

APPENDIX H IMPLEMENTATION PLAN

I. Introduction

This plan is designed to be applicable to all of the action alternatives found in FEIS Chapter 2. Because of that fact, it is presented in general terms that could be applied to any of them. It is organized in four sections; I. Introduction, II. Project Level Implementation Strategy, III. Adaptive Response Protocol (ARP), and IV. Tables.

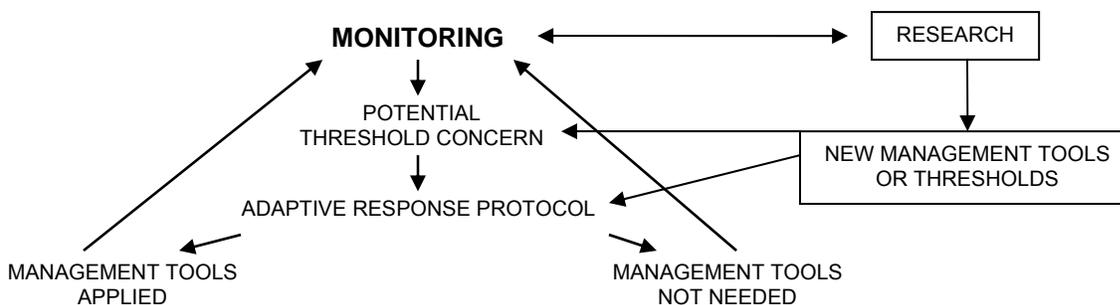
All of the action alternatives (Alternative 1, 3, 4, and 5) provide for prairie dog management activities to address threshold (Table H-4) values specific to the individual alternative. Thresholds are a tool to aid the District Ranger in determining that there may be management actions (Table H-1) that need to be taken and if so, how will they be implemented and documented. Crossing of a threshold will normally trigger an evaluation of the situation and may result in selection of additional or alternate adaptive courses of action. This plan includes a documented process (Section III. Adaptive Response Protocol) designed to assist the decision-maker (District Ranger) in implementing specific decision points found in the Record of Decision (ROD).

Section III of this plan includes an Adaptive Response Protocol (ARP) which, as a decision-making process, will guide the District Ranger in determining which specific management tools (Table H-1) would be most likely to achieve the desired results after a threshold (Table H-4) concern is validated. Management tools currently available to the District Ranger would be those which have been analyzed within the FEIS (or a subsequent NEPA analysis and decision) and whose effects have been disclosed within the parameters of implementing ROD direction. Validation of specific concerns with thresholds (Table H-4) resulting from monitoring data or other credible information will initiate the ARP and subsequent selection of the appropriate management response. The ARP is designed to facilitate consistency in the decision process while ensuring that adaptive response actions are consistent with the ROD and appropriately documented.

II. Project-Level Implementation Strategy

The full suite of management tools identified in Table H-1 could potentially be applied under an adaptive, project-level strategy which implements the ROD. Successful application of these tools is highly dependent on effective and timely monitoring of the distribution and dynamics of prairie dog colonies, as well as vegetative and other resource conditions. Interdisciplinary evaluation of monitoring (Table H-5) or credible information suggesting that a threshold has been, or is likely to be, exceeded will initiate action by the District Ranger. That action will include identification of a strategy consistent with the ROD (Table H-2) that addresses the threshold concern including selection of the appropriate tools (Table H-1) and/or additional monitoring to be implemented.

Monitoring (Table H-5) is the key component of any adaptive response to changing conditions on the ground. If monitoring or credible information identifies a potential concern with thresholds, the District Ranger would initiate the ARP. The intent of the ARP is to determine what available adaptive management tools (Table H-1) may be appropriately applied to resolve the threshold (Table H-4) concern and to better move toward meeting desired conditions (Table H-3). The following model illustrates the process of implementation and shows the various pathways for action or input.



Action taken by the District Ranger can take the form of direct application of management tools or the ARP may identify the need for long-term evaluation, such as initiating additional monitoring or inventory efforts, prior to applying management tools. In all cases, the application of management tools to address threshold (Table H-4) concerns will be based on the documented outcome from the ARP. Future research may identify improved management tools and/or more efficient monitoring protocols. As this new information is identified, it should be incorporated into the selection of specific annual strategies as appropriate.

The primary purpose of the ARP is to guide use of rodenticide and other management tools (Table H-1) to address threshold concerns. Non-lethal management tools are available and can be used to help address threshold concerns and they should be considered as part of the ARP. Livestock use strategies can control prairie dog colonies by managing for cool season grasses with increased height and density (Cincotta et al. 1989). Generally, the most effective management strategies employ multiple tools that are complimentary in addressing concerns with attaining or maintaining desired conditions. Rodenticide treatments must utilize other management actions that will enhance longer term outcomes by minimizing the impacts that may be creating the threshold concern. As an example, for the occasional cases where rodenticide is needed to address the threshold for desired conditions for vegetation, it is necessary to remove livestock grazing for a period of time that allows recovery.

