

Comment Number	Commenter Name	Classification	Form Letter Category	Commenter Type	Issue Number	Issue Title	All Issues	Comment Text
MBTL-HIA-00002-2	Darvel Lloyd	Non-technical	Unique	General Public	1	General Comments	1	I fully support Cowlitz County's draft HIA and recommendations as set forth by the Stand Up To Oil and Power Past Coal communities and strongly advise you follow them, especially this: "We must prevent what we cannot cure."
MBTL-HIA-00005-1	Amy Harlib	Technical	Form Letter plus Text	General Public	1	General Comments	1	NO MORE COAL! O MORE FOSSIL FUEL FIASCOS! GREEN ENERGY NOW!
MBTL-HIA-00006-3	Melvin Mackey	Non-technical	Unique	General Public	1	General Comments	1	Shipping coal is much more hazardous than shipping opioids. While opioids have their place, they need to be regulated and highly restricted. Would you be in favor of increasing the profits of opioid producers by shipping unlimited quantities to any country that is willing to pay the price? Likewise, coal must be used only as absolutely required and then only in very limited quantities. A large coal export terminal in Cowlitz County is both unwarranted and unneeded. Protect our planet and humankind by just saying no.
MBTL-HIA-00008-1	Jim Steitz	Technical	Form Letter plus Text	General Public	1	General Comments	1	***Even the smallest scope of environmental analysis, the terminal itself and the proximate impact to the local natural and human environment, shows the MBTL proposal to be grossly unacceptable. The coal shipping traffic through the Columbia River, the local air and water pollution, congestion, and destruction of the community ambience, would transform the local area into a purgatory of industrial misery. The river ecosystem, whose marine mammals and fisheries are already under severe stress from hydroelectric dams, fishing pressure, and water quality degradation, would face another maelstrom of industrial pollution, noise, and physical displacement. The residents of Longview, and other communities for whom this permit would set a precedent, did not necessarily move there to experience one of America's largest commodity export projects operating more hours than not. Persons wishing a full-time industrial experience have ample other places in America to live, and Longview need not be one of them.***
MBTL-HIA-00009-6	Julie Glover	Technical	Form Letter plus Text	General Public	1	General Comments	1	The project will have huge NEGATIVE impacts.
MBTL-HIA-00009-7	Julie Glover	Technical	Form Letter plus Text	General Public	1	General Comments	1	DON'T DO this Millennium (MBTL) coal export project -- PLEASE!!!! THIS REALLY, REALLY MATTERS
MBTL-HIA-00011-1	Nancy Pape	Non-technical	Unique	General Public	1	General Comments	1	Let's avoid the unnecessary risks to health and environment. Those far outweigh any potential benefits of this project. Please outline all risks to the fullest extent possible so that folks can weigh this out for themselves.
MBTL-HIA-00013-1	William Leighty	Technical	Form Letter plus Text	General Public	1	General Comments	1	Because humanity's unrestrained combustion of fossil fuels is inflicting dangers on Earth's life support systems, every jurisdiction on Earth is obligated to do everything it can to reduce our reliance on fossil energy -- including preventing the production and export of such fuels. Preventing Cowlitz County health dangers is our local opportunity to protect humanity and Earth from our short-sighted economic preferences. Please pursue this tool, to prevent coal exports from Washington. We are attempting to prevent coal exports from anywhere in Alaska, to support you.
MBTL-HIA-00014-1	Scott Granlund	Technical	Form Letter plus Text	General Public	1	General Comments	1	The following statement does well to express my views on this most important topic. No Coal! Not in my backyard! Get your coal outa here!
MBTL-HIA-00016-2	Mary Deaton	Technical	Form Letter plus Text	General Public	1	General Comments	1	It is time to stop mining and using coal for power, since so many safer and environmentally better are available now and more are being developed every year.
MBTL-HIA-00022-4	Stephen Bachhuber	Non-technical	Unique	General Public	1	General Comments	1	The HIA Steering Committee should recognize the unavoidable, significant, and adverse impacts identified in the FEIS. These cannot be mitigated and the MBTL project should be rejected.
MBTL-HIA-00029-4	William Newmann	Non-technical	Unique	General Public	1	General Comments	1	Thank you for your consideration of this major preventable action which promotes the health of Washingtonians and others outside our localities.
MBTL-HIA-00032-1	Joline Bettendorf	Non-technical	Unique	General Public	1	General Comments	1	The only reason for this country to continue mining and transporting coal is to give a few people jobs in justifiably antique, destructive industries. Is that really a valid choice when so many other non-polluting or less-polluting methods exist in this century? Other countries are finding and transitioning to better methods as quickly as they can while the U. S. bumbles along, still under the impression that our way is the only way to energy production. If we still had innovative industries, they would be phasing out methods destructive to environmental degradation and human health like the rest of the advanced countries and developing better methods. Our industry should ask how they did it if they can't figure it out.
MBTL-HIA-00034-2	Liz Kellebrew	Non-technical	Unique	General Public	1	General Comments	1	I'd also like to point out that major buyers of US coal exports (like China) are already turning to greener energy alternatives, as they're seeing the devastating health consequences of burning coal in their own hometowns. Even if, heaven forbid, the MBTL project did move forward, the forces of the free market have already moved their interests elsewhere, away from coal.
MBTL-HIA-00034-3	Liz Kellebrew	Non-technical	Unique	General Public	1	General Comments	1	I strongly urge the HIA Steering Committee to steer Cowlitz County in the right direction: forward into the future, not 100 years into the past. Let's stop the MBTL project so our families can thrive, and so that Cowlitz County can welcome new, green energy businesses into its long-term economic plan. Thank you for your commitment to protecting our families.
MBTL-HIA-00036-1	Michael O'Neill	Technical	Unique	General Public	1	General Comments	1	A big thanks to you and all the staff involved in completing the draft HIA. I deeply appreciated the dedication of everyone in making sure an HIA still happens and that it is a quality product given the resources and time available. It was an incredible honor to be included in the contributing credits, and to have been a part of the process, even if not involved in crafting the actual document. Here are the comments I'd like to submit to the public record: General Feedback Positive: * Satisfactorily explores all Steering Committee questions except #10 * Well written and researched * Communicates a balanced facts based perspective
MBTL-HIA-00039-13	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	1	General Comments	1	Finally, I ask that the HIA Steering Committee recognize and affirm that the unavoidable, significant, and adverse impacts identified in the Final Environmental Impact Statement (FEIS) and recognized by the Cowlitz County Hearings Officer cannot be mitigated and that the MBTL project should be rejected.
MBTL-HIA-00040-4	Pete Von Christerson	Technical	Unique	General Public	1	General Comments	1	This data shows how detrimental a coal port would be to the County and the State.
MBTL-HIA-00041-1	Mika Godzich	Technical	Form Letter plus Text	General Public	1	General Comments	1	Though I live in CA, I have ties to OR and care deeply about the wellbeing of my neighbors to the very near north.
MBTL-HIA-00043-1	Ruth Charloff	Technical	Form Letter plus Text	General Public	1	General Comments	1	Based on the draft Health Impact Assessment (HIA), I urge the HIA Steering Committee to REJECT the proposed Millennium coal export terminal, based both on information included in the draft and information omitted from the draft.
MBTL-HIA-00043-3	Ruth Charloff	Technical	Form Letter plus Text	General Public	1	General Comments	1	I urge the HIA Steering Committee, Cowlitz County and the WA Department of Health to recommend rejection of this project and denial of all permits.
MBTL-HIA-00045-1	Faith Weidner	Technical	Form Letter plus Text	General Public	1	General Comments	1	Those who come after us must have a clean, healthy world to inherit. A coal terminal is totally unacceptable.
MBTL-HIA-00047-1	Dorothy Brockway	Technical	Form Letter plus Text	General Public	1	General Comments	1	As a resident of the west coast, I urge the HIA Steering Committee to reject this proposal.
MBTL-HIA-00047-3	Dorothy Brockway	Technical	Form Letter plus Text	General Public	1	General Comments	1	The effect on health and the environment cannot be mitigated. We are reducing the use of coal in this country because of these negatives. Global climate will not be helped by exporting our dirty coal. (There is no such thing as "clean" coal.)

MBTL-HIA-00050-5	Barbara Gottlieb	Non-technical	Unique	General Public	1	General Comments	1	I can't imagine why you would subject the people of Oregon and Washington, and those of us living farther afield, to such atrocious harms. I urge the HIA Steering Committee, Cowlitz County and the WA Department of Health to recommend rejection of this project and denial of all permits.
MBTL-HIA-00051-1	Mark Feldman	Technical	Form Letter plus Text	General Public	1	General Comments	1	DO NOT ALLOW THIS PROJECT TO BE BUILT!
MBTL-HIA-00052-1	Marilyn Centoni	Technical	Form Letter plus Text	General Public	1	General Comments	1	Trump is the most corrupt person on earth. Coal mining kills the miners and their families. It is killing the earth. We MUST GET RID OF STUPID TRUMP
MBTL-HIA-00054-1	Trygve Steen	Technical	Form Letter plus Text	General Public	1	General Comments	1	I am writing to oppose the Millennium Coal Export Terminal in Vancouver Washington. I am a resident of Portland and its activities would directly affect me in many ways. My reaction to this Terminal is based on substantial background: a Ph.D. in Biology from Yale; an MPH in environmental toxicology from UC Berkeley, as well as other education; I have taught for over 40 years at Portland State University; my teaching included basic medical sciences, environmental toxicology; teratology, and since the early 1970's - courses focused on Environmental Sustainability; I have also taught at OHSU; finally I co-chaired the "Health Impact Review Panel" for the proposed METRO incinerator planned for Columbia County (Our panel's report was a major factor in that facility not being built). BASED ON THIS EXTENSIVE EXPERIENCE, I CAN NOT STATE MY OBJECTIONS TO THIS FACILITY MORE STRONGLY. I fully agree with and support the following well done specific objections to the facility, and I concur with the PSR request that you reject this project, deny all relevant permits, and defend your decision by whatever means that is necessary.
MBTL-HIA-00055-1	Kelly McConnell	Technical	Form Letter plus Text	General Public	1	General Comments	1	I urge the HIA Steering Committee to reject this proposal, based both on information included in the draft and information omitted from the draft. I want CLEAN air, water and land. Extracting and exporting coal is a LARGE part of what is preventing us from having them. The (literally) handful of jobs that would be created by this project are worth FAR less to our community than a clean, healthy environment.
MBTL-HIA-00055-2	Kelly McConnell	Technical	Form Letter plus Text	General Public	1	General Comments	1	PLEASE STOP sacrificing everything we hold dear to the greedy efling rich!
MBTL-HIA-00059-1	Trygve Steen	Technical	Form Letter plus Text	General Public	1	General Comments	1	The Union of Concerned Scientists submission follows: I am writing to oppose the Millennium Coal Export Terminal in Vancouver Washington. I am a resident of Portland and its activities would directly affect me in many ways. My reaction to this Terminal is based on substantial background: a Ph.D. in Biology from Yale; an MPH in environmental toxicology from UC Berkeley, as well as other education; I have taught for over 40 years at Portland State University; my teaching included basic medical sciences, environmental toxicology; teratology, and since the early 1970's - courses focused on Environmental Sustainability; I have also taught at OHSU; finally I co-chaired the "Health Impact Review Panel" for the proposed METRO incinerator planned for Columbia County (Our panel's report was a major factor in that facility not being built). BASED ON THIS EXTENSIVE EXPERIENCE, I CAN NOT STATE MY OBJECTIONS TO THIS FACILITY MORE STRONGLY. I fully agree with and support the following well done specific objections to the facility, and I concur with the PSR request that you reject this project, deny all relevant permits, and would add - defend your decision by whatever means that is necessary.
MBTL-HIA-00060-1	Michael Monroe	Non-technical	Unique	General Public	1	General Comments	1	It is absurd that in 2018 we would even consider the construction of a coal export terminal. We should not be burning coal at all any more; the exhaust is too destructive. And the cost of harvesting coal in both monetary and environmental terms is astronomical. Please deny all permits.
MBTL-HIA-00061-1	Wendy DiPeso	Technical	Form Letter plus Text	General Public	1	General Comments	1	As a grandmother of children that live along the Columbia River I want to thank you for this opportunity to comment on the draft Health Impact Assessment (HIA) for the proposed Millennium coal export terminal.
MBTL-HIA-00062-1	Marta Wilcox	Technical	Form Letter plus Text	General Public	1	General Comments	1	This is such a dumb thing to do AND a waste of money! THINK! Before doing this, it is so against humanity!
MBTL-HIA-00063-1	Michael Gochfeld	Technical	Unique	General Public	1	General Comments	1	This project has been brewing for a long time, and there are objections in many areas: health, pollution, aesthetics, economics, climate. The HIA Steering Committee should reject this proposal. It is my understanding that this would be the largest coal export terminal in the nation. The proposed volume of coal export is staggering.
MBTL-HIA-00063-7	Michael Gochfeld	Technical	Unique	General Public	1	General Comments	1	Because many of these serious health impacts cannot be mitigated, I urge the HIA Steering Committee, Cowlitz County and the WA Department of Health to recommend rejection of this project and denial of all permits.
MBTL-HIA-00064-1	Jim Steitz	Non-technical	Unique	General Public	1	General Comments	1	Even the smallest scope of environmental analysis, the terminal itself and the proximate impact to the local natural and human environment, shows the MBTL proposal to be grossly unacceptable. The coal shipping traffic through the Columbia River, the local air and water pollution, congestion, and destruction of the community ambience, would transform the local area into a purgatory of industrial misery. The river ecosystem, whose marine mammals and fisheries are already under severe stress from hydroelectric dams, fishing pressure, and water quality degradation, would face another maelstrom of industrial pollution, noise, and physical displacement. The residents of Longview, and other communities for whom this permit would set a precedent, did not necessarily move there to experience one of America's largest commodity export projects operating more hours than not. Persons wishing a full-time industrial experience have ample other places in America to live, and Longview need not be one of them.
MBTL-HIA-00065-1	Chris Lish	Technical	Form Letter plus Text	General Public	1	General Comments	1	"Our duty to the whole, including to the unborn generations, bids us to restrain an unprincipled present-day minority from wasting the heritage of these unborn generations. The movement for the conservation of wildlife and the larger movement for the conservation of all our natural resources are essentially democratic in spirit, purpose and method." -- Theodore Roosevelt
MBTL-HIA-00065-2	Chris Lish	Technical	Form Letter plus Text	General Public	1	General Comments	1	"Every man who appreciates the majesty and beauty of the wilderness and of wild life, should strike hands with the farsighted men who wish to preserve our material resources, in the effort to keep our forests and our game beasts, game-birds, and game-fish-indeed, all the living creatures of prairie and woodland and seashore-from wanton destruction. Above all, we should realize that the effort toward this end is essentially a democratic movement." -- Theodore Roosevelt
MBTL-HIA-00065-3	Chris Lish	Technical	Form Letter plus Text	General Public	1	General Comments	1	"Do not suffer your good nature, when application is made, to say 'Yes' when you should say 'No'. Remember, it is a public not a private cause that is to be injured or benefited by your choice." -- George Washington
MBTL-HIA-00065-4	Chris Lish	Technical	Form Letter plus Text	General Public	1	General Comments	1	"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." -- Aldo Leopold
MBTL-HIA-00066-3	Peter Cornelison	Non-technical	Unique	General Public	1	General Comments	1	Please do not allow this terminal to be built.
MBTL-HIA-00068-1	PAUL SUTER	Non-technical	Unique	General Public	1	General Comments	1	The message of the draft Health Impact Assessment of Millenium's proposed coal port is clear: Millenium should not be allowed to go ahead with its project. Please heed the warnings of the draft's conclusions.

