

**Table 3: Summary Comparison of Impacts of Alternatives**

The following terms are used in this impact summary chart and throughout the environmental impact statement. In some cases, the terms are defined quantitatively. However, when they are not, the following definitions apply:  
 Negligible – at lower levels of detection  
 Minor – detectable, but slight  
 Moderate – readily apparent environmental effects with the potential to be come major  
 Major – severe adverse or exceptional beneficial effects

| <b>Impacts on Bison Population</b>                   |   |  |  |   |   |   |   |  |  |  |
|--|---|--|--|---|---|---|---|--|--|--|
| <b>Topic</b>   | <b>Alternative 1: No Action</b>   | <b>Alternative 2:</b>  | <b>Alternative 3:</b>  | <b>Alternative 4:</b>   | <b>Alternative 5:</b>   | <b>Alternative 6:</b>   | <b>Alternative 7:</b>   | <b>Modified Preferred Alternative</b>  | <b>State of Montana October 24, 1999 Preferred Alternative</b> | <b>Implementation of Interim Plan outside Park, Modified Preferred inside Park</b> |
| Estimated population size (# bison) in 2006 or later | 3,100 in 2006 from DEIS deterministic model; the stochastic model predicts a mean population of 3,700                                   | 3,500 in 2006; moderate increase from DEIS deterministic model; the stochastic model predicts a mean population of 5,200, a major increase compared to alternative 1 | 3,500 in 2006; moderate increase from DEIS deterministic model; the stochastic model predicts a mean population of 3,700; similar to alternative 1 | 2,800 in 2006; minor decrease from DEIS deterministic model; the stochastic model predicts a mean population of 3,700; similar to alternative 1 | Deterministic model predicts 2,150 in 1997 to 1,250 in 1999; up to 2,000 by 2006; major decrease; the stochastic model predicts a mean population of 2,900 in 2000 to 2,080 in 2001; major decrease, 2,494 in 2004; major decrease compared to alternative 1, 3,600 in 2014 | Deterministic model predicts 3,500 in 2010; 2,500–2,900 in 2011; moderate to major decrease; the stochastic model predicts that phase 2 could not be implemented during life of the plan; required at least 20 years to fully implement alternative; a mean population of 3,700 at 15 years | Deterministic model predicts 2,700 in both 2006 and 2011; moderate to major decrease; the stochastic model predicts that the population objective is never achieved; the stochastic model predicts a mean population of 3,600; similar to alternative 1 | Deterministic model predicts 3,245 in 2006; similar to alternative 1; major increase compared to alternative 7; the stochastic model predicts a mean population of about 3,700; similar to alternative 1   | Same as alternative 1  | Same as alternative 1  |
| Estimated distribution in West Yellowstone           | Deterministic model predicts 18–52 bison; the stochastic model predicts an average of 61–66 seronegative nonpregnant bison would remain | Deterministic model predicts 20–60 bison; the stochastic model predicts an average of 366–1,128 bison could winter in the western SMA; a major increase              | Deterministic model predicts 16–120 bison; the stochastic model predicts an average of 62–68 bison, similar to alternative 1                       | Deterministic model predicts 1–52 bison; the stochastic model predicts an average of 56–60 bison; a minor decrease                              | Both deterministic and stochastic models predict 0 bison; a major decrease  | Deterministic model predicts 22–60 bison; the stochastic model predicts an average of 58 – 80 seronegative bison might winter in the area; a minor to major increase  | Deterministic model predicts 13–51 bison; the stochastic model predicts no bison would winter in the area in an attempt to meet population objectives; a major decrease   | The deterministic model predicts 22–60; minor to moderate increase compared to alternative 1; the stochastic model predicts 10 bison up to 100 tolerance limit might winter in the area; similar to alternative 1 but more management flexibility and less hazing, capture and handling when tolerance limit is not exceeded | Same as alternative 1  | Same as alternative 1  |
