# Protecting the Gateway to Yellowstone: The Upper Yellowstone River and Its Options for Survival

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# INTRODUCTION

Just north of Yellowstone National Park, in the Upper Yellowstone River watershed, two proposed gold mines threaten one of America's most beautiful and biodiverse areas. This Note will argue that a federal act similar to the North Fork Watershed Protection Act of 2014, which withdrew 430,000 acres of public land from mining in northwest Montana, should be passed to ban any new mining and stop the expansion of current mining operations in the Upper Yellowstone River watershed.

The Yellowstone River begins its 671-mile journey in the southeast corner of Yellowstone National Park in northwest Wyoming.[1] The lower forty-eight states' longest undammed river winds its way through canyons, over waterfalls, and across prairies before its confluence with the Missouri River near the Montana-North Dakota border.[2] Yet, once outside Yellowstone National Park the river has no effective federal protections from the possible adverse effects of mining, drilling, and water projects.

In Part I, this Note discusses the history and current state of the Yellowstone River, focusing on the Upper Yellowstone, from where the river exits Yellowstone National Park down to Billings, MT. The Note continues in Part I to describe the economic benefits of having a clean Yellowstone River and the surrounding communities' dependence on the river. Then in Part II the Note examines the Wild and Scenic Rivers Act, including the protections it could provide the Yellowstone River and its limits. The Note will ultimately conclude that Wild and Scenic River designation would not adequately protect the Yellowstone River. The Note continues in Part II, examining the North Fork Watershed

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1 Neal Herbert, Yellowstone River, NAT'L PARK SERV., https://www.nps.gov/yell/learn/nature/yellowstone-river.htm (last updated June 30, 2017).

2 Id.

Protection Act of 2014 and analyzing the similarities and differences between the Yellowstone River and the North Fork of the Flathead River. The Note also analyzes the challenges that would make it difficult to pass such an act for the Yellowstone River. Then in Part III the Note discusses the Obama Administration's November 2016 decision to place a two-year mining ban on thirty thousand acres of federal land just north of Yellowstone National Park, and discusses the potential future of the Upper Yellowstone watershed under the Trump Administration. The Note argues that Montana's state constitution supports the creation of an Upper Yellowstone Watershed Protection Act. Finally, the Conclusion argues that a federal act must be passed to ensure the conservation and utility of the Yellowstone River.

## I. THE YELLOWSTONE RIVER AND A BRIEF HISTORY OF ITS WATERSHED

The Yellowstone River, at 671 miles, is America's longest free-flowing river in the continental United States.[3] Its path begins in Yellowstone National Park and flows northeast following the Rocky Mountains out to the plains.[4] The river has been utilized for hundreds of years by native tribes, including the Crow,[5] yet people of European decent did not permanently occupy the river basin until 1806 when William Clark traveled the river on his return route from his expedition with Meriwether Lewis.[6] Since Clark's voyage, thousands of people have migrated their way to the Yellowstone River and its surrounding areas. Many of the early travelers were ranchers, including the notable cattle driver and entrepreneur Nelson Story.[7] Tourists, hoping to set their eyes on the fabled geysers of Yellowstone National Park, soon followed, aided by the Northern Pacific Railroad, which ran through Paradise Valley and made its final stop at the entrance of the park in Gardiner,

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3 Id.

4 Id.

5 See Record Tribes: Crow Indians, NAT'L GEOGRAPHIC (citing WILLIAM CLARK, EXPEDITION JOURNALS (Nov. 12, 1804), http://www.nationalgeographic.com/lewisandclark/record_tribes_002_ 19_21.html (last visited Feb. 19, 2017).

6 See Journey Leg 18, NAT'L GEOGRAPHIC (citing MERIWETHER LEWIS & WILLIAM CLARK, JOURNEY LEG 18: CROSSING THE BITTEROOTS, AGAIN), http://www.nationalgeographic.com/lewisandclark/journey_leg_18.html (last visited Feb. 19, 2016).

7 See Rick & Susie Graetz, The Upper Yellowstone, BILLINGS GAZETTE (Aug. 24, 2002), http://billingsgazette.com/news/features/magazine/the-upper-yellowstone/article_26d1838a-d088-5f0d-b59f-3bb03afecbca.html.

Montana.[8] The greater Yellowstone area has continued to evolve over time, and currently the Yellowstone River is the economic lifeline of Park County, Montana. It provides exceptional recreational opportunities and is considered one of the best trout fisheries in North America.[9]

However, it was the discovery of gold just north of Yellowstone National Park in Paradise Valley at Emigrant Gulch in 1863 that is the most relevant to this Note.[10] Mining in the area was originally confined to placer deposits often located near small tributaries of the Yellowstone. Yet as gold production grew, a viable mining community was established and continued until the late 1940s when production slowed. [11] After the 1940s, small-scale gold mining continued until recently with the proposal of two new mining operations.[12] The two mining companies that have suggested expanding mining operations are Lucky Minerals and Crevice Mining Group LLC.[13] Lucky Minerals's proposed mine is located 15 miles north of Yellowstone National Park in Emigrant Gulch and is currently a larger operation than Crevice Mining's proposed mine.[14] Over the past several years, Lucky Minerals has accumulated numerous tracts of patented and unpatented claims on private and federal public lands.[15] The focus of this Note—as has been the focus of public opposition—will be on Lucky Minerals[16] and its operation.

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8 Early Rail Travel to Yellowstone, YELLOWSTONE HISTORIC CTR., http://www.yellowstone historiccenter.org/Trains/ (last visited Feb. 19, 2017).

9 David Knapp, 18 Greatest Trout Streams in the Western U.S. and Canada, (Aug. 30, 2016), http://www.wideopenspaces.com/18-best-trout-streams-western-us-canada-pics/.

10 Historic Context, MONT. DEP'T OF ENVTL. QUALITY, http://deq.mt.gov/Land/abandonedmines/linkdocs/151tech (last visited Feb.19 2017). Emigrant Gulch is located in Paradise Valley Montana.

11 Id.

12 See MONT. DEP'T ENVTL. QUALITY, DRAFT ENVIRONMENTAL ASSESSMENT, LUCKY MINERALS PROJECT, PARK COUNTY, MT, at 2–3 (Oct. 13, 2016), https://deq.mt.gov/Portals/112/Land/Hardrock/Active%20Applications/LuckyMinerals/LuckyMinerals_EA_Draft_2016.pdf?ver=2017-07-25-164900-047.

13 Yellowstone Gateway Mines—Emigrant Mine, PARK CTY. EVNTL. COUNCIL, http://envirocouncil.org/emigrant-mine/ (last visited Feb. 19, 2017); Yellowstone Gateway Mines Crevice Mountain Mine: Mining at the Doorstep of Yellowstone National Park, PARK CTY. EVNTL. COUNCIL, http://envirocouncil.org/gardiner-crevice-mine/ (last visited Nov. 16, 2017); GEOLOGIC SYS. LTD., THE EMIGRANT MINING DISTRICT PROJECT SOUTH CENTRAL MONTANA 1 (2015).

14 Yellowstone Gateway Mines- Emigrant Mine, PARK CTY. ENVTL. COUNCIL, http://envirocouncil.org/emigrant-mine/ (last visited Feb. 19, 2017).

15 GEOLOGIC SYSTEMS LTD., THE EMIGRANT MINING DISTRICT PROJECT SOUTH CENTRAL MONTANA 1 (2015).

16 PARK CTY. ENVTL. COUNCIL, supra note 13.

Although mining has been present in the area for some time, it has provided little economic support to the surrounding communities relative to other industries. For example, in 2014 the mining industry in Park County contributed only around $1 million to the labor sector while the accommodations, food services, and fishing industries contributed around $39 million.[17] Moreover, in 2014 the mining industry for Park County provided less than 100 full- and part-time jobs, while the accommodations, food services, and fishing industry provided more than 1,600 full- and part-time jobs.[18] While mining provides some economic support to the county, its importance is minimal compared to the tourism and outdoor activities industry.

