

1 **Yellowstone Winter Use Adaptive Management Program**  
2 **Kick-off Meeting Notes<sup>1</sup>**

3 November 22, 2013

4 Engineering and Physical Sciences Building, Room 126

5 Montana State University

6 Bozeman, Montana  
7  
8

9 **Participants**

10 Alicia Murphy	Christina Mills
11 Jon Catton	PJ White
12 John Treanor	Dave Hallac
13 Ann Rodman	Shan Burson
14 Rebecca Garvoille	Wayne Freimund
15 Steve Iobst	Wade Vagias
16 Dan Wenk	Jack Welch
17 Randy Roberson	Jeanine Roberson
18 Clyde Seely	Travis Watt
19 Scott Carsley	Amy Beegel
20 Kim Raap	Jason Howell
21 Bill Howell	Jon Springer
22 Don Bachman	Nedra Chandler
23 Mary Sue Costello	Dan Stusek
24 Jason Hurd	Bart Melton
25 Tim Stevens	Jillian Thornton
26 Scott Christensen	

27  
28 **Adobe Connect Webinar Participants**

29 David McCray	Melanie Wasco
30 Jeremiah Rieman	Kari Gunderson
31 Phil Strobel	John Vimont
32 Jon Toolson	Molly Ross
33 Philip Frankovic	Alicia Murphy

34  
35 **I. Introduction** - *Wayne Freimund and Dan Wenk*  
36  
37

38 **II. New Directions for Winter Use** - *Wade Vagias*

- 39 • The new winter use plan will lead to a cleaner and quieter park
- 40 • The rule allows for a maximum of 110 Transportation Events/day
  - 41 ○ 46 events for commercially guided snowmobile groups
  - 42 ○ 4 events for non-commercially guided snowmobile groups
  - 43 ○ 60 events for snowcoaches

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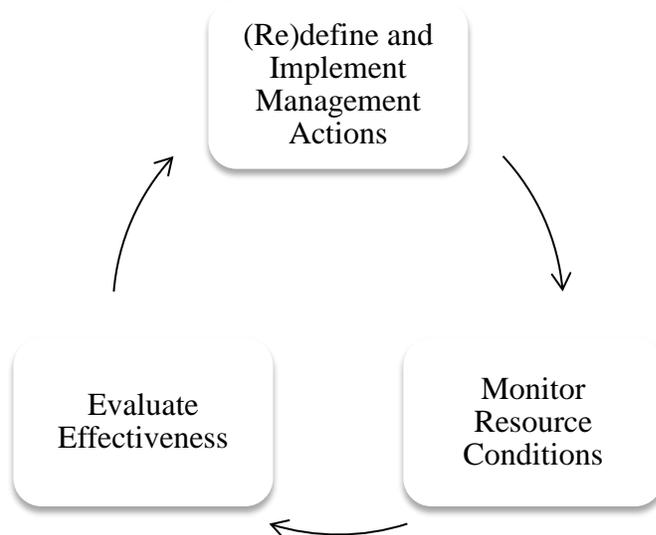
<sup>1</sup> Edits to the draft meeting notes, made in response to participant comments, are denoted in **RED**.

- 44 • The rule allows for a potential swing towards snowcoaches, reflective of past  
45 trends, while preserving a maximum of 46 events for commercially guided  
46 snowmobiles.
- 47 • The transportation event approach is based on evidence that a snowmobile and a  
48 snowcoach transportation event have comparable impacts to park resources and  
49 the visitor experience.
- 50 • The plan outlines New Best Available Technology (BAT) standards for  
51 Snowmobiles and for Snowcoaches
- 52 • The plan encourages an enhanced BAT standard through a voluntary program,  
53 which will allow an expansion of the size of a transportation event.
- 54 • The non-commercially guided program has two components: a lottery component  
55 and an education component. We welcome your input on the development of this  
56 program. Please contact Alicia Murphy, program lead, at [alicia\\_murphy@nps.gov](mailto:alicia_murphy@nps.gov)  
57 or 307.344.2627.
- 58 • Sylvan Pass will remain open
- 59 • The adaptive management program will allow us to monitor impacts of the new  
60 winter use plan.

### 63 **III. The Collaborative Adaptive Management Program** - *Rebecca Garvoille*

64 Adaptive management is a set of management practices that incorporates science and  
65 public engagement. It allows us to acknowledge uncertainties in social and ecological  
66 systems, and allows us to respond to new information and changes in these systems with  
67 stakeholder input.

