and other sagebrush  
605 obligate species, and of how specific management activities influence resilience at site and

606 landscape scales can be used to refine how resilience science, is used by both scientists and  
607 managers.

608 a. *Engage key researchers and managers to test and refine the variables used to indicate*  
609 *resilience and the protocols used to apply resilience science.* At the scale of the  
610 landscape or region, include all species of concern whose populations are currently at risk  
611 and refine the use of the “sage-grouse habitat matrix.” At the scale of the project  
612 planning area, refine the criteria for selecting management actions.

613 *Target:* First Quarter 2016

614 b. *Develop a program of work that would lead to a conservation and restoration strategy*  
615 *for the sagebrush-steppe that considers ecological resilience and is refined following*  
616 *consideration of other resource objectives, sage-grouse brood rearing habitat, climate*  
617 *change, and other considerations and that can be stepped down to local levels.*  
618 Include the FIAT and plans to extend FIAT in this program of work.

619 *Target:* Third Quarter 2016

620 c. *Design and implement collaborative research and management projects based on*  
621 *resilience to disturbance and resistance to invasive species for the primary*  
622 *management operations (fire operations, fuels management, fire rehabilitation, and*  
623 *restoration/recovery).* Refer to Sections [7\(b\) vi.](#) and [7\(b\) viii.](#)

624 *Responsible Parties:* Federal land management and research agencies in collaboration  
625 with tribes, WAFWA, and other relevant partners.

626 *Target:* Varied

### 627 **Action Item #3**

628 *Conduct a gap analysis of science and applied research capacity and identify policy needs.* In  
629 order to provide land management practitioners and the science community an opportunity to  
630 address the highest priority research needs, a multi-agency gap analysis will be necessary to  
631 evaluate research capacity and policy recommendations to help better manage the wildfire and  
632 invasives threat in the Great Basin and to ensure greater sage-grouse habitat is protected.

633 Components of this action may include:

- 634 • Track and support WAFWA’s efforts to evaluate the Gap analyses. Determine whether  
635 an additional gap analysis must be conducted for the Order or whether WAFWA’s efforts  
636 will fill the need.
- 637 • If the latter, provide additional resources to facilitate future meetings of the working  
638 group to further develop and expand the list of gaps. Specific actions include:
  - 639 ▪ Reviewing the Gap Report and developing an interagency approach on how to  
640 address each gap.

- 641                   ▪ Identify additional gaps and determine priorities based on the significance of the  
642 limiting factor, available funding, current work, and roles and responsibilities of  
643 supporting agencies and partners.

644 *Responsible Parties:* USGS, BLM, FWS, USFS, NRCS, tribes, and in collaboration with  
645 affected Federal and state agencies.

646 *Target:* First Quarter 2016

647 **Action Item #4**

648 *Provide the teams established in 7(b) vi., with scale specific objective, metrics, and potential*  
649 *management actions for an adaptive management process that tracks the implementation of*  
650 *this Task including:*

- 651                   • Scientific peer review of objectives, monitoring design and results, and predictive  
652 modeling of management actions proposed in the Conservation and Restoration Strategy  
653 for the Sagebrush Steppe (Action Item #4) or any actions stepped down from that  
654 strategy.
- 655                   • Metrics to evaluate the integration emerging science of ecological resilience into design  
656 of habitat management, fuels management, and restoration projects.

657 *Responsible Parties:* Federal land management and research agencies in collaboration with  
658 tribes, WAFWA, and other relevant partners.

659 *Target:* Report and refined program of work (POW) at end of Third Quarter 2015

## 660 Section 7(b) v. – Post-Fire Recovery

### 661 *Issue Description/Overview*

662 *Review and update Emergency stabilization and Burned Area Rehabilitation policies and*  
663 *programs to integrate with long-term restoration activities.*

664 Post-fire recovery includes emergency stabilization (ES) and burned area rehabilitation (BAR).  
665 These programs are intended to begin the healing process for lands that will not recover naturally  
666 when damaged by a wildfire and provide short-term funding to begin the process of restoration.  
667 Currently, resource management programs must continue the restoration process after ES and BAR.  
668 The following topics affect the ability of the post-fire recovery programs of ES and BAR to  
669 support protection, conservation, and restoration of the health of the sagebrush-steppe ecosystem.  
670 These topics are being addressed to streamline the transition between ES and BAR and long-term  
671 restoration.

- 672 1. Lack of consistent and explicit linkage between ES treatments, BAR treatments, and  
673 efficacy of longer-term restoration treatments.
- 674 2. Whether the current ES 10 percent cap is appropriate, and whether an effective fiscally  
675 responsible alternative can be offered.
- 676 3. The current time limitations of one year for ES and three years for BAR are not based on  
677 the ecological or logistical parameters that may be faced in post-fire recovery nor do they  
678 necessarily take into consideration natural resource management priorities; therefore,  
679 under unusual circumstances, a fiscally responsible extension process should be  
680 considered.
- 681 4. Fall (seasonal) treatment windows for BAR are missed because of current delays in the  
682 prioritization process and in funding availability early in the fiscal year and because of  
683 financial management and procurement protocols.
- 684 5. Criteria for award of projects do not recognize values at risk and land/resource  
685 management priorities.
- 686 6. Effectiveness monitoring to determine if treatments succeed in the first year of  
687 application or will require multiple-year treatments, including the need for changes in  
688 post-fire restoration management practices using an adaptive management approach.

689 The IBAER coordinators will continue to work with the (Federal) local units, OWF, JFSP, USFS  
690 research station, and their natural resource counterparts on short- and long-term post- wildfire  
691 rangeland restoration activities to meet the objectives of the Order, with emphasis on the Great  
692 Basin region. Additional outreach to academicians and non-federal researchers and institutions  
693 with experience and expertise in landscape restoration relevant to sagebrush-steppe should  
694 continue.

695 A review and update of the ES and BAR policies and programs, in light of new science and  
696 information regarding resistance and resilience and the application of these concepts to  
697 sagebrush-steppe ecosystems on a landscape level, is warranted.