## A. The Yellowstone's Current Challenges and Why a Federal Act Is Needed

The two mining companies that would have a direct effect on the Upper Yellowstone, Lucky Minerals and Crevice Mining, both have operations located just east of the Yellowstone River.[19] Lucky Minerals, a Canadian corporation, calls its operation the Emigrant Mine.[20] It is located on Emigrant Creek, a tributary to Yellowstone River in Paradise Valley.[21] While Crevice Mining Group is hoping to perform exploratory drilling and mining located less than one mile from the Yellowstone National Park boundary and the Yellowstone River.[22] Crevice's operation is smaller and less developed[23] than the Emigrant Mine site; thus, this Note's analysis will be focused on Lucky Minerals's Emigrant Mine.

The Emigrant Mine is located in the historic placer gold mining site of Emigrant Gulch, yet there has been no major mining operations in the gulch since the 1940s.[24] In 2014, Lucky Minerals purchased patented and

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17 LARRY SWANSON, KEY TRENDS, DEPENDENCIES, STRENGTHS, AND VULNERABILITIES IN PARK COUNTY, MONTANA, AND ITS AREA ECONOMY, 1, 44 fig.37 (Apr. 2016), http://www.umt.edu/crmw/Downloads/Key-Trends-Park-County-Area-Economy5.pdf.

18 See id. at 39 fig.32.

19 See PARK CTY. ENVTL. COUNCIL, supra note 13.

20 Id.

21 MONT. DEP'T ENVTL. QUALITY, supra note 12, at 35.

22 See CREVICE MINING GROUP LLC, PLAN OF OPERATIONS EXPLORATION PROGRAM CREVICE MINING PROJECT 6, FIGURE 1 (July 2016).

23 Id. at 1. It does, however, plan to initially spend $1.1 million on exploration.

24 MONT. DEP'T ENVTL. QUALITY, supra note 12, at 2–3.

unpatented claims encompassing a little over 2,500 acres.[25] The company is planning to complete exploratory drilling and is reported to have an initial exploration budget of $2.5 million.[26] Lucky Mineral believes there are multi-million ounces of gold located at the Emigrant Mine site.[27]

One of the main concerns for the Emigrant Mine is that all potential drainage from the mine site will flow into Emigrant Creek, which is a direct tributary of the Yellowstone River.[28] This means that any acid mine drainage or other causes of pollution such as oil and gas leaks and spills from mining vehicles will flow directly into the Yellowstone River. The mine's location also presents the risk of catastrophic mining accidents similar to the one that occurred on the Animas River in Colorado in 2015.[29]

i. General Dangers of Mining

Mining presents the potential for catastrophic consequences on a river system. The most typical and often the most destructive is acid mine drainage. Acid mine drainage occurs near mine sites because rock and minerals that have been buried underground are exposed to air and water for the first time, often from sitting in tailing and waste rock piles.[30] Much of the newly exposed rock contains sulfide, which reacts with water and air to create an acidic liquid.[31] This polluted solution enters streams as runoff and can greatly affect watersheds via decreases in water quality, increases in acidity, vegetation loss, and general adverse effects on fisheries.[32] For example, low pH levels can negatively affect some aquatic insects that trout feed on and can also affect the reproduction of fish.[33]

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25 GEOLOGIC SYS. LTD., supra note 15, at 6–7.

26 Id. at 6

27 See id. at 35.

28 Id. at 22.

29 Grace Hood, One Year After A Toxic River Spill, No Clear Plan to Clean Up Western Mines, NPR (Aug. 4, 2016), http://www.npr.org/2016/08/04/488579040/one-year-after-a-toxic-river-spill-no-clear-plan-to-clean-up-western-mines.

30 Acid Mine Drainage, EARTHWORKS, https://www.earthworksaction.org/issues/detail/acid_mine_drainage#.WCEGLtxQUc0 (last visited Feb. 19. 2017).

31 Id.

32 Id.

33 U.S. DEP'T OF AGRIC., GENERAL TECHNICAL REPORT PNW-119: INFLUENCE OF FOREST AND RANGELAND MANAGEMENT ON ANADROMOUS FISH HABITAT IN WESTERN NORTH AMERICA, EFFECTS OF MINING 5–6 (April 1981), https://www.fs.fed.us/pnw/pubs/pnw_gtr119.pdf.

Mining activity also releases heavy metals into waterways, which can prove fatal to aquatic insects and fish.[34] For example, the Upper Arkansas River Basin located near Leadville, Colorado was once a highly regarded brown trout fishery,[35] but after years of heavy metals leaching from abandoned mines in the area, the river's trout population nearly disappeared.[36] In 2001, Colorado stripped the river of its gold medal trout fishery designation, triggering years of intense reclamation efforts until it regained this status in 2014.[37]

Acid mine drainage is troublesome because its detrimental impacts continue for decades after a mine closes until restoration and cleanup of the mine is completed.[38] For example, the Boulder River watershed in Montana, located in the same national forest as the two proposed mine sites, was mined extensively until 1907, followed by small-scale production until all mining stopped in the 1970s.[39] However, until large cleanup efforts began in the late-1990s the area's streams and surrounding ecosystems had been devastated from the abandoned mine.[40] The land surrounding the abandoned mines was completely void of vegetation and stretches of the Boulder River and its tributaries were completely void of fish due to the high concentrations of trace-elements caused by the acid mine drainage.[41]

Acid mine drainage is extremely detrimental to trout fisheries because trout and the aquatic insects that they feed on need clean, cold water to survive and flourish.[42] Furthermore, because communities surrounding the Upper Yellowstone watershed are so economically dependent on the recreation and fishing industry, any potential increase of acid mine drainage should be of great concern to the area's residents and the visitors who utilize the river.

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34 See id. at 6–9.

35 Settled, Mined & Left Behind, COLO. TROUT UNLIMITED, http://www.coloradotu.org/wp-content/uploads/2011/08/settled-mined-and-left-behind.pdf (last visited Feb. 19, 2017).

36 Id.

37 Id.; Jeff Florence, Colorado's Gold Medal Waters, COLO. TROUT UNLIMITED (Nov. 1, 2015), http://coloradotu.org/2015/11/colorados-gold-medal-waters/.

38 Environmental Effects of Historical Mining in the Boulder River Watershed, Southwestern Montana, U.S. GEOLOGICAL SURVEY (Jan. 2006), https://pubs.usgs.gov/fs/2005/3148/pdf/FS-2005-3148.pdf.

39 Id.

40 Id.

41 Id.

42 COLO. TROUT UNLIMITED, supra note 35.

## B. The Importance of a Clean and Usable Yellowstone River

When the Yellowstone River exits Yellowstone National Park, it runs through Paradise Valley and Park County, Montana on its way out to the plains. As the river finds its way north, it passes through the small towns of Gardiner, Emigrant, and Livingston, Montana. The river greatly affects the people, ecology, and culture of the county and the towns that sit on its banks. Park County's economy is heavily based on the service industry that accommodates the millions of tourists that visit the area each year to explore Yellowstone National Park and to fish and hike around the Upper Yellowstone River watershed.[43] Tourism has become a vital part of the local fishing industry, which is focused on fly-fishing the Yellowstone River and its many small tributaries. The small towns are filled with many fly-fishing shops providing gear and guides. It is estimated that in 2013 the fishing industry of the Upper Yellowstone River generated roughly $70 million in direct spending for Park County.[44] The Upper Yellowstone River is also the "most fished (by angler days) river drainage in Montana by residents and nonresident visitors to the state."[45]

In addition to the $70 million a year of direct spending from the fishing industry on the Yellowstone, there are also numerous rafting companies that utilize the Yellowstone River for white-water rafting and scenic floats.[46] There are also several lodges and campgrounds that border the river providing accommodations and services to the millions of visitors that spend time in the Upper Yellowstone watershed each year.[47]

Noting the economic importance of a healthy Yellowstone River to Park County and the state of Montana, any negative effects on the river have the potential to greatly affect the economy of the region. For

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43 See Park County's Growing Economy, YELLOWSTONE GATEWAY BUS. COAL., http://www.dontmineyellowstone.com/img/YGBC_EconomicREport_WEB.pdf (last visited Feb. 19, 2017).

