FILED

AUG 1 4 2023

ANGIE SPARKS, Clerk of District Court

MONTANA FIRST JUDICIAL DISTRICT COURT LEWIS AND CLARK COUNTY

Plaintiff,

Plaintiff,

V.

STATE OF MONTANA, et al.,

Defendant.

Cause No. CDV-2020-307

FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND ORDER

PROCEDURAL HISTORY

On March 13, 2020, sixteen Montana youth (collectively Plaintiffs or Youth Plaintiffs) filed a Complaint for Declaratory and Injunctive Relief (Doc. 1) against the State of Montana, the Governor, Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, Montana Department of Transportation, and Montana Public Service Commission (collectively Defendants or State). Plaintiffs' Complaint challenged the constitutionality of the State's fossil fuel-based state energy system, which they allege causes and contributes to climate change in violation

of their constitutional rights guaranteed under Article II, Section 3; Article II, Section 4; Article II, Section 15; Article II, Section 17; Article IX, Section 1; Article IX, Section 3 of the Montana Constitution; and the Public Trust Doctrine. (Doc. 1 ¶¶ 3-4).

Specifically, the Complaint challenged the constitutionality of fossil fuel-based provisions of Montana's State Energy Policy Act, Mont. Code Ann. § 90-4-1001(1)(c)-(g); a provision of the Montana Environmental Policy Act (MEPA), Mont. Code Ann. § 75-1-201(2)(a) (MEPA Limitation), which forbids the State and its agents from considering the impacts of greenhouse gas (GHG) emissions or climate change in their environmental reviews; and the aggregate acts the State has taken to implement and perpetuate a fossil fuel-based energy system pursuant to these two statutory provisions.

(Doc. 1 $\P\P$ 4, 105, 108, 118).

Youth Plaintiffs asked the Court for a declaration of law concerning their constitutional rights; a declaration of law that the fossil fuelbased provisions of Montana's State Energy Policy, Mont. Code Ann. § 90-4-1001(1)(c)-(g), are unconstitutional; a declaration of law that the MEPA Limitation is unconstitutional; and a declaration of law that Defendants' past and ongoing affirmative aggregate actions to implement a fossil fuel-based energy system—carried out in furtherance of the State Energy Policy and perpetuated through the MEPA Limitation—are unconstitutional. (Doc. 1, Requests for Relief # 1-5). The Complaint further requested injunctive relief to enjoin Defendants from subjecting Plaintiffs to the fossil fuel-based State Energy Policy, Mont. Code Ann. § 90-4-1001(1)(c)-(g), the MEPA Limitation, and aggregate acts; order Defendants to prepare a statewide GHG accounting; order

Defendants to develop a remedial plan to reduce statewide GHG emissions; retain jurisdiction until Defendants have fully complied with the Court's orders; and, if necessary, appoint a special master to review the remedial plan for efficacy. (Doc. 1, Requests for Relief # 6-9). Plaintiffs also requested an order awarding Youth Plaintiffs their reasonable attorneys' fees and costs, and any such further or alternative relief as the Court deems just and equitable. (Doc. 1, Requests for Relief # 10-11).

On April 24, 2020, Defendants filed a motion to dismiss pursuant to Mont. R. Civ. P. 12(b)(1), 12(b)(6), and 12(h)(3). (Doc. 11). After briefing and oral argument, the Court issued an Order on Motion to Dismiss on August 4, 2021, (Doc. 46), partially granting and partially denying Defendants' motion to dismiss.

The Court found that Plaintiffs' requests for the Court to order Defendants to develop a remedial plan, to retain jurisdiction over the matter until Defendants complied with the remedial plan, and, if necessary, appoint a special master to assist the Court in reviewing the remedial plan exceeded the Court's authority under the political question doctrine. (Doc. 46 at 21). Nevertheless, the Court held that prudential standing considerations did not merit dismissal because the Court "may grant declaratory relief regardless of injunctive relief. The court possesses the authority to grant declaratory or injunctive relief, or both." (Doc. 46 at 22).

Finally, the Court declined to dismiss Plaintiffs' challenge to MEPA for want of administrative exhaustion, finding that "Youth Plaintiffs properly brought this action in district court rather than through the administrative review process." (Doc. 46 at 24). The Order granted Defendants'

motion with respect to Plaintiffs' Requests for Relief # 6, 7, 8, and 9, and denied Defendants' motion with respect to Plaintiffs' Requests for Relief # 1, 2, 3, 4, and 5.

Defendants filed their Answer on September 17, 2021, (Doc. 53), denying virtually all allegations in the Complaint and raising several affirmative defenses.

Pursuant to the December 27, 2021, Scheduling Order (Doc. 61), the parties engaged in discovery throughout 2022.

On May 6, 2022, Defendants filed a Motion for Clarification of Order on State's Motion to Dismiss pursuant to Rule 60(a), Mont. R. Civ. P. (Doc. 84), seeking clarification on whether Plaintiffs' Request for Relief # 5 had been dismissed by the August 04, 2021, Order on Motion to Dismiss. Plaintiffs filed a Response in Opposition on May 20, 2022. (Doc. 102).

On June 10, 2022, Defendants filed a Petition for Writ of Supervisory Control (OP 22-0315), requesting the Montana Supreme Court exercise supervisory control and "dismiss Request for Relief 5 from this case." On June 14, 2022, the Supreme Court denied the Petition. (OP 22-0315).

On June 15, 2022, the Court issued an Order Partially Granting Defendants' Motion to Modify Scheduling Order and Setting Scheduling Conference. (Doc. 145) (Modified Scheduling Order). The Modified Scheduling Order governed the timeline thereafter. Pursuant to the Modified Scheduling Order, the parties engaged in discovery through January 9, 2023—including disclosing expert witnesses (Docs. 222, 227), rebuttal expert witnesses (Docs. 240, 242), and conducting dozens of depositions.

60(a) Motion for Clarification (Doc. 158), clarifying that "requests for injunctive relief contained in the complaint were dismissed, except for Request for Relief 5." (Doc. 158 at 3).

On June 30, 2022, the Court issued an Order on Defendants' Rule

On July 19, 2022, Defendants filed a Motion for Independent Medical Examination, or, in the Alternative, Motion to Strike Opinions and Testimony of Plaintiffs' Expert Dr. Lise Van Susteren Pursuant to Rule 35(a), Mont. R. Civ. P. (Doc. 163), alleging that Plaintiffs' allegations of mental health impacts as a result of climate change had placed their mental health at issue. (Doc. 163 at 2). On October 14, 2022, the Court issued an Order denying Defendants' motion (Doc. 225), ruling that IMEs were unwarranted because "Plaintiffs have not placed their mental health at the center of this case, nor is it really and genuinely in controversy," (Doc. 225 at 6), and because "Defendants have not established good cause for the requested examinations." (Doc. 225 at 7).

On July 20, 2022, Defendants filed a Second Motion for Clarification of Order on State's Motion to Dismiss pursuant to Rule 60(a), Mont. R. Civ. P. (Doc. 167). Defendants' second motion for clarification sought clarification from the Court as to why Plaintiffs' Requests for Relief # 1, 2, 3, 4, and 5 "don't violate the political question doctrine." (Doc. 167 at 3). On September 22, 2022, the Court issued an Order (Doc. 217), denying Defendants' Second Rule 60(a) Motion for Clarification of Order on State's Motion to Dismiss.

On September 30, 2022, pursuant to the Modified Scheduling Order, Plaintiffs disclosed their expert witnesses and expert disclosures. (Doc. 222). On October 31, 2022, Defendants disclosed their expert witnesses and

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expert disclosures. (Doc. 227). On November 30, 2022, the parties exchanged rebuttal expert disclosures. (Docs. 239, 242).

Discovery closed on January 9, 2023. Between the parties, discovery included the completion of thirty-six depositions, the exchange of twenty-two expert reports, the exchange of over 50,000 pages of documents, and responses to dozens of interrogatories.

On February 1, 2023, Plaintiffs and Defendants file motions *in limine*. Plaintiffs filed seven motions *in limine* (Docs. 260, 262, 264, 266, 268, 270, 272) and Defendants filed seven motions *in limine* (Docs. 284, 286, 288).

On February 1, 2023, Defendants filed a Motion for Summary Judgment pursuant to Mont. R. Civ. P. 56. (Doc. 290). On February 14, 2023, Plaintiffs filed a response brief opposing summary judgment. (Doc. 299). Plaintiffs filed sixteen declarations from Plaintiffs, experts, and counsel in support of their response brief. (Docs. 300-315). On February 28, 2023, Defendants filed a reply. (Doc. 332).

On March 16, 2023, Governor Greg Gianforte signed House Bill 170 into law, repealing the Montana State Energy Policy, Mont. Code Ann. § 90-4-1001.

On March 31, 2023, Defendants filed a Motion to Partially Dismiss for Mootness pursuant to Mont. R. Civ. P. 12(b)(1), 12(b)(6), and 12(h)(3). (Doc. 339). Defendants moved to dismiss Plaintiffs' claims premised on the Montana State Energy Policy Act, Mont. Code Ann. § 90-4-1001, on the ground that the repeal of Mont. Code Ann. § 90-4-1001 (HB 170) mooted claims concerning the statute.

On April 14, 2023, Plaintiffs filed a Response Brief in Opposition to Defendants' Motion to Partially Dismiss for Mootness. (Doc. 354). Plaintiffs filed nine declarations from experts in support of their response. (Docs. 355-363).

On April 26, 2023, unable to reach agreement on a joint proposed Pre-Trial Order, the parties submitted separate proposed pre-trial orders. (Docs. 366, 367). On April 27, 2023, a Final Pre-Trial Conference was held with the Court.

In response to Judge Moses' April 6, 2023, Order on Summary Judgment in *MEIC*, et al. v. *DEQ*, et al., Yellowstone County Cause No. DV-56-2021-1307, the Montana Legislature adopted House Bill 971, an amendment to clarify the MEPA Limitation. On May 10, 2023, Governor Greg Gianforte signed into law HB 971, which clarified Mont. Code Ann. § 75-1-201(2)(a). The clarifications in HB 971 explicitly prohibit Montana's agencies from considering "an evaluation of greenhouse gas emissions and corresponding impacts to the climate in the state or beyond the state's borders" in their MEPA reviews.

On May 12, 2023, the Court heard oral argument on Defendants' Motions for Summary Judgment, Motion to Partially Dismiss for Mootness, and Motion to Stay Proceedings.

On May 18, 2023, Defendants filed a Motion to Dismiss MEPA Claims based on the enactment of HB 971. (Doc. 376). On June 1, 2023, Plaintiffs filed a response brief opposing Defendant's motion to dismiss the claims. (Doc. 382). Defendants filed a reply and request for oral argument on June 9, 2023. (Doc. 385).

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On May 19, 2023, Governor Gianforte signed into law Senate Bill 557, amending several provisions of MEPA, Mont. Code Ann. § 75-1-201.

On May 23, 2023, the Court issued an Order on Defendants' Motions to Partially Dismiss for Mootness and For Summary Judgment. (Doc. 379). As to Defendants' Motion to Partially Dismiss for Mootness (Doc. 343), the Court granted Defendants' motion and dismissed without prejudice Plaintiffs' claims involving the State Energy Policy and Defendants' aggregate acts taken pursuant to and in furtherance of the State Energy Policy on redressability and prudential standing grounds. (Doc. 379 at 3-4). The Court denied Defendants' motion for summary judgment and allowed Plaintiffs' MEPA claims to proceed to trial. (Doc. 379 at 20-26).

On June 1, 2023, the Court issued an order on the remaining motions in limine. (Doc. 381). The Court granted Plaintiffs' motion # 2; granted in part and denied in part Plaintiffs' motions # 3 and 5; and denied Plaintiffs' motions # 4, 6, and 7. The Court granted Defendants' motions # 1, 4, 5, 6, 7; and denied Defendants' motions # 2 and 3.

On June 2, 2023, Defendants filed an Emergency Petition for Writ of Supervisory Control with the Montana Supreme Court (OP 23-0311), requesting again that the Supreme Court exercise supervisory control and reverse this Court's denial of the State's motion for summary judgment. The State also asked the Supreme Court to stay the trial set to begin June 12, 2023.

On June 6, 2023, the Montana Supreme Court denied the Emergency Petition for Writ of Supervisory Control. (OP 23-0311). The Supreme Court observed that Defendants had "not demonstrated that HB 971's

amendments alter the allegations the Plaintiffs make in the Complaint" concerning the MEPA provision. (OP 23-0311 at 3).

On June 7, 2023, this Court entered the Final Pre-Trial Order governing this proceeding. (Doc. 384). In addition to "supersed[ing] the pleadings as to the remaining issues and govern[ing] the course of the trial of this case," (Doc. 384 at 38), the Court's Final Pre-Trial Order denied Defendants' Motion to Dismiss MEPA Claims (Doc. 376). (Doc. 384 at 38).

Trial began June 12, 2023, and ended on June 20, 2023.

On June 19, 2023, while trial was proceeding, Defendants filed a Bench Memorandum on the Constitutional and Procedural Limits of the Montana Environmental Policy Act. (Doc. 396). On June 25, 2023, Plaintiffs filed a response (Doc. 402). This briefing discussed in detail SB 557.

FINDINGS OF FACT¹

The Findings of Fact and Conclusions of Law are based on the evidence and arguments presented at trial. The Court heard live testimony from twenty-seven witnesses. Plaintiffs presented testimony from twenty-four witnesses and Defendants presented testimony from three witnesses. The Court admitted one hundred sixty-eight of Plaintiffs' exhibits and four of Defendants' exhibits.

I. PARTIES

A. Plaintiffs

Plaintiffs are youth citizens of Montana. When the Complaint was filed in March 2020, Plaintiffs were from two to eighteen years old. They are now between five and twenty-two years old.

¹ Citations to the trial transcript, exhibits, and demonstrative slides are in brackets and identified by witness using their initials. For example, "SR-14", refers to Steven Running demonstrative slide 14.

- 2. Plaintiffs are Rikki Held, Lander Busse, Sariel Sandoval, Kian Tanner, Georgianna Fischer, Kathryn Grace Gibson-Snyder, Olivia Vesovich, Claire Vlases, Taleah Hernández, Badge B., by and through his guardian Sara Busse, Eva L., by and through her guardian Mark Lighthiser, Mica K., by and through his guardian Rachel Kantor, Jeffrey K., by and through his guardian Laura King; Nathaniel K., by and through his guardian Laura King, Ruby D., by and through her guardian Shane Doyle, and Lilian D., by and through her guardian Shane Doyle.
- 3. Rikki Held is from Broadus, Montana, was eighteen years old when this case was filed, and is currently twenty-two years old.
- 4. Lander Busse is from Kalispell, Montana, was fifteen years old when this case was filed, and is currently eighteen years old.
- 5. Sariel Sandoval is from Ronan, Montana, and lives on the Flathead Indian Reservation. She was seventeen years old when this case was filed and is currently twenty years old.
- 6. Kian Tanner is from Bigfork, Montana, was fourteen years old when this case was filed, and is currently eighteen years old.
- 7. Georgianna Fischer is from Bozeman, Montana, was seventeen years old when this case was filed, and is currently twenty-one years old.
- 8. Kathryn Grace Gibson-Snyder is from Missoula, Montana, was sixteen years old when this case was filed, and is currently nineteen years old.
- 9. Olivia Vesovich is from Missoula, Montana, was sixteen years old when this case was filed, and is currently twenty years old.

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10. Claire Vlases is from Bozeman, Montana, was seventeen			
years old when this case was filed, and is currently twenty years old.			
11. Taleah Hernández is from Polson, Montana, was sixteen			
years old when this case was filed, and is currently nineteen years old.			
12. Badge B. is from Kalispell, Montana, was twelve years old			
when this case was filed, and is currently fifteen years old.			
13. Eva L. is from Livingston, Montana, was fourteen years old	1		
when this case was filed, and is currently seventeen years old.			
14. Mica K. is from Missoula, Montana, was eleven years old			
when this case was filed, and is currently fifteen years old.			
15. Jeffrey K. is from Montana City, Montana, was six years of	d		
when this case was filed, and is currently nine years old.			
16. Nathaniel K. is from Montana City, Montana, was two year	:S		
old when this case was filed, and is currently five years old.			
17. Ruby D. is from Bozeman, Montana, was twelve years old			
when this case was filed, and is currently fifteen years old.			
18. Lilian D. is from Bozeman, Montana, was nine years old			
when this case was filed, and is currently twelve years old.			
B. Defendants			
19. Defendants are the State of Montana, Governor Greg			
Gianforte, Montana Department of Environmental Quality, Montana Department			

- Gianforte, Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, Montana Department of Transportation, and Montana Public Service Commission.
 - 20. The State of Montana is a governmental entity.

21. Greg Gianforte is the current Governor of Montana. He is sued in his official capacity.

- 22. As Governor, Governor Gianforte is charged with seeing that the State's laws are faithfully executed, including the Constitution. Mont. Const. Art. VI, Sec. 4.
- 23. Governor Gianforte has supervisory authority over the principal departments of the executive branch.
- 24. Governor Gianforte holds cabinet meetings, communicates with other state officers, oversees budget expenditures, and has authority to issue executive orders. [Def. Answer, Doc. 11 ¶ 84].
- 25. Defendant Montana Department of Environmental Quality (DEQ) is a department of the State of Montana.
- 26. DEQ is the primary administrator of Montana's environmental regulatory, environmental cleanup, environmental monitoring, pollution prevention, and energy conservation laws. [Def. Answer, Doc. 11 ¶ 88].
- 27. DEQ is mandated to ensure that projects and activities for which it issues permits, licenses, authorizations, or other approvals comply with Montana's environmental laws and rules (including MEPA) to maintain and improve Montana's natural environment. [Agreed Facts, Final PTO, Doc. 384 at 2; Def. Answer, Doc. 11 ¶ 88].
- 28. DEQ is mandated to comply with the Montana Constitution and state law. [CD 1308:6-12].
- 29. DEQ issues air quality permits for applications that demonstrate compliance with all applicable requirements of the Federal and/or Montana Clean Air Act and their implementing rules, including but not limited to

coal and natural gas-powered energy plants, coal mining operations, and oil and gas refineries. [Agreed Facts, Final PTO, Doc. 384 at 2; Def. Answer, Doc. 11 ¶ 90].

