Medicine Lake NWR Wilderness Character Monitoring Summary

The table and the report that follow are part of a national initiative to establish a baseline wilderness character assessment for all of the National Wildlife Refuges with designated wilderness. The measures for each wilderness were developed with refuge staff and reviewed at the national level. This addendum document complements the 2013 report on wilderness character monitoring for Medicine Lake National Wildlife Refuge.

Sean Lofgren 4/14/17

Sean Lofgren, Refuge Manager, Medicine Lake NWR **Date**

Nancy Roeper 4/20/17

Nancy Roeper, National Wilderness Coordinator, NWRS **Date**

Medicine Lake NWR Wilderness Character Monitoring Summary Table

The following table summarizes the original measures selected by refuge staff for wilderness character monitoring in 2013 and reflects any modifications that were made in 2017 to comply with the revised monitoring protocol of *Keeping it Wild 2*. The reasoning for adding, removing or modifying measures is explained in the narrative section below the table. This table describes each measure, the quality that it informs, and how often data are collected for the measure. Within this context, a monitoring year will be defined as the fiscal year (October 1 through September 30). As professionals at the refuge have developed these measures with a Wilderness Fellow, it is expected that these measures will form the basis of wilderness character monitoring in the Inventory and Monitoring Plan that is submitted by the refuge to the region.

Wilderness Character Monitoring Measure attributes for Medicine Lake Wilderness

Quality	Indicator	Measure	Frequency	Data Adequacy	Significant Change	Baseline[1] Value
Untrammeled	Actions authorized by the federal land manager that intentionally manipulate the biophysical environment	Number of fish stocking actions	Annually	High	Any	0
		Number of decisions per year to prescribe burns	Annually	High	Any	1
		Actions to treat noxious plants with herbicides	Annually	High	Any	32
		Index of other authorized actions that manipulate plants, wildlife, insects, fish, pathogens, soils, or waters	5 years	High	Any	16
		Total AUMs	Annually	High	Any statistically significant change	1162
	Actions not authorized by the federal land manager that intentionally manipulate the biophysical environment	Index of unauthorized actions that intentionally manipulate plants, wildlife, insects, fish, pathogens, soils, or waters	5 years	Medium	Any	0

[1] The baseline value is defined as the data value entered into the Wilderness Character Monitoring Database from the first year of available data for a particular measure. An individual measure's baseline year may be different from the baseline year of Wilderness Character Monitoring as a whole.

Quality	Indicator	Measure	Frequency	Data Adequacy	Significant Change	Baseline[1] Value
Natural	Plants	Percent occurrence of noxious leafy spurge	Annually	High	Any	2.7%
	Animals	Number of invasive animal species	5 years	Medium	Any	1
	Air and water	Ozone air pollution	5 years	High	Categorical	59.6 ppb (2009)
		Total nitrogen wet deposition	5 years	High	Categorical	1.7 kg/ha (2009)
		Total sulfur wet deposition	5 years	High	Categorical	0.7kg/ha (2009)
		Visibility	5 years	High	Categorical	6.8 dV (2009)
	Ecological processes	Average high air temperature from May-September	10 years	High	TBD	62.4
		Average low temperature from November-March	10 years	High	TBD	21.4
		Occurrence of non-native avian disease	5 years	Medium	Any	1
		Palmer hydrological drought Index	Annually	Medium	Any statistically significant (regression)	2.81
Undeveloped	Presence of non-recreational structures, installations, and developments	Index of non-recreational installations, structures, and developments	5 years	High	Any	225
		Count of abandoned infrastructure, installations and developments	10 years	High	Any	3

Quality	Indicator	Measure	Frequency	Data Adequacy	Significant Change	Baseline[1] Value
	Presence of inholdings	Acres of inholdings within the wilderness boundary	10 years	High	Any	0
	Use of motor vehicles, motorized equipment, or mechanical transport	Index of motor vehicles, motorized equipment, and mechanical transport	Annually	High	Any	1
Solitude or primitive and unconfined recreation	Remoteness from sights and sounds of human activity *inside* wilderness	Estimated number of hunters in the wilderness	Annually	Low	25%	50
		Estimated number of anglers in the wilderness	Annually	Low	25%	400
	Remoteness from sights and sounds of human activity *outside* the wilderness	Miles of adjacent travel routes	5 years	High	Any	27 miles
		Index of energy development and production infrastructure	5 years	High	Any	125
	Facilities that decrease self-reliant recreation	Number of agency-provided recreation facilities	5 years	High	Any	0
	Management restrictions on visitor behavior	Index of restrictions on visitor behavior	5 years	High	Any	12
Other features of value	Deterioration or loss of integral cultural features	N/A				
	Deterioration or loss of other tangible and integral features of value	N/A				