44 Jeremy L. Sage, Economic Contributions of the Yellowstone River to Park County, Montana, UNIV. OF MONT., 5 (Sept. 20, 2016), https://scholarworks.umt.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1346&context=itrr_pubs.

45 Id. at 1.

46 Top 5 Rafting Rivers Near Yellowstone, NATIONAL PARKS TRIPS MEDIA, http://www.yellowstonepark.com/yellowstone-top-5-rafting-trips/ (last visited Feb. 24, 2017).

47 See, e.g., Luxury Lodging Near Yellowstone National Park, http://riversbendlodge.com (last visited Feb. 24, 2017); Fisheries – Yellowstone River, U.S. FOREST SERV. https://www.fs.usda.gov/detail/custergallatin/landmanagement/resourcemanagement/?cid=stelprdb5127197 (last visited Feb. 24, 2017).

example, in August 2016, an invasive parasite was discovered in the river.[48] Thousands of fish died from the parasite, and the Montana Department of Fish, Wildlife, and Parks was forced to enact an emergency closure of all water activities for a 183-mile stretch of the river.[49] It is not clear why or how the parasite found its way into the river, regardless, portions of the river were closed for around one month.[50] Although some portions remained closed longer than others, the relatively short closure caused economic havoc for Park County and its small communities. Early economic impact estimates from the closure are between $359,750 and $523,815.[51]

The effects of the short closure clearly demonstrate the need for the river and its ecosystem to be sufficiently protected to maintain a stable economy for the region. Thus, noting the potential dangers of mining in combination with the presence of the Lucky Minerals operation located on a Yellowstone River tributary, and Crevice Mining located less than a mile from the Yellowstone River, there is clearly a direct and unnecessary threat to the river and the local population that relies on it for much of its economy. Regardless of the assurances Lucky Minerals, Crevice Mining, or any other mining company can provide, accidents happen, and often mine sites are abandoned once they no longer become profitable. Abandoned mines, as noted above, create many potential dangers to river systems and place the cleanup cost on taxpayers who depend on a clean, healthy river.[52] Abandoned mines also place an unnecessary burden on future generations by way of potential cleanup cost for accidents.

### C. Existing Federal Protection in the Region

Although the Upper Yellowstone River watershed faces pressure from mining, it does have areas of federal protection. From the source of the river at Yellowstone Lake down to Gardiner, Montana, the river flows through Yellowstone National Park and is almost completely untouched by man. Once the river flows out of Yellowstone National Park it is then flanked to the east by the Absaroka-Beartooth Wilderness

48 Sage, supra note 44, at 1.

49 Id.

50 See id. at 1, 6.

51 Id. at 7–8.

52 See EARTHWORKS, supra note 30.

Area.[53] This wilderness area was designated in 1978. It spans more than 900,000 acres over two mountain ranges—Absaroka and Beartooth—in both Montana and Wyoming.[54] The Absaroka-Beartooth Wilderness is part of the much larger Custer Gallatin National Forest, which covers over 3 million acres. The Gallatin National Forest is located on both the east and west sides of the Yellowstone River, however, the boundary of the national forest ends several miles from either bank of the river.[55] Both the Lucky Minerals and Crevice operations are located in the Gallatin National Forest and lie only a few miles from the Absaroka-Beartooth Wilderness Area.[56] Although the Wilderness Area and National Park prohibit mining development in most of the watershed, there remain vulnerable areas that may be developed under current designations. Therefore, the current level of federal protection in the area is insufficient to protect the Upper Yellowstone Watershed from the potential extreme negative effects mining may have on the region's environment and economy.

## II. OPTIONS FOR FEDERAL PROTECTION AND THEIR CHALLENGES

### A. Wild and Scenic Rivers Act

Although granting the Yellowstone River status under the Wild and Scenic Rivers Act presents an option for the watershed's protection, it is likely insufficient. The Wild and Scenic Rivers Act, passed in 1968, protects rivers that, in their natural state, produce substantial value to our country.[57] The Yellowstone River—America's longest undammed river—is not protected by the Wild and Scenic Rivers Act, yet, even granting it Wild and Scenic River status would not provide it the protection it needs to fend off current environmental challenges.

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53 See Absaroka-Beartooth Wilderness, WILDERNESS CONNECT, http://www.wilderness.net/NWPS/wildView?WID=1&tab=General (last visited Feb. 19, 2017).

54 Id.

55 See Custer Gallatin National Forest, U.S. FOREST SERV., https://www.fs.usda.gov/main/custergallatin/home (last visited Feb. 19, 2017).

56 See MONT. DEP'T ENVTL. QUALITY, supra note 12, at 117 fig.3.16.

57 Wild and Scenic Rivers Act, Pub. L. No. 90-542, 82 Stat. 906 (1968) (codified as amended at 16 U.S.C. §§ 1271-1287 (2012).

President Lyndon B. Johnson signed the Wild and Scenic Rivers Act into law in 1968. [58] The act states,

> 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.[59]

The act further states that its policy is to preserve the free-flow of rivers to "protect the water quality of such rivers and to fulfill other vital national conservation purposes." [60]

There are only two requirements for a river to be eligible for wild and scenic river status. First, the river must be free-flowing at the time of designation.[61] Second, the river and its adjacent lands must possess one of the outstanding remarkable values mentioned above, such as having scenic, recreational, or fish and wildlife values.[62]

As of 2014, 208 rivers or segments of rivers are protected under the Act.[63] Either Congress may designate status under the Wild and Scenic Rivers Act, or a state may recommend (apply) to the Secretary of the Interior. If the Secretary determines that the river meets the qualifications, she may designate a river as a Wild and Scenic River.[64] Once a river is designated, the federal agency that manages the land bordering the river—usually the Department of the Interior or the Department of Agriculture—regulates the river.[65] For example, if the river is located on Bureau of Land Management land, then the Department of the Interior will regulate it. However, if a river runs through a National Forest, the Department of Agriculture will regulate it. The administering agency has the duty to manage each designated wild and scenic river in a manner that protects and enhances the values which

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58 Id.

59 Id. § 1271.

60 Id.

61 16 U.S.C. § 1273(b) (2012).

62 Id.

63 About the WSR Act, NAT'L WILD AND SCENIC RIVERS SYS., https://www.rivers.gov/wsr-act.php (last visited Feb. 19, 2017).

64 16 U.S.C. § 1273(a) (2012).