| Estimated distribution in Reese Creek                | 0 bison   | Deterministic model predicts 0–120 bison; the stochastic model predicts an average of 462–530 bison could winter north of the park; a major increase                 | Deterministic model predicts 60–80 bison; the stochastic model predicts an average of 68–80 bison could winter north of the park; a major increase | Deterministic model and stochastic model predict 0 bison; same as alternative 1   | Deterministic model and stochastic model predict 0 bison; same as alternative 1   | Deterministic model and stochastic model predict 0 bison; same as alternative 1   | Deterministic model predicts 0–100 bison; the stochastic model predicts no bison would winter in the area in an attempt to meet population objectives; major decrease   | Deterministic model predicts 65–82; major increase compared to alternative 1; the stochastic model predicts 10–20 up to 100 tolerance limit might winter in the area; major increase compared to alternative 1   | Same as alternative 1  | Same as alternative 1  |

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| Estimated seroprevalence rate in 2011 using the deterministic model and in 2013 for the stochastic model; (for all alternatives except alternative 6, these dates represent 11 years after vaccination of bison begins) | Deterministic model predicts seroprevalence would decline to 24%; stochastic model predicts decline to about 11% | Deterministic model predicts seroprevalence would decline to 26%; minor adverse impact; stochastic model predicts decline to about 13%      | Deterministic model predicts seroprevalence would decline to 28%; minor to moderate adverse impact; stochastic model predicts decline to about 15% | Deterministic model predicts seroprevalence would decline to 26%; minor adverse impact; stochastic model predicts decline to about 13% | Both deterministic and stochastic models predict seroprevalence would fall to near 0%; a major beneficial impact   | Deterministic model predicts seroprevalence would decline to 0% by 2013; major beneficial impact; stochastic model predicts decline to about 9% in 2014; similar to alternative 1, and that this alternative would require at least 20 years to fully implement | Deterministic model predicts seroprevalence would decline to 23%; negligible to minor beneficial impact; stochastic model predicts decline to about 14% | Deterministic model predicts seroprevalence would decline to 25%; negligible to minor beneficial impact; stochastic model predicts decline to about 13% | Same as alternative 1 | Same as alternative 1 |
| <b>Impacts on Recreation</b>  |  |   |  |  |  |   |   |   |                       |                       |
| Visitor experience related to capture facilities and operations   | Minor adverse impacts related to capture operations and restricted access or closures because of them            | No impact to visitors because capture facilities removed; relative benefit  | Negligible adverse impact on visitor use as capture facilities rarely used; relative benefit   | Similar to alternative 1   | Moderate to major adverse impact from capture operations parkwide; moderate to major adverse impact from additional facilities and year-round operations | Similar impact from operations in phase 2 to those in alternative 5; major adverse impact to visitor experience from capture facility in Seven-Mile Bridge area   | Similar to alternatives 1 and 4, although possible adverse impact from increased use of capture facilities to maintain population size                  | Similar to alternative 7, but less adverse as the target population level is higher than alternative 7  | Same as alternative 1 | Same as alternative 1 |
| Wildlife viewing opportunities – percent change by 2006 and distribution  | 42% increase in bison population over 1997; relative benefit compared to existing conditions                     | 14% increase over alternative 1; and wider distribution; minor to moderate benefit compared to alternative 1 to those seeking to view bison | 14% increase over alternative 1; minor to moderate benefit compared to alternative 1   | 8% decrease over alternative 1; minor adverse impact compared to alternative 1   | 35% decrease over alternative 1; minor to moderate adverse impact compared to alternative 1  | 1% higher, i.e., same as alternative 1 through the year 2009. Similar to alternative 5 after 2010   | 12% decrease by 2006; 23% by 2011; minor to moderate adverse impact compared to alternative 1   | 6% higher than alternative 1 by 2006; 7% lower by 2011; negligible to minor impact compared to alternative 1  | Same as alternative 1 | Same as alternative 1 |
| Winter recreation; snowmobiling   | No impact  | Displacement of well over 50% of oversnow park visitors; major impact on individual in-park users; minor to moderate adverse impact overall | Possible minor to major impact if research indicates road closures needed  | No impact  | Major impact on some individual in-park snowmobile users; minor to moderate impact overall   | Similar to alternative 2 for first 10 years; then similar to alternative 5 for 2–3 years  | No impact   | No impact   | Same as alternative 1 | Same as alternative 1 |