MBTL-HIA-00071-1	Charles Walsh	Technical	Form Letter plus Text	General Public	1	General Comments	1	First and foremost my elderly mother lives in Woodland, WA., within sound of train traffic paralleling I-5. She served our country and is ended her military career in 1946 as an ensign in the US Navy. With all that follows please remember her and others like her.
MBTL-HIA-00072-2	Sabra Hull	Non-technical	Unique	General Public	1	General Comments	1	I urge denial of this proposal.
MBTL-HIA-00073-1	Jude Green	Technical	Form Letter plus Text	General Public	1	General Comments	1	We don't want to export coal from Washington State. It is not good for the water, land, or air. And when it is burned it goes into the atmosphere, and comes back in the form of air pollution.
MBTL-HIA-00074-4	Janice Doherty	Non-technical	Unique	General Public	1	General Comments	1	It is past time for all citizens of Washington State to work together to protect the environment for the future. Short term economical benefits are far outweighed by the need for a sustainable environment. Please do NOT allow the Millennium project to continue on the pretext it will be good for the health of the people, the environment and the local economy.
MBTL-HIA-00075-1	Marilyn McCaulley	Technical	Form Letter plus Text	General Public	1	General Comments	1	Protect our health and the health of our planet by prevention of construction of the Millenium coal export facility!
MBTL-HIA-00076-1	Diane L. Dick	Technical	Unique	General Public	1	General Comments	1	Thank you to the HIA Steering Committee and the contributors who have spent countless hours, many unpaid, to question, review and analyze the health effects of creating one of the nation's largest coal export terminals in our small and environmentally sensitive community.
MBTL-HIA-00078-1	lynn clark	Technical	Form Letter plus Text	General Public	1	General Comments	1	Who is not worthy among you of PURE AIR and PURE WATER? These are God Ordained. Those who PROTECT them are also God Ordained.
MBTL-HIA-00081-1	Charles Walsh	Technical	Form Letter plus Text	General Public	1	General Comments	1	First and foremost my elderly mother lives in Woodland, WA., within sound of train traffic paralleling I-5. She served our country and is ended her military career in 1946 as an ensign in the US Navy. With all that follows please remember her and others like her.
MBTL-HIA-00084-1	Jim Steitz	Technical	Form Letter plus Text	General Public	1	General Comments	1	Even the smallest scope of environmental analysis, the terminal itself and the proximate impact to the local natural and human environment, shows the MBTL proposal to be grossly unacceptable. The coal shipping traffic through the Columbia River, the local air and water pollution, congestion, and destruction of the community ambiance, would transform the local area into a purgatory of industrial misery. The river ecosystem, whose marine mammals and fisheries are already under severe stress from hydroelectric dams, fishing pressure, and water quality degradation, would face another maelstrom of industrial pollution, noise, and physical displacement. The residents of Longview, and other communities for whom this permit would set a precedent, did not necessarily move there to experience one of America's largest commodity export projects operating more hours than not. Persons wishing a full-time industrial experience have ample other places in America to live, and Longview need not be one of them.***
MBTL-HIA-00085-1	Sonya Norton	Technical	Form Letter plus Text	General Public	1	General Comments	1	I HAVE STUDIED THE FOLLOWING LETTER AND MATERIALS FROM THE ONGOING ARGUMENT AGAINST EXPANSION OF THE COAL TRANSPORT FACILITIES AROUND VANCOUVER, BRITISH COLUMBIA. <a href="https://www.ncbi.nlm.nih.gov/pubmed/28126388">https://www.ncbi.nlm.nih.gov/pubmed/28126388</a> I AGREE WHOLEHEARTEDLY WITH THE FOLLOWING OBJECTION.
MBTL-HIA-00089-1	Dave Carman	Technical	Form Letter plus Text	General Public	1	General Comments	1	I am using this standard letter because I agree with the concerns but don't have the time to write something comparable myself. Regardless, I say let's put our resources into developing alternative clean energy worldwide, period!
MBTL-HIA-00091-1	Kelly McConnell	Technical	Form Letter plus Text	General Public	1	General Comments	1	As lifelong resident of the Pacific Northwest I HIGHLY value our local environment. Clean air, water, and land are paramount to the local population and allowing a massive coal export terminal is contrary to OUR WISHES.
MBTL-HIA-00091-2	Kelly McConnell	Technical	Form Letter plus Text	General Public	1	General Comments	1	STOP sacrificing everything we hold dear to the greedy rich corporations, this is OUR land and WE DO NOT WANT COAL, OIL, OR GAS EXPORT TERMINALS and the pollution and destruction they bring with them.
MBTL-HIA-00094-6	Marilee Dea	Technical	Unique	General Public	1	General Comments	1	I strongly recommend that you take the necessary steps to ensure that the coal terminal is not built, for the sake of the health of the Highland community and broader community of earth.
MBTL-HIA-00096-40	Regna Merritt	Technical	Unique	Organization	1	General Comments	1	It is highly likely that there will be increases in adverse health and safety outcomes as a result of the project. We ask the HIA Steering Committee, Cowlitz County, and the WA Department of Health to take action to prevent the many unavoidable, significant, and adverse health impacts associated with the MBT coal export proposal. The Final HIA should provide the basis for clear recommendations from the HIA Steering Committee to prevent construction of this coal terminal, deny future MBT coal export permits, and seek healthy alternatives to the coal export facility. It can also be a tool to protect the health and safety of Cowlitz County residents from future projects that endanger human health and our climate.
MBTL-HIA-00098-1	Regna Merritt	Non-technical	Unique	Organization	1	General Comments	1	I write today on behalf of the Power Past Coal (PPC) coalition. PPC supports and incorporates by reference the comments of Oregon and Washington Physicians for Social Responsibility on the draft HIA for the Millennium Bulk Terminals proposal. Please share our comments with the HIA Steering Committee.
MBTL-HIA-00099-3	Inga Fisher Williams	Technical	Unique	General Public	1	General Comments	1	I ask that the HIA Steering Committee recognize and affirm that the unavoidable, significant, and adverse impacts identified in the FEIS and by the Cowlitz County Hearings Officer cannot be mitigated and that the MBTL project should be rejected.
MBTL-HIA-00100-6	David Hupp	Non-technical	Unique	General Public	1	General Comments	1	COAL IN OUR GORGE; GET OUTTA HERE!!!
MBTL-HIA-00101-4	Fred Greef	Technical	Unique	General Public	1	General Comments	1	Cowlitz County knows there will be serious health impacts to its citizens. The biggest coal export proposal in the United States (also biggest potential source of air pollution in the US?) requires more scientific air quality modeling and more air quality monitoring for background levels in the most impacted neighborhoods. The known serious public health impacts locally and globally cry out for more study if not outright proposal denial.
MBTL-HIA-00102-1	Patricia Bode	Technical	Form Letter Master	General Public	1	General Comments	1	I urge the HIA Steering Committee to reject this proposal, based both on information included in the draft and information omitted from the draft.
MBTL-HIA-00102-11	Patricia Bode	Technical	Form Letter Master	General Public	1	General Comments	1	Because many of these serious health impacts cannot be mitigated, I urge the HIA Steering Committee, Cowlitz County and the WA Department of Health to recommend rejection of this project and denial of all permits.
MBTL-HIA-00103-11	Kevin Baier	Technical	Form Letter Master	General Public	1	General Comments	1	Finally, I ask that the HIA Steering Committee recognize and affirm that the unavoidable, significant, and adverse impacts identified in the final environmental impact statement by the Cowlitz County Hearings Officer cannot be mitigated and that the MBTL project should be rejected.
MBTL-HIA-00017-1	Kelly McConnell	Technical	Form Letter plus Text	General Public	2	Air Quality	2,5.4	Above ALL, we want CLEAN air and water. Coal exports are the antithesis of clean air and water.
MBTL-HIA-00030-2	James McClean	Non-technical	Unique	General Public	2	Air Quality	2	Yes pollution is an issue, but look at all the industry already here. Our air quality is still well within healthy standards and adding a couple trains per day wont make any significant damage.

MBTL-HIA-00050-1	Barbara Gottlieb	Non-technical	Unique	General Public	2	Air Quality	4,2,5,1,5,5	Having visited Oregon's Columbia River as a tourist with my family, I would like to share my concerns about this proposal. It would be extremely harmful to the health of everyone living in the river valley to have this massive coal export terminal built. The terminal as well as the related train traffic would (as your HIA indicates) pose real threats of cancer, air pollution, noise pollution and contamination of food sources.
MBTL-HIA-00072-1	Sabra Hull	Non-technical	Unique	General Public	2	Air Quality	2,5,4,4	The draft HIA prepared by Cowlitz County and the Washington Department of Health presents some alarming analysis of potential air and water quality issues, and consequent potential health impacts of this proposal. Both human and aquatic communities would be affected, and I see no remedy for these impacts.
MBTL-HIA-00096-10	Regna Merritt	Technical	Unique	Organization	2	Air Quality	8,2	3. AIR QUALITY MONITORING: The DHIA does not address the problem of grossly inadequate air quality monitoring in the affected areas, either for purposes of assessment or ongoing monitoring.
MBTL-HIA-00096-27	Regna Merritt	Technical	Unique	Organization	2	Air Quality	8,2	3. AIR QUALITY MONITORINGThe discussion of air pollutant effects in Section II (Health Evaluation) and again in Appendix I (Air Quality) are based on baseline monitoring data in Longview from 2013 and 2016. The source of this monitoring data is from a single monitor stationed 1.5 miles from the project site. [4, page 689] This is not only an inadequate assessment of baseline air quality in the area, but is also inadequate to assess any degradation in air quality due to the coal export terminal, should MBT be allowed to proceed. Also lacking in the DHIA is information about wind speed, direction and impacts of inversions on air quality near the terminal and in Cowlitz County. See page 11 of Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals Longview. [Appendix II]
MBTL-HIA-00100-1	David Hupp	Non-technical	Unique	General Public	2	Air Quality	2	Carbon footprint of the Longview coal export terminalWhat is the statewide carbon footprint for Washington state?The carbon footprint for a state is the greenhouse gas carbon dioxide released by activity from all economic sectors (residential, commercial, industrial, government, military, and transportation). During 2010 Washington economic activity released 76.64 metric short tons of carbon dioxide. [Footnote 1. www.epa.gov/statelocalclimate/documents/pdf/CO2FFC_2010.pdf]What is the built coal export capacity of the proposed terminal?The proposed export terminal is the Millennium Bulk Terminal to be located at Longview WA, owned by Ambre Energy and Arch Coal. Its built capacity throughput is 44 million short metric tons per year. [Footnote 2. The Millennium Bulk Export Terminal application.] The Powder River coal exported through this terminal when burned in an East Asian (likely Chinese) coal plant would release 88 million short metric tons of carbon dioxide per year. [Footnote 3. The Bureau of Land Management (BLM), which owns the land upon which Powder River coal is mined, says one ton of this coal combusts to produce 1.7 tons of carbon dioxide. However, the U.S. Energy Information Administration report Carbon Dioxide Emission Factors for Coal (1994) (www.eia.gov/coal/production/quarterly/co2_article/co2.html) says, "Complete combustion of 1 short ton (2,000 pounds) of this coal will generate about 5,720 pounds (2.86 short tons) of carbon dioxide." We use 2 short tons as a happy medium between the two figures for ease of calculation. It is important to note that these emission figures apply only to the emissions from combustion of the coal in East Asian coal plants. The data do not include the substantial carbon emissions produced by mining, transporting and handling the coal, including operation of Millennium.]How much does the proposal expand the state's carbon footprint?The arithmetic is straightforward: 88 million tons/76.64 million tons = 1.15.Millennium would more than double the state's carbon footprint, increasing by 115%.
MBTL-HIA-00100-2	David Hupp	Non-technical	Unique	General Public	2	Air Quality	2	Conclusion: the Millennium proposal would increase Washington state's total carbon footprint by 115% to produce a miniscule fraction of the state's employment.
MBTL-HIA-00100-4	David Hupp	Non-technical	Unique	General Public	2	Air Quality	2	How does the Millennium proposal compare to President Obama's greenhouse emission reduction goals for the Federal Government?"In 2010, President Obama announced a Federal Government-wide target of a 28 percent reduction by 2020 in direct GHG emissions, such as those from fuels and building energy use, and a target 13 percent reduction by 2020 in indirect GHG emissions, such as those from employee commuting and landfill waste. Combined, these two goals could result in a cumulative reduction of 101 million metric tons of CO2 emissions ... ." [Footnote 5. Obama 2009 Executive Order 13514 (www.whitehouse.gov/administration/eop/ceq/sustainability/fed-ghg)]The Millennium emissions would be 87% of these national goals.
MBTL-HIA-00100-5	David Hupp	Non-technical	Unique	General Public	2	Air Quality	2	How does the Millennium proposal compare to the State of Washington's greenhouse emissions reduction goals?State law specifies a return to 1990 levels by 2020, a reduction of 10 million metric short tons per year. [Footnote 4. Washington statute (RCW 70.235.020) and Governor Gregoire Executive Order EO 07-02.]The Millennium carbon footprint equals nearly nine times this state goal, 880%.
MBTL-HIA-00101-5	Fred Greef	Technical	Unique	General Public	2	Air Quality	2	The EIS suggested that the PRB coal would simply find another port if not Longview, so that Global Warming impacts were not preventable. That is a questionable assumption given the newly awakened interest in west coast communities to stop all such proposals with huge greenhouse gas emissions and salmon and water pollution threats. The American Indian Movement has also awakened. Many tribal nations have joined the fight and will not give up. An EIS is required to assume worst case impacts, when there is some doubt. I think there is enough doubt about whether federal air quality standards can be met to simply deny this proposal.
MBTL-HIA-00018-5	Peter Kerr	Non-technical	Unique	General Public	2.1	Coal dust	2.1	*Significant coal dust and diesel particulate matter (DPM) exposures. Increased DPM exposures increase hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low-birth weight babies.
MBTL-HIA-00021-4	Roger Wechsler	Non-technical	Unique	General Public	2.1	Coal dust	2.1	Significant coal dust and diesel particulate matter (DPM) exposures that can lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low birthweight babies. (p. 9)
MBTL-HIA-00022-2	Stephen Bachhuber	Non-technical	Unique	General Public	2.1	Coal dust	2.1	I am particularly concerned about the fine particulates of diesel exhaust and the larger particulates of coal dust and its accompanying heavy metal deposition. My friends will suffer, and many will die before their time. Children are at particular risk.
MBTL-HIA-00024-1	Laura van Fleet	Technical	Form Letter plus Text	General Public	2.1	Coal dust	2.1	This project does much to negatively affect the health of people living along the transport route, in terms of coal dust from train cars,
MBTL-HIA-00029-3	William Newmann	Non-technical	Unique	General Public	2.1	Coal dust	2.1	Significant coal dust and diesel particulate matter (DPM) exposures that can lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low birthweight babies. (p. 9)

MBTL-HIA-00037-1	Beverly Elaine Sharp	Non-technical	Unique	General Public	2.1	Coal dust	2.1	You know as well as I know that coal dust can not be contained and will blow in the wind everyday in the evening when the winds blows off the river. You know that so act accordingly and protect citizens. Research McDuffie coal terminal located in Mobile, Alabama. Proof that coal dust cannot be contained.
MBTL-HIA-00038-3	Don Steinke	Technical	Unique	General Public	2.1	Coal dust	2.1	At the most recent board meeting of the Southwest Washington Clean Air Agency, staff presented a report. Please include it your HIA. It says: A. Study Finds Connection Between Fine Particulates and Birth Defects (December 11, 2017) - A study from researchers based at the University of Cincinnati and the Cincinnati Children's Hospital has found an increased risk of birth defects for mothers who are exposed to fine particulates (PM2.5) around the time of conception. The study estimated PM2.5 exposure levels from two months prior to conception through the first two months of pregnancy by correlating PM2.5 data collected from 57 monitoring stations throughout Ohio with the residential addresses of new mothers. The researchers found the highest defect risks for exposures occurring between one month prior to and one month after conception. The study, entitled Periconception Exposure to Air Pollution and Risk of Congenital Malformations, was published in the Journal of Pediatrics. For further information: <a href="http://www.4cleanair.org/sites/default/files/Documents/Periconception_PM_Exposure_Study_Dec_2017.pdf">http://www.4cleanair.org/sites/default/files/Documents/Periconception_PM_Exposure_Study_Dec_2017.pdf</a> The report concludes: Although the increased risk with PM2.5 exposure is modest, the potential impact on a population basis is noteworthy because all pregnant women have some degree of exposure. (J Pediatr 2017)
MBTL-HIA-00039-4	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	2.1	Coal dust	2.1	- Significant coal dust and diesel particulate matter (DPM) exposures that can lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low-birth weight babies.(p.9)
MBTL-HIA-00040-3	Pete Von Christerson	Technical	Unique	General Public	2.1	Coal dust	2.1	Significant coal dust and diesel particulate matter (DPM) exposures that can lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low birthweight babies. (p. 9).
MBTL-HIA-00050-2	Barbara Gottlieb	Non-technical	Unique	General Public	2.1	Coal dust	2.1	Particulate matter from coal dust as well as from diesel engines are harmful to the respiratory system, the heart and the nervous system. Exposure can contribute to death from lung cancer, pulmonary diseases including COPD, acute myocardial infarction, congestive heart failure, and ischemic stroke. In addition, it is associated with all-cause mortality as indicated in the 12/26.2017 Journal of the American Medical Association.
MBTL-HIA-00057-1	JoAnn Amundson	Non-technical	Unique	General Public	2.1	Coal dust	2.1	I would like to focus my comments on the adverse impacts from PM 2.5 and DPM .2.5 if this terminal is built. Baseline data in the HIA already indicate that Cowlitz County has higher mortality rates than WA state from conditions related to particulate matter and DPM. Deaths from heart disease were 7% higher than the state average; deaths from combined chronic lower respiratory diseases were a remarkable 52% higher; and the mortality rate of trachea, bronchial and lung cancers combined was 25% higher compared to the state rate. On top of this, the HIA modeling concentrations for PM 2.5 are estimated to increase by 62% per 24 hours. While the report states that this is "within NAAQS requirements", that is barely the case: 89% compared to NAAQS limits. Studies have shown (as acknowledged in the HIA report) that adverse effects have been documented from PM 2.5 well below current NAAQS limits. In fact a very recent report in JAMA of a large study showed that for each day-to-day increase of as little as 10 micrograms per square meter of PM 2.5, there was a striking 1.05% increase in deaths. The effect was greater for the elderly, low-income people and women. That figure of 10 micrograms of PM 2.5 in the JAMA study is almost exactly the same average increase per 24 hours as projected by the HIA modeling report - 11.9 micrograms. Further, the JAMA observed that these risks "remained significant even at levels below what the EPA considers safe." To conclude: why would this community condone the installation of a project that will almost certainly increase disease and deaths from illnesses that ALREADY have much higher rates than the WA average? We urge the officials of Cowlitz County to deny the permits for this project, putting the health needs of residents before economic considerations.
MBTL-HIA-00063-2	Michael Gochfeld	Technical	Unique	General Public	2.1	Coal dust	2.1	Air pollution including carcinogenic particulates and respiratory disease is the biggest health impact.
MBTL-HIA-00066-2	Peter Cornelison	Non-technical	Unique	General Public	2.1	Coal dust	2.1	I keep hearing from terminal proponents that coal dust is a red herring but I can take you to multiple sites along the BNSF main line where coal dust and pellets have been and continue to polluting the land and river.
MBTL-HIA-00074-3	Janice Doherty	Non-technical	Unique	General Public	2.1	Coal dust	4.2.1,4.2.5.2	The Hanford area was designated as a "national sacrifice zone" in matters related to the development of nuclear power. Spokane County is just one area of eastern WA impacted with higher cancer rates related to fallout from "The Green Run" and other radiation experiments and mistakes at Hanford. Cowlitz County should not be designated the current "sacrifice area" for supporting the coal industry as it gradually becomes obsolete.Examples: negative health effects from inhaling coal dust and diesel; increased wait times for emergency response personnel waiting for train crossings; further deterioration of fish and seafood harvests, particularly as related to local tribes who have already suffered significant harm to their fishing and cultural sites