65 See 16 U.S.C. § 1283(a) (2012).

caused the river to be included in the system originally.[66] To accomplish this, the managing agency must make a comprehensive management plan within three years of a river being designated.[67] The comprehensive management plan should address how the agency will best protect the river values.[68]

Importantly, all rivers that are protected under the Wild and Scenic Rivers Act are given the same minimum level of protection.[69] The main protection is the prohibition of damming or other water projects that would affect the free-flow of the river and its water quality.[70] Yet, because it is possible to designate certain segments of a river, the Act does not protect against damming the river above or below a designated segment—as long as it does not affect its free-flow or water quality of the designated segment.[71]

Although all Wild and Scenic Rivers get this baseline protection, designated rivers are given one of three statuses.[72] The first is "Wild," defined as being "free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted."[73] Rivers designated as Wild receive additional protections from mining, such as a permanent withdrawal of mining within the boundaries of the designated river.[74] The next status is "Scenic," which means a river is "free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads."[75] The final status is "Recreational," defined as "rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past."[76]

Under these classification, the Yellowstone River is eligible to be classified as a Wild and Scenic River. The river is currently free-flowing and has many attributes that would likely qualify as outstandingly

66 16 U.S.C. § 1281(a) (2012).
67 16 U.S.C. § 1274 (d)(1) (2012).
68 Id.
69 See 16 U.S.C §§ 1271, 1273(b) (2012).
70 16 U.S.C § 1271 (2012).
71 16 U.S.C. § 1278(a) (2012).
72 16 U.S.C § 1273(b).
73 Id. at § 1273(b)(1).
74 See 16 U.S.C § 1280(a)(iii) (2012).
75 16 U.S.C § 1273(b)(2) (2012).
76 16 U.S.C § 1273(b)(3) (2012).

remarkable values.[77] In fact, Emigrant Creek—the site of Lucky Minerals mine—would also likely be eligible under the Act. Designating Emigrant Creek as a Wild and Scenic River may halt the Lucky Minerals mine due to its proximity to the creek, however, it is unlikely that Emigrant Creek would ever be recommended for the status. Emigrant Creek is relatively unknown, and has minimal flows at certain times of the year. Giving Emigrant Creek Wild and Scenic River status would be inappropriate given the more pressing need for the protection of the Yellowstone River, which has more outstanding values and a larger economic impact on the local community.

Yet, if the Yellowstone were to be designated as a Wild and Scenic River, it would likely be given "Recreational" status because it is easily accessible by Highway 89. The highway follows the river's path south to Yellowstone National Park, and provides many access points via boat launches.[78]

Wild and Scenic River status would provide important protections to the Yellowstone River, most importantly preserving its natural free-flowing state. The status would have been especially useful throughout the twentieth century when various dam proposals were suggested for the Yellowstone River.[79] The last of the major proposals came in 1972 with the Allen Spur Dam.[80] The dam was proposed just south of Livingston, Montana and would have flooded much of the Paradise Valley south of the town.[81] The dam was eventually abandoned after strong pushback from environmental groups, fly fishermen, and local ranchers.[82] Today, it is unlikely that a new proposal would be suggested due to the increase in population in the area, and the high net worth ranches and vacations homes that pepper the valley floor.

In additional to dam prevention, Wild and Scenic River designation would also provide protection to land directly adjoining the river. The Act states that a river's "immediate environments shall be protected for the benefit and enjoyment of present and future generations."[83] The Act requires the managing agency—if the Yellowstone River were designated the Department of Agriculture would be the regulating

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77 See HERBERT, supra note 1; see NAT'L GEOGRAPHIC, supra note 5; see Graetz, supra note 7; YELLOWSTONE HISTORIC CTR., supra note 8.

78 U.S. FOREST SERV., supra note 47.

79 CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN, 276-280 (1992).

80 Id. at 277.

81 Id. at 276–80.

82 Id.

83 16 U.S.C. § 1271.

agency because national forest borders the river—to set boundaries for the land protected by wild and scenic river status.[84] However, the boundaries the agency decides for protection cannot, on average, be larger than 320 acres on either side of the high water mark per mile of river.[85] Moreover, the Act permits the agency to acquire land and create scenic easements to help establish such boundaries.[86] However, land appropriation is limited by the agency's budget for these purposes.[87]

Budgetary limits often make it easier for the managing agency to set larger boundaries where a river runs through a national forest or BLM land because the agency does not have to pay a premium to purchase private land.[88] Most of the land immediately adjacent to the Yellowstone River outside of the National Park is privately owned, meaning the Wild and Scenic River boundaries would likely be smaller due to budgetary constraints. Moreover, setting boundaries for a wild and scenic river is a difficult task and needs to be thoughtfully determined to protect the outstanding and remarkable values that distinguish the river. Boundaries can be challenged in court as being over-inclusive or under-inclusive—requiring the reassignment of the boundaries.[89] For example, in Friends of Yosemite Valley v. Norton, the Ninth Circuit held that the National Park Service violated the Wild and Scenic Rivers Act by drawing river boundaries that failed to "protect and enhance the [Outstanding Remarkable Values] causing that area to be included within the [Wild and Scenic River Status]."[90]

However, once boundaries are set and approved, they act as a buffer zone for the rivers. Yet, due to the statutory size limits they fail to provide adequate protections for a river like the Yellowstone. If some sort of activity—such as mining in Yellowstone River's situation—operates just outside the Wild and Scenic River boundary, then the activities are permitted to continue even if they may negatively affect the outstanding and remarkable values. A 2015 congressional fiscal bill clarified,

> Nothing in . . . the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) creates a protective perimeter or buffer zone outside

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84 16 U.S.C § 1274(b); see id. § 1283(a).

85 Id.

86 16 U.S.C § 1277(a)(1)-(b) (2012).

87 See 16 U.S.C. §§ 1277, 1275(a).

88 See 16 U.S.C. § 1277(a)(2), (b).

89 See Friends of Yosemite Valley v. Norton, 348 F.3d 789, 799 (9th Cir. 2004); see also Sokol v. Kennedy, 210 F.3d 876 (8th Cir. 2000).

90 Friends of Yosemite Valley, 348 F.3d at 799.

> the designated boundary of the river segment. . . . The fact that an activity or use can be seen or heard within the boundary of the river segment. . . . shall not preclude the activity or use outside the boundary of the river segment.[91]

This makes little sense, especially for the Yellowstone River. A mining company such as Lucky Minerals may operate freely, assuming it abides by other federal regulations, if it stays even one inch outside a designated wild and scenic river boundary. Lucky Minerals or another mining company could exploit this loophole because the Wild and Scenic Rivers Act has no power to regulate lands outside its boundaries. It is true that these mining operations still must abide by other federal and state environmental and mining laws, however, the limited ability to regulate nearby land leaves the door unnecessarily open for mistakes and misconduct.

The Wild and Scenic Rivers Act does, however, provide some protection from mining—yet it is woefully inadequate for the Yellowstone River. Prior to a river becoming a Wild and Scenic River, either the Secretary of Interior or the Secretary of Agriculture is required to complete a study to determine if the river should be granted protection.[92] This study must be completed within three fiscal years following the formal recommendation that the river should be designated as either Wild, Scenic, or Recreational under the Act.[93] During this three-year study period, mining is banned on any federal land located within a quarter mile of river bank.[94] Only rivers designated as "Wild" receive permanent protection.[95] After the three-year period, the managing Secretary has the discretion to regulate mining on federal land adjacent to wild and scenic rivers in order to appropriately protect the river's outstanding remarkable values which helped designate the river in the first place.[96] This means the Secretary can ban mining within the boundary, or permit mining within the boundary if she believes that it will not harm any of the outstanding remarkable values.

The minimal protections from mining would fail to adequately protect the Yellowstone River. First, because the river would likely receive "Recreational" status, it would not be afforded the necessary

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91 Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No 113-291, 128 Stat. 3844.

92 16 U.S.C. § 1275 (2012); id. § 1276(d).