III. Adaptive Response Protocol (ARP)

The ARP incorporates a decision framework consisting of a series of dichotomous steps that facilitates and documents the decision to apply management tools to specific on-ground needs in a responsive and adaptive fashion. It does so through evaluation of available monitoring and other information in developing and documenting the decision and implementation process. It will provide a venue for the District Ranger to collect available information that will lead to an informed management decision including the appropriate level of coordination. The District Ranger, through the ARP, will identify the appropriate management tool(s) for implementation illustrated in Table H-1 (also see Chapter 2 of the FEIS).

As with any process leading to a possible change in management, some basic questions will help to validate the need/concern and provide a basis by which to frame the scope of the needed change. In this regard, the ARP decision framework is as follows:

Decision Framework

1. Does the monitoring or credible information indicate there is a concern with one or more of the thresholds (Table H-3)?
 - 1.1 If yes, document and go to Step 2.
 - 1.2 If no, is the evidence inconclusive, indicating the need for further monitoring or inventory?
 - 1.2.1 Yes - develop monitoring strategy and begin process of integrating the need into the Forest budget and implementation process.
 - 1.2.2 No - document findings and complete the assessment with appropriate resolution/closure.
2. If credible evidence exists that the identified concern needs follow-up action, does the colony or area of concern contain black-footed ferrets or does it fall within areas designated for black footed ferret emphasis?
 - 2.1 If yes, proceed to Sub-section A, Step 3.
 - 2.2 If no, go to Sub-section B, Step 7.

Sub-Section A – Colonies in Management Areas (3.63) Designated as Black-footed Ferret Habitat

3. Is the concern with the desired vegetation threshold (Table H-3)?
 - 3.1 Yes – Proceed to Step 7.
 - 3.1 No – Go to Step 4.
4. Is the concern with the maximum acre threshold?
 - 4.1 Yes – Proceed to Step 7.
 - 4.2 No – Proceed to Step 5
5. Is the concern with the minimum acre threshold?
 - 5.1 Yes – Proceed to Step 7.
 - 5.2 No – Proceed to Step 6.2
6. Does the threshold concern deal with ongoing chronic boundary problems?
 - 6.1 Yes – Ensure that prairie dogs from the suspected IMZ are clearly the source for the ongoing chronic boundary problem and that BMZ control efforts have not been successful after three straight years of treatment with the appropriate management tools. If the ongoing chronic boundary problem is clearly the result of prairie dogs from the IMZ, proceed to step 7.
 - 6.2 No – The identified concern does not deal with any of the thresholds (Table H-3). Document rationale for this conclusion and any action deemed by the District Ranger to be appropriate in dealing with the identified concern.

7. Consider the following after identifying the specific threshold concern(s):
 - 7.1 If evidence is received that black-footed ferret populations are being negatively impacted from unknown causes, implementation designed within the dichotomy of the ARP should be deferred until consultation with the USFWS indicates that management actions will be in compliance with ESA requirements. Impacts can be occurring because of such causal agents as plague. In these cases, temporarily defer any on-going management actions or delay proposed actions that reduce prairie dog acres and consult with the USFWS on appropriate courses of action. If, after consultation, there are no concerns identified with appropriate courses of action, the strategy dealing with a threshold(s) concern may continue.
If the concern is the minimum acre threshold, go to Step 7.3.
 - 7.2 On rare occasions, interior dog towns may be the source of ongoing chronic boundary problems where those interior dog towns are immediately adjacent to boundary management zones and prairie dogs are clearly moving from the interior zone to the BMZ. Consider using rodenticide in treating the IMZ to provide a wider buffer between the town and private property. Where appropriate, rodenticide should be used in conjunction with non-lethal control methods.
 - 7.3 Identify acreage to be treated based on need except that treatment cannot result in the minimum acre objective for the MA not being met. Where minimum acre objectives are not met, consider actions that would increase total acreage in the MA or defer until acreage reduction will maintain the minimum acre objective and black-footed ferrets can be sustained.
 - 7.4 In conjunction with the USFWS, work with the Forest Biologist or designated black-footed ferret management representative, to trap and remove animals when deemed necessary by the USFWS.
 - 7.5 What are the adaptive management tools available to address the concern(s)? Is one more effective for the specific concern or are they more effective when used together in a multiple tool strategy?
 - 7.6 How will the management tools be implemented and are the resources available to do so?
 - 7.7 Will application of any of the tools lead to a concern with another threshold such as lethal control and minimum acre objectives or ferret population numbers?
 - 7.8 Does the application of management tools require coordination with other agencies or individuals such as the U.S. Fish and Wildlife Service or State Agencies?
 - 7.9 Are there partners to help with resolution of the concern?
 - 7.10 Document the results of Steps 7.1 through 7.9 above and proceed to Section C – Annual Implementation Strategy Development

