GREATER YELLOWSTONE COALITION

REPORT ON RECOMMENDED WILD AND SCENIC RIVERS

ON THE CUSTER GALLATIN NATIONAL FOREST

IN MONTANA

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Cover photo by Charles Wolf Drimal: West Fork of Rock Creek of the Clarks Fork of the Yellowstone River

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Background

Founded in 1983, the Greater Yellowstone Coalition (GYC) has a mission to protect the lands, waters and wildlife of the Greater Yellowstone Ecosystem for future generations. Covering roughly 20 million acres, the Greater Yellowstone Ecosystem represents one of the largest, nearly intact temperate ecosystems in the world. For decades, the Greater Yellowstone Coalition has led highly successful conservation campaigns in southwest Montana, northwest Wyoming, and eastern Idaho to safeguard terrestrial and aquatic species, protect core wildlife and fish habitat, and reduce impacts from extractive industrial resource projects. Through extensive grassroots organizing and the use of best available science, the Greater Yellowstone Coalition has engaged in campaigns to protect iconic watersheds such as the Snake Headwaters and Clarks Fork River in Wyoming, winning historic protections under the Wild and Scenic Rivers Act. GYC has also engaged in Forest Service and Bureau of Land Management planning processes to secure administrative protections for eligible Wild and Scenic Rivers across the ecosystem. The Greater Yellowstone Coalition operates with the principle that comprehensive analysis and meticulous attention to detail within National Forest plan revision processes pays dividends to establishing long term, conservation-oriented land management practices.

Introduction

The Custer Gallatin National Forest covers over 3 million acres from southwest Montana to northwest South Dakota. These public lands harbor a tapestry of native fish populations, sensitive terrestrial species such as grizzly bear and wolverine, biologically rich montane forests, remote alpine mountain ranges, wild rivers, and thousands of miles of cold, clean water. The National Forest is currently undergoing a forest plan revision in which the Forest Service must review all streams for their potential eligibility for designation in the National Wild and Scenic Rivers System (NWSRS) as directed under section 5(d)(1) of the National Wild and Scenic Rivers Act of 1968 (PL 90-542:16 USC 1271-1287, as amended).

The Custer Gallatin National Forest has 940 named streams across seven ranger districts. 761 of these streams (covering 2,945 miles) are in the five ranger districts (Beartooth, Bozeman, Gardiner, Hebgen Lake and Yellowstone) that make up part of the Greater Yellowstone Ecosystem. The Greater Yellowstone Coalition reviewed all 761 streams and chose to conduct a thorough analysis of 119 streams during an internal Wild and Scenic Rivers eligibility analysis in 2017. GYC recommends 58 of the 761 streams in the Greater Yellowstone Ecosystem part of the Forest as eligible Wild and Scenic Rivers. This accounts for 645 river miles.

The following report contains recommendations by the Greater Yellowstone Coalition for eligible Wild and Scenic Rivers on the Custer Gallatin National Forest in southwest and southcentral Montana. The report was generated through independent analysis using field data collection by GYC waters staff and GYC interns, peer reviewed literature, scientific papers from federal agencies and non-governmental organizations (NGO's), interviews with biologists and recreation specialists, Geographical Information System (GIS) analysis, and ecologic and climatic models generated from best available science.

The purpose for generating this report is to provide an in depth, on-the-ground, detailed examination of stream conditions in the part of the Custer Gallatin National Forest that lies within the Greater Yellowstone Ecosystem. The Greater Yellowstone Coalition acknowledges that the Custer Gallatin Forest Plan Revision will use an interdisciplinary process including involvement of local governments, tribal governments, other agencies and members of the public for the determination of eligible Wild and Scenic Rivers. The Greater Yellowstone Coalition believes eligibility of Wild and Scenic Rivers on the Custer Gallatin National Forest needs to be determined by a coupling of actual on-the-ground field observations with an examination of recent literature, modeling and reports on various natural resource conditions. A simple abstract analysis from remote computer screens in the forest supervisor's office will not suffice. Conditions change from year to year, and from decade to decade. This is noted in changes in the region's economy shifting strongly toward a recreation focus, changes in demographics and increasing populations that influence use of the forest, changes in occupied habitat of both terrestrial and aquatic species, and changes in the climate.

What's more, it's been the experience of GYC staff and interns that field visits teach us that the Custer Gallatin National Forest is filled with unexpected gems off the beaten path and under the radar of mainstream popular attention. Ecologically vibrant riparian habitat, aesthetic rugged mountain scenery, and clean cold water have proven to be trademarks of the Custer Gallatin National Forest within the Greater Yellowstone Ecosystem. Their regional and national significance should not be underestimated.

Streams Recommended as Eligible Wild and Scenic Rivers by the Greater Yellowstone Coalition

The Custer Gallatin National Forest has 940 named streams across seven ranger districts. 761 of these streams (covering 2,945 miles) are in the five ranger districts (Beartooth, Bozeman, Gardiner, Hebgen Lake and Yellowstone) that make up part of the Greater Yellowstone Ecosystem. The Greater Yellowstone Coalition reviewed all 761 streams and chose to conduct a thorough analysis of 119 streams during an internal Wild and Scenic Rivers eligibility analysis in 2017. GYC recommends 58 of the 761 streams in the Greater Yellowstone Ecosystem part of the Custer Gallatin National Forest as eligible Wild and Scenic Rivers. This accounts for 645 river miles. Names of the GYC recommended eligible Wild and Scenic Rivers are listed in the table below in alphabetical order by watershed.

NAME	WATERSHED
Broadwater River	Clarks Fork Yellowstone
Clarks Fork Yellowstone	Clarks Fork Yellowstone
Lake Fork	Clarks Fork Yellowstone
Rock Creek	Clarks Fork Yellowstone
Sky Top Creek	Clarks Fork Yellowstone
West Fork Rock Creek	Clarks Fork Yellowstone
Alp Creek	Gallatin
Buffalo Horn Creek	Gallatin
Gallatin River	Gallatin
Hyalite Creek	Gallatin
Lightning Creek	Gallatin
Maid of the Mist Creek	Gallatin
North Fork Spanish Cr.	Gallatin
Porcupine Creek	Gallatin
Shower Creek	Gallatin
South Fork Spanish Cr.	Gallatin
Taylor Creek	Gallatin
Wapiti Creek	Gallatin
Beaver Creek	Madison
Cabin Creek	Madison
Cub Creek	Madison
Madison River	Madison
Middle Fork Cabin Cr.	Madison
Sentinel Creek	Madison
Sheep Creek	Madison
South Fork Madison R.	Madison
West Fork Beaver Creek	Madison
Cottonwood Creek	Shields
Shields River	Shields

NAME	WATERSHED
East Rosebud Creek	Stillwater
Glacier Creek	Stillwater
Goose Creek	Stillwater
Stillwater River	Stillwater
West Fork Stillwater R.	Stillwater
West Rosebud Creek	Stillwater
Bark Cabin Creek	Upper Yellowstone
Big Creek	Upper Yellowstone
Big Timber Creek	Upper Yellowstone
Boulder River	Upper Yellowstone
Cedar Creek	Upper Yellowstone
Davis Creek	Upper Yellowstone
East Boulder River	Upper Yellowstone
East Fork Boulder River	Upper Yellowstone
Lower Deer Creek	Upper Yellowstone
Mill Creek	Upper Yellowstone
Pine Creek	Upper Yellowstone
South Fork Pine Creek	Upper Yellowstone
West Boulder River	Upper Yellowstone
Bear Creek	Yellowstone Headwaters
Buffalo Creek	Yellowstone Headwaters
Grizzly Creek	Yellowstone Headwaters
Hellroaring Creek	Yellowstone Headwaters
Horse Creek	Yellowstone Headwaters
Lake Abundance Creek	Yellowstone Headwaters
Middle Fk. Hellroaring Cr	Yellowstone Headwaters
Slough Creek	Yellowstone Headwaters
Wounded Man Creek	Yellowstone Headwaters
Yellowstone River	Yellowstone Headwaters

Broadwater River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
81	**Gardiner**	**Clarks Fork Yellowstone**	**5.8**	**W**

Wildlife: The Broadwater River contains high value core grizzly bear habitat near the confluence of Sky Top Creek and in the mid reach of the Broadwater River, according to Craighead Institute models. There is a watershed integrity value to connect Sky Top Creek, Broadwater River and the Clarks Fork River with consistent management of eligible Wild and Scenic from the headwaters to the Forest Service boundary at Clarks Fork Canyon on the Shoshone National Forest.

Segment: From the confluence with Sky Top Creek to Clarks Fork of the Yellowstone River

Classification: Wild

Clarks Fork Yellowstone River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
137	**Gardiner**	**Clarks Fork Yellowstone**	**2.5**	**S, F**

Scenery: The Clarks Fork Yellowstone River presents spectacular open views of the Absaroka Mountains and connects with a designated Wild and Scenic River downstream that forms a deep canyon.

Fish: According to Montana Fish, Wildlife and Parks, the river hosts a population of pure Yellowstone cutthroat trout.

Segment: From the confluence with the Broadwater River to the Montana-Wyoming state line where it continues on the Shoshone National Forest as an eligible Wild and Scenic River.

Classification: Wild – 2 miles in length, from Chief Joseph Interpretive Site to state line; Recreational – ½ mile in length, from confluence with Broadwater River to Chief Joseph Interpretive Site

Lake Fork of Rock Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
421	**Beartooth**	**Clarks Fork Yellowstone**	**13.3**	**R, S**

Recreation: The Lake Fork offers popular backpacking and hiking opportunities into the Absaroka Beartooth Wilderness.

Scenery: The Lake Fork includes spectacular alpine scenery, sections of a steep and fast flowing creek, waterfalls, and high elevation plateaus that stretch across the horizon.

Public Support: The Lake Fork was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; Lake Fork is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters at Sky Pilot Lake to the confluence with Rock Creek.

Classification: Wild – from the headwaters to the trailhead; Recreational – from the trailhead to Rock Creek

Rock Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
668	**Beartooth**	**Clarks Fork Yellowstone**	**14.2**	**S, R, H**

Scenery: Rock Creek provides jaw-dropping views of a gorgeous U-shaped glacially carved valley along the Beartooth Highway.

Recreation: Rock Creek offers a recreational mecca for the Red Lodge community that includes campgrounds, trailheads, and fishing and swimming opportunities.

Heritage: The Crow Aboriginal Trail presents sites marking the Red Lodge battle between the Shoshone and Crow Tribes and provides a glimpse into the lives of the people who originally called this land home.

Public Support: Rock Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; Rock Creek is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: Headwaters to Forest Service boundary.

Classification: Recreational

Sky Top Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
732	**Gardiner**	**Clarks Fork Yellowstone**	**7.5**	**S, R**

Scenery: Sky Top Creek allows visitors to experience some of the most aesthetic scenery in the region with alpine tundra, alpine rock, alpine lakes, views to the south of the Absaroka Range in Wyoming, and views to the north of Granite Peak - Montana's tallest summit.

Recreation: Sky Top is a major access point for mountaineers to approach the south side of Granite Peak.

Segment: Headwaters to Forest Service boundary.

Classification: Wild

West Fork Rock Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
908	**Beartooth**	**Clarks Fork Yellowstone**	**19.9**	**S, R, H**

Scenery: The West Fork starts as a gorgeous creek meandering through subalpine meadows and then presenting views of stunning high alpine rock walls and peaks.

Recreation: The West Fork allows access to some very popular hiking trails and backpacking routes.

Heritage: Historic camps and ranger stations can be found along the stream.

Public Support: The West Fork was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; West Fork is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: Headwaters to Forest Service boundary.

Classification: Wild – from headwaters to trailhead; Recreational – trailhead to Forest Service boundary

Alp Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
4	**Hebgen Lake**	**Gallatin**	**3.9**	**S, F, W, CR**

Scenery: Stunning alpine scenery in the heart of the southern Madison Range is experienced in the upper three miles of the stream.

Fish: Natural habitat of native westslope cutthroat trout.

Wildlife: Alp Creek has a high rating for grizzly bear core habitat based on Craighead Institute models. It also has occupied wolverine habitat according to the Wildlife Conservation Society.

Climate Refugia: Based on NorWeST climate models, Alp Creek will serve as a cold water refuge in 2040 for temperature sensitive species such as the westslope cutthroat trout.

Segment: Headwaters to Forest Service boundary.

Classification: Wild

Buffalo Horn Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
90	**Bozeman**	**Gallatin**	**8.2**	**F, W, S, CR**

Fish: Buffalo Horn Creek is characterized in sections by large meandering channels that host excellent gravel for trout.

Wildlife: The creek supplies excellent willows for potential moose habitat. Montana FWP stewards a Wildlife Management Area in the watershed.

Scenery: Scenic views of Ramshorn Peak and Fortress Mountain can be seen from the creek.

Climate Refugia: Based on NorWeST climate models, Buffalo Horn Creek will serve as a cold water refuge in 2040 for temperature sensitive species.

Public Support: Buffalo Horn was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: Headwaters to Forest Service boundary.

Classification: Wild

Gallatin River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
323	**Hebgen Lake**	**Gallatin**	**39.6**	**R, S, W, H**

Recreation: The Gallatin is a designated blue ribbon trout stream with high quality recreational fishing. It is an angling paradise as well as a mecca for whitewater paddling. There are many developed campsites spread throughout the corridor.

Scenery: The lower section of the river has carved out a magnificent and stunning canyon while the upper river, near Yellowstone National Park, can be characterized by open meandering wetlands.

Wildlife: The area provides winter range for both elk and bighorn sheep. Moose can be found in the wetlands and meadows of the upper reaches.

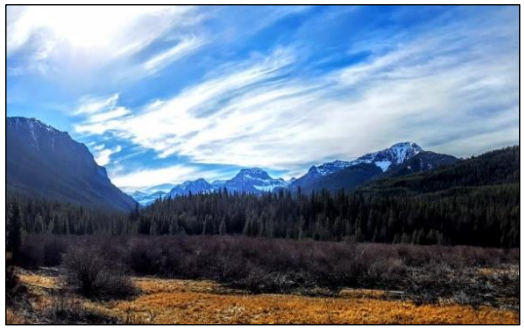
Heritage: The corridor provided a gateway to Yellowstone National Park at the turn of the 20th Century.

Public Support: The Gallatin was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; it is supported in the MHR Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: Headwaters to Forest Service boundary.

Classification: Recreational

Hyalite Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
395	**Bozeman**	**Gallatin**	**12.7**	**R, S**



Recreation: Hyalite provides a recreational haven for the greater Bozeman community. A myriad of recreational opportunities can be found ranging from hiking, camping, backpacking, fishing, backcountry skiing, and Hyalite's world-class ice climbing.

Scenery: Hyalite offers panoramic views of rugged alpine peaks and rolling montane forests. The upper sections contain countless waterfalls.

Public Support: Hyalite was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; Hyalite is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: Headwaters to Hyalite trailhead; reservoir to Forest Service boundary

Classification: Wild - headwaters to Hyalite trailhead (4.7 miles); Recreation - reservoir to Forest Service boundary (8 miles)

Lightning Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
432	**Hebgen**	**Gallatin**	**4.6**	**F, W, CR**

Fish: Lightning Creek is a stronghold for native westslope cutthroat trout.

Wildlife: Lightning Creek has a high rating for core grizzly bear habitat according the Craighead Institute models. Moose tracks and scat were observed along the corridor when surveyed. The area contains confirmed occupied wolverine habitat, according to Wildlife Conservation Society reports.

Climate Refugia: Based on NorWeST climate models, Lightning Creek will serve as a cold water refuge in 2040 for temperature sensitive species.

Segment: From the headwaters to Taylor Creek.

Classification: Wild

Maid of the Mist Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
477	**Bozeman**	**Gallatin**	**1.4**	**R, S**

Recreation: Maid of the Mist is a very popular access point for backcountry skiing, mountaineering, and hosts one expert world class ice climb.

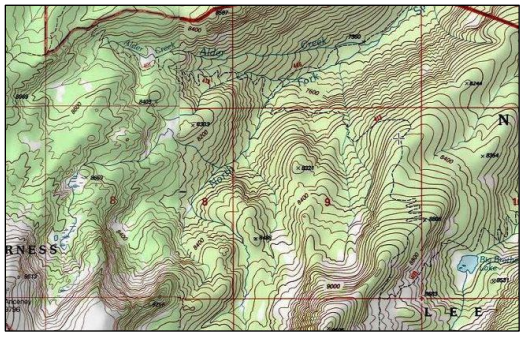
Scenery: The upper basin hosts absolutely stunning alpine terrain surrounded by large peaks and buttes.

Segment: Headwaters to confluence with Hyalite Creek.

Classification: Wild

North Fork Spanish Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
592	**Bozeman**	**Gallatin**	**6.4**	**W, S, F, CR**

Wildlife: The North Fork Spanish Creek has a high rating for grizzly bear core habitat based on the Craighead Institute models. The area has confirmed occupied wolverine habitat, according to the Wildlife Conservation Society data.



Scenery: The stream winds its way through gorgeous meadows with the impressively rugged Spanish Peaks serving as a constant backdrop.

Fish: A cutthroat trout restoration project has been proposed by FWP and CGNF for the headwaters of the creek.

Climate Refugia: Based on NorWeST climate models, the North Fork Spanish Creek will serve as a cold water refuge in 2040 for temperature sensitive species.

Public Support: The North Fork was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: Headwaters to Forest Service boundary.

Classification: Wild - headwaters to trailhead; Scenic - trailhead to Forest Service boundary

Porcupine Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
641	**Bozeman**	**Gallatin**	**9.1**	**R, S, W**

Recreation: Porcupine Creek is a popular trail amongst cyclists, motorbikes, hikers, and horseback riders. All were observed while the stream was being surveyed.