- 30. DEQ prepares environmental review documents under MEPA, including for projects related to fossil fuels, such as natural resource extraction and power generating facilities. [CD 1313:21-1315:13].
- 31. DEQ has authority to certify certain pipelines that meet the definition provided in the Major Facility Siting Act, § 75-20-104(9)(b), MCA, and that comply with the requirements of the Major Facility Siting Act. [Agreed Facts, Final PTO, Doc. 384 at 2; Def. Answer, Doc. 11 ¶ 91].
- 32. DEQ permits coal mining for applications which meet the requirements set forth in Titles 82 (Minerals, Oil, and Gas) and 75 (Environmental Protection). DEQ has issued permits for surface coal mining in Montana on state, private, and federal land. [Agreed Facts, Final PTO, Doc. 384 at 2; Def. Answer, Doc. 11 ¶ 92].
- 33. Pursuant to its statutory authority, DEQ has discretion to deny and revoke permits. [SN 1392:24-1393:6].
- 34. Since 2011, pursuant to the MEPA Limitation, DEQ has not analyzed in its environmental review documents the cumulative impacts of the permits it issues on GHG emissions or climate change. [AH 846:1-3, 818:11-819:10].
- 35. Defendant Montana Department of Natural Resources and Conservation (DNRC) is a department of the State of Montana.
- 36. DNRC prepares environmental review documents under MEPA. [Shawn Thomas Perpetuation Deposition, 42:1-16].

37. DNRC manages the resources of the state trust lands through the State Board of Land Commissioners (Land Board). [Agreed Facts, Final PTO, Doc. 384 at 2; Def. Answer, Doc. 11 ¶ 95].

- 38. DNRC regulates, permits, and authorizes activities that result in GHG emissions in Montana. [Agreed Facts, Final PTO, Doc. 384 at 2].
- 39. DNRC issues leases, permits, and licenses for uses of lands under its jurisdiction, including licenses for exploration and leases for production and extraction of oil and gas in Montana and permits for drilling. [Agreed Facts, Final PTO, Doc. 384 at 2].
- 40. DNRC has exercised its authority to grant easements for the operational rights-of-way for interstate pipelines, with the approval of the Land Board, and issues land use licenses for the construction of rights-of-way and other activities on state lands and waterways for the construction and operation of interstate pipelines, which are used to transport fossil fuels. [Agreed Facts, Final PTO, Doc. 384 at 2; Def. Answer, Doc. 11 ¶ 95].
- 41. DNRC, through its Forestry Division, is responsible for planning and implementing forestry and fire management programs, as well as authorizing and permitting commercial timber sales on trust lands. [Agreed Facts, Final PTO, Doc. 384 at 3; Def. Answer, Doc. 11 ¶ 97].
- 42. Defendant Montana Department of Transportation (MDT) is a department of the State of Montana.
- 43. MDT is responsible for state planning in the transportation sector and is charged with collecting and enforcing fuel taxes. [Agreed Facts, Final PTO, Doc. 384 at 3].

- 44. Defendant Montana Public Service Commission (PSC) is a governmental entity.
- 45. PSC regulates, supervises, and controls public utilities, common carriers, railroads, and pipelines. [Agreed Facts, Final PTO, Doc. 384 at 3].
- 46. PSC sets standard-offer contracts for qualifying facilities and utility rates. [Agreed Facts, Final PTO, Doc. 384 at 3].
- 47. PSC is responsible for the safety of interstate pipelines, including crude oil or petroleum products that operate within or through Montana. [Agreed Facts, Final PTO, Doc. 384 at 3].
- 48. Defendants' performance of their respective governmental functions has resulted in the extraction, transportation, and consumption of fossil fuels. [Agreed Facts, Final PTO, Doc. 384 at 3].
- 49. The extraction, transportation, and consumption of fossil fuels results in GHG emissions. [Agreed Facts, Final PTO, Doc. 384 at 3].
- 50. Defendants authorize the operation of coal-fired powerplants in Montana. [Def. Answer, Doc. 11 ¶ 118].
- 51. The drilling for and production of oil in Montana is authorized by Defendants. [Def. Answer, Doc. 11 ¶¶ 90, 96].
- 52. Montana has an abundance of energy sources, including fossil fuels yet to be extracted. [PE 944:24-946:4; PE-37].
- 53. The Montana Legislature enacted Mont. Code Ann. § 90-4-1001 (repealed) and the MEPA Limitation as amended. [Def. Answer, Doc. 11 ¶ 82].

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54. Montana's State Energy Policy was codified at Mont. Code Ann. § 90-4-1001. [Def. Answer, Doc. 11 ¶ 112].

- 55. Mont. Code Ann. § 90-4-1001 was enacted by the Montana Legislature in 1993 and amended in 2011. [Def. Answer, Doc. 11 ¶ 115].
- 56. The Montana Legislature repealed Mont. Code Ann. § 90-4-1001 in 2023. The Governor signed the repeal, HB 170, into law on March 16, 2023.
- 57. The provisions of MEPA governing environmental reviews are codified at Mont. Code Ann. § 75-1-201.
- 58. In 2011, the Montana Legislature amended MEPA to limit the scope of environmental reviews—enacting the MEPA Limitation, which prohibited Montana's agencies from considering in their MEPA reviews "actual or potential impacts beyond Montana's borders . . . [or] actual or potential impacts that are regional, national, or global in nature."
- 59. The Montana Legislature adopted amendments to clarify the MEPA Limitation in 2023. The Governor signed the clarifying legislation, HB 971, into law on May 10, 2023.
- 60. The MEPA limitation now provides that Montana's agencies are prohibited from considering "an evaluation of greenhouse gas emissions and corresponding impacts to the climate in the state or beyond the state's borders." Mont. Code Ann. § 75-1-201(2)(a) (enacted by HB 971, 68th Legislature (2023)).
- 61. The 2023 Montana Legislature amended various provisions of MEPA that pertain to legal challenges to MEPA environmental reviews.
- 62. SB 557 was introduced on March 27, 2023, passed by the Legislature, and signed into law by the Governor on May 19, 2023.

 II.

63. SB 557 enacted a new provision, Mont. Code Ann.

§ 75-1-201(6)(a)(ii), which eliminates the preventative, equitable remedies for MEPA litigants who raise GHG or climate change issues. The new subsection provides in part:

[a]n action alleging noncompliance or inadequate compliance with a requirement of parts 1 through 3, including a challenge to an agency's decision that an environmental review is not required or a claim that the environmental review is inadequate based in whole or in part upon greenhouse gas emissions and impacts to the climate in Montana or beyond Montana's borders, cannot vacate, void, or delay a lease, permit, license, certificate, authorization, or other entitlement or authority unless the review is required by a federal agency or the United States congress amends the federal Clean Air Act to include carbon dioxide as a regulated pollutant.

Mont. Code Ann. § 75-1-201(6)(a)(ii) (enacted by SB 557, 68th Legislature (2023)).

64. Defendants cited Mont. Code Ann. § 75-1-201(6)(a)(ii) and SB 557 as foreclosing redressability in this case in their June 19, 2023, Bench Memorandum on the Constitutional and Procedural Limits of the Montana Environmental Policy Act. (Doc. 396).

CLIMATE SCIENCE AND PROJECTIONS.

A. Climate Science

65. Dr. Steven Running is a University Regents Professor Emeritus of Global Ecology in the College of Forestry and Conservation at the University of Montana. [SR-2]. Dr. Running currently co-chairs the standing Committee for Earth Science and Application from Space of the National Academy of Science. In 2007, Dr. Running shared the honor of the Nobel Peace Prize as a chapter Lead Author for the 4th Assessment Report of the

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Intergovernmental Panel on Climate Change (IPCC). [P193]. Dr. Running provided expert testimony in the general areas of the climate system, including the energy balance and imbalance, the physics of GHG emissions that are driving climate change, the global carbon cycle, the global hydrologic cycle, how they control this energy imbalance, and then how human caused fossil fuel development is harming Montana's ecosystems and hydrology. Dr. Running is a well-qualified expert, and the Court found his testimony informative and credible.

Dr. Cathy Whitlock is Regents Professor Emerita of Earth 66. Sciences and a Fellow of the Montana Institute on Ecosystems at Montana State University (MSU). Dr. Whitlock was lead author of the 2017 Montana Climate Assessment, and in 2020 co-authored a state-level Montana Climate Solutions Plan and a 2021 special report of the Montana Climate Assessment entitled Climate Change and Human Health in Montana. Dr. Whitlock was also co-lead author of the 2021 Greater Yellowstone Climate Assessment. Dr. Whitlock provided expert testimony explaining how human-caused fossil fuel development and the resulting release of CO₂ into the atmosphere are harming Montana's ecosystems, water supplies, communities, and the Plaintiffs themselves. Dr. Whitlock also discussed recent trends and future projections in temperature, precipitation, snow accumulation and snowmelt, and stream runoff in Montana and explained how they affect terrestrial ecosystems, communities, and the livelihoods of people that depend on these ecosystem services. Dr. Whitlock's testimony included projections for Montana's future based on continuing or increasing the present rate of GHG emissions. Dr. Whitlock's testimony /////

primarily focused on the effect GHG emissions in Montana. Dr. Whitlock is a well-qualified expert, and the Court found her testimony informative and credible.

- 67. There is overwhelming scientific consensus that Earth is warming as a direct result of human GHG emissions, primarily from the burning of fossil fuels. [SR 102:10-103:9, 125:11-22, 141:18-20; CW 257:14-25; P6, P13, P23, P34, P223, P143; SR-22].
- 68. Fossil fuels include coal, crude oil or its derivatives (such as gasoline or jet fuel), and natural gas. [PE 901:24-902:8].
- 69. While several GHGs are emitted from the burning of fossil fuels, carbon dioxide (CO₂) is the GHG most responsible for trapping excess heat within Earth's atmosphere. [SR 114:20-116:10].
- 70. Science is unequivocal that dangerous impacts to the climate are occurring due to human activities, primarily from the extraction and burning of fossil fuels. [SR 103:5-9; P6, P23, P34, P223, P143; SR-46, SR-47].
- 71. A substantial portion of every ton of CO₂ emitted by human activities persists in the atmosphere for as long as hundreds of years or millennia. As a result, CO₂ steadily accumulates in the atmosphere. [SR 166:2-10, 168:2-10; CW 279:14-20, 314:20-315:8, 318:2-5].
- 72. The cumulative effect of GHG emissions causes the impacts to the climate being experienced today. [SR 168:2-16]. Human activity and the burning of fossil fuels have accelerated the accumulation of CO₂ to the point that 42% of the total accumulation of CO₂ emissions has happened in the last thirty years. [SR 141:16-142:2; SR-42].

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73. It has long been understood that certain GHGs, including CO₂ and methane (CH₄), trap heat in the atmosphere, causing the Earth to warm. [SR 107:16-25]. An American, Eunice Newton Foote, was one of the first scientists to research and write about the ability of atmospheric carbon dioxide to affect solar heating in the 1850s. [SR 108:22-109:3; SR-14].

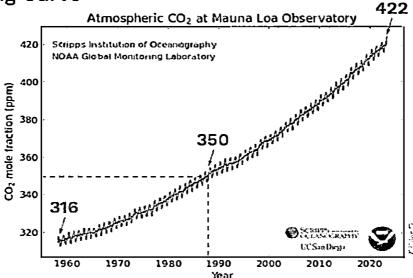
- 74. In 1896, Svante Arrhenius, a Swedish chemist, wrote that the practice of burning fossil fuels emitting CO₂ could one day warm the planet. [SR 108:1-8]. Arrhenius, and other early climate scientists, understood that the more CO₂ that was added to the atmosphere, the more the surface of the Earth would warm. [SR 108:8-13]. At the time of Arrhenius's work, atmospheric CO₂ levels were approximately 295 parts per million (ppm). Pre-industrial levels were approximately 280 ppm. [SR 109:22-25; SR-14].
- 75. In 1958, Dr. David Keeling began the modern monitoring of atmospheric CO₂ at Mauna Loa, Hawaii, a remote location not near any local CO₂ sources. [SR 111:12-21]. Keeling's data, now replicated at dozens of stations worldwide, proved that CO₂ has continued to rise every year from 1958 to the present from an initial concentration of 315-316 ppm in 1958, to an annual mean level of around 424 ppm today. [SR 112:22-113:4, 113:16-114:8]. The curve showing a long-term increase in CO₂ concentrations has become known as the "Keeling Curve." [SR 110:22-111:11, 113:20].
- 76. Between 1960 and 2000, CO₂ levels rose at about 2 ppm per year, but since approximately 2000, CO₂ levels are rising at about 3 ppm per year, primarily from fossil fuel emissions. [SR 117:14-20, 118:1-12, 121:9-11; SR-21].

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Keeling Curve



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- CO₂ levels have fluctuated throughout history, but the rate of 77. increase in atmospheric CO2 is 100 times faster than in natural CO2 fluctuations and cycles, and it is happening in a very short timeframe that is unprecedented in the geologic record. [SR 119:20-121:11; SR-19].
- The continuous rise in atmospheric CO₂ has caused global, 78. national, and Montana air temperatures to rise, as measured by meteorological stations. Total global temperature rise over the last 120 years is on average 2.2°F, or about 1.2°C. [SR 132:19-22; SR-38; CW 262:4-21; CW-18, CW-19, CW-20].
- Montana is heating faster than the global average because 79. higher latitudes are heating more quickly. [CW 263:20-264:7].
- 80. Montana is warming, and the rate of warming is increasing. [CW 266:15-16].

81. The Earth has warmed by 1.3 to 2.2°F in only the last thirty-five years, as atmospheric CO₂ concentrations have risen from 350 ppm to over 420 ppm today. [SR 130:14-18; SR-35, SR-64]. It previously took 140 years for the Earth to warm by 0.9°F. [SR-35]. The Earth is heating more quickly now. 2020 was the second warmest year on record, and land areas were record warm. The ten warmest years on record have occurred since 2005, and since 1981, a new global temperature record has been set every three years. Since 1980, the Earth has not experienced a single year with below long-term average temperatures. [SE 131:20-132:10; SR-37].

- 82. The Earth's energy imbalance (the difference in energy from sun arriving at the Earth and the amount radiated back to space) is what climate scientists describe as the most critical metric for determining the amount of global heating and climate change we have already experienced and will experience as long as the Earth's energy imbalance exists. [SR 122:1-15, 129:17-20; SR-34]. Scientists measure and calculate how much extra energy, or heat, is being retained in Earth's systems, like oceans, ice, air, and land surface, compared to what Earth's natural balance would be if more heat escaped our atmosphere. [SR 122:1-15, 129:21-130:4].
- 83. The Earth's energy imbalance is currently significant and is due to accumulation of energy within Earth's oceans, ice, land, and air, with the energy measured in joules and the rate of additional energy measured in watts per square meter. [SR 124:14-125:18]. A watt is the addition of one joule of energy in one second, which is then averaged by the area of the Earth to yield watts per square meter. From 1971 to 2018, the Earth gained about 360 zeta joules of heat (a zeta is a unit with 21 zeros; a trillion has 12 zeros). [SR-29]. Adding this much

energy over forty-eight years yields an energy imbalance of about 0.5 W m⁻². However, the rate of energy addition has continued to increase due to increasing GHG emissions and the Earth's energy imbalance for 2010 to 2018 is about 0.9 W m⁻². [SR 122:14-24; SR-29; P79].

- 84. 358 zeta joules are enough energy to bring Flathead Lake to boil 40,000 times over. [SR 125:3-6; SR-30].
- 85. As long as there is an energy imbalance, the Earth will continue to heat, ice will continue to melt, and weather patterns will become more extreme. [SR 127:7-22, 131:9-15, 137:6-9, 149:2-14]. If more GHGs are added to the atmosphere and more incoming energy received from the sun is trapped as thermal energy, the Earth's climate system will continue to heat up. [SR 125:7-22].
- pollution is the primary driver of Earth's energy imbalance. [SR 117:21-118:12; 125:11-22]. Due to the buildup of CO₂ from about 280 ppm to 419 ppm in the last 140 years (and to a lesser extent other GHGs), more solar energy is now retained on Earth and less energy is released back to space. [SR 130:8-14; P20, P22, P79; SR-14].
- 87. The buildup of CO₂ and the current Earth energy imbalance is due to anthropogenic changes in the environment, not natural variability. [SR 103:5-9, 121:7-11].
- 88. Approximately 89% of annual anthropogenic CO₂ emissions, or 35 gigatons of CO₂, is attributable to burning fossil fuels. [SR 115:9-17; SR-20]. Approximately 11% of annual anthropogenic CO₂ is from land use change, which includes wildfires, agricultural burning, and deforestation.

[SR 115:18-22, 116:7-15; SR-20]. This means that fossil fuel use is around 10 times as large as other sources of emissions due to human management. [SR 115:15-21]. In terms of the CO₂ humans emit each year, approximately 48% of these emissions end up in the atmosphere, 29% are absorbed in back up in the biosphere, and 26% are absorbed by the oceans. [SR 115:7-117:10; SR-20].

- 89. Until atmospheric GHG concentrations are reduced, extreme weather events and other climactic events such as droughts and heatwaves will occur more frequently and in greater magnitude, and Plaintiffs will be unable to live clean and healthy lives in Montana. [SR 128:22-129:5, 131:5-15, 149:2-150:7; SR-45; LVS-44].
- 90. There is scientific certainty that if fossil fuel emissions continue, the Earth will continue to warm. [SR 106:15-18, 168:20-24; SR-46, SR-47].
- 91. Each additional ton of GHGs emitted into the atmosphere exacerbates impacts to the climate. [SR 106:15-18, 188:3-6; CW 279:14-20, 314:20-315:8, 318:2; P143].
- 92. Every ton of fossil fuel emissions contributes to global warming and impacts to the climate and thus increases the exposure of Youth Plaintiffs to harms now and additional harms in the future. [SR 168:17-169:7; CW 279:14-20, 314:20-315:8, 318:2-5; PE-40].

B. Climate Change Projections.

93. Computer models used by scientists are an important tool for predicting climate change and are reasonably relied upon by members of the scientific community. [SR 90:23-91:9].

94. Projections indicate atmospheric CO₂ and other GHGs will increase the severity of all impacts to the climate for the foreseeable future, absent drastic reduction in fossil fuel use and the resulting GHG emissions. [SR 106:1-18, 169:22-170:10, 170:16-22; CW 269:14-18; SR-46, SR-47].