68  
69 The process:



70  
71  
72

73 Adaptive Management Goals:

- 74 1. Evaluate the impacts of oversnow vehicle (OSV) use and help managers  
75 implement actions that keep impacts within the range predicted under the final  
76 Plan/SEIS  
77 2. Gather additional data regarding comparability  
78 3. Reduce impacts on park resources after implementation of the final rule by  
79 gathering additional data regarding the social and ecological impacts of Winter  
80 Use  
81  
82 • The National Park Service must make the winter use decisions, but we value your  
83 input.  
84 • The NPS will ask the public to join working groups, help identify and prioritize  
85 park resources to monitor, aid in developing monitoring strategies, and review  
86 and comment on Winter Use Adaptive Management drafts  
87

88 Proposed Structure:

- 89 • A larger adaptive management team with several focused working groups that  
90 would look at issues around wildlife, air, sound, visitor experience, and operations  
91 and technology  
92 • We'll be asking the working groups to help us with prioritization. We're  
93 expecting a large list of things to monitor, but the plan will have to be practical  
94 and affordable, and we'd like your help with prioritization.  
95 • The goal is a final plan by the winter season of 2016-2017 season  
96 • There is a winter use adaptive management webpage  
97 (<http://www.nps.gov/yell/parkmgmt/wuamp.htm>) that contains FAQs and  
98 information about working groups. Please contact Rebecca Garvoille at  
99 [rebecca\\_garvoille@contractor.nps.gov](mailto:rebecca_garvoille@contractor.nps.gov) or (307) 344-2265 if you have further  
100 resources that might improve this process or if you'd like to see other types of  
101 information on this page.  
102

103 Timeline for the Preparation of the Winter Use Adaptive Management Plan

- 104 • Winter 2013 – Work with the public, including the adaptive management working  
105 groups, to prepare an initial draft adaptive management plan  
106 • Summer 2014 – Release the first draft of the adaptive management plan for public  
107 review and comment  
108 • Winter 2015 – Pilot test preliminary adaptive management plan in the field  
109 • Spring 2016 - Collect additional public and scientific input about how to improve  
110 the plan  
111 • Winter 2016/2017 – Implement winter use adaptive management plan  
112

113 **Audience Questions and Comments:**

114

115 **Q:** Will the adaptive management process continue past 2016?

116 **A:** Yes. The winter use adaptive management plan will be officially implemented during  
117 or before the 2016/2017 winter season. The plan will spell out how the NPS will monitor  
118 and evaluate winter use from 2016 forward, and the NPS will implement these strategies

119 into the foreseeable future. Once the plan is implemented, there will be regularly  
120 scheduled meetings to share NPS monitoring results with the public and discuss possible  
121 winter use management actions as part of an ongoing adaptive management process. It is  
122 important to note that the NPS has been monitoring winter use for years. The current  
123 adaptive management program formalizes, and incorporates public input into, an already  
124 ongoing process.

125

126 **Q:** Will the adaptive management plan be an actual EIS or tier off of the current plan?

127 **A:** It will tier off the winter use document. We don't currently see the need for future  
128 NEPA, but if the monitoring brings to light new information and we need to make a  
129 change outside of what has been evaluated in the plan, we would undergo further NEPA.

130

131 **Q:** Will the monitoring spelled out by the plan also be adaptive?

132 **A:** Yes. Scientific methods and techniques change over time, and we would like to  
133 incorporate the best methods available.

134

135 **Q:** Will the working groups continue after the plan is created and released?

136 **A:** This remains to be seen. If the working groups prove to be a helpful model, and there  
137 is continued interest in them, then we can discuss continuing the working group model as  
138 the adaptive management plan is implemented.

139

140 **Q:** How will the working groups be set up?

141 **A:** People may choose which working group they would like to be a part of, as well as  
142 provide input as to whether you believe these are the appropriate working group topics.

143

144 **Q:** Will the non-commercially guided program be embedded in the working groups or  
145 will it have an independent monitoring program?

146 **A:** It remains to be seen whether we'll form another working group or incorporate this  
147 program into this process. The park is committed to making sure impacts from non-  
148 commercially guided groups are not greater than from a commercial snowmobile group.

149

150 **Comment:** Some of these groups may overlap. For example, operations and technology  
151 may be separate from each other, yet may also overlap with air and sound.

152 **Response:** Yes, the NPS recognizes that these groups will address topics that intersect  
153 and are part of the integrated management of winter use. Thus, there will be future team  
154 meetings to bring the working groups together so that they can share information across  
155 topics.

156

157 **Q:** What will the operations and technology working group address?

