

RAE LOVKO 2748 Adeline Street, Suite A Berkeley, CA 94703 Phone: (510) 900-9502 Email: rlovko@greenfirelaw.com www.greenfirelaw.com

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**By Electronic Mail** 

Tracey Ferguson Zoning Administrator 555 Main Street Quincy, CA 95971 <u>TimEvans@countyofplumas.com</u> <u>TraceyFerguson@countyofplumas.com</u>

# RE: Mitigated Negative Declaration 686 for Portola Asphalt Plant Project, Plumas County, California – File No. SDP 8-22/23-01

## Dear Ms. Ferguson:

I represent Feather River Action! ("FRA"), a grassroots organization led by community activists in Plumas and Sierra Counties dedicated to protecting and restoring the Feather River ecosystem. On their behalf, we submit these comments in opposition to the adoption of the Initial Study and Mitigated Negative Declaration ("IS/MND") for a site development permit that would allow an asphalt plant at 7600 Industrial Way, Delleker, California. In addition, we submit "Review of Initial Study/Mitigated Negative Declaration for Plumas County, California," which is a memorandum from Andrew Shapero with Roux, Inc. (hereafter "Shapero Review") that addresses deficiencies of the IS/MND regarding air quality, noise, and hydrology<sup>1</sup>.

FRA's objections challenge the IS/MND based on violations of the California Environmental Quality Act ("CEQA") and Plumas County's General Plan.

# I. The County Must Provide the IS/MND and Notice of Intent to Responsible Public Agencies

A copy of the notice of intent, along with the IS/MND, must be sent to every agency with responsibility or jurisdiction over matters affected by a proposed project. (Guidelines, § 15073(c); see also Pub. Res. Code § 21080.3(a), requiring consultation with responsible and trustee agencies.) Among the agencies that should receive information about the proposed project is the California Department of Transportation ("Caltrans"), which has responsibility or jurisdiction over traffic-related resources and for whom the proposed project is intended to provide asphalt; the Northern

<sup>&</sup>lt;sup>1</sup> This memorandum and Andrew Shapero's professional profile are attached hereto as Exhibits A and B, respectively.

Sierra Air Quality Management District ("NSAQMD"), which has responsibility or jurisdiction over air quality; the California Department of Fish and Wildlife ("CDFW"), which has responsibility or jurisdiction over biological resources; the Plumas-Sierra Rural Electric Cooperative, which has responsibility or jurisdiction for line power available to the project site; the Central Valley Regional Water Quality Control Board, Plumas County Flood Control and Water Conservation District, and Grizzly Lake Community Services District, which have responsibility or jurisdiction over water-related matters; the Eastern Plumas Rural Fire Protection District and California Department of Forestry and Fire Protection ("Calfire"), which have responsibility or jurisdiction for fire protection. The County also must consult the U.S. Forest Service, which is the managing agency responsible for overseeing the Middle Fork Feather River under the Wild & Scenic Rivers Act<sup>2</sup>.

By failing to include these agencies, the requirements of CEQA are violated<sup>3</sup>. Relevant decision-makers must be allowed the opportunity to review and comment on the proposed project. The lead agency cannot evade an EIR due to "its own failure to gather relevant data." (*Id.* at 1378-137, quoting *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 297, 311.)

# II. The IS/MND Fails to Provide an Accurate and Complete Project Description

Initial studies and negative declarations must contain an "accurate and complete" project description. (*El Dorado County Taxpayers for Quality Growth v. County of El Dorado* (2004) 122 Cal.App.4th 1591, 1597; see also CEQA Guidelines § 15063.) Such a description is necessary so that decision-makers and the public are able to assess environmentally significant effects, consider mitigation measures, and evaluate project alternatives. (*Center for Sierra Nevada Conservation v. County of El Dorado* (2012) 202 Cal.App.4th 1156, 1171.) Where an agency fails to provide an accurate and complete project description, a negative declaration is inappropriate. (*Id.; Nelson v. County of Kern* (2010) 190 Cal.App.4th 252, 267.)

Here, the project description is inaccurate and incomplete as it does not clearly define when or how often the project will be in operation. As such, the County has failed to comply with the requirements of CEQA.

The IS/MND contains contradictory and unlimited parameters regarding hours of operation. Initially, the project description states that the asphalt plant will operate for 10 hours per day. (IS/MND at 5.) At other points, the hours of operation are identified as being for 12 hours per day from 6:00 a.m. to 6:00 p.m. (*Id.* at 6, 61.) And at still other points, the IS/MND states that the project "will include periods of nighttime operations when processing equipment and haul trucks will operate 24 hours a day." (IS/MND at 39, 59-60.) The project description also states that the

<sup>&</sup>lt;sup>2</sup> The Middle Fork Feather River is designated as a recreational river area under the Wild & Scenic Rivers Act. Section 10 of the Act requires that it must "be administered in such manner as to protect and enhance the values which caused it to be [designated] without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeologic, and scientific features."

<sup>&</sup>lt;sup>3</sup> CEQA places the burden of environmental investigation on the lead agency and not the public. (See *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1379.) As part of this burden, an agency must comply with legislatively mandated CEQA requirements, which are to be scrupulously enforced. (See Pub. Resources Code, § 21005(a); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 984.) The failure to comply with these requirements is a prejudicial abuse of discretion, and this is so regardless of whether a different outcome would have resulted had the government complied with the law. (See Pub. Resources Code, § 21005(a); *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Rural Landowners Assn. v. City Council of Lodi* (1983) 143 Cal.App.3d 1013, 1022-23.)

plant will "be used on a part-time basis for a period of three years." (IS/MND at 5.) It is estimated the plant will operate for 20 days during the first year and 40 days during the second year, and "operations will be limited to between April and November." (*Id.* at 1, 5.) No information is provided regarding the third year of operation. In fact, the IS/MND explicitly states that operations may occur on "more" or "additional" days. (*Id.* at 5, 59.)

To be clear, no Conditions of Approval have been suggested which would limit plant operations in terms of time, resulting in an inaccurate and incomplete project description<sup>4</sup>. The harm here from a CEQA standpoint is that the County is not analyzing the impacts of the project as put forward for approval–a project whose operations are not limited in time—but instead the analysis focuses on a hypothetical project operating for 20 days during the first year and 40 days during the second year over 10 hour days between April and November<sup>5</sup>. In relying upon this hypothetical, the County is thwarting the ability of decision-makers and the public to properly assess potentially significant impacts of the actual project.

## III. The IS/MND Contains No Enforceable Conditions or Mitigation Measures

CEQA imposes several requirements on project conditions and mitigation measures. When adopting a mitigated negative declaration, "[t]he public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." (Pub. Resources Code § 21081.6(a).) This is to ensure that all such conditions and measures to mitigate are actually implemented and can be enforced. (See Pub. Resources Code §21081.6(a) and (b); Cal. Code Regs., tit. 14, § 15126.4(a)(2); *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 852-853; *Environmental Council of Sacramento v City of Sacramento* (2006) 142 Cal.App.4th 1018, 1035.)

The IS/MND identifies a number of conditions and mitigation measures that impact whether or not the proposed project may cause significant environmental effects, but none of these have been incorporated into Conditions of Approval nor addressed in any monitoring program; therefore, they are not enforceable conditions or mitigation measures. This is in direct violation of CEQA, constituting not only a procedural violation, but also by the County's own analysis, it establishes

<sup>&</sup>lt;sup>4</sup> See Section III, *infra*, for further discussion concerning the need for Conditions of Approval and the effect of failing to provide them. See also Section IV., *infra*, which addresses how the lack of enforceable conditions regarding time of operation creates a fair argument the proposed project may have significant environmental impacts.

<sup>&</sup>lt;sup>5</sup> In examining potential environment impacts, the County must look at the effects associated with the project's reasonably foreseeable uses and operation. (See *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 168.)

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there is a fair argument<sup>6</sup> the proposed project may have significant environmental impacts<sup>7</sup>.

# IV. Deficiencies in the Analysis of Environmental Factors Establishes that CEQA and the County's General Plan Have Been Violated

# A. Aesthetics

The proposed location of the asphalt plant is situated roughly three meters (9.84 feet) from the Middle Fork Feather River. (IS/MND at 13.) In evaluating whether the project will have substantial adverse effects related to aesthetics, the IS/MND acknowledges that the project site is visible from the river but concludes there are less than significant impacts because it is located near other industrial projects. (*Id.* at 9.) In reality, the project site currently serves as a wilderness buffer between those using the river and industrial elements. The following photograph was taken of the Middle Fork Feather River at the proposed asphalt plant site. Clearly, the placement of an asphalt plant within 3 meters of the river will represent a significant change in the visual character of the area.



Plumas County's General Plan requires the County to "encourage the integration of natural

<sup>&</sup>lt;sup>6</sup> A mitigated negative declaration is improper where there is substantial evidence to support a fair argument that a project may have a significant effect on the environment. (See *Sierra Club v. California Dept. of Forestry & Fire Protection* (2007) 150 Cal.App.4th 370, 380-81.) This is a "low threshold" test, demonstrating a preference to resolve doubts in favor of an EIR. (See *id.*; see also *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928.) Substantial evidence "means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. . . .[It includes] facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." (Cal. Code Regs., tit. 14, § 15384.) Lay commentary also may constitute substantial evidence if based on relevant personal observations. (See *Georgetown Preservation Society v. County of El Dorado* (2018) 30 Cal.App.5th 358, 375; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 583.)