Sub-Section B – Colonies in Geographic Areas not Designated as Black-footed Ferret Habitat

8. Is the concern with the desired vegetation threshold (Table H-3)?
 - 8.1 Yes – Proceed to Step 12.
 - 8.2 No – Proceed to Step 9

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9. Is the concern with maximum acre threshold?
 - 9.1 Yes – Proceed to Step 12.
 - 9.2 No – Proceed to Step 10.
 10. Is the concern with minimum acre threshold?
 - 10.1 Yes – Proceed to Step 12.
 - 10.2 No – Proceed to Step 11.2.
 11. Does the threshold concern deal with ongoing chronic boundary problems?
 - 11.1 Yes – Ensure that prairie dogs from the suspected IMZ are clearly the source for the ongoing chronic boundary problem and that BMZ control efforts have not been successful after three straight years of treatment with the appropriate management tools. If the ongoing chronic boundary problem is clearly the result of prairie dogs from the IMZ, proceed to Step 12.
 - 11.2 No – The identified concern does not deal with any of the thresholds (Table H-3). Document rationale for this conclusion and any action deemed by the District Ranger to be appropriate in dealing with the identified concern.
 12. Consider the following after identifying the specific threshold concern(s).
 - 12.1 Identify acreage to be treated based on need except that treatment cannot result in the minimum acre objective for the GA not being met. Where minimum acre objectives are not met, consider actions that would increase total acreage in the GA or defer action until acreage reduction will maintain the minimum acre objective.
 - 12.2 On rare occasions, interior dog towns may be the source of ongoing chronic boundary problems where those interior dog towns are immediately adjacent to boundary management zones and prairie dogs are clearly moving from the interior zone to the BMZ. Consider using rodenticide in treating the IMZ to provide a wider buffer between the town and private property. Where appropriate, rodenticide should be used in conjunction with non-lethal control methods.
 - 12.3 What are the adaptive management tools available to address the concern(s)?
 - 12.4 How will the management tools be implemented and are the resources available to do so in a timely manner?
 - 12.5 Will application of any of the tools lead to a concern with another threshold such as lethal control for similarity index and minimum acre objectives?
 - 12.6 Are there concerns with other prairie dog colony obligate species such as burrowing owls and swift fox?
 - 12.7 Does the application of adaptive management tools require coordination with other agencies or individuals?
 - 12.8 Are there partners to help with resolution of the concern?
 - 12.9 Document the results of steps 12.1 through 12.8 above and proceed to Section C – Annual Implementation Strategy Development.

Sub-Section C – Annual Implementation Strategy Development

Integration of the answers from Sub-Section A or B into an annual implementation strategy consists of the following basic steps:

1. After completion of Sub-Section A, step 6 or Sub-Section B, step 10 whichever is applicable; select appropriate adaptive management tools that will remove the threshold concern. Place first priority on non-lethal adaptive management tools.
2. Review and implement as appropriate the conservation measures common to all alternatives identified below and in Chapter 2 of the DEIS.
3. Avoid all significant fossil and heritage resource sites when conducting any ground-disturbing projects. Prior to these projects, a qualified archeologist or paleontologist will determine effects and document such determination for the files.
4. Prior to ground-disturbing projects, a journey-level biologist will review the project for effects on TES species; determination of effects will be made and documented for the files.
5. If prairie dog acreages are outside identified objectives, an adaptive response protocol will be completed for the specific occurrence and the decision-makers' rationale for any action documented for the file.
6. Coordinate with the U.S. Fish and Wildlife Service for all activities (such as rodenticide use, ferret translocation protocols, shooting restrictions, etc.) determined to have the potential to affect black-footed ferrets and document the results of that coordination for the file.
7. New research and/or technology that are consistent with the findings of this analysis and the Responsible Officials' Record of Decision can be added to the list of management tools as long as they are consistent with all of the preceding measures. Rationale for such use will be reviewed and documented for the file.
8. Identifying ongoing or additional monitoring/inventory needs.
9. Documentation of consistency with the ROD (See Table H-2 Project Level Implementation Criteria).
10. In coordination with the appropriate NNF program manager, develop a program of work for integration into the planning and budgeting process.
11. Implement the strategy.

IV. Tables

The tables in this section provide supporting information to the ARP and Decision Framework.

Table H-1. Suite of management tools to manage prairie dog habitat and populations.