MBTL-HIA-00076-5	Diane L. Dick	Technical	Unique	General Public	2.1	Coal dust	2.1	<p>Below is a comment made and the response in the EIS (01/17), I have yet to find the Master Response, comment CD-20. According to Table 2.0.2 of the Millennium Bulk Terminal DEIS the maximum annual average emissions of particulate matter from operations of the coal terminal from global project areas' sources is 7.08 tons. This would be a miraculous achievement if compared with actual emissions reports from operating coal terminals. Hay Point Coal Terminal in Australia has been in operation for almost 50 years and has been addressing coal dust and pollutant emissions the entire time. They promote the most current dust suppression system. There is a long record of emissions data. Their rail and ship operations are similar to that proposed to MBT and their terminal capacity until recently was the same, 44 million metric tons. Hay Point Coal Terminal self-reported to the Australian National Pollutant Inventory for 2014/15 pm 10 air emissions of 140,000 kilograms or 154 tons or more than 20 times what the MBT DEIS predicts. Pm 2.5 emissions have a similar wide discrepancy. MBT 2.4 tons, HPCT 19 tons. Which data has more credibility? The important data in the MBT DEIS is too good to be true and not to be believed. (TRANS-LV-M2-00056) Response to CD-140 Refer to Response to CD-17. Response to CD-17. Emissions for other coal export terminals, such as the Hay Point Terminal in Australia, cannot be applied directly to the Proposed Action. Numerous factors, including facility throughput, coal stockpile size, meteorological conditions, and dust-suppression techniques, affect estimated coal dust emissions. The Air Quality Impact Assessment Report (Newcastle Coal Infrastructure Group 2006) prepared for the Hay Point Terminal was reviewed during the preparation of the Draft EIS. The Hay Point assessment used the same approach for calculating emissions as was used in the Draft EIS analysis. The difference in emissions results are related to the considerably larger total area covered by the coal stockpiles at the Hay Point terminal (153.5 acres versus 50.3 acres for the Proposed Action), as well as other site-specific factors including number of rainy days per year, silt content of the coal, and percentage of winds greater than 5.4 meters per second. The most important difference is the Hay Point terminal does not employ watering of the coal piles for coal dust suppression, which reduces emissions by an estimated 90% (Western Governors' Association 2006). Refer to the Master Response for Particulate Matter and Coal Dust Analyses for a summary of the coal dust analysis and conclusions, applicable regulatory standards related to human health, and how other human health concerns are being considered outside of the EIS. Note the response contains discrepancies of fact. HIA states 75 acre stockpile size, not 50.3 acres. Water sprinkler systems are used on stockpiles at Hay Point. "DBCT also use extensive processes to mitigate dust such as: moisture addition in all transfer points; computer controlled stockyard sprinkler systems which are synchronised with real time weather events; and stockyard veneering utilising a natural benign gum based product." <a href="http://www.dbctm.com.au/environment.aspx">http://www.dbctm.com.au/environment.aspx</a> Regarding throughput, Hay Point is directly comparable. "In 2014/15, total throughput for the port was 114,976,504 tonnes, comprising 71,551,704 tonnes through DBCT and 43,424,800 tonnes through HPCT. The continued growth in central Queensland coal production ensured that the port retained its status as one of the largest coal export ports in the world." From "Port of Hay Point Port Handbook" There are air monitoring reports for Hay Point that includes dust deposition data and map of monitoring sites around the terminals. <a href="https://nqbp.com.au/sustainability/research-and-reports">https://nqbp.com.au/sustainability/research-and-reports</a> Also attached is "Coal Dust and Health in the MacKay Region," Feb 2013, the area that includes Hay Point, produced on the prospect of new and expanded coal terminal operations. Sighting</p>
MBTL-HIA-00083-1	John Nettleton	Technical	Form Letter plus Text	General Public	2.1	Coal dust	2.1	<p>Allowing transit of coal through the gorge is double jeopardy for those of us living in this area. First, the coal dust that be in our air from the transit,</p>
MBTL-HIA-00094-2	Marilee Dea	Technical	Unique	General Public	2.1	Coal dust	2.1	<p>As a member of the Oregon Nurses Association (ONA), representing registered nurses in Oregon - we unanimously passed a resolution against coal terminals and coal exports in Oregon. Why would we do that? Coal dust contains heavy metals, mercury, lead and arsenic that escapes in transit and transfer. Lead is linked to poisoning nervous systems in young children and workers as well; mercury can cause poisoning in fish and birth defects in infants whose mothers eat this fish and the dust and particulate matter from the coal and especially from diesel in both the engines from the trains and tanker ships can cause cancer, heart attacks and asthma. Diesel's small particulate matter is inhaled into lungs where it can cause swelling and inflammation leading to an exacerbation of asthma and possible cancer and it then travels into the blood stream where it invades the heart and can participate a heart attack.</p>
MBTL-HIA-00096-25	Regna Merritt	Technical	Unique	Organization	2.1	Coal dust	8,2.1	<p>DISCUSSION: THE HEALTH EFFECTS OF DRAFTING COAL DUST IN COWLITZ COUNTY, SECTION II (Health Evaluation) considers these questions: Question 1. What effects will coal dust, diesel exhaust from trains, ship pollutants, and emissions from vehicles, due to increased congestion, have on the health of Longview residents and sensitive populations (such as asthmatics, elderly, pregnant, smokers, those with respiratory conditions, and youth)? Question 2. What are the short- and long-term effects of diesel exhaust and coal dust exposure? Question 3. What neighborhoods and communities will be at the greatest risk of exposure to air pollution based on proximity, prevailing winds, and other environmental factors? Some short-and-long term effects of diesel exhaust and coal dust exposure (PM 2.5 and PM 10) are well-delineated in the HIA. The current health status of the neighborhoods and communities at greatest risk of exposure are also clearly noted and found to be generally worse than that of Washington State as a whole. Health data shows higher death rates from heart disease, lower respiratory diseases, most notably emphysema in Cowlitz County, particularly in the neighborhoods near the proposed MBT (Highlands and St. Helen's) than in other areas of Washington State. This translates into a greater negative effect of air pollution on the health of the population of Cowlitz County because of the higher burden of existing illness. The DHIA omits the harmful effects of PM 2.5 on older adults in particular. Recent research has shown that the elderly are disproportionately harmed from this type of air pollution. Even a slight increase in daily PM 2.5 exposure has been shown to directly correlate with increased mortality for adults 65 and older. [Appendix III] As the HIA notes that Cowlitz County's population of adults over 65 is larger than that of Washington overall, this risk is particularly significant. What conclusions are drawn are found buried in the Appendix. In the Appendix, the DHIA notes that in "2008 the Washington Department of Ecology ranked DPM as the highest priority toxic air pollutant based on cancer potency and emission levels." Although the HIA notes significant negative health impacts of both diesel exhaust and coal dust exposure to the residents of Cowlitz County, particularly those closest to the terminal, it does not acknowledge that these effects cannot be mitigated. Because the greatest negative health impacts would occur in vulnerable communities and to those burdened by illness, pregnant women, infants and children, and those over 65 years, this project does not meet the standards of "Equity" from the International Association of Impact Assessment. [Appendix I] Furthermore, the DHIA does not discuss the adverse effects of exposure to black carbon (BC), a component of diesel particulate matter, smaller than PM 2.5, and more dangerous. There is evidence that previous estimates of the effects of PM 2.5 on health may have been underestimated as new methods of measurement have been developed to evaluate the black carbon content. Of most concern, evidence of neurodevelopmental and neurodegenerative effects of exposure to black carbon and PM2.5 and the toxicants they carry into the blood stream have been left out of the analysis. Thus, important health impacts on children, adults, and the elderly have been left out of the draft HIA. Asthma rates in Cowlitz County are very high. The DHIA does not analyze the potential for increased asthma rates and exacerbation resulting from exposure to fine particulate matter and ground level ozone. High asthma hospitalization rates are noted in the Table 8 but there is no discussion. Asthma should be added and evaluated as a health impact along with significant increases in hospitalizations for respiratory infections, COPD and bronchiectasis. The impact to other communities along the rail lines or shipping routes is also minimized or excluded and what information is provided is only found in the Appendix. The DHIA also does not</p>

MBTL-HIA-00096-39	Regna Merritt	Technical	Unique	Organization	2.1	Coal dust	2.1,4,2,4,5.1	<p>Conclusions Oregon and Washington PSR conclusions are based on the DHIA, the FEIS, the Decision of the Shorelines Hearing Officer, the Assessment of Health and Safety Implications of Coal Transport through Oakland, hundreds of peer-reviewed journal articles and include:- Coal pollutants affect all major body organ systems and contribute to 4 of the 5 leading causes of death in America, including heart disease, cancer, stroke, and chronic respiratory disease.- Transportation of coal by rail through Longview and the transfer of coal through the proposed MBT export terminal will increase exposures to air pollutants with known adverse health effects including deaths.- There are no proven methods to eliminate or reduce the emission of these pollutants to a safe level.- There are inherent hazards in transporting and handling coal, including the risk of catastrophic explosion.- The combustion of coal exported from Longview will contribute to global climate change, resulting in additional adverse health risks to Cowlitz County residents and others.- Impacts of coal transport and handling, including noise impacts, will be greatest along the railroad and near the terminal in neighborhoods already burdened by significant health inequities.</p>
MBTL-HIA-00096-8	Regna Merritt	Technical	Unique	Organization	2.1	Coal dust	8,2.1	<p>SUMMARY FINDINGS1. HEALTH EFFECTS OF DIESEL PARTICULATE MATTER (DPM) AND COAL DUST:Coal dust and diesel particulate matter (DPM) exposures lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, cancer and pre-term and low-birth weight babies. In the Appendix, the DHIA acknowledges that in "2008 the Washington Department of Ecology ranked DPM as the highest priority toxic air pollutant based on cancer potency and emission levels."The DHIA provides data that indicates this project will lead to a higher burden of illness and increased deaths from exposure to DPM and coal dust for the residents of Cowlitz County.However, the DHIA minimizes the negative health impacts and the fact that those with underlying illnesses are most negatively impacted by poor air quality. It also fails to conclude that the impacts of these air pollutants cannot be mitigated and that these air pollutants most affect vulnerable communities already burdened by significant health inequities.</p>
MBTL-HIA-00097-13	C. Persons	Technical	Unique	Organization	2.1	Coal dust	2.2,2.1	<p>- By the FEIS and draft HIA's own analyses, predicted levels of PM10 and PM2.5 emissions from diesel and coal dust are dangerously close to the maximums allowed by federal and state standards and are at the maximum of 10 new cancers per million permitted by Washington State for diesel emissions. As noted above, these emission levels are far above those recommended by WHO. Cowlitz County residents most affected will be low-income residents in a Longview area already well-documented for poor cardiovascular health (part of the Highlands Neighborhood) and Woodland Primary School, attended by young children, another population that the draft HIA states is especially at risk from long-term micro-particle exposure. Because of these adverse health effects from emissions alone, the final HIA could protect residents by recommending that the Millennium project not be built at all.- Alternatively, the HIA should include recommendations for mitigation of these emission levels not included in the FEIS, such as replacement of diesel train engines with less-emitting models at the beginning of operations instead of over a long period of years; curtailment of train arrivals, departures and unloading during particularly adverse winter air inversions; use of covered coal train cars; enclosure or partial enclosure of train unloading and ship loading; and enclosure or partial enclosure of coal storage piles.Crafting these recommendations for emissions mitigation is where input from the Steering Committee will be invaluable. Other agencies, universities and non-profits as well as Millennium and BSNF can help gather information about what are reasonable mitigations in terms of timeline and cost. Wide input over a time span of one or two years might be necessary to decide which recommendations to reduce micro-particle emissions should be included in the final HIA. - Further recommendations about emissions will be necessary if the Millennium project is built as now described in the FEIS. The final HIA should recommend that Millennium Bulk Terminals wash down soot on residences, as Westshore Terminal does in Delta, B.C. Alternatively, most residents within 50 to 150 feet of the coal train routes will need a public education campaign to learn how to live with "nuisance" levels of coal dust (soot) as an annoyance that is not adversely affecting their health very much. - More important, other public health education will be necessary if he Millennium project is built as currently proposed in the FEIS; the residents of Longview who live within 50 to 100 feet of the coal train routes and operations plant and staff at Woodland Primary School-and other residents at risk who may be identified along the train routes outside of Cowlitz County-will need to learn how to modify their buildings and activities to minimize exposure to dangerous levels of micro-particles. The exact form of these recommendations in the final HIA will require input from various public agencies and non-profits about leadership of this continuing public education campaign-and input from the residents most affected, whose opinions about the cost, reasonableness, timeline and effectiveness of various actions should be considered invaluable.</p>
MBTL-HIA-00097-5	C. Persons	Technical	Unique	Organization	2.1	Coal dust	8,2.1	<p>Additional information and sources:- The draft HIA is to be commended for its clear explanation that micro-particle emissions in coal dust and diesel emissions are correlated with a range of cardiovascular diseases, from asthma to heart attacks, as well as some correlation with other diseases, and that low-income people who already suffer from stress-related disease and other vulnerable parts of the population, such as infants, children, the elderly and those with chronic health conditions, will be more adversely affected by increases in micro- particles than healthy working-age adults with adequate incomes. The draft HIA also explains that the direct evidence for these adverse health effects from coal dust is lacking in terms of controlled subject or large population studies for non-coal industry workers. To improve the lack of scientific studies, the final HIA should consider adding the evidence of a recent study-Iha and Muller 2017, which looks at the health and economic effects of coal storage and transportation on regions of the Eastern U.S.A. Also please plan to incorporate the results of the promised BSNF study, due in 2018, of the effectiveness of covers for coal trains (Le 2016). - The most important information that is lacking in the draft HIA is the World Health Organization's standards for micro-particle emissions (WHO 2005):PM2.5: 10 µg/m3 annual mean 25 µg/m3 24-hour mean PM10: 20 µg/m3 annual mean 50 µg/m3 24-hour mean (WHO 2005, p. 9)Inclusion of these standards would follow the precedent in the draft HIA of referring to the WHO standards for noise levels. The WHO emission standards are basically half the federal government's NAAQS approved levels. The WHO standards are based on years of studies of disease effects from PM2.5 and PM10 particles, and factor in the practicality of both measuring emission levels and enforcing standards to protect elderly, young, and health-compromised populations who are so much more affected by increases in micro-particles. The draft HIA states that the modeled emission levels predicted for the Millenium project, while just short of the NAAQS maximums, is still unhealthy. However, reference to the WHO standards would clarify how strong the consensus is that U.S. federal standards do not adequately protect vulnerable populations who experience long-term exposure to micro-particle emissions.</p>

MBTL-HIA-00097-8	C. Persons	Technical	Unique	Organization	2.1	Coal dust	8.2.1	Suggested monitoring:- Monitoring for micro-particle emissions as currently proposed in the FEIS is inadequate for a 23-year project which will not reach full capacity until 2028. According to the FEIS, as part of mitigation Millennium would install one fence-line particulate matter monitor and report pollution levels to the Department of Ecology for five years. However, monitoring should take place for the entire period of the project and beyond, after cleanup of the project site. A monitoring plan should also include installing more than one monitor, and it should be for all pollutants regulated by federal and state laws, not just particulate matter. The final HIA should recommend adding emissions and coal dust monitors at further distances from the coal terminal in Longview, at Woodland Primary School, and at other points along the coal rail routes where residents are within 150 feet of the tracks, and that the monitoring period extend until the company permanently closes down operations.
MBTL-HIA-00099-2	Inga Fisher Williams	Technical	Unique	General Public	2.1	Coal dust	2.1	B> Draft HIA documents MBT HEALTH RISKS and negligible Job generation. In my comments below, I cite specific reasons to illustrate how the Draft HIA shows that the Millennium Bulk Terminal development is a health risk to local and regional residents, as well as a contributor to GHG production which accelerates Climate Change impacts. 1.) Negative Health Effects from airborne coal particles are well known and have been documented. The main health impacts include lower respiratory diseases and heart diseases. The Draft HIA states that Cowlitz County and affected neighborhoods would be at even greater risk of experiencing health effects than other parts of Washington. Chronic respiratory diseases like asthma and emphysema already have a higher mortality rate in Cowlitz County than in adjoining areas (Highlands, St. Helens, and Lexington) 2.) Mitigation of Airborne Coal from onsite storage impacts Water, risking unknown, untested contamination. a. Hazardous ingredients in topsoil agents could not be identified as they were proprietary or not reviewed for potential health impacts. No toxicology data or testing was available and/or included in the HIA draft. It appears that many polymers are exempt from chemical testing requirements. b. Water demand for MBT is high and risks potential contamination of the aquifer. The project area includes at least nine production wells that tap into the deep aquifer. Contaminants can enter the shallow aquifer and reach the deep aquifer.
MBTL-HIA-00101-2	Fred Greef	Technical	Unique	General Public	2.1	Coal dust	8.2.1	Air quality monitors should be set up in the critical corridor where most severe health impacts and excess cancer deaths are predicted. At least one full year of ambient air quality monitoring background data should be collected in these neighborhoods before any project approvals. Public officials should then look more closely at all the modeling assumptions to determine whether this proposal will actually violate federal standards for PM 2.5, NO2, and DPM. If health standards cannot be met the project must not be denied. I think there are some real questions here and real public health issues that call for air quality monitoring in these neighborhoods with true PM 2.5 PBR coal dust measurements. An Australian study based on PM 10 size coal particles is not good enough for the citizens of Longview. Powder River Basin (PRB) coal breaks down into a much higher percentage of the finer sized PM 2.5 particles than coal from many other parts of the world. The HIA assumes particle size will be largely in the PM 10 size range. Coal dust impacts in Australia and other locations such as England were used to estimate Longview impacts. Modeling assumed that most of the coal dust would be in the PM 10 size class as in these other areas. The true PM 2.5 levels in the critical corridor area may well exceed the federal ambient air quality standard. 89% of the federal standard is way too close for comfort especially with several potentially faulty assumptions. The citizens of the most impacted neighborhoods in Longview already suffer much poorer health than most Washington citizens, from the same types of air pollution that this proposal will cause. Powder River Basin (PRB) coal—the type that would be exported—is notoriously difficult to handle. One technical analysis finds that "PRB coal is extremely friable and will break down into smaller particles virtually independent of how the coal is transported or handled." According to the study's authors, "PRB coal represents the extremes of handling problems." So much coal dust escapes from the open-top rail cars used for transporting coal that it creates safety problems for rail traffic. Coal dust deposits sometimes cause spontaneous fires, and in 2005, for example, coal dust that had accumulated in ballast, the layer of crushed rock that supports rail tracks, caused derailments. Published and peer-reviewed scientific research by Dan Jaffe, a professor of atmospheric science at the University of Washington, casts doubt on the real-world effectiveness of controlling coal dust from rail transport even with use of surfactants. In 2013 and 2014, Jaffe installed air monitoring equipment that enabled him to analyze the emissions from hundreds of trains. He concluded that passing coal trains do in fact spread notable quantities of dust. The bulk storage piles at the Port of Longview will also be difficult to handle and manage and much PM 2.5 will wind up in many Longview neighborhoods whenever the wind blows. It travels much farther than PM 10 assumptions used for the HIA modeling.
MBTL-HIA-00102-4	Patricia Bode	Technical	Form Letter Master	General Public	2.1	Coal dust	2.1	- Significant coal dust and diesel particulate matter exposures can lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low-birth weight babies.
MBTL-HIA-00103-3	Kevin Baier	Technical	Form Letter Master	General Public	2.1	Coal dust	2.1	*Significant coal dust and diesel particulate matter (DPM) exposures that can lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, and pre-term and low-birth weight babies (p.9).
MBTL-HIA-00038-1	Don Steinke	Technical	Unique	General Public	2.2	Exhaust and emissions from trains ships and vehicles	2.2	Please make this part of the record. Please remind the decision makers why the EPA considers diesel emissions so serious that they fined Volkswagen \$20 billion for cheating on their emissions. Please compare the likely emissions of all the non-compliant Volkswagens in the study area with the anticipated emissions of 32 diesel locomotives entering and leaving the study area on a daily basis.
MBTL-HIA-00038-5	Don Steinke	Technical	Unique	General Public	2.2	Exhaust and emissions from trains ships and vehicles	2.2	When George Bush ran for the presidency in 2000, he said the air would be cleaner when he left office, than when he began. His office also said that for each \$1 spent reducing diesel emissions, \$4 in health care costs would be saved. The air may be cleaner in places that have the new diesel locomotives, but Washington State doesn't usually get those. Demand that Millennium use only Tier 4 locomotives in SW Washington.

