

Lacassine 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 2014 report on wilderness character monitoring for Lacassine National Wildlife Refuge.



Richard J. Meyers

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12/21/2016

Date

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1/9/17

Date

Lacassine NWR Wilderness Character Monitoring Summary Table

The following table summarizes the original measures selected by refuge staff for wilderness character monitoring in 2014 and reflects any modifications that were made in 2016 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 Lacassine 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 authorized actions and persistent structures designed to manipulate plants, animals, pathogens, soil, water, or fire	1 year	High	Any	0
	Actions not authorized by the federal land manager that intentionally manipulate the biophysical environment	Number of unauthorized actions by agencies, citizen groups, or individuals that intentionally manipulate plants, animals, pathogens, soil, water, or fire	1 year	Medium	Any	0
Natural	Plants	Number of non-native invasive plant species	5 years	Medium	Any	8 species
	Animals	Number of non-native animal species	5 years	Medium	Any	2 species
	Air and water	Ozone air pollution	5 years	Medium	Categorical	74.4 ppb
		Total nitrogen wet deposition	5 years	Medium	Categorical	4.6 kg/ha
		Total sulfur wet deposition	5 years	Medium	Categorical	4.7 kg/ha

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
	Ecological processes	Visibility	5 years	Medium	Categorical	12.2 dV
		Average annual winter temperature	1 year	High	where $\alpha=0.1$	50.54°F
		Average annual summer temperature	1 year	High	where $\alpha=0.1$	81.15°F
		Miles of wilderness boundary serving as an entry point for invasive species	5 years	High	Any	15.7 miles
Undeveloped	Presence of non-recreational structures, installations, and developments	Number of non-recreational structures, installations, or developments	5 years	High	Any	3 structures
	Presence of inholdings	Acres of inholdings within wilderness boundary	5 years	High	Any	0 acres
	Use of motor vehicles, motorized equipment, or mechanical transport	Index of motor vehicles, motorized equipment, and mechanical transport	1 year	High	Any	17
Solitude or primitive and unconfined recreation	Remoteness from sights and sounds of human activity <i>inside</i> wilderness	Number of known access-related violators in wilderness	1 year	Medium	10	4 violators
	Remoteness from sights and sounds of human activity <i>outside</i> the wilderness	Percentage of wilderness affected by adjacent travel routes and developments	5 years	High	Any	56.8%
	Facilities that decrease self-reliant recreation	Number of facilities that decrease self-reliant recreation	5 years	High	Any	0 facilities
		Number of unauthorized recreational structures, installations, or developments	1 year	High	Any	17
	Management restrictions on visitor behavior	Management restrictions on visitor behavior	5 years	High	Any	16
Other features	Deterioration or loss of integral cultural features	N/A				

Quality	Indicator	Measure	Frequency	Data Adequacy	Significant Change	Baseline ¹ Value
	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:

Richard Meyers – Refuge Manager

Narrative

On October 26, 2016 Wilderness Fellow Marissa Edwards had a phone conversation with Richard Meyers to discuss the recent changes in the monitoring framework of *Keeping it Wild 2*. Richard Meyers previously worked with Alicia Vasto, the Wilderness Fellow who completed the 2014 Wilderness Character Monitoring Report. From the discussion, measures were removed, modified, or moved from the original 2014 wilderness character monitoring report to comply with the updated version of *Keeping it Wild*.

Undeveloped quality NO CHANGES

Natural quality NO CHANGES

Undeveloped quality

Indicator: Presence of non-recreational structures, installations, and developments
Original Measure: Number of authorized recreational structures, installations, or developments (WCM Report, 2014, p. 34)
Change: MEASURE REMOVED. This measure was removed because the indicator it satisfied was removed in *Keeping It Wild 2* on the bases that authorized recreation structures would fit under the indicator “Facilities that decrease self-reliant recreation” in the Solitude or Primitive and Unconfined Recreation Quality.
Updated Measure: N/A

Solitude or primitive and unconfined recreation quality

Indicator: Facilities that decrease self-reliant recreation
Original Measure: Number of unauthorized recreational structures, installations, or developments (WCM Report, 2014, p. 35)
Change: MEASURE MOVED. This measure was moved because the indicator it satisfied was removed in *Keeping It Wild 2* on the bases that authorized recreation structures would fit under the indicator “Facilities that decrease self-reliant recreation” in the Solitude or Primitive and Unconfined Recreation Quality. Because unauthorized structures and installations are an issue for Lacassine, it was relevant to keep this measure.
Updated Measure: N/A

Other features of value quality NO CHANGES

Lacassine NWR Wilderness Character Monitoring Data Update

As part of this process the most current data relating to wilderness character monitoring at Lacassine was compiled. The following table reflects all of the measure values calculated from data collected from the creation of the baseline report in 2014 (the baseline year for Lacassine Wilderness) until the completion of this update in 2016. The following data should also be entered into the wilderness character monitoring online database.

Updated Wilderness Character Monitoring Measure data for Lacassine 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	2014	2015	
Untrammeled	Number of authorized actions and persistent structures designed to manipulate plants, animals, pathogens, soil, water, or fire	1 year	N/A	0	1	Prescribed fire in Oct.2015
	Number of unauthorized actions by agencies, citizen groups, or individuals that intentionally manipulate plants, animals, pathogens, soil, water, or fire	1 year	N/A	0	0	
Natural	Number of non-native invasive plant species	5 years	N/A	8 species	9 species	
	Number of non-native animal species	5 years	N/A	2 species	2 species	
	Ozone air pollution	5 years	74.4 ppb (2009)	TBD	N/A	

Quality	Measure	Freq.	Measure Values			Comments
			Baseline ¹	2014	2015	
	Total nitrogen wet deposition	5 years	4.6 kg/ha (2009)	TBD	N/A	
	Total sulfur wet deposition	5 years	4.7 kg/ha (2009)	TBD	N/A	
	Visibility	5 years	12.2 dV (2009)	TBD	N/A	
	Average annual winter temperature	1 year	N/A	50.54°F	52.9°F	
	Average annual summer temperature	1 year	N/A	81.15°F	81.9°F	
	Miles of wilderness boundary serving as an entry point for invasive species	5 years	N/A	15.7 miles	N/A	
	Average marsh elevation	1 year	N/A	0.35 ft msl	0.35 ft msl	
Undeveloped	Number of non-recreational structures, installations, or developments	5 years	N/A	3 structures	N/A	
	Acres of inholdings within wilderness boundary	5 years	N/A	0 acres	N/A	

Quality	Measure	Freq.	Measure Values			Comments
			Baseline ¹	2014	2015	
	Index of motor vehicles, motorized equipment, and mechanical transport	1 year	N/A	17	0	
Solitude or primitive and unconfined recreation	Number of known access-related violators in wilderness	1 year	4 violators (2013)	0	0	
	Percentage of wilderness affected by adjacent travel routes and developments	5 years	N/A	56.8%	N/A	
	Number of facilities that decrease self-reliant recreation	5 years	N/A	0 facilities	N/A	
	Number of unauthorized recreational structures, installations, or developments	1 year	17 (2013)	0	0	
	Management restrictions on visitor behavior	5 years	N/A	16	N/A	
Other features of value	N/A					
	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.