- 95. There is a strong scientific consensus that as GHG emissions continue to increase, impacts to the climate will become more severe. [SR 106:15-18, 137:3-9; SR-43].
- 96. The yearly days in Montana with extreme heat, meaning temperatures over 90 degrees, is expected to increase by 11 30 days by midcentury, and by as much as two months by the end of the century. [CW 273:6-20; CW-24, CW-28]. At the same time, the number of days above freezing will increase by weeks to months in the future. [CW 273:6-20, 275:21-276:7; CW-27; P222].
- 97. Projections indicate a high-emission scenario results in 9.8°F of warming in Montana by 2100, relative to temperatures in 1971-2000. An intermediate emission scenario projects an increase of 5.6°F in Montana by 2100, relative to temperatures in 1971-2000. [CW 270:1-271:9; CW-23; P222].
- 98. According to the Intergovernmental Panel on Climate Change (IPCC), "Climate change is a threat to human well-being and planetary health (*very high confidence*). [SR-48]. There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (*very high confidence*)... The choices and actions implemented in this decade will have impacts now and for thousands of years (*high confidence*)." [SR 149:15-150:7; Pl 43; SR-48, SR-63; LB-43].

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99. According to the IPCC, "[i]n the near term, every region of the world is projected to face further increases in climate hazards (*medium to high confidence*, depending on region and hazard), increasing multiple risks to ecosystems and humans (*very high confidence*). Hazards and associated risks expected in the near-term include an increase in heat-related human mortality and rnorbidity (*high confidence*), food-borne, water-borne, and vector-borne diseases (*high confidence*)." [SR-46, SR-47; LB-42].

III. CLIMATE CHANGE HARMS CHILDREN AND SPECIFICALLY THE YOUTH PLAINTIFFS.

100. Dr. Lori Byron obtained a Doctor of Medicine degree in 1984. She has been a board-certified pediatrician since 1988. Dr. Byron earned a M.S. in Energy Policy and Climate from Johns Hopkins in 2020. From 1988-2015, Dr. Byron worked with the Indian Health Service in Crow Agency, Montana, providing primary care, emergency care, and public health services to Crow Indian children. Dr. Byron now works as a pediatric hospitalist at SCL Health in Billings, Montana. Dr. Byron has decades of experience caring for children who have suffered Adverse Childhood Events (ACEs). Over the past decade, Dr. Lori Byron and her husband, Dr. Rob Byron, have made presentations on climate change and health locally, nationally, and internationally. Dr. Lori Byron finished a six-year term on the Executive Committee of the Council on Environmental Health and Climate Change with the American Academy of Pediatrics and a six-year term on the Children's Health protection Advisory Committee with the Environmental Protection Agency (EPA). Dr. Byron was an author on the 2021 report "Climate Change and Human /////

Health in Montana: A Special Report of the Montana Climate Assessment," as well as other climate and health publications.

and the air pollution associated with it are negatively affecting children in Montana, including Youth Plaintiffs, with a strong likelihood that those impacts will worsen in the absence of aggressive actions to mitigate climate change.

Dr. Byron outlined ways in which climate change is already creating conditions that are harming the health and well-being of the Youth Plaintiffs. Dr. Byron testified that reducing fossil fuel production and use, and mitigating climate change now, will benefit the health of the Youth Plaintiffs now and for the rest of their lives. Dr. Byron is a well-qualified expert, and the Court found her testimony informative and credible.

102. Dr. Lise Van Susteren is a board certified general and forensics clinical psychiatrist, in practice for thirty years. She is a Clinical Associate Professor of Psychiatry and Behavioral Sciences at George Washington University in Washington, D.C. In 2009, Dr. Van Susteren coconvened one of the first conferences on the psychological effects of climate change. In 2013, Dr. Van Susteren worked with Dr. James Hansen and other experts on a paper, Assessing "Dangerous Climate Change": Required Reductions of Carbon Emissions to Protect Young People, Future Generations and Nature. (Hansen et al., 2013). In May 2018, Dr. Van Susteren received the Distinguished Fellow award of the American Psychiatric Association, its highest membership honor. Dr. Van Susteren has helped develop youth climate anxiety assessment tools, conducted research and reviewed data in assessing the mental health of young people faced with climate change. Dr. Van Susteren provided

expert testimony on the physiological harms caused by climate change to Montana's youth, including the Youth Plaintiffs, the psychological harms caused by the MEPA Limitation, and the availability of remedies to alleviate Plaintiffs' psychological injuries. Dr. Van Susteren is a qualified expert, and the Court found her testimony credible.

and Kootenai Tribes (CSKT). He has a Bachelor of Science degree in Environmental Science from Salish Kootenai College. Mr. Durglo has worked in different capacities for the CSKT for over three decades. In his current role as Head of the Tribal Preservation Department and Chairman of the Climate Change Advisory Committee (CCAC), Mr. Durglo has worked extensively with tribal elders and youth on climate related issues. He has been involved with the Institute for Tribal Environmental Professionals' Climate Change Adaptation Planning Workshop, and he served as the co-chair of the National Tribal Science Council and the chair of the EPA Region 8 Tribal Operations Committee, consisting of EPA tribal environmental directors in Montana, Wyoming, Colorado, Utah, and North and South Dakota. He has taught workshops and seminars on climate adaptation planning throughout North America. Mr. Durglo is a qualified expert and the Court found him informative and credible.

104. Children are uniquely vulnerable to the consequences of climate change, which harms their physical and psychological health and safety, interferes with family and cultural foundations and integrity, and causes economic deprivations. [LB 473:12-24, 474:12-477:12; LVS 1177:5-8, 1202:6-24, 1215:13-24, 1217:2-1222:11; MDJ 597:9-18, 600:23-604:14, 609:23-610:10; LB-9, LB-15, LB-16; LVS-11, LVS-25].

105. Children are at a critical development stage in life, as their capacities evolve, and their physiological and psychological maturity develops more rapidly than at any other time in life. [LB 474:12-477:12, 485:10-486:1; LVS 1177:10-21, 1213:7-23, 1215:13-24].

- 106. The brains and lungs of children and youth are not fully developed until around age 25. [LB 474:18-25; LVS 1213:7-16].
- 107. All children, even those without pre-existing conditions or illness, are a population sensitive to climate change because their bodies and minds are still developing. [LB 473:12-24, 474:12-477:12; LVS 1177:2-1178:12, 1213:7-23; LB-9; LVS-11].
- 108. The physical and psychological harms are both acute and chronic and accrue from impacts to the climate such as heat waves, droughts, wildfires, air pollution, extreme weather events, the loss of wildlife, watching glaciers melt, and the loss of familial and cultural practices and traditions. [LB 498:12-25, 524:11-22; LVS 1178:13-1179:6, 1196:6-11, 1200:7-1201:25, 1202:6-24, 1204:21-1205:19, 1206:19-1209:12, 1218:2-16, 1219:25-1220:11, 1221:19-21; MDJ 595:18-596:2, 597:6-18, 600:23-604:14, 606:11-607:2, 608:1-13, 609:23-610:10].
- 109. Climate change can cause increased stress and distress which can impact physical health. [LB 526:8-16; LVS 1188:16-24; LVS-15]. Dr. Van Susteren observed that Youth Plaintiffs testified to specific personal consequences. For example:
- a. Grace feels fearful due to the glaciers disappearing from a state she loves.

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1203:15-1204:6].

	b.	Sariel has suffered significant distress due to the		
impacts of climate change on culturally important plants, and snow for creation				
stories. Her cultural connection to the land increases this impact.				
	c.	Mica has experienced a sense of loss from having to		
stay inside due to wildfire smoke.				
	d.	Olivia expressed despair due to climate change.		
	e.	Claire has been impacted by fear and loss from		
glaciers melting, and anxiety over whether it is a safe world in which to have				
children.				
110.	Heat	waves are associated with significant psychological		
stress. Increased heat and temperature negatively affect cognition and are linked				
to increased incidence of aggression and exacerbation of pre-existing mental				
health disorders. [LVS 1197:1-1198:7, 1200:7-12; LVS-29].				
111.	Child	ren have a higher risk of becoming ill or dying due to		
extreme heat. [LB-15, LB-16].				
112.	Drou	ght is associated with anxiety, depression, and chronic		
despair. [LVS 1200:24-1201:25].				
113.	Wild	fires, including those witnessed by Badge, are		
traumatic. Being surrounded by wildfires can make the world feel unsafe and the				
inability to breathe clean air creates anxiety. [LVS 1202:6-24, 1204:21-1205:19].				
114.	The t	hreat of loss can be enough to cause mental health		
harms, especially when there are no signs the future will be any different. [LVS				

115. As climate disruption transforms communities, some Plaintiffs are experiencing feelings that they are losing a place that is important to them.

- 116. The IPCC has found, with *very high confidence*, that climate change has "detrimental impacts" on mental health and the harms to mental health are expected to get worse. [LVS 1185:12-1186:3, 1192:23-1194:9, 1195:6-13; P127; LVS-23, LVS-24].
- Montana, found that "[t]he mental health impacts of climate change are profound and varied." [LVS-27]. Extreme weather events, prolonged heat and smoke, and environmental change can all impact mental health and increase feelings of disconnectedness and despair. [LVS 1196:6-11; P31; LVS-28].
- 118. Exposure to extreme heat can cause heat rash, muscle cramps, heatstroke, damage to liver and kidney, worsening allergies, worsening asthma, and neurodevelopmental effects. [LB 485:2-9; P31; LB-13, LB-14].
- 119. The psychological harms caused by the impacts of climate change can result in a lifetime of hardships for children. [LVS 1194:4-9, 1210:2-1211:2, 1213:24-1215:4; P127; LVS-12].
- 120. The physiological features of children make them disproportionately vulnerable to the impacts of climate change and air pollution. [LB 474:14-25, 475:4-10; LVS 1213:7-23; LB-9, LB-10; LVS-11].
- 121. Children have a higher basal metabolic rate, which makes it harder for them to dissipate heat from their bodies. [LB 475:14-21].

- 122. Children breathe in more air per unit of time than adults and consume more food and water proportional to their body weight, making children more susceptible to polluted or contaminated air, water, or food. [LB 476:21-477:12].
- 123. Typical child behavior and physiology—which involves spending more time recreating outdoors and more difficulty self-regulating body temperature—render children more susceptible to excess heat, poor air quality, and other climate change impacts. [LB 476:21-477:12, 481:9-19].
- 124. Childhood exposure to climate disruptions and air pollution can result in impaired physical and cognitive development with lifelong consequences. Air pollution can trigger or worsen juvenile idiopathic arthritis, leukemia, and asthma in children. [LB 482:9-21, 502:4-22; LB-25; LVS 1205:20-1206:8, 1207:18-1208:3].
- 125. The air quality where Plaintiffs live has been negatively impacted by smoke from wildfires contributed to by climate change.
- 126. Allergies are increasingly prevalent among children and anthropogenic climate change is extending the allergy season and exacerbating allergy symptoms. An increase in these symptoms can affect children's physical and psychological health by interfering with sleep, play, school attendance, and performance. [LB 484:25-485:9, 508:2-16; LVS-30].
- 127. Climate change is contributing to an increase in the severity and frequency of asthma in children. Six million children in the U.S. ages 0-17 have asthma, which translates to approximately one in every twelve children. [LB 485:7-8, 503:1-14, 505:4-25; LB-26, LB-30].

- 128. Children who have pre-existing respiratory conditions, including asthma, are especially vulnerable to climate impacts, including increasing air pollution and rising temperatures. Wildfire smoke has harmed the health of Plaintiffs Olivia, Jeffrey, and Nate, all who have pre-existing health conditions, and other Plaintiffs, including Badge and Eva. [LB 505:12-506:20, 508:23-509:1; LB-28].
- 129. Plaintiffs Olivia and Grace are distressed by feeling forced to consider foregoing a family because they fear the world that their children would grow up in. [LB 497:4-21; LVS 1214:21-1215:1, 1221:19-1222:5; GGS 208:3-22].
- 130. Plaintiffs Rikki, Kian, Claire, and Taleah, face economic deprivations, including barriers to keeping family wealth and property intact and decreased future economic opportunities.
- 131. Extreme heat threatens the health of competitive athletes, including Kian, Georgi, Claire, and Grace. [LB 490:6-491:15; LB-18].
- 132. For indigenous youth, like Ruby, Lilian, and Sariel, extreme weather harms their ability to participate in cultural practices and access traditional food sources, which is particularly harmful to indigenous youth with their place-based cultures and traditions. [LB 491:23-493:9; MDJ 579:19-580:9].
- 133. Because of their unique vulnerabilities, their stages of development as youth, and their average longevity on the planet in the future, Plaintiffs face lifelong hardships resulting from climate change. [LB 474:14-25, 475:4-10; LVS 1177:2-1178:12, 1189:1-6,1194:4-9, 1210:2-1211:2, 1213:7-23, 1215:13-24].

- 134. Youth are more vulnerable to the mental health impacts of climate change because younger people are more likely to be affected by the cumulative toll of stress and have more adverse childhood experiences (ACEs). ACEs increase the likelihood of cumulative trauma that leads to mental and physical illness, as well as an increased risk of early death. [LB 521:14-16, 5236-15; LVS 1210:2-1211:2; LB-33; LVS-31].
- 135. ACEs can cause prolonged fear, anxiety, and stress, cognitive impairments, and unhealthy risk behaviors. ACEs can also cause long-term health impacts including increased risk of obesity, diabetes, heart disease, depression, strokes, chronic obstructive pulmonary disease, and broken bones. [LB 516:3-20, 519:16-520:4, 522:17-523:2; LB-34].
- 136. Children born in 2020 will experience a two to sevenfold increase in extreme events, particularly heatwaves, compared with people born in 1960. [LB 495:1-11, 497:1-3; P45; LB-20].
- 137. According to the IPCC, "Climate change is a threat to human well-being and planetary health (*very high confidence*)." The IPCC stated, "Without urgent, effective, and equitable mitigation and adaptation actions, climate change increasingly threatens ecosystems, biodiversity, and the livelihoods, health and wellbeing of current and future generations (*high confidence*)." [LB 530:11-533:9; LB-43, LB-44; P143; SR-61].
- 138. The unrefuted testimony at trial established that climate change is a critical threat to public health. [LB 536:10-537:14].
- 139. Actions taken by the State to prevent further contributions to climate change will have significant health benefits to Plaintiffs. [LB 534:25-535:9].

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IV. CLIMATE CHANGE IS ALREADY ADVERSELY AFFECTING MONTANA'S NATURAL ENVIRONMENT.

- 140. Anthropogenic climate change is impacting, degrading, and depleting Montana's environment and natural resources, including through increasing temperatures, changing precipitation patterns, increasing droughts and aridification, increasing extreme weather events, increasing severity and intensity of wildfires, and increasing glacial melt and loss. [JS 655:2-658:10, 659:6-660:11; see generally SR, CW, DF; CW-56; DF-20].
- 141. Climate change impacts result in hardship to every sector of Montana's economy, including recreation, agriculture, and tourism. For example, private water supplies will be harmed. [SR 144:13-145:17; CW-52].
- 142. Montana has already warmed significantly more than the global average. [CW 263:12-17, 263:20-264:7; CW-18, CW-19].
- 143. All parts of Montana have seen a long-term trend of increasing mean annual temperatures since 1950. Winter and spring have warmed the most [CW 267:18-268:20; CW-21; P6].
- 144. There is a scientific consensus that rising temperatures in Montana are due to rising GHG concentrations, primarily CO₂. [SR 103:5-9, 117:25-118:12; CW 269:18-25].
- continue decreasing with warmer temperatures, as a long-term trend caused by impacts to the climate. [CW 283:11-19; CW-33, CW-35, CW-55; DF 421:12-23].

146. Montana's April 1, Snow Water Equivalent, which is an important metric for how much water will be available during the dry summer months in Montana, has been declining since the 1930s. [CW 284:23-286:15; CW-34].

- 147. The decline in snowpack is directly attributed to elevated temperatures due to high levels of GHG emissions. [CW 283:11-19, 288:3-10].
- 148. Warming temperatures in Montana are resulting in more precipitation falling as rain instead of snow, particularly in western Montana. This results in reduced snowpack and shorter snowpack runoff duration in the spring and summer. Warming temperatures and rapid snowmelt and rain-on-snow events have been a major cause of spring flooding in Montana. [CW 291:17-292:20].
- 149. Extreme spring flooding events are consistent with climate change, including more spring precipitation, which can cause flash flooding when rain falls on snow. [SR 144:24-145:8; SR-44]. Spring flooding is expected to increase in frequency with increased climate change. [CW 291:15-292:20].
- 150. The 2018 Shields River flooding and the 2022 Yellowstone River flooding event are examples of rain on snow and heavy precipitation events that will be more frequent with climate change. [CW 291:15-292:20].
- 151. Dr. Dan Fagre holds a Ph.D. from the University of California, Davis. He joined the National Park Service as a research scientist in 1989 and, in 1991, he became the Climate Change Research Coordinator at Glacier National Park as part of the nationwide United States Global Change Research Program. His position was transferred to the United States Geological Survey (USGS), where he served until his retirement in 2020, after which he has

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continued as Scientist Emeritus. At Glacier National Park, Dr. Fagre helped develop a national climate change research program within the National Park Service, coordinating with other scientists at national parks from Florida to Alaska. He built a research program centered on Glacier Park as a representative mountain ecosystem, engaging faculty and scientists from Montana universities and across the U.S. [P190]. Dr. Fagre is a well-qualified expert, and his testimony was informative and credible.

- 152. Glacier National Park is a major driver of the regional economy and a source of fresh water for countless communities. [Def. Answer, Doc. 54 ¶ 159; DF 404:10-406:10, 407:1-3, 408:11-25, 426:2-17; DF-13].
- 153. The glaciers in Glacier National Park were an early focus of the U.S. Geological Survey climate change research because they are excellent indicators of impacts to the climate. Located above the rest of the mountain ecosystem, glaciers respond only to climatic forces that affect summer temperatures that melt ice and snow and winter snow accumulation (i.e., snowpack). [DF 394:15-396:1, 396:25-397:17].
- 154. Of the approximately 146 glaciers present in Glacier National Park in 1850, only twenty-six glaciers larger than twenty-five acres remained in 2015. 82% of Glacier Park's glaciers are gone and there has been a 70% loss of area of all glaciers. [DF 418:1-8, 422:25-424:4; DF-17, DF-20].
- 155. Since 1900, glaciers in Glacier Park lost 66% of their area, making Montana the largest region for glacier loss in the U.S. lower forty-eight. Agassiz Glacier, Grinnell Glacier, Jackson Glacier, Sperry Glacier, and

DF-20, DF-211.

glaciers over the past century is due to human GHG emissions (mainly CO₂ from fossil fuel burning). [DF 409:24-410:19, 416:21-417:15, 422:8-19, 424:5-11, 428:13-24].