The following people participated in the drafting of the new measures and the summary table above:

Michael Borgreen – Wildlife Biologist

The following people have access to the WCM database (wc.wilderness.net):

Michael Borgreen – Wildlife Biologist, Data Steward

Sean Lofgren – Refuge Manager

Narrative

On September 27, 2016 Wilderness Fellow Lauren Slater had a phone conversation with Bridget Nielsen, Adam Deras, and Mike Borgreen to discuss the recent changes in the monitoring framework of *Keeping it Wild 2* (KIW2). Wilderness Fellow Marissa Edwards continued discussions with Mike Borgreen to complete this report. From the discussions measures were modified, removed, or added into the wilderness character monitoring report to comply with the updated version of *Keeping it Wild*.

Untrammeled quality

Indicator:	Actions authorized by the federal land manager that intentionally manipulate the biophysical environment
Original Measure:	Number of grazing permits authorized (2013 WCM Report, p. 15)
Change:	MEASURE REMOVED. This measure was removed because it was decided that it was redundant in the Untrammeled Quality once the measure "Total AUMs" was moved from the Natural Quality to the Untrammeled Quality.
New Measure:	N/A
Indicator:	Actions authorized by the federal land manager that intentionally manipulate the biophysical environment
Original Measure:	Acres of prescribed burn (2013 WCM Report, p. 16)
Change:	MEASURE MODIFIED. This measure originally took into account the amount of acres of prescribed burns per year. In order to be in compliance with KIW2, it was decided that the measure should focus on the number of actions that take place to prescribe burns, instead of the total amount of acres. The measure was therefore reworded. See page 9 for further details.
New Measure:	Number of decisions per year to prescribe burns
Indicator:	Actions authorized by the federal land manager that intentionally manipulate the biophysical environment
Original Measure:	Acres of wilderness treated with herbicide (2013 WCM Report, p. 17)
Change:	MEASURE MODIFIED. This measure originally took into account the amount of acres of wilderness treated with herbicide per year. In order to be in compliance with KIW2, it was decided that the measure should focus on the number of actions that take place to treat the wilderness, instead of the total amount of acres. Additionally, it was decided that 'number of personnel days' most accurately reflected the present threat to wilderness character. The measure was therefore reworded. See page 10 for further details.
New Measure:	Actions to treat noxious plants with herbicides.
Indicator:	Actions authorized by the federal land manager that intentionally manipulate the biophysical environment
Original Measure:	Index of authorized trammeling actions (2013 WCM Report, pp. 18-19)
Change:	MEASURE MODIFIED. The measure title was not specific about what was counted as a trammeling action. It has been reworded to clarify what trammeling actions are

	included, and specifically any actions not covered by previous measures. This includes previously uncounted water management actions, so the baseline value is changed from 4 to 16. See pages 11-12 for further details.
New Measure:	Index of other authorized actions that manipulate plants, wildlife, insects, fish, pathogens, soils, or waters
Indicator:	Actions authorized by the federal land manager that intentionally manipulate the biophysical environment
Original Measure:	Total AUMs (2013 WCM Report, pp. 24-25)
Change:	MEASURE MOVED. This measure was moved to the Untrammeled Quality from the Natural Quality. The decision to allow grazing is a management tool utilized to promote growth of native vegetation, but in doing so trammels the wilderness. Therefore, it was decided it would be more appropriate in this quality. The frequency was also changed from every 5 years to annual.
New Measure:	N/A

