SLEEPING GIANT
CITIZENS COUNCIL

January 11, 2013

Ken Blodgett
Surface Transportation Board
395 E Street, SW, Washington, D.C. 20423-0001
Environmental filing, Docket No. FD 30186

RE: Scoping Comments and Objections to the Proposed Tongue River Railroad

Mr. Blodgett,

The Sleeping Giant Citizens Council (SGCC) submits the following scoping comments and objections to the Tongue River Railroad Company, Inc.'s (TRRR Inc.) application to construct the Tongue River Railroad (TRRR).

SLEEPING GIANT CITIZENS COUNCIL

SGCC is a non-profit, public interest community organization that works to create change to promote healthy communities by advocating for the sustainable use of our water and land resources in Lewis and Clark, Broadwater, and Jefferson Counties. As an affiliate of Northern Plains Resource Council, we are part of a network of vibrant, active community groups that work at the local level to make Montana an even better place to live, work and raise a family.

SGCC is concerned that the TRRR, while enriching private investors, will entrain numerous negative impacts on public health and wellbeing of the state of Montana and the community of Helena (and similarly situated communities). Pursuant to the National Environmental Policy Act (NEPA) and implementing regulations, the following issues should be closely scrutinized in the EIS for the TRRR.

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) 42 U.S.C. § 4321-4370h is "our basic national charter for the protection of the environment." 40 C.F.R. § 1500.1(a). NEPA

"promotes its sweeping commitment to 'prevent or eliminate damage to the environment' . . . by focusing Government and public attention on the environment effects of proposed agency action." *Marsh v. ONRC*, 490 U.S. 360, 371 (1989). NEPA is an "action forcing" statute, 40 C.F.R. § 1500.1(a), requiring agencies to prepare a "detailed statement" on the environmental impacts of every "major Federal action[] significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). Preparation of such a detailed statement "has twin aims. First, it places upon [a federal] agency the obligation to consider every significant aspect of the environmental impact of the proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in the decisionmaking process." *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1066 (9th Cir. 2002) (citing *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983)). "Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." 40 C.F.R. § 1500.1(c).

NEPA requires agencies to consider connected, cumulative, and similar actions. It also requires agencies to consider direct, indirect, and cumulative impacts that will result from a proposed action. Further, agencies must also consider all reasonable alternatives, including the no action alternative, other reasonable actions, and mitigation measures. 40 C.F.R. § 1508.25(a)-(c).

Under NEPA agencies must "make diligent efforts to involve the public in preparing and implementing their NEPA procedures." 40 C.F.R. § 1506.6(a). Agencies must "affirmatively solicit comments" from the public and "those persons or organizations who may be interested or affected." 40 C.F.R. § 1503.1(a)(4). Furthermore, the agencies must "[h]old or sponsor public hearings or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency" including when there is "substantial environmental controversy" over the proposed project or "substantial interest" in holding hearings. 40 C.F.R. § 1506.6(c). Agencies' duty to actively involve the public in environmental decision-making begins during the scoping phase of the review. 40 C.F.R. § 1501.(7)(a). When "substantial changes" occur in a proposed action, the agency must seek further input from the public. 40 C.F.R. § 1501.7(c).

COMMENTS, ISSUES, AND OBJECTIONS

1. Additional Time for Comments

The scoping process is intended to allow an agency to set the parameters of its subsequent review of a proposed action. 40 C.F.R. § 1501.7. When there are "substantial changes" made to the proposed action, the agency must allow the public to weigh in on those changes prior to determining the scope of the review. 40 C.F.R. § 1501.7(c). Here, less than one month before the end of the public comment period in the scoping process and following both public hearings, the railroad proponents (TRRR

Inc.) submitted a "Supplemental Application," proposing to entirely change the route of the proposed TRRR.[1] Instead of routing the rail line down the Tongue River to Miles City, TRRR Inc. now proposes the "Colstrip Alignment" by which the railroad would veer west to Colstrip to meet an existing spur connecting to Forsythe, Montana. TRRR Inc. should not be able to skirt public participation by making this eleventh-hour major application change. The public should be afforded additional time to comment, as well as additional public hearings at which to speak publicly.

2. Direct, Indirect, and Cumulative Effects

a. Impacts to Helena

A NEPA analysis must specifically address indirect effects of a proposed action. 40 C.F.R. § 1508.27(c)(2). Indirect effects are those effects "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." 40 C.F.R § 1508.8(b).