93 Id. § 1275; see id. § 1278(b).

94 Id. § 1280(b).

95 Id. § 1280(a)(iii).

96 See id. § 1280(b); see also id. § 1281(a).

permanent protection from mining as a "Wild" river would receive. Moreover, these protections only apply to minerals located on federal lands;[97] private land is exempt. As stated earlier, much of the land bordering the Yellowstone is privately owned, meaning a mining operation could operate on the bank of the Yellowstone if it was on private land. Furthermore, there is concern over the Secretary of Agriculture's discretion regarding the regulation of adjacent land to protect the outstanding remarkable values the river possess. It is foreseeable that an administration, such as the Trump Administration, would be much more liberal in deciding activities like mining would not adversely affect the outstanding remarkable values of a river. The Wild and Scenic Rivers Act's weak ability to regulate mining near designated rivers would be of great concern for the Yellowstone River.

For the Wild and Scenic Rivers Act to be an effective protection tool for the Yellowstone it would need to be amended. The agency managing the river would need expanded authority to regulate the land that borders the river and have the authority to monitor activities on the adjacent land. However, any change to the Wild and Scenic Rivers Act would not only have to go through Congress but would face many questions, including how much land should be regulated and what activities would be restricted. Amending this Act would inevitably face many obstacles, such as arguments that a boundary is arbitrary and harsh criticism from mining and forestry groups. Opponents would also likely stress that there are other federal protections available, such as Wilderness Area designation, which Congress already created with the intent to preserve the Yellowstone watershed from mining and timber harvest.[98]

The apparent shortcomings of the Wild and Scenic Rivers Act demonstrate that it is inadequate to protect the Upper Yellowstone River and its surrounding ecosystem. Instead, a new federal act should be implemented to directly address these concerns and protect the Yellowstone.

## B. Federal Protection to Emulate: The North Fork Watershed Protection Act of 2014

Standing alone, Wild and Scenic River status would not protect the Upper Yellowstone watershed. Instead, an act should be created that

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97 See id. § 1280(b).

98 See GEOLOGIC SYS. LTD, supra note 15, at 15.

would emulate the North Fork Watershed Protection Act that was passed in 2014.[99] The North Fork Watershed Protection Act protects around 430,000 acres of federal public land from any new mining or drilling.[100] The protected area sits on the western border of Glacier National Park, located in the northwest corner of Montana.[101]

The Act was originally proposed in 2010 through the work of Democratic Montana Senators Max Baucus and Jon Tester, but it failed to gain enough traction to pass on its own.[102] Yet, the North Fork Watershed Protection Act did garner bi-partisan support from Montana's legislators, an impressive feat considering Montana's deep conservative roots.[103] In a second effort, the law was proposed again in 2013 by Senator Max Baucus[104] and in the House by Republican Representative Steve Daines.[105] Again, the bill failed to garner much attention in the Senate, but it did manage to pass in the House.[106] However, the bill did not pass on its own; instead, it eventually became law attached as a rider to the much larger National Defense Authorization Act of 2015.[107]

The Act formally withdrew 430,000 acres of federal public land from "(1) all forms of location, entry, and patent under the mining laws; and (2) disposition under all laws relating to mineral leasing and geothermal leasing."[108] The Act does not, however, affect existing leaseholders.[109] Yet, the Act prohibits the issuance of any new leases which restricts the expansion of any mining operation reducing the potential for mines to be profitable. Moreover, the Act is specific to mining and does not affect activities such as grazing, forest management,

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99 Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, § 3068, 128 Stat. 3292, 3827–83 (2014).

100 Scott Bosse, After Four Decades, A Victory for the North Fork, AMERICAN RIVERS (Jan. 13, 2015), https://www.americanrivers.org/2015/01/after-four-decades-a-victory-for-the-north-fork/.

101 Id.

102 North Fork Watershed Protection Act, S. 3075, 111th Cong. (2010).

103 See Tristan Scott, The Rise of the Conservative Conservationist, FLATHEAD BEACON (Oct. 2, 2015), http://flatheadbeacon.com/2015/10/21/the-rise-of-the-conservative-conservationist/.

104 North Fork Watershed Protection Act, S. 255, 113th Cong. (2013).

105 North Fork Watershed Protection Act, H.R. 2259, 113th Cong. (as passed by House, Mar. 4, 2014).

106 Id.

107 Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, § 3068, 128 Stat. 3292, 3827–83 (2014).

108 Id. at 3827.

109 Id.

or recreational activities.[110] Although the Act has limits, it is likely that these specific limits helped it pass. The House Report on the 2015 bill also helped the act pass because it concluded that such an act would have "no significant impact on the federal budget."[111] Regardless of the act's limits, its passage was a monumental achievement for the environmental and conservation community.

The Act, however, was not the result of a quick compromise. Instead, it was the product of years of effort. An early success for proponents for such an act came in 1988 with a Ninth Circuit decision titled Conner v. Burford.[112] The Ninth Circuit affirmed an earlier district court decision to suspend oil and gas leases in the Flathead and Gallatin National Forest because federal agencies had failed to comply with NEPA and the Endangered Species Act before they issued the leases.[113] The suspended leases covered 238,000 acres.[114] Following that decision, the BLM has not awarded any new leases in the Flathead National Forest.[115] Additional progress was made in 2010, when Montana and British Colombia signed a Memorandum of Understanding with the goal of stopping mining, oil and gas development, and coalbed methane extraction in the Flathead River basin.[116] Environmental groups in Montana had strongly advocated for such an agreement since the Flathead River on the American side of the border was a Wild and Scenic River and because the river flows south out of Canada and into Montana.[117] This achievement preceded a 2011 Canadian Act—the Flathead Watershed Conservation Area Act—which banned and revoked 49,430 acres of mining rights in Canada.[118] The area was susceptible to mining, and several large mining projects had been proposed in the area.[119] Mining companies thus sued the Canadian government.[120] The

110 Id.

111 H.R. REP. NO. 113-370, at 3 (2014).

112 Connor v. Burford, 848 F.2d 1441 (9th Cir. 1988).

113 Id. at 1462.

114 S. REP. NO. 113-95, at 7 (2013).

115 Id. at 3–4.

116 Id. at 2.

117 See Legislation and Government Action, HEADWATERS MONTANA, http://headwatersmontana.org/legislation-and-government-action (last visited Feb. 23, 2017).

118 Rob Chaney, B.C. Parliament Settles with Mining Company for Lost Flathead Coal Rights, MISSOULIAN (Oct. 18, 2013), http://missoulian.com/news/state-and-regional/b-c-parliament-settles-with-mining-company-for-lost-flathead/article_7d4c5610-cb42-11e3-a214-001a4bcf887a.html.

119 Tristan Scott, Company Files lawsuit against B.C. over Canadian Flathead Mining Ban, MISSOULIAN (June 1, 2012), http://missoulian.com/news/local/company-

Canadian government settled all mining claims for $10 million dollars.[121] Canada's conservation efforts and its eventual passage of its own act helped provide the framework for the North Fork Watershed Protection Act in 2014.

### C. Commonalities and Differences Between the North Fork Watershed and the Upper Yellowstone River Watershed

There are many parallels between the North Fork watershed and the Upper Yellowstone River watershed. The first important similarity is that they both border one of America's crown jewel National Parks—Glacier and Yellowstone National Parks, two of America's most visited national parks.[122] The surrounding communities of both parks heavily rely on tourism and the use of the rivers for their economies. Both rivers are used for recreational activities such as fishing and rafting. Furthermore, because both watersheds are in remote areas of the country, they support robust ecological systems that maintain some of the only remaining continental United States' habitats for animals like the grizzly bear.[123] Another important commonality between the two watersheds is the vast acreage of national forest land that comprises the river drainages. Although private property owners also occupy the two watersheds, most of the land is federal land. However, the Yellowstone does differ slightly from the North Fork in this respect. Much of the land immediately adjacent to the Yellowstone River is privately owned. Yet, currently all mining and proposed mining in the Upper Yellowstone watershed is in the surrounding mountains and on or near national forest land. It is extremely important that much of the Yellowstone's watershed land is federally owned. Federal ownership means that the federal government can withdraw it from certain uses like mining, as seen in the North Fork Watershed Protection Act.