698 ***Proposed Actions***

699 **Action Item #1**

700 *Convene Department and bureau wildland fire and resource management leadership to*  
701 *determine and resolve policy, process, and allocation related changes to the ES and BAR*  
702 *programs to meet the goals of the Order.*

703 *Responsible Parties:* OWF

704 *Target:* Third Quarter 2015

705 **Action Item #2**

706 *Work with tribal and agency plant material specialist to improve efficiencies in rangeland*  
707 *seeding operations for ES and BAR.*

708 Agencies will work with rangeland plant material specialist and research to determine how to  
709 improve treatment efficiencies while improving monitoring and evaluation of treatment  
710 effectiveness, including the National Seed Strategy and Implementation Plan (2015-2020) when  
711 completed, adaptive management, and engaging research.

712 *Responsible Parties:* DOI and each bureau, with USGS on design and monitoring protocols

713 *Target:* Fourth Quarter 2016

714 **Action Item #3**

715 *Beginning in 2015, conduct an in-depth assessment to determine how to integrate, ES, BAR,*  
716 *and restoration programs and develop processes for long-term restoration commitment and*  
717 *maintenance of the local unit for ES and BAR treatments.*

718 Post-Wildfire Handbook will incorporate ES, BAR, and restoration activities to obtain a desired  
719 condition, when appropriate in all post-wildfire plans. Adaptive management will be used  
720 throughout the process to determine if management activities are maintaining the trajectory  
721 toward the desired conditions.

722 *Responsible Parties:* OWF

723 *Target:* April 2016

724 **Action Item #4**

725 *Work with the science and research community to investigate and improve the effectiveness of*  
726 *post-wildland fire protection, conservation, and restoration treatments, incorporating*  
727 *traditional ecological knowledge.*

728 The 2015 DOI National BAER Team Preseason Meeting Webinar is scheduled for April 21 and  
729 22 with Vegetation and Sage-Grouse Habitat Panel presentations and discussion session by  
730 research and resource personnel to inform BAER team members on current science, tools, and  
731 seeding information for post-wildfire restoration. OWF and IBAER will work with the JFSP and  
732 BLM resource lead to establish a business research line for post-wildfire recovery issues.

733 *Responsible Parties:* OWF, IBAER, JFSP, BLM, and USGS

734 *Target:* Second Quarter 2016

735 **Action Item #5**

736 *Expand efforts to utilize native and non-native seed and vegetation plantings, where*  
737 *appropriate, to accelerate efforts to improve and restore post-fire rangeland health.*

738 The Post-Wildfire Handbook will incorporate concepts from the National Seed Strategy and  
739 Implementation Plan (2015-2020) when completed to identify opportunities to improve  
740 rangeland health.

741 *Responsible Parties:* IBAER, DOI bureaus

742 *Target:* Second Quarter 2016

743

## 746 Section 7(b) vi. – Improve and Strengthen Interagency Coordination

### 747 *Issue Description/Overview*

748 ***Commit to multi-year investments for the restoration of sagebrush-steppe ecosystems,***  
749 ***including consistent long-term monitoring protocols and adaptive management for restored***  
750 ***areas.*** Improve and strengthen interagency coordination and organization of existing, ongoing  
751 restoration activities and take steps to expand multi-year investments within the sagebrush-  
752 steppe ecosystem.

753 Unbalanced coordination between various programs and agencies that fund restoration,  
754 monitoring, and adaptive management; disconnects between funding available for burned areas  
755 (ES and BAR) and longer term restoration efforts, and obstacles to durable, multi-year funding  
756 commitments to long-term projects are long-recognized problems that need to be addressed.  
757 Department’s restoration, monitoring, and adaptive management activities exist within a larger  
758 fabric of stakeholders working at local, regional, and national levels. The Department’s  
759 commitment to multi-year restoration, monitoring, and adaptive management will be more  
760 meaningful when it is a part of a larger context of commitment to the sagebrush-steppe.

761 The Society for Ecological Restoration defines ecological restoration as, “an intentional activity  
762 that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity and  
763 sustainability” and recognizes that “restoration represents an indefinitely long-term commitment  
764 of land and resources....” At the scale of the sagebrush-steppe, “restoration interventions”  
765 should be interpreted to include:

- 766 • acquisition of conservation lands or easements to ensure connectivity and prevent  
767 resource degradation;
- 768 • implementation of fuel breaks and hazardous fuels reduction treatments to protect and  
769 conserve existing habitat; as well as,
- 770 • efforts intended to initiate or accelerate ecosystem improvement and recovery both before  
771 and after a site has burned, such as large-scale weed control, pinyon-juniper thinning,  
772 seeding, planting, and construction of fences/exclosures to control unwanted herbivory.

773 It should be noted that the DOI’s ability to implement multi-year restoration is dependent upon  
774 land use planning efforts, site-specific NEPA; contracting, grants, and agreements, cultural  
775 clearance, biological opinions, workforce planning and other programs that are outside the  
776 specific scope of this sub-section.

777 There is no single Department cross-cut for restoration efforts, and no single restoration fund.  
778 Within the Department and its bureaus, prioritization and allocation of resources for these types  
779 of restoration interventions, including monitoring and adaptive management, occur at the  
780 Department-level for programs such as the Land and Water Conservation Fund (LWCF)  
781 Collaborative and Resilient Lands. Individual Department bureaus fund most of these

782 restoration interventions according to individual bureau priorities, circumstances, operational  
783 constraints, organizational structure, and partnerships. At the ground level, partners may be  
784 challenged by uneven regional and/or national commitment to their project, differences in  
785 sources of money, procedures for requesting money, timing for receipt of the funding, the scale  
786 at which funds are distributed (e.g. landscape vs. treatment), and other obstacles that increase the  
787 difficulty of implementing a strategic, multi-year investment. Additionally, bureaus may have  
788 budget policy to manage “no-year” funds on a single-year basis.

789 To develop an effective strategy to address these institutional challenges and provide a reliable  
790 multi-year funding source throughout the duration of the restoration project life cycle, the  
791 Department must encourage greater coordination and collaboration among its numerous bureaus  
792 and programs to work together to accomplish this shared vision.