Scenery: The area provides fantastic views of sagebrush meadows with views of the Gallatin Peaks towering in the back drop.

Wildlife: Lower Creek contains a FWP wildlife management area to protect elk winter range.

Public Support: Porcupine Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; Porcupine Creek is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: Headwaters to confluence with Gallatin River

Classification: Wild – headwaters to trailhead; Scenic - trailhead to confluence with Gallatin River

Shower Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
719	**Bozeman**	**Gallatin**	**1.3**	**R, W**

Recreation: Shower Creek is a hotspot for backcountry skiing and hiking. It is colloquially known as "Triple Divide Peak" by the recreation community.

Wildlife: The area has high value core grizzly bear habitat.

Segment: Headwaters to Hyalite Creek

Classification: Wild

South Fork Spanish Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
719	**Bozeman**	**Gallatin**	**8.9**	**R, S, W**

Recreation: The watershed is very popular amongst hikers/backpackers and horseback riders.

Scenery: It offers breathtaking views of the higher and more rugged summits of the Spanish Peaks.

Wildlife: The area has high value core grizzly bear habitat, according to Craighead Institute models, and is confirmed occupied wolverine habitat, according to Wildlife Conservation Society data.

Public Support: The South Fork Spanish Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: Headwaters to Forest Service boundary.

Classification: Wild

Taylor Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
836	**Hebgen Lake**	**Gallatin**	**18.4**	**S, R, W, CR**

Scenery: Taylor Creek offers a unique and undeveloped low elevation open sagebrush valley with excellent views of the Madison Range as a scenic backdrop.

Recreation: The area is home to excellent opportunities for human powered recreation, dispersed camping, fishing, and pack-rafting during high flows.

Wildlife: The valley is a wildlife haven for elk, moose, grizzly bear, raptors, and is an identified bison restoration habitat area. Many ungulates use the area as a migration corridor. The valley has confirmed occupied wolverine habitat.

Climate Refugia: Based on NorWeST climate models, the Taylor Creek will serve as a cold water refuge in 2040 for temperature sensitive species.

Public Support: Taylor Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; it is supported in the MHR Citizen Proposal for New Wild and Scenic Rivers.

Segment: from the headwaters to the Gallatin River.

Classification: Wild – headwaters to Taylor Cr. trailhead, Recreational – trailhead to Gallatin River.

Wapiti Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
885	**Hebgen Lake**	**Gallatin**	**9.9**	**W, F, S, R**

Wildlife: The valley provides a path for an elk migration route. The surrounding area has a high rating for core grizzly bear habitat based on Craighead Institute models.

Fish: The stream is a home to native westslope cutthroat trout.

Scenery: Beautiful views of Pika Point are easily visible from the stream.

Recreation: The trail is popular amongst equestrians. Several horse riders were seen on the trail at inventory.

Segment: from the headwaters to Taylor Creek.

Classification: Wild - from headwaters to 4wd road on private land; Scenic - from 4wd road on public land to Forest Service road; Recreational - from Forest Service road to confluence with Taylor Creek.

Beaver Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
39	**Hebgen Lake**	**Madison**	**11.03**	**R, W, S**

Recreation: Beaver Creek serves as a corridor for the Southern Madison Range with numerous dispersed campsites and two very popular trailheads: West Boulder and Sentinel.

Wildlife: Beaver Creek supports a plethora of wildlife. It contains high value grizzly bear core habitat and supports moose habitat, elk migration routes, and occupied wolverine habitat.

Scenery: The stream is characterized by a meandering river with flat gravel bars with magnificent views of the towering peaks of the southern Madison Range.

Public Support: Beaver Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: Headwaters to Forest Service boundary.

Classification: Recreational

Cabin Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
100	**Hebgen Lake**	**Madison**	**7.8**	**F**

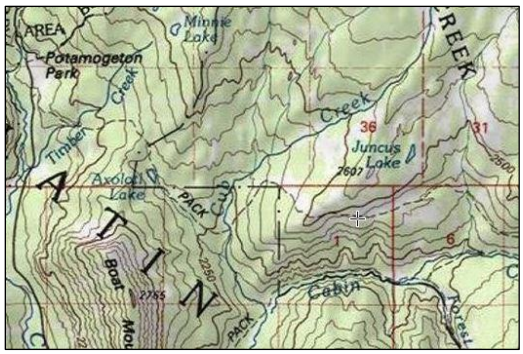
Fish: Cabin Creek supports a pure population of westslope cutthroat trout through restoration efforts of Montana Fish, Wildlife and Parks, the U.S. Forest Service, Madison River Foundation, NorthWestern Energy and the National Fish and Wildlife Foundation. The work includes a human-made fish barrier .3 miles upstream from the Cabin Creek Campground.

Segment: Headwaters to Forest Service boundary.

Classification: Wild

Cub Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
186	**Hebgen Lake**	**Madison**	**4.4**	**F, W**

Fish: Cabin Creek supports a pure population of westslope cutthroat trout through restoration efforts of Montana Fish, Wildlife and Parks, the U.S. Forest Service, Madison River Foundation, NorthWestern Energy and the National Fish and Wildlife Foundation. The work includes a human-made fish barrier .3 miles upstream from the Cabin Creek Campground. Cub Creek contributes to this habitat.



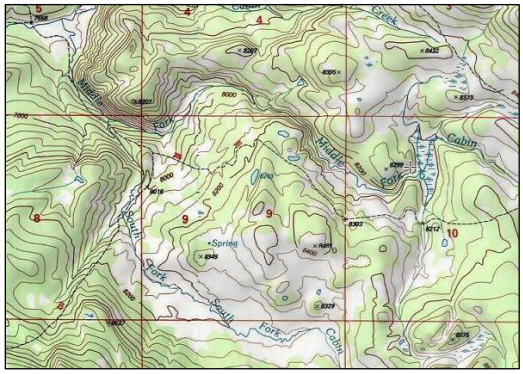
Wildlife: The area is high value core grizzly bear habitat.

Segment: Headwaters to Forest Service boundary.

Classification: Wild

Middle Fork Cabin Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
502	**Hebgen Lake**	**Madison**	**5.1**	**F, W**

Fish: Cabin Creek supports a pure population of westslope cutthroat trout through restoration efforts of Montana Fish, Wildlife and Parks, the U.S. Forest Service, Madison River Foundation, NorthWestern Energy and the National Fish and Wildlife Foundation. The work includes a human-made fish barrier .3 miles upstream from the Cabin Creek Campground. The Middle Fork of Cabin Creek contributes to this habitat.



Wildlife: The Middle Fork of Cabin Creek contains high value core grizzly bear habitat, according to the Craighead Institute models.

Segment: From the headwaters to Cabin Creek.

Classification: Wild

Madison River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
457	**Hebgen Lake**	**Madison**	**8**	**R, W, G, S, H**

Recreation: The Madison River is popular for fly fishing and paddling. It hosts a Blue Ribbon Fishery.

Wildlife: The Madison Valley is a wildlife haven. The river serves as a major elk migration route from Yellowstone Park to the Madison Valley as well as moose wintering range. The river corridor contains high value core grizzly habitat on the north side of Earthquake Lake, occupied wolverine habitat, and trumpeter swan wintering grounds.

Geology: The river was part of the 1959 earthquake that caused "Quake Lake."

Scenery: The Madison starts as a steep mountain river surrounded by high peaks and eventually opens up into a broad river valley of short-grass prairie and sweeping vistas of several mountain ranges.

Heritage: The area was used historically by the Shoshone-Bannock as part of the Bannock Trail and was also part of the Nez Perce Trail.

Public Support: The Madison was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; The Madison is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: from the Hebgen Dam to the Forest Service boundary.

Classification: Recreational

Sentinel Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
700	**Hebgen Lake**	**Madison**	**6**	**R, W, S**

Recreation: In recent years, Sentinel Creek has become a recreational hotspot and is now considered a key entry way to the aesthetic Hilgard Basin.

Wildlife: Sentinel Creek contains high value grizzly bear core habitat according to Craighead Institute models. Sentinel Creek also contains confirmed occupied wolverine habitat, according to the Wildlife Conservation Society.

Scenery: Stunning alpine peaks surround the headwaters of Sentinel Creek.

Segment: From the headwaters to Beaver Creek.

Classification: Wild

Sheep Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
709	**Hebgen Lake**	**Madison**	**5.4**	**S, W, CR**

Scenery: Sheep Creek offers gorgeous views of the higher Madison Range and Henry's Lake Mountains. Scenic Sheep Lake is located near the alpine in its headwaters.

Wildlife: Sheep Creek contains confirmed occupied wolverine habitat, according to the Wildlife Conservation Society.

Climate Refugia: Sheep Creek is a predicted cold water refugia in 2040, according to NorWeST models.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild

South Fork Madison River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
776	**Hebgen Lake**	**Madison**	**23.5**	**F, W, CR**

Fish: The South Fork of the Madison River hosts a westslope cutthroat trout population, according to Montana Fish, Wildlife and Parks. The river is braided in places, with deep pools in outer meandering bends; it contains small and medium sized gravel, off channel ponds, healthy banks with no signs of incision. The lower reach below Highway 20 makes large meandering curves.

Wildlife: The South Fork of the Madison River contains high value core grizzly bear habitat above Highway 20, according to Craighead Institute models. The habitat includes thick willow, wetlands, beaver dams, and has green healthy conifers above riparian zone with little sign of beetle infestation and no sign of recent wildfire. Moose tracks were observed throughout the riparian zone and in the creek during a field visit.

Climate Refugia: South Fork Madison River is a predicted cold water source in 2040, according to NorWeST models.

Public Support: The South Fork of the Madison River was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; the South Fork of the Madison River is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters to the South Arm of Hebgen Reservoir.

Classification: Recreational

West Fork Beaver Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
896	**Hebgen Lake**	**Madison**	**5**	**R, S, W**

Recreation: The West Fork Beaver Creek contains one of the most popular trails in the Hebgen Ranger District.

Scenery: The West Fork of Beaver Creek offers beautiful views into the high alpine country of the Madison Range.

Wildlife: The West Fork of Beaver Creek flows through high value core grizzly bear habitat, according to Craighead Institute models. An elk migration from Skyline Ridge to Madison Valley has been documented by the Wildlife Conservation Society. WCS has also confirmed occupied wolverine habitat in the West Fork of Beaver Creek.

Segment: From the headwaters to Beaver Creek.

Classification: Wild

Cottonwood Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
167	**Yellowstone**	**Shields**	**8.6**	**H, S, R, G, CR**

Heritage: The Crazy Mountains are an important range for the Crow tribe of Native Americans. The Crow people used many of the peaks for vision quests and would have likely used Cottonwood Creek to approach the Crazy Mountains from the west.

Scenery: Cottonwood Creek offers beautiful, high alpine scenery on the upper reach of the creek.

Recreation: Cottonwood Creek is one of the most popular recreation access points on the west side of the Crazy Mountains. The drainage experiences substantial snowmobile use, as well as backcountry skiing, hiking and hunting.

Geology: Grasshopper Glacier can be seen above Cottonwood Lake. The creek has carved out a couple of short canyon sections.

Climate Refugia: Cottonwood Creek is predicted to maintain cold water well into 2040, according to NorWeST climate models.

Segment: From the headwaters to Forest Service boundary.

Classification: Wild – from the headwaters to the trailhead covering 5 miles; Recreational – from the trailhead to the Forest Service boundary covering 3.6 miles.

Shields River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
716	**Yellowstone**	**Shields**	**6.8**	**S, F**

Scenery: The Shields River starts in the shadows of the Crazy Mountains and then flows south to the Yellowstone River. From the Shields River one witnesses breathtaking views of the Crazy, Bridger, and Absaroka Mountain Ranges.

Fish: The Shields River supports healthy trout populations. Yellowstone cutthroat trout can be found in upper section and exclusively above a fish barrier. Brown trout move up the river from the Yellowstone to spawn in the fall.

Segment: From the headwaters to Forest Service boundary.

Classification: Recreational

East Rosebud Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
265	**Beartooth**	**Stillwater**	**20**	**R, S, G**

Recreation: East Rosebud Creek is a mecca for Red Lodge, Billings, and the Beartooth Front; it attracts thousands of summer visitors for hiking, backpacking, fishing, and some Class V Whitewater kayaking.

Scenery: The East Rosebud valley is often talked about as a "Little Switzerland" with stunning Alp-like scenery.

Geology: The East Rosebud watershed contains a classic U-shaped glacially carved valley with granite walls on either side.

Public Support: East Rosebud Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; East Rosebud Creek is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation. A legislative bill for Wild and Scenic River protection of 20 miles of East Rosebud Creek currently awaits passage in the U.S. Congress.

Segment: From the headwaters to Forest Service boundary.

Classification: Wild – from the headwaters to East Rosebud Lake; Recreational – from the outlet of East Rosebud Creek to the Forest Service boundary.

Glacier Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
332	**Beartooth**	**Stillwater**	**5.7**	**R, S, CR**

Recreation: Glacier Creek is a backcountry skiing and mountaineering gem.

Scenery: Glacier Creek is surrounded by some of the most aesthetic alpine mountains in the Greater Yellowstone Ecosystem, including Sawtooth Mountain and Wolf Mountain.

Climate Refugia: Glacier Creek is predicted to maintain cold water well into 2040, according to NorWeST climate models.

Segment: From the headwaters to the Stillwater River.

Classification: Wild

Goose Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
341	**Beartooth**	**Stillwater**	**7**	**R, S, F, W, CR**

Fish: Goose Creek is now a pure, native Yellowstone cutthroat trout stream, as a result of work completed by Montana Fish, Wildlife and Parks and the U.S. Forest Service in 2007 to maintain native trout purity.

Wildlife: The Goose Creek watershed contains high value core grizzly bear habitat, according to Craighead Institute models.

Scenery: Goose Creek is surrounded by some of the most aesthetic alpine mountains in the Greater Yellowstone Ecosystem, including Sawtooth Mountain, Mount Fox and Mount Zimmer.

Recreation: The upper Goose Creek watershed is hands down one of the best backcountry skiing and mountaineering playgrounds in the Greater Yellowstone Ecosystem.

Climate Refugia: Goose Creek is predicted to maintain cold water well into 2040, according to NorWeST climate models.

Segment: From the headwaters to the Stillwater River.

Classification: Wild

Stillwater River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
818	**Beartooth**	**Stillwater**	**29**	**R, S, G, W**

Recreation: The Stillwater River is a popular destination for fishing, technical whitewater kayaking, hiking, backpacking, and hunting.

Scenery: The Stillwater River provides a mix of steep granite rock walls in a lower gorge, a wide meandering river at mid-reach, and alpine walls up high with thundering waterfalls.

Geology: The Stillwater River contains a unique geologic gorge above Woodbine.

Wildlife: The Stillwater River watershed contains high value core grizzly bear habitat, based on Craighead Institute models, as well as winter range for moose, according to Montana Fish, Wildlife and Parks.

Public Support: The Stillwater River was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; the Stillwater River is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters to Flume Creek, just upstream from the Sibanye-Stillwater mine.

Classification: Wild – from the headwaters to the Woodbine trailhead; Recreational – from the Woodbine trailhead to Flume Creek.

West Fork Stillwater River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
909	**Beartooth**	**Stillwater**	**17**	**S, W**

Scenery: The West Fork Stillwater River hosts a diversity of wetlands, open meadows, steep cliffs and dense forests.

Wildlife: The West Fork of the Stillwater River contains high value core grizzly bear habitat according to Craighead Institute models. The watershed contains elk and moose winter range, confirmed by Montana Fish, Wildlife and Parks mapping.

Public Support: The West Fork Stillwater River was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; West Fork Stillwater River is supported in the MHR Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild – headwaters to the trailhead; Recreational – trailhead to Forest Service boundary.

West Rosebud Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
916	**Beartooth**	**Stillwater**	**8**	**S, R, G**

Scenery: West Rosebud Creek hosts dramatic alpine scenery with granite cliffs, deciduous forests and whitewater.

Recreation: West Rosebud Creek is a popular access into the Absaroka-Beartooth Wilderness.

Geology: West Rosebud Creek contains glacially scoured walls throughout the drainage.

Public Support: West Rosebud Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to Mystic Lake.

Classification: Wild

Bark Cabin Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
19	**Yellowstone**	**Upper Yellowstone**	**3.7**	**F, W**

Fish: Bark Cabin Creek supports a native pure Yellowstone cutthroat trout population connected to Big Creek

Wildlife: Bark Cabin Creek contains an elk migration route that has been verified by Wildlife Conservation Society data.

Segment: From the headwaters to the confluence with Big Creek.

Classification: Wild

Big Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
46	**Yellowstone**	**Upper Yellowstone**	**13.5**	**F, R, G**

Fish: Big Creek hosts a pure native Yellowstone cutthroat trout population as a result of a natural barrier.

Recreation: Big Creek receives extensive usage by horseback riders and hunters. It is one of the best access points into the Gallatin Range for Park County residents and visiting tourists in Paradise Valley.

Geology: Big Creek contains a unique deep canyon with rocky outcrop geologic formations.

Public Support: Big Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild – from the headwaters to the trailhead; Recreational from the trailhead to the Forest Service boundary.

Big Timber Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
50	**Yellowstone**	**Upper Yellowstone**	**9**	**H, R, S**

Heritage: Historical records indicate the Crow Chief Plenty Coups used Crazy Peak for an important vision quest in which he foresaw the coming changes to his people. Other Crow tribal members would have likely used Big Timber Creek for access to the high peaks of the Crazy Mountains.