MBTL-HIA-00097-13	C. Persons	Technical	Unique	Organization	2.2	Exhaust and emissions from trains ships and vehicles	2.2,2.1	- By the FEIS and draft HIA's own analyses, predicted levels of PM10 and PM2.5 emissions from diesel and coal dust are dangerously close to the maximums allowed by federal and state standards and are at the maximum of 10 new cancers per million permitted by Washington State for diesel emissions. As noted above, these emission levels are far above those recommended by WHO. Cowlitz County residents most affected will be low-income residents in a Longview area already well-documented for poor cardiovascular health (part of the Highlands Neighborhood) and Woodland Primary School, attended by young children, another population that the draft HIA states is especially at risk from long-term micro-particle exposure. Because of these adverse health effects from emissions alone, the final HIA could protect residents by recommending that the Millennium project not be built at all. Alternatively, the HIA should include recommendations for mitigation of these emission levels not included in the FEIS, such as replacement of diesel train engines with less-emitting models at the beginning of operations instead of over a long period of years; curtailment of train arrivals, departures and unloading during particularly adverse winter air inversions; use of covered coal train cars; enclosure or partial enclosure of train unloading and ship loading; and enclosure or partial enclosure of coal storage piles. Crafting these recommendations for emissions mitigation is where input from the Steering Committee will be invaluable. Other agencies, universities and non-profits as well as Millennium and BSNF can help gather information about what are reasonable mitigations in terms of timeline and cost. Wide input over a time span of one or two years might be necessary to decide which recommendations to reduce micro-particle emissions should be included in the final HIA. - Further recommendations about emissions will be necessary if the Millennium project is built as now described in the FEIS. The final HIA should recommend that Millennium Bulk Terminals wash down soot on residences, as Westshore Terminal does in Delta, B.C. Alternatively, most residents within 50 to 150 feet of the coal train routes will need a public education campaign to learn how to live with "nuisance" levels of coal dust (soot) as an annoyance that is not adversely affecting their health very much. - More important, other public health education will be necessary if the Millennium project is built as currently proposed in the FEIS; the residents of Longview who live within 50 to 100 feet of the coal train routes and operations plant and staff at Woodland Primary School-and other residents at risk who may be identified along the train routes outside of Cowlitz County-will need to learn how to modify their buildings and activities to minimize exposure to dangerous levels of micro-particles. The exact form of these recommendations in the final HIA will require input from various public agencies and non-profits about leadership of this continuing public education campaign-and input from the residents most affected, whose opinions about the cost, reasonableness, timeline and effectiveness of various actions should be considered invaluable.
MBTL-HIA-00101-1	Fred Greef	Technical	Unique	General Public	2.2	Exhaust and emissions from trains ships and vehicles	8.2.2	I believe there are a couple of key flaws that should be addressed before the report is finalized since they may lead to significant underestimation of the public health consequences. PM 2.5 and diesel emissions (DPM) from huge barges may be underestimated. The 2013 and 2016 background air quality monitoring for Longview may not have explicitly focused on the most impacted corridor, and likely does not represent true PM 2.5 background levels, or true diesel particulate (DPM) levels for that zone. The PM 2.5 emissions in those neighborhoods following build-out were modeled at 89% federal Ambient Air Quality Standards. The background level used in the modeling may not represent the critical impact zone levels, which are higher than other parts of Longview. I believe the true background level in the critical impact zone has never had adequate annual measurements. These are questions that should be addressed before the final HIA report. The DPM estimates may also be underrepresented in the HIA modeling since the huge barges diesel emissions (docked outside of the study area) were not even counted. The fine particles in these emissions travel great distances with any wind up or down river, and no "wind rose" air quality modeling was conducted to justify the assumption of no additional PM 2.5 or DPM impact in the critical corridor. Washington Department of Ecology air quality modellers should look closely at all of these assumptions before we can say national air quality standards will not actually be violated.
MBTL-HIA-00006-2	Melvin Mackey	Non-technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	My comments are simple and straight forward. We must all eventually come to the conclusion that fossil fuels are weapons of mass destruction. They are directly related to global warming and the destruction of our planet's ecosystem on which all people are dependent. Coal is one of the worst fossil fuels creating climate change.
MBTL-HIA-00018-1	Peter Kerr	Non-technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	I ask that the HIA Steering Committee reject the MBTL project. Do I need to list the reasons? They were made clear in the FEIS and by the Cowlitz County Hearings Officer. But let's get real, we are talking coal, one of the largest factors in rising temperatures and climate catastrophe. We don't need coal, we don't want coal. Coal is our toxic past and we need better solutions.
MBTL-HIA-00018-9	Peter Kerr	Non-technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	*Massive increase in greenhouse gas emissions
MBTL-HIA-00021-3	Roger Wechsler	Non-technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is used. This is roughly on par with Washington State's current total emissions in one year. (p. 20)
MBTL-HIA-00024-2	Laura van Fleet	Technical	Form Letter plus Text	General Public	2.4	Carbon emissions from use of coal	2.4	and it would only serve to further feed the global problem of climate change. It is a lose/lose proposition, in both the short-term, local level, and the long-term, global setting.
MBTL-HIA-00029-2	William Newmann	Non-technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is used. This is roughly on par with Washington State's current total emissions in one year. (p. 20)
MBTL-HIA-00039-10	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	2.4	Carbon emissions from use of coal	2.4	- 44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is used. This is roughly on par with Washington State's current total emissions in one year. (p.20)
MBTL-HIA-00040-2	Pete Von Christerson	Technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is used. This is roughly on par with Washington State's current total emissions in one year. (p. 20)
MBTL-HIA-00050-4	Barbara Gottlieb	Non-technical	Unique	General Public	2.4	Carbon emissions from use of coal	2.4	At the same time, the coal when burned will emit millions of tons of carbon dioxide, damaging the climate and harming the health and well-being of people around the world.
MBTL-HIA-00053-1	Miki Laws	Technical	Form Letter plus Text	General Public	2.4	Carbon emissions from use of coal	2.4	As a many year resident of Utah and Wyoming, I have been shocked and dismayed over the years to follow the degradation of the air and water, especially in the formerly pristine natural areas of the states, Much of this damage has been done by coal mining and burning, and records of the changes in the far wilderness lakes has shown that pollution comes from as far as overseas, where US coal is burned in Asian power plants. This has caused measurable toxic differences in the air we breathe in the mountain states, as well as disturbing changes to our natural environment--even the fish suffer! This must stop, for the future health of our grandchildren and our country.

MBTL-HIA-00056-1	Harry Kershner	Non-technical	Unique	General Public	2,4	Carbon emissions from use of coal	4,2,4	According to the draft Health Impact Assessment, this proposed coal terminal would increase cancer rates, clog rail lines, and cause huge climate impacts. Why would anyone favor this?
MBTL-HIA-00063-3	Michael Gochfeld	Technical	Unique	General Public	2,4	Carbon emissions from use of coal	2,4	Wherever the coal is destined to be burned, it will generate carbon dioxide, contributing to the climate crisis, which in turn poses additional health threats.
MBTL-HIA-00077-2	Susan Burnett	Technical	Form Letter plus Text	General Public	2,4	Carbon emissions from use of coal	2,4	Additionally, Climate Change is also real. The use of coal is pure and simple a criminal act as far as I am concerned. It's driving drunk with impunity and second, the pollution drift from the burning of this coal overseas. Enough with the fossil fuel madness, line your pockets some other way, maybe with something beneficial.
MBTL-HIA-00083-2	John Nettleton	Technical	Form Letter plus Text	General Public	2,4	Carbon emissions from use of coal	2,4	The health impacts on our environment are just as grave - in a worldview, coal is the worst producer of Green House Gases (GHG). The GHGs are smothering our earth's atmosphere and are the main reason the Artic is melting, our forests are on fire and our cities are torn apart by floods and hurricanes and millions of people have become refugees of drought.
MBTL-HIA-00094-3	Marilee Dea	Technical	Unique	General Public	2,4	Carbon emissions from use of coal	2,4	Conclusions Oregon and Washington PSR conclusions are based on the DHIA, the FEIS, the Decision of the Shorelines Hearing Officer, the Assessment of Health and Safety Implications of Coal Transport through Oakland, hundreds of peer-reviewed journal articles and include:- Coal pollutants affect all major body organ systems and contribute to 4 of the 5 leading causes of death in America, including heart disease, cancer, stroke, and chronic respiratory disease.- Transportation of coal by rail through Longview and the transfer of coal through the proposed MBT export terminal will increase exposures to air pollutants with known adverse health effects including deaths.- There are no proven methods to eliminate or reduce the emission of these pollutants to a safe level.- There are inherent hazards in transporting and handling coal, including the risk of catastrophic explosion.- The combustion of coal exported from Longview will contribute to global climate change, resulting in additional adverse health risks to Cowlitz County residents and others.- Impacts of coal transport and handling, including noise impacts, will be greatest along the railroad and near the terminal in neighborhoods already burdened by significant health inequities.
MBTL-HIA-00096-39	Regna Merritt	Technical	Unique	Organization	2,4	Carbon emissions from use of coal	2,1,4,2,4,5,1	4.) Unacceptable levels of GHG emissions generated by MBT facility's operation. The FEIS estimates that when the project is operating at full capacity, 44 million metric tons (MMT) of coal -the equivalent of 90 MMT CO2e (carbon dioxide equivalent)--would move through the facility each year, to be sold on the international coal market. It is certain that 'if increasing global GHG emissions from human activities continues on a business as usual path, residents in Washington and Cowlitz County will experience far greater harms than if the level of GHG emissions at the global level are dramatically reduced sufficient to arrest the increase in atmospheric GHG concentrations and limit global warming to under 2 degrees Celsius.'
MBTL-HIA-00099-5	Inga Fisher Williams	Technical	Unique	General Public	2,4	Carbon emissions from use of coal	2,4	- 44 million metric tons of coal, when burned, emit about 90 million metric tons of carbon dioxide. This is roughly on par with Washington State's current total carbon emissions in one year.
MBTL-HIA-00102-2	Patricia Bode	Technical	Form Letter Master	General Public	2,4	Carbon emissions from use of coal	2,4	*44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is burned. This is roughly on par with Washington State's current total annual carbon dioxide emissions (p.20).
MBTL-HIA-00103-9	Kevin Baier	Technical	Form Letter Master	General Public	2,4	Carbon emissions from use of coal	2,4	Please reject this project for our own welfare and a better economy based on practical and vibrant green industries (that are proven to provide more jobs and better living). Coal kills our children, our future.
MBTL-HIA-00018-3	Peter Kerr	Non-technical	Unique	General Public	3	Economics	3	I started at Longview Fibre Co. in the 1990's, and have vivid memories of how smelly your car would be after sitting in the mill parking lot. It was so bad employees would have a sacrificial car for work. After many years, environmental projects, and millions of dollars the mill was able to be a good environmental actor and provide excellent wage jobs. People drive their new cars into the mill without worry of the smell. In the mad rush to sell dirty energy to other parts of the world it seems we would willingly sacrifice this community just like the mill car. This would be a major step backwards in an already depressed community. The rest of this is the form letter, which has many excellent points. Industry should serve at the pleasure of the public, the public should not be sacrificed for corporate profits.
MBTL-HIA-00023-1	Nick Walch	Technical	Form Letter plus Text	General Public	3	Economics	3	Will Millennium pay for the care and education of children with birth defects?
MBTL-HIA-00038-4	Don Steinke	Technical	Unique	General Public	3	Economics	3	4. ECONOMIC PROSPERITY: The DHIA includes an analysis of the positive impacts of projected economic growth in the County of the proposal. It includes, however, no analysis of the economic impact of negative health outcomes. It fails to include recent information pertaining to the viability of the coal industry. The implication that the coal terminal would have a net positive effect on community prosperity is not supported.
MBTL-HIA-00096-11	Regna Merritt	Technical	Unique	Organization	3	Economics	8,3	

								<p>How will the project affect the number and types of jobs in Longview in the long-term and how does that affect the health of those employed and the community as a whole? How does that compare to alternative site uses for the MBTL site? Question 5. How will the other aspects of the local economy be affected? Will the impact on tourism, the service economy, and the river economy increase prosperity? Question 6. How will this affect local taxes and will that affect health? Question 7. What economic, social, or environmental accountability does Millennium have to the community if they close or leave the community? Does that accountability remain if there is a bankruptcy? The analysis focuses on the positive health effects that would result from projected economic growth from the coal terminal. This is an important part of a comprehensive health impact assessment. The analysis here, and in DHIA Appendix I, is detailed, includes wage multipliers, effects on tax base, discussion of alternative uses of the site for the proposed coal terminal and the consequences to the community should the project terminate prematurely. Missing from the discussion is any analysis of the economic costs of negative health impacts such as loss of work and school days, costs of medical care, and years of potential life lost. Net effects of the project on economic prosperity cannot be predicted without further analysis, as the report itself admits: "A sophisticated economic analysis would be necessary to draw more solid conclusions on the positive health impacts of a project from a perspective of job creation and site use." [1, page 16] Furthermore, estimates for job creation, direct and indirect (on which estimates of economic growth are predicated) derive solely from the estimates provided by MBT itself with no independent assessment of the accuracy of these estimates. The DHIA clearly states that closure of the plant would have serious economic consequences for both MBT's employees as well as the community at large. It notes that there are some ways to mitigate this such as The Worker Adjustment and Retraining Notification Act (WARN). There are notable exceptions to requiring employers to comply with this including closure due to unforeseen circumstances. The DHIA notes that another way to mitigate a closure would be to require that MBT comply with the International Finance Corporation Performance Standard of having a "Retrenchment Plan" in place, which includes provisions for managing lay-offs in the event of downsizing or closure. MBT currently has no plan to develop a "Retrenchment Plan" and there is no current requirement for MBT to do this. If MBT closes its operations, the site would require major environmental cleanup efforts to make it usable for other industrial or non-industrial uses. This would be a significant negative impact on the community not only in loss of jobs but in the cost of making the site usable by other companies. The DHIA notes that the Model Toxics Control Act does not include coal as a toxic substance. It states that that they cannot offer an assessment of whether the MBT site cleanup would trigger the Model Toxics Control Act, but imply that it would be very unlikely. It is remarkable that the DHIA does not address the issue of the likelihood of closure, given the efforts of most countries, especially China, to significantly reduce the use of coal to improve air quality and limit global warming. The DHIA implies but does not clearly state that Millennium could not and would not be held accountable for the economic, emotional, and physical impacts to their workers or for the broader impact to the community. Further, it implies that there is no accountability for its environmental impact. Furthermore, recent news from Newcastle, Australia demonstrates the massive decline of coal export markets and financial risks associated with over-reliance on coal by the</p>
MBTL-HIA-00096-28	Regna Merritt	Technical	Unique	Organization	3	Economics	8,3	
MBTL-HIA-00015-1	Spencer Boudreau	Non-technical	Unique	General Public	3.2	Employment	3.2	Millennium Bulk Terminals is a great project for Cowlitz County. Our community has been in a constant economic decline for near forty years. This huge job creator will lessen that. In my lifetime alone, we've seen a thousand or more family wage jobs lost. Why deprive my generation of prosperity? In addition, Millennium has tried time and time again to go with the demands of the state department of ecology. If they really didn't care about this community, they would've packed up and left already. They're willing to take any measure necessary to build this terminal. We've got to make this happen. Longview is the northwest's industrial center. We've got to get our folks back to work with this project.
MBTL-HIA-00030-1	James McClean	Non-technical	Unique	General Public	3.2	Employment	3.2	I support the coal project 100% We need more industry in the area that helps provide local jobs, which in turn put money back into the community.
MBTL-HIA-00030-3	James McClean	Non-technical	Unique	General Public	3.2	Employment	3.2	Why are we red taping a business that could help our community?
MBTL-HIA-00099-4	Inga Fisher Williams	Technical	Unique	General Public	3.2	Employment	3.2	Approve coal, bring a thriving business to our town.
MBTL-HIA-00100-3	David Hupp	Non-technical	Unique	General Public	3.2	Employment	3.2	3.) Negligible Job impacts from MBT operation. The often cited economic development and job generation as a driver of MBT development despite its health risks are negligible. Aside from temporary increase during construction, the long-term job generation for permanent employment is small as stated in the Draft HIA: 'Industrial land does not frequently produce the highest density of jobs, when compared to areas of mixed-use, office, or commercial development. For example, most downtowns or business centers will offer more jobs per acre than are proposed for the MBTL site.'
MBTL-HIA-00027-1	Jackie Critser	Technical	Form Letter plus Text	General Public	3.4	Impacts to other aspects (tourism, service economy, river economy) of local economy	3.4	How many jobs are projected by Millennium for their export terminal and how do these projections compare with Washington's statewide employment? Ambre/Arch's study projects 2,650 construction jobs and 135 permanent, full-time jobs at full build-out of the Millennium terminal. [Footnote 6. Economic impact study conducted for Millennium by Seattle consultant BERK.] Washington statewide nonfarm employment in May 2012 equalled 5,300,000 jobs. [Footnote 7. Washington state monthly employment report (https://fortress.wa.gov/esd/employmentdata/docs/economic-reports/current-monthly-employment-report.pdf)] The Millennium construction jobs amount to 5/100th of 1% of the state-wide total. The permanent jobs amount to 2/100th of 1%.
MBTL-HIA-00088-1	William Herke	Technical	Form Letter plus Text	General Public	3.4	Impacts to other aspects (tourism, service economy, river economy) of local economy	4,3.4	The Northwest is a major recreational destination for wilderness enthusiasts, fishing, windsurfing, and our agriculture, and we are famous for our old growth forests, pristine waterways and clean air. All of those vital industries would be adversely affected by the proposed Millennium project.
MBTL-HIA-00094-5	Marilee Dea	Technical	Unique	General Public	3.6	Accountability if MBTL leaves or files for bankruptcy	3.6	Denying all permits for this coal terminal is a no brainer, In addition to all the health problems it would cause, it will seriously damage the tourism industry of the area. I have visited the area twice because of its beauty. It would be criminal to damage that beauty.
								Who is going to clean this up when this coal terminal goes bankrupt? Why do I say this? The future of Fossil Fuel and Coal in particular, is questionable. France is stopping all coal use in five years; Italy, Germany, Mexico, S. Korea and New Zealand are considering that as well. At Cop 23 (UN world Climate Conference) this past fall- 25 countries declared their stoppage of Coal mining and export. Portland and St Louis plans to stop all electricity from Coal by 2035 and St Lois voted to be 100% renewable energy by 2035. Many coal plants are being retired, like Boardman and new ones are not being built. They are too expensive and dangerous to build compared to clean energy. Shares of US electricity from coal fell by 31% in 2016 with a forecast of another 40% fall in the near future. Coal cannot compete with cheaper clean energy. Coal will be a fossil fool in every sense of the word. Longview could be caught holding another unfunded super fund site if they accept the coal terminal, and the negative health impacts will continue long past the short life of this coal terminal.