### 793 ***Proposed Actions***

#### 794 **Action Item #1**

795 *Establish standing team(s) to provide executive and staff-level coordination to enhance*  
796 *integration and commitment to long-term, multi-year restoration investments, including*  
797 *associated effectiveness monitoring and adaptive management within the sagebrush-steppe*  
798 *ecosystems.* Executive engagement and support will be needed to maintain long-term  
799 commitments to restoration planning, implementation, monitoring, and adaptive management.  
800 These teams should include Department Executives from OWF, PMB and all relevant bureaus  
801 that can address budget commitments, governance, and maintenance of investments. Teams may  
802 include Office of Management and Budget (OMB). Staff team(s) should be organized to support  
803 the Executives. Opportunities to utilize other existing or planned governance structures should  
804 be explored. ([See Section 7b \(viii\), Action Item 5](#) and current, ongoing efforts to organize  
805 implementation of the sage-grouse commitments).

806 ***Responsible Parties:*** Federal land management and research agencies in collaboration with  
807 tribes, WAFWA, and other relevant partners.

808 ***Target:*** Fourth Quarter 2015

#### 809 **Action Item #2**

810 *Document the BLM, NPS, the Bureau of Indian Affairs (BIA), USGS, and FWS activities to*  
811 *execute their commitments to long-term, multi-year restoration investments, including*  
812 *associated effectiveness monitoring, data management and integration, and adaptive*  
813 *management, within the sagebrush-steppe ecosystem.* DOI agencies will complete a Reporting  
814 Template and invite tribes, partners, and stakeholders to participate.

815 ***Responsible Parties:*** DOI and each bureau

816 ***Target:*** Fourth Quarter 2015

817 **Action Item #3**

818 *Document policies internal to the Department and to DOI bureaus that relate to*  
819 *organizational ability to commit to multi-year investments in restoration, monitoring, and*  
820 *adaptive management, e.g. funding is managed on a single-year basis; funding requests are*  
821 *not coordinated in the President's budget request, funding is distributed through more than*  
822 *one program, no program is specifically accountable for the activity. DOI agencies will*  
823 *complete the Reporting Template developed in Action Item 2(b).*

824 *Responsible Parties:* DOI and each bureau

825 *Target:* First Quarter 2016

826 **Action Item #4**

827 *Use the reports prepared in Action Item 3 to prepare a funding gap analysis and to identify*  
828 *opportunities to change policy, interpretations of policy, and procedures to facilitate multi-*  
829 *year commitments to restoration, monitoring, and adaptive management, to increase*  
830 *continuity of support for specific treatment areas, e.g. transition from Emergency Stabilization*  
831 *and Burned Area Rehabilitation to longer term restoration activities, and to encourage the*  
832 *implementation of treatments when predicted environmental conditions are favorable to*  
833 *treatment success (this may mean delaying a treatment from one year to another).*

834 *Responsible Parties:* DOI and each bureau

835 *Target:* Third Quarter 2016

836 **Action Item #5**

837 *Identify examples and prepare a lessons learned report and recommendations based on an*  
838 *examination of the following, overlapping and not comprehensive, list of examples:*

839 Regional “brokers” or “coordinators” established to accomplish one or more of the following:  
840 prioritize treatments, combine funding sources, aggregate funds, issue contracts etc. (e.g. Utah’s  
841 Watershed Restoration Initiative, New Mexico Association of Conservation Districts, National  
842 Fish and Wildlife Foundation, Cooperative Ecosystem Studies Units, Landscape Conservation  
843 Cooperatives, Joint Ventures, Cooperative Weed Management Areas, Rural Fire Protection  
844 programs, Western Regional Partnership, Great Lakes Commission, Comprehensive Everglades  
845 Restoration Program, Chesapeake Bay Program, and Great Basin Restoration Initiative).

846 Department and bureau-specific programs that allow for some form of multi-year commitment or  
847 funds particular projects through their duration, (e.g. Working Capital fund, Deferred  
848 maintenance projects, Construction, LWCF).

849 Non-DOI programs that coordinate Federal agency programs, make multi-year commitments, or  
850 fund particular projects through their duration, (e.g. NRCS Sage-Grouse Initiative, Joint Chiefs,  
851 and LCCs), where resources are integrated by partners and targeted over multiple years.

852 Programs with interagency interoperability (e.g. JFSP, Service First, Suppression).

853 *Responsible Parties:* DOI

854 *Target Dates:* Third Quarter 2016

855 **Action Item #6**

856 *Establish team(s) to do the following:*

- 857 • Look across established restoration activities and compile the project scale monitoring  
858 indicators, methods, and sampling frameworks. Identify common attributes across the  
859 activities. Evaluate the attributes for sensitivity, bias, utility at multiple scales, and  
860 ability to be informed through remote imagery. Identify the data gaps at each scale.  
861 Make recommendations to move toward an interagency, all lands, and consistent  
862 monitoring program.
- 863 • Compile the current state of scale-specific adaptive management thresholds in the  
864 sagebrush-steppe ecosystem. Identify the gaps.
- 865 • Look across existing agency monitoring programs and identify duplicative or redundant  
866 monitoring programs. Develop recommendations to build on and leverage existing  
867 programs and eliminate redundancies.

868 *Responsible Parties:* DOI

869 *Target Dates:* Third Quarter 2016

870 **Potential Actions Beyond 2016**

- 871 • Review all of the reports to facilitate and support a cross-jurisdictional consortium of  
872 agencies, and organizations and partners dedicated to implementation of restoration,  
873 monitoring, and adaptive management activities leading to a healthy ecosystem.  
874 Consolidate recommendations.
- 875 • Adjust Departmental and bureau-specific policies, procedures and funding to implement  
876 multi-year restoration projects, including effectiveness monitoring and adaptive  
877 management infrastructure and peer review and reporting processes.
- 878 • Develop the Information and Technology (IT) infrastructure to be used as a clearing  
879 house for the common attributes. Develop the tools that are necessary for analysis and  
880 reporting.