157. The current ice retreat of Glacier Park's glaciers is in response to modern, human-caused warming of the region. [DF 428:13-24].

158. Computer models project the loss of Glacier Park's glaciers if fossil fuel emissions continue to rise. [DF 425:9-23].

159. The loss of Glacier National Park's glaciers will affect the water sources of many communities, stream and river hydrology, local economies, and the recreational opportunities of several Plaintiffs because they

Thunderbird Glacier have all experienced significant retreat. [DF 409:9-23,

410:23-415:5, 412:13-21, 415:12-416:20; P61-P64; DF-8, DF-15, DF-16, DF-18,

156. The scientific consensus is that the retreat of Glacier Park's

160. If GHG emissions are reduced glaciers would slow their melting, eventually stabilize, and then begin to grow again. [DF 428:1-12].

will be denied access to natural resources enjoyed by previous generations of

Montanans. [DF 404:10-406:10, 407:1-3, 408:11-25, 426:2-17; DF-13].

- 161. Climate change results in water levels in Montana's rivers and lakes that are routinely well below normal levels in summer and fall months and water temperatures that are well above historical levels. [JS 686:18-687:4, 690:7-17, 692:22-25, 693:2-7; JS-25].
- at the University of Utah. [JS-2]. He is Professor Emeritus at the Flathead Lake Biological Station (FLBS) of the University of Montana. He was the Director and

Bierman Professor of Ecology at the University of Montana (1980-2016). His primary area of research is aquatic ecosystem processes, including influences of human activities. He has published over 220 scientific papers and books on aquatic ecosystem processes, including influences of human activities. [P194]. Dr. Stanford is a well-qualified expert, and his testimony was informative and credible.

- 163. Montana is part of the northern Rocky Mountain region. The northern Rocky Mountains are a headwaters region, including for the Missouri River system to the East and the Columbia River System to the West, where most of the water originates as snow. [Def. Answer, Doc. 54 ¶ 157].
- 164. Montana is a key "water tower" of the Continent. Water that drains from the Rocky Mountains feeds three of the great rivers of North America: the Columbia, the Saskatchewan, and the Missouri-Mississippi. Snow at high elevations provides eighty-five percent of the fresh water that people use in Montana. [DF 405:22-406:10, 407:16-409:1; DF-13; JS 656:21-657:7].
- 165. The accumulation of winter snowpack in the mountains naturally acts as a reservoir for the hotter, drier months, gradually melting with onset of spring, and in summer providing continuous flow downstream, which is critical in the period of less precipitation and warmer temperatures. [SR 152:2-18]. Some accumulations are held in mountain glaciers which add meltwaters to the flow paths. [DF 407:16-409:1; DF-13].
- large share of runoff penetrates into the ground, feeding aquifers that store water or augment river and stream flows. [JS 655:20-24, 657:13-17, 660:12-661:7; JS-4].

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167. Montana's river and lake ecosystems are interconnected with each other and with aquatic and terrestrial ecosystems beyond Montana's borders. [JS 646:2-647:2]. The interconnectivity of Montana's river and lake ecosystems includes being connected with groundwater and atmospheric waters. [JS 661:8-12; JS-4, JS-8, JS-9; P82].

168. The rivers of Montana are interlinked and their flows and the quantity of materials (e.g., sediments) that they naturally transport are now, without functioning glaciers, increasingly dependent on seasonal rain and Snow. These river networks transport and deliver the water and materials that sustain the natural and cultural (human) elements of Montana's ecosystems. [JS 661:8-664:18, 646:2-647:2; JS-4; DF-19].

- Plaintiffs and all Montana citizens and to many people beyond the State's borders. Montanans must have a dependable supply of clean freshwater. [JS 659:6-19; JS-25].
- 170. Anthropogenic climate change is disrupting the natural range of variation in the flow paths of Montana's river systems. Compared to the 1960s, the summer streamflow in Montana's rivers has decreased by approximately 20% and stream temperatures have increased between 1-2°C. [JS 666:15-667:20; JS-10, JS-25].
 - 171. As a result of anthropogenic climate change:
- a. Surface temperatures in Flathead Lake are too warm for bull and cutthroat trout to sustain their historic populations. [JS 687:5-14].

k. The Bitterroot River has experienced increased temperatures, a reduction in bull trout habitat, algae blooms, and fishing closures. [JS 693:12-22].

- 172. One impact of anthropogenic climate change to Montana's aquatic ecosystems is that runoff (spring spate) from snowmelt is days to weeks earlier. Loss of snowpack also accelerates warming and water loss owing to reduced reflection than would occur if the snowpack was sustained. [JS 670:20-671:2].
- 173. Low water levels and abnormally warm water temperatures create harmful conditions for fish and other aquatic organisms. [JS 671:3-17].
- 174. Access to boating and fishing on certain rivers and lakes in Montana has been limited, and in some instance completely foreclosed, because of low river flows or high-water temperatures. These changes limit the ability of some Plaintiffs to fish and access the State's rivers and lakes for sport or recreation. [SR 152:25-153:9, 153:10-13; JS 679:7-15].
- 175. Wildfires resulting from climate change have caused nitrogen levels in Montana's lakes to increase. This has caused nutrient imbalances that threaten the plant and animal life in the lakes. [JS 683:1-684:4].
- 176. If GHG emissions continue to rise, impacts to the climate will further harm Montana's wildlife and fisheries, and the ability of Plaintiffs to hunt and fish. [JS 679:7-15; 687:8-14].
- 177. The western United States, including Montana, has experienced a trend of increased drought and heat stress from climate change,

which has killed trees and altered ecosystem dynamics, and this trend toward hotter and drier summers will continue in the future. [SR 106:1-18, 146:18-21, 156:2-17; CW 258:24-259:8, 283:3-10; CW-44].

- 178. Droughts in Montana are more expansive and longer term which negatively affects stream systems: aquifer systems become depleted due to reduced infiltration of streamflow and rainfall. Where aquifers contribute significantly to base flow maintenance in Montana streams, the outcome is even more extreme and with sustained drying. [JS 677:7-678:1].
- 179. Anthropogenic climate change is producing a shift from snow to rain earlier in the year, and flooding from intense but extreme, short-duration flooding is more commonly occurring today than in the past (especially in the spring). That ultimately means less water is retained in the drainage network. [JS 676:12-25].
- 180. Increases in the frequency, duration, and/or severity of drought and heat stress associated with climate change are fundamentally altering the composition, structure, and biogeography of forests in Montana. [SR 106: 1-14]. There is already evidence of accelerating forest mortality in western forests, and this acceleration is clearly tied to increasing temperatures and plant water stress. [SR 156:2-17, 163:9-164:2].
- 181. Montana's forests are being drastically altered due to the combination of drought, pest infestations, and wildfires. [SR 156:12-157:15].
- 182. Climate scientists have long known that increasing temperatures intensify drought conditions, and the combination of drier and hotter weather leads to larger, more frequent, and severe wildfires. [SR 106:1-14, 157:2-158:6].

183. The wildfire season in Montana is two months longer than it was in 1980s. [SR 159:7-13]. The lengthening of the fire season is largely due to declining mountain snowpack, earlier spring snowmelt, decreased summer precipitation, and warmer summer temperatures leading to deficits in soil and fuel moisture—which are all due to increasing GHG emissions. [SR 106:1-14, 156:24-157:13, 159:18-160:6, 160:22-24; SR-54; CW 305:3-24; CW-47].

184. The extent of area burned in the U.S. each year has increased since the 1980s. According to National Interagency Fire Center data, of the ten years with the largest acreage burned, all have occurred since 2004, including the peak year of 2021. This period coincides with many of the warmest years on record nationwide. [SR 158:4-11; SR-52].

185. Wildfires in Montana are expected to become significantly worse in the coming years without immediate steps to reduce GHG emissions. [\$R 106:1-24; CW 306:11-307:11; CW-49].

186. The effects of anthropogenic climate change, including rising temperatures, changing precipitation patterns, and drought conditions, create challenges and uncertainty for farmers. [CW 312:2-313:15].

187. Climate change affects wildlife, and some species will be more sensitive to impacts to the climate than others. Species may adapt, move, or go extinct. For example, the American pika and Snowshoe hares are considered highly sensitive to climate change due in large part to their dependence on subalpine habitat and snow cover, which is also projected to decline. [SR-59; P72; DF 406:11-15]. Dependence on climate-sensitive habitats like seasonal

streams, wetlands and vernal pools, seeps and springs, alpine and subalpine snowfield areas, grasslands and balds, is a large driver of species sensitivity. [SR 164:5-16, 165:6-166:6].

- 188. Rising temperatures will increase the number of freeze-free days in Montana and increase in the number of days above 90°F. [CW 273:6-20, 275:18-276:7; P6; CW-24, CW-27].
- precipitation, with more precipitation falling in the spring and fall and less in the winter and summer. The change in precipitation timing and a decrease in precipitation during the summer months, combined with increasing summer temperatures, will contribute to increasing risk of summer drought conditions in parts of Montana and more precipitation falling as rain as opposed to snow. [CW 281:4-21; CW-30, CW-35; P6, P34].
- 190. Increasing temperature will offset small increases in precipitation by increasing rates of evaporation and transpiration and will make late-summer and fall droughts highly likely and increasingly severe. [CW 283: 3-10].
- 191. The current decline in Montana snowpack and snow accumulation is projected to continue. The loss of snowpack and snow accumulation is primarily driven by increasing temperatures, which are caused by anthropogenic GHG emissions. [CW 283:11-19, 284:23-285:21, 286:9-15, 287:15-288:10, 290:20-291:9; CW-35].

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192. Spring runoff in Montana is projected to increase through the 21st century because of warmer temperatures and earlier snowmelt. Increased January-April runoff will lead to increasingly low streamflow in July-September. [CW 293:8-18].

193. The science is clear that there are catastrophic harms to the natural environment of Montana and Plaintiffs and future generations of the State due to anthropogenic climate change. [SR 105:9-21, 149:15-150:7]. The degradation to Montana's environment, and the resulting harm to Plaintiffs, will worsen if the State continues ignoring GHG emissions and climate change. [SR 105:22-106:18, 137:10-15, 168:17-169:7, 169:19-21; CW 318:2-5, 316:17-317-14; DF 428:6-12; JS 712:8-12].

V. CLIMATE CHANGE IS ALREADY HARMING PLAINTIFFS.

- 194. The unrefuted testimony established that Plaintiffs have been and will continue to be harmed by the State's disregard of GHG pollution and climate change pursuant to the MEPA Limitation.
- 195. Plaintiff Rikki Held lives on her family's ranch twenty miles outside of Broadus, Montana. Broadus is a ranching community in Southeastern Montana, with a population of approximately 450 people in the town and approximately 2000 in Powder River County.
- a. Rikki has experienced climate change-related harms to herself and her family ranch, including harms from flooding, severe storms, wildfires, and drought.
- b. The Powder River runs through Rikki's ranch. The ranch includes five pivot fields and pine-covered hills. Rikki and her family have raised cattle on the ranch, grew crops to feed cattle, and owned horses.

c. Rikki started riding horses and herding livestock when she was four. Rikki grew up involved in ranching activities, working with livestock, haying, and fixing fences.

- d. Rikki's grandparents are from Broadus and her dad grew up in Broadus.
- e. Rikki and her family run a motel that rents rooms to travelers. Rikki often works for the family motel business. The primary source of Rikki's family's income is the ranch (currently leased) and motel business. Loss of this income affects Rikki personally.
- f. Impacts to the climate are already harming Rikki's home, family, community, income, and way of life.
- g. Rikki was often required to work outside on the ranch regardless of the temperatures or air quality. Rikki's physical well-being has been harmed by wildfires and wildfire smoke, as well as extreme heat.
- h. In 2012, the Ash Creek fire burned seventy miles of power poles, causing the loss of electricity on Rikki's ranch for a month.

 Electricity is required to access water for both cattle and Rikki's house on the ranch, so the loss of electricity harmed both cattle and Rikki.
- i. Climate change has impacted the snowpack on the ranch in recent years, with snow typically not lasting through the winter.

 Reduced winter snowpack means less natural water available for cattle. As a result, the cattle must rely on water tanks, which are far apart and expensive to install. With less water, there is also less grass available for the cattle to eat.

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j. With less water and grasses, cattle travel further for water and food, and lose weight. This means the cattle are not as valuable and the ranch profits and income declined.

- k. Wildfires have closed roads around Broadus limiting the number of people that can reach Rikki's family motel business, causing lost income for Rikki and her family.
- l. Climate change has caused increased variability in water levels in the Powder River. Rikki's family relies on the river to water their livestock. Increasingly, the river levels are extremely low while at other times the river floods.
- m. In 2017, the Powder River flooded and eroded the riverbank on Rikki's ranch, undercutting a fifty-year-old fence. Since then, continued flooding has eroded about fifty feet of riverbank, with floodwaters that nearly reach Rikki's home.
- n. Rikki experiences stress and despair from how climate change impacts her well-being, the well-being of her family, and the well-being of other Montanans. Montana is Rikki's home and seeing how climate change is impacting Montana and her family ranch is a heavy emotional burden for Rikki.
- o. Rikki faces economic harm, including barriers to keeping family wealth and property intact and decreased future economic opportunities.
- 196. Plaintiffs Lander Busse and Badge B. are brothers, living in Kalispell, Montana.
 - a. Lander and Badge enjoy hunting and fishing.

- b. Lander and Badge hunt with their parents and grandparents. Hunting is an important family activity.
- c. Lander and Badge's ability to hunt and fish is inhibited due to climate change consequences, including extreme heat and wildfires.
- d. Climate change has adversely impacted Lander and Badge's ability to fish by rendering certain waterways impassible by raft due to low instream levels or too-warm water temperatures, which harm fish and decrease their populations.
- e. Lander and Badge have had their ability to fish limited or foreclosed due to fishery closures as a result of climate change-induced conditions in Montana's rivers. Lander and Badge have also had their access to rivers limited for other recreational activities.
- f. The extreme temperatures and smoke have at times made hunting unbearable and impossible for Lander and Badge. Smoky conditions have also impacted their fishing activities.
- g. Due to climate change, the wildfire smoke in Kalispell, and in other parts of Montana where Badge recreates, makes it difficult for Badge to breathe and triggers a cough, which negatively impacts his health and well-being.
- h. In 2018, a wildfire near the Busse's home forced their family to prepare to evacuate. Preparing to evacuate was a traumatic experience for Lander and Badge. Badge is worried that wildfires will continue to threaten his home.

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- i. Lander has seasonal pollen allergies, which are worsening due to the increased pollen count and a changing climate.
- j. Lander is an accomplished musician and theater performer and often performs outdoors. Climate change and wildfires have hampered his ability to perform music and theater at a high level and have negatively impacted his physical well-being.
- k. Badge is named after the Badger-Two Medicine, an area where he frequently recreates and fishes. Wildfires in the Badger-Two Medicine have destroyed trees and have degraded areas important to Badge and where he enjoys visiting and recreating, which has had a powerful emotional impact on Badge. Badge experiences a sense of loss and distress knowing that the area is being damaged and degraded due to climate change. Badge feels as if a part of him were lost in the Badger Two-Medicine fire.
- l. Badge is passionate about skiing and has skied for as long as he can remember. Climate change is reducing Badge's ability to participate in this important recreational activity.
- m. Badge is anxious when he thinks about the future that he, and his potential children, will inherit.
- n. Lander and Badge care deeply about protecting Montana's environment, which is an integral part of their family traditions, culture, and identity. Witnessing the current impacts of climate change in Montana is traumatic for both Lander and Badge.
- o. Lander and Badge are experiencing the loss of ties to the land in Montana.

- 197. Plaintiff Sariel Sandoval is a member of the Confederated Salish and Kootenai Tribes and is from Ronan, Montana.
- a. Sariel and her family have a deep connection to the natural world, and have a unique connection to the land, the natural environment, and the seasons. Climate change is harming Sariel's culture and tribal practices. Sariel went to a Salish language immersion school called Nkwusm in Arlee. At school, Sariel was taught her native language and learned about the Salish culture.
- b. Sariel was excited to receive her Salish name, which means "Person Who Brings the Cedar." Cedar has important cultural significance because it provides a connection through the land to the Creator.
- c. Sariel feels a strong sense of connection to her community. She believes that carrying on her community's traditions is important because it is their way of life and reflects their connection to the land.
- d. Gathering and using sweet grass and bear root is important to Sariel culturally and spiritually.
- e. Sariel is concerned about how climate change affects the seasons because her culture is very ingrained with the land and the seasons. It also affects plants and foods her tribe needs to survive, and she is concerned that these changes will change the community itself. Because of earlier-than-normal snowmelt and the consequent drying of mountain streams as a result of climate change, plants used in Salish and Kootenai medicines are becoming scarcer and more difficult for tribe members to gather.
- f. Coyote Stories are a culturally important type of Creation Story that can only be told when there is snow on the ground. Sariel is

concerned because the snow is not staying on the ground as long, and she does not know what will happen to the stories when there is no more snow.

- g. Climate change impacts Sariel's ability to partake in cultural and spiritual activities and traditions, which are central to her individual dignity. Climate change has disrupted tribal spiritual practices and longstanding rhythms of tribal life by changing the timing of natural events like bird migrations.
- h. Sariel worked at Blue Bay Campground the summer after she graduated high school. Sariel lost a few weeks of work and income due to the nearby Finley Point fire (also known as the Boulder 2700 Fire) in 2021. The fire also led to the road being shut down, homes being lost, and people being evacuated.
- i. Sariel is often unable to see the mountains near her home due to wildfire smoke.
- j. Berry picking is a staple cultural activity for Sariel and her family. Some huckleberry bushes are not producing fruit because of drought and Sariel must travel higher up into the mountains to find healthy huckleberries.
- k. Climate change has a profound emotional impact on Sariel, who experiences stress and despair about the impacts her community is facing due to climate change.
- l. Sariel was greatly distressed when she learned that Montana was almost at the point of no return with respect to climate change.
- 198. Plaintiff Kian Tanner lives on his family's property in Bigfork, Montana.

a. Kian's property has been degraded by wildfire smoke.