MBTL-HIA-00002-4	Darvel Lloyd	Non-technical	Unique	General Public	4	Community Health	4	Longview residents continue to be adversely affected by Kapstone Kraft Paper Corporation. And now another gargantuan polluter wants to heap on misery and suffering to the unfortunate 37,330+ residents of Cowlitz County! Haven't these people suffered enough over the many generations of environmental degradation?
MBTL-HIA-00010-1	Keara Berlin	Non-technical	Unique	General Public	4	Community Health	4	I am glad that a report on the environmental impacts of the Millenium project has been drafted. I hope that you will take the report's findings into serious consideration and ensure that the project does not cause any negative effects on the community. I am especially concerned about the possibility of an increased risk of cancer and the barriers this project might present to indigenous peoples fishing rights in the area. Please do everything in your power to continue appraising the environmental impact of this project, and do everything you can to mitigate them. Thank you very much for considering this comment.
MBTL-HIA-00012-1	Michelle Sheldon	Technical	Form Letter plus Text	General Public	4	Community Health	4	I live directly across from Longview in Rainier, OR and am 100% against this project. As you know, whatever is spewed into Longview's air and water is also spewed into mine. As you also already know, Rainier residents are closer to the proposed terminal(s) that most residents of Longview which the study covered.
MBTL-HIA-00018-4	Peter Kerr	Non-technical	Unique	General Public	4	Community Health	4	Better solutions ARE NOT: *Increased cancer rates in communities
MBTL-HIA-00018-8	Peter Kerr	Non-technical	Unique	General Public	4	Community Health	4	*Increased risk of exposure to toxic polycyclic aromatic hydrocarbons
MBTL-HIA-00019-1	Frank Forenych	Non-technical	Unique	General Public	4	Community Health	4	I am a health professional and I am very concerned about the possible health and environmental impacts of the proposed Millennium Bulk Terminals coal project in Longview, WA. I am also a member of Physicians for Social Responsibility. As you may know a recently released Health Impact Assessment reaffirms the serious health impacts of the proposed terminal. Please reject the proposed terminal.
MBTL-HIA-00021-1	Roger Wechsler	Non-technical	Unique	General Public	4	Community Health	4	Please do not allow the Millenium Coal Terminal. It would be bad for health of all, especially children, elderly, and those with respiratory conditions. The HIA this week released these findings on consequences of the proposed coal terminal: * Increased cancer rates in communities near the rail line.
MBTL-HIA-00021-2	Roger Wechsler	Non-technical	Unique	General Public	4	Community Health	4	I am still concerned for the people of Longview and the many friends I have who still live there. The MBTL will increase their health hazards significantly.
MBTL-HIA-00022-3	Stephen Bachhuber	Non-technical	Unique	General Public	4	Community Health	4	Separating the science from the politics! The science of the potential hazards from diesel smoke and particulate that might cause cancer and deaths can not be directly tested as this is outlawed. The EPA must use animal testing and statistical inference. They do have tests on animals at high doses and extrapolate to zero assuming death will continue at lower doses. A little common sense will tell us this is very misleading. An example is we use a very toxic chemical to add fluoride to our drinking water even though their is extensive health data saying the slight reduction in tooth decay has been offset by other adverse health effects. Our tooth paste has a clear warning to call the poison center if swallowed. Dr. James Engstrom on August 12, 2017 presented a paper at a DDP meeting titled: ACS cancer prevention study (CPSII) has exaggerated PM 2.5 premature deaths. He quotes that a 2017 Dose-Response Article Found no PM 2.5 risk in CPSII based on best data. Dr Robert Phalen, a toxicologist, gave a paper: View of PM 2.5 and human health-at the same conference. Questions after the paper asked about Asthma and data show that rates are going up while particulates are dropping. Also Ozone does not increase Asthma as it is caused by allergies. Dr Edward Calabrese, another Toxicologists, gave a paper at the August 1, 2015 DDP meeting titled: How NAS Misled the World Community on Cancer Risk Assessment. He goes into great detail explaining a Nobel Prize scientist in the war years claimed a linear response to zero based on radiation studies. The EPA to this day still uses this concept even though it is not practiced worldwide We now have many examples of a Hormesis effect where low doses can have positive influences. An apartment building in China that had high Radon and Cobalt 60 radiation had lower cancer rates for inhabitants compared to those close by. Methyl Mercury a very toxic compound has positive influences at very low concentrations. Clearly many of the chemicals used around the household contain carcinogens. Finally the EPA recently admitted they misapplied data in California when estimating health effects from air pollution. CLEARLY CANCER DEATH RATES IN THE REPORT NEED TO BE HEAVILY DISCOUNTED!
MBTL-HIA-00025-1	Larry wilhelmsen	Technical	Unique	General Public	4	Community Health	4	Please be aware that for \$18/year each citizen can be supplied daily 1000mg vitamin C and 2000mg vitamin D. The boost to the immune system would more than compensate for anything from industrial activity. In fact let's pay for the vitamins for anyone living within one mile of the rail tracks using tax money from the development. Support for vitamin C use is given at the IVC & Chronic Illness Symposium, October, 2016. Andrew Saul and several MD's give many comments on historic applications to significant diseases. You can not overdose in personal use!
MBTL-HIA-00025-4	Larry wilhelmsen	Technical	Unique	General Public	4	Community Health	4	I am a Family Physician who has worked in Olympia since 1982 both employed at Group Health Cooperative and doing volunteer work with the Thurston County department of Health and the Olympia Free Clinic. I have treated many patients with chronic lung disease as a result of tobacco smoking and, riot to this, I have witnessed the complications of patients who have suffered the adverse consequences from coal dust exposure, during my training treating patients who worked in the coal mines of Appalachia. I urge that you recommend that Cowlitz Count reject the project proposal a coal terminal based on the findings found in the recent draft of the Health Impact Assessment, including, but not limited to: * Increased cancer rates in communities near the rail line. *
MBTL-HIA-00029-1	William Newmann	Non-technical	Unique	General Public	4	Community Health	4	I'm very concerned about the negative health consequences of this project. I grew up in Cowlitz County and still have friends and family there. I lost my grandmother, a life-long Cowlitz County resident, to cancer at the age of 58. For decades we've known about the terrible effects of pollution in Cowlitz County on local cancer rates, and the MBTL project promises yet more pollutants and more cancer.
MBTL-HIA-00034-1	Liz Kellebrew	Non-technical	Unique	General Public	4	Community Health	4	I was disappointed that The Daily News chose to down play the risks by focusing on the probably of cancer. One cancer in a certain population can seem small, but for each cancer, there could be 100 cases of asthma. If you don't have asthma, it is easy to dismiss it, but Republicans and Democrats alike get asthma. A well-known Republican PCO had supported the oil terminal in Vancouver, but after developing asthma, he became concerned about the number of diesel locomotives that would be needed to haul the trains through his neighborhood, and recruited me to help fight the proposal.
MBTL-HIA-00038-2	Don Steinke	Technical	Unique	General Public	4	Community Health	4	The draft shows the project will have huge impacts:- Increased cancer rates in communities near the rail line.(p.8)
MBTL-HIA-00039-3	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	4	Community Health	4	As you prepare your environmental report on the coal port, please consider the following taken from the Health Impact Assessment: * Increased cancer rates in communities near the rail line.
MBTL-HIA-00040-1	Pete Von Christerson	Technical	Unique	General Public	4	Community Health	4	

MBTL-HIA-00043-2	Ruth Charloff	Technical	Form Letter plus Text	General Public	4	Community Health	4	The draft HIA fails to recognize additional serious threats posed by many heavy metals and other toxics that would be released due to the proposed coal export terminal. Many of these serious health impacts cannot be mitigated.
								I would first like to protest the wide-spread feeling that we have to promote business and corporate success no matter the damage to public health. Corporations have a long and ugly history of discounting their effect on local residents. For example, in the mid1940s, the town of Anniston, Alabama had a Monsanto plant which caused an extremely high rate of cancer among the citizens of this town. We can also cite Love Canal, which had to be abandoned because of toxic chemicals. Our country is dotted with lagoons of various types of waste: animal, coal ash, mine tailings which remain untreated and threaten the health of local people. It is well-known that people who live in the ultra-intensely industrialized oil coast of Louisiana have shorter lives than the rest of us in the USA. Corporations are asking us not to mind these conditions in service to 1) their personal fortunes and 2) the exploitation of a polluting, unsustainable fuel source. It is time to say NO and the studies from the health department and Physicians for Social Responsibility give us reasons to make a stand.
MBTL-HIA-00044-1	Jeffrey Panciera	Technical	Form Letter plus Text	General Public	4	Community Health	4	
MBTL-HIA-00050-1	Barbara Gottlieb	Non-technical	Unique	General Public	4	Community Health	4,2,5.1,5.5	Having visited Oregon's Columbia River as a tourist with my family, I would like to share my concerns about this proposal. It would be extremely harmful to the health of everyone living in the river valley to have this massive coal export terminal built. The terminal as well as the related train traffic would (as your HIA indicates) pose real threats of cancer, air pollution, noise pollution and contamination of food sources.
MBTL-HIA-00050-3	Barbara Gottlieb	Non-technical	Unique	General Public	4	Community Health	4	Communities near the rail line are most likely to be harmed.
MBTL-HIA-00056-1	Harry Kershner	Non-technical	Unique	General Public	4	Community Health	4,2.4	According to the draft Health Impact Assessment, this proposed coal terminal would increase cancer rates, clog rail lines, and cause huge climate impacts. Why would anyone favor this?
MBTL-HIA-00063-4	Michael Gochfeld	Technical	Unique	General Public	4	Community Health	4	As a physician specializing in occupational and environmental disease, I am most impressed by the health effects to children and adults, including heart disease, lung disease, and asthma. . . Communities near the rail line are likely to experience increased cancer and heart disease rates.
MBTL-HIA-00066-1	Peter Cornelison	Non-technical	Unique	General Public	4	Community Health	4	As a resident of the Columbia Gorge and a Hood River City Councilman I am concerned about the health impacts not only to Longview and Cowlitz County but to Clark, Skamania and Klickitat Counties and the Columbia River.
MBTL-HIA-00069-1	Daniel Weise	Non-technical	Unique	General Public	4	Community Health	4	Yo! Dudes! How much more bad health do you want in your communities. Cancer is not fun. Asthma is not fun. The draft HIA makes it pretty clear to me that the Millennium project needs to be abandoned to help keep your community healthy.
MBTL-HIA-00070-1	Glenda Carper	Technical	Form Letter plus Text	General Public	4	Community Health	4	As a retired health professional who has helped people with respiratory problems and other health concerns, I am very concerned about this proposed project and the negative health effects it would have. So I ask you to read the following and to reject the project to protect the citizens of Cowlitz County and everyone who comes there or passes through.
MBTL-HIA-00072-1	Sabra Hull	Non-technical	Unique	General Public	4	Community Health	2,5,4,4	The draft HIA prepared by Cowlitz County and the Washington Department of Health presents some alarming analysis of potential air and water quality issues, and consequent potential health impacts of this proposal. Both human and aquatic communities would be affected, and I see no remedy for these impacts.
MBTL-HIA-00074-1	Janice Doherty	Non-technical	Unique	General Public	4	Community Health	4	What happens in Cowlitz County ultimately impacts the environment throughout WA state and the global environment. The continued effort to process and move coal near Longview quickly impacts the health and wellbeing of residents in that specific community.
MBTL-HIA-00074-3	Janice Doherty	Non-technical	Unique	General Public	4	Community Health	4,2.1,4,2,5.2	The Hanford area was designated as a "national sacrifice zone" in matters related to the development of nuclear power. Spokane County is just one area of eastern WA impacted with higher cancer rates related to fallout from "The Green Run" and other radiation experiments and mistakes at Hanford. Cowlitz County should not be designated the current "sacrifice area" for supporting the coal industry as it gradually becomes obsolete.Examples: negative health effects from inhaling coal dust and diesel; increased wait times for emergency response personnel waiting for train crossings; further deterioration of fish and seafood harvests, particularly as related to local tribes who have already suffered significant harm to their fishing and cultural sites
MBTL-HIA-00088-1	William Herke	Technical	Form Letter plus Text	General Public	4	Community Health	4,3.4	Denying all permits for this coal terminal is a no brainer, In addition to all the health problems it would cause, it will seriously damage the tourism industry of the area. I have visited the area twice because of its beauty. It would be criminal to damage that beauty.
MBTL-HIA-00094-1	Marilee Dea	Technical	Unique	General Public	4	Community Health	4	Coal exports are a threat to the health of Columbia Gorge communities and particularly the shoreline near the already medically challenged Highland district of Longview. It will increase their risk of asthma, heavy metal poisoning, cancer and cardiac impairment; it will also jeopardize safety, environment and climate health.
MBTL-HIA-00096-26	Regna Merritt	Technical	Unique	Organization	4	Community Health	8,4	2. IMPACTS ON VULNERABLE POPULATIONSWoven into Section II (Health Evaluation) and Appendix I (Air Quality) is a detailed analysis of the baseline health of the local community and projected disproportionate impacts on vulnerable communities, including persons with underlying health conditions, and vulnerabilities associated with low-income, race, and other demographic factors. It includes a discussion of the social determinants of health as they are manifest in the local community.The document includes some additional analysis on the disproportionate impact of increased rail traffic on vulnerable and low-income communities. Disproportionate impacts of rail and marine accidents, toxic spills, and potential contamination of food and drinking water are not discussed. This is a violation of the principle of "Equity" established by the International Association of Impact Assessment. [Appendix I]For further detail see pages 40-41, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals Longview. [Appendix II]

								Conclusions Oregon and Washington PSR conclusions are based on the DHIA, the FEIS, the Decision of the Shorelines Hearing Officer, the Assessment of Health and Safety Implications of Coal Transport through Oakland, hundreds of peer-reviewed journal articles and include:- Coal pollutants affect all major body organ systems and contribute to 4 of the 5 leading causes of death in America, including heart disease, cancer, stroke, and chronic respiratory disease.- Transportation of coal by rail through Longview and the transfer of coal through the proposed MBT export terminal will increase exposures to air pollutants with known adverse health effects including deaths.- There are no proven methods to eliminate or reduce the emission of these pollutants to a safe level.- There are inherent hazards in transporting and handling coal, including the risk of catastrophic explosion.- The combustion of coal exported from Longview will contribute to global climate change, resulting in additional adverse health risks to Cowlitz County residents and others.- Impacts of coal transport and handling, including noise impacts, will be greatest along the railroad and near the terminal in neighborhoods already burdened by significant health inequities.
MBTL-HIA-00096-39	Regna Merritt	Technical	Unique	Organization	4	Community Health	2,1,4,2,4,5.1	
MBTL-HIA-00102-5	Patricia Bode	Technical	Form Letter Master	General Public	4	Community Health	4	- Communities near the rail line are likely to experience increased cancer rates.
MBTL-HIA-00103-2	Kevin Baier	Technical	Form Letter Master	General Public	4	Community Health	4	While I remain concerned about the influence of Millennium on this HIA process, the data provided was striking. The draft shows the project will have huge impacts: "Increased cancer rates in communities near the rail line.
MBTL-HIA-00018-2	Peter Kerr	Non-technical	Unique	General Public	4.1	Health impacts from climate change in Cowlitz	4.1	This project is an insult to the health and well-being of the good people of Cowlitz County and to the planet that is already suffering in the face of excess greenhouse gas emissions, at the tipping point of climate catastrophe.
MBTL-HIA-00031-1	Alice Chew	Non-technical	Unique	General Public	4.1	Health impacts from climate change in Cowlitz	4.1	Please think about our children and grandchildren. If we do not work to reduce global warming, soon it will affect the health of all people on the earth. Even now we are told that global warming may be irreversible. Please make responsible decisions!
MBTL-HIA-00035-1	Paula Rotondi	Technical	Form Letter plus Text	General Public	4.1	Health impacts from climate change in Cowlitz	4.1	At present, virtually no place on Earth is unaffected by either environmental degradation, climate change or both. At the federal level, actions by the Trump Administration and Republicans in Congress are accelerating us toward the worst case climate change scenario in which no child born today has a chance for a decent, healthy future. By the time a child born today is middle age, the City of Miami will be uninhabitable; it's housing market (and others in the U.S. and around the world) will have collapsed causing cascading economic and social crises. Without immediate action to limit climate change, by the time a child born today is 82, that child will inhabit a world of collapsed civilizations, mass migration with refugee crises on virtually every continent, and unending fighting for drinkable water and adequate food. The children of today's richest and most powerful people will be confined within fancy biospheres where they consider how their parents and grandparents once enjoyed this entire beautiful Earth. So I ask you to oppose the Millennium Terminal, because decisions like your, made at the local level are now what remains of our hope for a decent healthy future for our children.
MBTL-HIA-00039-11	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	4.1	Health impacts from climate change in Cowlitz	4.1	- Changes in Washington's climate in the near and midterm future will likely increase hazards to human health and increase health disparities. Without preventative and protective measures, this will worsen a variety of health outcomes.
MBTL-HIA-00042-2	Debbie Dominguez	Technical	Form Letter plus Text	General Public	4.1	Health impacts from climate change in Cowlitz	4.1	As an advocate of a clean energy future, I agree with the comments posted below. I cannot allow such a dirty energy source to increase pollution and climate change that will have serious consequences for my grandchildren's future and all America's grandchildren. We can no longer ignore the disasterous effects of climate change on future generations. Think about THEIR FUTURE, not some coal corporations massive profits!*****
MBTL-HIA-00074-2	Janice Doherty	Non-technical	Unique	General Public	4.1	Health impacts from climate change in Cowlitz	4.1	Continued efforts to extract, process, ship and burn coal impacts the health and wellbeing of people around the planet. It directly threatens the health and wellbeing of all life forms on Earth. The vast majority of climate scientists know this. Yet the coal industry, in partnership with other fossil fuel extractors, defy even the studies conducted more than twenty years ago by Exxon and continue to seek short-term profits for their own satisfaction. The task in every community is to find ways to address the impact of global warming on their community. For Cowlitz County, there should be a clear rejection of the MBTL project and continued efforts to protect the communities and environment in southwestern WA.
MBTL-HIA-00096-12	Regna Merritt	Technical	Unique	Organization	4.1	Health impacts from climate change in Cowlitz	8,4.1	5. GLOBAL CLIMATE CHANGE: The DHIA includes a detailed analysis of the adverse effects of global climate change on the residents of Cowlitz County. It notes that "changes in Washington's climate in the near and midterm future will likely increase hazards to human health and increase health disparities. Without preventative and protective measures, this will worsen a variety of health outcomes." It also states, "What is certain is that if increasing global GHG emissions from human activities continues on a business as usual path, residents in Washington and Cowlitz County will experience far greater harms than if the level of GHG emissions at the global level are dramatically reduced sufficient to arrest the increase in atmospheric GHG concentrations and limit global warming to under 2 degrees Celsius." The assessment, however, declines to acknowledge the negative impact of the proposed coal terminal to global climate change.