Recreation: Big Timber Creek Falls is an expert kayaking run. Other parts of the creek contain pools for fishing and smaller falls.

Scenery: The stunning scenery of the Crazy Mountain range looms overhead through the entire drainage.

Public Support: Big Timber Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: Headwaters to the Forest Service boundary.

Classification: Wild – headwaters to the trailhead; Recreational – trailhead to the Forest Service boundary.

Boulder River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
68	**Yellowstone**	**Upper Yellowstone**	**33.5**	**R, S, G, H, CR**

Recreation: The Boulder River offers a lifetime of recreation opportunities for the hiker or backpacker. Access to the Absaroka-Beartooth Wilderness is ubiquitous along the river corridor. Whitewater kayaking, fishing, camping, and ATV/OHV use are also common.

Scenery: The Boulder River corridor presents stunning scenery of the Beartooth Mountains and a diversity of river channel types from steep and tumbling whitewater to meandering bends with riffles.

Geology: The Boulder River contains unique geologic features associated with a waterfall around a collapsed natural bridge.

Heritage: The Boulder River corridor includes an historic Forest Service station and an historic mining district at Independence.

Climate Refugia: The Boulder River is expected to protect native trout in upper reaches and tributaries in 2040 according to NorWeST models.

Public Support: The Boulder River was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; the Boulder River is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild – 2 miles from the headwaters to the 4wd road that leads to Independence; Recreational – from 4wd road to the main Boulder road at the Forest Service boundary.

Cedar Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
126	**Gardiner**	**Upper Yellowstone**	**8**	**H, F, W**

Heritage: Located on lower Cedar Creek, the OTO Homestead and Dude Ranch was the first dude ranch in Montana. It was started by James Norris (Dick) Randall and his wife Dora after they purchased squatters rights on a small cabin along Cedar Creek. Notable guests included Theodore Roosevelt and Marcellus Hartley Dodge, Jr. The 3,265 acre property was eventually acquired by the Rocky Mountain Elk Foundation, who donated it in 1991 to the Forest Service. In 2004 the site was listed on the National Register of Historic Places.

Fish: Cedar Creek is an important spawning creek for native Yellowstone cutthroat trout.

Wildlife: Cedar Creek contains a mule deer migration, according to the Wildlife Conservation Society.

Segment: Headwaters to the confluence with the Forest Service boundary.

Classification: Wild – headwaters to OTO Ranch; Recreational – OTO Ranch to Forest Service boundary.

Davis Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
194	**Yellowstone**	**Upper Yellowstone**	**9.7**	**W, CR**

Wildlife: Davis Creek contains high value grizzly bear core habitat, according to Craighead Institute models. The ranch manager of the neighboring Burnt Leather Ranch warned GYC staff about the heavy grizzly bear use of the drainage. A black bear sow and cub were observed during the field check in 2017. The drainage hosts excellent forest cover with open meadows in places. All of it was spared from the 2006 West Boulder fire.

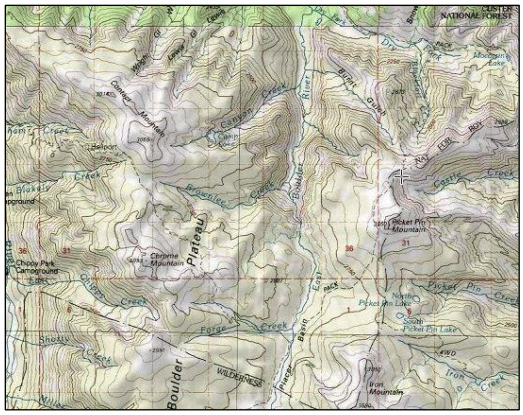
Climate Refugia: Davis Creek is a long, north and northeast aspect flowing stream. It contained lots of water in the stream at end of August 2017. NorWeST models indicate it will maintain its cold water refugia in 2040.

Segment: From the headwaters to the confluence with the West Boulder River.

Classification: Wild

East Boulder River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
235	**Yellowstone**	**Upper Yellowstone**	**9**	**W, F**

Wildlife: The East Boulder River hosts a mule deer migration route, according to the Wildlife Conservation Society data. It also contains high value core grizzly bear habitat according to Craighead Institute models.



Fish: The East Boulder River hosts a pure Yellowstone cutthroat trout population above the Dry Fork Creek confluence, according to Montana Fish, Wildlife and Parks.

Public Support: The East Boulder River was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to the Dry Fork Creek confluence.

Classification: Wild

East Fork Boulder River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
242	**Yellowstone**	**Upper Yellowstone**	**12.25**	**W, R, CR**

Wildlife: The East Fork Boulder River contains important elk, bighorn sheep, and moose habitat, according to Montana Fish, Wildlife and Parks. It also contains high value core grizzly bear habitat, according to the Craighead Institute models.

Recreation: The trail along the East Fork Boulder River appears as a wide, well-manicured highway. There are a lot of signs of recreation use by foot and horse.

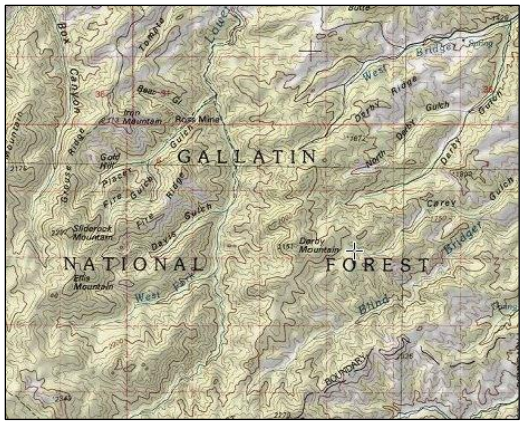
Climate Refugia: Climate models such as NorWeST indicate that the East Fork Boulder River's long northwest flow will continue to produce cold water in 2040. During a field visit in late August 2017, the creek was producing good flows, with many nice pools; trout were observed during field check.

Segment: From the headwaters to the confluence with the Boulder River.

Classification: Wild

Lower Deer Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
472	**Yellowstone**	**Upper Yellowstone**	**13.5**	**F, W**

Fish: Lower Deer Creek contains a pure native Yellowstone cutthroat trout population that is protected by a barrier.



Wildlife: Lower Deer Creek contains important moose habitat, according to Montana Fish, Wildlife and Parks mapping.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild

Mill Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
522	**Yellowstone**	**Upper Yellowstone**	**14.9**	**F, S, R**

Fish: Mill Creek hosts **a** pure Yellowstone cutthroat trout population above a barrier at the Forest Service boundary. "The barrier at the FS boundary was placed in the 1990s and appears to be keeping rainbows out of the system," according to Scott Optiz, Montana Fish, Wildlife and Parks fish biologist.

Scenery: The upper reaches of Mill Creek contain spectacular views of Absaroka Range high country.

Recreation: Mill Creek receives extensive usage by fisherman, horseback riders, hikers, and ATV users.

Public Support: Mill Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild – from the headwaters to ½ mile east of the confluence with Anderson Creek; Recreational – from ½ mile east of Anderson Creek to Forest Service boundary.

Pine Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
626	**Yellowstone**	**Upper Yellowstone**	**4.9**	**R, S**

Recreation: The Pine Creek watershed is a very popular area for hiking, ice climbing, and peak bagging of Black Mountain. Pine Creek Falls attracts hundreds of visitors per day during the summer months.

Scenery: High within the headwaters of Pine Creek is the sight of a rare, large alpine lake in the Absaroka Mountains.

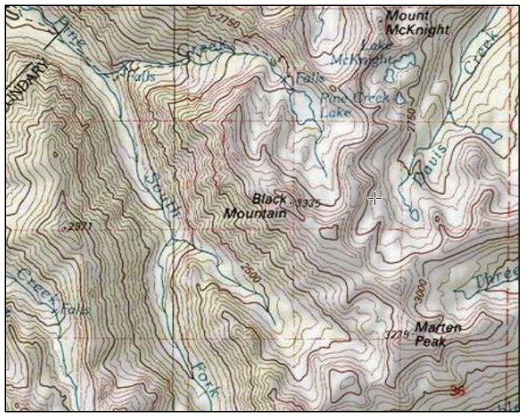
Public Support: Pine Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild

South Fork Pine Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
781	**Yellowstone**	**Upper Yellowstone**	**5.9**	**W, CR**

Wildlife: The South Fork of Pine Creek contains high value core grizzly bear habitat, according to the Craighead Institute models.



Climate Refugia: The South Fork of Pine Creek is predicted to be a cold water source in 2040, according to NorWeST models.

Segment: From the headwaters to the confluence with Pine Creek.

Classification: Wild

West Boulder River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
889	**Yellowstone**	**Upper Yellowstone**	**14**	**W, F, R, CR**

Wildlife: The West Boulder River contains high value core grizzly bear habitat, according to the Craighead Institute models.

Fish: The West Boulder River hosts a population of native Yellowstone Cutthroat Trout, according to Montana Fish, Wildlife and Parks mapping.

Recreation: The West Boulder River is a popular backpacking, day hiking and fishing destination.

Climate Refugia: The West Boulder River is predicted to be a cold water refuge and host a native trout population in 2040 according to NorWeST models.

Public Support: The West Boulder River was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012; The West Boulder River is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild

Bear Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
27	**Gardiner**	**Yellowstone Headwaters**	**11**	**W, S, H**

Wildlife: Bear Creek contains mule deer and elk migration routes, and occupied wolverine habitat according to Wildlife Conservation Society data; it hosts high value core grizzly bear habitat, based on Craighead Institute models.

Scenery: Bear Creek is a beautiful little valley running up into the Absaroka Mountains.

Heritage: Jardine is an old mining community with old mining equipment bordering the creek.

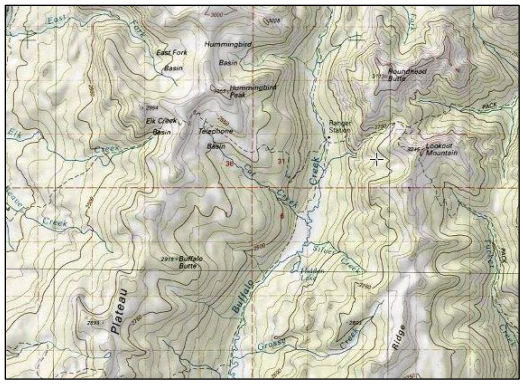
Public Support: Bear Creek is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the headwaters to the Yellowstone River.

Classification: Wild – headwaters to the Bear Creek trailhead; Recreational – from the Bear Creek trailhead through the community of Jardine; Scenic – from Jardine to the Yellowstone River.

Buffalo Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
89	**Gardiner**	**Yellowstone Headwaters**	**13.6**	**W**

Wildlife: Buffalo Creek contains high value core grizzly bear habitat according to Craighead Institute models. Buffalo Creek also supports a mule deer migration route, noted from Wildlife Conservation Society data and moose winter range and moose general range, as documented by the Montana Fish, Wildlife and Parks.



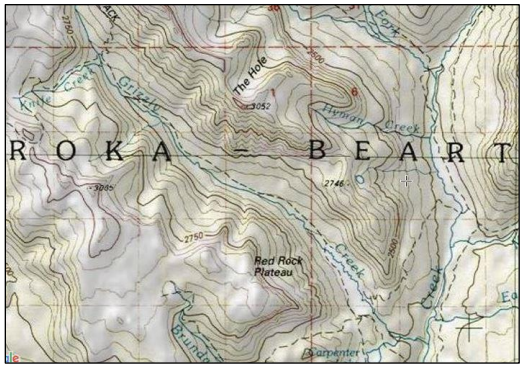
Public Support: Buffalo Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to the Forest Service-Yellowstone National Park boundary.

Classification: Wild

Grizzly Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
354	**Gardiner**	**Yellowstone Headwaters**	**7.6**	**F, W**

Fish: Grizzly Creek contains native Yellowstone cutthroat trout in the lower section according to mapping produced by Montana Fish, Wildlife and Parks.



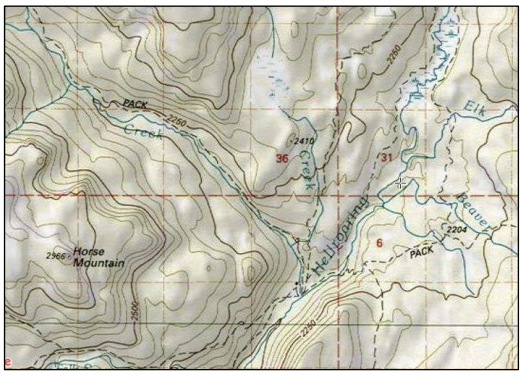
Wildlife: Grizzly Creek contains high value core grizzly bear habitat in high reaches according to Craighead Institute models. Grizzly Creek also hosts occupied wolverine habitat, based on data and mapping completed by the Wildlife Conservation Society. Grizzly Creek should be included with Hellroaring Creek as eligible Wild and Scenic to protect the watershed values.

Segment: From the headwaters to Hellroaring Creek.

Classification: Wild

Hellroaring Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
370	**Gardiner**	**Yellowstone Headwaters**	**18.9**	**F, W, S**

Fish: Hellroaring Creek contains a pure native Yellowstone cutthroat trout population according to past data and mapping from Montana Fish, Wildlife and Parks



Wildlife: Hellroaring Creek hosts two mule deer migratory routes, according to the Wildlife Conservation Society data. It also contains high value core grizzly bear habitat, according to Craighead Institute models. The eastern edge of occupied wolverine habitat, mapped by the Wildlife Conservation Society, extends in to Hellroaring Creek.

Scenery: Hellroaring Creek carves a rugged canyon down low with fast moving, turbulent waters. Up high, the watershed opens up to a broad valley and views of the high alpine Absaroka Range.

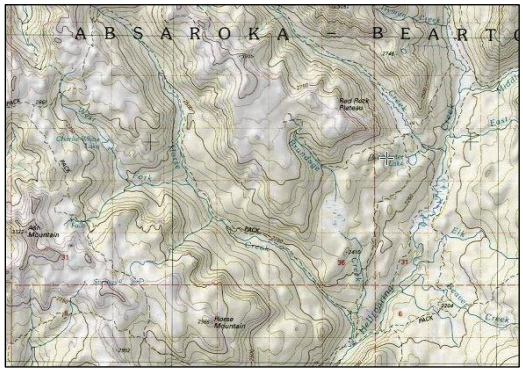
Public Support: Hellroaring Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: From the headwaters to the Forest Service boundary.

Classification: Wild

Horse Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
389	**Gardiner**	**Yellowstone Headwaters**	**10**	**F, W**

Fish: Horse Creek contains native Yellowstone cutthroat trout in the lower section according to mapping produced by Montana Fish, Wildlife and Parks.



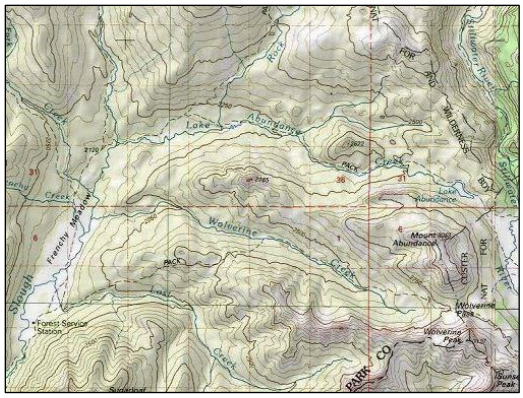
Wildlife: Horse Creek contains high value core grizzly bear habitat in high reaches according to Craighead Institute models. Horse Creek also hosts occupied wolverine habitat, based on tracking and mapping completed by the Wildlife Conservation Society. Horse Creek should be included with Hellroaring Creek as eligible Wild and Scenic to protect the watershed values.

Segment: From the headwaters to Hellroaring Creek.

Classification: Wild

Lake Abundance Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
419	**Gardiner**	**Yellowstone Headwaters**	**7.5**	**F**

Fish: Lake Abundance Creek contains a pure native Yellowstone cutthroat trout population due to a barrier on Slough Creek. Efforts have been made by the Forest Service and Montana Fish, Wildlife and Parks to purify the native Yellowstone cutthroat trout population in the Slough Creek watershed.

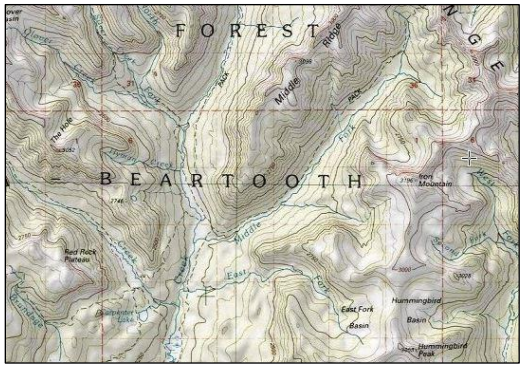


Segment: Headwaters to Slough Creek.

Classification: Wild

Middle Fork Hellroaring Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
506	**Gardiner**	**Yellowstone Headwaters**	**6.7**	**W**

Wildlife: The Middle Fork of Hellroaring Creek contains high value core grizzly bear habitat according to Craighead Institute models. An important mule deer migration route begins at the bottom of the Middle Fork of Hellroaring Creek, according to Wildlife Conservation Society data.



Segment: Headwaters to Hellroaring Creek.

Classification: Wild

Slough Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
737	**Gardiner**	**Yellowstone Headwaters**	**18.4**	**F, W**

Fish: Slough Creek contains a pure Yellowstone cutthroat trout population above a barrier.