158 **A:** There are several impacts that are outside of the scope of the plan such as the  
159 deterioration of snowroads. We're interested, to the extent that you are, in exploring what  
160 contributes to the deterioration of these snowroads. Examples of other topics outside the  
161 scope of the plan that we could consider exploring are things such as catalytic converters,  
162 electric snowmobiles, and hybrid sleds. We're also exploring ambient noise inside  
163 snowcoaches. Operations and technology could encompass these types of issues.

164

165 **Comment:** One topic that I don't see is intergovernmental collaboration. Should there be  
166 a group focused around governance, transparency, intergovernmental relations and public  
167 communication and collaboration?

168 **Response:** Thank you for bringing up this point.

169

170

#### 171 **IV. Summary of the Science on Winter Use** *Rebecca Garvoille*

172 Information about the science to date is also available in the Final Plan/SEIS. The focus  
173 and general findings of past or existing studies by impact topics:

174

##### 175 *Wildlife*

176 • Focus: Interaction of Wildlife and OSVs Along Groomed Roads (Bison, Elk,  
177 Trumpeter Swans, and Bald Eagles)

178 • OSV use disturbed some individual animals near groomed roads, but had a  
179 negligible to minor impact on wildlife populations.

180

##### 181 *Air Quality*

182 • Focus: Impacts of OSV Tailpipe Emissions on YELL's Air Quality

183 • From 2003-2011, air quality conditions stabilized at the monitoring stations in the  
184 park and the data indicated a positive trend toward lower emissions by OSVs

185

##### 186 *Soundscape*

187 • Focus: Impacts of OSV Noise on the Natural Soundscape

188 • OSV use has a negligible to moderate impact on the natural soundscape

189

##### 190 *Visitor Use, Experience, and Accessibility*

191 • Focus: The Visitor Experience and Social Perceptions of Park Management  
192 during Winter Use

193 • Since 2004, there has been a general decrease in OSV use and a general increase  
194 in snowcoach transportation events while visitation has fluctuated. The majority  
195 of visitors is highly satisfied with their winter experience in Yellowstone, and  
196 highly value winter wildlife viewing. Yet, visitors have a wide range of  
197 motivations and preferences and cannot be easily profiled according to mode of  
198 transport only.

199

##### 200 *Health and Safety*

201 • Focus: Human Exposure to OSV Exhaust and Noise Emissions

202 • BAT snowmobiles and the increase in snowcoach use has resulted in lower levels  
203 of human exposure to exhaust and noise emissions, and guided trips have resulted  
204 in fewer OSV accidents.

205

#### 206 **Audience Questions and Comments:**

207

208 **Comment:** It should be noted under the Visitor Use conclusions that the reduction in  
209 number of snowmobiles is due to increasingly stringent park restrictions, not because of  
210 public choice.

211 **Response:** Thank you for clarifying the effects of NPS management actions on  
212 snowmobile numbers. The adaptive management process could serve as an opportunity to  
213 address the hypothesis: what do visitors really want during their winter visit?  
214

215 **Comment:** If we do a good job with wildlife, air, sound and health safety – that’s  
216 probably the greatest influence we can have toward positive visitor enjoyment in the  
217 future. We certainly need to monitor/measure/protect/improve visitor experience in  
218 Yellowstone, but the range of satisfaction by all types of visitors is underpinned by the  
219 quality of air, sound, wildlife and safety.

220 **Response:** Protecting visitor enjoyment is an important part of the NPS mandate.  
221

222 **Comment:** Aren’t lower vehicle numbers a reason for lower effects mentioned in key  
223 conclusions?

224 **Response:** Yes, broadly, lower vehicles numbers have contributed to the health of the  
225 park, but it also has to do with other factors, like the switch to 4-stroke snowmobiles,  
226 packaging traffic, reducing speed limits, and cleaner and quieter vehicles. These have all  
227 contributed to the increase in environmental health.  
228

229 **Comment:** The influence of number of vehicles on environmental health is also  
230 important. Park reports in the past have had strong language about the significant  
231 reduction of numbers of vehicles as a big factor in the reduction of environmental  
232 impacts. As we do our literature review and background information, it’s important to  
233 make it known that numbers are a significant factor in the trends, and in monitoring, we  
234 should have a focus on the impacts of numbers and transportation events.  
235

236 **Comment:** When we look at monitoring and sciences, we need to take into account the  
237 different park entrances and corridors. This variation across the park needs to be factored  
238 in.