In its application, TRRR Inc. asserts the TRRR is intended as a means of developing coal resources at Otter Creek. TRRR Inc. estimates that 1.5 billion tons of coal can be strip-mined from the Otter Creek area and then shipped via the TRRR to markets. TRRR Inc. admits that this coal "may find markets overseas."[2] TRRR Inc. asserts that this would result in 26 round trips per week.[3] If, as is likely, this coal travels to coal ports in the Northwest, this would result in approximately eight trains each day traveling through Helena, Montana, and other communities that are also split by railroad tracks. This number would be on top of existing train traffic, and it could also be increased significantly if other coal tracts made accessible for strip-mining by the TRRR are developed. For example, the permit application indicates that the TRRR will have two terminus points, one at the proposed Otter Creek strip-mine and the other terminus point would be along the Tongue River at the cite of the previously proposed Montco Mine.[4] It strains credulity to imagine that the railroad will be built track to that terminus point if it is not reasonably foreseeable that a coal mine will be developed there as well. Thus, it is reasonably foreseeable that construction of the TRRR will induce significant growth in train volumes that cross Montana, cutting through towns such as Helena. As such, the environmental impact statement (EIS) for the proposed line must consider these indirect

[1] *See* TRRR Inc., December 17, 2012, Supplemental Application (Supplemental Application) at 2, http://www.tonguerivereis.com/enviro_review.html (follow "December 17, 2012 Supplemental Application" hyperlink).
[2] Supplemental Application at 20.
[3] Supplemental Application at 17.
[4] Supplemental Application at 3.

effects. The STB has considered similar downline impacts in previous proceedings and should do so again here.[5]

b. Noise

A significant increase in coal train traffic will cause noise impacts from the trains' engines and wheels, and train horns, as well as coupling and de-coupling. *See Mid-States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 534-35 (8th Cir. 2003). Noise pollution "has been recognized as a major threat to human health and well-being."[6] Effects of noise pollution include "increased blood pressure, increased heart rate, vasoconstriction, elevated stress hormones such as epinephrine and cortisol, arrhythmias, ischemic heart disease, and strokes."[7] Noise pollution has been linked to "lower academic achievement in various forms of reading, learning, problem solving, concentration, social and emotional development, and motivation."[8] Noise also has negative impacts on sleep, including "delay in falling asleep, frequent night time awakenings, alteration in sleep stages with reduction of REM sleep, and decreased depth of sleep."[9] Even after people grow accustomed to noise pollution, non-auditory effects continue, causing "increased blood pressure, increased heart rate, vasoconstriction, changes in respiration, and arrhythmia."[10] The decreased alertness associated with poor sleep can lead to accidents, injuries, and death.[11] Noise can also aggravate and intensify mental illnesses, such as depression, mental instability, neurosis, hysteria, and psychosis.[12] Noise pollution also causes hearing impairment, which can cause numerous complications for individuals (e.g., cognition, behavior, social-emotional development, academic outcomes, and vocational opportunities.)[13] Groups that are especially vulnerable to the effects of noise pollution include "neonates, infants, children, those with mental or physical illnesses, and the elderly."[14]

The noise impacts of significantly increased coal-train traffic induced by the construction of the TRRR will negatively impact every town through which the trains pass. Helena will have impacts throughout on the community, and especially on the neighborhoods located closely to the tracks. Additionally, both of Helena's high schools are located in close proximity to the tracks, as are both of Helena's colleges (Carroll College and

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[5] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 55 (2012).
[6] Whatcome Docs. Appendix D: Health Impacts of Noise Pollution, http://www.coaltrainfacts.org/docs/appendix-D.pdf.
[7] *Id.*
[8] *Id.*
[9] *Id.*
[10] *Id.*
[11] *Id.*
[12] *Id.*
[13] Groins & Hagler, Noise Pollution: A Modern Plague, *available at* http://www.nonoise.org/library/smj/smj.htm.
[14] *Id.*

Helena College). A recent study commissioned by the City of Helena, showed that current train noise subjects a central corridor of Helena to noise levels of 80-90 and above.[15] This area includes Carroll College, portions of Memorial Park and Bill Roberts Golf Course, and it boarders the campuses of Capital High School, Helena High School, and Helena College.[16]

Thus, the negative impacts of noise on education will be particularly acute in Helena. The EIS must address these impacts, especially the impacts of the noise on Helena's educational institutions. What are the expected decibel volumes of the trains? Will the trains pass through town in the day or night? How can schools, businesses, and residences protect themselves from the increased noise pollution from these trains? Will the noise impacts be aggravated by the vibrations caused by the same trains? How will these impacts be aggravated? Will the increased noise affect livestock and domestic animals? Who will pay for mitigation measures?

c. Ground Vibrations

Train traffic, especially traffic of 100-plus car coal trains carrying nearly 15 thousand tons of coal,[17] causes ground vibrations. *Mid-States Coal. for Progress*, 345 F.3d at 539. Vibrations from heavy coal trains could cause damage to structures located close to the tracks. Vibrations could also affect people living and working near the tracks. As mentioned above, four educational institutions are located adjacent to or in close proximity to the tracks. The EIS must address the impacts of increased coal train traffic through Helena and other towns on schools (an indirect effect of the TRRR).

d. Traffic

Increased coal train traffic caused by the construction of the TRRR would impact traffic patterns in Helena and other communities. Development (via strip-mining) of the coal reserves at Otter Creek would cause an increase of approximately 8 trains through Helena each day. This is more than a doubling of the current number of 5 coal trains that pass through Helena each day.[18] It is reasonably foreseeable that this number could increase if other existing coal reserves along the Tongue River are also exploited due to construction of the TRRR.