Wildlife: Slough Creek hosts high value core grizzly bear habitat according to Craighead Institute models in the lower and upper reaches. Important elk and mule deer herds migrate in and out of Yellowstone National Park and into the Stillwater watershed, according to Wildlife Conservation Society data.

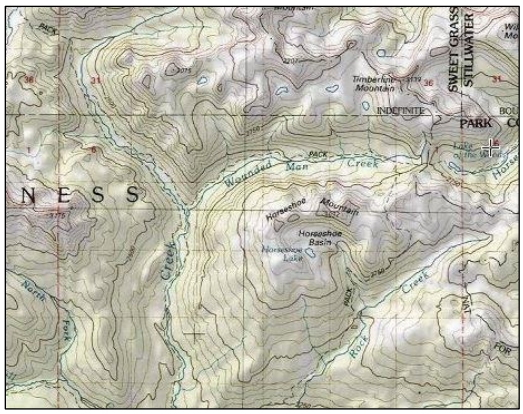
Public Support: Slough Creek was included in the Montanans for Healthy Rivers Wild and Scenic River Eligibility Report 2012.

Segment: Headwaters to the Forest Service boundary.

Classification: Wild – headwaters to the Slough Creek Ranger Station; Scenic – Slough Creek Ranger Station to the Forest Service boundary.

Wounded Man Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
933	**Gardiner**	**Yellowstone Headwaters**	**4.5**	**F**

Fish: Wounded Man Creek contains a pure Yellowstone cutthroat trout population. Efforts have been made by the Forest Service and Montana Fish, Wildlife and Parks to purify the native Yellowstone cutthroat trout population in the Slough Creek watershed. Therefore, Wounded Man Creek, Lake Abundance Creek and unnamed tributaries should be included with Slough Creek as eligible Wild and Scenic.

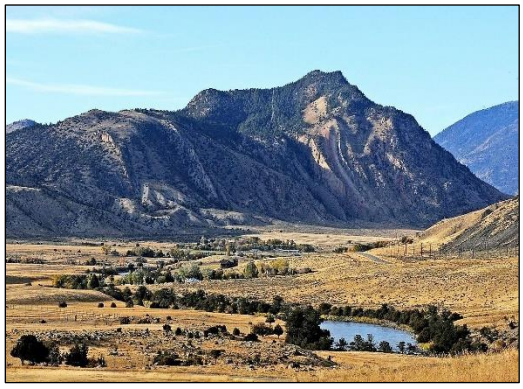


Segment: From the headwaters to Slough Creek.

Classification: Wild

Yellowstone River				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
940	**Gardiner**	**Yellowstone Headwaters**	**17**	**R, S, W, H**

Recreation: The Yellowstone River is a recreation mecca in Park County for rafting, fishing, camping, and hunting.



Scenery: The Yellowstone River carves a unique, broad meandering valley with alpine peaks of the Absaroka and Gallatin mountain ranges within view and sage brush flats down low.

Wildlife: The riparian corridor and the flats above the river offer essential grizzly bear, bison, elk, pronghorn, and bighorn sheep habitat.

Heritage: The Gardiner Basin and Yellowstone River corridor is the original gateway to Yellowstone National Park via railway. The first Dude Ranch in Montana was located in the Yellowstone River corridor at OTO Ranch on Cedar Creek. The OTO Ranch property is now administered by the Forest Service.

Public Support: The Yellowstone River is supported in the Montanans for Healthy Rivers Citizen Proposal for New Wild and Scenic Rivers legislation.

Segment: From the Yellowstone National Park boundary in Gardiner through Yankee Jim Canyon.

Classification: Recreational

Additional Recommendations in the Pryor Mountains

Although the Greater Yellowstone Coalition does not typically engage in conservation issues in the Pryor Mountains because this range is considered outside the geographic purview of the Greater Yellowstone Ecosystem, we recognize that the Pryor Mountains are not a forgotten landscape. This range hosts many important wildlife, cultural, and geologic values. Therefore, GYC has chosen to provide recommendations on eligible Wild and Scenic Rivers in the Pryor Mountains with some commentary. GYC did not use the same methodology to conduct a thorough analysis on these streams as was done on streams within the Greater Yellowstone Ecosystem part of the Custer Gallatin National Forest.

Bear Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
32	**Beartooth**	**Shoshone**	**6.2**	**W**

Wildlife: The Greater Yellowstone Coalition supports Bear Creek in the Pryor Mountains as eligible for its important contribution to migratory and resident bird populations. The intact riparian vegetation of Bear Creek, along with the security it provides for wildlife, warrants administrative protection as an eligible Wild and Scenic River. The Forest Service should extend the eligible Wild and Scenic Rivers boundary to the headwaters of Bear Creek.

Cave Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
123	**Beartooth**	**Bighorn Lake**	**7.2**	**G**

Geology: The Greater Yellowstone Coalition supports Cave Creek as eligible Wild and Scenic for its geologic ORV associated with a karst limestone canyon connected to Crooked Creek.

Crooked Creek				
FOREST SERVICE #	**RANGER DISTRICT**	**WATERSHED**	**MILEAGE**	**ORV**
182	**Beartooth**	**Bighorn Lake**	**7.9**	**G, S, H, F**

All: The Greater Yellowstone Coalition recommends Crooked Creek as an eligible Wild and Scenic River for its geologic, scenic, heritage and fish ORV's. This creek hosts many important scenic, wildlife, cultural, geologic and fish values, including a pure native Yellowstone cutthroat trout population protected by a barrier to keep out non-native species.

About Wild and Scenic Rivers

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The law defines a river as a flowing body of water or estuary, or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes.

> *It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dams and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.*
>
> *(Wild and Scenic Rivers Act, October 2, 1968)*

The Wild and Scenic River Act dictates that each river in the National Wild and Scenic Rivers System be administered in a manner to protect and enhance a river's outstandingly remarkable values. The Act allows existing uses of a river to continue and future uses to be considered, so long as existing or proposed use does not conflict with protecting river values. The Act also directs building partnerships among landowners, river users, tribal nations, and all levels of government.

The Act is best known for protecting the free-flowing character of a river or creek. To this end, the Federal Energy Regulatory Commission (FERC), which licenses non-federal hydropower projects, is not allowed to license construction of dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works on or directly affecting Wild and Scenic Rivers.

Although streams may only be *designated* as Wild and Scenic Rivers through acts of Congress, all eligible segments must be *managed* in the interim to preserve the free-flowing nature and protect the Outstandingly Remarkable Values that have been determined.

To be considered *Eligible*, a stream must be free-flowing and possesses one or more outstandingly remarkable value. If found eligible, a river is analyzed as to its current level of development and a preliminary *classification* determination is made as to whether it should be placed into one of three classes:

- *Wild Rivers* – Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- *Scenic Rivers* – Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

- *Recreational Rivers* – Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some limited impoundment or diversion in the past.

The 2012 National Forest Planning Rule, provides directions and instructions to National Forests undergoing a revision of their existing Forest Plans. (36 CFR part 219) Chapter 80 of the Forest Service Handbook (FSH 1909.12) provides additional guidance specifically on how to conduct the Wild and Scenic Rivers eligibility study. The Custer Gallatin National Forest has summarized this process into the following steps:

Step 1: Identify All Named Streams on the 7.5 Minute USGS Quad Maps

Step 2: Identify Free-flowing Streams

The Wild and Scenic Rivers Act defines "free-flowing" as existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. The existence of low dams, diversion works, or other minor structures at the time any river is proposed for inclusion in the National Wild and Scenic Rivers System does not automatically disqualify it for designation, but future construction of such structures is not allowed.

Step 3: Identify Regions of Comparison for Each Resource

The Greater Yellowstone Coalition supports the Custer Gallatin National Forest review team in using the Greater Yellowstone Ecosystem as a region of comparison for considering each Outstandingly Remarkable Value (ORV).

Step 4: Develop Evaluation Criteria to Identify Outstandingly Remarkable Values (ORVs)

Based on ORV categories established in the Wild and Scenic Rivers Act, the Greater Yellowstone Coalition has used those categories as well as criteria established in Forest Service Handbook (FSH) 82.14a to recommend eligibility. Further details are described in the *methodology* section of this report.

Step 5: Evaluate named Streams and Determine if they possess Outstandingly Remarkable Values (ORVs)

All ORV's must be river-related and:

- Be located in the river or on its immediate shore lands (generally within ¼ mile on either side of the river),
- Contribute substantially to the functioning of the river ecosystem, and/or
- Owe their location or existence to the presence of the river

This evaluation considers the area within one-quarter mile of the high water mark on both sides of a river, and other features outside this corridor such as tributaries supporting rearing and spawning habitat, if their inclusion is essential for the protection of the river's ORVs.

Outstandingly Remarkable Values include: “scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values” (WSRA, sec.1(b)).

Step 6: Review the Level of Development along Eligible Streams and Determine their Classification

After a stream has been determined eligible the level of development needs to be reviewed to determine one of the three classifications the stream falls within (Wild, Scenic, Recreation). A classification should be based on existing level of development at the time of the evaluation, not anticipated development in the future.

Methodology

Field data collection is the bedrock of this *Report on Recommended Eligible Wild And Scenic Rivers on the Custer Gallatin National Forest*. Over the course of three months in the summer of 2017, the Greater Yellowstone Coalition employed a waters conservation staff member and two trained interns to inventory streams on the Custer Gallatin National Forest for Wild and Scenic Rivers eligibility. Some additional field inventories took place before and after the summer of 2017 by the GYC waters conservation associate. Preceding field data collection, the Greater Yellowstone Coalition provided a training to two interns on: the Wild and Scenic Rivers Act; Chapter 80 of the Forest Service Handbook on Wild and Scenic eligibility analysis; a primer on approaches to field data collection; a backcountry safety protocol; a primer on backcountry travel and camping – particularly relevant to traveling in grizzly bear country. The GYC staff and interns primarily inventoried streams by foot. They hiked, walked, ran and backpacked backcountry stream sections. Where germane, they used automobiles to access and inventory major rivers accessible by road. In addition to field data collection, this report is complemented by analysis of peer reviewed literature, scientific papers from federal agencies and non-governmental organizations (NGO's), interviews with biologists and recreation specialists, Geographical Information System (GIS) analysis, and ecologic and climatic models generated from best available science.

Scoping of Streams – Region, Size, and Reputation

The Custer Gallatin National Forest has 940 named streams across seven ranger districts. 761 of these streams (covering 2,945 miles) are in the five ranger districts (Beartooth, Bozeman, Gardiner, Hebgen Lake and Yellowstone) that make up part of the Greater Yellowstone Ecosystem. The Greater Yellowstone Coalition has reviewed a subset of these streams during the Wild and Scenic Rivers eligibility analysis in 2017.

To establish some semblance of priority streams to conduct field inventories, the Greater Yellowstone Coalition looked at streams that were at least five miles in length within the Greater Yellowstone Ecosystem of the Custer Gallatin National Forest. While five miles may be a subjective number, it represented to GYC a length that likely begins to measure opportunities for "outstandingly remarkable values" on the national forest. However, given the fact that a stream's length should not dictate eligibility for Wild and Scenic Rivers, GYC staff also kept an open mind to a field inventory of small creeks that have a local or regional reputation for containing specific values related to heritage, wildlife, fish, recreation and scenery. Such examples include Maid of the Mist Creek in the Hyalite Creek watershed, the West Fork of Beaver Creek in the Madison watershed, and Pine Creek of the Upper Yellowstone River – all of which have a recreation outstandingly remarkable value associated with them. Other creeks smaller than five miles contain a fish ORV, as presented in more detail in this report. All total, GYC staff and interns conducted field inventories and/or Geographical Information System (GIS) analysis on 119 streams within the Greater Yellowstone Ecosystem portion of the Custer Gallatin National Forest.

Data Table Creation – Greater Yellowstone Coalition

For field data collection and Geographical Information System (GIS) analysis, Greater Yellowstone Coalition staff created a 28 point data spreadsheet (see appendix) to assess different conditions and

attributes of each creek on the Custer Gallatin National Forest. The data spread sheet takes its framework from the Forest Service Handbook 1909.12 Chapter 80, which describes a protocol for evaluating eligible Wild and Scenic Rivers on a National Forest. GYC staff then added four points of analysis on climate modeling for cold water streams and projected native fish habitat based on modeling conducted by NorWeST and Climate Shield. During field data collection, GYC staff and interns took photography with GPS coordinates using an application called Gaia GPS. In some cases, staff and interns conducted video along creeks as well.

The “ORV Description” column within the 28 point data spreadsheet includes: analysis of high value core grizzly bear habitat based on Craighead Institute models; major ungulate migratory paths based on Wildlife Conservation Society research; documented occupied wolverine habitat based on Wildlife Conservation Society research; general and winter range for moose based on Montana Fish, Wildlife and Parks mapping; pure native cutthroat trout populations based on Montana Fish, Wildlife and Parks mapping; places with heritage values based on research of Native American history and early white American settlement; and, recreation meccas based on Forest Service data, conversations with Forest Service employees, conversations with people directly involved in the outdoor recreation economy, and anecdotal knowledge from GYC staff who hike, climb, paddle, fish, and backcountry ski on the Custer Gallatin National Forest.

The 28 point data spreadsheet on eligible Wild and Scenic River analysis includes:

1. River Name – ex: Taylor Creek
2. FS Number - # River
3. District Name – ex: Beartooth Ranger District
4. Watershed Basin Name – ex: Clarks Fork Yellowstone
5. Field Check - Date mm/dd/yyyy, Duration (hours)
6. Segment checked - Begin/end point; Hydrographic features; ownership status; development
7. Segment Length – Linear Distance (Miles)
8. Free-Flowing - Status Condition "existing or flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modifications" "existence of low dams, diversion works or other minor structures shall not bar consideration" FSH 82.71
9. Potential ORV – ex: Fish, Wildlife, Recreation
10. ORV Description - located in river or corridor; contribute substantially to ecosystem function; river dependent; owes existence to river presence; if recreation - describe FSH 82.73
11. Climate Refuge 1 – Field: Aspect, Gradient, topographical relief in channel/riparian
12. Climate Refuge 2 – NorWeST Source water 5-10C in 2040
13. Climate Refuge 3 – NorWeST Optimal native trout habitat Temp 10-15C in 2040
14. Climate Refuge 4 – Climate Shield Cold Water Refuge Streams for Native Trout (probability of occurrence 2040 80-100%)
15. Digital Imagery – Photos, Video, Date, time, GPS Coordinate
16. Region of Comparison – ex: Greater Yellowstone Ecosystem
17. Classification – Wild, Scenic, Recreation FSH 82.8
18. Water Resource Development – Impoundment, diversion, modification 82.8
19. Shoreline Development - Primitive, undeveloped, small dispersed dwellings (ag.), grazing, timber harvest FSH 82.8
20. Accessibility – Level of roads, bridges, railroads FSH 82.8

21. Water Quality – Any known baseline testing or reporting FSH 82.8 (USGS, DEQ)
22. Tribal Consultation – Blackfeet, Crow, CKST, Shoshone, Nez Perce FSH 81.1
23. NRI – Nationwide Rivers Inventory FSH 82.2
24. USGS 7.5 Minute Quad – Name of Quad FSH 82.2
25. Changed Circumstances – Wildlife & Fish Species (Y/N) FSH 82.4; Recreation changes
26. GYC Recommended Eligibility – Y/N
27. Recommended Segment – ex: all; or from named confluence to headwaters
28. Explanation – Further justification for recommendation for eligible Wild and Scenic Rivers

Climate Models – NorWeST Rocky Mountain Research Station

The Greater Yellowstone Coalition used the NorWeST (Rocky Mountain Research Station, Department of Agriculture) summer stream temperature model and scenarios for the western U.S. to address different scenarios for climate change modeling on the Custer Gallatin National Forest. The NorWeST temperature database was compiled from hundreds of biologists and hydrologists working for more than 100 resource agencies. The database contains more than 200,000,000 hourly temperature recordings at over 20,000 unique stream sites. Those temperature data were used with spatial statistical network models to develop 36 historical and future climate scenarios at 1-kilometer resolution, covering more than 1,000,000 kilometers of streams.

To determine whether a stream might serve as a cold water "Climate Refugia" in the future, GYC used GIS shapefiles from modeled stream temperature scenarios to analyze streams that were predicted to flow at temperatures ranging from 5 – 10C in 2040 and from 10 – 15C in 2040. GYC used best available science to determine that the 5 - 10C range was a minimum temperature range to support native cutthroat trout growth and reproduction while the optimal growth temperature for native cutthroat trout is 13 - 15C. Isolating these two temperature ranges during GYC's analysis provided an understanding of where cold water refugia is predicted to exist in 2040 to: 1) simply support native trout populations as a minimum temperature requirement, and 2) to protect thriving native trout populations in 2040. Since the NorWeST models only deal with temperature, GYC analyzed literature on native fish research to justify the two temperature scenarios.

In a 2007 paper entitled *Cold Summer Temperature Limits Recruitment of Age-0 Cutthroat Trout in High Elevation Colorado Streams*, published in Transactions of the American Fisheries Society by Mark Coleman and Kurt Fausch, the authors write:

> *We defined the start of the growing season as the beginning of the first week that average stream temperatures exceeded and remained above 5C for the season; the end of the growing season was defined as the last day of the first week that average stream temperature dropped below 4C. These criteria were based on previous work indicating that adult native cutthroat trout in Colorado spawn when stream temperatures reach 5 – 8C (USFWS 1998), and that growth typically occurs in trout at water temperatures of approximately 4C and above (Piper et al. 1982)*

The National Park Service *Yellowstone Trout Facts,* recently updated in 2017*,* also confirms that cutthroat trout require a minimum temperature of 5C for adequate spawning.