881 **Section 7(b) vii. – Large-scale Activities to Remove Non-Native**  
882 **Grasses**

883 ***Issue Description/Overview***

884 ***Implement large-scale experimental activities to remove cheatgrass and other invasive annual***  
885 ***grasses through various tools***

886 Cheatgrass, along with other invasive annual grasses, dominate or threaten to dominate millions  
887 of acres of western rangelands. Cheatgrass contributes to the size and frequency of fires and  
888 directly threatens the habitat of the greater sage-grouse and other sagebrush-obligate wildlife. To  
889 reverse this trend, land managers need tools to reduce cheatgrass while simultaneously restoring  
890 resilient sagebrush grassland ecosystems that can withstand fire and resist reinvasion of  
891 cheatgrass or other weedy species. Researchers are developing and testing these tools. Tools  
892 that show positive outcomes require management-scale tests of their effectiveness. Coordination  
893 is necessary among researchers and managers to plan, implement, and evaluate the effectiveness  
894 of the cheatgrass reduction methods and their associated restoration activities. Effective tools  
895 will restore landscapes that are resilient to fire, resistant to cheatgrass reinvasion, and provide  
896 greater sage-grouse habitat.

897 ***Proposed Actions***

898 Large-scale experimental activities to remove cheatgrass and other invasive annual grasses  
899 through various tools will begin in 2015 with full implementation in subsequent years. The  
900 actions to accomplish this include:

901 **Action Item #1**

902 ***Develop a framework for a national Early Detection and Rapid Response (EDRR) program.***

903 This would build on existing programs to identify problematic species that could become  
904 abundant, conduct surveys to assess their extent, and take actions to limit their spread.

905 ***Responsible Parties:*** DOI, USDA, U.S. Department of Commerce (DOC), Environmental  
906 Protection Agency (EPA), and the National Invasive Species Council (NISC)

907 ***Target:*** First Quarter 2016

908 **Action Item #2**

909 ***Compile available scientific literature on effective control measures (biological, physical, and***  
910 ***chemical) and subsequent restoration.*** This information would be made available through field

911 guides and other publications to provide managers with the most recent literature as a reference  
912 for addressing the management of cheatgrass and other invasive annual grasses. It will identify  
913 all currently approved chemical and biological control agents and pending applications to assist  
914 the control and management of infestations.

915 *Responsible Parties:* USGS and BLM

916 *Target:* Fourth Quarter 2015

917 **Action Item #3**

918 *Initiate large scale research and demonstration projects for control of cheatgrass and other*  
919 *invasive annual grasses to identify and advance effective strategies for preventing the spread*  
920 *of invasives and support large scale rangeland restoration.* Researchers and managers would  
921 work together to locate and coordinate installation of long-term studies and subsequent  
922 monitoring to test the efficacy of newly registered biopesticides.

923 *Responsible Parties:* BLM, USGS, Lakeview Interagency Fire Center, FWS, NRCS

924 *Target:* Third Quarter 2016

925 **Action Item #4**

926 *Complete the Vegetation Treatments Programmatic Environmental Impact Statement.* The  
927 PEIS serves as the working document for use of herbicide use on lands managed by BLM.

928 *Responsible Parties:* BLM

929 *Target:* Fourth Quarter 2016

930 **Action Item #5**

931 *Develop a program of work to conduct studies to control cheatgrass to reduce fuel loads and*  
932 *develop control measures.* The program of work would identify the associated steps and  
933 resources need to accomplish the studies. This includes identification of suitable locations and  
934 process to solicit and review the proposals.

935 *Responsible Parties:* BLM, USGS, FWS, NRCS, JFSP, Great Basin Landscape Conservation  
936 Cooperative (GBLCC)

937 *Target:* First Quarter 2016

938 **Action Item #6**

939 *Solicit and review experimental designs for control of invasive annual grasses and subsequent*  
940 *restoration.* Large scale experimental designs would be obtained and undergo a rigorous peer-  
941 review for projects involving landscape-scale control of invasive annual grasses and subsequent  
942 restoration.

943 *Responsible Parties:* BLM, USGS, FWS, JFSP, GBLCC

944 *Target:* First Quarter 2016 and beyond

945 **Action Item #7**

946 *Develop a standardized long-term monitoring protocol to determine effectiveness of*  
947 *treatments.* Monitoring would occur through a standard process to collect data on the results of  
948 the treatments implemented in the studies. This data would be used to evaluate the success of  
949 invasive annual grass control and subsequent restoration.

950 *Responsible Parties:* USGS, BLM, FWS, NRCS, Agricultural Research Service (ARS)

951 *Target:* Third Quarter 2016

952 **Action Item #8**

953 *Develop a process to coordinate with the EPA on registration and labeling of new invasive*  
954 *annual grass biological and chemical control agents.* A structured and scheduled interaction  
955 with EPA would occur to discuss options associated with the management of invasive annual  
956 grasses. This would allow the agencies to keep current on the management options available for  
957 consideration in the management of invasive annual grasses.

958 *Responsible Parties:* BLM, USGS, and EPA

959 *Target:* Fourth Quarter 2015

960

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962 **Section 7(b) viii. – Science and Research**

963 ***Issue Description/Overview***

964 ***Commit to multi-year investments in science and research.***

965 To develop an enhanced rangeland fire prevention, management, and restoration strategy,  
966 scientific information will be needed that focuses on the highest priority management needs and  
967 adapts as new knowledge is gained or management needs shift. Although a large body of  
968 research has been completed for the Great Basin region, key gaps in knowledge still exist. In  
969 some cases, gaps can be addressed through new research or synthesizing existing research to  
970 develop an understanding of how to apply the cumulative body of science. In other instances,  
971 the information is available, but not readily accessible or useable by the management  
972 community. Filling science gaps, synthesizing scientific information, and ensuring full and easy  
973 access to science can only be achieved with a unified focus on the highest priorities and with a  
974 long-term commitment of financial resources.

975 A comprehensive science action plan will be developed that identifies science gaps and priority  
976 research and monitoring needs to ensure the protection, conservation, and restoration of  
977 sagebrush-steppe ecosystems, and in particular greater sage-grouse habitat. The action plan will  
978 take into consideration the need for science syntheses, along with new research endeavors and  
979 science delivery and will be used to direct regular and recurring investments in scientific  
980 research and information delivery. The proposed action plan will expand collaboration between  
981 management practitioners and the science community, and ensure focus on the highest priority  
982 research needs for greater sage-grouse habitat.