MBTL-HIA-00096-29	Regna Merritt	Technical	Unique	Organization	4.1	Health impacts from climate change in Cowlitz	8,4,1	5. GLOBAL CLIMATE CHANGE Part C (Community Health), Section II (Health Evaluation) responds briefly to the following question: Question 8: What are the potential effects of climate change on Cowlitz County residents, their health, and the linkage to increased carbon dioxide (CO2) from this project? MBT plans to export 44 million metric tons from Longview each year. 44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is burned. This is roughly on par with Washington State's current total annual carbon dioxide emissions. (page 20) Appendix 2 (Climate Change) in the DHIA includes a more detailed discussion of global warming effects on local weather and environment and the potential adverse effects on Cowlitz County residents including: heat-related illness, respiratory disease, vector-borne illness, water- and food-borne disease, and extreme weather events and references the expected disproportional impacts on vulnerable communities. In Appendix 2, net greenhouse gas (GHG) emissions from the proposed terminal are estimated based on various policy scenarios. The calculation of net increase in GHG emissions assumes that the same coal, if not transported through Longview, would still be extracted and distributed to international markets. This assumption is not supported by evidence. While the DHIA states, "Today's decisions concerning GHG emissions and reductions in the short term will determine the severity of climate events to come in the second half of the 21st century and beyond" the document then concludes: "While these potential emissions would contribute to GHG concentrations in the atmosphere, it would be difficult to attribute these particular emissions [from MBT] to a future projected degree of global warming, resulting climate effects, and resulting health effects." [1, page 54] Since the proportional contribution of any particular project to world-wide GHG emissions is never certain, the implication is that the impact on worldwide GHG emissions of any particular project cannot be taken into consideration. This represents a failure to apply reasonable and informed judgment in the face of uncertainty. It is a violation of the Precautionary Principle in public health practice. Additionally, it files in the face of Washington state laws and policies which require reductions in GHG emissions to protect our climate and health. For further assessment on the impact of global climate change see pages 2-6, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals. [Appendix II]
MBTL-HIA-00097-12	C. Persons	Technical	Unique	Organization	4.1	Health impacts from climate change in Cowlitz	8,4,1	- The draft HIA mentions that proposed climate change mitigation in the FEIS is based on the one of four modeled scenarios that now no longer exists, the International and U.S. Energy Policy scenario. The Trump administration repealed the 2015 Clean Power Plan in October 2017. The HIA should recommend that climate change mitigation be based on the No Clean Power Plan scenario, which will double the climate change mitigation requirements as they will henceforth be based on Net Annual Emissions in 2028 of 3.76 million metric tons of CO2e and Total Net Emissions, 2018-2018 of 51.25 million metric tons of CO2equivalents.
MBTL-HIA-00102-3	Patricia Bode	Technical	Form Letter Master	General Public	4.1	Health impacts from climate change in Cowlitz	4.1	- Changes in our climate in the near and mid-term future will increase hazards to human health and increase health disparities.
MBTL-HIA-00018-7	Peter Kerr	Non-technical	Unique	General Public	4.2	Emergency response impacts	4.2	*Significantly delayed traffic at at-grade crossings
MBTL-HIA-00039-14	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	4.2	Emergency response impacts	4,2,8	Please acknowledge that the significance of the draft HIA is limited due to the severely constrained geographic scope of the study area. The section on impacts from 16 trains passing through at-grade crossings in Cowlitz County each day and related health impacts due to delayed emergency response time is sorely lacking. If improved, it would at least help inform the municipalities along the transportation corridor of potential impacts to their residents and emergency services.
MBTL-HIA-00039-6	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	4.2	Emergency response impacts	4.2	- A single train could delay traffic by 9 minutes at at-grade crossings. There will be 16 train trips each day at full operation. This could decrease accessibility of public services and increase wait times for emergency vehicles. (p.21)
MBTL-HIA-00074-3	Janice Doherty	Non-technical	Unique	General Public	4.2	Emergency response impacts	4,2,1,4,2,5,2	The Hanford area was designated as a "national sacrifice zone" in matters related to the development of nuclear power. Spokane County is just one area of eastern WA impacted with higher cancer rates related to fallout from "The Green Run" and other radiation experiments and mistakes at Hanford. Cowlitz County should not be designated the current "sacrifice area" for supporting the coal industry as it gradually becomes obsolete. Examples: negative health effects from inhaling coal dust and diesel; increased wait times for emergency response personnel waiting for train crossings; further deterioration of fish and seafood harvests, particularly as related to local tribes who have already suffered significant harm to their fishing and cultural sites
MBTL-HIA-00097-7	C. Persons	Technical	Unique	Organization	4.2	Emergency response impacts	8,4,2	Suggested recommendations: - The draft HIA summarizes information from the FEIS on traffic delays caused during coal terminal operations. These traffic delays may mean increases in morbidity and injury for passengers in vehicles trying to access emergency health care. The final HIA should include recommendations about how to mitigate those traffic delays, including strategies for staggering coal train arrival times to coincide with low traffic periods or even recommending that operations not begin until planned rail crossing upgrades are complete.
MBTL-HIA-00102-7	Patricia Bode	Technical	Form Letter Master	General Public	4.2	Emergency response impacts	4.2	- A single train could delay traffic by 9 minutes at at-grade crossings. There will be 16 train trips each day at full operation, creating a significant risk of delaying emergency responses.
MBTL-HIA-00103-10	Kevin Baier	Technical	Form Letter Master	General Public	4.2	Emergency response impacts	8,4,2	Please acknowledge that the significance of the draft HIA is limited due to the severely constrained geographic scope of the study area. The section on impacts from 16 trains passing through at-grade crossings in Cowlitz County each day and related health impacts due to delayed emergency response time is sorely lacking. If improved, it would help inform the municipalities along the transportation corridor of potential impacts to their residents and emergency services.
MBTL-HIA-00103-5	Kevin Baier	Technical	Form Letter Master	General Public	4.2	Emergency response impacts	4.2	*A single train could delay traffic by 9 minutes at at-grade crossings. There will be 16 train trips each day at full operation. This could decrease accessibility of public services and increase wait times for emergency vehicles (p. 21).
MBTL-HIA-00096-24	Regna Merritt	Technical	Unique	Organization	4.3	Impact on recreation and active transportation (walking, biking, taking the bus)	8,4,3	17. ACTIVE TRANSPORTATION AND RECREATION: For lack of time, the authors of the DHIA failed to answer this question. This is a key omission because we know that recreational facilities at schools, soccer fields, hiking trails and biking lanes are areas of concern. Youth and active adults engage in intensive exercise that increases breathing rates and increases the total amount of pollution inhaled. Children are at risk even if they are not intensely exercising because they respire more frequently than adults and their body weight is lower. They concentrate significantly more toxins per body weight than adults. The boundary of Woodland Primary School is 125 feet from the railroad. (page 28) This puts children at greater risk for inhalation and ingestion of coal and DPM toxic pollutants.

MBTL-HIA-00002-3	Darvel Lloyd	Non-technical	Unique	General Public	5	Personal Health	5	My twin brother and I were born in Longview in late December, 1942, as our forester father was cruising timber for Longview Fibre Co. at the time. Playing outside on the contaminated lawn during those war years, we have suffered mightily from various brain and lung disorders.
MBTL-HIA-00077-1	Susan Burnett	Technical	Form Letter plus Text	General Public	5	Personal Health	5	I must register my profound unhappiness with the coal export project. What do all studies say about the impact of coal burning and dust? They say it can kill people!!! I am an asthmatic. I didn't develop asthma as a child, but later, as an adult. It is clear that particulates are the cause. Air pollution from autos, particularly diesel, and coal burning has given me and others in my family, as well as people all over the world lung disease. Those supporting the production and use of coal are putting nails in our coffins. This is no hypothetical. It is real. I urge you to forbid the MTBL Project. This is an industry of the past.
MBTL-HIA-00018-6	Peter Kerr	Non-technical	Unique	General Public	5.1	Health effects of noise and vibration	5.1	*Higher noise exposure in Cowlitz County
MBTL-HIA-00039-5	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	5.1	Health effects of noise and vibration	5.1	- Higher noise exposure in low income areas in Cowlitz County. Noise is associated with higher rates of high blood pressure, heart attack and heart disease. Cowlitz County and the neighborhoods that would be most impacted by increased noise already experience higher than average rates of these diseases and that increased noise will contribute to further increase in these rates.(p. 23)
MBTL-HIA-00050-1	Barbara Gottlieb	Non-technical	Unique	General Public	5.1	Health effects of noise and vibration	4,2,5.1,5.5	Having visited Oregon's Columbia River as a tourist with my family, I would like to share my concerns about this proposal. It would be extremely harmful to the health of everyone living in the river valley to have this massive coal export terminal built. The terminal as well as the related train traffic would (as your HIA indicates) pose real threats of cancer, air pollution, noise pollution and contamination of food sources.
MBTL-HIA-00063-5	Michael Gochfeld	Technical	Unique	General Public	5.1	Health effects of noise and vibration	5.1	Noise also increase risk of high blood pressure and heart attacks.
MBTL-HIA-00092-4	Laura Ackerman	Technical	Unique	General Public	5.1	Health effects of noise and vibration	8,5.1	<p>... Other studies have been cross sectional, comparing people exposed to noise to well-matched controls who were not subjected to noise. Evans, an environmental psychologist and an international expert on environmental stress (such as noise, crowding and air pollution) and his German and Swedish Traffic noise is dangerous for your health: Solutions exist for dense ... [link: <a href="https://www.sciencedaily.com/releases/2014/07/140701085328.htm">https://www.sciencedaily.com/releases/2014/07/140701085328.htm</a>] Jul 1, 2014 ... Traffic noise is the second biggest environmental problem in the EU, according to WHO. After air pollution, noise is affecting health the most. But legislation regarding noise pollution is insufficient. A new report shows how negative health effects of noise can be reduced. Several means are easiest to apply in Transportation noise increases risk for cardiovascular diseases and ... [link: <a href="https://www.sciencedaily.com/releases/2017/06/170621103143.htm">https://www.sciencedaily.com/releases/2017/06/170621103143.htm</a>] Jun 21, 2017 ... Noise also favours Diabetes. In addition to cardiovascular diseases, transportation noise also increases the risk of developing diabetes. This is shown by an examination of 2,631 people exposed to different degrees of noise pollution. "Two mechanisms play a role," explains Nicole Probst-Hensch, Head of Substantial road traffic noise in urban areas contributes to sleep ... [link: <a href="https://www.sciencedaily.com/releases/2012/09/120911091353.htm">https://www.sciencedaily.com/releases/2012/09/120911091353.htm</a>] Sep 11, 2012 ... The World Health Organization recently recognized environmental noise as harmful pollution, with adverse psychosocial and physiological effects on public health. A new study of noise pollution in Fulton County, Georgia, suggests that many residents are exposed to high noise levels that put them at risk of Noisy Roads Increase Risk Of High Blood Pressure -- ScienceDaily [link: <a href="https://www.sciencedaily.com/releases/2009/09/090909203148.htm">https://www.sciencedaily.com/releases/2009/09/090909203148.htm</a>] Sep 11, 2009 ... Traffic noise raises blood pressure. Researchers have found that people exposed to high levels of noise from nearby roads are more likely to report suffering from hypertension. Effect of loud noises on brain revealed in study -- ScienceDaily [link: <a href="https://www.sciencedaily.com/releases/2014/07/140731102524.htm">https://www.sciencedaily.com/releases/2014/07/140731102524.htm</a>] Jul 31, 2014 ... Prolonged exposure to loud noise alters how the brain processes speech, potentially increasing the difficulty in distinguishing speech sounds, according to neuroscientists. Exposure to intensely loud sounds leads to permanent damage of the hair cells, which act as sound receivers in the ear. Long term exposure to aircraft noise linked to high blood pressure ... [link: <a href="https://www.sciencedaily.com/releases/2017/06/170613185148.htm">https://www.sciencedaily.com/releases/2017/06/170613185148.htm</a>] Jun 13, 2017 ... They point out that they were unable to look at specific causes of death among the 78 people who died between 2004-6 and 2013. The numbers studied were also relatively small, and it wasn't possible to account for the potential effects of air pollution. Nevertheless, a growing body of evidence links noise too much 'noise' can affect</p>
MBTL-HIA-00092-5	Laura Ackerman	Technical	Unique	General Public	5.1	Health effects of noise and vibration	8,5.1	And finally on noise, please do more research specifically on train whistle noise. As an activist I hear a lot about train whistles and how annoying they are for humans who live near them. A few years ago I was sitting in a coffee shop in downtown Cheney, WA with a friend. It was a summer day and the door to the shop was open. A train came by (Cheney and Spokane will get all the coal trains for this proposal as well as all types of cargo, manifest and unit trains) and the whistle was so loud I could not hear my friend talk who was literally a foot away. Train whistles are a part of the safety of at grade crossings, but they are also difficult on the ears. Train whistles are a chronic complaint (I have researched this) across the US and Canada and you need to research that, link articles about that in the HIA and suggest some possible solutions. Cumulative effects of rail traffic and noise need to be taken into account when it comes to communities who may see more than one proposal or are the rail communities for more than one proposal on top of the already existing traffic. A city like Spokane is a perfect example of that.
MBTL-HIA-00096-13	Regna Merritt	Technical	Unique	Organization	5.1	Health effects of noise and vibration	8,5.1	6. RAIL CONGESTION AND NOISE POLLUTION: There is higher noise exposure in low-income areas in Cowlitz County. Noise is associated with higher rates of high blood pressure, heart attack and heart disease. Cowlitz County and the neighborhoods that would be most impacted by increased noise already experience higher than average rates of these diseases and that increased noise will contribute to further increase in these rates. (page 23) The DHIA does not describe the full range of negative health impacts of noise and traffic congestion generated by projected increase in rail traffic, including an increase in the number of train accidents as described in the FEIS. A single train could delay traffic by 9 minutes at at-grade crossings. There will be 16 train trips each day at full operation. This could decrease accessibility of public services and increase wait times for emergency vehicles. (page 21) The DHIA does not describe the health implications of delayed response times. These include death and/or disability for cardiac and stroke patients, accident patients, and all patients threatened by emergent life and death situations.

								of noise congestion and noise pollution and personal health, section 1 considers these questions: Question 10. What will be the health effects on the community in regards to emergency response times, commute times, and traffic congestion? Question 11. What will be the health effects of noise and vibration? The FEIS concluded that increased rail traffic would cause a significant increase in area traffic congestion and delays in emergency response time. [4, Section 5.3.8] The FEIS further notes that if all suggested improvements to at-grade crossings are made, the problem of traffic congestion could be adequately mitigated. However, the County has not made these improvements a condition for project approval. [3, page 20] The HIA fails to address and resolve this issue. As noted earlier, effects on recreation and transportation activities in the area were not investigated. Recreational opportunities and active transportation are important to creation of a healthy and economically thriving community. There is considerable evidence in public health and community planning literature that improved access to walking and bicycling to and from work and school improves the health of the community. If diesel emissions and coal dust foul the air and train noise is annoying or disturbing, it is less likely that adults and children will play outside or engage in walking, biking and recreational activities. The DHIA described many of the adverse health impacts of noise exposure, but emphasized these health impacts occurred after many years of exposure even while stating that noise can trigger the body's stress response, cause sleep disturbance and increase blood pressure. Work and school performance can be adversely impacted as well. These responses to noise are short-term impacts and can have rapid adverse health impacts especially in children, the elderly, persons already under stress, and persons who are ill. Children develop better concentration skills in a quiet environment, children who are exposed to noise pollution while learning are more likely to experience reading delays, and children who spend time in noisier areas have higher resting blood pressure and higher stress levels. The DHIA notes that noise is measured in different ways, but did not consider that "averaging noise levels fails to take into account the effect of individual events, with locomotive horns and train pass-bys being perfect examples. ...people do not experience noise as averages - they experience noise as events." For further discussion of this point and its relevance to estimating adverse health impacts of noise exposure, see the comments of Dr. Alice Suter on the NEPA DEIS submitted on November 28, 2016. [Appendix IV] The DHIA acknowledges that "noise health risks exist for anyone in the county or along the rail line elsewhere beyond the corridor studied in the FEIS." The DHIA focuses on heart disease and found agreement with scientific studies that for each 10 dB increase in noise there is a 6% to 8% increase in population risk for adverse heart health outcomes. The DHIA found that risk for high blood pressure, heart attack and heart disease increases in a meaningful way between 52 decibels and 75 decibels, and also referenced the World Health Organization's 50 decibel nighttime threshold for high blood pressure and heart attack impacts. The draft HIA includes a map of contours of noise estimates from the FEIS that included data from noise monitoring stations and included the 55 Ldn (average day night sound level) rail noise contour that was not included in the FEIS. But the DHIA did not specifically connect the data on increased health risks with increases in noise levels within this rail noise contour and did not point out that the 55 Ldn contour includes a large residential area adjacent to the proposed MBT site. This is a serious omission. Nevertheless, looking at 5 years of
MBTL-HIA-00096-30	Regna Merritt	Technical	Unique	Organization	5.1	Health effects of noise and vibration	8.5.1	
MBTL-HIA-00096-39	Regna Merritt	Technical	Unique	Organization	5.1	Health effects of noise and vibration	2.1,4,2,4,5.1	Conclusions Oregon and Washington PSR conclusions are based on the DHIA, the FEIS, the Decision of the Shorelines Hearing Officer, the Assessment of Health and Safety Implications of Coal Transport through Oakland, hundreds of peer-reviewed journal articles and include:- Coal pollutants affect all major body organ systems and contribute to 4 of the 5 leading causes of death in America, including heart disease, cancer, stroke, and chronic respiratory disease.- Transportation of coal by rail through Longview and the transfer of coal through the proposed MBT export terminal will increase exposures to air pollutants with known adverse health effects including deaths.- There are no proven methods to eliminate or reduce the emission of these pollutants to a safe level.- There are inherent hazards in transporting and handling coal, including the risk of catastrophic explosion.- The combustion of coal exported from Longview will contribute to global climate change, resulting in additional adverse health risks to Cowlitz County residents and others.- Impacts of coal transport and handling, including noise impacts, will be greatest along the railroad and near the terminal in neighborhoods already burdened by significant health inequities.
MBTL-HIA-00097-11	C. Persons	Technical	Unique	Organization	5.1	Health effects of noise and vibration	8.5.1	- The draft HIA concludes that elevated noise and vibration from 16 additional trains per day will negatively affect the health of residents living close to the coal train tracks, especially those near crossings. The DEIS stated the Millennium would create and fund a "quiet zone" in Longview, but there was no legal way to enforce this. However, this is an important health effect, and if local and state health agencies do not ask for this mitigation, it will not happen. The HIA should recommend that quiet zones be created for all crossings for residents in Cowlitz County, Washington State, and our region if the increased noise from an additional unit coal trains per day will create adverse health effects.
MBTL-HIA-00097-14	C. Persons	Technical	Unique	Organization	5.1	Health effects of noise and vibration	8.5.1	- In addition, the monitoring for noise proposed in the FEIS is for only two fence-line residences with no monitoring near coal route rail tracks. The final HIA should recommend adding noise monitors along tracks in the Highlands, Lexington and St. Helens' neighborhoods, at Woodland Primary School, and at other points along the coal rail routes where residents are within 150 feet of the tracks. This monitoring will be necessary to ensure that the quiet zones created at railroad crossings are effective.- If the final HIA makes any recommendations for mitigating the health effects of the Millennium project, it should also include recommendations for how best to monitor the effectiveness of those modifications.
MBTL-HIA-00102-6	Patricia Bode	Technical	Form Letter Master	General Public	5.1	Health effects of noise and vibration	5.1	- Low-income areas in Cowlitz County will be exposed to high levels of noise. Noise is associated with higher rates of high blood pressure, heart attack and heart disease.
MBTL-HIA-00103-4	Kevin Baier	Technical	Form Letter Master	General Public	5.1	Health effects of noise and vibration	5.1	*Higher noise exposure in low income areas in Cowlitz County. Noise is associated with higher rates of high blood pressure, heart attack and heart disease. Cowlitz County and the neighborhoods that would be most impacted by increased noise already experience higher than average rates of these diseases and that increased noise will contribute to further increase in these rates (p. 23).
MBTL-HIA-00039-8	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	5.2	Contamination of fish in food chain	5.2	- Tribes have the right to fish and harvest seafood. Some people eating shellfish could be exposed to potentially toxic polycyclic aromatic hydrocarbons due to this project (p. 25)
MBTL-HIA-00074-3	Janice Doherty	Non-technical	Unique	General Public	5.2	Contamination of fish in food chain	4.2,1,4,2,5,2	The Hanford area was designated as a "national sacrifice zone" in matters related to the development of nuclear power. Spokane County is just one area of eastern WA impacted with higher cancer rates related to fallout from "The Green Run" and other radiation experiments and mistakes at Hanford. Cowlitz County should not be designated the current "sacrifice area" for supporting the coal industry as it gradually becomes obsolete. Examples: negative health effects from inhaling coal dust and diesel; increased wait times for emergency response personnel waiting for train crossings; further deterioration of fish and seafood harvests, particularly as related to local tribes who have already suffered significant harm to their fishing and cultural sites