- b. Kian is a passionate fly fisher and has fished with his dad since he was about four years old. Kian hopes he will be able to preserve this tradition and fish for the next fifty years or more.
- c. The warmer water temperatures, lower oxygen levels, and declining instream flows due to climate disruption are harming Montana's rivers and fish. These climate impacts have decreased fishing opportunities for Kian as he has had to cancel fishing trips due to wildfires. Not being able to fish is devastating for Kian.
- d. Kian lives near and enjoys visiting and recreating in Glacier National Park, which is a very special place for Kian. He is distressed he will never be able to see the natural glaciers as they have historically existed, and as other generations experienced them.
- e. Kian enjoys downhill and cross-country skiing, which is an activity he does with his mom, who taught him to ski. Kian cross-county skis on his family's property. Impacts to the climate have reduced his opportunities to downhill and cross-country ski.
- f. Increased smoke in the summer has harmed Kian's ability to play soccer, fish, and otherwise recreate outside, activities which are crucial for his emotional health and foundational to his family. Kian's soccer practices have been cancelled due to heat and wildfire smoke.
- g. The smoke often forces Kian to seek refuge indoors, which makes him feel very claustrophobic.

h. Kian's fears about impacts to the climate take an emotional toll on him and he feels a heavy burden to carry the mantel of the generation that must address climate change.

199. Plaintiff Georgianna Fischer (Georgi) is from Bozeman, Montana.

- a. Georgi's family has lived in Montana for generations. Goergi's great grandmother, Mary "Polly" Wisner Renne, is someone that Georgi admires because of her work to protect Montana's environment. Renne was a key figure in establishing protections for the Lee Metcalf Wilderness Area.
- b. Georgi is a competitive Nordic skier. She has competed on the national level, including Junior National Championships, U.S. National Championships, and the 2021 NCAA competition. She trains eleven months of the year, six days a week. Georgi's ability to compete and participate in Nordic skiing has been directly impacted by climate disruption. Declining winter snowpack has inhibited Georgi's ability to complete necessary and appropriate training and hinders her ability to continue to compete at a high level, which adversely impacts her health and mental well-being.
- c. In recent years there has not been enough snow to groom trails or create tracks in the snow to Nordic ski race until January, although historically tracks were created in November.
- d. Georgi's summer Nordic skiing training has been impacted by wildfires and wildfire smoke. Practices have been cancelled or curtailed due to smoke and the smoke prevents Georgi from training at a high intensity. Georgi is increasingly worried about the long-term effects that the exposure to heavy wildfire smoke while training has on her health and respiratory

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system. Extreme heat also harms Georgi and her ability to recreate and train outdoors. The heat has caused her to feel dizzy, nauseous, generally unwell, and has caused persistent nosebleeds that led Georgi to seek medical attention.

- e. Georgi enjoys paddleboarding, rafting, backpacking, hiking, and other outdoor activities. Georgi's recreation on Montana's rivers has been impaired due to low water levels and stream flows. Georgi and her family have had to cancel river rafting trips, including one on the Smith River, due to low stream flow.
- f. Georgi experiences feelings of despair and hopelessness because of the declining winter snowpack and what that trend entails for her snow-based sport.
 - 200. Kathryn Gibson-Snyder (Grace) is from Missoula, Montana.
- a. Grace's recreation on Montana's rivers and streams has been affected due to both low water levels and flooding conditions. Because of climate change, Grace's access to the Clark Fork River for recreational activities has been increasingly impaired, limiting her ability to enjoy activities important to her health and family.
- b. Grace enjoys many outdoor activities, including long-distance biking, hiking, soccer, and kayaking.
- c. Grace has been harmed by wildfire smoke and extreme heat; which have adversely impacted her ability to play competitive soccer. Smoke and heat have led to fewer soccer practices and the cancellation of games. Wildfires have impacted Grace's ability to go outside, enjoy outdoor activities, and have placed her safety, health, and well-being at risk.

smoke.

d. One of Grace's environmental community education events was cancelled due to wildfire smoke.

- e. Grace has had hiking activities impacted by wildfire
- f. Grace experiences psychological harms, is distressed from day-to-day climate conditions, and is anxious about climate change. It is devastating for Grace to think that Montana's special landscapes, like Glacier National Park's glaciers, will not exist as they have in the past, or at all, when she is older.
- g. Even though Grace would like to raise children in Montana, she questions whether she can morally bring children into the world, because of her knowledge and fear of the world that her children would grow up in if climate change is not ameliorated.
 - 201. Plaintiff Olivia Vesovich is from Missoula, Montana.
- a. Olivia has exercise-induced asthma and is therefore particularly vulnerable to smoke-filled air. In smoky conditions, Olivia feels she is suffocating if she spends more than thirty minutes outdoors. During smoky conditions, Olivia is forced to stay inside and reduce or eliminate the outdoor activities she enjoys. Olivia has been forced to spend recent summers away from Montana due to the smoke-filled air and her asthma.
- b. Olivia suffers from spring pollen allergies, which force her to stay indoors and prevent her from engaging in the recreational activities she enjoys. Olivia's spring allergies cause her eyes to swell shut and can cause eye pain for weeks at a time. Olivia's allergies have become progressively worse in recent years.

c. Olivia is affected emotionally and psychologically by climate change, and experiences bouts of depression when she thinks about the dire projections of the future. Olivia would like to have children of her own, but she questions whether this is an option in a world devastated by the effects of climate change.

- d. Olivia experiences psychological harms and is distressed from day-to-day climate conditions and is anxious about climate change. There are days when Olivia feels paralyzed by the impacts and threats of climate change and she fears that it is too late to address climate change.
- e. For Olivia, climate anxiety is like an elephant sitting on her chest and it feels like a crushing weight. This climate anxiety makes it hard for her to breathe.
 - 202. Plaintiff Claire Vlases is from Bozeman, Montana.
- a. Claire works as a ski instructor at Big Sky Resort, and her ability to earn money is harmed by climate disruption, which is decreasing Montana's winter snowpack and the number of days Claire can work. Claire has been sent home from her job as a ski instructor without working her scheduled shift, and without pay, because of insufficient snow. Claire relies on her income as a ski instructor, so the lost income is a financial hardship for her.
- b. Claire regularly visits Glacier National Park where she loves to hike. Seeing the loss of glaciers in Glacier National Park is terrifying for Claire and reduces her enjoyment of the park. Claire's ability to enjoy hiking in Glacier National Park has also been diminished due to increasing wildfire smoke, which obstructs the beautiful views and is harmful to her health.

- c. Claire has been harmed by the reduced snowpack in Montana and the related impacts to winter sports and tourism.
- d. Claire's ability to run cross-country has been harmed by extreme heat and wildfire smoke. Claire has had cross-country practices cancelled due to dangerously smoky air quality conditions. The heat and smoke make it difficult for Claire to train and compete.
- e. Claire's family has water rights to Bozeman Creek.

 Claire and her family use the water for drinking, plumbing, watering their garden, and all other water needs at their home.
- f. Claire's water security is threatened by Montana's melting glaciers, declining snowpack, and increasing summer drought conditions, which lead to water scarcity and low water levels in Bozeman Creek.
- g. As an individual born with a disability, Claire relies on the outdoors for recreational therapy to replace the physical therapy her insurance stopped providing when she was ten years old. The outdoors helped Claire to grow strong and she continues to rely on activities like skiing, biking, hiking, and running to maintain her physical health. Claire depends on a clean and healthful environment for her physical and mental health and well-being.
- h. Climate change impacts harm Claire's mental health, causing her to feel stress, anxiety, and a sense of helplessness about the future.
- 203. Plaintiff Taleah Hernández is from Polson, Montana, and lives on the Flathead Indian Reservation.
- a. Taleah has been forced to remain inside for extended periods of time during the summer because of poor air quality caused by excessive wildfire smoke. Wildfires have caused Taleah to lose electricity at her

home and forced her to prepare to evacuate her home. The Boulder 2700 fire in 2021, forced Taleah to cut down trees around her property for fire safety.

- b. Taleah works outdoors with horses and other animals. Dangerous air quality conditions created by wildfire smoke have caused Taleah to miss days of work, lose pay, and lose opportunities to ride horses.
- c. Wildfires and wildfire smoke have prevented Taleah from participating in outdoor recreation activities, including hiking and paddleboarding on Flathead Lake.
- d. Changes in weather and climate patterns, including warming winter temperatures, have reduced the number of opportunities Taleah has to ice skate on Flathead Lake in the winter.
- e. Wildfires and wildfire smoke have caused Taleah physical and emotional distress.
 - 204. Plaintiff Eva L. is from Livingston, Montana.
- a. Eva enjoys many outdoor activities, including backpacking, climbing, and cycling, which are central to her family life.
- b. Eva has been harmed by wildfire smoke in Montana on numerous occasions, and Eva has suffered eye, nose, and throat irritation and headaches because of the smoky air.
- c. Eva and her family had a family trip to Glacier National Park negatively impacted by excessive wildfire smoke, which posed risks to Eva's health and safety.
- d. Eva has been harmed by the impacts of extreme flooding. In 2018, flooding along the Shields River damaged a bridge and rendered impassable for more than a year the primary route from Eva's home to

the town of Livingston. A temporary bridge was also washed away due to extreme flooding. Eva's family eventually decided to relocate because of this hardship. Being cut off from town was very stressful for Eva and her family.

- e. Eva moved to Livingston and now lives near the Yellowstone River. Eva feels a strong connection to the river. In 2022, there was major flooding along the Yellowstone River, including in Livingston. [CW-41; JS-11]. Eva helped fill sandbags to hold back the flood waters. [P108, P109]. A park near Eva's home was underwater. [P110]. Eva saw her community and close friends lose property due to flooding.
- f. The 2022 flooding in Livingston caused Eva acute emotional distress, panic, and dread. Parks and other public places she often visits were significantly damaged, preventing her enjoyment of them.
- g. Eva's access to the Yellowstone River in summer 2016 was significantly curtailed, as a 180-mile portion of the river was closed for several weeks due to a parasite growth in cutthroat and rainbow trout perpetuated by abnormally high air temperatures and historically low river flows.
- h. Eva has experienced forced relocation and the loss of ties to the land.
- i. Eva has had her ability to access Montana's rivers for other recreational activities limited due to river conditions.
- j. Wildfire smoke has impacted Eva's ability to hike and spend time outdoors with her family.
- k. Eva is anxious about how she, her family and community can adapt to the devastation of public resources and infrastructure as the impacts of climate change worsen. Eva is increasingly anxious about the

climate change impacts she and her family are experiencing. She is distressed that climate change will worsen if action is not immediately taken.

- 205. Plaintiff Mica K. is from Missoula, Montana.
- a. Rising temperatures and wildfires resulting from climate change make it difficult for Mica to recreate outdoors and participate in activities he loves, and which are important to his health and well-being.
- b. Mica has been forced to spend extended periods of time indoors and has lost school recess time because of wildfire smoke. In 2019, a forest fire started approximately one mile from Mica's home, and Mica is anxious that, as climate change worsens, he may lose his family home.
- c. Wildfire smoke has impacted Mica's training as a long-distance runner. Mica is an avid runner, running his first half-marathon when he was nine. He runs regularly with his dad. Running is a way for Mica to be in nature and relieve stress. Running in smoke makes Mica feel sick, so he cannot run as much due to increasingly smoky summers in Missoula. Smoke has limited Mica's ability to train and compete in sports.
- d. Mica gets frustrated when he is required to stay indoors during the summer because of wildfire smoke.
- e. Mica's family now avoids camping and other outdoor activities in August and September due to wildfire smoke and its negative effect on Mica's health.
- f. Mica was recently diagnosed with exercise-induced asthma, which puts him at greater risk for respiratory hardship when the air is smoky.

	g.	Mica's favorite animal is the pika. Mica understands
the pika is uniquely	vulne	rable to climate impacts, and its survival is in jeopardy
due to climate chan	ge.	
1	h.	Mica's outdoor recreation activities such as enjoying
the views of glacier	s in Gl	acier National Park are disrupted by climate change.
Seeing the glaciers	recede	in Glacier National Park is depressing for Mica.
	i.	Climate change causes Mica to feel anxious, stressed,
and depressed, and	makes	it hard for him to sleep at times.
206.	Plain	tiffs Jeffrey K. and Nathaniel K. are brothers who grew
up in Montana City	, Mont	ana.
'	a.	Jeffrey K. has pulmonary sequestration and is
uniquely susceptible	e to res	piratory complications, such as infections. Nathaniel
K. also has respirate	ory issu	ies. Both Jeffrey and Nate are therefore especially
vulnerable to poor a	ir qual	ity, such as smoke-filled air caused by wildfires. [LB
487:21-488:11, 505	:4-25].	
1	b.	The increasing length and severity of the wildfire
season harms Jeffre	y's and	l Nathaniel's health, especially given their young age
and pre-existing res	pirator	y health conditions. It has forced their family to make
changes in daily act	ivities.	[LB 487:21-488:11, 505:4-25].
207.	Plaint	iffs Ruby D. and Lilian D. are from Bozeman,
Montana. Shane Do	yle is t	heir father and he testified on their behalf.
	a.	Ruby and Lilian are members of the Crow Nation.
Ruby and Lilian rec	ularly	travel to the Crow Reservation to visit family members

a. Ruby and Lilian are members of the Crow Nation.

Ruby and Lilian regularly travel to the Crow Reservation to visit family members and engage in traditional cultural activities.

- b. Ruby's Crow name is Biachəgata, which means "Pretty Woman." Lilian's Crow name is Malesch, which means "Loved by Many."
- c. Abnormal and extreme weather conditions caused by climate change have impacted Ruby's and Lilian's ability to engage and otherwise partake in cultural practices that are central to their spirituality and individual dignity.
- d. Ruby and Lilian visit their family on the Crow Reservation several times a year. Ruby and Lilian attend Crow Fair on the Crow Reservation every year. Crow Fair takes place each August and is a large gathering to celebrate cultural activities and events. Many people, including Ruby and Lilian, stay in teepees. Attending Crow Fair is a highlight for Ruby and Lilian. Ruby and Lilian love dancing at Crow Fair, and enjoy the parades, the rodeo, and doing family events.
- e. In recent years, increasing temperatures at Crow Fair have made it hard to wear traditional regalia and participate in cultural activities because it is dangerously hot, sometimes over 100 degrees.
- f. Wildfire smoke has also made it difficult for Ruby and Lilian to enjoy the Crow Fair.
- g. It is a huge disappointment to Ruby and Lilian when they are unable to dance or participate in other events at the Crow Fair due to heat or smoke.
- h. Crow Fair used to coincide with when chokecherries were ripe, which was important because many meals eaten at Crow Fair involved

chokecherries. In recent years chokecherry harvest has become much harder to predict, and drought has meant there are less chokecherries available for the festival.

- i. Ruby and Lilian pick chokecherries with their family as part of the Crow tradition. They enjoy participating in the process of picking the berries, processing them into syrup, and eating them. But due to drought and heat, fewer chokecherries are available and some stands that usually have berries had none. Increased wildfire frequency has impacted the ability of Ruby and Lilian to participate in these traditional cultural practices.
- j. Ruby was diagnosed with asthma when she was eight years old and had an acute form of pneumonia. As a result, Ruby stays inside when it is smoky, and Lilian often stays inside too. This is a disappointment for Ruby and Lilian.
- k. During the Bridger fire, which burned near Bozeman in 2020, Ruby and Lilian were worried to see a fire so close to their home and it brought up concerns about whether they were safe.
- l. Climate disruption has impacted Ruby and Lilian's outdoor recreation activities, such as rafting, swimming, and floating. Drought has created low river conditions that have impacted Ruby and Lilian's ability to enjoy recreating on the river because it has such low flow.
- m. Ruby and Lilian believe that protecting Montana's environment and natural resources is important because in their culture taking care of the Earth is their responsibility.
- 208. The testimony of the Youth Plaintiffs and their guardian was credible and was undisputed.

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VΤ. **DEFENDANTS' ACTIONS CONTRIBUTE TO CLIMATE** CHANGE AND HARM PLAINTIFFS.

209. Anne Hedges received a B.S. in environmental policy analysis and planning from the University of California at Davis in 1988 and a Master of Environmental Law, magna cum laude, from Vermont Law School in 1993. She is Co-Director and Director of Policy and Legislative Affairs at the Montana Environmental Information Center (MEIC). She directs MEIC's program work, including its legislative, regulatory, policy, and legal activities. She has worked at MEIC since 1993, and her work is focused on pollution-related policy issues in Montana, with a primary emphasis on impacts to air, water, landscapes, and climate from fossil fuels. Ms. Hedges is a wellqualified expert, and the Court found her testimony informative and credible.

210. Peter Erickson received a bachelor's degree in Geology in 1998 at Carleton College, Minnesota, as well as coursework in intermediate microeconomics and macroeconomics at the University of Washington. Mr. Erickson has worked as an environmental and climate policy and technical analyst in greenhouse gas emission accounting, most recently with the Stockholm Environment Institute, an international research institution providing, in part, technical analysis to government and NGOs on the details of climate policy and emissions accounting. Mr. Erickson has served on both national and international committees devoted to GHG emissions accounting; one convened by the International Council of Local Environmental Initiatives (ICLEI) to create a U.S. Community-scale GHG Emissions Accounting and Reporting Standard, and one convened by the Greenhouse Gas Protocol to create the Greenhouse Gas Mitigation Goals Standard. [P192]. Mr. Erickson testified about Montana's fossil

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24 25 fuel consumption, extraction, and infrastructure, focusing on three categories:

- (1) extraction of fossil fuels; (2) processing and transportation of fossil fuels; and
- (3) consumption of fossil fuels by end users. For each of these categories, Mr.
- Erickson quantified the amount of coal, oil, and gas and translated that in units of
- carbon dioxide (CO₂) emissions released from the fuels once they are combusted.
- Mr. Erickson added up all the coal, oil, and gas to determine the emissions
- associated with the extraction, consumption, and transportation of those fuels. In
- his opinion, emissions from Montana's fossil fuel consumption, extraction, and
- infrastructure are globally significant quantities. Mr. Erickson is a well-qualified
- expert, and the Court found his testimony informative and credible.
 - 211. Defendants offered the testimony of Dr. Terry Anderson as
- an expert economist. Purporting to be based on data from the Energy Information
- Agency (EIA), Dr. Anderson provided extremely limited testimony in response
- to three questions: (1) the total greenhouse gas emissions for the world; (2) the
- 2020 greenhouse gas consumption emissions for the state of Montana; and (3) the
- 2022 greenhouse gas consumption emissions for the state of Montana. Dr.
- Anderson's testimony was not well-supported, contained errors, and was not
- given weight by the Court.
 - 212. Defendants permit three types of fossil fuel-related
- activities: (1) extraction of fossil fuels; (2) processing and transportation of fossil
- fuels; and (3) consumption of fossil fuels by end users. [PE 914:12-915:3; PE-9].
 - 213. Fossil fuel consumption includes any combustion, or
- burning, of these fuels, primarily for energy. Fossil fuel extraction is mining,
- pumping, drilling, or otherwise taking fossil fuels out of the ground for purposes
- of making fuels. Fossil fuel processing and transportation are activities that occur

between that initial extraction and combustion by the end user, such as refining, or moving the fuels in bulk from one place to another. [PE 914:14-21; PE-11].