| Hunting   | No impact  | No impact   | 75–85 bison hunting permits; minor to moderate benefit   | 35 bison hunting permits; minor benefit  | No impact  | No impact   | 15–25 bison hunting permits; minor benefit  | No impact   | Same as alternative 1 | Same as alternative 1 |
| <b>Impacts on Livestock Operations</b>  |  |   |  |  |  |   |   |   |                       |                       |
| Cost of vaccination and testing   | 2% of yearly production costs; minor impact in the long term, but more apparent in years of low cattle prices    | With removal of test-eligible cattle, no testing or vaccinating in SMAs; possibly continued testing and vaccinating in areas near SMAs      | Similar to alternative 2 in the long term, but smaller SMAs and possible continued presence of test-eligible herds in western SMA                  | Same as alternative 1  | Possibly less vaccination and testing; minor beneficial impact   | First 12 years, same as alternative 1; final 3 years, same as alternative 5   | Same as alternative 3 north of Yellowstone National Park; same as alternative 1 west of park  | Vaccination costs borne by APHIS resulting in a negligible to minor benefit to producers  | Same as alternative 1 | Same as alternative 1 |
| Operational changes to non-breeding cattle– individual ranchers   | No impact  | Possible conversion of cow-calf operations; moderate to major impact on a few individual ranchers   | Fewer possible conversions than in alternative 2; moderate to major impact on a few individual ranchers  | No impact  | No impact  | No impact   | No impact   | No impact   | Same as alternative 1 | Same as alternative 1 |
| Modification of grazing on national forest allotments   | No impact  | Possible allotment modifications; moderate to major impact on a few ranchers using allotments now   | Fewer possible modifications than in alternative 2; moderate to major impact on a few ranchers using allotments now                                | No impact  | No impact  | No impact   | Short term, no impact; long-term, a few allotments on the north end may be modified; moderate to major impact on those users                            | Allotment on/off dates modified; minor impact on local scale<br><br>Negligible impact on a regional scale   | Same as alternative 1 | Same as alternative 1 |

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|   |   |  |  |  |  |  |  |  |   |                                  |
|---|---|--|--|--|--|--|--|--|---|----------------------------------|
| Private land acquisition or easements   | No impact   | Possible buyouts or easements; major impact on public funds  | Fewer possible buyouts or easements than in alternative 2; major impact on public funds  | No impact  | No impact  | No impact  | Same as alternative 3, but no acquisitions in West Yellowstone   | Acquisitions complete; no new impact on public funds or on landowners expected; one cattle operator on acquired land may experience minor to major adverse effects from relocation | Same as alternative 1   | Same as alternative 1            |
| Property damage by bison  | Minor impact overall, but could be moderate to major for individuals affected                           | Short term, same as alternative 1; long term, reduced adverse impact   | Short term, same as alternative 1; long-term, reduced adverse impact   | Same as alternative 1  | Minor impact overall, but could be a moderate to major benefit for individuals who might otherwise experience damage under alternative 1 | Same as alternative 1  | Short term, same as alternative 1; long term, reduced adverse impact   | Negligible to minor overall, but moderate to major for individuals affected  | Same as alternative 1   | Same as alternative 1            |
| Perception of risk  | Risk exists; minor impact   | Risk exists; moderate adverse impact   | Until changes in operations or acquisitions occur, same as alternative 1; thereafter reduced risk  | Same as alternative 1  | Reduced risk, moderate beneficial impact   | Slightly less, but similar to alternative 5; minor to moderate benefit                                     | West Yellowstone, same as alternative 1; Reese Creek, reduced risk in long term  | The same or slightly more beneficial than alternative 1 from additional risk mitigation features   | Same as alternative 1   | Same as alternative 1            |
| <b>Impacts on Socioeconomics — Regional Economy</b>                                     |   |  |  |  |  |  |  |  |   |                                  |