MBTL-HIA-00094-4	Marilee Dea	Technical	Unique	General Public	5.2	Contamination of fish in food chain	5.2	Environmentally closer to home, Millennium's coal terminal will affect the fish in the Columbia River and the shore line with toxic metals contamination and the air in Longview which will affect its inhabitants with more cancer and asthma.
								7. FOOD CONTAMINATION: The DHIA concludes that the project represents no risk to food safety, but this conclusion is based on underestimates of coal toxic pollutants including mercury, lead, arsenic, cadmium and DPM emissions. The DHIA ignores the findings of the "Assessment of the Health and Safety Implications of Coal Transport through Oakland" which states, "Coal dust typically contains toxics such as mercury, lead, arsenic, cadmium, and crystalline silica. These substances are of high health concern if inhaled or ingested and are known to cause cancer, fetal defects and neurological damage, even at very low doses. There are no known safe levels of exposure to these toxics." (Appendix V) Tribes have the right to fish and harvest seafood. Tribal members and others eating shellfish could be exposed to potentially toxic and carcinogenic polycyclic aromatic hydrocarbons due to this project. (page 25)
MBTL-HIA-00096-14	Regna Merritt	Technical	Unique	Organization	5.2	Contamination of fish in food chain	8.5,5.2	
								7. FOOD CONTAMINATIONPart D (Personal Health), Section I considers these questions:Question 12. Will fish in the Columbia River be contaminated and if so, what will be the health impacts on people who eat those fish?Question 15. Will there be any health effects on residents by consuming food grown on local farmland or in residential gardens?The DHIA concludes that some accumulation of PAH in shellfish is possible, but the impact of ingestion is minimal because the harvesting of shellfish in the Columbia River is prohibited. This conclusion underestates risk to tribal communities.The combined and cumulative harm that could come to fisheries from coal transport and export along Northwest waterways such as the Columbia River must be more fully considered. We object to any project that causes significant impacts to tribal fishing and treaty rights.The following words are taken from a prepared statement of the Yakama Nation given November 18, 2013, at an Oregon Physicians for Social Responsibility press conference: "First and foremost, given the direct and indirect impacts that the coal export proposals would have on the Yakama People and our Treaty-reserved rights and resources, Yakama Nation is fully opposed to all coal export proposals, including the Millennium Bulk Terminal project at the Port of Longview. As such, Yakama Nation continues to ask all permitting agencies, including the U.S. Army Corps of Engineers and other state and local authorities to deny any and all permits related to these proposals. To be clear, Yakama Nation will not negotiate nor agree to so-called mitigation for any violations of its Treaty- reserved rights."For further detail see page 40, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals. [Appendix II]The DHIA further concludes that coal dust contamination, along with its associated toxins and heavy metals, will have minimal effects on local home and commercial food crops. This conclusion is based on modeling of coal dust emissions in the FEIS [4] that significantly underestimates emissions based on actual measured emissions at coal terminals in other communities. The conclusion is therefore not warranted. Furthermore, the potential for coal dust including contaminants for which there is no known safe level of exposure (mercury, arsenic, lead, cadmium) must be more fully considered before discounting impacts on food grown on farms and in home gardens. As previously noted, the "Assessment of Health and Safety Implications of Coal Transport through Oakland" states "these substances are of high health concern if inhaled or ingested and are known to cause cancer, fetal defects and neurological damage, even at very low doses. There are no known safe levels of exposure to these toxics." [Appendix V]For further detail see pages 20 - 27, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals. [Appendix II]
MBTL-HIA-00096-31	Regna Merritt	Technical	Unique	Organization	5.2	Contamination of fish in food chain	8.5.2	
MBTL-HIA-00102-9	Patricia Bode	Technical	Form Letter Master	General Public	5.2	Contamination of fish in food chain	5.2	- Tribal members eating shellfish could be exposed to toxic polycyclic aromatic hydrocarbons due to this project.
MBTL-HIA-00103-7	Kevin Baier	Technical	Form Letter Master	General Public	5.2	Contamination of fish in food chain	5.2	*Tribes have the right to fish and harvest seafood. Some people eating shellfish could be exposed to potentially toxic polycyclic aromatic hydrocarbons due to this project (p. 25).
MBTL-HIA-00039-9	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	5.3	Health impacts of topper agents (surfactant)	5.3	- Review of surfactants (chemicals added to the top of open train cars in an attempt to limit dust) was limited because some ingredients are proprietary or were not sufficiently identified to be reviewed independently for potential health impacts. (p. 26)
								SURFACTANTS/BNSFBNSF did not give the HIA steering committee the complete list of surfactants that are approved by BNSF. So, testing is a waste of time.In addition to that, BNSF allows their customers to use whatever surfactant that they choose, as long as it reduced the coal dust by 85%. None of the surfactants that I have seen say anything about being Biodegradable.The fact is that BNSF has not been forthcoming to anyone about the ingredients of their surfactants. This isn't just about the proprietary nature of the ingredients. They don't want the ingredients known because of their toxic nature/interaction in the environment.It is almost impossible to gauge the exact effects of coal dust/particles without knowing what the surfactants are that are being constantly sprayed onto the coal. This includes the effect of coal dust on water quality/contamination as well as on human health. So, more than likely, the results indicated in the HIA would be much more hazardous/deadly to our health.Since, Millennium asserts no responsibility/control outside of their facility, the railroads are not required to use surfactants. If Millennium chooses to use Union Pacific, instead of BNSF to ship their coal, UP does not have a surfactant policy.
MBTL-HIA-00095-5	Chris Turner	Technical	Unique	General Public	5.3	Health impacts of topper agents (surfactant)	8.5.3	
								9. HEALTH EFFECTS OF TOPPER AGENTS (SURFACTANTS):The DHIA concludes that these risks are minimal while acknowledging that the science behind this conclusion is limited. Review was limited because some ingredients are proprietary or were not sufficiently identified to be reviewed independently for potential health impacts. (page 26) Therefore the potential risk to the local population and rail communities from the mines to the terminal is unknown.
MBTL-HIA-00096-16	Regna Merritt	Technical	Unique	Organization	5.3	Health impacts of topper agents (surfactant)	8.5.3	

MBTL-HIA-00096-33	Regna Merritt	Technical	Unique	Organization	5.3	Health impacts of topper agents (surfactant)	8.5.3	9. HEALTH EFFECTS OF TOPPER AGENTS (SURFACTANTS)Part D (Personal Health), Section I (Health Evaluation) considers the following question:Question 13. What are the health impacts of topper agents on workers or residents?The section notes that "to the extent that topper agents reduce community exposure to coal dust, the use of these toppers will be beneficial for public health." [1, page 26]However, even with these agents applied, coal dust is lost in transit at high rates. [7] In addition, it is unclear whether these topper agents will be used on the coal pile at the MBT site to keep the coal dust from blowing in the wind. Even if it is not re-applied at the terminal, topper will be in the coal dust, some of which will blow in and around the project site and adjacent neighborhoods.Investigation did not reveal any potential for significant harm from toppers or surfactants, but the section concludes that "The review performed by DOH was limited. Some ingredients were proprietary or were otherwise not sufficiently identified to be reviewed independently for potential health impacts. In addition, MSDs and toxicological databases show very little testing data for some of these ingredients." [1, page 26]The conclusion that these agents present no potential harm, given the weakness of the evidence, is not warranted. The potential toxicity must be elucidated, regardless of proprietary constituents. The Precautionary Principle should be invoked in the event that no further information on constituents is available.
MBTL-HIA-00103-8	Kevin Baier	Technical	Form Letter Master	General Public	5.3	Health impacts of topper agents (surfactant)	5.3	*Review of surfactants (chemicals added to the top of open train cars in an attempt to limit dust) was limited because some ingredients are proprietary or were not sufficiently identified to be reviewed independently for potential health impacts (p. 26).
MBTL-HIA-00017-1	Kelly McConnell	Technical	Form Letter plus Text	General Public	5.4	Water quality	2,5.4	Above ALL, we want CLEAN air and water. Coal exports are the antithesis of clean air and water.
MBTL-HIA-00072-1	Sabra Hull	Non-technical	Unique	General Public	5.4	Water quality	2,5.4,4	The draft HIA prepared by Cowlitz County and the Washington Department of Health presents some alarming analysis of potential air and water quality issues, and consequent potential health impacts of this proposal. Both human and aquatic communities would be affected, and I see no remedy for these impacts.
MBTL-HIA-00095-3	Chris Turner	Technical	Unique	General Public	5.4	Water quality	8.5.4	QUESTION 12. WILL FISH IN THE COLUMBIA RIVER BE CONTAMINATED, AND IF SO, WHAT WILL BE THE HEALTH IMPACTS ON PEOPLE WHO EAT THE FISH?WATER QUALITY IN THE COLUMBIA RIVER AND WASHINGTON WATERWAYSIn the DOE 401 Water Quality Permit Denial, Millennium has not provided DOE with sufficient data/documents to evaluate the degradation of water quality from the proposed facility.SIERRA CLUB VS BNSF- The judge recently determined that coal dust deposited into the Washington waterways is a violation of the "Clean Water Act". According to ACE in the EIS, coal dust during normal operations will be deposited into the Columbia River from the coal terminal. The coal dust will increase the suspended solids/turbidity of the water. The coal will migrate downstream several miles. Coal. Dust because of its properties, will block the photosynthesis of the plants in the river, reducing the food availability to aquatic life in the estuary. The coal dust will suffocate/strangle the fish. It doesn't take much research to discover that coal dust/particles are composed of arsenic, lead and mercury, among other toxins. I'm not a fish biologist, but I do know that Mercury is a concern for humans that consume fish.Coal dust/particle spills at the terminal or due to collisions or groundings from vessels has not been addressed in the HIA, in relation to the degradation of water quality in the Columbia River.Turbidity is a good measure of the quality of the water.Original dredging and maintenance dredging, pile driving, causing suspended solids/turbidity in the water column have not been included in the water quality evaluation. Maintenance dredging done every couple of years would be a continuing disturbance of aquatic life and water quality in the Columbia River, as well as continued deposition of coal dust from the terminal.Millennium proposes to remove a significant number of creosote-coatings pilling (containing 18 different chemicals) possibly causing long-term toxic suspended solids/turbidity in the water column in the Columbia River.Among the issues that Millennium has not addressed with DOE or will cause water quality issues are:Stormwater runoff-no permission to use stormwater to sprinkle on stockpiles of the coal.Water rights may not be accessible to Millennium.No permission to use Mixing Zones in the Columbia River for wastewater/runoff.Composition of the wastewater that will be discharged into the Columbia River is unknown.The protection that is required to protect the endangered and threatened fish in the Columbia River and the ability to consume the fish in the river, demands that the water quality and discharges from the Millennium facility be evaluated completely.But, Millennium has chosen not to make available the data/documents to DOE. The evidence available at this time, without question, is that the coal terminal will degrade the water quality of the Columbia River beyond what is acceptable, and harm the aquatic life in the river.
MBTL-HIA-00096-15	Regna Merritt	Technical	Unique	Organization	5.4	Water quality	8.5.4	8. WATER QUALITY: The DHIA considers effects of water quality in relationship to PAH contamination of edible fish, but concludes that potential negative impacts are tiny. The DHIA additionally concludes that drinking water in the area will be safe from contamination. Again, this conclusion is based on underestimates of coal emissions and minimizes studies that document already existing toxic contamination of local ground water and aquifers.
MBTL-HIA-00096-32	Regna Merritt	Technical	Unique	Organization	5.4	Water quality	8.5.4	8. WATER QUALITYPart D (Personal Health)Question 14. Will there be health effects related to changes in water quality?The report concludes that there is no evidence to support substantial contamination of groundwater that is used by the local community for drinking water. This assertion was made with inadequate evidence or analysis to support it. Studies have found gasoline, benzene, arsenic and other contaminants in local ground water and aquifers [Appendix II, pages 38-39]. If these earlier contaminants penetrated shallow and deep aquifers, why would one assume that contaminants related to the construction and operation of the MBT could not penetrate as well? Where is the description of potential health impacts that could occur should the deep aquifer (source of drinking water for residents of Longview and other communities) be contaminated by industrial and toxic pollutants? Furthermore, this conclusion of no contamination is based on coal dust emissions that are underestimated. Oil spills are not considered, as well.
MBTL-HIA-00050-1	Barbara Gottlieb	Non-technical	Unique	General Public	5.5	Impact to food grown on farmland or residential gardens	4,2,5.1,5.5	Having visited Oregon's Columbia River as a tourist with my family, I would like to share my concerns about this proposal. It would be extremely harmful to the health of everyone living in the river valley to have this massive coal export terminal built. The terminal as well as the related train traffic would (as your HIA indicates) pose real threats of cancer, air pollution, noise pollution and contamination of food sources.

MBTL-HIA-00096-14	Regna Merritt	Technical	Unique	Organization	5.5	Impact to food grown on farmland or residential gardens	8,5.5,5.2	7. FOOD CONTAMINATION: The DHIA concludes that the project represents no risk to food safety, but this conclusion is based on underestimates of coal toxic pollutants including mercury, lead, arsenic, cadmium and DPM emissions. The DHIA ignores the findings of the "Assessment of the Health and Safety Implications of Coal Transport through Oakland" which states, "Coal dust typically contains toxics such as mercury, lead, arsenic, cadmium, and crystalline silica. These substances are of high health concern if inhaled or ingested and are known to cause cancer, fetal defects and neurological damage, even at very low doses. There are no known safe levels of exposure to these toxics." (Appendix V) Tribes have the right to fish and harvest seafood. Tribal members and others eating shellfish could be exposed to potentially toxic and carcinogenic polycyclic aromatic hydrocarbons due to this project. (page 25)
MBTL-HIA-00004-2	trace farrell	Technical	Form Letter plus Text	General Public	7	Cowlitz County general health population characteristics	7	The mortality rates in Longview and surrounding neighborhoods, from respiratory and cardiovascular diseases, suggest strongly that further endangerment by way of this coal export operation are ill-advised.
MBTL-HIA-00022-1	Stephen Bachhuber	Non-technical	Unique	General Public	7	Cowlitz County general health population characteristics	7	I am a physician who lived in Longview and worked at St. John's Medical Center from 1980 to 1988. During my time in Longview I was struck by the high incidence of asthma in children and chronic lung disease in adults. I attributed this to the high concentration of industry and the outgas of toxic chemicals by the paper and aluminum industries. I tolerated this for many years until I too became a victim, and developed respiratory problems and chronic sinus headaches. I moved from Longview in 1988 and my health improved.
MBTL-HIA-00039-2	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	7	Cowlitz County general health population characteristics	7	While I remain concerned about the influence of Millennium on this HIA process, the data provided was striking. I was taken aback reading the information which showed the current health status of residents of Longview (and neighborhoods of Highlands, Lexington, and St. Helens) compared to other cities in Washington. The mortality rates from respiratory and cardiovascular diseases alone are a strong reminder of why we should not further endanger local residents' health with a coal export project. These neighborhoods should not become a "sacrifice zone" to benefit corporate interests.
MBTL-HIA-00039-7	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	7	Cowlitz County general health population characteristics	7	- Cowlitz County consistently ranks near the bottom of Washington counties in health indicators (p. 13) - Cowlitz County and affected neighborhoods would be at even greater risk of health effects than other parts of Washington.(p. 15)
MBTL-HIA-00102-8	Patricia Bode	Technical	Form Letter Master	General Public	7	Cowlitz County general health population characteristics	7	- Cowlitz County consistently ranks near the bottom of Washington counties in health indicators and would be at even greater risk of health effects than other parts of Washington.
MBTL-HIA-00103-6	Kevin Baier	Technical	Form Letter Master	General Public	7	Cowlitz County general health population characteristics	7	*Cowlitz County consistently ranks near the bottom of Washington counties in health indicators. (p. 13)*Cowlitz County and affected neighborhoods would be at even greater risk of health effects than other parts of Washington (p. 15).
MBTL-HIA-00016-1	Mary Deaton	Technical	Form Letter plus Text	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	We in Mount Vernon and Skagit County are well aware of the impact of coal trains on our local communities, as well have many coming though our towns on the fracking and tar sands extractions going on in Wyoming and Canada. All of the issues listed below are those we live with now. It is irresponsible for the county to limit the concerns to the areas immediately around the tracks, the storage locations, and the transfer into ships. I live on a hill above downtown Mount Vernon where both coal and oil trains travel through the downtown several times a week, snarling traffic and creating noise. In the case of coal trains, dust is a factor. A study done locally in 2013 Or 2014, showed should a coal or oil train crash or explode coming though downtown, it would impact several elementary schools near the route, all of the downtown shopping area, the Skagit River (which flows through downtown), and in the case of an explosion like the one in Quebec, wipe out downtown and our neighborhood on the hill above the tracks.
MBTL-HIA-00036-2	Michael O'Neill	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Negative: * Reading level and overall sophistication of document is too high to be accessible for general population (only 16% w/college degree or higher) * Only analyzes questions individually, no summary table or meta-analysis provided * Many questions do not result in clear analysis - would require research outside the scope of the HIA process, and/or provide positive and negative data points without a framework for evaluating weight of evidence *Document does not provide clear recommendations - this seems like a big miss, sense it is a named step in the HIA process the document describes
MBTL-HIA-00036-5	Michael O'Neill	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Requested Changes * Provide a strength of evidence framework to evaluate findings for each question and use the framework to provide additional analysis for each question * The Steering Committee should review and discuss findings, and their feedback should be used to create an abstract/summary for each section of the HIA (shoot for 8th grade reading lvl in abstracts) * The Steering Committee should use the findings to develop recommendations for maximizing project benefits and minimizing negative project impacts (e.g. develop low income housing away from air pollution contours to reduce the concentration of vulnerable populations in areas where they will be exposed to pollution) - at a minimum, the Steering Committee should provide recommendations for every finding that has a high strength of evidence * Provide a master table that summarizes the findings for each question, whether the finding has a positive or negative impact on health, the expected magnitude of the impact, time-scale at which the impact is likely to occur, and the strength of evidence supporting the finding
MBTL-HIA-00039-1	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	This is the first draft HIA to be prepared by Cowlitz County in cooperation with the Washington Department of Health.While lacking in some areas, this draft is a strong start. It should provide the basis for strong recommendations from the HIA Steering Committee to prevent construction of the MBTL project and forever protect the health of communities from the dangers of coal mining, transport, storage and export. It can also be a tool to protect the health and safety of Cowlitz County residents from future projects that endanger human health and our climate.
MBTL-HIA-00039-14	Jasmine Zimmer-Stucky	Technical	Form Letter Master	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	4,2,8	Please acknowledge that the significance of the draft HIA is limited due to the severely constrained geographic scope of the study area.The section on impacts from 16 trains passing through at-grade crossings in Cowlitz County each day and related health impacts due to delayed emergency response time is sorely lacking. If improved, it would at least help inform the municipalities along the transportation corridor of potential impacts to their residents and emergency services.
MBTL-HIA-00047-2	Dorothy Brockway	Technical	Form Letter plus Text	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	This draft omits important information about the consequences of building this terminal.
MBTL-HIA-00063-6	Michael Gochfeld	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	n addition to these health threats, the draft HIA fails to recognize the serious threats posed by many heavy metals and other toxics that would be released due to the proposed coal export terminal.