983 ***Proposed Actions***

984 **Action Item #1**

985 ***Analysis of commitments for research in 2015 and planned for 2016.*** In order to have a better  
986 understanding of ongoing research commitments and to make multi-year investments in science  
987 and research for rangeland fire, invasive plants, greater sage-grouse conservation, and sagebrush  
988 restoration and management, a request will be sent to all Federal agencies inquiring about  
989 research funded in FY2015 and any planned funding commitments for FY2016. Information  
990 requested will include: research project title, management questions, lead agency, principal  
991 investigator, collaborators, project description, funding commitment, completion date, and  
992 project website (if available).

993 ***Responsible Parties:*** USGS, BLM, FWS, NPS, USFS, NRCS, GBLCC

994 ***Target:*** Third Quarter 2015

995 **Action Item #2**

996 *Review existing research prioritization and strategy efforts to identify science needs for the*  
997 *Great Basin.* As identified in the Actions Underway section, several research needs and strategy  
998 analyses have been completed. Using the National Research Strategy as a guide, a comparison  
999 of these efforts will be carried out to extract common priority issues that are focused on fire and  
1000 invasive species science needs in the Great Basin. This process will result in a unified set of  
1001 research priorities for use by the management and research community to guide future funding  
1002 decisions. Specific actions necessary to complete this task include:

- 1003 • Identify all relevant research needs and strategy documents.
- 1004 • Review existing strategies and other relevant reports to extract science needs focused on  
1005 fire and invasive plants in the Great Basin.
- 1006 • Compare individual needs across all documents to identify common topics and subject  
1007 areas, and describe additional science needs not identified in existing documents.
- 1008 • Organize the range of science needs into themes that align with management needs.

1009 *Responsible Parties:* USGS lead in collaboration with appropriate Federal agencies and GBLCC

1010 *Target:* Third Quarter 2015

1011 **Action Item #3**

1012 *Develop an actionable science plan of prioritized research needs.* Building on the comparison  
1013 and evaluation developed in Action #2, a science action plan will be developed following these  
1014 steps:

- 1015 • An initial prioritization of research needs based on management needs will be completed  
1016 by a focus group of inter-agencies representatives from state and Federal agencies.
- 1017 • Additional input on the initial prioritization will be sought through a survey tool shared  
1018 with state and Federal agencies and tribes in the Great Basin.
- 1019 • Final prioritization will be accomplished based on input through the survey tool and input  
1020 from Department and bureau leadership.
- 1021 • Using the final prioritization, an action plan will be developed that identifies specific  
1022 science and research efforts to address the highest priority needs.
- 1023 • A budget plan will be formulated on how to complete the priorities that takes into  
1024 consideration funding needs, sources, projected timelines, and needed outcomes.

1025 *Responsible Parties:* USGS lead with an interagency team of appropriate Federal, state, tribal,  
1026 and GBLCC representatives

1027 *Target:* Second Quarter 2016

1028 **Action Item #4**

1029 *Develop or identify a primary online science delivery system to allow easier access to published*  
1030 *science products and other science information.* The Great Basin Fire Science Exchange (GB  
1031 Exchange), funded by the Joint Fire Science Program (JFSP), was created to facilitate the use of  
1032 science in land management applications. The GB Exchange is currently engaged in sharing  
1033 information on habitat restoration, fuels treatments, post-fire management, and landscape  
1034 assessment and prioritization. The GB Exchange provides a forum where Great Basin land  
1035 managers can identify technical needs with respect to fire, fuels, and post-fire vegetation  
1036 management; develops and synthesizes necessary information and technical tools to meet these  
1037 needs; provides the necessary information and tools through venues most preferred by field staff,  
1038 field office managers, and higher administrative levels; and develops direct lines of  
1039 communication between managers and scientists. The [GB Exchange's website](#) archives  
1040 bibliographies, webinar presentations, discussion forums, models, and tools as well as a calendar  
1041 of upcoming events.

1042 Since the GB Exchange is already meeting some of the needs for a science delivery system, it is  
1043 in the best position to be expanded to meet the needs of the Order. There are a number of other  
1044 excellent sources of science and management information specifically relating to greater sage-  
1045 grouse and greater sage-grouse habitat that will need to be linked in this effort in order to  
1046 leverage funds and prevent duplication. The [GBLCC](#) and the [Great Basin Research and](#)  
1047 [Management Partnership](#) (GBRMP) are two examples of science delivery efforts that are  
1048 currently serving managers and scientists. These and others will need to be actively linked  
1049 through the GB Exchange to develop a primary source of science and land management  
1050 information. Additional actions to expand the GB Exchange include:

- 1051 • Identify existing gaps in currently archived information about fire, invasive plants,  
1052 greater sage-grouse, and the management of sagebrush habitats.
- 1053 • Identify other information sources, update and maintain existing websites, and provide  
1054 active links (e.g., GBLCC, GBRMP) to provide managers and scientists complete access  
1055 to relevant science and land management information.
- 1056 • Enhance existing processes to facilitate transfer of relevant research products from  
1057 applicable agencies and organizations through the GB Exchange.
- 1058 • Adapt the current website structure to provide a discrete section supporting the Order  
1059 and to facilitate delivery of relevant research on greater sage-grouse and sagebrush.
- 1060 • Develop tools and services beyond on-line science delivery, including education and  
1061 training targeted at resource managers and the science community.