Currently, Helena only has three grade separation crossings and a fourth separated grade crossing outside of town. Six at grade crossings will be significantly impacted as a result of increased coal train traffic: Joslyn Street, Benton Avenue, National Avenue, Montana Avenue, Roberts Street, and Carter Drive. There are many additional at grade crossings

[15] Kadrams, Lee & Jackson, City of Helena: Railroad Quit Zone Preliminary Feasibility Study at app. 7.3-A (March 2011).
[16] *Id.*
[17] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 10 (2012).
[18] *Id.* at 9.

in the surrounding communities outside of Helena. These crossing are integral to the daily commerce of Helena. Benton and Montana Avenues accommodate significant commuter traffic and traffic to Helena's high schools and colleges, which would face numerous delays (with corresponding reductions in economic productivity in community) and accidents (there have been 3 and 5 car/train accidents at these crossing, respectively, over the past three decades, a number that will surely increase with an increase in coal train volumes).[19] Similarly, Carter Drive is an important crossing for freight vehicles. The delay from just the trains associated with the proposed Otter Creek strip-mine would be approximately one hour of delays each day (assuming the trains are approximately 1.5 miles long, travelling at speeds around 35 mph, and additional time for gate closures before and after the train crosses each crossing).[20] Further, if all of the proposed coal export facilities are developed in the Pacific Northwest to ship coal to Asia, then Helena could face up to 33 *additional* coal trains each day by 2022.[21] By the same calculation, this would result in nearly four hours of closures at each crossing each day, every day of the year. This delay will result in lost work hours and increased air pollution from idling traffic. The EIS should analyze and monetize these impacts.

Potential traffic impacts from this increase in coal trains include blocked vehicle traffic crossings and related congestion, as well as increases in traffic accidents, injuries, and deaths. This disruption will be particularly harmful in cases where emergency traffic—ambulance, police, and fire—are delayed or rerouted around blocked at grade crossings. Studies have shown that increased train traffic can result in delayed response time from emergency providers.

The EIS should also thoroughly address mitigation measures that would alleviate these impacts and should impose the cost of those mitigation measures on TRRR Inc. *See infra* part 4.

e. Impacts on Existing Rail Services

Currently, significant amounts of Montana grain moves on the railroads in Montana.[22] Agriculture is among Montana's most significant economic drivers. It is possible and, indeed, likely that increased coal train traffic will negatively impact grain exports from Montana, by congesting existing rail networks and, relatedly, causing freight rates to increase.[23] The Surface Transportation Board (STB) should closely consider these

[19] Kadrams, Lee & Jackson, City of Helena: Railroad Quit Zone Preliminary Feasibility Study at app. 5, 9 (March 2011).
[20] Memorandum from Gibson Traffic Consultants on Cherry Point Export Facility Rail Operations—City of Seattle, to Peter Hahn, Director of Seattle Department of Transportation (Feb. 13, 2012), http://www.coaltrainfacts.org/docs/GTC-Seattle-Traffic-Report.pdf.
[21] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 7 fig. 4 (2012).
[22] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 43 (2012).
[23] *Id.*

indirect effects of permitting the TRRR (what is the extent of this impact? What will the economic implications be? Will jobs be lost as a result? If so, how many and where?). The STB should also consider these impacts in making any determination about the public convenience and necessity for this line.

In addition to the impacts on bulk grain shippers, increased coal train traffic in Montana (as from the TRRR) could potentially impact the existing passenger rail service in Montana.[24] This could result in congestion and delays.[25] Given that many people in Montana rely on this service, these potential impacts should be carefully addressed in the EIS. Additionally, there is significant interest in Montana in restoring passenger rail service through the southern route of Montana, allowing Montanans to travel between Billings and Missoula (and beyond in each direction).[26] Such rail service would be a practical transportation option for Montanans, given that Montanans currently spend over 6% of their income on gasoline.[27] Passenger rail service would also bring tourists to Montana, improving another important aspect of Montana's economy. It is unclear what effect the coal train traffic associated with the TRRR (and connected, cumulative, and related actions, *see* 40 C.F.R. § 1508.25(a)) would have on the possibility of renewed rail service on the southern route in Montana. The EIS should consider this effect, and the STB should consider this effect in making any determination of public need and convenience.

f. Coal Dust

As the STB knows, there is currently significant controversy surrounding the release of coal dust from open-topped coal cars.[28] BNSF itself contends that significant amounts of coal dust are lost from coal cars.[29] Coal dust can clog rail ballast leading to derailments.[30] Additionally, coal dust causes harms to "neighboring streams, people, and communities."[31] The extent of the harm caused by coal dust is not clear. Coal contains numerous toxic constituents, which over time could cause harm to communities and

[24] *Id.* at 46.
[25] *Id.*
[26] *See* National Ass'n of Rairoad Passengers, NARP Vision, http://www.narprail.org/resources/narps-vision-for-the-future.
[27] NRDC, Fighting Oil Addiction: Ranking States' Gasoline Price Vulnerability and Solutions for Change 6 (Nov. 2012), *available at* http://www.nrdc.org/energy/states/files/Oil-Vulnerability-Nov-2012.pdf.
[28] *See, e.g. Arkansas Elec. Coop. Corp.—Pet. for Declaratory Or.*, Doc. No. FD 35305 at 8, Surface Trans. Bd. (Mar. 3, 2011).
[29] *Id.*
[30] *Id.* at 3.
[31] *Id.* at 9.