However, there are a few important differences that should be noted. First, the North Fork of the Flathead River had already been

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files-lawsuit-against-b-c-over-canadian-flathead-mining/article_7b37a628-aba4-11e1-b385-001a4bcf887a.html.

120 Id.

121 Chaney, supra note 118.

122 10 Most Visited National Parks (2015), NAT'L PARK SERV., https://www.nps.gov/aboutus/upload/Visitation-historic-and-top-10-sites-2015.pdf (last visited Sept. 16, 2017).

123 Basic Facts About Grizzly Bears, DEFENDERS OF WILDLIFE, http://www.defenders.org/grizzly-bear/basic-facts (last visited Feb. 24, 2017).

designated as a wild and scenic river in 1976.[124] The designation included the north, middle, and south forks of the Flathead and in total protected 219 miles of river.[125] Another difference that would seem to affect the chances of an Upper Yellowstone Protection Act is the location of Yellowstone National Park in relation to the river. All current and proposed mining in the Upper Yellowstone Watershed is currently located downstream from the national park, while with the North Fork much of the proposed mining was located upstream of the national park.[126] Although, this is a small difference and may have little relevance to the importance of protecting an area from mining, the fact could be used as a point of opposition against a watershed protection act for the Upper Yellowstone.

## D. Montana's Constitution and Statutes: Their Support and Limits

With the future of the Upper Yellowstone River watershed uncertain, those opposed to mining in the area should look to the state of Montana for support. Although a federal act is needed to sufficiently protect Upper Yellowstone River watershed, Montana's state constitution adds significant support to the protection of the Yellowstone River watershed. The State's Constitution specifically states, "All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment and the rights of pursuing life's basic necessities."[127] The Constitution expands on the right to a clean environment in Article IX Section 1, titled Protection and Improvement.[128] Subsection (1) describes, "The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations,"[129] while subsection (3) adds, "The legislature shall provide adequate remedies for the protection of the environmental life support system from degradation and provide

124 Flathead River, Montana, NAT'L WILD AND SCENIC RIVERS SYS., https://www.rivers.gov/rivers/flathead.php (last visited Feb. 24, 2017).

125 Id.

126 Current Public Lands, Forests, and Mining Bills: Hearing Before the Subcomm. on Pub. Lands, Forests, and Mining of the Comm. on Energy and Nat. Res., 113th Cong. 40 (2013) (statement of Jamie Connell, Acting Deputy Director, Bureau of Land Management).

127 MONT. CONST. art. II, § 3.

128 Id. art. IX, § 1.

129 Id. art. IX, § 1(1).

adequate remedies to prevent unreasonable depletion and degradation of natural resources."[130]

In Montana Environmental Information Center v. Department of Environmental Quality, the Montana Supreme Court held that Montana environmental organizations had standing to bring an injunction action for a large open-pit gold mine, because Montana citizens have a fundamental right to a clean healthy environment guaranteed by the state constitution.[131]

The court went on to hold that any statue or agency rule which challenges the right to a clean and healthy environment will be judged under strict scrutiny and can only survive if they present a compelling state interest, and the action is narrowly tailored and follows the least onerous path to reach the statue's goal.[132] This case is important, as it provides additional oversight on the regulators of mining in Montana. However, it does not ensure protection of the Yellowstone River as neither the case nor the Constitution mention that mining is prohibited in certain areas of the state. Regardless of how environmentally safe a mining operation claims to be, accidents happen and mining companies leave areas in disarray after they determine the operation is no longer profitable. Yet, this case remains important for the Upper Yellowstone River, and demonstrates the need for federal protection to ensure the fundamental right to a clean and healthy environment that the Montana Constitution guarantees.

The Montana Constitution also provides outlets for its citizens to enforce their rights to a clean and healthy environment. Articles II and IX impose an obligation on private entities to uphold the environmental fundamental rights in the state constitution.[133] Thus, a mining company must maintain and improve a clean and healthy environment. Moreover, because a clean and healthy environment is a fundamental right there is private right of action when there is a threat to environmental degradation such as in the Montana Environmental Information Center case.[134] The court in that case concluded, "Our constitution does not require that dead fish float on the surface of our state's rivers and streams before its farsighted environmental protections can be invoked."[135]

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130 Id. art. IX, § 1(3).

131 Mont. Envtl. Info. Ctr. v. Dep't of Envtl. Quality, 988 P.2d 1236, 1246 (Mont. 1999).

132 Id. at 1249.

133 Id. at 1250.

134 Id. at 1242–43.

135 Id. at 1249.

In further support of the Montana citizens' fundamental right to a clean and healthy environment, the state has several laws designed to ensure water quality. Montana Statute 75-5-303 (Nondegradation Policy) explains that the state's waters must be protected in terms of water quality to ensure their existing uses.[136] The statue also provides that waters considered as "high-quality" must be protected to maintain their water quality.[137] The Montana Department of Environment Quality, which permits new mines, may not authorize a degradation of high-quality waters unless it has been shown by a preponderance of the evidence that a project would satisfy the four elements of analysis in the statute:

> (a) degradation is necessary because there are no economically, environmentally, and technologically feasible modifications to the proposed project that would result in no degradation;
>
> (b) the proposed project will result in important economic or social development and that the benefit . . . . exceeds the cost to society of allowing degradation of high-quality waters;
>
> (c) existing and anticipated use of state waters will be fully protected; and
>
> (d) the least degrading water quality protection practices determined by the department to be economically, environmentally, and technologically feasible will be fully implemented by the applicant prior to and during the proposed activity.[138]

In the present case, it seems that Lucky Minerals and Crevice Mining would fail to satisfy elements (b) and (c) of the four-part test. As noted earlier, the area surrounding the Upper Yellowstone derives its economic stability from the service and recreation industry dependent on a clean and healthy Yellowstone River rather than from the mining industry. Thus, it is very unlikely that benefits of degradation would outweigh the cost. Moreover, the mining companies could not satisfy element (c) because they cannot guarantee that the existing uses of the Upper Yellowstone River would be fully protected. Acid mining drainage and other accidents would have detrimental effects on the current uses of fishing, swimming, and rafting on the Upper Yellowstone River.

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136 MONT. CODE ANN. § 75-5-303.

137 Id.

138 Id.

Moreover, the statute states that "the board may not issue an authorization to degrade state waters that are classified as outstanding resource waters."[139] Outstanding resource waters are classified as waters that provide a significant environmental, ecological, or economic value to the state of Montana.[140] The criteria are like those of the Wild and Scenic Rivers Act. In fact, when the state considers a river for this status it looks at whether the river is a wild and scenic river.[141]

Importantly, the statute also considers the presence of endangered or threated species and if the water is an outstanding recreational fishery as factors to determine if a river is an outstanding resource water.[142] As described in the analysis of the Wild and Scenic Rivers Act, it would seem clear that the Yellowstone would qualify as an outstanding resource water for Montana, although it has yet to be granted that status.

There are, however, exceptions to Montana's non-degradation statute that would limit the protection that the Yellowstone would receive. The Montana code provides that nonsignificant activities are exempted from the non-degradation statute.[143] Surprisingly and unfortunately, the statute considers metallic mineral exploration a nonsignificant activity as long as it does not result in a discharge to surface waters.[144] It also considers oil and gas drilling, coal and uranium prospecting, and use of drilling fluids as nonsignificant activities as long as they do not result in the discharge of surface waters.[145] This gaping hole in the Montana law to protect water quality challenges the guarantee of a healthy and clean environment the state constitution provides. It demonstrates that even if the Yellowstone were given the status as an outstanding resource water, such designation would, like wild and scenic river status, fail to adequately protect the river.