<sup>&</sup>lt;sup>7</sup> See Section IV, *infra*, which further addresses how the lack of enforceable conditions or mitigation measures creates a fair argument the proposed project may have significant environmental impacts.

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landscape, such as river streams, lakes, wetlands, and riparian areas, into new development in such a way as to enhance the aesthetic and natural character of individual sites while avoiding the destruction, disturbance, and fragmentation of these natural landscapes." (Conservation and Open Space Element 7.2.14.) Here, the proposed project would debase the aesthetic and natural character of the river, which constitutes an abuse of discretion. (See *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 717-20.)

# B. Air Quality and Odor

In evaluating potential impacts associated with air quality and odor impacts, the County concludes that there are either no impacts, less than significant impacts, or less than significant impacts with mitigation incorporated. FRA objects that the analysis is deficient because no enforceable Conditions of Approval or mitigation measures have been proposed, NSAQMD has not been consulted or provided the opportunity for public comment, the technical report that the County relies upon has flawed methodology and incorrect factual assumptions, and a fair argument exists that the project may have a significant effect on air quality.

# Air Quality Impacts

The IS/MND states that the project "will generate additional particulate emissions." (IS/MND at 20-21.) It concludes, however, that there are less than significant impacts *with mitigation incorporation* associated with (a) the proposed project conflicting with or obstructing implementation of applicable air quality plans and (b) cumulatively considerable net increases of any criteria pollutant for which the proposed project region is in non-attainment. (IS/MND at 12.) The necessary mitigation is identified as dust-controlling Best Management Practices<sup>8</sup>, Mitigation Measures AQ-1 and AQ-2<sup>9</sup>, summer operations<sup>10</sup>, limited-period operations<sup>11</sup>, and emissions

<sup>&</sup>lt;sup>8</sup> CEQA requires that lead agencies provide documentation of the factual basis for the findings in a mitigated negative declaration that a project will not have significant effects on the environment. (See Cal. Code Regs., tit. 14, §§15063(c)(5), 15071(d); *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 171-172.) Here, the County's findings are based, in part, on dust-controlling Best Management Practices being adopted to mitigate environmental impacts; however, nowhere in the IS/MND or RCH Group technical report are "Best Management Practices" identified or defined. As such, the County has violated CEQA's requirements.

<sup>&</sup>lt;sup>9</sup> Mitigation Measure AQ-1 contains five project design elements that address air quality and fugitive dust impacts. Mitigation Measure AQ-2 contains ten regulatory elements that address air quality and fugitive dust impacts. Without an enforceable reporting or mitigation monitoring program being provided, it is unclear how the County will verify their implementation or how they will monitor compliance. For some of the elements, the terms are ambiguous, and it may not be possible to verify their implementation or compliance. (See *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 180, holding that mitigation measures that are too speculative, vague, or noncommittal do not comply with CEQA.)

<sup>&</sup>lt;sup>10</sup> The analysis of environmental impacts on air quality is based upon an air quality technical report compiled by RCH Group. (Appendix B to IS/MND.) This analysis assumes that project operations would be limited to between June and October. (*Id.* at 1, 12, 18.) This is critical to the finding that there will be no significant environmental impacts on air quality because the project would not operate "within the season (i.e., wintertime) in which regional ambient PM10 and PM2.5 concentrations tend to be the highest." (*Id.* at 12.) However, the IS/MND states that the project will be limited to operating between *April and November* – and thus, during the winter. (*Id.* at 5.) Based on this, even if the April–November condition were made enforceable, a fair argument exists that the proposed project may have potentially significant impacts associated with air quality.

<sup>&</sup>lt;sup>11</sup> The air quality technical report bases its analysis on the assumption that the asphalt plant will operate for approximately 60 days over a two-year period, typically five days a week from 6:00 a.m. to 6:00 p.m. (Appendix B at 1.) This is critical to the finding that there will be no significant environmental impacts on air quality. (*Id.* at 12.) But, as there are no enforceable conditions limiting operations to 60 days, and it is acknowledged in the IS/MND that

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limitations imposed by NSAQMD<sup>12</sup>—none of which has been made enforceable through Conditions of Approval, a monitoring program, or otherwise. (*Id.* at 20-21.)

As regards exposing significant receptors to substantial pollution contaminants, the IS/MND concludes that there will be less than significant impacts. No mitigation incorporation is identified as being necessary; however, the discussion section bases this conclusion upon the assumption that project operations will be limited in duration and by season<sup>13</sup>. (*Id.* at 12, 21.) As previously noted, there are no enforceable conditions limiting the project in duration or by season.

In looking at potential emissions from the proposed project, the analysis focuses on the asphalt plant operating for a total of 60 days over two years for 10 hours per day between June through October<sup>14</sup>. As addressed above, there are no enforceable conditions that limit operation in this manner. Indeed, it is assumed that operations will sometimes be for "more" or "additional" days, with operations sometimes occurring up to 24 hours per day. (IS/MND at 5, 39, 59-60.) The failure to address such reasonably foreseeable operations violates the requirements for initial studies under CEQA, and it also results in findings that are incorrect<sup>15</sup>.

The failure to establish enforceable conditions and mitigation measures is a violation of CEQA's requirements. Further, because all of the County's findings regarding environmental impacts are based upon the assumption that there are enforceable conditions and mitigation measures, such failure establishes a fair argument that the proposed project may cause substantial environmental impacts by generating additional particulate matter emissions. In point of fact, if the analysis correctly evaluated impacts based upon the project as proposed, the County would have to conclude that NOx, PM<sub>2.5</sub> and PM<sub>10</sub> emissions exceed the Tier C thresholds established by NSAQMD, resulting in a finding of "significant" rather than "less than significant with mitigation incorporation. (Shapero Review at 2-3.)

### Odor Impacts

The IS/MND states that "[p]otential localized odor sources associated with proposed project

<sup>13</sup> This conclusion also is based on the assumptions that there are no sensitive receptors within 1,000 feet of the project. (IS/MND at 21.) Sensitive receptors are defined as including "residences, schools, parks, childcare centers, hospitals, convalescent homes, and retirement homes." (*Id.*) In the air quality technical report, "[p]ersons engaged in strenuous work or exercise[,] . . . children less than 14 years of age, the elderly over 65 years of age, athletes, and those with cardiovascular and chronic respiratory diseases" also are classified as sensitive populations. (Appendix B at 15.)

It is not correct that there are no sensitive receptors within 1,000 feet of the project. Indeed, in another section of the IS/MND, it is reported that there are residences within 240 feet of the project. (IS/MND at 62.) Furthermore, no consideration is given to sensitive populations using the Feather River, which is within 10 feet of the project site. (*Id.* at 13.) Accordingly, the County has not established a factual basis for its conclusion, and a fair argument exists that the proposed project may cause potentially significant impacts upon sensitive populations.

<sup>14</sup> The technical report relied upon for this analysis uses the months of June through October, while the IS/MND refers to the months of April through November. (IS/MND at 1, 5; Appendix B at 1, 12, 18.)

<sup>15</sup> While CEQA refers to reasonably foreseeable use, NASQMD guidance provides that lead agency "determine potential emissions (in pounds per day) from each project using a reasonable worst-case scenario." (Shapero at 2.)

operations may exceed 12 hours per day, a fair argument exists that the proposed project may have potentially significant impacts associated with air quality.

<sup>&</sup>lt;sup>12</sup> There is no evidence that NSAQMD has been consulted nor that it has been provided the IS/MND, as required by CEQA. (See Guidelines, § 15073(c); Pub. Res. Code § 21080.3(a).) No information is provided in the IS/MND connecting emission standards imposed by NSAQMD with a sufficient reduction in particulate matter emissions such that no environmental impacts exist. Based on this, even if such emissions standards were made enforceable, a fair argument exists that the proposed project may have potentially significant impacts associated with air quality.

operation-related activities could originate from fumes from the asphalt batch plant, asphalt silo, diesel exhaust from off-road haul equipment, and diesel exhaust from incoming and out-going diesel-fueled heavy-duty transport vehicles[,]" however, it nonetheless concludes that the project will have less than significant impacts arising from odor emissions. (*Id.* at 12, 21-22.) No mitigation incorporation is identified as being necessary; however, the discussion section bases this conclusion upon the assumption that the project will not operate during the winter<sup>16</sup>. (*Id.* at 22.) There are no enforceable conditions limiting the project to non-winter months.

The failure to establish enforceable conditions and mitigation measures is a violation of CEQA's requirements. Further, because all of the County's findings regarding environmental impacts are based upon the assumption that there are enforceable conditions and mitigation measures, such failure establishes a fair argument that the proposed project may cause substantial environmental impacts.