1062 **Responsible Parties:** JFSP – GB Exchange, in collaboration with other information providers  
1063 and affected Federal and state agencies

1064 *Target:* Third Quarter 2015

1065 **Action Item #5**

1066 *Define a process for executive leadership engagement in supporting prioritized science*  
1067 *needs.* Executive leadership engagement and support will be necessary to maintain long-term  
1068 commitments to science research and delivery. This can be accomplished with existing senior  
1069 leadership groups or by a newly created group for the Great Basin and the Order. An alternative  
1070 to consider is to establish a Great Basin interagency team through the National Sage-grouse  
1071 Executive Oversight Committee (EOC) to serve as a forum for executive leadership engagement  
1072 in science needs and commitments for the Great Basin. This group could serve in a larger role  
1073 for Great Basin leadership (i.e., Great Basin EOC), but also addresses the need for senior  
1074 leadership engagement in science commitments. Components of this action may include:

- 1075
- 1076 • Determine whether a longer-term leadership group will be created for the Order, whether  
1077 an existing group can serve the purpose, or whether pursuing development of a Great  
Basin EOC will fill the need.
  - 1078 • If the latter, a proposal to create a Great Basin EOC will be prepared and presented to the  
1079 range-wide EOC and/or the WGA Sage-grouse Task Force. This proposal will need to  
1080 consider:
    - 1081 ○ Assembling an interagency policy team (EOC) with senior leaders from the  
1082 Federal agencies and state agencies from the Great Basin states to target funding  
1083 to address priority needs with a goal to support cross-agency funding  
1084 collaborations and commit to multi-year investments in science and research.
    - 1085 ○ Determining if an interagency technical team is also needed to provide technical  
1086 support to the policy team, including identifying research and monitoring needs in  
1087 direct support of resource management issues.

1088 *Responsible Parties:* DOI in coordination with USGS, BLM, FWS, USFS, NRCS, GBLCC, and  
1089 relevant state agency administrators.

1090 *Target:* First Quarter 2016

1091 **Action Item #6**

1092 *Identify funding sources to support the action plan, and develop a plan for a funding initiative*  
1093 *in 2017.* As part of a comprehensive science action plan, the Department and bureaus will need  
1094 to plan for its implementation through a commitment to long-term budgeted activities. In  
1095 ensuring the durability of the action plan, the following steps will be taken:

- 1096
- 1097 • Building on Action Item #1, the Federal agencies will develop a working, unofficial  
1098 budget crosscut of all ongoing research activities in the Great Basin. This effort can be  
conducted in parallel with tasks identified in Section 7b (vi).

- 1099 • Activities identified in the action plan should be cross-walked with closely related  
1100 programs identified in the crosscut to help best determine where future science activities  
1101 could be most efficiently and effectively located and funded.
- 1102 • Using the budget plan, DOI agencies and other Federal collaborators will determine  
1103 funding sources for the priority needs in the action plan, opportunities for cost-sharing  
1104 across agencies, and what priorities cannot be supported with existing resources.
- 1105 • An annual unified (cross-bureau) budget request will be developed that identifies gaps in  
1106 funding needed to support the action plan. The budget request should identify: 1) funded  
1107 projects that are ending; 2) existing project funding that would be available and budgeted  
1108 in new fiscal years; and 3) any needs for new funding to implement the plan. The budget  
1109 request should be provided to appropriate bureaus in a timely manner for consideration in  
1110 bureau budget formulation prior to submission to the Department.
- 1111 • Bureau Science Advisors, the DOI Science Coordinator, and other senior level policy  
1112 leads will be engaged, as appropriate, to convey budget needs in implementing the plan.

1113 **Responsible Parties:** DOI, GBLCC, and DOI Science Coordinator

1114 **Target:** Second Quarter 2016 for budget plan implementation, re-occurring for out-year budget  
1115 requests

### 1116 **Potential Actions Beyond 2016**

- 1117 • Monitor treatment effectiveness and landscape change – Policies and funding are needed  
1118 to ensure that 1) long-term monitoring is conducted to assess treatment effectiveness and  
1119 benefits to greater sage-grouse; 2) monitoring tracks landscape changes due to  
1120 development, land use, and climate change; 3) appropriate data management, assessment  
1121 and reporting occurs; and 4) an adaptive management framework is used. [Relates  
1122 to [Sections 7\(b\) iv](#) and [7\(b\) vi](#)]
- 1123 • Climate change – Encourage collaboration between the USGS Climate Science Centers,  
1124 Landscape Conservation Cooperatives, and USFS Climate Science Hubs in translating  
1125 and applying recent advances in climate science to facilitate use in management and  
1126 adaption planning.
- 1127 • Science Syntheses – Develop syntheses reports and informational fact sheets on fire and  
1128 invasive plants, and how they relate to greater sage-grouse and sagebrush to assist  
1129 managers with the integration of science and land and species management applications.
- 1130 • Action Plan Updates – To stay current, the action plan should be reviewed and updated  
1131 periodically (e.g., every three years). This update should take the form of reviewing  
1132 priorities to identify emerging science and to determine if new technological innovations  
1133 have arisen and if management priorities have changed.

1134  
1135

- Peer Review/Science Integrity Policies – Evaluate existing peer review policies and scientific integrity guidance to facilitate consistency across bureaus.

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## 1136 **Section 7(b) ix. – Seed Strategy**

### 1137 ***Issue Description/Overview***

1138 ***Develop a comprehensive strategy for acquisition, storage, and distribution of seeds and other***  
1139 ***plant materials.***

1140 Native plant communities, especially those containing forbs essential to ecosystem integrity and  
1141 diversity, provide ecosystem services that sustain wildlife, such as greater sage-grouse and native  
1142 pollinators. The spread of invasive species, altered wildfire regimes, habitat fragmentation, and  
1143 climate change negatively affected many native plant communities and the species that depend  
1144 upon them. To slow and ultimately reverse these trends in the greater sage-grouse habitat areas  
1145 requires, a reliable supply of genetically appropriate and locally adapted seed, as well as seeding  
1146 technology and equipment for successful and expanded effective restoration of the sagebrush-  
1147 steppe ecosystem.

1148 The Initial Report identified several actions and activities relevant to this section for  
1149 implementation prior to the onset of the 2015 Western fire season, including:

- 1150 • Develop the draft National Seed Strategy and Implementation Plan (2015 – 2020).
- 1151 • Identify a forum to discuss and highlight current native seed and restoration techniques  
1152 and research. Attend the Institute for Applied Ecology’s National Native Seed  
1153 Conference.
- 1154 • Provide an opportunity to discuss current research, case-studies, and tools that inform  
1155 applied restoration opportunities in the Great Basin.