Although the Montana Constitution and state statutes provide some protection to the environment and waters of Montana, they have yet to ensure the safety and stability of the environment and economy of the Upper Yellowstone Watershed. Unfortunately, as of this writing Montana's Department of Environmental Quality approved the Lucky

139 Id.

140 MONT. CODE ANN. § 75-5-315(1).

141 Id. § 75-5-316(4)(a).

142 Id. § 75-5-316(4)(b)(c).

143 Id. § 75-5-317.

144 Id. § 75-5-317(q).

145 Id. § 75-5-317(f)-(g), (l), (n).

Mineral's mine proposal.[146] Thus the need for federal protection in Upper Yellowstone River watershed has been amplified.

## III. PROPOSED FEDERAL PROTECTION: THE CREATION OF AN UPPER YELLOWSTONE WATERSHED PROTECTION ACT

Understanding the importance of a healthy and clean Upper Yellowstone River, and acknowledging the limits current protections provide, it is imperative that the Upper Yellowstone River Watershed is afforded enhanced federal protection.

Fortunately, the framework for such protection has already been established in the state of Montana with the North Fork Watershed Protection Act of 2014. An Upper Yellowstone River Protection Act should be modeled after the North Fork act for various reasons. First, there are extremely strong ecological and geographic similarities between the two areas. Like the area that comprises the North Fork watershed, the Upper Yellowstone River watershed supports a healthy, complex ecosystem. It is one of the few places in the continental United States where grizzly bears, wolves, mountain lions, and Canada lynx still roam free in abundance.[147] Moreover, the Yellowstone River is the main driver and stabilizer of environmental and economic health in the region. As noted earlier, small towns that border the river derive much of their economic health from industries that depend on the river. Because the surrounding communities and animals depend so heavily on a clean and useable Yellowstone River, any potential harm to it, regardless of its source, would pose great concern to the area.

An ideal Upper Yellowstone River Watershed Protection Act would ban all mining and drilling in the area. However, such an act would require the government to repurchase any existing mineral leases and claims in the area. This could be a very costly endeavor. However, as noted earlier, Canada did just this for roughly 40,000 acres of land, and spent only $10 million in purchasing the rights back. Yet, for the government to repurchase mine claims in the Yellowstone area would likely be expensive and drag out the process. Further, the North Fork Act

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146 See Environmental Assessment Complete for Lucky Minerals Exploration Project, MONT. DEP'T ENVTL. QUALITY (July 26, 2017), http://deq.mt.gov/Public/PressRelease/environmental-assessment-complete-for-lucky-minerals-exploration-project.

147 See MONT. DEP'T ENVTL. QUALITY, supra note 12, at 39–49.

demonstrates that adequate protection could still be assured without buying back the leases. Withdrawing the surrounding federal land from further claims would prevent existing leaseholders like Lucky Minerals from expanding their operations with potentially devastating environmental effects. Also, permitting current claims and leaseholders to maintain their holdings would reduce opposition to such an act. Although this would permit Lucky Minerals and Crevice to continue their current operations, neither would be permitted to expand their operations. This would likely reduce the profitability of the mines and may incentivize the mines to shut down.

Moreover, the two proposed mines should be stopped because their primary extract would be gold, which is neither scarce nor vital to the U.S. economy. Gold is used for many important functions, including electronics, but most of the gold mined each year is used for jewelry, which is not vitally important to our economy.[148] Furthermore, there are already over forty lode mines and numerous placer mines in the country that cumulatively produce over 200 tons of gold a year.[149] There is no pressing need for the additional gold that the two proposed mines would produce, unlike the minerals produced by the Stillwater Mine in Nye, Montana. The Stillwater Mine, which is also located in the Yellowstone River watershed, but farther downstream toward Billings, Montana, is the only mine in the United States that produces platinum and pallidum.[150] The two minerals are important because they serve as the catalyst in catalytic converters in automobiles.[151]

The platinum or palladium in catalytic converters convert harmful compounds and gases released from vehicle emissions into milder compounds, greatly reducing pollution.[152] This does not give the Stillwater Mine a free pass regarding environmental concerns, but because it is the sole U.S. producer of these vital minerals, its function is much more important than two proposed gold mines. The presence of the Stillwater Mine also demonstrates that a proposed Upper Yellowstone

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148 U.S. DEP'T OF THE INTERIOR, UNITED STATES GEOLOGICAL SURVEY, GOLD STATISTICS AND INFORMATION: MINERAL COMMODITY SUMMARIES (2017), https://minerals.usgs.gov/minerals/pubs/commodity/gold/mcs-2017-gold.pdf.

149 Id.

150 Elliott D. Woods, 'More valuable than gold': Yellowstone businesses prepare to fight mining. THE GUARDIAN (July 16, 2017), https://www.theguardian.com/environment/2017/jul/16/yellowstone-mining-montana-public-lands (last visited Nov. 17, 2017).

151 See Platinum-Group Metals Statistics and Information, USGS, https://minerals.usgs.gov/minerals/pubs/commodity/platinum/ (last visited Mar. 14, 2017).

152 See id.

Watershed Protection Act can have limits, such as banning new mining, and banning any expansion of existing sites.

However, a difficult task in creating an act like the Upper Yellowstone Watershed Protection Act would be determining the area that would be protected. This would require a determination of precisely where the Upper Yellowstone watershed begins and ends. Once those parameters are set, a simple solution to set the boundaries for the rest of the protected land would be to withdraw all federal land in the Upper Yellowstone watershed not already protected from mining. A withdrawal of this nature would be composed of mostly Gallatin National Forest. Opponents may argue that the area is already sufficiently protected with Yellowstone National Park and the Absaroka-Beartooth Wilderness Area. Lucky Minerals has already made this argument.[153] Although the existing federal protections in the area are important, the goal of an Upper Yellowstone Watershed Protection Act is not to protect the area from all activities, but rather from activities that have the potential to cause significant and long-term harm to the area. Like the North Fork Act, an Upper Yellowstone Watershed Protection Act would still permit forest management, grazing permits, and many recreational activities. The watershed does not need to ban the use of mountain bikes on its trails or prevent camping in certain areas—like a Wilderness Area or National Park would—to adequately protect the water quality of the Yellowstone. However, it does need to ban mining to ensure the health of the river.

An Upper Yellowstone Watershed Protection Act should follow the general outline of the North Fork Watershed Protection Act. A new act like the North Fork Act also wouldn't cost substantial sums of money to the federal budget, because it would not require the repurchase of mining claims or leases. However, there may be some cost for such things as administration and monitoring the area. Also, given the similarities to the North Fork Watershed Protection Act, this act would hopefully garner bi-partisan support.

Fortunately, progress to pass such an act has been made. As of this writing, Senator Jon Tester introduced the Yellowstone Gateway Protection Act in the Senate.[154] The Act, if passed, would follow many of the recommendations above and would withdraw thirty thousand acres of federal land from any new mining, and would ban the expansion of

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153 GEOLOGIC SYS. LTD., supra note 15, at 15.

154 Press Release, Jon Tester, U.S. Senator for Mont., Tester Introduces Legislation to Permanently Protect Doorstep of Yellowstone Park (Apr. 25, 2017), https://www.tester.senate.gov/?p=press_release&id=5228.

any existing mine or proposed mine on unclaimed public land. [155] Ryan Zinke—the new Secretary of the Interior and former Republican congressman from Montana—has echoed many of the goals of Senator Tester's proposed Act, publically stating that mining should be prohibited in Paradise Valley.[156] Although an act will likely face much resistance with the current Congress and administration, which strongly support mining and drilling, it could still be effective if attached as a bill rider, like the North Fork Act was.