Natural

Indicator:	Plants
Original Measure:	Percent occurrence of invasive plants (2013 WCM Report, pp. 22-23)
Change:	MEASURES MODIFIED. The data used in this measure comes from a 2008 survey, and it is not clear if this survey will be repeated on a regular basis. The new measure uses data from the annual Strike Team Survey, which is a coordinated effort to control leafy spurge. See page 13 for further details.
New Measure:	Percent occurrence of noxious leafy spurge
Indicator:	Animals
Original Measure:	Piping plover success, sharp-tailed grouse census, and number of nesting colonial birds (2013 WCM Report, pp. 26-29)
Change:	MEASURES REPLACED. These original measures focused on the abundance of native species. In order to comply with changes from KIWI2, it was decided to remove these measures, and replace them with an invasive species measure. See page 14 for further details.
New Measure:	Number of invasive animal species
Indicator:	Air and Water
Original Measure:	Water quality (2013 WCM Report, p. 34)
Change:	MEASURE REMOVED. This measure was previously included, but collection of the data was not feasible at the time of the 2013 WCM Report because there were no data loggers located within the wilderness. Since the status has not changed, the measure has been removed.
New Measure:	N/A
Indicator:	Ecological Processes
Original Measure:	Occurrence of avian disease (2013 WCM Report, p. 35)
Change:	MEASURE MODIFIED. This measure previously counted avian botulism, West Nile virus, and issues from blue-green algae. It was determined that the measure should be

	adjusted to only count non-native diseases. So, the name of the measure is changed, and the baseline value is updated from 3 to 1, and only counts West Nile virus. Nothing else about this measure changes.
New Measure:	Occurrence of non-native avian disease
Indicator:	Ecological Processes
Original Measure:	Medicine Lake water level fluctuations (2013 WCM Report, p. 39)
Change:	MEASURE REMOVED. Current water management at Medicine Lake aims to reproduce historic water level fluctuations through the use of a diversion canal and a screw gate structure. In past years the lake has been managed to produce static levels throughout the year. While current actions allow ecological processes to continue, this measure is not consistent with KIW2. Because no alternative measures have been determined, it was decided to remove this measure.
New Measure:	N/A
Indicator:	Ecological Processes
Original Measure:	Annual precipitation (2013 WCM Report, p. 36)
Change:	MEASURE REPLACED. The Palmer Drought Index was selected because it is a consistent measure of drought severity across the United States, dating back to the 1800's for the Medicine Lake Wilderness area. Precipitation measures are taken by refuge staff with an automated system but have had varying durations and accuracy so we felt the Palmer Hydrological Drought Index would be more appropriate. See pages 15-16 for further details.
New Measure:	Palmer hydrological drought Index

Undeveloped quality

Indicator:	Presence of non-recreational structures, installations, and developments
Original Measure:	Index of temporary non-recreational installations, structures, and developments (2013 WCM Report, p. 41)
Change:	MEASURE MODIFIED. Even though the refuge primarily employs temporary structures in the wilderness, "temporary" was removed from the measure so that future permanent structures could be included in the count if they occur. The index counting protocol does not change.
New Measure:	Index of non-recreational installations, structures, and developments
Indicator:	Presence of non-recreational structures, installations, and developments
Original Measure:	N/A
Change:	MEASURE ADDED. This measure was originally considered, but ultimately dropped (2013 WCM Report, p. 55). There are three structures in the wilderness, two windmills and an earthen dam, which are not considered integral to the wilderness character of Medicine Lake. It was decided to add this measure so that any changes over time would be tracked. See page 17 for further details.
New Measure:	Count of abandoned infrastructure, installations and developments

Solitude or primitive and unconfined recreation quality NO CHANGES

Other features of value quality NO CHANGE

Measure: Number of decisions per year to prescribe burns

Background and Context: (Modified from 2013 WCM Report, p. 16) Section 2(c) of the Wilderness Act states that wilderness is "hereby recognized as an area where the earth and its community of life are untrammeled by man." Actions that intentionally manipulate or control ecological systems inside the wilderness degrade the untrammeled quality of wilderness character, even though they may be taken to restore natural conditions or for other purposes. Unlike management on any other Federal land, wilderness legislation directs the managing agency to scrutinize its actions and minimize control or interference with plants, animals, soils, water bodies, and natural processes.

Wilderness is manipulated and the untrammeled quality of wilderness character is diminished when prescription-burning actions occur inside the wilderness. Prescribed fires attempt to replicate how naturally occurring fires once took place in the Medicine Lake Wilderness. While prescribed burn is considered a trammeling action within the wilderness, the overall objective of burning is to maintain and restore native prairie and have a positive impact on the natural quality of the wilderness.