- 214. It is possible to calculate the amount of CO₂ and GHG emissions that results from fossil fuel extraction, processing and transportation, and consumption activities that are authorized by Defendants. [PE 915:13-21; P311; PE-10].
- 215. Data indicates that in 2019, the total annual fossil fuels extracted in Montana led to about 70 million tons of CO₂ being released into the atmosphere once the fuels were combusted, which is higher than many other countries, including Brazil, Japan, Mexico, Spain, or the United Kingdom. [PE 922:23-923:3, 928:18-929:11, 950:13-14; PE-17].
- 216. Data indicates that in 2019, total annual fossil fuels consumed in Montana led to about 32 million tons of CO₂ being released into the Atmosphere.
- 217. In 2019, total annual fossil fuels transported and processed in and through Montana led to at least 80 million tons of CO₂ being released into the atmosphere once those fuels were combusted. [PE 923:19-924:4, 950:14-15]. That is equivalent to all the GHG emissions from Columbia, which has 50 times the population of Montana. [PE 930:11-23; PE-17, PE-20].
- 218. Accounting for overlap among fossil fuels extracted, consumed, processed, and transported in Montana, the total CO₂ emissions due to Montana's fossil fuel-based economy is about 166 million tons CO₂. [PE 924:5-18, 950:16-18; PE-18]. This is a conservative estimate and does not include all the GHG emissions, including methane, for which Montana is responsible. [PE 928:5-9; PE-17].

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- 219. The 166 million tons CO₂ due to Montana's fossil fuel-based economy is equivalent to the emissions from Argentina (with forty-seven million residents), the Netherlands (with eighteen million residents), or Pakistan (with 248 million residents). [PE 931:22-932:9; PE-22].
- 220. In terms of per capita emissions, Montana's consumption of fossil fuels is disproportionately large and only five states have greater per capita emissions. [PE 930:19-23, 938:23-25; PE-25].
- 221. The cumulative CO₂ emissions from all fossil fuels extracted in Montana since 1960 is 3.7 billion metric tons of CO₂. [PE 941:9-19; PE-26].
- 222. Montana is a major emitter of GHG emissions in the world in absolute terms, in per person terms, and historically. [PE 930:19-23].
- 223. Montana has six coal mines that Defendants authorize: Spring Creek Mine, Rosebud Mine, Decker Mine, Absaloka, Bull Mountain, and Savage Mine. [PE 942:16-943:5]. Montana also has the largest estimated recoverable coal reserves in the U.S., and Montana is a substantial exporter of coal. [AH 791:1-25; AH-7-AH-13; PE 946:1-3].
- 224. Montana's annual coal production is 34 million short tons of coal. [PE 946:5-22]. Montana's coal reserves, as of 2019, are 707 million short tons. [PE 945:21-25; PE-37].
- 225. Montana is a substantial producer of oil and gas in the U.S. Defendants authorize the drilling and production of oil and gas in Montana. [PE 932:18-933:5, 949:7-15].
- 226. Montana has approximately 4,000 oil producing wells with an annual oil production of twenty-three million barrels. As of 2019, Montana's oil reserves were 298 million barrels. [PE 946:23-947:8; PE-36, PE-37].

- 227. Montana has approximately 5,000 gas producing wells with an annual oil production of forty-three billion cubic feet. As of 2019, Montana's gas reserves were 613 billion cubic feet. [PE 947:14-19; PE-36, PE-37].
- 228. Between 1960 and 2019 the fastest growing category of fossil fuel consumption in Montana has been gas. [PE 942:11-12].
- 229. Montana is home to four state-authorized oil refineries. [PE 948:22-24, 949:10-15]. Montana's refineries process crude oil largely from Canada and Wyoming and distribute the refined product by railroad and pipeline throughout Montana and to nearby states. [PE 948:17-949:23; PE-38].
- 230. Montana's land contains a significant quantity of fossil fuels yet to be extracted. [Def. Answer, Doc. 54 ¶ 139; PE 945:21-946:4, 947:16-19, 945:1-25].
- 231. Montana's GHG emissions have grown significantly since the passage of the 1972 Montana Constitution. [AH 940:15-941:2; PE-27, PE-28].
- 232. Defendants continue to approve permits and licenses for new fossil fuel activities. [AH 862:1-5; SN 1354:12-16].
- 233. Defendants have authorized fossil fuel extraction, transportation, and combustion resulting in high levels of GHG emissions that contribute to climate change. [AH 831:22-832:1, 846:25-847:11, 845:14-846:3; AH-50-AH-61; PE 932:18-933:5].
- 234. In taking action to authorize fossil fuel extraction, since 2011 Defendants have not considered or disclosed GHG or climate change impacts in their environmental reviews because they were statutorily precluded from doing so. [AH 836:2-13, 845:14-846:3; AH-50-AH-61].

235.	DEQ issues air quality permits to facilities that emit	t GHG
emissions. [AH 788	:13-23; Def. Answer, Doc. 11 ¶ 90].	

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- 236. DEQ has authorized fossil fuel extraction, transportation, and combustion, which generate GHG emissions, contribute to climate change, and harm Plaintiffs. [AH 845:14-846:24; AH-50-AH-61].
- 237. What happens in Montana has a real impact on fossil fuel energy systems, CO₂ emissions, and global warming. [PE 976:8-24; PE-40].

VII. THE MEPA LIMITATION AND ITS IMPLEMENTATION.

- 238. The 2011 MEPA Limitation provided in pertinent part:
- (2)(a) Except as provided in subsection (2)(b), an environmental review conducted pursuant to subsection (1) may not include a review of actual or potential impacts beyond Montana's borders. It may not include actual or potential impacts that are regional, national, or global in nature.
- 239. While this case has been pending, Judge Moses held in *MEIC v. DEQ*:

Here, the plain language of MCA 75-1-201(2)(a) precludes agency MEPA review of environmental impacts that are 'beyond Montana's borders,' but it does not absolve DEQ of its MEPA obligation to evaluate a project's environmental impacts within Montana. DEQ misinterprets the statute. They must take a hard look at the greenhouse gas effects of this project as it relates to the impacts within the Montana borders.

Order on Summary Judgment at 29:3-9, *MEIC v. DEQ*, No. DV-56-2021-1307 (Thirteenth Dist. Ct., April 6, 2023).

240. Eight days after Judge Moses' ruling, on April 14, 2023, HB 971 was introduced in the Montana Legislature. HB 971 was passed, sent to enrolling

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on May 1 and signed by the Governor on May 10, 2023. HB 971 clarifies the MEPA Limitation to say:

- (2)(a) Except as provided in subsection (2)(b), an environmental review conducted pursuant to subsection (1) may not include <u>an</u> evaluation of greenhouse gas emissions and corresponding impacts to the climate in the state or beyond the state's borders.
- (b) An environmental review conducted pursuant to subsection (1) may include an evaluation if:
- (i) <u>conducted jointly by</u> a state agency and a federal agency to the extent the review is required by the federal agency; <u>or</u>
- (ii) the United States congress amends the federal Clean Air Act to include carbon dioxide emissions as a regulated pollutant.

Mont. Code Ann. § 75-1-201(2)(a) (enacted May 10, 2023) (new language underlined).

241. On May 19, 2023, various provisions of MEPA that pertain to legal challenges to MEPA environmental reviews were amended when the Governor signed SB 557 into law. SB 557 created Mont. Code Ann. § 75-1-201(6)(a)(ii), which states:

(ii) An action alleging noncompliance or inadequate compliance with a requirement of parts 1 through 3, including a challenge to an agency's decision that an environmental review is not required or a claim that the environmental review was inadequate based in whole or in part upon greenhouse gas emissions and impacts to the climate in Montana or beyond Montana's borders, cannot vacate, void, or delay a lease, permit, license, certificate, authorization, or other entitlement or authority unless the review is required by a federal agency or the United States congress amends the federal Clean Air Act to include carbon dioxide as a regulated pollutant.

Mont. Code Ann. § 75-1-201(6)(a)(ii) (enacted by SB 557, 68th Legislature (2023)) (signed May 19, 2023).

242. Other components of SB 557 limit who can challenge an agency's final decision, the scope of the challenge, and require challengers to pay a fee to compile and submit a certified record to the reviewing court. [AH 825:4-826:18; AH-45].

- 243. Both the 2011 and 2023 versions of the MEPA Limitation allowed Projects to be permitted without consideration of their impacts that increase emissions of greenhouse gases. [AH 851:9-852:23; AH-51-AH-60].
- 244. The State has known of the dangerous impacts of GHG emissions and climate change for at least the last thirty years. [CW 256:6-15; AH 802:13-18; AH-25, AH-26; P17, P19].
- 245. State government and scientists have known about the international scientific consensus of the dangers posed by climate change since at least the 1990s when the IPCC started issuing climate assessment reports. The State also had access to the congressionally mandated national climate assessments undertaken in 2000, 2009, 2014, and 2017. [SR 139:12-140:1; AH 797:5-798:6, 802:13-18; CW 256:9-24; AH-32, AH-33, AH-34; P28, P262, P263].
- 246. In 2007, Defendants DNRC, DEQ, and the Office of the Governor were made aware of the issues concerning the impacts of climate change in Montana, including rising temperatures, accelerating warming, and reduced snowpack, and the need for Montana to reduce its GHG emissions, as a result of the 2007 Montana Climate Change Action Plan and the 2007 Montana Greenhouse Gas Inventory and Reference Case Projections 1990-2020. [CW 243:14-244:3, 256:19-24; CW-12, CW-13, CW-14; AH 806:17-807:20; AH-35, AH-36, AH-37; P2, P18].

247. In 2017, Defendants DNRC, DEQ, and the Office of the Governor were again informed by the 2017 Montana Climate Assessment of the issues concerning the impacts of climate change in Montana. [CW 243:14-244:3; AH 832:12-24; AH-49; P6].

248. In 2019, when then Governor Steve Bullock promulgated Executive Order No. 8-2019 creating the Montana Climate Solutions Council, Defendants knew that "climate change poses a serious threat to Montana's natural resources, public health, communities, and economy," and "Montanans understand that climate change is occurring and are concerned about the impacts it will have on current and future generations." [AH 832:25-833:6; AH-49; P10].

249. In August 2020, when the Montana Climate Solutions Council released its final report, the Montana Climate Solutions Plan (Climate Solutions Plan), the State knew how climate change was already harming Montana and its residents, through rising temperatures, early snowmelt, earlier spring runoff, flooding, changes in water availability and stream temperatures, increase in forest mortality due to insects, and increasing wildfires. [CW 244: 7-22; AH 833:7-835:10; AH-49; P36].

- 250. The Climate Solutions Plan included thirty-seven recommendations and strategies to reduce Montana's GHG emissions. [AH 833:7-835:10; AH-49; P36]. Defendants have not implemented the recommendations. [AH 835:8-10].
- 251. In 2021, the report Climate Change and Human Health in Montana was distributed to State officials. [CW 245:2-246-1].
- 252. Prior to 2011, Defendants were quantifying and disclosing GHG emissions and climate impacts from fossil fuel projects, including, for

example, the Silver Bow Generation Project, the Roundup Power Project (Bull Mountain), and the Highwood Generating Station. [AH 808:10-19, 808:20-809:18, 809:19-810:24, 811:8-24, 813:6-23; AH-38, AH-39, AH-40; P231, P224, P232, P225, P226, P229, P237].

- 253. Since 2011, because of the MEPA Limitation, Defendants have been statutorily prevented from considering climate change impacts and GHG emissions when conducting environmental reviews. [AH 814:6-21, 816:17-817:14, 818:11-819:10; SN 1361:6-9; AH-42].
- 254. The MEPA Limitation explicitly prohibits state agencies from considering the impacts of climate change and GHG emissions in environmental reviews under MEPA. [AH 814:22-815:9, 816:17-817:14, 818:11-819:10; SN 1361:6-9; AH-42].
- 255. Pursuant to the MEPA Limitation, the State has ignored GHG emissions and climate impacts when authorizing fossil fuels activities. [AH 814:22-815:9, 816:17-817:14, 818:11-819:10; AH-51-AH-60].
- 256. The MEPA Limitation constrains Defendants from making fully informed decisions through their environmental analysis about the scope and scale of the impacts to the environment and Montana's children and youth when conducting environmental reviews. Mont. Code Ann. § 75-1-201(6)(a)(ii) attempts to constrain the authority of courts when reviewing agency permitting decisions and MEPA analyses.
- 257. If the MEPA Limitation is declared unconstitutional, state agencies will be capable of considering GHG emissions and the impacts of projects on climate change. [AH 807:23-808:19, 821:16-25; SN 1437:4-8; P231, P224, P232, P225, P226, P229, P237].

258. Montana's river and lake ecosystems are interconnected with each other, as well as aquatic and terrestrial ecosystems beyond Montana's borders. Because of this interconnectivity to ecosystems both within and beyond Montana's borders, any prohibition on the consideration of either impacts within Montana or regional impacts of climate change, is not scientifically supported. [JS 642:23-15, 646:2-647:2].

259. Defendants' application of the MEPA Limitation during environmental review of fossil fuel and GHG-emitting projects, prevents the availability of vital information that would allow Defendants to comply with the Montana Constitution and prevent the infringement of Plaintiffs' rights. [AH 810:13-24, 816:9-16, 820:16-821:11, 822:1-823:10; AH-51-AH-60].

Montana that emit substantial levels of GHG pollution, including, but not limited to, projects that burn and promote the use of fossil fuels, but pursuant to the MEPA Limitation, Defendants do not consider climate change and GHG emissions and measure those individual and cumulative emissions against the standards the Montana Constitution imposes on the State to protect people's rights, before authorizing energy projects and facilities. [AH 818:25-819:10, 824:8-825:3; AH-51-AH-60].

261. The State issues permits, licenses, and leases that result in GHG emissions without considering how the additional GHG emissions will contribute to climate change or be consistent with the standards the Montana Constitution imposes on the State to protect people's rights. [AH 832:2-11, 841:23-844:9, 843:1-844:5, 844:19-846:3; AH-51-AH-60].

262. The State authorizes four private coal power plants to operate in the State, which generate 30% of Montana's energy production, without considering how the additional GHG emissions will contribute to climate change or be consistent with the standards the Montana Constitution imposes on the State to protect people's rights. [AH 792:1-21].

- 263. The State continues to permit surface coal mining and reclamation in Montana, which results in substantial GHG emissions, without considering how the additional GHG emissions will contribute to climate change or be consistent with the standards the Montana Constitution imposes on the State to protect people's rights. [AH 836:16-846:3; PE 934:14-15].
- 264. The State authorizes, through licenses and leases, the exploration for and extraction of oil and gas in Montana, without considering how the additional GHG emissions will contribute to climate change or be consistent with the standards the Montana Constitution imposes on the State to protect people's rights. [AH 793:6-18, 845:20-846:9].
- 265. Defendants have and continue to authorize projects, activities, and plans that cause emissions of GHG pollution into the atmosphere, all while ignoring the impacts of climate change and GHG emissions due to the MEPA Limitation. [AH 836:16-846:3; AH-51-AH-60; PE 932:18-933:5]. For example:
- a. Defendants authorize and certify energy projects and facilities within the State of Montana that emit substantial levels of GHG pollution, including, but not limited to, projects that burn and promote the use of fossil fuels. [AH 836:16-846:3; PE 932:18-933:5].

- b. DEQ approved the AM4 expansion of Rosebud Strip Mine in December 2015, a 12.1-million-ton coal mine expansion. Pursuant to the MEPA Limitation, DEQ refused to analyze how that decision would aggravate climate impacts. [AH 836:16-837:12; P259, P260, P277; AH-51].
- c. DEQ issued a MSUMRA permit to Bull Mountain Mine in January 2016, authorizing Bull Mountain Mine to produce 176 million tons of coal per year. DEQ refused, pursuant to the MEPA Limitation, to analyze how the decision would aggravate climate impacts. [AH 837:14-838:16; P243, P264; AH-52].
- d. Between 2002 and 2014, DEQ issued twelve different permits for Signal Peak Energy to operate the Bull Mountain Mine. Since 2011, pursuant to the MEPA Limitation, DEQ refused, in its environmental assessments to consider how those GHG emissions would contribute to climate change or adversely impact Montana's environment and natural resources. [P245, P247, P256].
- e. DEQ approved the TR3 expansion of Decker Mine in 2018, allowing for strip-mining of twenty-three million tons of coal. DEQ refused, pursuant to the MEPA Limitation, to analyze how that decision would aggravate climate impacts. [P236, P238, P250, P252, P257-258].
- f. In 2020, DEQ approved revision to Spring Creek Mine, the largest coal mine in the State, allowing for recovery of additional seventy-two million tons of coal. In August 2019, DEQ refused, pursuant to the MEPA Limitation, to analyze impacts on the social cost of carbon and economic impacts from climate change in its EIS. [AH 841:23-842:20; P227, P248, P253, P255; AH-56].

g. DEQ authorized the operation of Colstrip Steam Electric Station—which produced 13.2 million metric tons of carbon dioxide equivalent (CO₂e), 38,015 metric tons methane, and 65,919 metric tons nitrous oxide in 2018. CO₂e is a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP). [P281, P285, P286].