In another 2007 publication in Transactions of the American Fisheries Society entitled *Comparative Thermal Requirements of Westslope Cutthroat Trout and Rainbow Trout: Implications for Species Interactions and Development of Thermal Protection Standards,* Elizabeth Bear, Thomas McMahon and Alexander Zale concluded that "maximum temperatures near an upper limit of 13 – 15C would delineate suitable thermal habitat for long term persistence of west slope cutthroat trout." Bear et al. further argued that "westslope cutthroat trout may have greater tolerance than rainbow trout to the recruitment failures that are common to higher elevation sites because of their cold summer temperatures and short growing season."

Multiple literature sources make clear that Yellowstone cutthroat trout (*Oncorhynchus clarkia bouvieri*) and westslope cutthroat trout (*Oncorhynchus clarkia lewisi*), two species native to the Custer Gallatin National Forest, are restricted to high elevation, higher gradient streams where the water temperatures are consistently cold. Conversely, mid to lower elevation reaches of streams are commonly occupied by non-native rainbow trout, brook trout, brown trout and rainbow-cutthroat hybrids, known as cutbows.

Recommendation: To protect the longevity of the two native cutthroat trout species on the Custer Gallatin National Forest, the Greater Yellowstone Coalition encourages the Forest Service to recognize the modeled cold water streams as containing an outstandingly remarkable value known for their "Climate Refugia."

Cutthroat Trout – Climate Shield Cold Water Refuge Streams

The Greater Yellowstone Coalition used the GIS shapefile on *Climate Shield Cold Water Refuge Streams for Cutthroat Trout* (Isaak et al.) to better understand where scientists concluded cold water streams within the interior range of cutthroat trout are too cold to be invaded by brown trout and rainbow trout during different climate scenarios. In this analysis, the GYC staff focused on refuge streams for native trout where the probability of occurrence is predicted at 80 - 100 percent in 2040. The analysis of this work indicates significant overlap with modeling on cold water stream temperatures from the NorWeST (above) shapefiles. However, the overlap is not perfect. There are some creeks that are cold (5 – 10C) that are not modeled to support native trout in 2040 according to the Climate Shield models. GYC concludes that, in some cases, native trout survival is based on habitat requirements, not merely cold water temperatures. This does not, however, devalue the importance of cold water of 10C or less because this cold water in high elevation streams supports native trout at lower elevations where the stream gradient may also be more conducive to native trout survival.

Cutthroat Trout – Pure Native Populations & Habitat – Montana Fish, Wildlife & Parks

The Greater Yellowstone Coalition used the GIS shapefile on fish populations, produced by Montana Fish, Wildlife and Parks and housed in the Montana State Library geographic information clearinghouse. GYC staff selected native Yellowstone cutthroat trout (*Oncorhynchus clarkia bouvieri*) and native westslope cutthroat trout (*Oncorhynchus clarkia lewisi*) in the GIS shapefile to examine currently mapped pure populations on the Custer Gallatin National Forest.

While conducting field data collection on optimal stream habitat for native trout, the Greater Yellowstone Coalition staff used components of the Stream Visual Assessment Protocol (SVAP) developed by the Natural Resource Conservation Service. Rather than score each stream habitat component, GYC staff and interns made visual observations on the following characteristics of stream health: channel condition (natural, levels of alteration, down cutting); riparian zone (natural vegetation extends relative width to channel); bank stability; water appearance (clear, slightly cloudy, cloudy, turbid); barriers to fish movement; pools (type and abundance); and, riffle ebeddedness (gravel, cobble, fine sediment).

Recommendation: Observations from this analysis influenced GYC staff to support a "Fish" outstandingly remarkable value" for streams on the Custer Gallatin National Forest where pure native trout have a stronghold or are protected from non-native introgression or non-native competition by natural or human-made stream barriers. GYC asks the Forest Service to follow this recommendation.

Grizzly Bear – Craighead Institute

The grizzly bear (*Ursus arctos*) has long been considered an iconic species of the Greater Yellowstone Ecosystem. Due to habitat destruction, hunting, poaching and human conflict, the grizzly bear population in the Greater Yellowstone Ecosystem sunk to an all-time low of 136 bears in 1975. Since then, the population increased to an estimated 757 in 2014, and then declined to 690 grizzly bears in 2016. According to the Interagency Grizzly Bear Study Team, grizzly bears have gradually expanded their occupied habitat by more than 50% since 1975.

The Custer Gallatin National Forest provides invaluable habitat for sustaining a healthy grizzly bear population. Riparian zones often create some of the best secure habitat for grizzly bears. Although the U.S. Fish & Wildlife Service recently determined that the population of the Greater Yellowstone grizzly bear is recovered from an Endangered Species Act listing as a result of estimated population size, distribution of females with cubs, and mortality rates, the Greater Yellowstone Coalition finds it imperative that all federal agencies continue to work together to identify and protect critical grizzly bear habitat.

While most of the Custer Gallatin National Forest within the Greater Yellowstone Ecosystem provides grizzly bear habitat, the Greater Yellowstone Coalition chose to parse out the highest level of core grizzly bear habitat to identify it as worthy of an outstandingly remarkable wildlife value. GYC examined Craighead Institute GIS spatial modeling that focused on: grizzly bear connectivity (rated from high to low movement costs); grizzly bear corridors (rated from high to low probability of connectivity); and, grizzly bear predicted living/core habitat (rated from low to high value). GYC staff ended up focusing our attention on the High Value Predicted Core Habitat geodatabase raster dataset overlaid across creeks and rivers (shapefile) on the Custer Gallatin National Forest to make recommendations for a wildlife ORV pertinent to grizzly bear survival.

Recommendation: The Greater Yellowstone Coalition believes that it is important to analyze grizzly bear secure habitat as a "Wildlife" outstandingly remarkable value to be reviewed for Wild and Scenic eligibility on relevant streams on the Custer Gallatin National Forest. GYC asks the Forest Service to follow this recommendation.

Wolverine – Wildlife Conservation Society

Wolverines (*Gulo gulo*) within the lower 48 states are currently confined to small, remnant populations of fewer than 300 in Idaho, Washington, Wyoming and Montana. A recent study estimates that their "effective" population size – the portion of the population that successfully breeds- may be as low as 35 individuals in the Rocky Mountains. According to Celgeski et al., "The size and trend of each of these populations and connectivity to adjacent populations in the contiguous United States and Canada are poorly understood." Warming winters and dwindling snowpack, a result of climate change, have created an increased pressure on the longevity of wolverine populations in the lower 48 states, even threatening extinction. In 2010, the U.S. Fish and Wildlife Service determined that wolverines warrant protection under the Endangered Species Act but that those protections were withheld indefinitely due to the backlog of other species awaiting an official listing.

Research and publications by the Wildlife Conservation Society (WCS) in the past decade have led to increased understanding of habitat use and home range by wolverines on, and adjacent to, the Custer Gallatin National Forest in Montana. The Greater Yellowstone Coalition used Wolverine Progress Reports published by the Wildlife Conservation Society in 2007, 2008 and 2009 to evaluate occupied wolverine habitat on the Custer Gallatin National Forest. Most of the consistently used habitat lies along the Lion's Head and Madison Range, as well as the southwest corner of the Absaroka Range in Montana.

Recommendation: The GYC staff used mapping produced by WCS that represents occupied wolverine habitat with polygons and then overlaid those home range polygons over creeks and rivers on the Custer Gallatin National Forest to make a recommendation for a "Wildlife" outstandingly remarkable value associated with wolverine habitat. GYC asks the Forest Service to follow this recommendation.

Ungulate Migration & Habitat – Wildlife Conservation Society, Montana Fish, Wildlife & Parks

The Greater Yellowstone Coalition used the Wildlife Conservation Society Ungulate Migration data set to determine riparian corridors of high wildlife value on the Custer Gallatin National Forest

The Wildlife Conservation Society Ungulate Migration data set contains large mammal migration routes for five ungulate species (elk, mule deer, bighorn sheep, moose, and pronghorn) in the Greater Yellowstone Ecosystem, as compiled from GIS data on migration route locations for Wyoming, Montana, and Idaho. Each route is assigned a confidence ranking, a threat score and mean threat value based on the likelihood of adverse impacts from human land use along the length of the route. This dataset was obtained from Data Basin and is available at:
http://app.databasin.org/app/pages/datasetPage.jsp?id=1a82b70322fe439dae3747d5ba3699cf

The Greater Yellowstone Coalition also evaluated general range and winter range for moose and elk based on habitat mapping compiled by the Montana Fish, Wildlife and Parks. The elk distribution dataset can be found at:
https://mslservices.mt.gov/geographic_information/data/datalist/datalist_Details.aspx?did={F699A592-C81D-4AC9-BC81-DEE1E9A9FC87}

The moose distribution dataset can be found at: https://mslservices.mt.gov/geographic_information/data/datalist/datalist_Details.aspx?did={b2222c20-5b0b-11e5-a837-0800200c9a66}

Recommendation: In watersheds on the Custer Gallatin National Forest where a significant portion of an ungulate migration path parallels a riparian corridor, the Greater Yellowstone Coalition recommends the corresponding stream for a "Wildlife" outstandingly remarkable value for Wild and Scenic Rivers eligibility. GYC asks the Forest Service to follow this recommendation.

Heritage – Apsáalooke (Crow Nation), U.S. Forest Service

To pay respects to the Native American cultural heritage of the region within the Greater Yellowstone Ecosystem that is now administered by the Custer Gallatin National Forest, the Greater Yellowstone Coalition included recommendations for a "Heritage" outstandingly remarkable value associated with eligible Wild and Scenic Rivers. Much of the GYC's analysis of Native American connections to this landscape drew from the Forest Service's *Assessment Forest Plan Revision Final Areas of Tribal Importance Report* as well as scholarly research accessible online.

The Custer Gallatin National Forest contains many culturally important sites held sacred by Native American tribes. LaPoint and Bergstrom write:

> Native American tribes have lived on, or traversed through, lands within the Custer Gallatin for thousands of years where they hunted, fished, gathered plant foods, buried their dead, and conducted religious ceremonies. Their cultural practices were still in use when they were removed from their homelands onto reservations, and many of these ties to their aboriginal territories and practices remain in place today through stories, songs, language, place names and spiritual world view. These places provide guidance and spiritual assistance to individuals and tribes in general, and when these sites are destroyed so is a portion of tribal heritage, a loss experienced by the whole tribe.

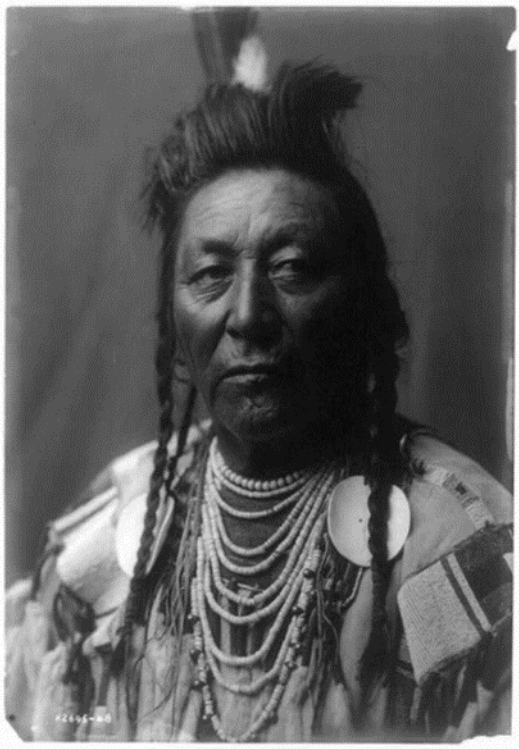
Indian Claim's Commission maps depict the Custer Gallatin National Forest overlapping within three tribal claims – Dahcotah (Sioux); the Arikara, Mandan, Hidatsa Nation; and Apsaalooké (Crow). Most of the Custer Gallatin National Forest that lies within the Greater Yellowstone Ecosystem was historically Crow territory, however other tribes used the Madison, Gallatin and Yellowstone Valley as routes to access hunting grounds. The Hebgen Lake and Bozeman Districts of the Custer Gallatin fall within the original "open hunting grounds," or unceded lands, identified in the 1851 Fort Laramie Treaty and no Indian Claim's Commission claims have been made on these areas. According to the Gallatin County Montana Genealogy Trails "There was an early tradition among the Indians of Montana that Gallatin Valley, called by them the "Valley of Flowers" was neutral ground."

Landscape	Tribe	Association/Concerns
Madison, Henry's Lake, Gallatin, Absaroka and Beartooth Mountains	Nex Perce Shoshoni-Bannock Eastern Shoshone	Nez Perce Natinal Historic Trail; Bannock Trail; Hunting, Gathering, Fasting; Maintain and increase access for mineral resource gathering, such as soapstone and paint pigment; Respectful treatment of TCPs especially Sun Dance Grounds, fasting sites, rock art sites and medicine wheels; Respectful treatment of hunting, fishing and root gathering sites
Bridger, Bangtail, Crazy Mountains	Blackfeet Confederated Salish Kootenai Crow	Flathead Pass; Crazy Mountain Traditinal Cultural Landscape Crazy Mountains – motorized travel above timber line or alpine areas
Pryor Mountains	Crow Shoshone Northern Cheyenne	Traditional Cultural Landscape; Hunting and Gathering; Plants; Motorized travel at Dryhead Overlook; Maintain access for plant collecting (including tipi poles) particularly in the Pryor Mountains and especially Pryor foothills

Table. General known tribal associations and concerns (Excerpted from Table 4 in the Custer Gallatin National Forest's *Assessment Forest Plan Revision Final Areas of Tribal Importance Report.*)

One of the more revered mountain ranges in the region, used by Native Americans for generations for sacred rituals such as rites of passage and vision quests is the Crazy Mountains.

> *The picturesque Crazy Mountains were known to the Apsáalooke people as Awaxaawapìa Pìa, roughly translated as "Ominous Mountains." An even rougher translation of "Pia" could be the English term "crazy," because it infers an extreme and unpredictable nature. Awaxaawapìa Pìa were well known for their unique qualities that included their stark physical stature, their ability to draw storm clouds upon them at any time, and their metaphysical power which was always abundant and potent for those who sought it in the mountains.* (Inglebret and Wood)



In 1804, as the Lewis and Clark expedition traveled by canoe up the Missouri River, a famous Apsáalooke chief named Alapooish (Sore Belly) fasted on top of the highest peak in the Crazy Mountains, now called Crazy Peak, and received a powerful dream that helped to propel him into history as a leader on the northern Plains. Another famous Apsáalooke chief, Alaxchíia Ahú (Plenty Coups), also received a vision while fasting in the Crazy Mountains as an adolescent in 1861. Alaxchíia Ahú foresaw the Virginia City Gold Rush and the opening of the Bozeman Trail, which informed his Tribe's diplomatic decisions to form an alliance with the U.S. government when the invasion of the Crow homeland began in 1864. Drainages such as Big Timber Creek on the east side and Cottonwood Creek on the west side of the Crazy Mountains were key passage ways into the interior high peaks of the range.

Recommendation: The Greater Yellowstone Coalition supports Big Timber Creek and Cottonwood Creek for

their "heritage" outstandingly remarkable value for inclusion as eligible Wild and Scenic Rivers. GYC asks the Forest Service to follow this recommendation.

Photo: Alaxchíia Ahú (Plenty Coups) by Edward S. Curtis (Library of Congress)

Recreation Reports – U.S. Forest Service; Montana fish, Wildlife & Parks

In the past decade, recreation has become a booming economic force for communities such as Billings, Bozeman, Livingston, Gardner, Red Lodge and West Yellowstone, Montana – all adjacent to the Custer Gallatin National Forest. The booming recreation economy has led to a significant increase in year-round recreation in both front country, backcountry and river settings on the Forest.

The *Assessment Forest Plan Revision Final Recreation Settings, Opportunities, and Access Report* (2017) explains that recreation on the Custer Gallatin National Forest in 2012 contributed $51,712,000 to the regional market area. The report also identifies recreation as the primary reason visitors come to the Forest. National Visitor Use Monitoring from 2014 accounts for nearly 2.6 million dispersed area visitors. Dispersed recreation consists of activities that take place outside developed recreation areas, such as camping, hiking, fishing, hunting, gathering forest products, river use, skiing, recreational shooting, climbing, and snowmobiling.

The Custer Gallatin National Forest is also experiencing high demands for commercial recreation special use permits. Across the Greater Yellowstone Ecosystem of the Custer Gallatin National Forest, which includes the Madison, Henry's, Gallatin, Absaroka, Beartooth, Bridger, Bangtail and Crazy Mountain Ranges, 169 outfitter guides operate on an annual basis. In 2015, horseback trail rides accounted for 32,500 user days, rafting and boating accounted for 28,000 user days, snowmobiling accounted for 11,000 user days, climbing (rock and ice) 6,475 user days, environmental education accounted for 6,000 user days, hunting 5,600, fishing 4,250, hiking 3,100, and backpacking 2,500 user days. (Oswald)

According to Montana Fish Wildlife and Parks, as of 2009, angling on just the five most-fished Custer Gallatin waterbodies (Madison, Gallatin, and Yellowstone Rivers; Hebgen and Hyalite Reservoirs) was over 146,000 angler days, with 45 percent of these angler days representing nonresident fishermen. The segment of the Madison River downstream of the Custer Gallatin supports an additional 121,000 angler days a year. The Yellowstone River, likewise has over 71,000 angler days. (Brandt et al.)