environmental resources, such as water supplies.[32] The EIS should fully address potential impacts from coal dust and include mitigation measures.

g. Property Values

Recent studies indicate that property values along railroad tracks decrease 5% to 10% with increased train traffic.[33] This is likely the result of the many negative impacts of freight train traffic (noise, vibration, pollution, traffic congestion, as well as stigma and negative perception that affect market dynamics.). Because construction of the TRRR will lead to increased coal train traffic through Helena, the EIS should address the indirect impacts of lost residential and business property value from this increased train traffic. The EIS should also consider what how much this loss of property value will effect local tax receipts.[34]

h. Impacts to Sensitive Areas

Coal trains from the proposed Otter Creek strip-mine, as well as other mines that are reasonably foreseeable upon construction of the TRRR could cross Montana travelling west to ports in Washington, Oregon, and British Columbia. One potential route would be via Great Falls and the "High Line" to Spokane, Washington. Trains on this route would travel along some of Montana's most treasured landscapes and waterways, including Glacier National Park and the Flathead River, one of only two Wild and Scenic Rivers in Montana. The EIS should address potential impacts from coal train traffic to these resources. Potential impacts include pollution from locomotives and coal dust, impacts to wildlife, and potential derailments. *See NWF v. Burlington Northern R.R., Inc.*, 23 F.3d 1508, 1510 (9th Cir. 1994) (derailments of trains near Glacier National Park and subsequent take of endangered grizzly bears); *see also* AP, *Freight Train Derails Near Montana's Glacier Park*, Seattle Times (Mar. 9, 2011) (reporting train derailment near Glacier).[35]

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[32] *See* Bounds & Johannensen, *Arsenic Addition to Soils from Airborne Coal Dust Originating at a Major Coal Shipping Terminal*, Water Air Soil Pollution 185:195-2007 (2007).

[33] *See* Memorandum from Paul Zemtseff, of the Eastman Company, on Increased Coal Train Traffic and Real Estate Values, to Ross McFarland, Climate Solutions 10-12 (Oct. 30, 2012), http://climatesolutions.org/nw-states/coal-train-study; *see also* Simmons & El Jaouhari, *The Effect of Freight Railroad Tracks and Train Activity on Residential Property Values*, Entrepreneur (Summer 2004), *available at* http://www.coaltrainfacts.com/docs/The-effect-of-freight-railroad-tracks-and-train-activity-on-residential-property-values.pdf.

[34] *See e.g.*, Memorandum from Paul Zemtseff, of the Eastman Company, on Increased Coal Train Traffic and Real Estate Values, to Ross McFarland, Climate Solutions 11 (Oct. 30, 2012), http://climatesolutions.org/nw-states/coal-train-study.

[35] *See also* Coal Train Facts, Derailments, http://www.coaltrainfacts.org/key-facts#derail (cataloguing 39 coal train derailments over the past two and one half years).

i. Air Pollution Impacts

The proposed TRRR will result in indirect and cumulative air pollution impacts that must be studied in the EIS. *See e.g.*, *Mid-States Coal. for Progress*, 345 F.3d at 548-50 (STB required to consider indirect air emissions from construction of rail line that would increase supply of low grade coal to power plants); *CBD v. NHTSA*, 538 F.3d 1172, 1215-17 (9th Cir. 2008) (NHTSA required to take hard look at cumulative effects of climate emissions from proposed CAFE standards); *see also* 40 C.F.R. § 1508.7, .8 (defining direct, indirect, and cumulative impacts); CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act* 1 (Jan. 1997).

One principal indirect effect of the construction of the TRRR will be the carbon emissions from burning of the 1.5 billion tons of coal from the Otter Creek coal tracts. "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *CBD*, 538 F.3d at 1217. Indeed, for over a decade CEQ has directed agencies to consider cumulative impacts that contribute to climate change. CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act* at 7, 24 (noting that "the importance of . . . climate change and other cumulative effects problems has resulted in many efforts to undertake and improve the analysis of cumulative effects" and that in evaluating cumulative impacts agencies should address "[r]egional and global atmospheric alterations from cumulative additions of pollutants that contribute to global warming"). Recently, CEQ has provided additional draft guidance to agencies for evaluating climate change impacts. CEQ, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* (Feb. 2010) (hereinafter CEQ, *Draft Guidance*).

Scientific opinion is clear that anthropogenic carbon emissions, principally from combustion of fossil fuels, is causing global temperatures to increase and resulting in considerable negative impacts to humanity and natural systems.[36] Recent reports have emphasized the dire situation of the current climate disruption caused by combustion of fossil fuels and the potentially catastrophic results if drastic reductions in global warming pollution do not occur at a significantly faster pace than our current trajectory:

> We cannot afford further delay further action to tackle climate change if the long-term target of limiting the global average temperature increase to 2ºC, as analysed

[36] National Research Council, America's Climate Choices: Panel on Advancing the Science of Climate Change 21-22 (2010) ("Some scientific conclusions or theories have been so thoroughly examined and tested, and supported by so many independent observations and results, that their likelihood of subsequently being found wrong is vanishingly small. Such conclusions and theories are then regarded as settled facts. This is the case for the conclusions that the Earth system is warming and that much of this warming is likely due to human activities."); *see also, e.g.*, U.S. Global Change Research Program, Global Climate Change Impacts in the United States (2009); Intergovernmental Panel on Climate Change, Climate Change 2007: Synthesis Report.