239 **Response:** Yes, good point. We have changed the reporting mechanism to reflect actual  
240 events originating from each park entrance. We’ve left the opportunity open to reallocate  
241 where certain transportation events come from.  
242  
243

## 244 **V. Working Group Discussions**

245 Meeting participants broke into working groups by impact topic. Groups were asked to  
246 discuss the following questions and then to report back to the larger group:  
247

- 248 1. What are your current concerns?
- 249 2. What additional questions need to be asked about this topic?
- 250 3. What does success look like?
- 251 4. What additional information do you need from the NPS to make your working  
252 group successful?  
253

- 254 *Sound and Air – Discussion Summary*  
255 • Need a better synthesis of data  
256 • Hope to meet/talk again in early January  
257 • Need for long term monitoring  
258 • Continue monitoring current indicators  
259 • Would like to look further into:  
260 ○ Noise at noise at a distance by OSV type  
261 ○ The influence of speed limits  
262 ○ Whether speed limits are being followed  
263 ○ Interior snowcoach and snowmobile noise levels  
264 • Suggest a speed radar type sign for decibels  
265

266 *Wildlife – Discussion Summary*

- 267 • The group agreed that the issue of comparability—7 snowmobiles =  
268 1 snowcoach—is a cornerstone of the new plan, and in fact, is one of the  
269 fundamental bases by which the success (or not) of the new winter use plan will  
270 be assessed. The group discussed the importance of understanding if the NPS’  
271 theory on comparability will actually play out on the ground as anticipated, as it  
272 relates to impacts on wildlife, while recognizing that this study design may have  
273 its challenges. These challenges include difficulties related to separating out  
274 which types of OSVs are causing impacts (snowcoaches vs. snowmobiles) and  
275 how they are contributing to cumulative impacts as well as questions about study  
276 costs.  
277 • The group would like to look further into comparability across OSV type,  
278 focusing on bison, elk, swans, and eagles  
279 • There is a need for similar research designs for better comparisons  
280 • The group would like to see how impacts change as BAT changes.

281 *Operations and Technology – Discussion Summary*

- 282 • Hope to meet about 60 days from now, but no sooner than the prospectus comes  
283 out (likely late January)  
284 • Would like to look further into:  
285 ○ Rutting of the snowroads and grooming, particularly new grooming  
286 methods that are effective elsewhere  
287 ○ Snowcoach performance emission testing (there are concerns around  
288 varying weather, age of vehicles, and the geographic nature of each  
289 entrance)  
290 ○ Speed limit concerns given the distances in the park  
291 ○ Noise abatement in the interior of snowcoaches  
292 ○ Sylvan Pass protocols  
293 ○ New technologies for snowmobiles (hydrogen, electric, exhaust  
294 limitations)  
295 ○ The non-commercially guided program  
296 • The park will provide information on the distances of road segments overlain with  
297 speed limits  
298

299 *Visitor Experience – Discussion Summary*

- 300 • At what point does the data trigger a discussion about the level of use?
- 301 • What are the key elements of the visitor experience that have been studied?
- 302 → Rebecca will prepare a literature review
- 303 • Talked about having conference calls in January, March, and May
- 304 • How would we monitor visitor experience?
- 305 • Is our focus park visitors or a broader group? Should we include guides or
- 306 surrounding communities?
- 307 • Research should ask the same questions over time
- 308 • There may be synergies with other groups (e.g. measuring tolerance for noise)
- 309 • The park boundary is “artificial” – how do experiences inside the park relate to
- 310 those outside the park?
- 311 • How are visitors changing over time?
- 312 • Can we tap into guides’ knowledge?
- 313 • What is the role of communication?
- 314 • In a successful process, this data will be shared with and useful for park and
- 315 gateway communities.
- 316

317 **VI. Broad Questions and Suggestions about the Winter Use Adaptive**

318 **Management Program (recorded throughout the meeting)**

319

320 **Questions**

- 321 1. How much time will be involved?
- 322 2. What is the starting point for monitoring, and what have we learned to date?
- 323 3. What is the role of a working group member?
- 324 4. How should subject matter experts be involved?
- 325 5. How do we include those people not in attendance today?
- 326 6. How long will this process take?
- 327 7. What type of information are we using? Existing data or new research?
- 328 8. Who helps define the parameters and scope of a working group?

329

330 **Suggestions:**

- 331 • Incorporate the input from guides
- 332 • Working groups should have two-way communication with the public
- 333 • Should consider and work around time constraints related to the release of the
- 334 prospectus
- 335 • Add working group for business/economics
- 336 • Consider performance based metrics for 11<sup>th</sup> year snowcoaches
- 337 • Need a mechanism for addressing ideas beyond the current paradigm
- 338 • Need to define and provide a core focus for working groups
- 339 • It would be helpful to examine the spatial variation of impacts
- 340 • Recognize the role of vehicle numbers as a driver of change
- 341 • Consider a stronger focus on governance and intergovernmental communication