Administrative Tools	Habitat Manipulation Tools	Population Manipulation Tools
Utilize land exchanges, acquisitions, and conservation easements with willing landowners to facilitate prairie dog population maintenance and expansion where desired, and to ease impacts to private land resulting from current or potential colony expansion.	Rodenticide may be used to reduce prairie dog density and/or acres where desired vegetation conditions on prairie dog colonies are not being met. Use in conjunction with other tools such as fencing and/or changes in livestock systems (grass bank, numbers or timing of use) to maximize potential for moving the treated acres toward desired vegetation conditions.	Rodenticide may be used to reduce prairie dog acreage when the maximum acre objective is exceeded. Use in conjunction with other tools such as fencing and/or changes in livestock systems (grass bank, numbers or timing of use) to encourage establishment of a vegetation buffer.
Facilitate partnerships between willing landowners and other third parties for land purchase or other financial incentives to the private landowner if they are willing to conserve prairie dogs on their property.	Modify cattle grazing to expand or contract prairie dog habitat and direct prairie dog movement through manipulation of vegetative structure, residual vegetation, and seral stage.	Consider removing livestock from any IMZ colonies in which toxicants are used until the vegetation buffer is established.
Consider the development of forage reserves as opportunities present in order to have areas available on a temporary use basis to meet the need for alternate forage resources for such things as drought and other natural disturbance. The Forest Service may withhold redistribution of any relinquished livestock permits with the recognized intention to establish some forage reserves for use by the remaining permittees as authorized by the District Ranger.	Utilize visual and physical barriers such as taller grasses, tall structure vegetation buffers, or barrier fencing to inhibit prairie dog movement off-site in those areas where colony expansion is not part of the desired condition.	Alternately, consider restrictions on forage utilization by livestock (timing, intensity, duration) in specific instances where vegetative buffer recovery or vegetative enhancement is desired.
Cooperate and coordinate with other agencies who want prairie dogs for prairie dog relocation or food sources (black footed ferret, raptors). Focus removals on sites where colony expansion and/or population density is a concern.	Plan and manage livestock grazing to maintain a low structure and a generally early seral condition in those areas where stable or increasing populations/colonies of prairie dogs are desired. Plan and manage livestock grazing to maintain a medium to tall structure and a generally mid to later seral stage condition in those areas where prairie dog expansion is not desired.	In areas where black footed ferret populations are below the desired objectives and/or in areas where ferret expansion is a desired condition, supplement ferret numbers from other ferret populations, either wild born or pen-raised.
Shift livestock grazing away from BMZs where chronic unwanted prairie dog encroachment onto non federal properties is occurring.	Utilize prescribed fire in a focused, site-specific effort to enhance prairie dog habitat and direct prairie dog movement or colony expansion into areas where prairie dog colonies are part of the desired condition.	Upon request, allow live trapping and delivery of prairie dogs to raptor and ferret facilities.

Administrative Tools	Habitat Manipulation Tools	Population Manipulation Tools
<p>Continue to monitor, inventory, and provide research opportunities on prairie dogs and their habitat relationships as well as black footed ferret to assist in application of best available science and information through adaptive management.</p>	<p>Where livestock grazing is restricted or curtailed in order to meet objectives related to prairie dog management (e.g., maintenance of tall structure, buffer vegetative zones, etc.), work to provide alternate forage resources for livestock grazing on other areas of the grassland unit or on other National Grasslands.</p>	<p>Install raptor nesting or resting/ hunting structures to encourage predators in areas where there are concerns about prairie dog colony expansion or population densities.</p>
<p>Identify and support mechanisms for landowners and conservation groups to work together to apply prairie dog management actions on the ground.</p>		<p>In close cooperation with the states, consider permitting shooting under specified conditions where efforts are needed to reduce populations or to limit colony expansion. Coordination with states includes defining specified conditions for shooting activities.</p>
<p>Develop a unified grazing system for Conata Basin that will integrate rest or deferment in areas where taller structure or residual vegetation is desired. Do this by combining all permittees under a comprehensive grazing system to improve long-term management of the existing or planned large colonies of prairie dogs.</p>		<p>Utilize live trapping and translocation of prairie dogs from areas of concern or opportunity to areas where colony expansion or supplementation is desired. Focus efforts in areas where there are concerns regarding prairie dog colony expansion or population densities.</p>
		<p>Utilize best-available-science plague mitigation protocols when plague is suspected in a specific geographic area; including use of pesticides for reducing flea populations particularly in Conata Basin MA 3.63.</p> <p>Optimize distances between colonies to reduce the potential for spread of plague.</p>

Table H-2. Project level implementation criteria.