# C. Greenhouse Gases

The analysis of greenhouse gas emissions concludes that the proposed project would generate greenhouse gas ("GHG") emissions, but the impacts are less than significant because GHG operational emissions would be approximately 790 and 1,578 metric tons of CO<sub>2</sub> during years 1 and 2 respectively, which is below the significant threshold of 10,000 metric tons of CO<sub>2</sub>. (IS/MND at 45-48; Appendix B at 25.) This assumes that the following equipment would be used on the project: one 300 horsepower water truck, two 300 horsepower dozers, asphalt plant, lime mix plant, wash plant, and one 400 horsepower diesel generator. (IS/MND at 45.) It further assumes that the project is limited in time, which has not been made an enforceable condition. (*Id.*) And, it also supposes

<sup>&</sup>lt;sup>16</sup> The air quality technical report states that "[a]sphalt batch plants are considered to have potentially significant impacts on receptors located within one mile. The site is located in a generally rural area surrounded by open space; the nearest residential receptors are located approximately 1,600 feet (0.30 mile) to the southwest of the asphalt plant. Notably, the primary wind direction is from the southwest. Therefore, the primary wind direction is from the residences towards the project site." (Appendix B at 16.) As previously addressed, residences are within 240 feet of the project-not 1,600 feet. And, those using the Feather River will be within 10 feet of the project site. As regards wind direction, the report relies upon a windrose from the Truckee Tahoe Airport-which is over 50 miles away from the proposed project site. Even if this windrose were relevant, it shows that the wind also travels from the northeast at times, and this was not analyzed. Specific to Plumas County's Portola Valley, the report states "the wind direction is predominately from the southwest (April through October) and northeast (November through March). Winds tend to be higher during the spring (February through June) with average wind speeds of more than 8.6 miles per hour and lighter winds during the summer/fall (July through February) with an average hourly wind speed of 7.3 miles per hour." The IS/MND contains no enforceable conditions limiting the proposed project's operation to any particular months, although it refers to operations occurring between April and November. (Id. at 5.) Even if the operations were properly limited to April through November, at least one month of operation would occur when the winds are predominantly from the Northeast. This was not considered in the technical report's analysis.

The air quality technical report's conclusions regarding air quality and odor impacts also is based upon seasonal inversion conditions. "Inversion conditions may also result in elevated particulate matter concentrations and odor impacts due to air stagnation. The proposed project would operate from June through October, which is not typically the season associated with inversion conditions (i.e., occur during wintertime). Given that the proposed project would not operate during the months when inversion condition is more common, the likelihood of elevated particulate matter concentrations and odor impacts due to the proposed project would be reduced." (*Id.* at 18.) The IS/MND contains no enforceable conditions limiting the proposed project's operation to any particular months, although it refers to operations occurring between April and November. (*Id.* at 5.) Even if the operations were properly limited to April through November, at least one month of operation would occur when inversion conditions are present. This was not considered in the technical report's analysis.

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that there will be a maximum of 150 truck round trips per day<sup>17</sup>, with a total of 2,000 truck trips and 4,000 truck trips during years 1 and 2 respectively. (*Id.*) Again, nothing in the administrative record establishes an enforceable condition limiting truck trips as assumed, and the proposed project admits that there will be periods of time when "haul trucks will operate 24 hours a day." (IS/MND at 60.) This reasonably foreseeable operation of the project, with all of its facilities and equipment, must be included in analyzing potentially significant environmental impacts. Using the studies own formulas for calculating GHG emissions, such an analysis would show that the proposed project may cause potentially significant environmental impacts. (Appendix B at A1-A8.)

# D. Energy

The County concludes that there is a less than significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources associated with the proposed project. (IS/MND at 39.) This is based on the assumption that the electricity onsite will be provided by Plumas-Sierra Rural Electric Cooperative ("Cooperative") and supplemented by diesel generators. (*Id.*) This assumption is not borne out by the administrative record, and there are no enforceable conditions regarding the provision of electricity for the proposed project.

Nothing in the administrative record establishes that the Cooperative can or will be able to provide the requisite energy needed for the proposed project. There is no evidence that the Cooperative has even been consulted regarding the matter. No enforceable conditions are stated within the IS/MND which would require that electricity be provided by the Cooperative or that would limit the use of the project generator.

Because of this, it is foreseeable that all electricity will be provided by a generator, and as there is no limit to the number of days that the project may operate, generator use is equally unlimited. Such use would undoubtedly be wasteful, inefficient, and unnecessary, and thus a fair argument exists that the project may have a significant environmental effect.

The analysis also concludes that the proposed project will not go against the County's General Plan. (*Id.* at 39-40.) That Plan contains several goals related to energy which promote the development and use of renewable energy resources and cooperation with utilities. (*Id.*) Obviously, full reliance on a diesel generator flies in the face of renewable energy. Similarly, the failure to consult with the Cooperative does not satisfy the County's goal of cooperation.

# E. Noise

"Noise generating activities proposed on the project site include operation of a diesel generator, asphalt plant operation, wash plant operation and loading and hauling of material." (IS/MND at 58.) In analyzing noise levels, the IS/MND focuses on levels experienced by residences located 240 and 700 feet away from project operations. (*Id.* at 62.) It fails to determine levels for those using the river, who would be within 10 feet of the project site. (*Id.* at 13.) Using the data relied upon by the County, the project has the potential to exceed normally acceptable noise levels. (*Id.* at 60-61; *see also* Shapero Review at 5-6.) Front-end loaders/excavators can produce maximum noise levels of 86 to 90 dBs, generators can produce 71 to 87 dBs, haul trucks can produce 83 to 94 dBs, and the asphalt plant would produce 85.6 to 87.5 dBs. (IS/MND at 61-62.) In analyzing noise impacts, decibel levels also should be weighted higher or corrected for night-time occurrences, outdoor residual levels, and where the noise is of pure tone or has an impulsive character–which the County has not done. (Shapero Review at 5.) Thus, a fair argument exists that the project may have

<sup>&</sup>lt;sup>17</sup> It appears calculations of GHG emissions actually only considered 100 truck round trips per day. (Appendix B at A-1.)

a significant environmental effect associated with noise.

Despite this, the IS/MND reports a less than significant impact *with mitigation incorporated* as regards the generation of substantial temporary or permanent increases in ambient noise levels. The mitigation alluded to is Mitigation Measures N-1 and N-2, which have not been made enforceable terms of the proposed project. Further, even if a monitoring program were adopted to include these measures, they are so ambiguous as to make it impossible to verify compliance with and/or would not actually lower noise levels to a less than significant level.

N1 focuses on the maintenance of project equipment, stating that "[a]ll equipment will be properly maintained and equipped with noise control, such as mufflers, in accordance with manufacturer's specifications." (IS/MND at 63.) The noise levels generated by the proposed project are not a result of improperly maintained equipment, and as such, this measure does not mitigate the effects of noise generated by the proposed project. N2 focuses on noise reduction measures associated with project operation, which include "[1] Electricity will be used to power processing and plant equipment as feasible. The use of an electric motor on the asphalt plant could result in a 5 to 10 dB reduction in noise levels compared to a diesel engine (BSI 2014)<sup>18</sup>. [2] Unnecessary revving of engines will be avoided, and equipment will be switched off when not required. [3] Rubber linings will be used in chutes and dumpers to reduce impact noise." None of these actually provide for measurable noise thresholds, no nexus is established between their implementation and a reduction in noise levels sufficient to conclude less than significant environmental impacts, and the terms are ambiguous as to "feasible," "unnecessary," and "rubber linings."

# F. Hydrology

The IS/MND finds either no impact or less than significant impacts regarding hydrology. (IS/MND at 52.) The County proposes to obtain regulatory stormwater compliance coverage under the General Permit for Storm Water Discharges Associated with Industrial Activities (also known as the "IGP") and proposes to comply with "all requirements, provisions, limitations, and prohibitions in the permit to control pollutants in stormwater discharged from the project site." (*Id.* at 52.) Also, the findings are based on the creation of a berm to prevent flooding and subsequent transport of facility-related contaminants into the river. (*Id.* at 52-54; Shapero Review at 6-7.) These conditions have not been made enforceable through Conditions of Approval, a mitigation monitoring program, or otherwise. Also, the Middle Fork Feather River, which is located less than 10 feet from the project site, is a 303(d) impaired water–a fact which is not mentioned anywhere in the IS/MND, and stormwater compliance for impaired water contains additional requirements–none of which are addressed in the IS/MND. (Shapero Review at 6.)

Notably, the IS/MND fails to acknowledge the infeasibility of complying with some of the IGP requirements:

During a flood event, the facility would be required to "divert run-on and storm water generated from within the facility away from all stockpiled materials." According to Figure 7 of the Initial Study, almost the entire parcel is on a 100-year flood plain. Figure 2 of Appendix B of the Initial Study shows that the proposed stockpile area is in the part of the parcel closest to the river and that the proposed stockpile area is several acres. The proposed stockpile area is larger than the area that is not in a 100-year flood zone. As such, compliance with the requirements to prevent contact between run-on/stormwater and stored materials will be difficult because they do not appear to have the necessary space to do so, if the need arises when the stockpile area is full.