### 1156 ***Proposed Actions***

1157 Longer term actions will begin in 2015, with full implementation in subsequent years, to improve  
1158 program effectiveness, efficiency and reduce costs:

#### 1159 **Action Item #1**

1160 ***Complete and issue the National Seed Strategy and Implementation Plan (2015 – 2020) to***  
1161 ***increase production, storage capacity, acquisition, and use of genetically appropriate and***  
1162 ***locally adapted seed. Solicit research proposals to help implement the National Seed Strategy.***

1163 ***Responsible Parties:*** DOI (BIA, BLM, FWS, NPS, and USGS); USDA (USFS, NRCS, ARS,  
1164 National Institute of Food and Agriculture [NIFA]); DOT Federal Highway Administration  
1165 (FHWA); Smithsonian; and U.S. Botanical Garden

1166 ***Target:*** Fourth Quarter 2015

1167 **Action Item #2**

1168 *Develop and implement training for managers when making decisions about the selection of*  
1169 *genetically appropriate plant materials and technologies for vegetation restoration, including*  
1170 *addressing the propagation and conservation of culturally important (first food) species.*

1171 *Responsible Parties:* DOI (BIA, BLM, FSW, NPS, USGS); USDA (USFS, NRCS, ARS, NIFA)

1172 *Target:* Fourth Quarter 2016

1173 **Action Item #3**

1174 *Develop a means – in collaboration with private partners – to ensure the collection,*  
1175 *production, storage, and distribution of commercial seed for long-term rangeland*  
1176 *conservation.* Collect native seed from across the distribution of the species for use in  
1177 developing commercial seed and for long-term seed banking to ensure conservation of  
1178 germplasm to promote climate resilience and long-term rangeland health.

1179 *Responsible Parties:* DOI (BLM, FWS, NPS); USDA (USFS)

1180 *Target:* Fourth Quarter 2015; ongoing

1181 **Action Item #4**

1182 *Establish pilot projects that will serve as training/demonstration sites on planting native seed*  
1183 *species, with monitoring to determine the effectiveness of the restoration techniques.*

1184 *Responsible Parties:* DOI (BIA, BLM, FSW, NPS, USGS); USDA (USFS, NRCS, ARS,  
1185 NIFA); DOT (FHWA)

1186 *Target:* Fourth Quarter 2016

1187 **Action Item #5**

1188 *Develop a Business Plan for the National Seed Strategy.* Identify funding sources and  
1189 processes necessary to implement the National Seed Strategy.

1190 *Responsible Parties:* DOI (BIA, BLM, FWS, NPS, and USGS); USDA (USFS, NRCS, ARS,  
1191 National Institute of Food and Agriculture [NIFA]); DOT Federal Highway Administration  
1192 (FHWA); Smithsonian, and U.S. Botanical Garden

1193 *Target:* Fourth Quarter 2015

1194 **Action Item #6**

1195 *Develop an interagency budget initiative for FY 2017.* Work across agencies and Departments  
1196 to initiate an interagency budget initiative for funds to implement the National Seed Strategy.

- 1197 *Responsible Parties:* DOI (BIA, BLM, FWS, NPS, and USGS); USDA (USFS, NRCS, ARS,  
1198 National Institute of Food and Agriculture [NIFA]); DOT Federal Highway Administration  
1199 (FHWA); Smithsonian, and U.S. Botanical Garden
- 1200 *Target:* Fourth Quarter 2015; ongoing into 2017
- 1201 **Action Item #7**
- 1202 *Produce sagebrush seedlings annually for greater sage-grouse habitat restoration.* Produce  
1203 100,000 sagebrush seedlings annually for greater sage-grouse habitat restoration through the  
1204 Sagebrush Grow Out program (seedlings grown for planting in wildfire burned areas or  
1205 restoration areas to establish native plant communities), in five Great Basin prisons.
- 1206 *Responsible Parties:* BLM
- 1207 *Target:* First Quarter 2016
- 1208 **Action Item #8**
- 1209 *Coordinate and collaborate across agencies on current and future climate trend*  
1210 *data.* Understand the trends in climate, across the Western United States with a focus on  
1211 sagebrush-steppe and pinyon/juniper ecosystems.
- 1212 *Responsible Parties:* BLM, USGS, USFS
- 1213 *Target:* Fourth Quarter 2015; ongoing
- 1214 **Action Item #9**
- 1215 *Increase the availability of native seed for the Great Basin.* Increase the grow-out of native  
1216 plant species for the restoration of the sagebrush-steppe ecosystem within the Great Basin, which  
1217 will provide necessary structure and habitat, as well as dietary, and other benefits for the greater  
1218 sage-grouse.
- 1219 *Responsible Parties:* BLM, FWS, USFS
- 1220 *Target:* Fourth Quarter 2015; Ongoing
- 1221 **Action Item #10**
- 1222 *Develop a comprehensive restoration strategy and program with policies and consistent*  
1223 *funding to restore native plant communities on a landscape-scale across public lands.*
- 1224 *Responsible Parties:* TBD
- 1225 *Target:* TBD

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## Appendix A – Initial Report Action Item Table

Action Item	Responsible Party/Parties	Target Date
Develop and share a geospatial tool that highlights areas of concern in the Great Basin and includes, at a minimum, focal, Fire and Invasives Assessment Tool (FIAT) and Priority Habitat Management areas.	BLM/USGS	May 1, 2015
<b>7(b) i. – Integrated Response Plans</b>		
#1. Increase the capabilities of rural/volunteer fire departments and RFPAs and enhance the development and use of veterans crews.	OWF/Agency Fire Leadership	June 1, 2015
#2. Ensure local, MAC groups are functional and MAC plans are updated.	MAC groups working with local Federal wildland fire suppression agencies, tribes state fire suppression agencies, RFPAs, local fire departments, and other cooperators	May 1, 2015
#3. Develop and implement minimum draw-down level and step up plans to ensure availability of resources for protection in priority greater sage-grouse habitat.	Federal local unit FMOs, in coordination with cooperators and reviewed by Federal state/regional FMOs	May 1, 2015
#4. Apply a coordinated risk-based approach to wildfire response to assure initial attack response to priority areas.	Local MAC groups and unit FMOs, with review by Federal regional/state FMOs	May 1, 2015
#5. Develop a standardized set of briefing materials.	Geographic Area Coordinating Groups (GACGs) and local MACs	May 1, 2015
#6. Review/update local plans and agreements for consistency and currency to ensure initial attack response to priority greater sage-grouse areas.	Federal local unit FMOs in coordination with cooperators and with review by Federal regional/state FMOs	May 15, 2015
#7. Develop supplemental guidance for use of “severity funding.”	DOI OWF in coordination with BLM	May 15, 2015
#8. Evaluate the effectiveness of action plans.	DOIOWF and Federal Agency Fire Directors	May 30, 2015