| Impacts on regional economy from wildlife viewing                                       | 40–45% of regional economy (\$500 million) dependent on tourism   | Possible beneficial impact; magnitude unknown  | Similar to alternative 2   | Similar to alternative 1 with hunting an additional source of local income   | Possible adverse impact; magnitude unknown   | Similar to alternative 1 until phase 2; then similar to alternative 5                                      | Similar to alternative 1   | Similar to alternative 1   | Similar to alternative 1  | Same as alternative 1            |
| Impacts on regional economy from snowmobiling   | No change in existing conditions; \$30 million per winter   | Loss of an estimated \$13.75 million in spending in the Greater Yellowstone Area, likely most heavily impacting communities nearest the park                                   | Same as alternative 1  | Same as alternative 1  | Similar to alternative 2   | Similar to alternative 2   | Same as alternative 1  | Same as alternative 1  | Same as alternative 1   | Same as alternative 1            |
| Impacts on regional economy from hunting  | Bison hunting not allowed   | Same as alternative 1  | \$33,000 annual expenditures   | \$15,380 annual expenditures   | Same as alternative 1  | Same as alternative 1  | \$10,890 per year increase from fees, expenditures   | Same as alternative 1  | Same as alternative 1   | Same as alternative 1            |
| Impacts on regional economy from livestock sector                                       | Livestock cash receipts for Gallatin and Park counties comprise 5% of livestock cash receipts statewide | A few livestock operators may relocate their private and/or federal grazing operations to other locations; adverse impact offset by increased wildlife viewing related tourism | Same as alternative 2, but fewer livestock operators potentially displaced   | Same as alternative 1  | Aggressive brucellosis control may increase livestock use of area; negligible benefit  | Similar to alternative 5, but less beneficial to livestock operators as brucellosis eliminated more slowly | Same as alternative 3, but without the possibility of displacements in the West Yellowstone area   | Similar to alternative 7   | Same as alternative 1; no impact  | Same as alternative 1; no impact |
| <b>Impacts on Socioeconomics — Regional Economy Minority and Low-Income Populations</b> |   |  |  |  |  |  |  |  |   |                                  |
| Minority and low-income populations   | \$19,500 of bison meat donated on average per year; minor beneficial impact                             | Negligible adverse impact from loss of bison meat  | Negligible adverse impact from loss of bison meat to hunters; negligible benefit from availability of live bison; possible \$826,000 in live bison value to tribes | \$23,000 per year of bison meat received; value would be higher if some bison are donated live; minor benefit; possible \$1.17 million in live bison value to tribes | \$61,000 in meat available for 3–4 years; otherwise similar to alternative 1; minor beneficial impact                                    | \$19,000 per year donated during phase 1; Similar to alternative 5 during phase 2; minor beneficial impact | \$26,000 per year of bison meat received; value would be higher if some bison are donated live; minor benefit; possible \$1.06 million in live bison donations to tribes | \$26,300 per year of bison meat donated; a possible \$1.8 million in live bison value over 15 years of the plan  | Potentially more bison slaughtered therefore more meat available to tribes; Unknown number of bison could be sent to quarantine | Same as alternative 1            |
| <b>Impacts on Socioeconomics — Social Values</b>  |   |  |  |  |  |  |  |  |   |                                  |

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|  |  |  |  |   |   |  |  |   |                          |                          |
|--|--|--|--|---|---|--|--|---|--------------------------|--------------------------|