- h. In 2019, when DEQ issued its Record of Decision approving Western Energy's permit application to expand coal mining at Rosebud Coal Mine Area F, where "[t]he proposed mine permit application would add 6,746 acres and approximately 70.8 million tons of recoverable coal reserves to the Rosebud Mine, extending the operational life of the mine by eight years (at the current rate of production)." DEQ, pursuant to the MEPA Limitation, did not consider how those GHG emissions would contribute to climate change or adversely impact Montana's environment and natural resources. [AH 830:25-840:16; SN 1322:21-1323:2; P254, P277, P297; AH-54].
- i. DEQ issued the air quality permit to NorthWestern Energy for the Laurel Generating Station (now named the Yellowstone County Generating Station), a proposed gas-fired power plant. Pursuant to the MEPA Limitation, DEQ, in its environmental assessment, did not consider how the GHG emissions would contribute to climate change or adversely impact Montana's environment and natural resources. [AH 831:9-21, 844:19-845:13; P294; AH-57].
- j. In May 2022, DEQ issued its Final EIS for Rosebud Mine Area B AM5, in Colstrip. Pursuant to the MEPA Limitation, the environmental assessment did not consider how GHG emissions would

contribute to climate change or adversely impact Montana's environment and natural resources. [AH 840:20-841:22; P228; AH-55].

- k. DEQ continues to issue permits for fossil fuel energy projects, including oil and gas pipelines and associated compressor stations, coal mines and coal facilities, oil and gas facilities, oil and gas leases, oil and gas drilling, petroleum refineries, industrial facilities that burn fossil fuels, and fossil fuel power plants. Pursuant to the MEPA Limitation, DEQ does not consider how a proposed project would contribute to climate change or adversely impact Montana's environment and natural resources. [AH 845:14-846:24; PE 949:7-15, 954:2-9; P138, P224, P232, P239, P240, P241, P242, P246, P249, P251, P264, P276, P277, P278, P279, P280, P281, P282, P285-301; AH-58, AH-59, AH-60].
- l. DNRC issues permits for fossil fuel projects, including coal mines and oil and gas extraction. DNRC does not consider how GHG emissions from projects will contribute to climate change or adversely impact Montana's environment and natural resources or violate the Constitution, because of the MEPA Limitation. [P217-217; P233, P234, P235, P265-P275, P283, P284].
- 266. Montana's annual, historical, and cumulative GHG emissions are increased by Defendants' actions to permit and approve fossil fuel activities with no environmental review of their impact on GHG levels in the atmosphere and climate change. [PE 932:18-933:5].
- 267. Defendants' actions cause emissions of substantial levels of GHG pollution into the atmosphere within Montana and outside its borders, contributing to climate change. [SR 164:18-166:16; PE 932:18-933:5].

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268. The State's actions exacerbate anthropogenic climate change and cause further harms to Montana's environment and its citizens, especially its youth. [AH 845:14-846:2; P150].

VIII. THE MEPA LIMITATION PREVENTS FULL REVIEW OF THE TECHNOLOGICALLY AND ECONOMICALLY AVAILABLE ALTERNATIVES TO FOSSIL FUEL ENERGY IN MONTANA.

269. Dr. Mark Jacobson obtained a M.S. in Environmental Engineering, from Stanford University. Dr. Jacobson also obtained both a M.S. and later a Ph.D. in Atmospheric Sciences from UCLA. In 1994, Dr. Jacobson became an Assistant Professor in the Department of Civil & Environmental Engineering at Stanford. Since 2007, he has been a full professor in that Department. Dr. Jacobson was a co-founder and is Director of Stanford's Atmosphere/Energy Program, as well as a Senior Fellow at Stanford's Precourt Institute for Energy, and Stanford's Woods Institute for the Environment. Since 2008, Dr. Jacobson has been Director and Co-founder of The Solutions Project, an organization that utilizes the combined efforts of individuals in the fields of science, business, and culture to accelerate the transition to 100% renewable energy use in the United States. Starting in 1999, Dr. Jacobson began examining clean, renewable energy solutions. In 2015, this research culminated in the development of roadmaps to transition the all-sector energy infrastructures of each of the fifty United States to 100% clean, renewable energy by 2050, which Dr. Jacobson updated in 2022. Dr. Jacobson has published six textbooks of two editions each and over 175 peer-reviewed journal articles. Dr. Jacobson's career has focused on understanding air pollution and global warming problems and developing large-scale clean, renewable energy solutions to those problems. In

this case, Dr Jacobson summarized his research related to Montana and the feasibility of transitioning Montana swiftly from fossil fuels to clean and renewable energy in all sectors by mid-century, where all energy sectors include electricity, transportation, heating/cooling, and industry. Dr. Jacobson is a well-qualified expert, and his testimony was informative and credible.

- 270. The MEPA Limitation causes the State to ignore renewable energy alternatives to fossil fuels. [MJ 1030:7-1032:24, 1035:9-23, 1069:18-1071:8, 1066:6-17, 1067:10-20; MJ-15, MJ-62, MJ-63; AH 823:15-825:3; P312].
- 271. Non-fossil fuel-based energy systems across all sectors, including electricity, transportation, heating/cooling, and industry, are currently economically feasible and technologically available to employ in Montana. Experts have already prepared a roadmap for the transition of Montana's all-purpose energy systems (for electricity, transportation, heating/cooling, and industry) to a 100% renewable portfolio by 2050, which, in addition to direct climate benefits, will create jobs, reduce air pollution, and save lives and costs associated with air pollution. [MJ 1030:7-1032:24, 1035:9-23, 1069:18-1071:8, 1066:6-17, 1067:10-20; P312; MJ-15, MJ-62, MJ-63].
- 272. It is technically and economically feasible for Montana to replace 80% of existing fossil fuel energy by 2030 and 100% by no later than 2050, but as early as 2035. [MJ 1072:4-23, 1100:9-1101:4; P312; MJ-62, MJ-63]. A number of countries around the world with populations far larger than Montana's relied on >95% wind, water, and sunlight (WWS) to power their electricity sectors in 2021. [MJ-44].
- 273. To replace fossil fuel energy, Montana would need to electrify all energy sectors with existing or near-existing appliances and

machines, and then generate the electricity for all sectors with 100% WWS, namely onshore wind, utility-scale photovoltaics (PV), rooftop PV, geothermal power, and hydroelectric power. [MJ 1043:9-1045:8, 1045:15-1047:10; P312; MJ-12, MJ-15, MJ-18, MJ-19, MJ-20, MJ-29].

274. All-purpose Montana energy in 2050 can be met, for example, in one scenario, with 4.5 gigawatts (GW) of onshore wind, 3 GW of rooftop PV, 2.9 GW of utility-scale PV, 0.17 GW of geothermal electricity, and 2.7 GW of hydropower (which already exists). [MJ 1057:2-1058:15; MJ-29].

would eliminate another \$21 billion in climate costs in 2050 to Montana and the world. Most noticeable to those in Montana, converting to wind, water, and solar energy would reduce annual total energy costs for Montanans from \$9.1 to \$2.8 billion per year, or by \$6.3 billion per year (69.6% savings). [MJ-39]. The total energy, health, plus climate cost savings, therefore, will be a combined \$29 billion per year (decreasing from \$32 to \$2.8 billion per year), or by 91%. [MJ 1061:20-1063:24; MJ-15, MJ-39, MJ-40, MJ-41, MJ-42].

276. Wind, water, and solar are the cheapest and most efficient form of energy. Cost per unit of energy in a 100% WWS system in Montana would be about 15% lower than a business-as-usual case by 2050, even when including increased costs for energy storage. New wind and solar are the lowest cost new forms of electric power in the United States, on the order of about half the cost of natural gas and even cheaper compared to coal. [MJ 1045:9-1047:10, 1062:8-1063:24; MJ-20].

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277. According to a 2018 Montana DEQ report, Understanding Energy in Montana, Montana has significant solar energy potential, comparable to many other U.S. cities. [MJ 1086:21-1087:4; P9; MJ-50].

278. The new footprint over land required to implement a 100% renewable energy system in Montana would be only about 0.06% of Montana's land. Utility scale solar would occupy 0.01% of Montana's land (fourteen square miles), while new wind turbines, including the land around those turbines, which could be used for agriculture, open space, or more solar panels, would occupy about 0.05% (seventy-one square miles) of Montana's land. In comparison, Montana's oil and gas wells and associated infrastructure already occupy about 304 square miles of land (0.21% of Montana land area). [MJ 1079:25-1082:3; MJ-46].

279. There is an abundant supply of renewable energy and four ways to store renewable energy: heat storage (in water), cold storage (as ice), electricity storage (pumped hydropower, batteries, hydrogen fuel cells), and hydrogen as a form of storage (for use in long distance transportation and steel production). [MJ 1057:2-15, 1058:5-15, 1072:24-1073:7, 1076:9-1077:22, 1079:22-1082:8; MJ-15, MJ-19, MJ-45, MJ-62].

280. Montana's energy needs in 2050 under a 100% WWS roadmap would decline significantly (over fifty percent) as compared to a business-as-usual energy system due to a mix of gains in energy efficiency in vehicles and appliances, and through eliminating the significant amounts of energy required to extract, transport, and refine fossil fuels. [MJ 1045:9-1047:10; MJ-15, MJ-19, MJ-20, MJ-21, MJ-22, MJ-23, MJ-24, MJ-25, MJ-26, MJ-27, MJ-28, MJ-55].

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281. Transitioning to WWS will keep Montana's lights on while saving money, lives, and cleaning up the air and the environment, and ultimately using less of Montana's land resources. [MJ 1061:4-1062:12, 1066:6-17, 1066:18-1067:20, 1079:22-1082:8; MJ-15, MJ-20-MJ-30, MJ-39, MJ-41, MJ-42, MJ-46, MJ-56, MJ-57, MJ-58, MJ-62].

282. The current barriers to implementing renewable energy systems are not technical or economic, but social and political. Such barriers primarily result from government policies that slow down and inhibit the transition to renewables, and laws that allow utilization of fossil fuel development and preclude a faster transition to a clean, renewable energy system. [MJ 1042:15-1043:2, 1059:9-1061:3, 1100:9-1101:4, 1103:11-1104:24; MJ-15, MJ-19, MJ-20, MJ-33, MJ-35, MJ-36, MJ-38, MJ-62, MJ-63].

283. Montana has abundant renewable energy resources that can provide enough energy to power Montana's energy needs for all purposes in 2050. [MJ 1058:2-15; MJ-15, MJ-19, MJ-29, MJ-30, MJ-46, MJ-47, MJ-48, MJ-50, MJ-61, MJ-62].

IX. THE 1972 MONTANA CONSTITUTION.

284. Mae Nan Ellingson was a delegate to the 1972 Montana Constitutional Convention. Ms. Ellingson's testimony was informative and provided useful context, including on the compilation of the records of the Constitutional Convention proceedings on which Montana courts regularly rely. Ms. Ellingson was elected to the Constitutional Convention as a delegate from Missoula County.

285. The first "delegate proposal" advanced during the Constitutional Convention was for a constitutional provision on environmental quality.

286. Article IX, Section 1 of the Constitution states that "[t]he state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations." This provision came about after long debate to strengthen the environmental article recommended by the Natural Resources Committee by including the words "clean" and "healthful."

March 1, 1972, Vol. V 1230), Ms. Ellingson suggested the "legislature shall provide adequate remedies to prevent" language of Article IX, Section 1 to assure greater protections of the current environment. She believed that if you are trying to protect the environment, you need the ability to sue or seek injunctive relief before the environmental damage is done--paying someone monetary damages after the harm is done does little good. This position was complemented by including the right to a clean and healthful environment in the Declaration of Rights in Article II, Sec. 3 of the Montana Constitution. The decision to include the right to a clean and healthful environment as one of the unalienable rights included in the Bill of Rights passed by a large majority.

288. During the Constitutional Convention, there were concerns among the delegates over the constitutional rights for people under the age of eighteen, and Article II, Section 15 in the Declaration of Rights was included to ensure that Montana's youth have the same fundamental rights as adults. This section was adopted with broad support.

289. Delegates to the 1972 Constitutional Convention intended to adopt the strongest preventative and anticipatory constitutional environmental provisions possible to protect Montana's air, water, and lands for present and future generations.

CONCLUSIONS OF LAW

- 1. To the extent that any of the foregoing Findings of Fact incorporate Conclusions of Law or the application of law to fact, they are incorporated herein as Conclusions of Law.
- 2. This Court has jurisdiction over the parties and subject matter in this case.
- 3. The Conclusions of Law are conformed to the evidence presented at trial by both parties. Mont. R. Civ. P. 15(b)(2). The Court will address the constitutionality of Mont. Code Ann. § 75-1-201(6)(a)(ii), which was enacted by SB 557 and addressed by both parties during trial and in trial briefing. See, e.g., Docs. 390, 402.

I. PLAINTIFFS HAVE PROVEN STANDING.

A. Plaintiffs Have Proven Injury.

- 4. As described in the Findings of Fact, Youth Plaintiffs have experienced past and ongoing injuries resulting from the State's failure to consider GHGs and climate change, including injuries to their physical and mental health, homes and property, recreational, spiritual, and aesthetic interests, tribal and cultural traditions, economic security, and happiness.
- 5. Plaintiffs' mental health injuries directly resulting from State inaction or counterproductive action on climate change, on their own, do not establish a cognizable injury. Steel Co. v. Citizens for a Better Envt., 523 U.S. 83,

107 (1998). However, Plaintiffs' mental health injuries stemming from the effects of climate change on Montana's environment, feelings like loss, despair, and anxiety, are cognizable injuries.

- 6. Every additional ton of GHG emissions exacerbates Plaintiffs' injuries and risks locking in irreversible climate injuries.
- 7. Plaintiffs' injuries will grow increasingly severe and irreversible without science-based actions to address climate change.
- 8. Plaintiffs have proven that as children and youth, they are disproportionately harmed by fossil fuel pollution and climate impacts.
- 9. Plaintiffs have proven that they have suffered injuries that are concrete, particularized, and distinguishable from the public generally.
- 10. Plaintiffs suffer and will continue to suffer injuries due to the State's statutorily mandated disregard of climate change and GHG emissions in the MEPA Limitation, and due to SB 557's removal of MEPA's preventative equitable remedies with Mont. Code Ann. § 75-1-201(6)(a)(ii).

B. Plaintiffs Have Proven Causation at Trial.

- 11. The PSC is exempted from MEPA as a matter of law. Mont. Code Ann. § 75-1-201(3).²
- 12. There is a fairly traceable connection between the MEPA Limitation and the State's allowance of resulting fossil fuel GHG emissions, which contribute to and exacerbate Plaintiffs' injuries.
- disregard of GHG emissions and climate change, pursuant to the MEPA Limitation, GHG emissions over which the State has control, climate change impacts, and Plaintiffs' proven injuries. Unlike in *Bitterrooters Inc.*, the causal

² Hereinafter, when the Court refers to Defendants or the State, the PSC is excluded. Findings of Fact, Conclusions of Law, and Order – page 87 CDV-2020-307

relationship between the permitted activities and the resulting environmental harms is reasonably close. *Bitterrooters for Planning, Inc. v. Mont. Dep't of Envtl.* Quality, 2017 MT 222, ¶ 25, 401 P.3d 712. The State authorizes fossil fuel activities without analyzing GHGs or climate impacts, which result in GHG emissions in Montana and abroad that have caused and continue to exacerbate anthropogenic climate change.

- 14. The Defendants have the authority under the statutes by which they operate to protect Montana's environment and natural resources, protect the health and safety of Montana's youth, and alleviate and avoid climate impacts by limiting fossil fuel activities that occur in Montana when the MEPA analysis shows that those activities are resulting in degradation or other harms which violate the Montana Constitution.
- 15. Montana's contributions to GHG emissions can be measured incrementally and cumulatively both in terms of immediate local effects and by mixing in the atmosphere and contributing to global climate change and an already destabilized climate system.
- 16. Montana's GHG contributions are not *de minimis* but are nationally and globally significant. Montana's GHG emissions cause and contribute to climate change and Plaintiffs' injuries and reduce the opportunity to alleviate Plaintiffs' injuries.

C. Plaintiffs Have Proven Redressability at Trial.

- 17. The psychological satisfaction of prevailing in this lawsuit does not establish redressability. *Steel Co.* at 107.
- 18. Defendants can alleviate the harmful environmental effects of Montana's fossil fuel activities through the lawful exercise of their authority if

they are allowed to consider GHG emissions and climate change during MEPA review, which would provide the clear information needed to conform their decision-making to the best science and their constitutional duties and constraints, and give them the necessary information to deny permits for fossil fuel activities when inconsistent with protecting Plaintiffs' constitutional rights.

- 19. Montana's land contains a significant quantity of fossil fuels yet to be extracted. The State and its agents could consider GHG emissions and climate impacts and reject projects that would lead to unreasonable degradation of Montana's environment.
- 20. A reduction in Montana's GHG emissions that results from a declaration that Montana's MEPA Limitation is unconstitutional would provide partial redress of Plaintiffs' injuries because the amount of additional GHG emissions emitted into the climate system today and in the coming decade will impact the long-term severity of the heating and the severity of Plaintiffs' injuries.
- 21. It is possible to affect future degradation to Montana's environment and natural resources and injuries to these Plaintiffs.
- 22. Permitting statutes give the State and its agents discretion to deny permits for fossil fuel activities. See, e.g., Mont. Code Ann. §§ 75-2-203 and -204 (discretion under Clean Air Act of Montana to prohibit facilities that cause air pollution); § 75-2-211(2)(a) (DEQ to provide rules governing suspension or revocation of air quality permits); § 75-2-218(2) (DEQ has discretion to deny air quality permits); § 75-2-217(1) (DEQ to provide rules governing suspension or revocation of operating permits); 75-20-301 (DEQ can only approve permits for Major Facility Siting Act facilities after considering

numerous discretionary factors, including environmental impacts and public health, welfare, and safety); § 77-3-301 (state lands "may" be leased for coal if "in the best interests of the state"); § 77-3-401 (state lands "may" be leased for oil and gas if consistent with the Constitution); § 82-4-102(3)(a) (stating purpose of surface and underground mining and reclamation laws to vest DEQ with rulemaking authority to "either approve or disapprove" new strip mines or new underground mines); § 82-4-227 (DEQ has wide discretion to refuse mining permits).