> in the 450 scenario, is to be achieved at reasonable cost. In the New Policies Scenario, the world is on a trajectory that consistent with a long-term average temperature increase of more than 3.5ºC. Without these new policies, we are on an even more drastic track, for a temperature increase of 6ºC or more.
>
> Four-fifths of the total energy-related CO_2 emissions permissible by 2035 in the 450 scenario are already "locked in" by our existing capital stock (power plants, buildings, factories, etc.). If stringent new action is not forthcoming by 2017, the energy-related infrastructure then in place will generate all the CO_2 emissions allowed by the 450 Scenario up to 2035, leaving no room for additional power plants, factories, and other infrastructure unless they are zero-carbon, which would be extremely costly[37]

Current impacts of climate change from .8ºC (which are becoming readily apparent to lay observers) include "an exceptional number of extreme heat waves around the world with consequential severe impacts," "extreme precipitation," "increased droughts," "negative effects . . . on agricultural production" and reduced economic growth.[38] Impacts in the American west include "declining water resources," increased stresses to agriculture and ranching, destruction of native ecosystems in the Plains region, exacerbated impacts on aging, rural, and Native American communities, reduced snow pack and summer streamflows, increased forest fires and insect outbreaks that harm the forest products industry, rising stream temperatures that are stressing Salmon and other cold water fish species, and sea-level rise affecting coastal areas.[39] If drastic reductions in carbon emissions (and thus drastic reductions in coal consumption) do not occur quickly, all of these impacts are expected to worsen, potentially causing non-linear responses and cascading effects; as global temperatures approach 4ºC, "the risk of crossing critical social system thresholds will grow. At such thresholds, existing institutions that would have supported adaptation actions would likely become much less effective or even collapse."[40]

The EIS for the TRRR must consider the existing impacts of climate change, as well as the indirect and cumulative impacts of the emissions that would result from the construction of TRRR. The EIS should monetize the value of this carbon, and the STB should consider this monetization in making any determination of public necessity and convenience. This is especially important given that, when external costs are

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[37] International Energy Agency, World Energy Outlook 2011: Executive Summary 2 (2011).
[38] World Bank, Turn Down the Heat: Why a 4ºC Warmer World Must Be Avoided, xiv (2012).
[39] U.S. Global Change Research Program, Global Climate Change Impacts in the United States at 123-28, 135-38.
[40] World Bank, Turn Down the Heat: Why a 4ºC Warmer World Must Be Avoided at xvi-xviii.

internalized, coal is extremely expensive and likely has a negative value.[41] The EIS must also consider the cumulative impacts of these emissions over the course of proposed mining, when combined with carbon emissions from around the planet. This analysis should also address potential tipping points and non-linear responses that could result from these additional emissions. Further, the EIS must consider the indirect and cumulative effects of the carbon emissions from the TRRR (and the resultant coal mines and coal consumption) on ocean acidification.[42] The EIS must consider the cumulative impacts of climate disruption on Montana' existing economic drivers: tourism, agriculture, forestry, and fisheries.[43]

In addition to the indirect and cumulative impacts of carbon pollution from the TRRR, the EIS must also consider the impacts from other air pollutants that will occur as a result of the increased coal consumption enabled by the TRRR.[44] Air pollution from Asia returns to the United States in a matter of days.[45] This pollution includes particulate matter, oxides of nitrogen, sulfur dioxides, and mercury. For example mercury pollution from Asian sources has been documented in rivers and mountains in Oregon. The EIS should also quantify and monetize the impacts from the increased (and cumulative) impacts of mercury, a potent neuro-toxin that is especially harmful to children and fetuses.[46]

In addition to the indirect and cumulative air pollution caused by the burning of the coal that the TRRR is being built to access, the EIS must also consider the localized air pollution from the diesel locomotives that would transport that coal through towns throughout Montana, particularly the various non-attainment areas in Montana (including Billings and East Helena) and Class 1 air-sheds (including Glacier National Park,

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[41] Nicholas Z. Muller et al., *Environmental Accounting for Pollution in the United States Economy*, 101 Am. Econ. Rev. 1649, 1664-72 (2011); Epstein et al., *Full Cost Accounting for the Life Cycle of Coal*, Annals N.Y. Acad. Sci. 73 (2011).

[42] World Bank, Turn Down the Heat: Why a 4ºC Warmer World Must Be Avoided at 11-12 (discussing the worsening impacts of ocean acidification).

[43] *See, e.g.*, Isaak, et al., *The Past as Prelude to the Future for Understanding 21st-Century Climate Effects on Rocky Mountain Trout*, 37 Fisheries 542 (Dec. 2012); Mitton & Ferrenberg, *Mountain Pine Beetle Develops an Unprecedented Summer Generation in Response to Climate Warming*, 170 Am. Naturalist 179 (May 2012).