| Social values  | Minor to moderate impacts to those with humanitarian/moralistic values; negligible impact to ranching values   | Minor impact on traditional ranching lifestyles; relative positive impact on moral and humanitarian attitudes; possible major impacts on individual ranchers, tribes, those with moral/humanitarian values; possible major impact on winter visitors who support mechanized access | Minor to moderate impacts on those opposed to hunting; negligible impacts on those with humanitarian/moral values; minor impact on ranching values | Overall minor to moderate; impacts on tribes minor; ranching similar to alternative 1 | Those with humanitarian/moral values, tribes, some visitors experience major impact; ranchers negligible to minor benefits from eradication of brucellosis in bison | Similar to alternative 5 during phase 2 (parkwide capture, test, and slaughter), to alternative 1 during first 12 years        | Minor to moderate adverse impact on humanitarian/moral values; minor to major impact on tribes; minor impact on traditional ranching lifestyle | Similar to alternative 1, except tribes receiving more benefits from potential quarantine   | Same as alternative 1    | Same as alternative 1    |
| <b>Impacts on Socioeconomics — Nonmarket Values</b>                  |  |  |  |   |   |  |  |   |                          |                          |
| Annual nonmarket values attributed to well-being of bison population | No impact  | Estimated present value of winter range of \$4.43 million  | Similar to or slightly less than alternative 2   | No impact   | Estimated present value of capture, test and slaughter (seropositive) or vaccinate (seronegative) program of \$3.57 million   | Same as alternative 1 until parkwide capture and slaughter, then same as alternative 5   | Similar to alternative 3   | Similar to alternative 3  | Similar to alternative 1 | Similar to alternative 1 |
| Nonmarket values attributed to wild lifeviewing                      | No impact  | Possible benefit; magnitude unknown  | No impact  | No impact   | Possible adverse impact; magnitude unknown  | No impact  | No impact  | No impact   | No impact                | No impact                |
| Nonmarket values attributed to recreation or hunting                 | No impact  | Estimated loss of \$3.69 million annually  | \$24,000 gain from hunting   | \$11,000 gain from hunting  | Similar to alternative 2 during capture period  | Similar to alternative 2 during first 10 years, then similar to alternative 5 during capture and slaughter                     | Similar to alternatives 1 and 4 (\$8,000 gain from hunting)  | No impact   | Same as alternative 1    | Same as alternative 1    |
| <b>Impacts on Threatened, Endangered, and Sensitive Species</b>      |  |  |  |   |   |  |  |   |                          |                          |
| Bald eagle   | Potential human disturbance impacts reduced to negligible through avoidance mitigation   | No impact  | No impact  | Same as alternative 1   | Potential direct effect on wintering eagles from capture facility in Madison River area; major impact possible  | Potential major adverse impact on one pair of nesting bald eagles from construction of a capture facility at Seven-Mile Bridge | Same as alternative 1  | Negligible effects on the bald eagle with required mitigating measures; minor positive effect on bald eagles on Horse Butte as a result of the potential for less hazing, capture and handling of bison | Same as alternative 1    | Same as alternative 1    |
| Analysis area grizzly bear – carrion supply                          | Slower than natural increase to maximum bison population level would have negligible impact  | Quicker growth of bison population, largest range; moderate benefit compared to alternative 1 to bears by increasing carrion foraging  | Minor benefit to bears compared to alternative 1 from increased growth rate, range of bison population   | Same as alternative 1   | Rapid decrease in bison numbers, reduction in carrion foraging opportunities for bears from range of bison population; moderate to major adverse impact             | Same as alternative 1  | Bison numbers less than alternative 1, but not biologically different for grizzly bears; negligible impact                                     | Similar to alternative 7 but less adverse because of higher target bison population   | Same as alternative 1    | Same as alternative 1    |
| Park interior grizzly bear – carrion supply                          | Groomed roads now allow bison to leave park during severe winter; negligible impact on bear carrion supply   | Closing groomed roads to snowmobiles may keep bison in interior; minor to moderate beneficial impact on bear carrion supply by increased winterkill  | Same as alternative 1  | Same as alternative 1   | Rapid decrease in bison numbers, reduction in carrion foraging opportunities for bears from range of bison population; moderate to major adverse impact             | Same as alternative 1  | Same as alternative 1  | Same as alternative 1   | Same as alternative 1    | Same as alternative 1    |