<sup>&</sup>lt;sup>18</sup> See Section IV.D. *supra*, which addresses the proposed project's supply of energy.

Vestra [the author of the IS/MND] has provided few details on how stormwater compliance will be achieved. To obtain regulatory stormwater compliance coverage, Vestra will be required to first develop a Stormwater Pollution Prevention Plan (SWPPP). Vestra should be required to provide more details in the proposed facility SWPPP. However, the details provided from the Initial Study suggest the plan for stormwater regulatory compliance is inadequate. For example, one proposed engineering control for stormwater pollution prevention is a berm that is sized far too small. Figure 2 of Appendix B of the Initial Study shows that a 2 foot berm will be constructed. However, this berm is unlikely to be sufficient to prevent flooding and subsequent transport of facility-related contaminants into the river. The base of the berm is proposed to be between 4810' and 4815' elevation, whereas the flood plain elevation is shown in Figure 3 of Appendix A to be at least 4821'. Thus, the information provided by Vestra in the Initial Study demonstrates that the area of the proposed stockpile could be flooded up to 10 feet, where Vestra proposed a 2-foot berm for pollution prevention.

One proposed administrative control for regulatory stormwater compliance is that the facility operating season is not during typical local flood season. Vestra states that "All feedstock materials will be removed during the winter when storm events are most likely to occur." However, this statement conflicts with actual proposed operations and rain patterns. Specifically, Appendix B of the Initial Study indicates that most rainfall occurs between October and April. 29 The plant is proposed to operate during three rainy season months: October, November, and April. Thus, Vestra's Initial Study does not provide a reliable basis to conclude the proposed facility can feasibly manage stormwater compliance.

## (Shapero Review at 6-7.)

Plumas County's General Plan requires the County to "only permit new development within stream corridors when there is no lesser environmentally damaging feasible alternative and where the best feasible mitigation measures have provided to minimize adverse environmental effects." Here, the County has failed to address lesser environmentally damaging feasible alternative, and there are no enforceable or feasible mitigation measures identified which minimize adverse environmental effects. (See *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 717-20.)

## G. Biological Resources

The proposed project is reported to cause less than significant impacts *with mitigation incorporated* as regards substantial adverse effects on special-status species, which include the Willow flycatcher, Sierra Nevada yellow-legged frog, Western bumble bee, Sheldon's sedge, Lenspod milk-vetch, and Santa Lucia dwarf rush. (IS/MND at 26, 33.) The mitigation measures include Mitigation Measures BIO-1 through BIO-3, which have not been made enforceable terms of the proposed project. As such, CEQA's procedural requirements have not been met, and a fair argument exists that the proposed project may cause significant impacts on these species.

No impact is reported as regards substantial adverse effects on identified species or on any riparian habitat or other sensitive natural communities; no impact is reported as regards substantial adverse effects on state or federally protected wetlands. (*Id.* at 26.) However, these findings are based on the belief that silver sage wet shrubland will not be disturbed by the proposed project, and all riparian habitats will be avoided due to the wetland/riparian buffer situated between the Middle Fork Feather River and project site. (*Id.* at 35.) Nothing in the project design nor in any enforceable conditions or mitigation measures establishes that this belief is warranted. Further, the Middle Fork Feather River's classification as a 303(d) impair water already recognizes that fish are being

impacted by pollutants—and the proposed project will only add to this, resulting in substantial adverse effects on fish populations and riparian habitat.

The IS/MND also concludes that the proposed project will avoid disturbance to the Middle Fork Feather River and surrounding riparian and wetland vegetation so no impact to fish passage or migration will occur. (*Id.* at 36.) As addressed above, in Section IV.F, stormwater run-off from the project site into the river is likely. As such, there is a fair argument that a substantial impact exists in this regard.

Plumas County's General Plan requires the County "to avoid or minimize adverse impacts to threatened, rare, or endangered species and critical, sensitive habitat, as defined by appropriate local, state, and federal agencies, through proper project location and design. In the event that avoidance is not feasible, the County shall require a "no-net-loss" of these sensitive natural plant or habitat communities." (Conservation and Open Space Element 7.2.2; see also Conservation and Open Space Element 7.2.3, requiring development restrictions to avoid significant interference with the wildlife habitat.) Because nothing in the project design, enforceable conditions, or enforceable mitigation measures ensures that special-status species will be protected, the County has not adhered to the General Plan, which constitutes an abuse of discretion. (See *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 717-20.)

# H. Cultural Resources

In its examination of cultural resources, the IS/MND states that the California Historical Resources Information System Northeast Information Center "recommends that a professional archeologist be contacted prior to ground disturbance as there is a potential for the discovery of additional resources. At this time, snow cover is such that an archeological survey is not possible. However, a pedestrian survey will be conducted by a professional archeologist prior to the initiation of project activities." (IS/MND at 38.) There is no condition identified to enforce this survey; therefore, it is not enforceable. Accordingly, FRA requests that an enforceable condition be added providing for an archeological survey prior to the initiation of project activities.

# I. Transportation

The IS/MND analysis regarding traffic from haul trucks assumes:

[t]he asphalt plant is anticipated to operate between April and November for a period of 20 to 40 days over the course of two years. As such, there will be significant periods with no traffic impacts and short project periods with traffic impacts. The estimated project condition is that 'no hauling' (i.e., no truck trips) will occur on approximately 325 days for each year. The estimated project condition is a maximum of 300 one-way truck trips per day (150 round-trip truck trips) during the limited days on which the plant will operate. Travel will be from the asphalt plant to Highway 70 for a 40-mile round trip.

(IS/MND at 69.) As has been repeatedly noted, there are no Conditions of Approval that limit traffic to these parameters. Instead, it is reasonably foreseeable that there will be more than 150 round-trip truck trips per day, especially on those occasions when operations occur 24 hours per day. It also is reasonably foreseeable that the project will occur for "more" or "additional" days beyond the 20 to 40 days mentioned.

The IS/MND acknowledges that a traffic impact study must be completed when a project:

1. Generates over 100 peak hour trips assigned to a state highway facility

2. Generates 50 to 100 peak hour trips assigned to a state highway facility - and, affected state highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").

3. Generates 1 to 49 peak hour trips assigned to a state highway facility - the following are examples that may require a full TIS or some lesser analysis:

- a. Affected state highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
- b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).

c. Change in local circulation networks that impact a state highway facility (i.e. direct access to a state highway facility, a non-standard highway geometric design, etc.).

(*Id.* at 68.) No attempt was made, however, to assess whether the project, as currently posed, implicates any of these situations, and as there are no enforceable limits on the number of peak hour trips generated by the project, it is likely that such analysis would lead to the conclusion that a traffic impact study must be completed.

# J. Utilities and Service Systems

The IS/MND states that the project is within the service areas of the Eastern Plumas Rural Fire Protection District, Plumas County Sheriff's Department, Plumas-Sierra Rural Electric Cooperative, Intermountain Disposal, and Grizzly Lake Community Services District. As such, these entities should have been consulted and provided copies of the IS/MND. There is no indication that this has occurred.

The IS/MND concludes less than significant impacts resulting from construction of new water, stormwater drainage, or electrical power because

a SWPPP will be developed for the site prior to installation and operations. Electricity onsite will either be produced by diesel generators or purchased from Plumas-Sierra Rural Electric Cooperative. A powerline extends over the railroad tracks and may provide electricity without requiring modification to the existing utility. Water for operations and dust suppression will either be supplied by Grizzly Lake Community Services District or diverted from the Middle Fork Feather River. . . . Any necessary upgrade or expansion of utility and service access will comply with federal, state, and local regulations.

(IS/MND at 73-74.) As addressed above regarding Hydrology, it is unlikely that a SWPPP can be developed which would adequately address stormwater drainage, and as addressed above regarding Energy, nothing in the administrative record supports the assumption that powerline energy is available or that the at-issue powerline could be extended without requiring modification to the existing utility. Additionally, the administrative record does not contain any factual basis upon which to conclude that the Middle Fork Feather River or Grizzly Lake Community Services can meet the water needs of the project<sup>19</sup>. Relatedly, the County has not addressed the impact to

<sup>&</sup>lt;sup>19</sup> The IS/MND states that the project will require 1,308,793 gallons of water for lime treating aggregate and onsite dust suppression. Over the life of the project, approximately 768,793 gallons of water will be used in the lime treatment and 6,000 gallons/day will be used for dust suppression. (IS/MND at 74.) No factual basis is provided for these numbers. And, to the extent they are based on the assumption that the project will only operate for 60 days and only produce 6,000 tons over the life of the project, they are based on conditions not made enforceable as Conditions for Acceptance, or otherwise.

downstream users of the project drawing water from the river. Riparian rights are not unlimited.