Over time, the native integrity of the prairie grasslands has been declining due to an increase in nonnative grasses and the existence of state listed noxious weeds. Historically, grasslands in the northern Great Plains co-evolved with various disturbance regimes, fire being a main tool. By burning early in the growing season, such as early spring, all prairie plants are given the chance to compete with no residual cover. There is no record of fire suppression on the refuge. Recommendations for prairie grassland habitats suggest prescribed burns should occur every 7-9 years.

Measure Description and Collection Protocol: This measure totals the number of burns that the refuge implements during the monitoring period. Magnitude is not considered for this measure, which means that each prescribed burn counts as "1", no matter the extent of the burn.

Data Source: Medicine Lake National Wildlife Refuge fire records

Data Adequacy: High

Frequency: Annual

Significant Change: Any change in the value of this measure is considered significant.

Measure: Actions to treat noxious plants with herbicides

Background and Context: (Copied from 2013 WCM Report, p. 17) Chemical treatment of state listed noxious weeds at Medicine Lake National Wildlife Refuge is conducted regularly. Use of herbicide is reported annually as per the Pesticide Use Policy, but this data is lumped for each refuge; therefore specific use on the Medicine Lake Wilderness has not been delineated. Refuge staff have focused their efforts mainly on attempting to control Leafy spurge, *Euphorbia esula*. Leafy spurge was introduced to the Great Plains over a century ago from Europe and Asia, and has proven to be a formidable opponent. Rangeland and grassland prairies are particularly susceptible to leafy spurge infestation. It has the ability to displace numerous desirable plants, making it a hazard to the threatened habitat of mixed grass prairie.

Measure Description and Collection Protocol: The total number of personnel days spent on spraying herbicide for noxious weeds serves as the data value for this measure. To calculate personnel days, multiply the number of days spent conducting noxious weed control by the number of personnel participating during each day of operations. For example, if 5 people spent 2 days staging equipment and 1 day spraying herbicide, the number of personnel days would be 15. Over time, an increase in this value would signify a degrading trend in wilderness character for this indicator.

Data Source: Refuge biologist and Region 6 Strike Team records

Data Adequacy: High

Frequency: Annual

Significant Change: Any change in the value of this measure is considered significant.

Measure: Index of other authorized actions that manipulate plants, wildlife, insects, fish, pathogens, soils, or waters

Background and Context: (Modified from 2013 WCM Report, p. 18) This measure monitors authorized trammeling actions implemented by refuge staff or other permitted entities (via Special Use Permits) that are not captured by the previous measures.

Fish stocking actions at Medicine Lake National Wildlife Refuge require the use of survey nets, box traps, and other equipment to gather information regarding fish composition in the lake itself. Additionally, water management happens on Medicine Lake, through the use of a diversion canal and a screw gate structure. Both structures are outside wilderness, but their use can have large impacts on water levels in the wilderness. Water management in recent years has aimed to reintroduce dynamic water levels to Medicine Lake for the benefit of vegetation growth and wildlife. These actions are authorized and have not been accounted for in the previous management actions under the Untrammeled Quality.

Measure Description and Collection Protocol: This single measure accounts for all other authorized trammeling actions that are not monitored by other measures. Each "other" trammeling action (those not tracked by other measures) taken within the last five years is scored based on its impact to the untrammeled quality according to two parameters: (1) the extent that the activity affects the community of life (spatial extent and species affected) and (2) the temporal extent of the activity. The table below describes how these trammeling actions are scored. The sum of these scores generates a total score for each trammeling action; the summed score for all trammeling actions is reported in the Wilderness Character Monitoring Database. Over time, an increase in this value would signify a degrading trend in wilderness character for this indicator.

Table 4. Authorized Trammeling Action

Question About Action	Score
To what extent does the activity affect the community of life in wilderness?	1 – the activity affected only a single species **or** an area of less than one acre 2 – the activity affected or has the potential to affect many species **or** an area of more than one acre 3 – the activity affected or has the potential to affect many species **and** an area of more than one acre
Length of time?	1 – the activity occurred on 1-5 days 2 – the activity occurred on 5-120 days 3 – the activity occurred throughout the year or more than 120 days in a year

Data Source: Fish stocking reports, Water Use Reports, and Refuge manager

Data Adequacy: High

Frequency: Every 5 years

Significant Change: Any change in the value of this measure is considered significant.