| Grizzly bear — human confrontations                                  | Possibility of human/ bear encounter and bear being shot increased by bison management actions; currently mitigated by removal of bison viscera, body parts after shooting | Fewer bison likely shot because of larger SMAs, more dispersed shooting; beneficial impact compared to alternative 1   | Possibility of human/bear encounter and bears being shot increased by bison hunting; impact reduced to negligible through hunter education         | Same as alternative 3   | Same as alternative 1   | Same as alternative 1  | Same as alternative 3  | Same as alternative 1   | Same as alternative 1    | Same as alternative 1    |

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|  |   |  |   |                       |   |  |   |   |                       |                       |
|--|---|--|---|-----------------------|---|--|---|---|-----------------------|-----------------------|
| Grizzly bear — bison management activities               | Potential disturbance and displacement caused by hazing and shooting of bison; negligible impact; no or negligible impact from capture facilities, as bears are denning | Potential temporary disturbance and displacement caused by hazing and shooting of bison; negligible impact, as most occurs during denning period   | Same as alternative 1   | Same as alternative 1 | Same as alternative 1   | Same as alternative 1                                | Same as alternative 1   | Same as alternative 1   | Same as alternative 1 | Same as alternative 1 |
| Gray wolves — human confrontation                        | No impact   | No impact  | Possibility of a human/wolf encounter and wolf being shot increased by bison hunting; impact reduced to negligible through hunter education | Same as alternative 3 | No impact   | No impact  | Same as alternative 3   | No impact   | Same as alternative 1 | Same as alternative 1 |
| Gray wolves — bison management activities                | Disturbance and displacement caused by hazing and shooting; short-term, negligible impact; no or negligible impact from capture facilities                              | Potential displacement of wolves that may inhabit the area in the future caused by shooting bison; negligible impact   | Same as alternative 2   | Same as alternative 1 | Same as alternative 1   | Same as alternative 1                                | Same as alternative 1   | Similar to alternative 1 but less adverse as a result of the potential for less hazing, capture and handling of bison         | Same as alternative 1 | Same as alternative 1 |
| Gray wolves — bison as prey and carrion                  | Negligible impact   | Moderate benefit for wolves by increasing their opportunities to forage on carrion due to quickest growth of bison population and largest range  | Similar to alternative 2, but negligible as range and growth rate of bison population would be less   | Same as alternative 1 | Smaller range and rapid decrease in bison population would reduce wolf foraging opportunities; moderate to major adverse impact | Same as alternative 1                                | Reduced size of bison herd over the long term would have a negligible impact on wolf foraging opportunities | Negligible to minor benefit for wolves due to tolerance of bison beyond park boundaries during winter months                  | Same as alternative 1 | Same as alternative 1 |
| Wolverine and lynx — changes in snowmobile grooming      | Negligible impact   | Potential shift in use to national forest caused by stopping road grooming for snowmobiles at west entrance; potential increase in packed snow routes, allowing predators to access prey now used by lynx; negligible adverse impact | Negligible impact   | Negligible impact     | Negligible impact   | Negligible impact                                    | Negligible impact   | Negligible impact   | Same as alternative 1 | Same as alternative 1 |
| Trumpeter swan — nesting pair                            | No impact   | No impact  | No impact   | No impact             | No impact   | Major adverse impact from Seven-Mile Bridge facility | No impact   | No impact   | No impact             | No impact             |
| <b>Impacts on Other Wildlife Species</b>                 |   |  |   |                       |   |  |   |   |                       |                       |