### A. The Obama Administration's Withdrawal of Thirty Thousand Acres of Federal Land from Mining in Paradise Valley

Before Senator Tester's proposed act was drafted in 2017, protesters of the two mines received great news on November 21, 2016 when Sally Jewel, the Secretary of the Interior under the Obama Administration, announced that roughly thirty thousand acres of federal lands just north of Yellowstone National Park would be temporarily withdrawn from new mining claims.[157] Jewell was accompanied by Robert Bonnie from the Department of Agriculture since much of the land withdrawn was national forest land.[158] The withdrawal is only a two-year suspension of new mining claims and does not affect existing claims or claims located on private property.[159] This means that both Lucky Minerals and Crevice Mining will be permitted to continue their existing operations because both companies already have claims and portions of their claims are on private property. However, the temporary suspension does stop the expansion of these mines onto federal lands.[160] Although the temporary withdrawal is only for two years, the Department of the Interior and the Department of Agriculture have the authority to extend the temporary withdrawal up to twenty years.[161]

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155 Id.

156 Matthew Brown, U.S. Interior Secretary Urges Mining Ban Near Yellowstone, ASSOCIATED PRESS (Aug. 28, 2017, 6:32 PM), http://www.apnewsarchive.com/2017/U-S-Interior-Secretary-Ryan-Zinke…ill-consider-blocking-other-ty/id-0fc35c6d9bd34241a01313326988fa51.

157 Press Release, U.S. Dep't of the Interior, Obama Administration Protects 30,000 Acres from New Mining Claims near Yellowstone National Park (Nov. 21, 2016) https://www.doi.gov/pressreleases/obama-administration-protects-30000-acres-new-mining-claims-near-yellowstone-national.

158 Id.

159 Id.

160 Id.

161 Id.

The chances of the temporary withdrawal being extended have likely decreased with the election of President Trump. President Trump has vowed to bring back mining and drilling jobs and surely will not look favorably upon this ban. However, focus will be on Ryan Zinke, a former Republican congressman from Montana and the new Secretary of the Interior. Zinke has faced harsh criticism from environmental groups such as EarthJustice, the Sierra Club, and the League of Conservation Voters.[162] However, in the earlier stages of Zinke's political career, he supported conservation measures. He cast the sole Republican vote in the House to reauthorize the Land And Water Conservation Fund and advocated that public lands should stay under the control of the federal government instead of being sold off to states.[163] Most importantly for the Upper Yellowstone, Zinke has recently stated publicly that mining should be permanently banned on public lands in Paradise Valley and intends to extend the temporary mining ban up to the maximum twenty years legally permissible.[164] It would seem then that the Upper Yellowstone River Watershed has a friend in the Trump Administration. However, Zinke has also supported measures to increase timber, mining, and oil development on federal public lands.[165]

Although it is very encouraging that Zinke has publicly opposed mining in Paradise Valley, his record of supporting mining, drilling, and timbering on federal lands, along with the fact that President Trump may terminate him at will, makes the future of the Upper Yellowstone uncertain. It would be very difficult to pass an act like the North Fork Watershed Protection Act with a Republican-controlled House and Senate and a president who heavily favors the mineral, oil, and gas industries. However, if Zinke is afforded sufficient latitude in his decision making, it is feasible that he may be able to extend the temporary mining withdrawal through the Trump Administration. It may be a long-shot, but it is probably more feasible than passing a stand-alone federal act given Congress's current composition.

Regardless of what the Trump Administration does, the temporary mining withdrawal was a major victory for the Upper Yellowstone Watershed. However, without a congressional act the area's future remains very uncertain.

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162 See Ryan Zinke & U.S. Department of the Interior, EARTHJUSTICE, http://earthjustice.org/features/what-you-should-know-about-ryan-zinke-the-interior-department (last updated Mar. 1, 2017).

163 Scott, supra note 103.

164 Brown, supra note 156.

165 EARTHJUSTICE, supra note 162.

## B. Public Opposition to Mining Near the Yellowstone River

There has been and still is strong public opposition to mining in Paradise Valley and the Upper Yellowstone Watershed. Numerous groups have spoken out against the mines, including the Sierra Club[166] and the Greater Yellowstone Coalition.[167] One of the strongest opposition voices has been The Yellowstone Gateway Business Coalition.[168] The coalition is composed of more than 290 area businesses that oppose mining in the Upper Yellowstone River watershed.[169] Companies that have joined the coalition vary from small fly-fishing shops, restaurants, and breweries, to large corporations like Oracle and Simms Fishing Products.[170] The group uses its motto, "Yellowstone is more valuable than gold" to stress that it is not against mining, but rather pro-business and property rights, and believes the two proposed mines would negatively affect both business and property values in the area.[171]

Efforts of the Yellowstone Gateway Business Coalition and similar groups helped garner the attention of Montana legislators Jon Tester and Ryan Zinke, and eventually the attention of then-President Obama and Sally Jewel, who enacted the temporary mining ban before the Trump Administration took control. Local efforts were also the catalyst for Senator Tester's Yellowstone Gateway Protection Act.[172]

Moreover, although the Montana constitution and Montana common law provide concerned citizens a private right of action to protect and maintain clean and healthy water, concerned citizens have found success in lobbying Montana's senators. However, individual lawsuits may be needed in the future if the Trump Administration removes the temporary mining ban in the area.

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166 See Stop a Mining Proposal in the Paradise Valley!, SIERRA CLUB MONTANA CHAPTER, https://montana.sierraclub.org/stop-mining-proposal-paradise-valley (last visited Feb. 24, 2017).

167 See Proposed Mine in Yellowstone's Paradise Valley, GREATER YELLOWSTONE COALITION, http://greateryellowstone.org/yellowstone-gateway/ (last visited Feb. 24, 2017).

168 See THE YELLOWSTONE GATEWAY BUSINESS COALITION, http://www.dontmine yellowstone.com/ (last visited Feb. 24, 2017).

169 See id.

170 Id.

171 Id.

172 Tester, supra note 154.

## CONCLUSION

The Upper Yellowstone River watershed is one of America's greatest ecological, recreational, and scenic treasures. For centuries, the area has remained relatively undeveloped from mining, drilling, and timber industries. However, the river and its surrounding ecosystem do not have nearly the level of protection necessary to counter potential threats from mining and drilling. The Obama Administration took an important step toward protecting the area through its temporary mining withdrawal, but there is great uncertainty over the area's future under the Trump Administration. Although it may be more difficult than ever to pass a federal law banning mining in the area, it is also one of the most pressing times to do so.

Although a Wild and Scenic River designation would offer the Yellowstone River some protection, and would likely be easier to earn bipartisan support than an act withdrawing federal land from mining and drilling, the Wild and Scenic Rivers Act does not provide adequate protection. Montana's Constitution and state laws explicitly support environmental protection in the area, yet the limitations of the two fail to present an adequate solution. Instead, a federal act that resembles the North Fork Watershed Protection Act should be passed to permanently withdraw the area from further mining and drilling. There is little doubt that an Upper Yellowstone Watershed Protection Act will be difficult to pass in the Trump Administration. However, an act such as this can garner bipartisan support if pro-business groups like the Yellowstone Gateway Business Coalition continue to speak up and stress the economic importance of a clean and healthy Yellowstone River watershed. The Upper Yellowstone River watershed is too important ecologically and economically for the state of Montana and the country to not be federally protected from mining.