Management Tool (area)	NEPA/NFMA Compliance	ESA Compliance	NHPA/Paleo Compliance
Suite of Management Tools (Management tools are determined to be compliant if the following criteria are met)			
All NFS Lands	Compliant if consistency with ROD is documented through Adaptive Response Protocol. Tools dealing with land adjustments require additional environmental analysis and public disclosure. Tools identified in the FEIS dealing with livestock management actions have been determined to be compliant. Adjustments in management will be made through project level NEPA decisions and associated annual operating instructions and Allotment Management Plans as appropriate.	Compliant if outside Conata Basin and Smithwick Area and NEPA/NFMA compliant.	Not required unless soil disturbance will occur. If soil disturbance will occur, a clearance will be required prior to project implementation.
Conata Basin MA 3.63	Compliant if consistency with ROD is documented through Adaptive Response Protocol. Compliant if Conservation Measures and thresholds are adhered to. Tools dealing with land adjustments require additional environmental analysis and public disclosure. Tools analyzed in the FEIS dealing with livestock management actions have been determined to be compliant. Adjustments will be made through project level NEPA decisions and associated annual operating instructions and Allotment Management Plans as appropriate.	Compliant if ferret population objectives are sustained. Actions must first be NEPA/NFMA compliant in order to be ESA compliant. Compliant if colony is unoccupied by ferrets. If occupied consultation with FWS must occur prior to implementation. Requires additional ESA consultation if within one mile of ferret habitat on Badlands National Park.	Not required unless soil disturbance will occur. If soil disturbance will occur, a clearance will be required prior to project implementation.
Smithwick Area 3.63	Compliant if consistency with ROD is documented through Adaptive Response Protocol Compliant if Conservation Measures and thresholds are adhered to. Tools dealing with land adjustments require additional environmental analysis and public disclosure. Tools analyzed in the FEIS dealing with livestock management actions have been determined to be compliant. Adjustments will be made through project level NEPA decisions and associated annual operating instructions and Allotment Management Plans as appropriate.	Must be NEPA/NFMA compliant No consultation needed prior to FWS issuing a proposed rule for reintroduction.	Not required unless soil disturbance will occur. If soil disturbance will occur, a clearance will be required prior to project implementation.

Table H-3. Desired plant communities for prairie dog colonies within each Ecological Site Description by alternative.

Alternatives 1 and 5			
MLRA	ESD	Desired Plant Community	Plant Community Description
64 60A 63A	Clayey 17-20" Loamy 17-20" Clayey 13-16" Clayey 16-18" Clayey	Blue Grama /Buffalograss Sod	The potential vegetation is made up of approximately 75-90 percent grasses (primarily short, warm season grasses), 5-10 percent forbs, and 5-15 percent shrubs. The dominant grasses include blue grama and buffalograss. Other grasses may include western wheatgrass, prairie junegrass, threeawn, and annual brome. The dominant forbs include slimflower scurfpea, pussytoes, curlycup gumweed, and scarlet globemallow. The dominant shrub is plains pricklypear.
64 60A 63A	Shallow Clay Shallow Clayey Thin Upland Shallow Clay	Blue Grama / Sedge	The potential vegetation is made up of approximately 90 percent grasses (primarily short, warm season grasses), 5 percent forbs, and 5 percent shrubs. The dominant grasses or grass-likes include blue grama, buffalograss and sedge. Other grasses may include western wheatgrass, prairie junegrass, threeawn, and annual brome. The dominant forbs include slimflower scurfpea, pussytoes, curlycup gumweed and scarlet globemallow. The dominant shrubs are fringed sagewort and plains pricklypear.
64 60A	Dense Clay Dense Clay	Western Wheatgrass / Bareground	The potential vegetation is made up of 75-90% grasses & grass-likes, 10-20% forbs and 0-10% shrubs. The grass component is almost entirely western wheatgrass. Other perennial grasses are generally not found. Forbs found in this plant community include pennycress, curlycup gumweed, sweetclover and annual forbs. Shrubs found include brittle cactus and plains pricklypear.
64	Badlands Overflow	Wheatgrass /Inland Saltgrass /Knotweed	The vegetation is mainly made up of western wheatgrass and/or thickspike wheatgrass, inland saltgrass, and knotweed. Most other species are either greatly diminished or absent. Silver sagebrush, rose and broom snakeweed may survive under extreme conditions.
64	Thin Claypan	Blue Grama/Cactus	Blue grama and cactus are the dominant species. Other grasses and grass-likes occurring include western wheatgrass, sedge, buffalograss, inland saltgrass, needleandthread, prairie junegrass, and annual grasses. Forbs such as broom snakeweed, cudweed sagewort, heath aster and western yarrow may also be present. Some non-native species will begin to invade this plant community including salsify, sweetclover and annual bromes. There is usually more than 25% bare ground.
63A	Thin Upland	Blue Grama/Sedge/ Threeawn	Thin Upland ecological range site is currently in draft form. Rick Peterson, NRCS-Kadoka, SD, indicates that this site is similar to Thin Upland in MLRA 60A, but more field work is to be completed before the final version is published