- 23. The State must either: 1) have discretion to deny permits for fossil fuel activities when the activities would result in GHG emissions that cause unconstitutional degradation and depletion of Montana's environment and natural resources, or infringement of the constitutional rights of Montana's children and youth; or 2) the permitting statutes themselves must be unconstitutional.
- 24. "[C]ourts should avoid constitutional issues whenever possible." *Park Cnty. Envtl. Council v. Mont. Dep't of Envtl. Quality*, 2020 MT 303, ¶ 54, 477 P.3d 288 (citing *Sunburst Sch. Dist. No. 2 v. Texaco, Inc.*, 2007 MT 183, ¶ 62, 165 P.3d 1079). Under the doctrine of constitutional avoidance, this Court clarifies that Defendants do have discretion to deny permits for fossil fuel activities that would result in unconstitutional levels of GHG emissions, unconstitutional degradation and depletion of Montana's environment and natural resources, or infringement of the constitutional rights of Montanans and Youth Plaintiffs.

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II. MONT. CODE ANN. § 75-1-201(6)(a)(ii) IS NOT A BARRIER TO REDRESSABILITY BECAUSE IT IS FACIALLY UNCONSTITUTIONAL UNDER *PARK COUNTY*.

- 25. Mont. Code Ann. § 75-1-201(6)(a)(ii) eliminates the preventative remedies available to MEPA litigants: vacatur and injunction. The State raised Mont. Code Ann. § 75-1-201(6)(a)(ii) during trial as a barrier to redressability in this case, bringing it before the Court and making the issue unavoidable.
- 26. The Legislature is obligated under Article IX, Sec. 1(3) to provide "adequate remedies for the protection of the environmental life support system from degradation" and "to prevent unreasonable depletion and degradation of natural resources." Mont. Const. Art. IX, Sec. 1(3).
- 27. "MEPA is an essential aspect of the State's efforts to meet its constitutional obligations, as are the equitable remedies without which MEPA is rendered meaningless." *Park Cnty.* ¶ 89.
 - 28. In *Park Cnty*, a unanimous Court reasoned:

Montanans' right to a clean and healthful environment is complemented by an affirmative duty upon their government to take active steps to realize this right. Article IX, § 1, Subsections 1 and 2 of the Montana Constitution command that the Legislature 'shall provide for the administration and enforcement' of measures to meet the State's obligation to 'maintain and improve' the environment. Critically, Subsection 3 explicitly directs the Legislature to 'provide adequate remedies to prevent unreasonable depletion and degradation of natural resources ...

Without a mechanism to prevent a project from going forward until a MEPA violation has been addressed, MEPA's role in meeting the State's 'anticipatory and preventative' constitutional obligations is

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negated. Whatever interest might be served by a statute that instructs an agency to forecast and consider the environmental implications of a project that is already underway—perhaps analogous to a mandatory aircraft inspection after takeoff—the constitutional obligation to prevent certain environmental harms from arising is certainly not one of them.

Id. ¶¶ 63, 72.

- 29. Pursuant to the Court's decision in *Park Cnty.*, Mont. Code Ann. § 75-1-201(6)(a)(ii) is facially unconstitutional because it eliminates MEPA litigants' remedies that prevent irreversible degradation of the environment, and it fails to further a compelling state interest. *Park Cnty.* ¶¶ 63, 69-72.
- III. ALL PLAINTIFFS' CONSTITUTIONAL CLAIMS ARE PREDICATED ON DEGRADATION OF MONTANA'S CLEAN AND HEALTHFUL ENVIRONMENT.
- 30. All of Plaintiffs' claims hinge on whether the MEPA Limitation and Mont. Code Ann. § 75-1-201(6)(a)(ii) violate Mont. Const. Art. II, Sec. 3 and Art. IX, Sec. 1.
- a. The Public Trust Doctrine is already codified in the Montana Constitution in Art. IX, Sec. 3. *Galt v. State*, 225 Mont. 142, 144, 146, 731 P.2d 912, 913, 914 (1987) (citing *Mont. Coal. for Stream Access v. Curran*, 210 Mont. 38, 682 P.2d 163 (1984) and Mont. Const. Art. IX, Sec. 3(3)).
- b. Except for Plaintiffs' mental health injuries resulting from government inaction on climate change, the alleged equal protection, dignity, liberty, and health and safety violations all stem from harm to Montana's environment.

- c. Plaintiffs' mental health injuries resulting from government inaction alone do not establish a cognizable, redressable injury.
- d. It would be impossible for the Court to find that the MEPA Limitation and Mont. Code Ann. § 75-1-201(6)(a)(ii) do not violate Art. II, Sec. 3 and Art. IX, Sec. 1, and then find that the statutes violate the Public Trust Doctrine or the rights to equal protection, dignity, liberty, or health and safety.

PROVISIONS AT ISSUE ARE SELF-EXECUTING IS UNECESSARY TO RESOLVE THIS CONTROVERSY.

- 31. It is possible to resolve this case without determining whether Art. II, Sec. 3 and Art. IX, Sec. 1 are self-executing.
- 32. A determination that a right is non-self-executing "does not end the inquiry. As here, (1) once the Legislature has acted, or 'executed,' a provision (2) that implicates individual constitutional rights, courts can determine whether that enactment fulfills the Legislature's constitutional responsibility." Columbia Falls Elem. Sch. Dist. No. 6 v. State, 2005 MT 69, ¶ 17, 109 P.3d 257 (citing City of Boerne v. Flores, 521 U.S. 507 (1997)).

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"Provisions that directly implicate rights guaranteed to individuals under our Constitution are in a category of their own. That is, although the provision may be non-self-executing, thus requiring initial legislative action, the courts, as final interpreters of the Constitution, have the final 'obligation to guard, enforce, and protect every right granted or secured by the Constitution"

Brown v. Gianforte, 2021 MT 149, ¶ 23, 488 P.3d 548 (citing Columbia Falls Elem. Sch. Dist., ¶ 18 (quoting Robb v. Connolly, 111 U.S. 624, 637 (1884))).

this case "is straightforward: has the Legislature met its obligation to provide adequate remedies with which to prevent potential future environmental harms when it removes what appears to be the *only* available legal relief positioned to do so?" *Park Cnty.* ¶ 78. The MEPA Limitation, especially in conjunction with Mont. Code Ann. § 75-1-201(6)(a)(ii), removes the only preventative equitable relief available to the public and MEPA litigants concerned about GHGs and climate change, which are degrading Montana's environment.

V. THE MEPA LIMITATION IS SUBJECT TO STRICT SCRUTINY.

- 35. Any statute, policy, or rule which implicates a fundamental right must be strictly scrutinized and can only survive scrutiny if the State establishes a compelling state interest and that the action is narrowly tailored to effectuate that interest. *Park Cnty*. ¶ 84.
- 36. The MEPA Limitation is subject to strict scrutiny because it implicates Plaintiffs' fundamental right to a clean and healthful environment.

VI. THE MEPA LIMITATION VIOLATES THE MONTANA CONSTITUTION.

- A. MEPA Limitation violates Plaintiffs' Right to a Clean and Healthful Environment Mont. Const. Art. II, Sec. 3, 15; Art. IX, Sec. 1.
- 37. Montana's Constitution provides: "All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment..." Mont. Const. Art. II, Sec. 3. Consistent with the provision of these rights and responsibilities, the Montana Constitution further provides: "The

state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations." Mont. Const. Art. IX, Sec. 1(1).

- 38. Article II, Sec. 3 and Article IX, Sec. 1 are to be read together, along with the Preamble to Montana's Constitution. *MEIC I*, ¶¶ 65, 77.
- 39. The right to a clean and healthful environment is a fundamental right protected by Mont. Const. Art. II, Sec. 3 and Art. IX, Sec. 1(1). *MEIC I*, ¶ 64.
- 40. Montana's children under age eighteen, have a fundamental right to a clean and healthful environment. Mont. Const. Art. II, Sec. 15. The right to a clean and healthful environment is intended to protect Montana's children and future generations.
- 41. During Montana's 1972 Constitutional Convention, delegates placed significant emphasis on protecting natural resources and improving Montana's environment. The Montana Supreme Court has recognized that "it was agreed by both sides of the debate that it was the convention's intention to adopt whatever the convention could agree was the stronger language." *MEIC I*, ¶ 75 (citing Convention Transcripts, Vol. IV at 1209, Mar. 1, 1972). The Montana Supreme Court has repeatedly found that the Framers intended the state constitution contain "the strongest environmental protection provision found in any state constitution." *Park Cnty.*, ¶ 61.
- 42. The Constitutional Framers "did not intend to merely prohibit that degree of environmental degradation which can be conclusively linked to ill health or physical endangerment." *MEIC I*, ¶ 77. As Delegate Foster noted: "[I]f we put in the Constitution that the only line of defense is a healthful

environment and that I have to show, in fact, that my health is being damaged in order to find some relief, then we've lost the battle." *MEIC I*, ¶ 74 (citing Convention Transcripts, Vol. V at 1243-44, Mar. 1, 1972).

- 43. The right to a clean and healthful environment language in Montana's Constitution is "forward-looking and preventative language" which "clearly indicates that Montanans have a right not only to reactive measures after a constitutionally-proscribed environmental harm has occurred, but to be free of its occurrence in the first place." *Park Cnty.*, ¶ 62.
- 44. The right to a clean and healthful environment requires enhancement of Montana's environment. According to the Constitutional Delegates, "our intention was to permit no degradation from the present environment and affirmatively require enhancement of what we have now."

 MEIC I, ¶ 69 (quoting Convention Transcripts, Vol. IV at 1205, Mar. 1, 1972) (emphasis in original).
- 45. Montanans' right to a clean and healthful environment is complemented by an affirmative duty upon their government to take active steps to realize this right. Article IX, Sec. 1(1) and (2) of the Montana Constitution command that the Legislature "shall provide for the administration and enforcement" of measures to meet the State's obligation to "maintain and improve" the environment. Critically, Subsection 3 explicitly directs the Legislature to "provide adequate remedies to prevent unreasonable depletion and degradation of natural resources." Mont. Const. Art. IX, Sec. 1(3); *Park Cnty.*, ¶ 63.

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- 46. The obligations of the Legislature found in Article IX, Sec. 1 include providing "adequate remedies for the protection of the environmental life support system from degradation." Mont. Const. Art. IX, Sec. 1(3).
- 47. According to Delegate McNeil, "the term 'environmental life support system' is all-encompassing, including but not limited to air, water, and land; and whatever interpretation is afforded this phrase by the Legislature and courts, there is no question that it *cannot be degraded*." *MEIC I*, ¶ 67 (citing Convention Transcripts, Vol. IV at 1201, Mar. 1, 1972) (emphasis in original).
- 48. Montana's constitutional right to a clean and healthful environment prohibits environmental degradation that causes ill health or physical endangerment and unreasonable depletion or degradation of Montana' natural resources for this and future generations:

Our conclusions in *MEIC I* are consistent with the constitutional text's unambiguous reliance on preventative measures to ensure that Montanans' inalienable right to a 'clean and healthful environment' is as evident in the air, water, and soil of Montana as in its law books. Article IX, Section 1, of the Montana Constitution describes the environmental rights of 'future generations,' while requiring 'protection' of the environmental life support system 'from degradation' and 'prevent[ion of] unreasonable depletion and degradation' of the state's natural resources. This forward-looking and preventative language clearly indicates that Montanans have a right not only to reactive measures after a constitutionally-proscribed environmental harm has occurred, but to be free of its occurrence in the first place.

Park Cnty., \P 62.

49. Based on the plain language of the implicated constitutional provisions, the intent of the Framers, and Montana Supreme Court precedent,

climate is included in the "clean and healthful environment" and "environmental life support system." Mont. Const. Art. II, Sec. 3; Art. IX, Sec. 1.

- 50. Montana's climate, environment, and natural resources are unconstitutionally degraded and depleted due to the current atmospheric concentration of GHGs and climate change.
- 51. The right to a clean and healthful environment allows plaintiffs to obtain equitable relief before harm occurs. According to the Supreme Court:

When considering which remedies are 'adequate' in this context, we note that equitable relief, unlike monetary damages, can avert harms that would have otherwise arisen. It follows that equitable relief must play a role in the constitutional directive to ensure remedies that are adequate to prevent the potential degradation that could infringe upon the environmental rights of present and future generations. We are not alone in this conclusion. As Delegate Mae Nan Robinson pointed out during the 1972 Constitutional Convention: if you're really trying to protect the environment, you'd better have something whereby you can sue or seek injunctive relief before the environmental damage has been done; it does very little good to pay someone monetary damages because the air has been polluted or because the stream has been polluted if you can't change the condition of the environment once it has been destroyed.

Park Cnty. \P 64 (citing MEIC I \P 71).

- 52. "The essential purpose of MEPA is to aid in the agency decision-making process otherwise provided by law by informing the agency and the interested public of environmental impacts that will likely result from agency actions or decisions." *Bitterrooters Inc.* ¶ 18.
- 53. "MEPA is an essential aspect of the State's efforts to meet its constitutional obligations." *Park Cnty.*, ¶ 89; § 75-1-102, MCA.

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54. The stated policy of MEPA makes clear that the State should use "all practicable means" "so that the state may: (a) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (b) ensure for all Montanans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (c) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences" § 75-1-103, MCA.

55. By enacting and enforcing the MEPA Limitation, the State is failing to meet their affirmative duty to protect Plaintiffs' right to a clean and healthful environment, and to protect Montana's natural resources from unreasonable depletion.

agencies, officials, and agencies tasked with protecting Montana's clean and healthful environment can consider. The MEPA Limitation conflicts with the very purpose of MEPA, which is to aid the State in meeting its constitutional obligation to prevent degradation by "informing the agency and the interested public of environmental impacts that will likely result" from State actions.

Bitterrooters Inc. ¶ 18; § 75-1-102(1), MCA ("The legislature, mindful of its constitutional obligations under Article II, section 3, and Article IX of the Montana constitution, has enacted the Montana Environmental Policy Act . . . [to] provide for the adequate review of state actions in order to ensure that: (a) environmental attributes are fully considered").

- 57. The plain language of the MEPA Limitation bars agencies from considering GHG emissions and climate impacts for any project or proposal, even to assess whether the project complies with the Montana Constitution.
- 58. The MEPA Limitation is unconstitutionally contributing to the depletion and degradation of Montana's environment and natural resources and contributing to Plaintiffs' injuries. The MEPA Limitation deprives Plaintiffs of their constitutionally guaranteed rights under Mont. Const. Art. II, Sec. 3, and Art. IX, Sec. 1.
- 59. By prohibiting consideration of climate change, GHG emissions, and how additional GHG emissions will contribute to climate change or be consistent with the Montana Constitution, the MEPA Limitation violates Plaintiffs' right to a clean and healthful environment and is facially unconstitutional.

B. The MEPA Limitation Does Not Pass Strict Scrutiny.

- 60. The MEPA Limitation infringes on fundamental rights and must pass strict scrutiny. *Mont. Cannabis Indus. Ass'n v. Montana*, 2012 MT 201, ¶ 16, 366 Mont. 224, 286 P.3d 1161 ("*Mont. Cannabis Indus Ass'n* (2012)"); see also Kloss v. Edward D. Jones & Co., 2002 MT 129, ¶ 52, 310 Mont. 123, 54 P.3d 1.
- 61. Under strict scrutiny, "the government must show that the law is narrowly tailored to serve a compelling government interest." *Mont.*Cannabis Indus. Ass'n (2012), ¶ 16.
- 62. The State failed to show that the MEPA Limitation serves a compelling governmental interest.

	63.	The State did not put forward any evidence of a compelling
governmental	intere	st for the MEPA Limitation.

- Undisputed testimony established that Defendants could 64. evaluate "greenhouse gas emissions and corresponding impacts to the climate in the state or beyond the state's borders" when evaluating fossil fuel activities. Indeed, Defendants have performed such evaluations in the past.
- 65. Undisputed testimony established that clean renewable energy is technically feasible and economically beneficial in Montana.
- 66. Even if the State had established a compelling interest for the statute, the MEPA Limitation is not narrowly tailored to serve any interest.
- The MEPA Limitation neither serves a compelling state 67. interest nor is narrowly tailored and fails strict scrutiny.

ORDER

- Based upon the foregoing Findings of Fact and Conclusions 1. of Law the Court determines and declares that:
- The Youth Plaintiffs have standing to bring the claims 2. addressed herein.
- 3. Montana's GHG emissions have been proven to be fairly traceable to the MEPA Limitation.
- Montana's GHG emissions and climate change have been 4. proven to be a substantial factor in causing climate impacts to Montana's environment and harm and injury to the Youth Plaintiffs.

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- 5. This judgment will influence the State's conduct by invalidating statutes prohibiting analysis and remedies based on GHG emissions and climate impacts, alleviating Youth Plaintiffs' injuries and preventing further injury.
- 6. By prohibiting analysis of GHG emissions and corresponding impacts to the climate, as well as how additional GHG emissions will contribute to climate change or be consistent with the Montana Constitution, the MEPA Limitation violates Youth Plaintiffs' right to a clean and healthful environment and is unconstitutional on its face.
- 7. Plaintiffs have a fundamental constitutional right to a clean and healthful environment, which includes climate as part of the environmental life-support system.
- 8. The 2023 version of the MEPA Limitation, Mont. Code Ann. § 75-1-201(2)(a), enacted into law by HB 971, is hereby declared unconstitutional and is permanently enjoined.
- 9. Mont. Code Ann. § 75-1-201(6)(a)(ii), enacted into law by SB 557 from the 2023 legislative session, is hereby declared unconstitutional and is permanently enjoined because it removes the only preventative, equitable relief available to the public and MEPA litigants.
- 10. In addition to the findings, conclusions, and declarations set forth above, injunctive relief is appropriate, prohibiting Defendants from acting in accordance with the statutes declared unconstitutional.
- 11. Judgment is hereby found in favor of the Plaintiffs as prevailing parties.

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attorneys' fees and costs. (Doc. 1 at 104.). Pursuant to Rule 54 (d), Mont. R. Civ. P., Youth Plaintiffs shall submit their motion for fees and costs and documentation in support of their request for fees and costs, within fourteen days of the date of this Order. Defendants shall have fourteen days thereafter to respond, and shall have the opportunity to request a hearing pursuant to the provisions of Rule 43 (c), Mont. R. Civ. P. The Court reserves jurisdiction to issue its final judgment to include the issue of attorneys' fees and costs.

DATED this ______ day of August 2023.

Kathy Seeley
District Court Judge

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