# K. Wildfire

The proposed project is located within a State Responsibility Area and in a Fire Hazard Severity Zone classified as high. (IS/MND at 75.) The IS/MND concludes that the project "could increase risk of fire at the site due to operation of the asphalt plant." (*Id.*) Nonetheless, a less than significant impact is reported because "a 40,000-gallon water truck will be maintained onsite for dust and fire suppression. Further, the topography of the site is such that it represents a low risk of causing a wildfire. The project site is bordered by the railroad track and the Middle Fork Feather which act as exceptional firebreaks, should a fire start onsite." (*Id.*)

The IS/MND provides no documentation establishing that 40,000 gallons is sufficient to meet the needs for fire suppression. The administrative record does not establish that either Calfire or the Eastern Plumas Rural Fire Protection District have been consulted on the matter, as required by CEQA. No documentation has been provided regarding the topography acting to lower the wildfire risk in this area. The southern border of the Project contains flammable scrub and trees, which border the Middle Fork Feather River. The other side of the river is "heavily forested." (IS/MND at 8.) Based upon the close proximity of the southern and northern banks, it appears that the topography actually does not lower wildfire risk. As discussed above, wind conditions at the site have not been properly examined.

In evaluating wildfire risk, the IS/MND fails to adhere to the requirements of CEQA and a fair argument exists that the proposed project may cause significant impacts.

Sincerely,

Rae Lovko Greenfire Law, PC

# EXHIBIT A

# ROUX

Date: June 8, 2023

To: Rae Lovko, Greenfire Law, LLC

From: Andrew Shapero, P.E. (MA), MPH

Andrew Shapero

Subject: Review of Initial Study/Mitigated Negative Declaration for The Portola Asphalt Plant Project Plumas County, California

Roux Associates, Inc. (Roux) has prepared this memorandum (memo) regarding the proposed Portola Asphalt Plant Project (Facility or Plant) at 7600 Industrial Way, Portola, Plumas County, California at the request of Greenfire Law, LLC (Greenfire, or Client). Roux has reviewed the assessment titled *Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California* (Initial Study) by Vestra Resources, Inc. (Vestra) dated April 2023. Roux identified significant deficiencies in the Initial Study performed on behalf of TLT Enterprises. This memo documents our conclusions and includes the following:

- A brief overview of the Site, proposed conditions, and areas of concern;
- A description of the contents of the Initial Study by Vestra; and
- A discussion of the deficiencies of the Initial Study regarding air quality, noise, and hydrology.

Because of inadequacies and inaccuracies in the Initial Study, the Initial Study is not sufficient to demonstrate that there is a less than significant impact.

## SITE DESCRIPTION

TLT Enterprises is applying for a site development permit at the 20-acre parcel at 7600 Industrial Way, Delleker, California. TLT Enterprises proposes using this parcel for a temporary asphalt plant. TLT Enterprises has proposed using the Plant on a part-time basis for a period of three years. The facility would include the following equipment/structures: water truck for dust control, front-end loaders to feed the asphalt plant and load trucks, batch mix hot mix asphalt plant, lime mix plant, wash plant, diesel generator, office trailer, aggregate stockpiles, and asphalt silo. Trucks would also deliver aggregate and pick up asphalt for delivery. <sup>1</sup>

The Plant would be located on a 100-year flood plain next to the Middle Fork Feather River, which is an impaired water body.<sup>2</sup> The Plant would be in an area that is in nonattainment for PM<sub>2.5</sub> National Ambient Air Quality Standards (AAQSs) and is in nonattainment for PM<sub>10</sub> for California AAQSs.<sup>3</sup>

The proposed Plant would have a capacity to produce 200 tons of asphalt per hour. The proposed operating schedule would be for the plant to operate five days per week from 6:00 a.m. to 6:00 p.m.,

<sup>&</sup>lt;sup>1</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.

USEPA, 2022. 303(d) Listed Impaired Water. Accessed at: <u>https://www.epa.gov/ceam/303d-listed-impaired-waters#currentstate</u>
RCH Group, 2022. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California. Appendix B: Air Quality Technical Report for the Plumas County Delleker Plant.

although the Facility may operate up to 24 hours per day and would have the ability to operate at night. Reports of the operating season are inconsistent with both June to October and April to November cited.<sup>4</sup>

#### CONTENTS OF THE INITIAL STUDY

The Initial Study relies on a checklist in the California Environmental Quality Act (CEQA) Statute and Guidelines<sup>5</sup> and assesses 21 different environmental factors. For each factor, there are several dimensions, and the Initial Study categorizes each of these dimensions as "Potentially Significant Impact," "Less Than Significant Impact with Mitigation Incorporation," "Less then significant impact," and "No Impact." The Initial Study has evaluated each dimension of each of these environmental factors, although the quality of these evaluations varies. Based on these evaluations, the Initial Study concluded, "I find that although the proposed project could have a significant impact on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A Mitigated Negative Declaration will be prepared." <sup>6</sup>

For our review, Roux focused on the air quality, noise, and hydrology environmental factors evaluated in the Initial Study.

#### AIR QUALITY DEFICIENCIES

#### Potential to Emit

Per Northern Sierra Air Quality Management District (NSAQMD) guidance, Vestra is required to "determine potential emissions (in pounds per day) from each project using a reasonable worst-case scenario."<sup>7</sup> Emissions from the asphalt plant, the silo, and the diesel generator are based on calculations that assume 10 hours/day of operation. Vestra calculated daily emissions of NOx are 129 lbs/day and 130 lbs/day in Years 1 and 2, respectively, and are close to the Tier 3 threshold of 136 lbs/day. However, based on the project description, 10 hours/day is not a "reasonable worst-case scenario." Ten hours/day seems to be a low-end estimate of the typical operating scenario, given that the project description indicates that "the plant would typically operate five days a week from 6:00 a.m. to 6:00 p.m."<sup>8</sup> The proposed plant also proposes to maintain operational flexibility such that it can operate at any hour (including during the night). If the plant were to operate for 11-hours in one day it would exceed the 136 lb/day Tier C threshold, and the air quality impact would be "Significant," rather than "Less than significant with mitigation incorporation," and an EIR would be required.9 The air quality results reported in the Initial Study are therefore not sufficient to demonstrate that the 136 lb/day Tier C NOx threshold can be met under a reasonable worst case scenario.

As a default, for air permitting purposes, facilities often assume an emissions unit will operate 24 hours/day to calculate a reasonable worst scenario. Indeed, Rule 102 of the NSAQMD Rules and Regulations<sup>10</sup> defines "potential to emit" as follows: *"the maximum capacity of the unit to emit a regulated air pollutant or HAP considering the unit's physical and operational design. Physical and operational* 

 <sup>&</sup>lt;sup>4</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.
<sup>5</sup> California Association of Environmental Professionals (CAEP), 2023. 2023 CEQA: California Environmental Quality Act Statute & Guidelines. Accessed at: <u>https://www.califaep.org/docs/CEQA\_Handbook\_2023\_final.pdf</u>

 <sup>&</sup>lt;sup>6</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.
<sup>7</sup> Northern Sierra Air Quality Management District (NSAQMD, 2016). Guidelines for Assessing and Mitigating Air Quality Impacts of Land use Projects. Accessed at:

https://www.nevadacityca.gov/files/documents/Grove-NSAQMD-CalEEMod1324075240030317PM.pdf

 <sup>&</sup>lt;sup>8</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.
<sup>9</sup> Northern Sierra Air Quality Management District (NSAQMD, 2016). Guidelines for Assessing and Mitigating Air Quality

Impacts of Land use Projects. Accessed at: https://www.nevadacityca.gov/files/documents/Grove-NSAQMD-CalEEMod1324075240030317PM.pdf

 <sup>&</sup>lt;sup>10</sup> NSAQMD. NSAQMD Rules & Regulations. Accessed at: <u>https://myairdistrict.com/index.php/rules/</u>.

limitations on the emissions unit shall be treated as part of its design, if the limitations are set forth in permit conditions which address applicable federal requirements. Physical and operational limitations shall include, but are not limited to, the following: limits placed on emissions and restrictions on hours of operation and type, or amount of material combusted, stored, or processed." If 24 hours of operation were assumed as a reasonable worst case, reactive organic gases (ROG), NO<sub>x</sub>, and PM<sub>10</sub> would all exceed their respective Tier C thresholds.

Per the Rule 102 definition, potential to emit should only be based on 10 hours/day if the Plant has 10 hours/day as an operational limit in an air permit. The plant has proposed to obtain a Permit to Operate (Regulatory Measure AQ-6), and if a Permit to Operate is approved, it must include an enforceable condition to limit operations to 10 hours/day in order to prevent "Significant" air quality impacts.

#### Misunderstanding of Ambient Air Quality Standards (AAQS) Averaging Times

Vestra repeatedly states that operations will "avoid the winter" "when PM2.5 emissions are the greatest in the area."<sup>11</sup> However, the additional PM<sub>2.5</sub> emissions from the proposed facility will nonetheless exacerbate average annual PM<sub>2.5</sub> concentrations (i.e., will increase annual average concentration further over the 12  $\mu$ g/m<sup>3</sup> standard). Any additional emissions of PM<sub>2.5</sub> from the facility will increase average annual PM<sub>2.5</sub> concentrations in the overall area, which already exceed AAQSs.