Beyond rivers with national notoriety that are expected to attract significant recreational focus, the Custer Gallatin National Forest also administers places like Hyalite Canyon that supports significant winter recreation from local and regional interests. A 2013 Hyalite Canyon Winter Use Study found that approximately 18,765 cars passed by the lowest counter along the Hyalite Road between January and March with 12,742 passing by the counter just below the reservoir access. Over 87% of users were residents of Gallatin County; 105 respondents identified Hyalite as a winter destination recreation area that they are traveling overnight to access. (Gray and Haywood)

Clearly, recreation plays a huge role on the Custer Gallatin National Forest. Fortunately, part of the eligibility review for Wild & Scenic Rivers on a National Forest includes recognition of creeks and rivers that significantly contribute to recreation opportunities – both aquatic and terrestrial. In analyzing

potential “recreation” outstandingly remarkable values on the Custer Gallatin National Forest, the Greater Yellowstone Coalition used aforementioned reports, as well as valuable recreation data produced by the Beartooth Ranger District that is specific to user days at major trailheads, such as East Rosebud Creek, Lake Fork, West Fork Rock Creek, the Stillwater River, etc. (Wood). However, to our understanding, this type of recreation user data does not exist across all ranger districts or on all creeks and trails. Therefore, the Greater Yellowstone Coalition used local knowledge, conversations with agency employees and feedback from the general public to justify a “recreation” outstandingly remarkable value for recommended eligible Wild and Scenic Rivers on the Custer Gallatin National Forest.

Montanans for Healthy Rivers Wild & Scenic Rivers Eligibility Report 2012

In 2011, a coalition of businesses, sportsmen, watershed groups, private landowners, and conservation groups came together to form Montanans for Healthy Rivers. Since its genesis, Montanans for Healthy Rivers has served as a unified group of diverse stakeholders who share a common interest to address river conservationist opportunities across Montana on both public and private lands. With multiple national forests pursuing forest plan revisions in the past eight years, one of the first tasks of Montanans for Healthy Rivers was to explore and inventory creeks and rivers across Montana for their potential Wild and Scenic Rivers eligibility status. By 2012, Montanans for Healthy Rivers published an independent, Wild and Scenic Rivers Eligibility Report covering streams on nine national forests across Montana, including the Custer Gallatin National Forest. At the time, the Custer Gallatin was reviewed as two separate national forests because the merger of the Custer Gallatin was not finalized until 2013.

The report was generated by a team of experts in fisheries and wildlife biology, river ecology, hydrology and recreation. The report was based on close examination of the Montana Fisheries Information System, current and draft forest plans, the Nationwide Rivers Inventory (NRI), the National Whitewater Inventory, Google Earth and other geospatial resources, and field observations. All total, the report recommended 43 streams as eligible Wild & Scenic on the Custer Gallatin National Forest. Two of these streams are outside of the Greater Yellowstone Ecosystem and located in the Pryor Mountains.

The Greater Yellowstone Coalition is proud to be a part of the 2012 Montanans for Healthy Rivers (MHR) Wild and Scenic River Eligibility Report. The GYC 2017 field data collection sheet for this report documents streams that were recommended as eligible Wild and Scenic in the 2012 MHR report. This is noted in the explanation column. The Greater Yellowstone Coalition continues to be an active member of the Montanans for Healthy Rivers coalition. GYC also continues to support most of the creeks contained in the 2012 report as eligible Wild and Scenic Rivers. However, GYC has continued to learn more about the condition of creeks and rivers across the Greater Yellowstone Ecosystem. As a result, we believe this current 2017 report produced by the Greater Yellowstone Coalition represents the most thorough analysis of recommended eligible Wild and Scenic Rivers on the Custer Gallatin National Forest.

Montanans for Healthy Rivers Wild & Scenic Rivers Legislative Citizens Proposal

The Greater Yellowstone Coalition's report on recommended eligible Wild and Scenic Rivers on the Custer Gallatin National Forest includes streams that were also included in a citizen's legislative proposal for new designated Wild and Scenic Rivers, compiled by Montanans for Healthy Rivers. The legislative proposal is composed of streams in the Greater Yellowstone and Crown of the Continent ecosystems, as well as the Smith River and Rock Creek of the Clark Fork River. All streams were nominated by Montanans who want to protect clean water and healthy rivers. The full list includes 46 stream segments totaling 673 stream miles, less than 0.25% of Montana's 177,000 miles of streams. GYC acknowledges streams supported in the legislative proposal in two places in this analysis and report: in the "Explanation" column of the field data spread sheet (see appendix), as well as in the narrative of recommended eligible Wild and Scenic Rivers below.

Over the past six years, Montanans for Healthy Rivers (MHR) compiled a list of proposed Wild and Scenic Rivers submitted by a broad cross section of Montanans. MHR hosted nearly 20 public meetings and events across Montana in Big Sky, Billings, Bozeman, Condon, Ennis, Kalispell, Livingston, Missoula, Ovando, Red Lodge, Rock Creek, Seeley Lake, and Whitefish. To date, the proposal has garnered the support of over 1300 official endorsements, including more than 300 businesses, four chambers of commerce, the Montana Fish, Wildlife & Parks Commission, the Rocky Mountain Tribal Leaders Council (representing 12 tribes), Montana Backcountry Horseman (representing 17 chapters), and business organizations such as Fishing Outfitters Association of Montana (representing 700 outfitters and guides) and Business for Montana Outdoors (representing 120 businesses).

Montanans for Healthy Rivers (MHR) is led by a steering committee of sportsmen and conservation organizations invested in river protection through community and business outreach in western Montana. The MHR steering committee currently consists of American Rivers (200,000 members and supporters), American Whitewater (5800 members and 80,000 affiliates), Backcountry Hunters and Anglers (1800 Montana members), Greater Yellowstone Coalition (over 95,000 members and supporters), and Pacific Rivers (500 members).

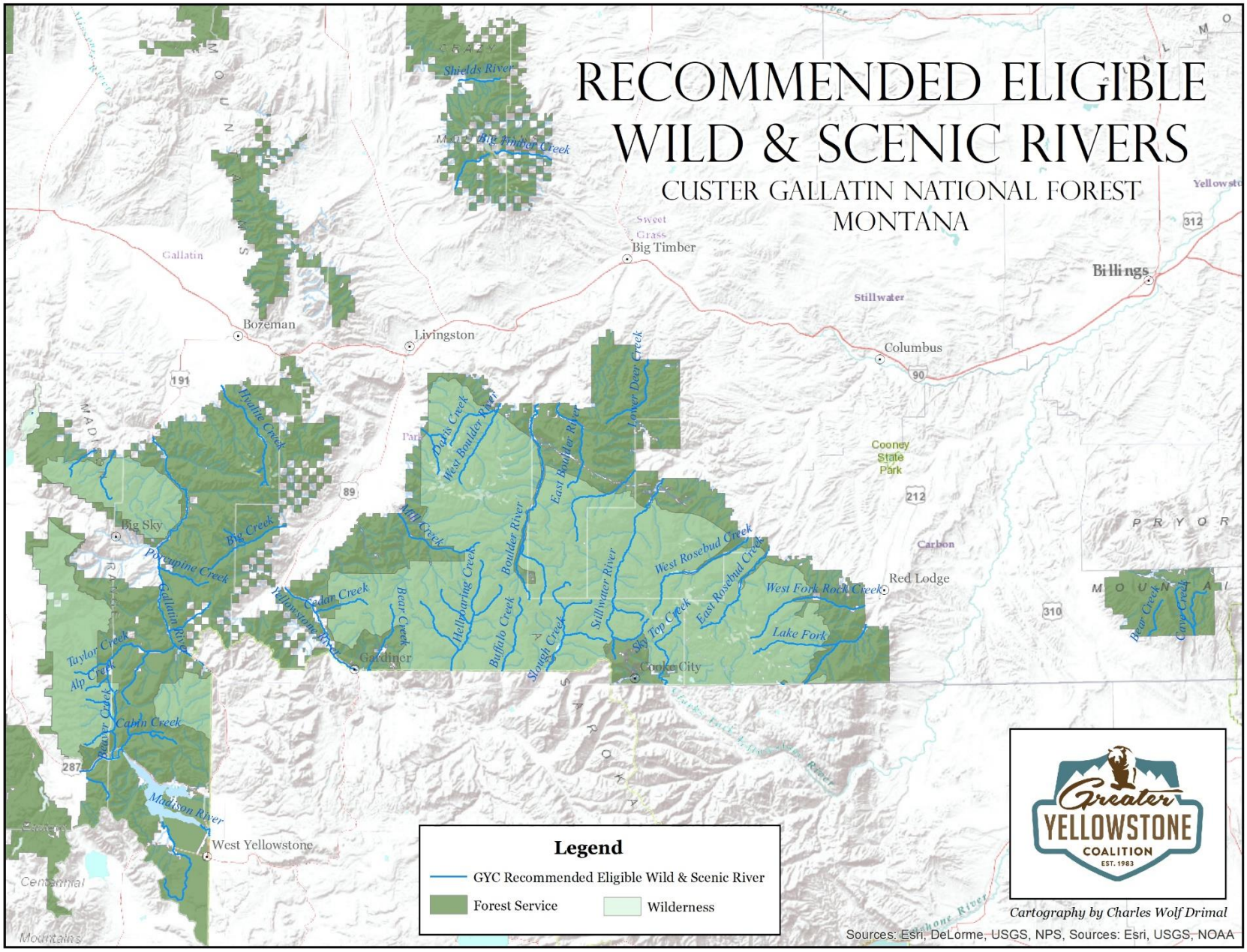
The Greater Yellowstone Coalition provides this information to the Forest Service to demonstrate the significant public support that exists for Wild and Scenic River protections on specific streams. While we respect the fact that forest planning's role in determining Wild and Scenic eligibility is separate from legislative protections that occur through an act of Congress, the Greater Yellowstone Coalition believes it is important for the Forest Service to recognize that many of the creeks and rivers we recommend as eligible Wild and Scenic have also been vetted through numerous public forums and presented as a citizens proposal for new Wild and Scenic Rivers by the Montanans for Healthy Rivers coalition.

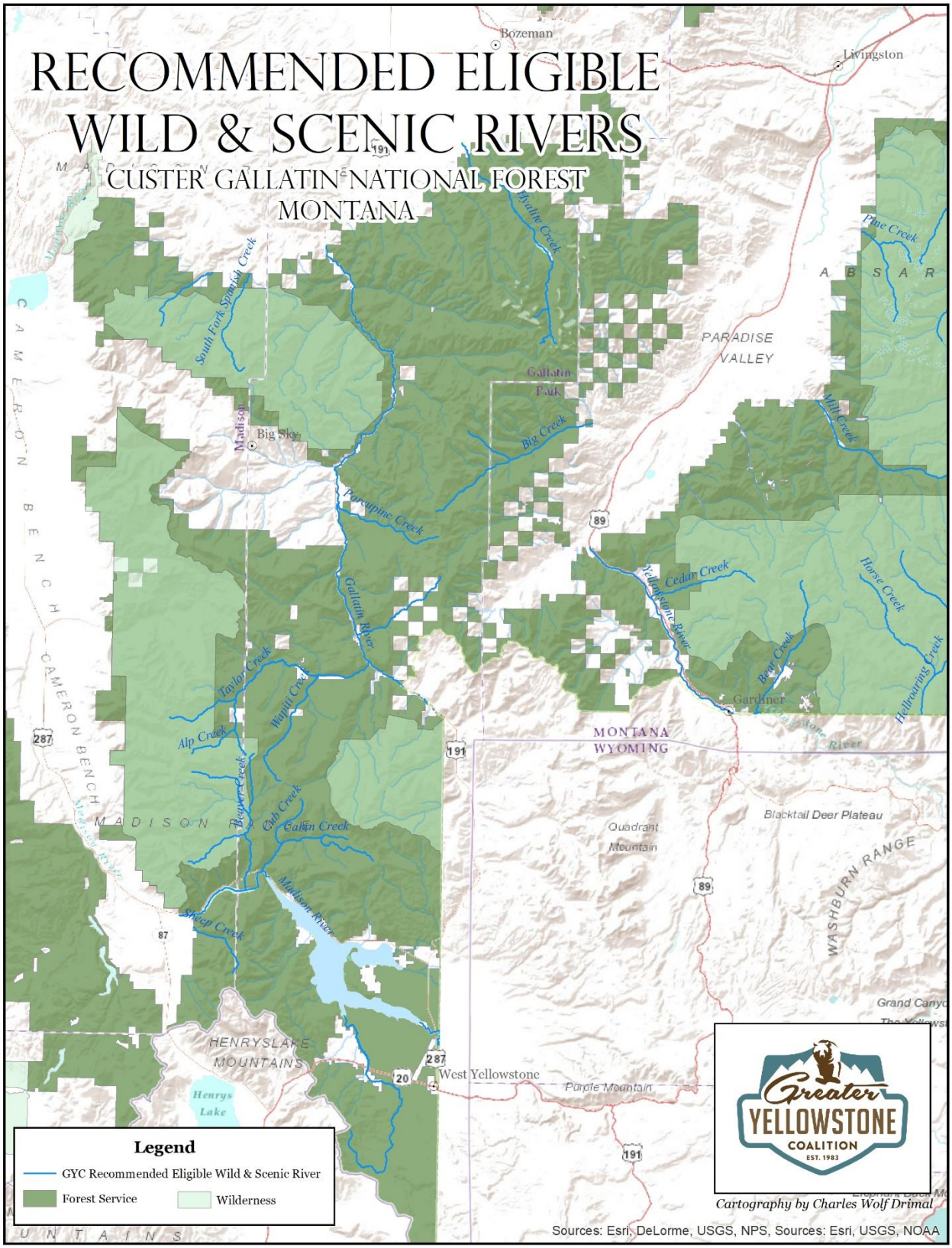
Climate Refugia is an Outstandingly Remarkable Value

As part of the Greater Yellowstone Ecosystem, many headwater streams on the Custer Gallatin National Forest have been identified by fisheries and climate scientist as hosting important climate refugia due to elevation and aspect. As the Forest Service writes a forest plan for the next 25 years, climate change needs to be taken into account. This plan is not written for 2020, but rather for the next couple decades when all climate modeling points to the importance of protecting riparian habitat, particularly in

drainages that hold snowpack later into the summer, originate in high elevation, and are usually, though not always, north aspect with moderate to steep gradients. As described in the section of this report on recommendations for eligible Wild and Scenic Rivers, the Greater Yellowstone Coalition chose to use best available science, data and modeling to make an outstandingly remarkable value recommendation based on streams likely to serve as climate refugia in the future.

Recommendation: The Greater Yellowstone Coalition strongly encourages the Forest Service to consider "climate refugia" as an "other" outstandingly remarkable value.


RECOMMENDED ELIGIBLE WILD & SCENIC RIVERS
CUSTER GALLATIN NATIONAL FOREST
MONTANA
Shields River
Big Timber Creek
Sweet Grass
Big Timber
Billings
Stillwater
Gallatin
Bozeman
Livingston
Columbus
Cooney State Park
Carbon
Red Lodge
Big Sky
Gardiner
Cooke City
West Yellowstone
Hyalite Creek
Big Creek
Porcupine Creek
Gallatin River
Taylor Creek
Alp Creek
Beaver Creek
Cabin Creek
Madison River
Cedar Creek
Yellowstone River
Bear Creek
Mill Creek
Hellroaring Creek
Buffalo Creek
Slough Creek
Boulder River
Davis Creek
West Boulder River
East Boulder River
Lower Deer Creek
Stillwater River
Sky Top Creek
West Rosebud Creek
East Rosebud Creek
West Fork Rock Creek
Lake Fork
Bear Creek
Coyote Creek
PRYOR MOUNTAINS
Legend
GYC Recommended Eligible Wild & Scenic River
Forest Service
Wilderness
Greater YELLOWSTONE COALITION EST. 1983
Cartography by Charles Wolf Drimal
Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA


RECOMMENDED ELIGIBLE
WILD & SCENIC RIVERS
CUSTER GALLATIN NATIONAL FOREST
MONTANA
Bozeman
Livingston
Big Sky
Madison
Gardiner
West Yellowstone
PARADISE VALLEY
CAMERON BENCH
MADISON
ABSAR
MONTANA
WYOMING
HENRYS LAKE MOUNTAINS
WASHBURN RANGE
Blacktail Deer Plateau
Quadrant Mountain
Purple Mountain
Gallatin Peak
Fine Creek
Mill Creek
Big Creek
Porcupine Creek
Cedar Creek
Horse Creek
Hellroaring Creek
Beef Creek
Gallatin River
Yellowstone River
Taylor Creek
Wapiti Creek
Alp Creek
Beaver Creek
Cub Creek
Cabin Creek
Madison River
Sheep Creek
Henrys Lake
South Fork Spanish Creek
Hyalite Creek
Legend
GYC Recommended Eligible Wild & Scenic River
Forest Service
Wilderness
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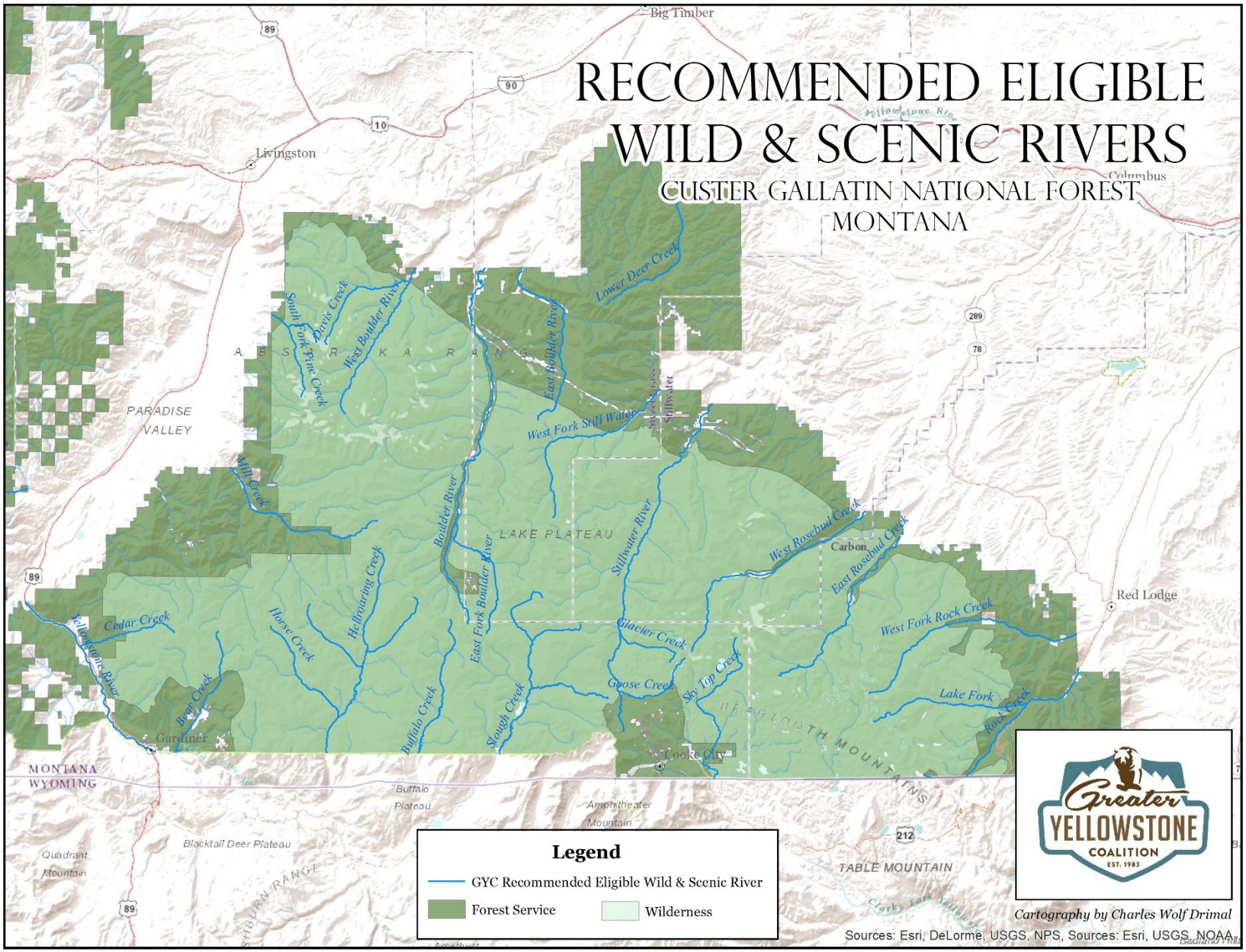
Cartography by Charles Wolf Drimal
Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA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WILD & SCENIC RIVERS
CUSTER GALLATIN NATIONAL FOREST
MONTANA
Big Timber
Livingston
Columbus
Red Lodge
Carbon
Gardiner
Cooke City
PARADISE VALLEY
LAKE PLATEAU
BEARTOOTH MOUNTAINS
TABLE MOUNTAIN
Buffalo Plateau
Amphitheater Mountain
Blacktail Deer Plateau
Quadrant Mountain
MONTANA
WYOMING
Lower Deer Creek
South Fork Pine Creek
Davis Creek
West Boulder River
East Boulder River
West Fork Still Water
Stillwater
Mill Creek
Boulder River
Stillwater River
West Rosebud Creek
East Rosebud Creek
Cedar Creek
Yellowstone River
Horse Creek
Hellroaring Creek
East Fork Boulder River
Glacier Creek
Goose Creek
Sky Top Creek
West Fork Rock Creek
Lake Fork
Rock Creek
Bear Creek
Buffalo Creek
Slough Creek
Legend
GYC Recommended Eligible Wild & Scenic River
Forest Service
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Cartography by Charles Wolf Drimal
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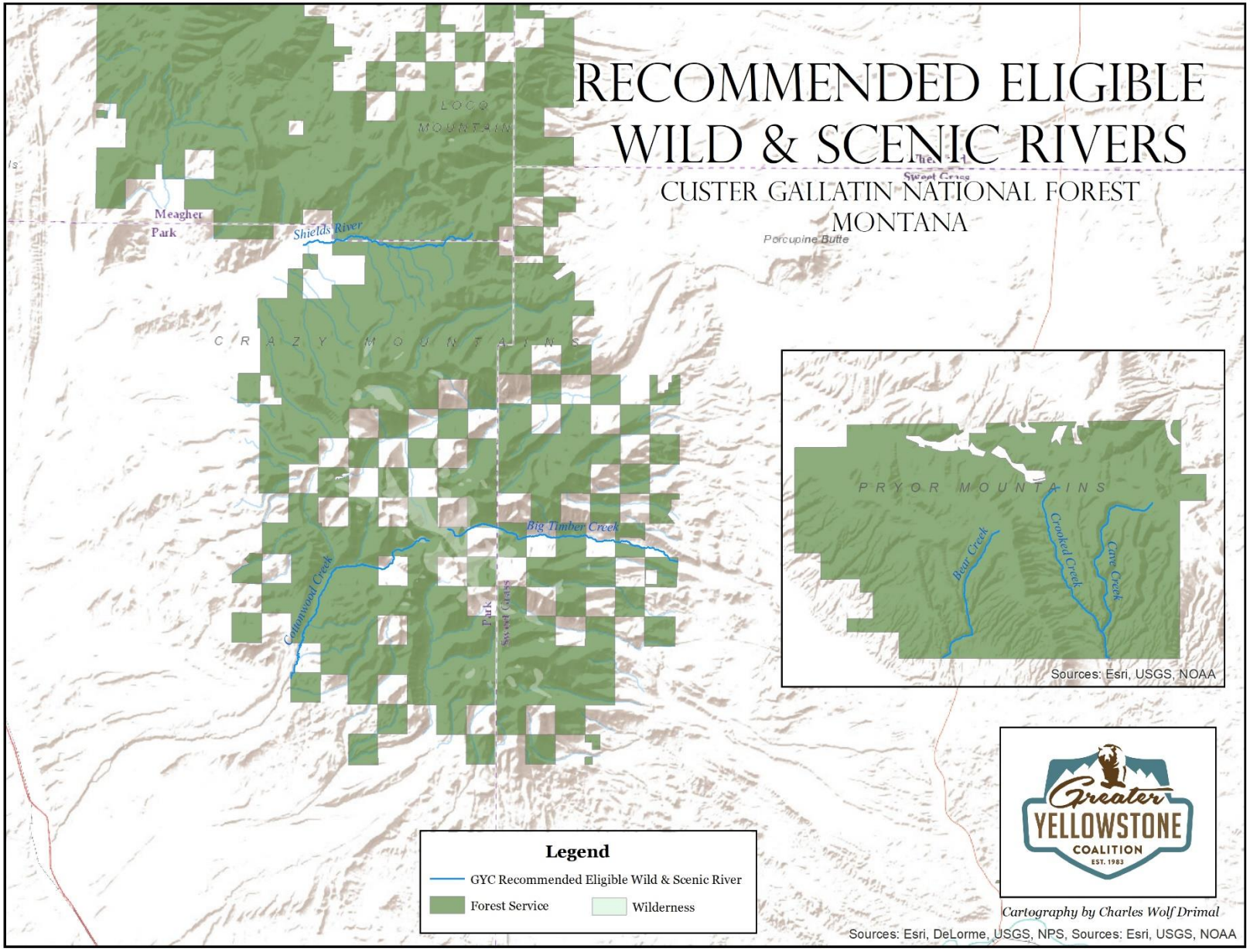
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WILD & SCENIC RIVERS
CUSTER GALLATIN NATIONAL FOREST
MONTANA
LOCO MOUNTAIN
Meagher Park
Shields River
Porcupine Butte
CRAZY MOUNTAINS
Big Timber Creek
Cottonwood Creek
Sweet Grass
PRYOR MOUNTAINS
Bear Creek
Crooked Creek
Cove Creek
Sources: Esri, USGS, NOAA
Legend
GYC Recommended Eligible Wild & Scenic River
Forest Service
Wilderness
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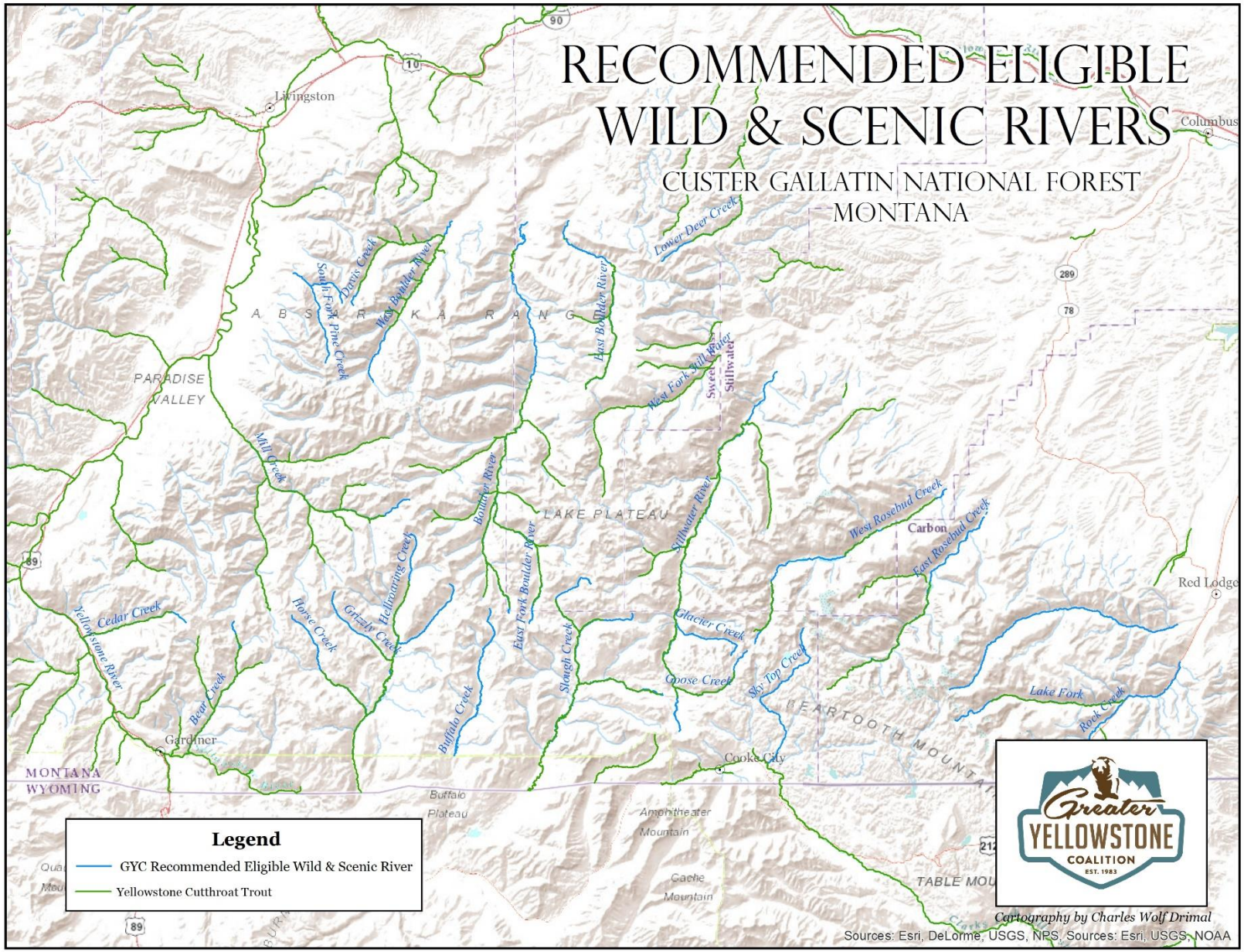
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WILD & SCENIC RIVERS
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Livingston
Columbus
Red Lodge
Carbon
Gardiner
Cooke City
MONTANA
WYOMING
ABSAROKA RANGE
PARADISE VALLEY
LAKE PLATEAU
BEARTOOTH MOUNTAINS
Buffalo Plateau
Amphitheater Mountain
Cache Mountain
Lower Deer Creek
South Fork Pine Creek
Davis Creek
West Boulder River
East Boulder River
Sweet Water
Stillwater
West Fork Stillwater
Mill Creek
Boulder River
East Fork Boulder River
Stillwater River
West Rosebud Creek
East Rosebud Creek
Cedar Creek
Yellowstone River
Bear Creek
Horse Creek
Grizzly Creek
Hellroaring Creek
Buffalo Creek
Slough Creek
Glacier Creek
Goose Creek
Sky Top Creek
Lake Fork
Rock Creek
Legend
GYC Recommended Eligible Wild & Scenic River
Yellowstone Cutthroat Trout
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Cartography by Charles Wolf Drimal
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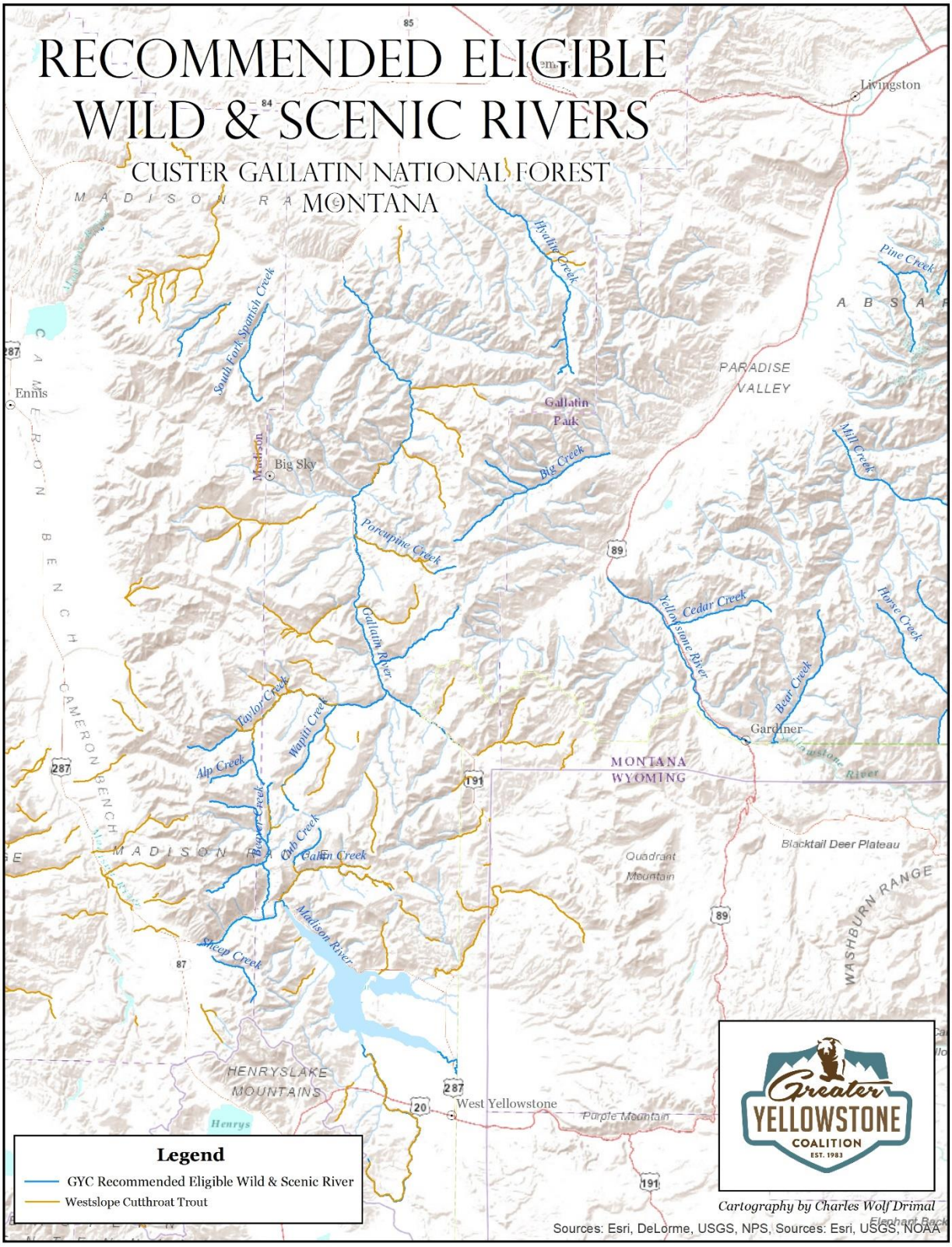
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WILD & SCENIC RIVERS
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Gardiner
West Yellowstone