[44] Thomas Power, The Greenhouse Gas Impact of Exporting Coal from the West Coast: An Economic Analysis (2012) (concluding that increased coal exports from the United States will result in increased coal consumption in Asia).

[45] Eric de Place, *Do Asian Coal Plants Pollute America?* Sightline Daily (Apr. 3, 2012).

[46] *See, e.g.*, Bellenger, Economic Benefits of Methylmercury Exposure Control in Europe: Monetary Value of Neurotoxicity Prevention (2012), *available at* http://www.ehjournal.net/content/pdf/1476-069X-12-3.pdf (monetizing impacts of mercury exposure); Mahaffery, *Adult Women's Blood Mercury Concentrations Vary Regionally in the United States: Association with Patterns of Fish Consumption (NHANES 1999-2004)*, 117 Envtl. Health Perspectives 47 (2009).

Montana's wilderness areas, and the Flathead and Northern Cheyenne Reservations).[47] In particular the EIS should closely consider the direct, indirect, and cumulative impacts of diesel exhaust from locomotives that would be transporting coal made accessible by the TRRR. Such exhaust, recognized by the World Health Organization as carcinogenic, could have serious health effects on communities, like Helena, that are divided by railroad tracks.[48] The EIS must determine these impacts in light of worsening air pollution from wildfire in these communities.

j. Economic Effects

The EIS for the TRRR must consider the economic effects of the proposed rail line and reasonably foreseeable coal strip-mining. *See* 40 C.F.R. § 1508.8 (effects include economic effects). This evaluation should consider whether public coal is being sold at or below market rates and the resulting impacts to public revenues.[49] The analysis should also consider whether royalties from the coal sold will be based on values of the coal in the United States or the value of the coal in Asian markets where it is to be sold. The EIS should also consider whether the proposed TRRR and Otter Creek strip-mine will compete with the Western Energy Mine in Colstrip and if so, what the likely effects will be.

k. Threatened and Endangered Species

A number of threatened, endangered, and candidate species live in and around Rosebud and Powder River Counties: pallid sturgeon, least tern, greater sage grouse, sprague's pipit, black-footed ferret, whooping crane, Ute ladies' tresses, and blowout pastemon. The EIS must consider potential direct, indirect, and cumulative impacts from the proposed TRRR and Otter Creek (and other coal mines) would have on these species. Because these species occur in the action area, the STB must consult with the U.S. Fish and Wildlife Services (FWS) to determine whether the TRRR and its direct, indirect, and cumulative effects may result in jeopardy to these species or adverse modification of critical habitat. 16 U.S.C. § 1536(a)(2). Additionally, the EIS must consider (and STB must consult with FWS) how impacts of GHG emissions resultant from the mine will impact other endangered species or critical habitat.

l. Water Pollution

[47] *See* Montana Dep't of Envt'l Quality, Citizen's Guide to Air Quality in Montana, http://deq.mt.gov/airmonitoring/citguide/understanding.mcpx.
[48] Erin Loury, Diesel Exhaust Can Cause Cancer, World Health Organization Says, L.A. Times (June 12, 2012), http://articles.latimes.com/2012/jun/15/local/la-me-gs-diesel-exhaust-causes-cancer-says-world-health-organization-20120615.
[49] *See e.g.*, Tom Sanzillo, The Great Giveaway: An Analysis of the United States' Long-term Trend of Selling Federally-Owned Coal for Less Than Fair Market Value (2012) (finding that public coal has been sold at significantly below market prices costing taxpayers billions of dollars).

The EIS must address any water pollution impacts from the construction and operation of the TRRR and connected actions (such as the Otter Creek strip-mine and downline track improvements). It must also consider whether ground or surface water pollution could result from potential accidents and derailments. The EIS must consider whether NPDES permits are necessary for any of these activities and if so, whether high quality or impaired waters will be affected.

m. Strip-Mining

The proposed Otter Creek strip-mine is a connected action that must be evaluated in the TRRR EIS, *see infra* Part 3, as is the reasonably foreseeable coal mine at the end of Terminus 1 of the TRRR. As such, this EIS must consider the myriad impacts of these mines, including but not limited to damage to ground and surface water, pollution of the Tongue River,[50] impacts from blasting, and growth inducing impacts. Further, the EIS must consider whether the proposed mine complies with the environmental standards of the Surface Mining Control and Reclamation Act (SMCRA), 30 U.S.C. § 1265(b).

n. Historical and Cultural Resources

The EIS must also consider the impacts that the TRRR and the Otter Creek strip-mine (and other related mines) will have on historical and cultural resources to comply not only with NEPA, but also the Archaeological Resource Protection Act (ARPA), National Historic Preservation Act (NHPA), or Native American Graves Protection and Repatriation Act (NAGPRA).

o. Environmental Justice

Coal mining and combustion across the world is associated with social injustice. Social justice impacts of coal include:

> lack of community awareness of damage, distress resulting from concerns and uncertainties about the health impacts of mining-related pollution, . . . the impact of water pollution on securing safe water for drinking, producing food, swimming, and fishing, . . . the cost of environmental damage to communities and society, [the] inability of the community to capture economic benefits, social changes inhibiting the generation of alternative means of economic capital to mining, socio-demographic changes resulting in labour shortages in other industries; reducing access to and affordability of accommodation; increased road traffic accidents,

[50] *See, e.g.*, Woessner et al., *The Impacts of Coal Strip Mining on the Hydrologic System of the Northern Great Plains: Case Study of Potential Impacts on the Northern Cheyenne Reservation*, 43 J. of Hydrology 445 (1979) (analyzing impacts of strip-mining on the Tongue River and surrounding hydrology).