Action Item	Responsible Party/Parties	Target Date
#9. Increase the availability of technology and technology transfer to fire management managers and suppression resources.	DOI national bureau leadership; DOI state/ regional and local unit managers	June 1, 2015
#10. Improve the description and awareness of critical resource values threatened in various stages of the fire response process including large fire management.	NMAC Group, National Interagency Coordination Center, and Geographic Area Coordination Centers	June 1, 2015
#11. Ensure compliance and evaluation of the implementation plan action items.	Local Unit FMO and Federal regional/ state FMOs.	July 1, 2015
<b>7(b) ii – Prioritization and Allocation of Resources</b>		
#1. Communication Plan	National Agency Fire Leadership (DOI Bureaus and USFS)	April 1, 2015
#2. Review and update the delegation of authority for the NMAC Group.	National agency leadership (DOI Bureaus/USFS/NASF)	May 1, 2015
#3. Issue national level “Leaders’ Intent.”	National agency leadership (DOI Bureaus/USFS/NASF)	May 1, 2015
#4. Engage GMAC Groups.	National agency leadership (DOI/USFS/NASF)	May 1, 2015
#5. Develop “Delegation of Authority” template for use by local line officers.	NMAC	May 1, 2015
#6. Engage line officers to communicate Leaders’ Intent and expectations.	Federal agency leadership (USFS/DOI Bureaus)	June 1, 2015
<b>7(b) v – Post-Fire Recovery</b>		
#1. Review and update ES and BAR policy guidance to address rating and evaluation criteria, project design to promote the likelihood of treatment success, cost containment, monitoring, and continuity and transition to long- term restoration activities and treatments.	I-BAER/OWF/IFEC/FEC/Federal Fire Policy Council	June 1, 2015

Action Item	Responsible Party/Parties	Target Date
#2. Address acquisition, financial management, and other procedures that pose challenges to timely project implementation.	OWF/Bureau Designated Representatives	July 1, 2015
#3. Accelerate schedule approving BAR projects consistent with the guidelines established for the 2015 fire season.	IBAER/DOI Bureaus	June 1, 2015
#4. Identify non-fire programs and activities that will fund treatments and restoration activities for the long term in conjunction with BAR and ES policy and program review to be conducted in 2015.	All Affected DOI Bureaus	June 1, 2015
#5. Identify requirements for NFPORS capabilities.	IBEAR/DOI Bureau	June 1, 2015
<b>7(b) ix – Seed Strategy</b>		
#1. Develop the draft National Seed Strategy and Implementation Plan (2015 – 2020)	BLM (lead agency) BIA, FHA, USFS, FWS, NPS, ARS, NRCS, NIFA, and USGS (support agencies)	April 2015
#2. Identify a forum to discuss and highlight current native seed and restoration techniques and research.	BLM and USFS	April 2015
#3. Provide an opportunity to discuss current research, case-studies, and tools that inform applied restoration opportunities in the Great Basin.	BLM and USFS Great Basin Native Plant Project, Society for Ecological Restoration, and Fire Science Exchange	May 2015

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## 1 **Appendix B – Glossary of Terms**

### 2 ***Adaptive Management***

3 Adaptive management focuses on learning and adapting, through partnerships of managers,  
4 scientists, and other stakeholders who learn together how to create and maintain sustainable  
5 ecosystems.

### 6 ***Burned Area Rehabilitation (BAR)***

7 The post-fire activities prescribed and implemented to rehabilitate and restore fire damaged  
8 lands.

### 9 ***Draw Down Level***

10 The minimum level of personnel and equipment resources needed (at either the local or national  
11 level) without compromising response capability.

### 12 ***Emergency Stabilization (ES)***

13 Planned actions to stabilize and prevent unacceptable degradation to natural and cultural  
14 resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/  
15 replace/construct physical improvements necessary to prevent degradation of land or resources.

### 16 ***Fire Management Plan***

17 A plan that identifies and integrates all wildland fire management and related activities within  
18 the context of approved land/resource management plans. A fire management plan defines a  
19 program to manage wildland fires (wildfire and prescribed fire). The plan is supplemented by  
20 operational plans, including but not limited to preparedness plans, preplanned dispatch plans,  
21 prescribed fire burn plans, and prevention plans. Fire management plans assure that wildland fire  
22 management goals and components are coordinated.

### 23 ***Multi-Agency Coordinating Group (MAC Group)***

24 A national, regional, or local management group for interagency planning, coordination, and  
25 operations leadership for incidents. Provides an essential management mechanism for strategic  
26 coordination to ensure incident resources are efficiently and appropriately managed in a cost-  
27 effective manner.

### 28 ***National Environmental Protection Act (NEPA)***

29 The purpose of NEPA is to ensure that environmental factors are weighted equally when  
30 compared to other factors in the decision-making process undertaken by Federal agencies. The  
31 Act establishes the national environmental policy, including a multidisciplinary approach to  
32 considering environmental effects in Federal Government agency decision-making.

### 33 ***Organizational Owner***

34 Organization owner is the organization (Federal, state, or local) that funds the resource or  
35 resources.

36 ***Rangeland Fire***

37 Any wildfire located on rangelands.

38 ***Section 106***

39 Requires Federal agencies to consider the effects of projects they carryout, approve, or fund on  
40 historic properties.

41 ***Severity Funding***

42 Suppression funds used to increase the level of pre-suppression capability and fire preparedness  
43 when predicted or actual burning conditions exceed those normally expected, due to severe  
44 weather conditions.

45 ***Step Up Plans***

46 Step up plans (also called staffing plans) are designed to direct incremental preparedness actions  
47 in response to increased fire danger.

48 ***Wildfire***

49 An unplanned, unwanted wildfire including unauthorized human-caused fires, escaped planned  
50 fire events, and all other wildland fires where the objective is to put the fire out.

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