Alternatives 3 and 4			
MLRA	ESD	Desired Plant Community	Plant Community Description
64	Loamy 17-20"	Western Wheatgrass /Needleandthread	The potential vegetation is about 80 percent grasses or grass-like plants, 15 percent forbs, and 5 percent shrubs. Cool season grasses dominate the plant community. The major grasses include western wheatgrass and needleandthread. Other grasses occurring on the site include green needlegrass, blue grama, little bluestem, sideoats grama, and sedge. Significant forbs include vetch, cudweed sagewort, scurfpea, western ragweed, and goldenrod. The significant shrub that occurs in patchy mosaics is western snowberry. Other shrubs include rose, leadplant, and broom snakeweed.
64 60A 63A	Shallow Clay Shallow Clayey Shallow Clay	Western Wheatgrass /Sideoats Grama /Green Needlegrass	Potential vegetation is about 80-90 percent grasses or grass-like plants, 5-10 percent forbs, and 5-10 percent shrubs. The major grasses include western wheatgrass, green needlegrass, and sideoats grama. Other grasses and grass-likes occurring on this plant community include little bluestem, blue grama, sedge, and big bluestem. Forbs commonly occurring include purple coneflower, goldenpea, prairie coneflower, and scurfpea. Shrubs commonly occurring include leadplant, fringed sagewort and rose.
64 60A	Dense Clay Dense Clay	Western Wheatgrass	The potential vegetation is about 80-90 percent grasses or grass-like plants, 5-10 percent forbs, and 5-10 percent shrubs. Cool season grasses dominate the plant community. The major grasses include western wheatgrass and green needlegrass. The plant diversity is low. Other grasses and grass-like species occurring may include Sandberg bluegrass, buffalograss, blue grama, sideoats grama, and sedge. The dominant forbs include biscuitroot, wild parsley, scarlet globemallow, and American vetch. Shrubs that may occur on the plant community include brittle cactus and plains pricklypear.
64	Badlands Overflow	Switchgrass /Wheatgrass /Needlegrass	The plant community is dominated by both warm and cool season grasses. The major grasses include western wheatgrass and/or thickspike wheatgrass, switchgrass, green needlegrass and needleandthread. Other grasses and grass-likes include big bluestem, prairie sandreed and tall dropseed. Significant forbs include cudweed sagewort, goldenrod and scurfpea. The dominant shrubs are rose, silver sagebrush and western snowberry. Big sagebrush occurs on this site in the western portion of the MLRA.
64	Thin Claypan	Western Wheatgrass /Blue Grama	The potential vegetation is about 80 percent grasses or grass-like plants, 10 percent forbs, and 10 percent shrubs. The rhizomatous wheatgrasses dominate the plant community, while blue grama is also prevalent. Other grasses and grass-like plants occurring on the site include green needlegrass, needleandthread, buffalograss, Sandberg bluegrass, and sedges. Significant forbs include scarlet globemallow, cudweed sagewort, and heath aster. Shrubs occurring in this plant community include cactus, big sagebrush, saltbush, and fringed sagewort.

Alternatives 3 and 4			
<p>64 60A 63A</p>	<p>Clayey 17-20” Clayey 13-16” Clayey 16-18” Clayey</p>	<p>Western Wheatgrass /Green Needlegrass</p>	<p>The potential vegetation is about 85-95 percent grasses or grass-like plants, 5-10 percent forbs, and 2-5 percent woody plants. The community is dominated by cool season grasses. The major grasses include western wheatgrass, green needlegrass, needleandthread, and porcupine grass. Other grasses include sideoats grama, sedges, and buffalograss. Shrubs include big sagebrush, cactus, winterfat, rose, and fourwing saltbush.</p>
<p>63A</p>	<p>Thin Upland</p>	<p>Western Wheatgrass /Needlegrass /Sideoats /Grama /Bluestem</p>	<p>Thin Upland ecological range site is currently in draft form. Rick Peterson, NRCS-Kadoka, SD, indicates that this site is similar to Thin Upland in MLRA 60A, but more field work is to be completed before the final version is published</p>
<p>60A</p>	<p>Thin Upland</p>	<p>Needlegrass /Blue Grama /Little Bluestem</p>	<p>The potential vegetation is about 75-85 percent grasses or grass-like plants, 5-15 percent forbs, and 5-10 percent shrubs. A mixture of cool and warm season grasses dominates the plant community. Major grasses include little bluestem, needleandthread, sideoats grama, and blue grama. Other grasses and grass-likes occurring include sedge, western wheatgrass, green needlegrass, and prairie junegrass. Significant forbs include purple coneflower, dotted gayfeather, and prairie clover. Significant shrubs found in this plant community include fringed sagewort, rose, and yucca.</p>