> increased pressure on local emergency services, [and] increases in criminal and other anti-social behaviours.[51]

Native American communities often bear a disproportionate share of industrialization's harmful byproducts, such as resource contamination and resource extraction. These communities often lack the political agency and economic leverage required for effective participation in environmental decision-making processes.

In Montana there has long been a concern that coal development would turn eastern portions of the state into a national "sacrifice zone."[52] Coal development in Montana has historically been focused on and near Indian lands.[53] The Northern Cheyenne tribe has often found its reservation imperiled by coal development. When the tribe sought to obtain legal protections for itself from such development, it has had to defend its actions in court against powerful energy corporations. Its efforts and surprising successes have often resulted despite the involvement of government agencies and not because of it.[54] In addition to the disproportionate impacts to Native American communities, the impacts of coal mining also disproportionately harm local communities that often lack the resources to protect themselves from large corporations. It is to mitigate these historical inequities that agencies now regularly address issues of environmental justice. *See* Executive Order 12898.

Here, the EIS will need to address health problems on the nearby Indian lands and adjacent landowners that may be caused by construction of the TRRR, the Otter Creek strip-mine, and any other reasonably foreseeable strip-mining. The EIS should address impacts from blasting and fugitive dust emissions. These emissions likely contain, among other pollutants, mercury and radiological contaminants. This dust travels off-site and may contaminate residences. The dust may also coat plants used by tribal members for medicinal purposes and grazing of livestock. These impacts must also be quantified with air pollutant emissions from the nearby Colstrip Station. The EIS must address and mitigate any deterioration in air quality that is already being disproportionately experienced by the local populations.

The EIS should also address data from IHS and other medical facilities/agencies on the current health of tribal members on the nearby reservations. This data should be compared to similar national data. Additionally, the EIS must identify any environmental factors that may be contributing to health impacts of tribal members. The EIS should look at statistics on aging tribal populations and as compared to national averages—all related to human health.

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[51] Ruth Colaguiri et al., Beyond Zero Emissions, Health and Social Harms of Coal Mining in Local Communities v (2012).
[52] K. Ross Toole, The Rape of the Great Plains 4 (1976).
[53] *Id.* at 50-68.
[54] *See*, *id.* at 50-52.

The EIS must accurately analyze the impacts from arsenic on local populations, specifically identifying cancer risks.

Due to the complex history of the region and the reliance on coal facilities for jobs, economics and revenue in the region, environmental justice issues also relate to the identification of ways to provide meaningful new economic opportunities/transitions that benefit local communities. Such sustainable economic opportunities should be developed in the alternatives analysis section of the EIS.

The EIS must also address the often invisible impacts of intensive resource development to native cultures. Such invisible impacts include: cultural and life-style losses, loss of identity, health losses, the loss of self-determination and influence, emotional and psychological losses, loss of order in the world, losses of traditional ecological knowledge, and indirect economic losses and lost opportunities for alternative development.[55] The STB should address these issues by directly reaching out to the Northern Cheyenne and Crow tribes. The STB should determine what the central concerns are for the tribes and then construct alternatives that can respond to these concerns.

3. Connected, Cumulative and Similar Actions

Under NEPA, an agency is required to consider connected and cumulative actions and "may" analyze similar actions. 40 C.F.R. § 1508(a). Connected actions are actions that are "closely related and therefore should be discussed in the same impact statement." *Id.* Actions are considered connected if they (1) "automatically trigger other actions which may require environmental impact statements"; (2) "cannot or will not proceed unless other actions are taken previously or simultaneously"; and (3) "are interdependent parts of a larger action and depend on the larger action for their justification." *Id.* Agencies may not "divid[e] a project into multiple 'actions,' each of which individually has a insignificant environmental impact, but which collectively have a substantial impact." The test that courts have established for determining if actions are connected is "whether each of two projects would have taken place with or without the other and thus had independent utility." *Wetlands Action Network v. U.S. Army Corps of Eng'rs.*, 222 F.3d 1105 (9th Cir. 2005). Relevant factors for determining whether actions are connected include, whether the segment (1) "has logical termini"; (2) "has substantial independent utility"; (3) "does not foreclose the opportunity to consider alternatives"; and (4) "does not irretrievably commit federal funds for closely related projects." *Utahns for Better Transp. v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1182-83 (10th Cir. 2002).

Here, the proposed Otter Creek coal strip-mine, as well as other reasonably foreseeable coal development along the Tongue River are connected actions that must be considered in the same EIS as the TRRR. This is because these mines cannot proceed unless the TRRR is built. This point is particularly apparent given that TRRR Inc. specifically

[55] *See* Nancy J. Turner, et al., *From Invisibility to Transparency: Identifying the Implications*, vol. 13 (2008).

includes the proposed Otter Creek mine as the basis for its proposed finding of public convenience and necessity.[56] Because these are connected actions, the State of Montana (the permitting authority for the mine) must be a cooperating agency in this EIS process.