Furthermore, facility operations could also exacerbate peak  $PM_{2.5}$  concentrations (i.e., could cause the highest 24-hour concentration to further exceed the 35 µg/m<sup>3</sup> standard), despite Vestra's argument that it will avoid high-PM<sub>2.5</sub> months. The proposed operating scheduling does include cool-weather months (i.e., November and April), when temperature inversions are more common. Additionally, an analysis of 2022 data from the California Air Resources Board (CARB) monitor at 420 Gulling Street in Portola reveals that the highest 24-hour PM<sub>2.5</sub> concentration for that year was recorded in September,<sup>12</sup> a month when the facility proposes to operate. The addition of the facility will therefore have the potential to increase maximum daily PM<sub>2.5</sub> concentrations, which already exceed AAQSs.

#### Hazardous Air Pollutants / Toxic Air Contaminants

Vestra identifies the following as a threshold of significance for air quality impacts: "Exposure of persons by siting a new source or a new sensitive receptor to substantial levels of TAC resulting in (a) a cancer risk level greater than 10 in one million and (b) a noncancerous risk (chronic or acute) hazard index greater than 1.0. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers."<sup>13</sup> However, Vestra has not demonstrated that this quantitative condition is met. While typically this is demonstrated through a cumulative human health risk calculation, instead, Vestra mostly relies on qualitative descriptions of why HAPs/TACs would not exceed these thresholds. Thus, the additional cumulative human health risk from the air quality impacts from the proposed facility for the exposed community is not presented by Vestra.

Additionally, the description of project-related HAPs/TACs is deficient. The Initial Study focuses on HAPs in diesel exhaust and does not address HAPs that are emitted from the asphalt plant itself and the asphalt silos. AP-42 Chapter 11.1 identifies batch mix asphalt plants and asphalt silos as sources of HAPs.

Finally, Vestra is inconsistent in its definition of sensitive receptors. Vestra defines residential and recreational areas as sensitive receptors but then states that, *"since the proposed project diesel producing*"

<sup>&</sup>lt;sup>11</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.

<sup>&</sup>lt;sup>12</sup> USEPA, 2023. Download Daily Data. Accessed at: https://www.epa.gov/outdoor-air-quality-data/download-daily-data

<sup>&</sup>lt;sup>13</sup> RCH Group, 2022. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California. Appendix B: Air Quality Technical Report for the Plumas County Delleker Plant.

activities or asphalt plant are not within 1,000 feet of sensitive receptors and the project is expected to be temporary (60 days of operation), no health risk assessment was conducted."<sup>14</sup> Table 11 of the Initial Study indicates that residential receptors are within 700 feet of the asphalt plant and within 240 feet of trucks, both of which are sources of air quality impacts that emit HAPs. The temporary nature of the project is also not relevant given that Vestra states that, "for TACs that are known or suspected carcinogens, the California Air Resources Board (ARB) has consistently found that there are no levels or thresholds below which exposure is free of risk."<sup>15</sup> Many of the relevant HAPs listed in AP-42 Chapter 11.1 are carcinogens, and risk assessors typically think of cancer risk as acceptable (i.e., below a certain threshold) or unacceptable (i.e., above a threshold). While intuition may suggest that a temporary operation would not result in an unacceptable risk, Vestra has not actually demonstrated that its project will meet the HAP requirements that it has included in the Initial Study. Thus, Vestra's Initial Study does not provide a reliable basis to conclude the proposed facility will not result in significant contributions of the hazardous air quality to the surrounding community.

#### Odors

Vestra relies on the lack of odor complaints at the Ward Lake facility to demonstrate that odor impacts are unlikely. However, there are important differences between the Ward Lake facility and the proposed Portola asphalt plant. The Ward Lake facility appears to be at the top of a hill, whereas the proposed Portola asphalt plant is in a low-lying meadow surrounded by higher elevation areas. The Ward Lake facility location is conducive to air dispersion (i.e., dilution) that would dilute odors emitted, versus the proposed Portola asphalt plant location is prone to temperature inversions (i.e., pollutant accumulation) that would trap the odors within the basin. Thus, reliance on the odor complain history at the Ward Lake facility is not sufficient to demonstrate the odor impacts will be less than significant.

Vestra is also inconsistent with its handling of sensitive receptors with respect to odors. Per the Initial Study, *"the occurrence and severity of odor impacts depends on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors."*<sup>16</sup> Appendix B states that *"recreational uses are also considered sensitive."*<sup>17</sup> The proposed Portola plant abuts the Middle Fork Feather River, which provides recreational space. The odor impact evaluation is therefore incomplete because it focuses on residential receptors but not the adjacent recreational users of the Middle Fork Feather River. The proximity of sensitive recreational receptors further demonstrates how Vestra's reliance on the odor complaint history at the Ward Lake facility is not sufficient (i.e., the Ward Lake facility does not abut a river with recreational use).

Similar to Vestra's analysis of HAPs, Vestra's evaluation of odor impacts to residential receptors also relies on inconsistent information. The odor impact analysis indicates that residential receptors are located 1,600 feet away from the asphalt plant. However, Table 11 of the Initial Study indicates that residential receptors are within 700 feet of the asphalt plant and within 240 feet of trucks. The asphalt plant emits odorous HAPs. Additionally, asphalt trucks may be a source of odor, as asphalt material in truck beds contains odorous HAPs. Thus, Vestra's Initial Study does not provide a reliable basis to conclude the proposed facility will not result in significant odor exposure to the residential and recreational community.

<sup>&</sup>lt;sup>14</sup> RCH Group, 2022. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California. Appendix B: Air Quality Technical Report for the Plumas County Delleker Plant.

<sup>&</sup>lt;sup>15</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.

<sup>&</sup>lt;sup>16</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.

<sup>&</sup>lt;sup>17</sup> RCH Group, 2022. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California. Appendix B: Air Quality Technical Report for the Plumas County Delleker Plant.

#### NOISE DEFICIENCIES

Vestra has not adequately demonstrated that the LDN/CEL of 60 dB can be achieved. CNEL is Community Noise Equivalent Level. It is an average of noise levels from 7 a.m. to 7 p.m., 7 p.m. to 10 p.m., and 10 p.m. to 7 a.m., where an extra 5 dB are added to the noise level recorded between 7 p.m. to 10 p.m., and an extra 10 dB are added to the noise level recorded between 10 p.m. to 7 a.m.<sup>18</sup> LDN is the Day-Night Average Level and is similar to CNEL except that it is the average of noise levels from 7 a.m. to 10 p.m. and 10 p.m. to 7 a.m., where an extra 10 dB are added to the noise level recorded between 10 p.m. to 7 a.m.<sup>18</sup> LDN is the Day-Night Average Level and is similar to CNEL except that it is the average of noise levels from 7 a.m. to 10 p.m. and 10 p.m. to 7 a.m., where an extra 10 dB are added to the noise level recorded between 10 p.m. and 7 a.m.<sup>19</sup> Not only do recorded noise levels need to be corrected for night-time occurrence, but they also need to be corrected for outdoor residual noise levels and pure tone or impulse.<sup>20</sup> The California Office of Planning and Research (OPR) recommends that 10 dB be added to a measured CNEL for quiet suburban or rural communities.<sup>21</sup> Similarly, the California OPR recommends that 5 dB be added to a measured CNEL for pure tones or noises with an impulsive character.<sup>22</sup> The definition of pure tone and impulsive character may vary depending on the governing body, but generally impulsive sounds are short, abrupt sounds, and pure tone refers to a distinct sound.

Table 11 estimates that the maximum noise level from the front-end loaders would be 70.5 dB at the closest residential property line. Similarly, Vestra estimates the maximum noise level from trucks as 68 dB at the closest residential property line. Vestra acknowledges that these noise levels exceed the 60 dB CNEL/LDN standard, but Vestra argues that Mitigation Measure N-2 will mitigate noise levels to less than significant levels. However, the Initial Study does not actually quantify a project-related CNEL/LDN or quantify the impact of Mitigation Measure N-2. Therefore, Vestra has not adequately demonstrated that the community standard can be met.

Quantification of a project related residential CNEL/LDN is important given the given the time, outdoor residual noise level, and pure tone/impulse correction factors. Because the facility expects to operate at night, any asphalt plant, front-end loader, and trucking activity during the night would likely need a 5 or 10 dB correction factor added. Furthermore, all project-related operations would likely require a 10 dB correction factor for quiet suburban or rural communities. Vestra should have also included an evaluation in the Initial Study of if the sounds associated with project activities are pure tones or of impulsive character and if a further 5 dB correction factor should be added.