Measure: Percent occurrence of noxious leafy spurge

Background and Context: Invasive species pose serious threats to native grassland communities. Grassland ecosystems, which provide nesting habitat for bird species, are negatively impacted by invasive species such as leafy spurge (*Euphorbia esula*). Annual Strike Team surveys are completed within the Sandhills section of wilderness at Medicine Lake NWR for management of leafy spurge. Patches of leafy spurge that are located during the survey are sprayed with herbicide to prevent further spreading.

Measure Description and Collection Protocol: The percent occurrence of leafy spurge is calculated from the Strike Team report by comparing the acres infested to the total acres surveyed. The Strike Team makes all attempts to survey known historic locations of leafy spurge, so that data is comparable from year to year. An increase in the percent occurrence of leafy spurge would represent a degrading trend in the Natural Quality of the wilderness.

Data Source: Strike Team survey reports.

Data Adequacy: High

Frequency: Annual

Significant Change: Any change in the value of this measure is considered significant.

Measure: Number of invasive animal species

Background and Context: Presence of non-native invasive species represents a degradation of the naturalness of a wilderness. Invasive species cause harm to ecosystems, push native species away, and can have a large-scale effect on an area. Currently, non-native carp are present in the Medicine Lake Wilderness.

Measure Description and Collection Protocol: The data value for this measure is the total count of known non-native, invasive animal species in the wilderness. Surveys are not currently conducted to identify presence of invasive species. Therefore, the data value is based on the expert knowledge of refuge staff. Any increase in this value represents a degrading trend.

Data Source: Refuge staff

Data Adequacy: Medium

Frequency: 5 years

Significant Change: Any change in the value of this measure is considered significant.

Measure: Palmer hydrological drought index

Background and Context: Medicine Lake Wilderness is largely impacted by hydrologic cycles, which has implications for waterbird species that are dependent on the fluctuations in water level. A trend towards more drought or more wet conditions could therefore have negative impacts on water level fluctuations. The Palmer Hydrological Drought Index (PHDI), reported by the National Climatic Data Center, measures the long-term, hydrological impacts of drought (e.g. water levels). These impacts can take a long time to develop, and a long time to recover from.

Measure Description and Collection Protocol: Data is collected and reported by the National Climatic Data Center, NOAA (see Image 1). The PHDI used for Medicine Lake is for Montana Climate Division 6, Northeastern. The data value is the reported Departure from Mean (0.38) 1976-2013 Base Period.[2] A climate that is trending drier (increasing value) would degrade the Natural Quality of the wilderness.

It is important to note that the PHDI tracks changes in two directions, trending drier or wetter, but for the purposes of Medicine Lake Wilderness we are only tracking values on the drought side of the index. Management actions, such as water releases, allow refuge staff to address wetter conditions, but drought conditions can have severe impacts on plant and animal communities that are difficult to address. Climate change also increases the uncertainty about future drought conditions. Therefore, only data values that represent a statistically significant change toward drier conditions will be represented as a degrading trend in the database.

Data Source: NOAA, **https://www.ncdc.noaa.gov/cag/time-series/us/24/6/phdi/ytd/12/1895-2016?base_prd=trueandfirstbaseyear=1976andlastbaseyear=2013andtrend=trueandtrend_base=10andfirsttrendyear=1895andlasttrendyear=2016andfilter=trueandfilterType=binomial**
Be sure to set the end date to the present year.

Data Adequacy: Medium – The quality of the data is high, but the data comes from a national dataset, and reflects the entire climate division, not just the Medicine Lake Wilderness.

Frequency: Annual

Significant Change: Any statistically significant change would be considered significant for this measure. This is determined with linear regression, with a 95% confidence (0.05 significance level).