Table H-4. Thresholds by Alternative

Threshold	Prescribed Action
Alternative 1	
Visual observation of specific prairie dog towns suggests the similarity index ¹ is at or below 25% or trending downward toward 25% of the Historical Climax Plant Community (HCPC).	Initiate adaptive response protocol addressing the specific prairie dog colony. If SI is above 25% but trending downward, develop a plan to reverse trend, including monitoring to ensure that SI has been reversed. In MA 3.63, any actions taken to reduce prairie dog acreage below the maximum objective will be dependent on current prairie dog densities and what is required to maintain ferret viability. Consider all tools available to accomplish this action (see Table 2-11).
Acres exceed maximum objective for GA or MA.	Initiate adaptive response protocol. If determined necessary, apply rodenticide treatment to reduce acreages to some level within range of objectives. In MA 3.63, any actions taken to reduce prairie dog acreage below the maximum objective will be commensurate with current prairie dog densities. Consideration for level of reduction will include risk and projected timeline of further expansion.
Acres are below minimum objective for GA or MA.	Initiate adaptive response protocol. Suspend any actions in the GA or MA which are designed to reduce acres. If the adaptive response protocol indicates a need, consider the full range of active and passive tools to increase acreages within the GA or MA (see Table 2-11).
Chronic BMZ problem exists.	Initiate adaptive response protocol if a chronic BMZ problem exists because control of encroachment arising from a complaint does not affect the entire colony. Consider all current activities being utilized in the BMZ such as fencing and grazing. If the adaptive response protocol indicates a need, consider controlling the entire colony as long as all other objectives are met (including objectives dealing with black-footed ferrets).
Alternative 2	
Encroachment of prairie dogs onto private lands	Treat prairie dog towns in Boundary Management Zones when prairie dogs are encroaching onto private lands. Treatment is within the parameters the 2002 Forest Plan as amended by the 2005 ROD.
Alternative 3	
Rangeland analysis of specific prairie dog towns shows the Natural Resource Conservation Service (NRCS) South Dakota State Technical Guide ecological site similarity index for range condition \leq 25% of the Historical Climax Plant Community (HCPC).	Apply rodenticide treatment to 90% of the active prairie dog holes in the allotment within the 12 months prior to proposed reductions of permitted grazing (AUMs). A verification form documenting this action will be prepared by the Forest Service in conjunction with the affected permittee(s).
Minimum range conditions are not being met in second and subsequent years after initial rodenticide application on occupied prairie dog colonies.	Apply rodenticide treatment to 90% of the prairie dog holes in the allotment within the 12 months prior to proposed reductions of permitted grazing (AUMs). A verification form documenting this action will be prepared by the Forest Service in conjunction with the affected permittee(s).

¹ Similarity Index Rating is a method to evaluate an ecological site. This method compares the present plant community on an ecological site to the various common vegetation states that can exist on the site or that are desired on the site. The SI is expressed as the percentage of a vegetation state plant community presently on the site to the desired vegetation state plant community. The desired vegetation state plant community must be identified as the reference plant community. The SI can provide an indication of past disturbances, as well as future management or treatments, or both, needed to achieve the client's objectives (NRCS 2006).

Threshold	Prescribed Action
Alternative 3, cont.	
Prairie dog colony acreage exceeds maximum county objective (3% of aggregate acres in each county).	Apply rodenticide treatment to affect reduction of acreage to bring the total acres in compliance with the objective.
Alternative 4	
Active prairie dog colony acreage approaches or exceeds the 12,000 acres in Conata Basin.	Approved rodenticides will be used in the subsequent fall to reduce the active level of active prairie dog colony acres to no less than 11,000 acres. Coordinate and consult with the U.S. Fish and Wildlife Service to identify, for treatment and reduction, those prairie dog colonies with the least potential to negatively impact black-footed ferrets.
Active prairie dog acres exceed 12,000 acres in Conata Basin.	A compensation plan developed by third parties is implemented to allow prairie dog acreage over 12,000 acres to survive and provide ferret habitat.
Active prairie dog colony acreage falls below 8,000 acres in Conata Basin.	The use of rodenticides to control prairie dogs will cease when annually inventoried active prairie dog colonies fall below 8,000 acres except for special and unique site-specific situations as directed by the Forest Supervisor. The 8,000 acre minimum should be observed regardless of environmental conditions (drought, above-average precipitation, disease, etc.) or management-induced conditions (grazing intensity).
Rangeland analysis of specific prairie dog towns shows the similarity index \leq 20% of the Historical Climax Plant Community (HCPC) or trending downward.	Approved rodenticides will be used in the subsequent fall to reduce the active level of active prairie dog colony acres to no less than 11,000 acres. Coordinate and consult with the U.S. Fish and Wildlife Service to identify, for treatment and reduction, those prairie dog colonies with the least potential to negatively impact black-footed ferrets. Any reduction in active prairie dog colony acres under this threshold will not cause the total acres in Conata Basin to fall below the minimum objective of 8,000.
Black footed ferret population numbers fall below objectives.	Supplement black-footed ferret populations with animals trapped and transplanted from other wild populations or with animals from the captive breeding program as needed to maintain population goals.
Alternative 5	
Inventory of colonies indicates acres exceed maximum objective for GA or MA	Initiate adaptive response protocol. If determined necessary, apply rodenticide treatment to reduce acreages to some level within range of objectives. Consideration for level of reduction will include risk and projected timeline of further expansion. In MA 3.63, treatment to reduce prairie dog acres below the maximum acreage objective must meet or exceed the acreage/density requirements needed to sustain black-footed ferrets.
Inventory of colonies indicates acres are below minimum objective for GA or MA	Initiate adaptive response protocol. Suspend any actions within the GA or MA which are designed to reduce acres. If the adaptive response protocol indicates a need, consider the full range of active and passive tools to increase acreages within the GA or MA.
Chronic BMZ problem exists	Initiate adaptive response protocol if a chronic BMZ problem exists because control of encroachment arising from a complaint does not affect the entire colony. Consider all current activities being utilized in the BMZ such as fencing and grazing. If the adaptive response protocol indicates a need, consider controlling the entire colony as long as all other objectives are met (including objectives dealing with black-footed ferrets).