Furthermore, the Initial Study does not include an analysis of noise impacts on recreational receptors, even though water recreation receptors are included in the Initial Study's table of Land Use Compatibility Standards. According to this table, a CNEL/LDN of up to 75 dB may be acceptable for water recreation receptors, although lower standards may be applicable. However, the Initial Study includes no analysis of how or if this standard could be met. The parcel boundary includes parts of the Middle Fork Feather River. Table 10 of the Initial Study provides maximum sound levels 50 feet away from various construction

<sup>&</sup>lt;sup>18</sup> California Office of Planning and Research. Appendix D: Noise Element Guidelines. Accessed at: <u>https://www.opr.ca.gov/docs/OPR Appendix D final.pdf#:~:text=CNEL%3A%20Community%20Noise%20Equivalent%20Level.</u> <u>el.%20The%20average%20equivalent,p.m.%20to%207%20a.m.%20Ldn%3A%20Day-Night%20Average%20Level.</u>

<sup>&</sup>lt;sup>19</sup> California Office of Planning and Research. Appendix D: Noise Element Guidelines. Accessed at: <u>https://www.opr.ca.gov/docs/OPR Appendix D final.pdf#:~:text=CNEL%3A%20Community%20Noise%20Equivalent%20Level.et.%20The%20average%20equivalent,p.m.%20to%207%20a.m.%20Ldn%3A%20Day-Night%20Average%20Level.</u>

<sup>20</sup> California Office of Planning and Research. Appendix D: Noise Element Guidelines. Accessed at: https://www.opr.ca.gov/docs/OPR\_Appendix\_D\_final.pdf#:~:text=CNEL%3A%20Community%20Noise%20Equivalent%20Lev el.%20The%20average%20equivalent,p.m.%20to%207%20a.m.%20Ldn%3A%20Day-Night%20Average%20Level

<sup>&</sup>lt;sup>21</sup> California Office of Planning and Research. Appendix D: Noise Element Guidelines. Accessed at: https://www.opr.ca.gov/docs/OPR Appendix D final.pdf#:~:text=CNEL%3A%20Community%20Noise%20Equivalent%20Lev el.%20The%20average%20equivalent,p.m.%20to%207%20a.m.%20Ldn%3A%20Day-Night%20Average%20Level.

<sup>&</sup>lt;sup>22</sup> California Office of Planning and Research. Appendix D: Noise Element Guidelines. Accessed at: <u>https://www.opr.ca.gov/docs/OPR Appendix D final.pdf#:~:text=CNEL%3A%20Community%20Noise%20Equivalent%20Lev</u> el.%20The%20average%20equivalent,p.m.%20to%207%20a.m.%20Ldn%3A%20Day-Night%20Average%20Level.

noise sources, with all but one noise level exceeding the maximum water recreation CNEL/LDN of 75 dB. Given the immediate proximity of the parcel to the river, construction noise could cause an exceedance of the maximum water recreation CNEL/LDN. Similarly, Table 11 of the Initial Study demonstrates that all asphalt plant-related equipment could exceed 75 dB at 50 feet. Therefore, plant activities could also cause an exceedance of the maximum water recreation CNEL/LDN of 75 dB. The front-end loaders, in particular, have the potential to cause this exceedance, given that site plans indicate the stockpile will be closest to the river. Even if a 100-foot buffer were observed (as seen in Appendix B), most construction-related activity and plant-related activity would have the potential to cause an exceedance of the maximum water recreation CNEL/LDN of 75 dB, assuming the 7.5 dB decrease per distance doubling that the Initial Study cites.

Overall, Vestra's noise evaluation of the proposed facility is incomplete, as it does not calculate a project related residential or water recreation CNEL/LDN and does not include a discussion of various correction factors. Thus, Vestra's Initial Study does not provide a reliable basis to conclude the proposed facility will not result in significant noise impacts to the residential and recreational community.

#### HYDROLOGY DEFICIENCIES

Vestra proposes to obtain regulatory stormwater compliance coverage under the *General Permit for Stormwater Discharges Associated with Industrial Activities* (also known as the IGP)<sup>23</sup> and proposes to comply *with "all requirements, provisions, limitations, and prohibitions in the permit to control pollutants in stormwater discharged from the project site.*"<sup>24</sup>

Vestra fails to mention that the Middle Fork Feather River is a 303(d) impaired water,<sup>25</sup> which has additional requirements for stormwater compliance.<sup>26</sup>

More importantly, Vestra fails to acknowledge the infeasibility of complying with some of the IGP requirements. During a flood event, the facility would be required to *"divert run-on and storm water generated from within the facility away from all stockpiled materials."*<sup>27</sup> According to Figure 7 of the Initial Study, almost the entire parcel is on a 100-year flood plain. Figure 2 of Appendix B of the Initial Study shows that the proposed stockpile area is in the part of the parcel closest to the river and that the proposed stockpile area is larger than the area that is not in a 100-year flood zone. As such, compliance with the requirements to prevent contact between run-on/stormwater and stored materials will be difficult because they do not appear to have the necessary space to do so, if the need arises when the stockpile area is full.

Vestra has provided few details on how stormwater compliance will be achieved. To obtain regulatory stormwater compliance coverage, Vestra will be required to first develop a Stormwater Pollution Prevention Plan (SWPPP). Vestra should be required to provide more details in the proposed facility SWPPP. However, the details provided from the Initial Study suggest the plan for stormwater regulatory compliance is inadequate. For example, one proposed engineering control for stormwater pollution prevention is a berm that is sized far too small. Figure 2 of Appendix B of the Initial Study shows that a 2 foot berm will be constructed. However, this berm is unlikely to be sufficient to prevent flooding and subsequent transport of facility-related contaminants into the river. The base of the berm is proposed to be between 4810' and 4815' elevation, whereas the flood plain elevation is shown in Figure 3 of Appendix

<sup>&</sup>lt;sup>23</sup> California General Permit for Stormwater Discharges Associated with Industrial Activities. Accessed at: <u>https://www.waterboards.ca.gov/water\_issues/programs/stormwater/docs/industrial/unoff\_igp\_amend.pdf</u>

<sup>&</sup>lt;sup>24</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.

 <sup>&</sup>lt;sup>25</sup> USEPA, 2022. 303(d) Listed Impaired Water. Accessed at: <u>https://www.epa.gov/ceam/303d-listed-impaired-waters#currentstate</u>
<sup>26</sup> IGP Appendix 3

<sup>&</sup>lt;sup>27</sup> IGP Best Management Practice H.d.iv

A to be at least 4821'. Thus, the information provided by Vestra in the Initial Study demonstrates that the area of the proposed stockpile could be flooded up to 10 feet, where Vestra proposed a 2-foot berm for pollution prevention.

One proposed administrative control for regulatory stormwater compliance is that the facility operating season is not during typical local flood season. Vestra states that *"All feedstock materials will be removed during the winter when storm events are most likely to occur."* <sup>28</sup> However, this statement conflicts with actual proposed operations and rain patterns. Specifically, Appendix B of the Initial Study indicates that most rainfall occurs between October and April. <sup>29</sup> The plant is proposed to operate during three rainy season months: October, November, and April. Thus, Vestra's Initial Study does not provide a reliable basis to conclude the proposed facility can feasibly manage stormwater compliance.

 <sup>&</sup>lt;sup>28</sup> Vestra, 2023. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California.
<sup>29</sup> RCH Group, 2022. Initial Study/Mitigated Negative Declaration for the Portola Asphalt Plant Project in Plumas County, California. Appendix B: Air Quality Technical Report for the Plumas County Delleker Plant.

# EXHIBIT B



# Andrew Shapero, MPH, PE Senior Engineer I

#### **TECHNICAL SPECIALTIES**

Mr. Shapero's career has focused on the assessment of human health and environmental hazards. His multidisciplinary training in environmental engineering and human health risk assessment, along with his statistical programming skills, enables him to provide support for environmental investigations and environmental litigation. Mr. Shapero's areas of expertise include:

- Environmental engineering
- Human health risk assessment
- Exposure assessment
- Toxicological, epidemiological, and occupational health evaluations
- · Air pollution measurement technologies
- · Air permitting and compliance
- Air dispersion modeling
- Environmental sampling protocols
- · Per- and polyfluoroalkyl substances (PFAS)
- Statistical data analysis and data science including ProUCL, R, SAS, Stata, Geographic Information Systems (GIS), and Python
- Technical writing

Mr. Shapero's unique background and varied experiences have provided him with a strong technical and analytical skillset along with the core value of striving to protect human health and the environment. At Roux Associates, he continues to advance his skillset and primarily performs quantitative risk assessments and exposure assessments. Mr. Shapero also provides technical analysis supporting environmental litigation matters.

#### **EXPERIENCE SUMMARY**

8+ years of experience in environmental science/engineering, public health, and statistical analysis.

- Roux Associates, Inc., Senior Engineer, 2021 Present
- · Eastern Research Group, Health Scientist, 2019-2021
- Center for Research on Environmental and Social Stressors in Housing Across the Life Course (CRESSH), Harvard University, Research Assistant, 2018-2019
- Nurses' Health Study 3, Brigham and Women's Hospital, Director of Recruitment, 2017-2018
- Harvard University Center for the Environment, Research Assistant, 2016-2018
- Environmental Resources Management, Air Quality and Climate Change Engineer, 2014 – 2016

#### CREDENTIALS

Harvard University, T.H. Chan School of Public Health Master of Public Health, March 2018 Environmental Health

Harvard University Extension School Graduate Certificate, October 2019

Environmental Policy and International Development

Tufts University, Medford, MA

B.S. Environmental Engineering, May 2014 Professional Engineer, Massachusetts (No. 56422)

#### HEALTH & SAFETY

OSHA 29 CFR 1910.120 40-Hour Safety Training

First Aid and CPR-Certified

Transportation Worker Identification Credential

(TWIC) Certification

#### **KEY PROJECTS**

#### PFAS

PFAS Exposure Investigations: Supported client in almost all aspects of an eight-site exposure investigation. Reviewed historical PFAS contamination sources. Developed and mapped site-specific address lists for recruiting. Recruited participants. Administered exposure factor/history questionnaires in person and over the phone. Coordinated the collection of blood, tap water, and dust samples for PFAS analysis. Cleaned and managed environmental, biological, and questionnaire data. Prepared report-back letters for participants. Used R to calculate summary statistics of environmental, biological, and questionnaire data. Used R to conduct multivariate regressions of environmental, biological, and questionnaire data. Drafted report text to summarize procedures, results, discussion, and conclusions. Calculated biological half-lives for PFAS in blood. Reviewed and interpreted toxicological and epidemiological studies to contextualize study results. Assessed PFAS remediation and mitigation technologies.