[2] NOAA National Centers for Environmental information, Climate at a Glance: U.S. Time Series, Palmer Hydrological Drought Index (PHDI), published January 2017, retrieved on January 13, 2017 from http://www.ncdc.noaa.gov/cag/

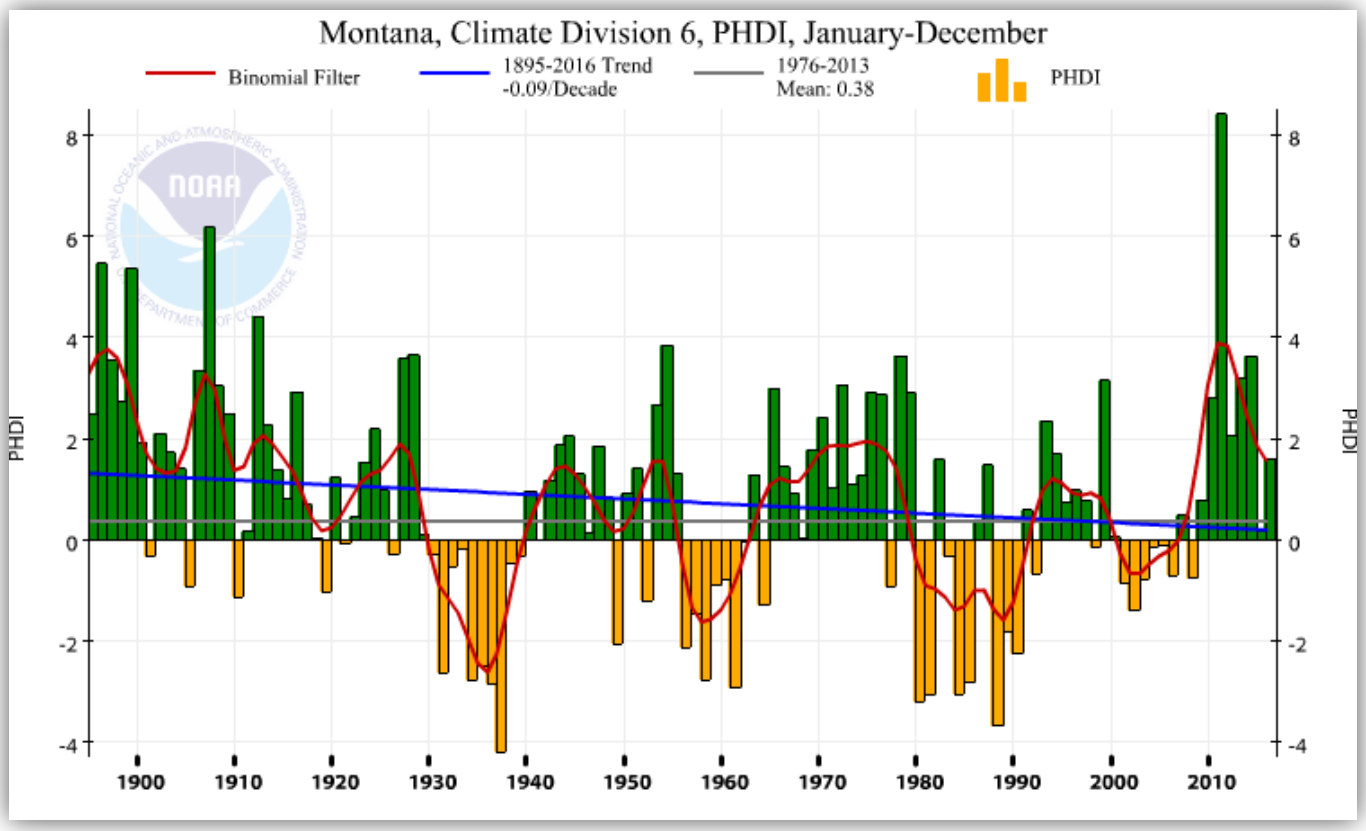

Image 1. Palmer Hydrological Drought Index values for Montana, Climate Division 6, between 1895 and 2016 (as reported by NOAA).

UNDEVELOPED

Presence of non-recreational structures, installations, and developments

Measure: Count of abandoned infrastructure, installations and developments

Background and Context: (Modified from 2013 WCM Report, p. 55) Currently, there are three abandoned structures in the wilderness which were all present before wilderness establishment. These three structures include two windmills and an earthen dam, all located in the Sandhills portion of the wilderness. There are no plans to remove these structures from the wilderness, but they show a clear presence of humans and development.

Measure Description and Collection Protocol: This measure is the total number of abandoned infrastructure, installations and developments. An increase in this value represents a degrading trend for the wilderness. If at any time in the future structures are removed, it would improve the wilderness character.