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Gallatin Park
MONTANA
WYOMING
Blacktail Deer Plateau
Quadrant Mountain
Purple Mountain
WASHBURN RANGE
HENRYSLAKE MOUNTAINS
CAMERON BENCH
MADISON RANGE
South Fork Spanish Creek
Hyalite Creek
Pine Creek
Mill Creek
Porcupine Creek
Big Creek
Gallatin River
Cedar Creek
Yellowstone River
Horse Creek
Bear Creek
Taylor Creek
Wapiti Creek
Alp Creek
Beaver Creek
Cub Creek
Galatin Creek
Madison River
Sheep Creek
Legend
GYC Recommended Eligible Wild & Scenic River
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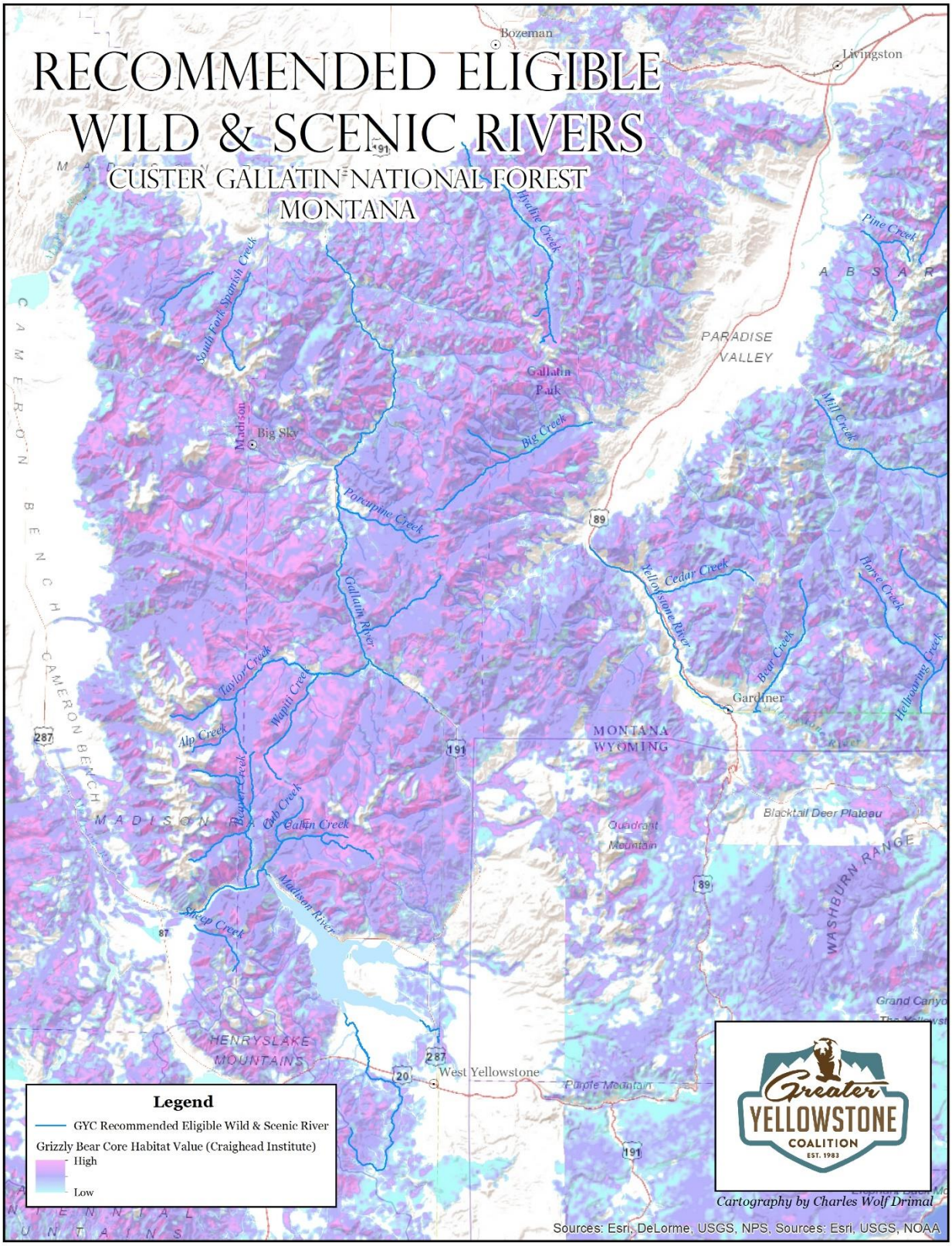
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Bozeman
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Madison
Gallatin Park
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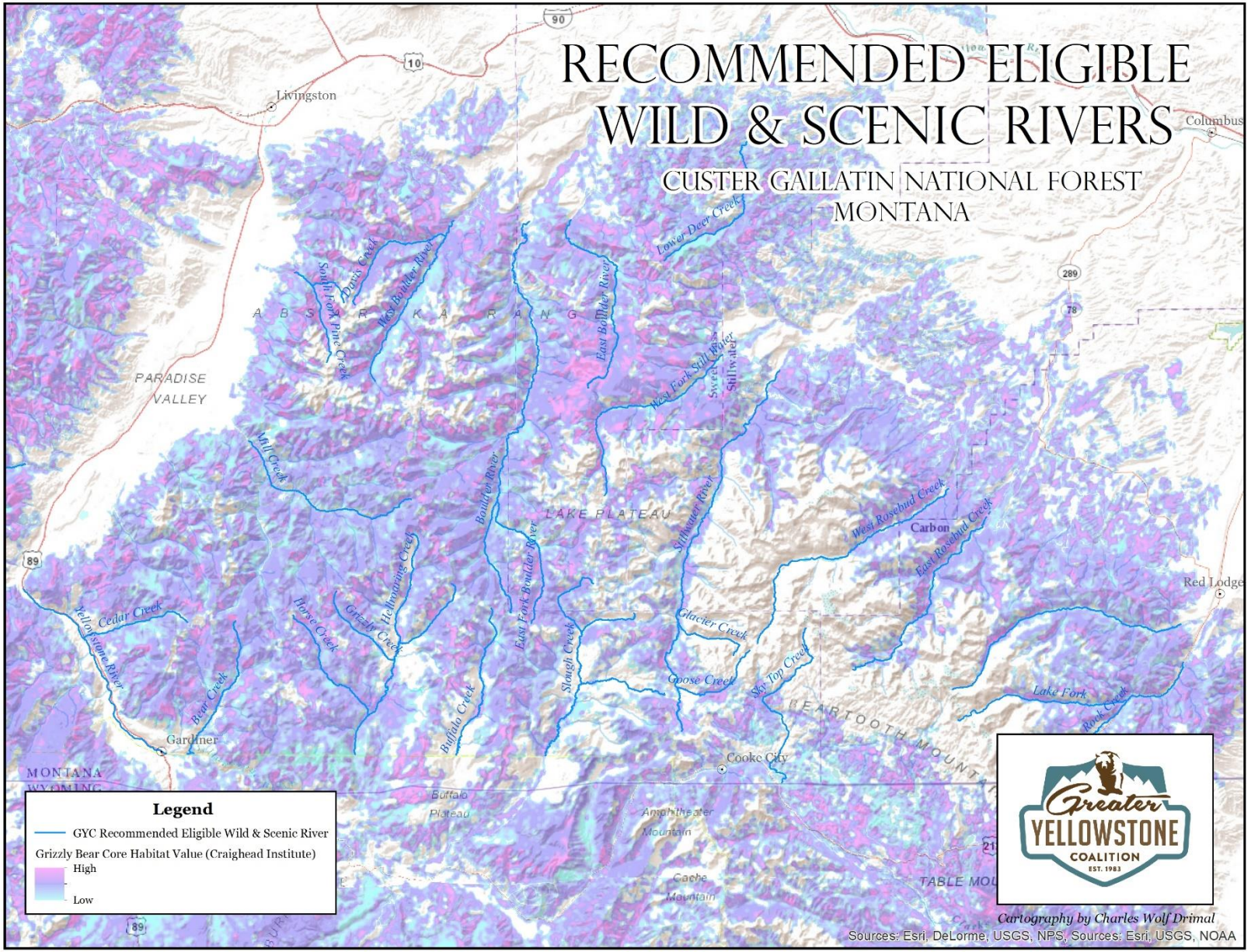
Gardiner
MONTANA
WYOMING
West Yellowstone
HENRYSLAKE MOUNTAINS
WASHBURN RANGE
Blacktail Deer Plateau
Quadrant Mountain
Porcupine Creek
Big Creek
Gallatin River
Yellowstone River
Cedar Creek
Bear Creek
Mill Creek
Pine Creek
Horse Creek
Hellroaring Creek
South Fork Spanish Creek
Taylor Creek
Wapiti Creek
Alp Creek
Beaver Creek
Cab Creek
Gallin Creek
Madison River
Sheep Creek
Legend
GYC Recommended Eligible Wild & Scenic River
Grizzly Bear Core Habitat Value (Craighead Institute)
High
Low
Greater YELLOWSTONE COALITION EST. 1983
Cartography by Charles Wolf Drimal
Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA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MONTANA
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Cooke City
PARADISE VALLEY
ABSAROKA RANGE
LAKE PLATEAU
BEARTOOTH MOUNTAINS
MONTANA
WYOMING
Buffalo Plateau
Amphitheater Mountain
Cache Mountain
TABLE MOUNTAIN
Lower Deer Creek
South Fork Pine Creek
Davis Creek
West Boulder River
East Boulder River
West Fork Stillwater
Sweet Water
Stillwater
Mill Creek
Boulder River
East Fork Boulder River
Stillwater River
West Rosebud Creek
East Rosebud Creek
Yellowstone River
Cedar Creek
Bear Creek
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Lake Fork
Rock Creek
Legend
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Grizzly Bear Core Habitat Value (Craighead Institute)
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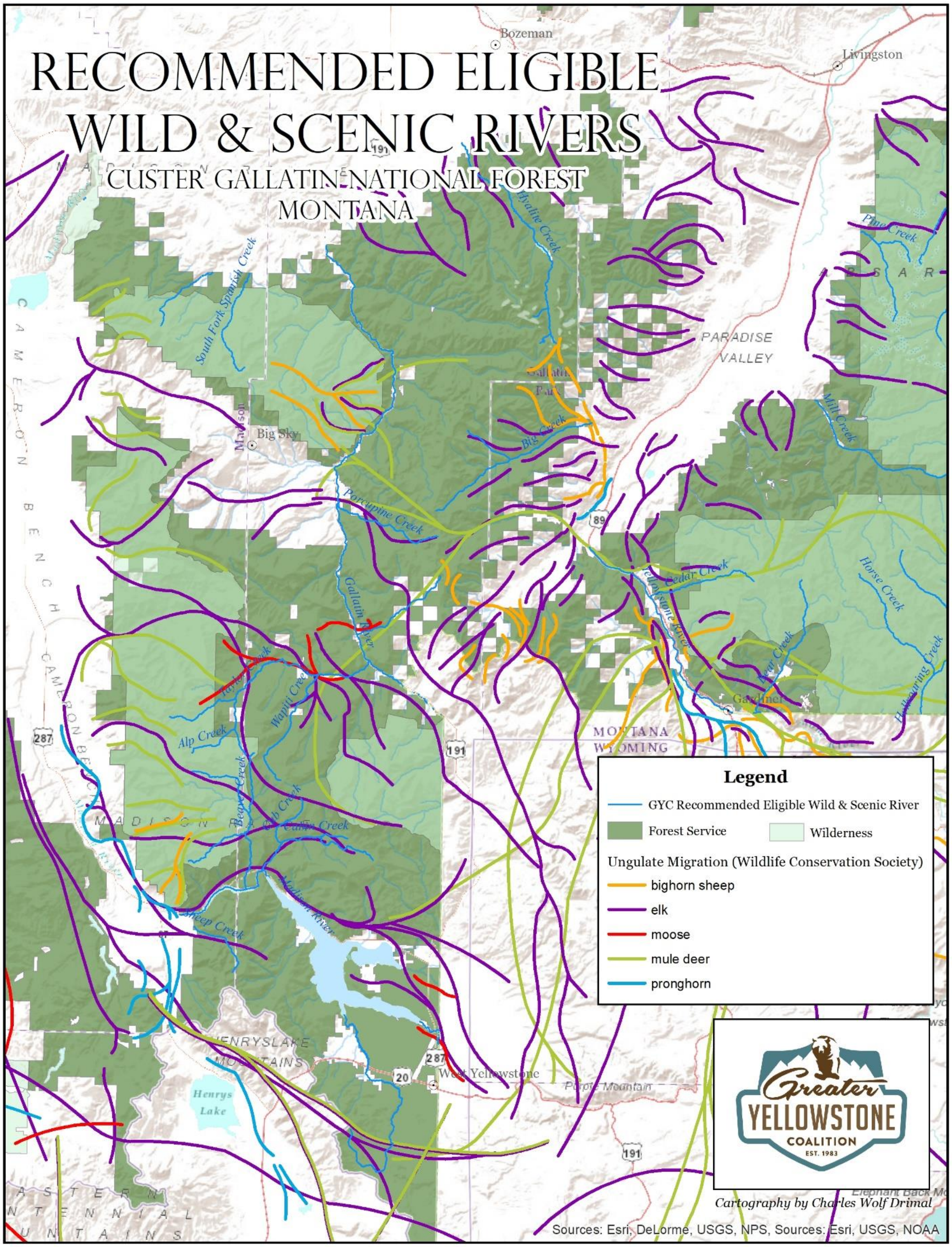
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Legend
GYC Recommended Eligible Wild & Scenic River
Forest Service
Wilderness
Ungulate Migration (Wildlife Conservation Society)
bighorn sheep
elk
moose
mule deer
pronghorn
Greater
YELLOWSTONE
COALITION
EST. 1983
Cartography by Charles Wolf Drimal
Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA
Bozeman
Livingston
PARADISE
VALLEY
Big Sky
Gardiner
West Yellowstone
Henrys
Lake
MONTANA
WYOMING
South Fork Spanish Creek
Hyalite Creek
Pine Creek
Mill Creek
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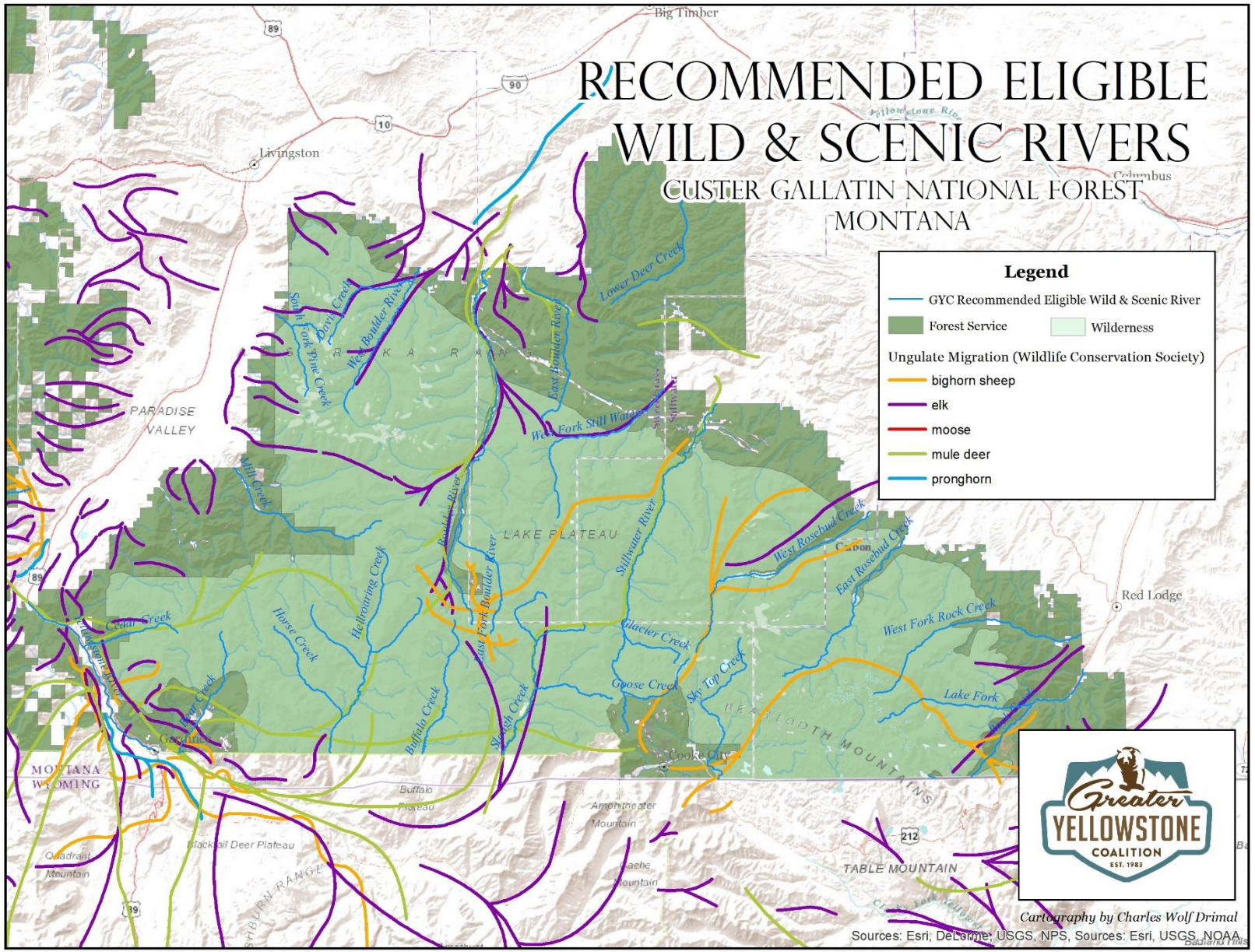
Madison River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Legend
GYC Recommended Eligible Wild & Scenic River
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elk
moose
mule deer
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Big Timber
Livingston
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Buffalo Plateau
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Blacktail Deer Plateau
Quadrant Mountain
Greater YELLOWSTONE COALITION EST. 1983
Cartography by Charles Wolf Drimal
Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA

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