Table H-5. Monitoring activities by alternative.

Monitoring	Alternative 1	Alternative 2	Alternative 3	Alternative 4 MA 3.63 acres only	Alternative 5
Prairie dogs					
Density	Non 3.63 MAs – Every 3 years or as needed. MA 3.63 – 100% of acres annually	MA 3.63 – 100% of the acres annually	Non 3.63 MAs – 100% of Forest annually. MA 3.63 – 100% of acres annually	100% of acres Annually	No
Acres	Non 3.63 MAs – Every 3 years. MA 3.63 – 100% of acres annually	Non 3.63 MAs – Every 3 years or as needed. MA 3.63 – 100% of acres every 1 to 3 yrs.	Non 3.63 MAs – 100% of Forest annually. MA 3.63 – 100% of acres annually	100% of acres Annually	Non 3.63 MAs – Every 3 years. MA 3.63 – 100% of acres every 1 to 3 yrs.
Mapping	Non 3.63 MAs – Every 3 years. MA 3.63 – 100% of acres annually	Non 3.63 MAs – Every 3 years. MA 3.63 – 100% of acres every 1 to 3 yrs.	Non 3.63 MAs – 100% of Forest annually. MA 3.63 – 100% of acres annually	100% of acres Annually	Non 3.63 MAs – 33% of Forest annually. MA 3.63 – 100% of acres every 1 to 3 yrs.
Windshield surveys for plague	No – incidental to other field visits	Annually	No– incidental to other field visits	No– incidental to other field visits	Annually
Black-footed ferret – MA 3.63 only					
Population	Annually 12,500 to 19,000 acres	Every 3 years 12,500 to 19,000 acres	Annually Up to 5,800 acres if all Pennington Co. acre objective is MA 3.63	Annually 8,000 to 12,000 acres	Every 3 years 27,000 to 46,400 acres
Genetics	Yes	Yes	Yes	Yes	Yes
Modeling	Yes	Yes	Yes	Yes	Yes
Dispersal	Yes	Yes	Yes	Yes	Yes
Predator levels	No	No	Yes	Yes	No

Table H-5, cont.

Monitoring	Alternative 1	Alternative 2	Alternative 3	Alternative 4 MA 3.63 acres only	Alternative 5
Vegetation					
Similarity Index	When threshold objectives are a concern.	Calculate SI equivalent from seral stage, structure	100% of Forest When threshold objectives are a concern.	100% of Forest When threshold objectives are a concern.	20% of Forest Calculate SI equivalent from seral stage and structure.
Seral stage, structure	No	20% of Forest Annually	No	No	20% of Forest Annually
Livestock utilization of plant species	Yes Annually on pastures with livestock use and prairie dog colonies.	Yes As needed	Yes Annually on pastures with livestock use and prairie dog colonies.	Yes Annually on pastures with livestock use and prairie dog colonies.	Yes As needed
Invasive species	On prairie dog towns and in conjunction with prairie dog monitoring.	On prairie dog towns and in conjunction with prairie dog monitoring.	On prairie dog towns and in conjunction with prairie dog monitoring.	On prairie dog towns and in conjunction with prairie dog monitoring.	On prairie dog towns and in conjunction with prairie dog monitoring.
Precipitation (measured by permittee)	By allotment Annually	By allotment Annually	By allotment Annually	By allotment Annually	By allotment Annually