Data Source: Refuge files and Archeological survey reports

Data Adequacy: High

Frequency: Every 10 years

Significant Change: Any change in the value of this measure is considered significant

Medicine Lake NWR Wilderness Character Monitoring Data Update

As part of this process the most current data relating to wilderness character monitoring at Medicine Lake NWR was compiled. The following table reflects all of the measure values calculated from data collected from the creation of the baseline report in 2013 (the baseline year for Medicine Lake Wilderness) until the completion of this update in 2017. The following data should also be entered into the wilderness character monitoring online database.

Updated Wilderness Character Monitoring Measure data for Medicine Lake Wilderness

N/A denotes data collection frequency not applicable, so no data value reported

TBD denotes a data value that has not yet been collected/reported

Quality	Measure	Freq.	MEASURE VALUES					Comments
			Baseline[1]	2013	2014	2015	2016	
Untrammeled	Number of fish stocking actions	Annually	0	0	0	0	1	
	Number of decisions per year to prescribe burns	Annually	1	1	0	1	1	Sandhills burned in 2013; Big Island burned in 2015 and 2016
	Actions to treat noxious plants with herbicides	Annually	32	32	10	33	TBD	Sandhills and Big Island sprayed in 2015
	Index of other authorized actions that manipulate the biophysical environment	5 years	N/A	16	N/A			Includes one water addition (6), one release (6), and installation of gill nets and box traps (4).
	Total AUMs	Annually	N/A	N/A	1162	0	1,367	
	Index of unauthorized actions that manipulate the	5 years	N/A	0	N/A			

Quality	Measure	Freq.	MEASURE VALUES					Comments
			Baseline[1]	2013	2014	2015	2016	
	biophysical environment							
Natural	Percent occurrence of noxious leafy spurge	Annually	N/A	2.7%	1.4%	3.1%	TBD	Acres surveyed / acres infested
	Number of invasive animal species	5 years	N/A	1	N/A			
	Ozone air pollution	5 years	59.6 ppb (2009)	N/A	56.7 ppb	N/A	N/A	
	Total nitrogen wet deposition	5 years	1.7 kg/ha (2009)	N/A	1.6 kg/ha	N/A	N/A	
	Total sulfur wet deposition	5 years	0.7 kg/ha (2009)	N/A	0.5 kg/ha	N/A	N/A	
	Visibility	5 years	6.8 dv (2009)	N/A	6.7 dv	N/A	N/A	
	Average high air temperature from May-September	10 years	N/A	62.4	N/A			Trend reports needed
	Average low temperature from November-March	10 years	N/A	21.4	N/A			Trend reports needed
	Occurrence of non-native avian disease	5 years	N/A	1	N/A			
	Palmer hydrological drought Index	Annually	N/A	2.81	3.25	-0.20	1.23	

Quality	Measure	Freq.	MEASURE VALUES					Comments
			Baseline[1]	2013	2014	2015	2016	
Undeveloped	Index of non-recreational installations, structures, and developments	5 years	N/A	225	N/A			
	Count of abandoned infrastructure, installations and developments	10 years	N/A	3	N/A			
	Acres of inholdings within the wilderness boundary	10 years	N/A	0	N/A			
	Index of motor vehicles, motorized equipment, and mechanical transport	Annually	N/A	1	1	2	4	2016, fish stocking, sediment coring, bathymetric mapping, weed spraying
Solitude or primitive and unconfined recreation	Estimated number of hunters in the wilderness	Annually	N/A	50	610	760	TBD	
	Estimated number of anglers in the wilderness	Annually	N/A	400	300	200	TBD	
	Miles of adjacent travel routes	5 years	N/A	27 miles	N/A			
	Index of energy and development and	5 years	N/A	125	N/A			

Quality	Measure	Freq.	MEASURE VALUES					Comments
			Baseline[1]	2013	2014	2015	2016	
	production infrastructure							
	Number of agency-provided recreation facilities	5 years	N/A	0	N/A			
	Index of restrictions on visitor behavior	5 years	N/A	12	N/A			
Other features of value	N/A							

[1] This column should be used for any measure that has an individual measure baseline year that proceeds the WCM baseline year for the wilderness. If the measure's baseline year is the same as the WCM baseline year, then represent this with N/A in the Baseline column, and insert the value in the subsequent column.