- *PFAS Multi-site Health Study in Barnstable, MA:* Supported development and mapping of address lists for recruiting. Reviewed exposure factor/history and health questionnaires. Reviewed blood PFAS sampling and analysis plans.
- PFAS Sampling Plans for Ponds in Sandnrich, Mashpee, and Falmonth, MA: Reviewed historical PFAS contamination sources to identify waterbodies with potential contamination. Supported development of standard operating procedures and sampling and analysis plans for collection of surface water samples and fish for PFAS analysis. Analyzed PFAS contamination data from laboratory reports.
- *PFAS Sampling Plans for Other Projects:* Supported development of standard operating procedures and sampling and analysis plans for collection of drinking water, dust, indoor air, outdoor air, and food samples for PFAS and emerging contaminant analysis. Developed field health and safety plans. Managed resulting sample data. Assessed quality assurance and quality control (QA/QC) data.



# Andrew Shapero, MPH, PE Senior Engineer I

#### Air Permitting and Compliance

- *Title V Permit Modification and Renewal Application Support:* Prepared Title V air permit modification and renewal applications in Louisiana. Conducted reviews of New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). Reviewed facility operations and documentation. Prepared facility health and safety plans. Conducted air potential to emit calculations. Recommended permitting strategies to clients. Collaborated with regulators to develop permitting strategies.
- Annual Air Pollution Emissions Inventory Support: Reviewed facility operations and documentation. Conducted air emission calculations. Managed onsite compliance.
- *Greenhouse Gas Reporting Support:* Reviewed facility operations and documentation. Conducted greenhouse gas emission regulatory reviews. Conducted greenhouse gas emission calculations per 40 CFR 98 Subpart W and Subpart C. Managed onsite compliance.
- Annual Title V Permit Compliance Certification Support: Reviewed facility operations and documentation. Prepared facility health and safety plans. Conducted air permit reviews. Conducted air regulatory reviews. Managed onsite compliance.
- Air Pollution Emission Factor Development Support: Supervised air emissions stack testing. Prepared facility health and safety plans. Managed stack testing protocols. Managed, processed, and analyzed stack testing data. Calculated emission factors from stack testing.
- *Massachusetts Air Permitting and Compliance*: Prepared emissions cap notification, emissions unit start up notification letters and forms, source registration, and greenhouse gas reporting.
- New Hampshire Air Permitting and Compliance: Prepared emissions unit start up notification letters and forms.

#### **Remediation Support**

 Perimeter Air Monitoring Action Levels: Developed dust and volatile organic compound action levels for remediation sites. Incorporated guidance from California Department of Toxic Substances Control (DTSC) and New Jersey Department of Environmental Protection (NJDEP).

#### **Litigation Support**

- Prop 65 Support: Coordinated testing of product samples for California Proposition 65 litigation support. Analyzed product testing results and compared with regulatory exposure limits.
- Odor Complaints: Processed, cleaned, and analyzed odor complaint, air pollution, and wind data. Compiled odor detection thresholds. Modeled odorant concentrations using AERMOD.

- *Toxic Tort Chemical Exposure Evaluations:* Evaluated potential adverse health outcomes associated with alleged exposure to chemicals (including but not limited to pesticides/herbicides, asbestos, volatile organic compounds, and particulate matter). Evaluated mechanistic and toxicokinetic data, rodent based toxicological evaluations, epidemiological evaluations, exposure data, and disease incidence data.
- *Air Pollution Exposure*: Evaluated client air pollution contributions to off-site areas. Used statistical analyses to assess the relationship between facility operations and off-site air pollution concentrations. Evaluated air dispersion models.

#### **Risk Assessment**

- Human Health Screening Evaluations: Multiple Sites, California: Provided support in preparing an HHSE for multiple sites in California including evaluation of exposure pathways, data analysis for multiple COCs and background levels, evaluation of chemical toxicity and screening levels, and providing conservative, quantitative risk estimates to determine that the cumulative cancer risk and non-cancer hazard estimates for the most sensitive populations do not exceed Cal-EPA target health goals.
- Environment Risk Assessment Support: Multiple Petroleum Terminals, Massachusetts: Prepared multiple Massachusetts Contingency Plan (MCP) Method 3 Risk Assessments and/or Risk Characterization Screens for large petroleum terminals located within Massachusetts with soil, groundwater, and potential vapor intrusion exposures.
- National Priority List (NPL) Site Screening Evaluation: Supported a screening evaluation of soil, sediment, and surface water data at an NPL site. Conducted statistical analysis on thousands of environmental samples, spanning multiple media. Mapped sampling data to develop conceptual exposure scenarios. Determined potential receptors and identified chemicals of potential concern (COPCs).
- NPL Site Blood Lead Modelling: Used EPA's Integrated Exposure Uptake Biokinetic (IEUBK) model to estimate blood lead levels from soil lead data. Evaluated assumptions in the model to more accurately estimate blood lead levels.



# Andrew Shapero, MPH, PE Senior Engineer I

#### Exposure Assessment and Epidemiology

- Home-based Observation and Monitoring Exposure (HOME) study at the Center for Research on Environmental and Social Stressors in Housing Across the Life Course (CRESSH): Assembled air pollution monitoring trains. Developed methods to calibrate low-cost air pollution sensors. Developed an R program to process calibration data. Recruited participants for study of indoor air pollution in the Boston area. Administered exposure factor / history questionnaires. Set up and troubleshooted air pollution monitoring equipment in participants' homes. Developed on R program to process and manage air pollution data from participants' homes. Used R to generate summary statistics of environmental and questionnaire data. Used R to conduct multivariate regressions. Created an interactive R Shiny app to visualize the spatial distribution of air pollution in homes in the Boston area. Reviewed and interpreted toxicological and epidemiological studies to contextualize study results. Reported study results back to study participants.
- Vapor Intrusion Exposure Reconstruction: Supported development of an R package to conduct Monte Carlo simulations to estimate indoor air concentrations from groundwater and soil vapor data. Cleaned and managed environmental and building data inputs for model. Developed an R program to visualize results and compare against screening values.
- Exposure point calculation estimation guidance development: Supported development of guidance to estimate EPCs in non-discrete environmental media. Reviewed peerreviewed and government literature to make recommendations to the client.
- Opioid Wastewater Epidemiology: Supported a wastewater epidemiology program in which opioids were measured in wastewater. Used R to manage, analyze, and visualize concentrations of opioids measured in wastewater.

#### **Occupational Health and Safety**

- *Emergency Responder Systematic Literature Review:* Supported a systematic literature review of the health effects of emergency response occupations. Summarized and synthesized hundreds of peer-reviewed articles.
- COVID-19 Regulatory and Guidance Review: Supported a review of COVID-19 occupational regulations and guidance. Summarized sector-specific regulations and guidance, and made recommendations to the client. Evaluated the quality of existing COVID-19 guidance.

#### Economics / Insurance

- *PFAS Clean-Up Costs:* Used Monte Carlo simulation in R to estimate costs associated with treating PFAS in drinking water.
- *Pipeline Timeseries Analysis:* Evaluated timeseries of pipeline operations data using econometric tools for insurance client.

#### **PUBLICATIONS**

**Shapero A**, Keck S, Goswami E., Love A. Supplemental Analyses for Comment on "Impacts of Sugarcane Fires on Air Quality and Public Health in South Florida". Preprints 2023, 2023020503.

https://doi.org/10.20944/preprints202302.0503.v1.

- Shapero A, Keck S, Goswami E, Love AH. 2022. Comment on "Impacts of Sugarcane Fires on Air Quality and Public Health in South Florida". Environ Health Perspect 131(2): 028001, https://doi.org/10.1289/EHP12236.
- USEPA. 2021. Enhanced Aquifer Recharge of Stormwater in the United States: State of the Science Review. <u>https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=352238</u>
- Golden CD, Shapero A, Vaitla B, Smith MR, Myers SS, Stebbins E, Gephart JA. 2019. Impacts of Mainstream Hydropower Development on Fisheries and Human Nutrition in the Lower Mekong. Frontiers in Sustainable Food Systems, 25 October 2019. <u>https://doi.org/10.3389/fsufs.2019.00093</u>