Additionally, numerous coal export terminals proposed in the Northwest are connected actions that must also be considered in this EIS. Given that coal consumption in the United States is currently and rapidly declining and is expected to decline in the near future and not rebound to previous levels for decades[57] and that it is highly unlikely that new coal power plants will be constructed in the United States in the future,[58] the only future for coal from Otter Creek and the TRRR is in Asia. Current export capacity does not exist to transport this coal from the United States. However, numerous coal ports are being proposed in the Northwest to ship this coal to Asia.[59] The corporation seeking to strip-mine Otter Creek (Arch Coal) is also a principal investor in one of these export terminals, the Millenium Bulk Terminals, LLC, at Longview, Washington.[60] Because the TRRR would not be constructed but for the construction of coal export terminals—specifically the terminal at Longview—the EIS must consider these connected actions in the same EIS. The logical termini are the mines (Otter Creek and other mines made possible by the TRRR) and the export terminals; the mines have no independent value (given the declining coal market in the United States) without the export terminals and the railroad tracks, and the TRRR has no independent utility without the mines and the export terminals). It would be wholly improper for federal agencies to segment the environmental analysis of these actions. Accordingly, these actions should be considered in the same EIS.

Other connected actions include rail road upgrades that will be necessary to accommodate the increased coal train traffic made possible by the TRRR. These rail upgrades may not be segmented from this analysis, but must be considered in this EIS.

4. Mitigation

EISs must consider and include mitigation measures associated with any project. 40 C.F.R. § 1502.14(f). A decision document accompanying an EIS must "state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation." 40 C.F.R. § 1505.2(c). "Mitigation and other conditions established in the environmental impact statement or during its review and committed as part of the decision shall be

[56] Supplemental Application at 19.
[57] U.S. Energy Information Administration, Annual Energy Outlook 2013: Early Release Overview 11 (2013), *available at* http://www.eia.gov/forecasts/aeo/er/.
[58] Brad Plummer, *The Big Climate Question: Will the World Build 1,200 New Coal Plants?* Wash. Post (Nov. 20, 2012) (construction of coal plants in the U.S. unlikely).
[59] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 11-18 (2012).
[60] *Id.* at 15.

implemented by the lead agency or other appropriate consenting agency." 40 C.F.R. § 1505.3. The Surface Transportation Board (STB) has previously imposed mitigation requirements on railroads that sought expansions that would, as here, result in increased train traffic.[61] Such mitigation measures have included mitigation downline of the proposed construction projects, where downline communities would not have experienced increased train volume but for the proposed construction project.[62] The STB has also required railroads to pay for significant portions of the cost of mitigation projects.[63]

Here, the STB should consider mitigation measures that address increased noise, vibrations, and traffic disruption in Helena and other communities caused by the coal train traffic that the TRRR would engender. Such mitigation measures would include, but not be limited to, quiet zones, grade separation crossings, and improvements to buildings, homes, and schools to limit impacts from vibrations. The cost of mitigation measures could be quite high. The cost of a quiet zone in Helena would cost between $130 and $1 million.[64] Similarly, a single overpass in Billings would cost around $20 million. In all, infrastructure costs associated with increased coal train traffic from the TRRR as well as existing lines could cost states and local governments hundreds of millions of dollars over the next decade.[65]

The STB should assure that TRRR Inc. pays all, or at least a significant portion (STB has imposed 67% and 78% of costs on other railroads in previous cases) of the costs of mitigation measures. After all, TRRR Inc. will enjoy the profits from the proposed line; the city of Helena and similarly situated towns will not enjoy any—only the negative impacts.

The STB should also require TRRR Inc. to cover any coal cars that run from the TRRR, in order to mitigate the impacts from coal dust, as it appears that new technologies will make it possible to cover coal cars.[66]

CONCLUSION

SGCC looks forward to participating fully in this NEPA process, as we also look forward to the STB's close scrutiny of the misguided and overwhelmingly deleterious project that

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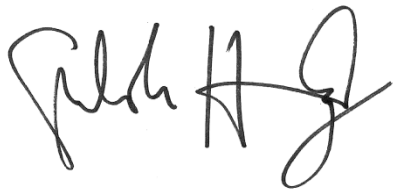
[61] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 52-53 (2012).
[62] *Id.* at 55-56
[63] *Id.* at 57.
[64] Kadrams, Lee & Jackson, City of Helena: Railroad Quit Zone Preliminary Feasibility Study at 17-26 (March 2011).
[65] Whiteside, Frauth, & Streeter, Heavy Traffic Ahead: Rail Impacts of Powder River Basin Coal to Asia by Way of Pacific Northwest Terminals 51 (2012).
[66] Coal Age, *PBR Coal Dust Control—Next Steps Kick Off in 2012* (Jan. 2012), *available at* http://coal.epubxp.com/i/53542/21.

is the proposed TRRR. Please do not hesitate to contact me know if you have any questions about these comments.

Sincerely,



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