| Pronghorn antelope — habitat removal                     | Removal of >13 acres of critical winter habitat due to Stephens Creek facility; moderate to major adverse impact  | Same as alternative 1 during phase 1, then moderate to major benefit from removal of facility at Reese Creek   | Same as alternative 1 unless land acquired and capture facility moved north; if so, possible major benefit                                  | Same as alternative 1 | Removal of critical winter habitat caused by Stephens Creek and other facilities; moderate to major adverse impact              | Same as alternative 5                                | Same as alternative 3   | Same as alternative 1   | Same as alternative 1 | Same as alternative 1 |
| Elk, antelope, and other ungulates — capture operations  | Disturbance and displacement caused by hazing, fences, and shooting; minor impact   | Same as alternative 1 during phase 1, then minor benefit from removal of facility  | Short term, same as alternative 1; long term, minor benefit from removal of Stephens Creek facility   | Same as alternative 1 | Minor impact caused by additional capture facilities  | Same as alternative 5                                | Same as alternative 3   | Moderate to major benefit to pronghorn and minor benefit to other wildlife species due to decreased use of capture facilities | Same as alternative 1 | Same as alternative 1 |
| Elk, antelope, and other ungulates — acquisition of land | No impact   | Moderate to major beneficial impact on pronghorn; minor benefit to other ungulates   | Moderate to major beneficial impact on pronghorn; minor benefit to other ungulates  | Same as alternative 1 | No impact   | No impact  | Same as alternative 3   | Same as alternative 3   | Same as alternative 3 | Same as alternative 3 |

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|  |  |  |  |  |  |   |  |   |   |                       |
|--|--|--|--|--|--|---|--|---|---|-----------------------|
| Predators and scavengers   | Potential minor impact caused by hazing; negligible impact on carrion supply from removal of bison       | No impact  | Potential minor impact caused by hazing; no impact associated with changes in bison population relative to alternative 1     | Same as alternative 1  | Major decrease in prey/carrion; moderate adverse impact  | Slight to moderate decrease in prey/carrion; minor adverse impact   | Minor adverse impact from maintaining smaller bison population size over long term | Same as alternative 1 during step 1; minor benefit during steps 2 and 3   | Same as alternative 1   | Same as alternative 1 |
| Impacts associated with snowmobiling                                     | Displacement, noise, habitat modification; degree of impact unknown, likely minor                        | Minor to moderate impact from snowmobile use displaced to national forest  | Same as alternative 1  | Same as alternative 1  | Moderate adverse impacts during parkwide capture and slaughter from displacement due to road closures  | Same as alternative 2 for first 12 years, then additive with alternative 5; moderate impacts likely   | Same as alternative 1  | Same as alternative 1   | Same as alternative 1   | Same as alternative 1 |
| <b>Impacts on Human Safety</b>   |  |  |  |  |  |   |  |   |   |                       |
| Risk of bison management personnel or hunters contracting undulant fever | Negligible to minor impact   | Negligible impact  | Negligible to minor impact   | Minor impact   | Moderate impact (phase 1); negligible impact (phase 2)   | Negligible to minor impact for first 12 years; moderate impact last 3 years   | With mitigation, negligible to minor   | Same as alternative 1 but less adverse during step 3 when bison handling is expected to decrease  | Same as alternative 1   | Same as alternative 1 |
| <b>Impacts on Cultural Resources</b>                                     |  |  |  |  |  |   |  |   |   |                       |
| Archeological resources  | No additional impact   | Potential disturbance from removal of capture facilities; negligible or minor impact with required mitigation  | Potential disturbance from grading for capture or quarantine facilities; negligible or minor impact with required mitigation | Same as alternative 3  | Potential disturbance from grading for nine capture facilities has potential for major adverse impacts; could be mitigated to negligible or minor impacts; costs could be high | Capture facility in Seven-Mile Bridge area would have major adverse impacts to archeological resources; could be mitigated at minimum estimated cost of \$1 million; impacts, with mitigation, would be minor | Same as alternative 3  | Potential disturbance from grading for capture or quarantine facilities; with mitigation, negligible to minor impact                      | Same as alternative 1   | Same as alternative 1 |
| Cultural significance of bison herd to tribes                            | Status quo may be considered major adverse impact to tribes viewing bison herd as culturally significant | Free ranging bison herd protected, herd size increased; minor to major positive impact compared to alternative 1                                     | Similar to alternative 2   | Similar to alternative 1   | Restrictions on distribution and decreased size of herd would have major adverse impact  | Similar to alternative 1 in phase 1; similar to alternative 5 in phase 2  | Similar to alternative 1 and 4   | Increased tolerance of bison outside park would be major benefit  | Similar to alternative 1 but less bison expected to occupy public lands outside of park | Same as alternative 1 |
| Historic landscape   | Capture facilities visually intrusive on landscape; negligible impact                                    | Dismantling capture facilities, additional bison restores scene; beneficial impact   | Dismantling capture facilities inside park, some increase in bison restores scene  | Similar to alternative 1   | Additional capture facilities not part of historic scene inside park; major short-term adverse impact  | Similar to alternative 5  | Similar to alternative 3   | Same as alternative 1 unless additional capture facility located north of the park; then possible adverse impact                          | Similar to alternative 1 but less bison expected to occupy public lands outside of park | Same as alternative 1 |
| <b>Impacts on Visual Resources</b>                                       |  |  |  |  |  |   |  |   |   |                       |
| Presence of capture/quarantine facilities                                | Minor to moderate impact on natural vista  | Beneficial compared with alternative 1   | Minor impact from relocat-ed facility on north side; minor impact from quaran-tine, beneficial to west side                  | Minor to moderate impact on natural vista; quarantine minor impact | Major impact on natural vista from capture facilities parkwide.  | Major impact on natural vista; major adverse impact from Seven-Mile Bridge facility   | Similar to alternative 3; except on west side                                      | Same as alternative 4   | Same as alternative 4 if quarantine included  | Same as alternative 1 |
| Bison viewing  | Potential increase in viewing opportunities from increase in bison population over time; minor benefit   | Minor to moderate benefit for those seeking bison due to moderate increase in bison population, compared to alternative 1 and increased distribution | Similar to alternative 2   | Same as alternative 1  |  | Minor to moderate adverse impact on viewing opportunities for those seeking bison due to decrease in bison population, compared to alternative 1  | Same as alternative 1 in phase 1, alternative 5 in phase 2                         | Minor benefit to those seeking to view bison from increased distribution of bison outside park and negligible changes in population level | Same as alternative 1   | Same as alternative 1 |

|                             |  |   |   |                                 |  |  |                          |   |                       |                       |
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| Bison management activities | Potential major visual impact caused by hazing, shooting and gutting     | No impact   | Potential major visual impact caused by hunting   | Similar to alternatives 1 and 3 | Moderate to major visual impact from capture operations  | Same as alternative 5  | Similar to alternative 4 | Similar to alternative 1 but less adverse due to potential reduction in management activities during step 3 | Same as alternative 1 | Same as alternative 1 |
| Winter scene                | Current effect on scene from snowmobiles and other winter recreationists | Minor to major benefits for the park visual scene from displaced snowmobiles, minor to major adverse impacts on the scene on adjacent U.S. Forest Service lands | Same as alternative 1, unless research indicates road closures; if so, similar to alternative 2 | Same as alternative 1           | Same as alternative 2, except visitors able to access park would experience moderate to major impact from capture operations on winter scene | Same as alternative 2, except visitors able to access park would experience moderate to major impact from capture operations on winter scene | Same as alternative 1    | Same as alternative 1   | Same as alternative 1 | Same as alternative 1 |

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