MBTL-HIA-00067-1	Jerry Cufley	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	I would like to bring to your attention two concerns regarding the HIA for MTB-L. First, there does not seem to be a cost accounting of the illnesses and deaths imposed on the population at risk by the proposed operation. Monetarily measurable resources would be consumed providing the medical services required by the incremental number of people adversely affected. Such costs would include hospitalizations, clinic visits, medications, social services, and a variety of other direct and indirect impacts. Attempts have been made to put a monetary value on a human life itself. These evaluations, although crass, look at the costs of, for example, how many normal mammograms or colonoscopies it takes to save a human life or jury awards. The consensus in America appears to be 6-9 million dollars.
MBTL-HIA-00067-2	Jerry Cufley	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	My second concern is that the FEIS determination that the coal will be exported through some other facility if not through Longview and be eventually burned in its entirety seems to defy reality. A more accurate accounting might be the following: MTB-L presumably has sought out the cheapest route for transportation of coal from Montana to foreign markets. If MTB-L were to find itself having to use a less desirable, more expensive route, the coal would be more expensive for the end user and less would be consumed. Although the resultant decrease in global GHG emissions would likely have only minuscule immediate impact on the residents of Cowlitz County in any one year, decrease in the use of fossil fuels planned to be shipped through Longview over 30-50 years could result in a measurable impact on global warming, a threat to everyone, including the population of Cowlitz County.
MBTL-HIA-00076-10	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	The HIA would be improved by including information and resources from other permit documents. Question 14 on water quality should incorporate the opinion from Section 3 of the Section 401 Water Quality Certification in the Department of Ecology Section 401 Water Certification denial issued to Millennium Bulk Terminals September 26, 2017. Rail congestion, noise, water quality and other health impacts are addressed in the Cowlitz County Hearings Examiner Shoreline Permit decision issued November 14, 2017.
MBTL-HIA-00076-2	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Though much time and effort has been expended on the endeavor the last couple years, I realize this report is only a draft. Overall I find the quality of the report inconsistent and lacking. Question 10 was not answered. Question 9 essentially was answered by repeating some of the data in the FEIS technical report and said look there for detail. In other words, no analysis or answer to the question.
MBTL-HIA-00076-3	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	While Section 3, Impacts Identified in Other Communities with Coal Export, seemed to address Question 8 about how coal has affected health in other communities, the two pages devoted to statistics about Newcastle, Australia were worthless for understanding the impact of coal on the city. Why was research not provided on communities closer to Longview, such as those with coal terminals in British Columbia, or Appalachian communities in the eastern United States with long histories hosting the coal industry? Thus, Question 8 was not answered.
MBTL-HIA-00076-4	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	The HIA needs to explain why Lexington was included as a population comparison versus some other area of Cowlitz County. Lexington is distant from the coal terminal site and located across the Cowlitz River away from the BNSF main rail line. Why was the City of Kelso not included? This city is located on the rail line and will be directly impacted by noise, dust, and at grade crossing congestion by 8 additional trains per day if the empty rail cars are returned by the northern route as anticipated. Social and environmental justice populations in Kelso are located close to the rail line. Numerous homes are located within 200 feet of the rail line and will be impacted by dust from empty rail cars and DPM from the 8 additional trains. This is an egregious oversight not to include health impacts to this dense population center close to the main line. This brings up criticism of the HIA's over reliance on the MBT FEIS as a source document for coal dust data. There were over a hundred substantive comments to the DEIS on coal dust. Most of the FEIS responses to the comments were to refer back to the coal dust section.
MBTL-HIA-00076-6	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	If the HIA is to rely on the FEIS, then it would seem all emissions comparisons to other coal terminals would be fruitless, "Emissions for other coal export terminals, such as the Hay Point Terminal in Australia, cannot be applied directly to the Proposed Action." That would include the two pages of data on Newcastle noted above.
MBTL-HIA-00076-7	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	I have other concerns about the HIA. On page 10 is the statement in reference to air pollution from roadways and transportation corridors that air quality generally returns to background levels at about 500-600 feet downwind. What does this mean for the project study area if the project raises the background levels?
MBTL-HIA-00076-8	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Page 17 addressing Question 6, "How will this affect local taxes and will that affect health?", states, "Some forms of development can have negative impacts on vacancy rates, property values and business investment, therefore detracting from the existing tax base." That is part of the question the committee has asked to have answered. Positive economic impacts for this terminal have been touted for over six years. What have not been discussed are the negative economic impacts to existing businesses and residential property owners. This question has not been answered.
MBTL-HIA-00076-9	Diane L. Dick	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Page 30 uses outdated unemployment rate for Cowlitz County.
MBTL-HIA-00086-1	Beth Kaeding	Technical	Form Letter plus Text	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	A major problem with the draft is that it does not acknowledge that the impacts presented for Cowlitz County ALSO are the impacts that the proposed coal trains would have for more than 1,000 miles and on hundreds of communities along the rail line back through Washington, Idaho, Montana, and Wyoming to the point where the coal is loaded on the trains. The thousands of people along these rail lines whose health would be affected by this project are as important as those in Cowlitz County and, at the very least, need to be acknowledged.
MBTL-HIA-00086-2	Beth Kaeding	Technical	Form Letter plus Text	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	If the HIA is revised and more inclusive, it would help inform the municipalities along the transportation corridor of potential impacts to their residents and emergency services.
MBTL-HIA-00092-1	Laura Ackerman	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	While the HIA was decent I would urge you to make the final more comprehensive. First off, impacts were mentioned but they were too generalized. This is especially seen in the section on multiple traffic delays at at grade crossings. What would the cumulative delay be in one day?

MBTL-HIA-00092-2	Laura Ackerman	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Up-rail communities was mentioned once in the document, but rail communities are a part of this whole proposal. MBT would not exist without rail communities. When you focus only on the community in which the proposal would be built you miss the serious impacts of those of us who live along the rail lines. Facilities like this can't exist in a vacuum. Up-rail communities don't get any benefits from this facility, if built, and we certainly would get no revenue sharing. But coal dust, vehicle delays and air pollution are significant in rail communities. You may actually learn more about the health impacts of the proposal in Cowlitz County by understanding more about the health impacts in rail communities.
MBTL-HIA-00092-3	Laura Ackerman	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Second, what are the specific ways that some of the negative health impacts can be mitigated if possible? That is what an HIA should do. And it also needs to explain in plain language how it can damage our children, grandchildren and those who are sensitive in some way because of diseases.
MBTL-HIA-00092-4	Laura Ackerman	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.1	studies cited, have an on line link for reading some of them myself.As an example, with the noise studies you used, I found some more studies on line, that help validate what is in the HIA. Noise is becoming an increasingly alarming human health problem. And just as an additional fact, human produced noise is also harming many non-human species. Many studies exist on this.I checked on some noise studies I know about and found that I had two that were the same as you listed, but I also found more ( and there are more than this) and in case you are curious here they are:Airport Noise Can Seriously Affect The Health And Psychological ...[link: https://www.sciencedaily.com/releases/1998/03/980306043455.htm]Mar 6, 1998 ... Other studies have been cross sectional, comparing people exposed to noise to well-matched controls who were not subjected to noise. Evans, an environmental psychologist and an international expert on environmental stress (such as noise, crowding and air pollution) and his German and SwedishTraffic noise is dangerous for your health: Solutions exist for dense ... [link: https://www.sciencedaily.com/releases/2014/07/140701085328.htm]Jul 1, 2014 ... Traffic noise is the second biggest environmental problem in the EU, according to WHO. After air pollution, noise is affecting health the most. But legislation regarding noise pollution is insufficient. A new report shows how negative health effects of noise can be reduced. Several means are easiest to apply inTransportation noise increases risk for cardiovascular diseases and ... [link: https://www.sciencedaily.com/releases/2017/06/170621103143.htm]Jun 21, 2017 ... Noise also favours Diabetes. In addition to cardiovascular diseases, transportation noise also increases the risk of developing diabetes. This is shown by an examination of 2,631 people exposed to different degrees of noise pollution. "Two mechanisms play a role," explains Nicole Probst-Hensch, Head ofSubstantial road traffic noise in urban areas contributes to sleep ... [link: https://www.sciencedaily.com/releases/2012/09/120911091353.htm]Sep 11, 2012 ... The World Health Organization recently recognized environmental noise as harmful pollution, with adverse psychosocial and physiological effects on public health. A new study of noise pollution in Fulton County, Georgia, suggests that many residents are exposed to high noise levels that put them at risk ofNoisy Roads Increase Risk Of High Blood Pressure -- ScienceDaily [link: https://www.sciencedaily.com/releases/2009/09/090909203148.htm]Sep 11, 2009 ... Traffic noise raises blood pressure. Researchers have found that people exposed to high levels of noise from nearby roads are more likely to report suffering from hypertension.Effect of loud noises on brain revealed in study -- ScienceDaily [link: https://www.sciencedaily.com/releases/2014/07/140731102524.htm]Jul 31, 2014 ... Prolonged exposure to loud noise alters how the brain processes speech, potentially increasing the difficulty in distinguishing speech sounds, according to neuroscientists. Exposure to intensely loud sounds leads to permanent damage of the hair cells, which act as sound receivers in the ear.Long term exposure to aircraft noise linked to high blood pressure ... [link: https://www.sciencedaily.com/releases/2017/06/170613185148.htm]Jun 13, 2017 ... They point out that they were unable to look at specific causes of death among the 78 people who died between 2004-6 and 2013. The numbers studied were also relatively small, and it wasn't possible to account for the potential effects of air pollution. Nevertheless, a growing body of evidence links noiseToo much 'noise' can affect
MBTL-HIA-00092-5	Laura Ackerman	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.1	And finally on noise, please do more research specifically on train whistle noise. As an activist I hear a lot about train whistles and how annoying they are for humans who live near them. A few years ago I was sitting in a coffee shop in downtown Cheney, WA with a friend. It was a summer day and the door to the shop was open. A train came by (Cheney and Spokane will get all the coal trains for this proposal as well as all types of cargo, manifest and unit trains) and the whistle was so loud I could not hear my friend talk who was literally a foot away. Train whistles are a part of the safety of at grade crossings, but they are also difficult on the ears. Train whistles are a chronic complaint (I have researched this) across the US and Canada and you need to research that, link articles about that in the HIA and suggest some possible solutions.Cumulative effects of rail traffic and noise need to be taken into account when it comes to communities who may see more than one proposal or are the rail communities for more than one proposal on top of the already existing traffic. A city like Spokane is a perfect example of that.
MBTL-HIA-00092-6	Laura Ackerman	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	And finally, I have to mention that the release of the HIA was poor in terms of timing. Why public officials cannot figure out that it's not appropriate to release public documents and ask for comments during holidays, is beyond me, as a citizen. It's not democratic. I have had little time to look at the studies cited, and compare them with other literature that exists. I need at least 60 days, and I work on energy issues for a living. Please be more mindful of the everyday working person who would like to comment but can't get it done so quickly. And again, I hope the final HIA is more comprehensive, has real-life suggestions for some mitigation, further links for study, and some analysis (practically none for the Newcastle section) with depth.
MBTL-HIA-00095-1	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	I have found that the HIA is lacking in a number of areas. Particularly, in that it does not draw from the experts/conclusions that are accumulated within the four denied permits for the Millennium facility. These denied permits are now available for review and should be included within the final HIA report.For example, the 401 Water Quality from DOE has significant information about the lack of appropriate documents regarding water quality, and addresses other pertinent areas of the coal terminal project.Other documents such as the City of Longview's Ordinance and other wellhead protection documents that describe the Mint Farm Wells in relation to Millennium have not been evaluated. There are some other sources of information that would have been helpful to answer a number of the questions in the HIA, that were not included in this report.

MBTL-HIA-00095-2	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Also, a great deal of the information provided in the HIA, is copied from the EIS, and does not include appropriate relative important information that was provided within the same document. The HIA does not include appropriate other investigation of the issues, or conclusions reached by the steering committee itself. QUESTION 14. Will there be health effects related to changes in water quality? "Safe and reliable drinking water is a chief priority for protecting community health." MINT FARM COMMUNITY DRINKING WATER WELLSTHE City of Longview Ordinance 3209, Water Supply Protection says: RESTRICTIONS..... "Any other activity that has the POTENTIAL to reduce the aquifer recharge, flow, or WATER QUALITY, or otherwise THREATEN the use of the municipal water supply, as determined by the Director" Table 5-2 in the report from Kennedy-Jenks-Consultants from February 1, 2012 on the Mint Farm Wells - Wellhead Protection Program includes MILLENNIUM BULK TERMINAL in the Table as a POTENTIAL source of Contamination. This report shows the potential of contamination from existing operations in 2012, well before the coal terminal with 85ft stacks of coal on the ground, spread over 75 acres was proposed. Millennium's project site is located squarely on the wellhead protection area for the Mint Farm Community drinking wells, which are classified for "human consumption". Millennium's EIS for the proposed coal terminal, constantly uses the words UNLIKELY, predominately recharged from the deep aquifer. The HIA is now using NOT LIKELY AND UNLIKELY. If this terminal has the POTENTIAL to contaminate our drinking water wells, it should not be approved. Kennedy-Jenks report also states that just North of Millennium, a portion of the shallow aquifer leads to the deep aquifer and the deep aquifer also comes to the surface of the shallow aquifer. This project has already shown not to be appropriate for a wellhead protection area. Millennium has not bothered to investigate with the combined efforts of an Earthquake Geotechnical Engineer, and a hydrologist, the connection between multiple issues regarding the Mint Farm Wells/wellhead of the proposed coal terminal. Specifically, the shallow aquifer at the project site could be as close to the surface as 3 ft, high rate of liquefaction in an earthquake, limited weight load carrying capacity of the soil, no soils improvements other than regrading, connections between the shallow and deep aquifers, and fact that according to ACE, the soil is corrosive to concrete and steel. The HIA states, "Polycyclic aromatic hydrocarbons (PAHs) are considered a hazardous substance under the Act. PAH's MAY OR MAY NOT leach off of coal stockpiles and contaminate groundwater or soils". In combination, these issues just mentioned, further cement the fact that a coal terminal would easily be considered a cause for POTENTIAL reduction of water quality and POTENTIAL to contaminate the drinking water wells.
MBTL-HIA-00095-3	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.4	QUESTION 12. WILL FISH IN THE COLUMBIA RIVER BE CONTAMINATED, AND IF SO, WHAT WILL BE THE HEALTH IMPACTS ON PEOPLE WHO EAT THE FISH? WATER QUALITY IN THE COLUMBIA RIVER AND WASHINGTON WATERWAYS In the DOE 401 Water Quality Permit Denial, Millennium has not provided DOE with sufficient data/documents to evaluate the degradation of water quality from the proposed facility. SIERRA CLUB VS BNSF- The judge recently determined that coal dust deposited into the Washington waterways is a violation of the "Clean Water Act". According to ACE in the EIS, coal dust during normal operations will be deposited into the Columbia River from the coal terminal. The coal dust will increase the suspended solids/turbidity of the water. The coal will migrate downstream several miles. Coal. Dust because of its properties, will block the photosynthesis of the plants in the river, reducing the food availability to aquatic life in the estuary. The coal dust will suffocate/strangle the fish. It doesn't take much research to discover that coal dust/particles are composed of arsenic, lead and mercury, among other toxins. I'm not a fish biologist, but I do know that Mercury is a concern for humans that consume fish. Coal dust/particle spills at the terminal or due to collisions or groundings from vessels has not been addressed in the HIA, in relation to the degradation of water quality in the Columbia River. Turbidity is a good measure of the quality of the water. Original dredging and maintenance dredging, pile driving, causing suspended solids/turbidity in the water column have not been included in the water quality evaluation. Maintenance dredging done every couple of years would be a continuing disturbance of aquatic life and water quality in the Columbia River, as well as continued deposition of coal dust from the terminal. Millennium proposes to remove a significant number of creosote-coatings piling (containing 18 different chemicals) possibly causing long-term toxic suspended solids/turbidity in the water column in the Columbia River. Among the issues that Millennium has not addressed with DOE or will cause water quality issues are: Stormwater runoff-no permission to use stormwater to sprinkle on stockpiles of the coal. Water rights may not be accessible to Millennium. No permission to use Mixing Zones in the Columbia River for wastewater/runoff. Composition of the wastewater that will be discharged into the Columbia River is unknown. The protection that is required to protect the endangered and threatened fish in the Columbia River and the ability to consume the fish in the river, demands that the water quality and discharges from the Millennium facility be evaluated completely. But, Millennium has chosen not to make available the data/documents to DOE. The evidence available at this time, without question, is that the coal terminal will degrade the water quality of the Columbia River beyond what is acceptable, and harm the aquatic life in the river.
MBTL-HIA-00095-5	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.3	SURFACTANTS/BNSF BNSF did not give the HIA steering committee the complete list of surfactants that are approved by BNSF. So, testing is a waste of time. In addition to that, BNSF allows their customers to use whatever surfactant that they choose, as long as it reduced the coal dust by 85%. None of the surfactants that I have seen say anything about being Biodegradable. The fact is that BNSF has not been forthcoming to anyone about the ingredients of their surfactants. This isn't just about the proprietary nature of the ingredients. They don't want the ingredients known because of their toxic nature/interaction in the environment. It is almost impossible to gauge the exact effects of coal dust/particles without knowing what the surfactants are that are being constantly sprayed onto the coal. This includes the effect of coal dust on water quality/contamination as well as on human health. So, more than likely, the results indicated in the HIA would be much more hazardous/deadly to our health. Since, Millennium asserts no responsibility/control outside of their facility, the railroads are not required to use surfactants. If Millennium chooses to use Union Pacific, instead of BNSF to ship their coal, UP does not have a surfactant policy.

MBTL-HIA-00095-6	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	SPONTANEOUS COMBUSTION OF COALThe HIA does not have any information about the threat of spontaneous combustion of the stockpiles at the proposed facility. Common knowledge is-it isn't if a fire will occur, but when. There is no mention about monitoring the stockpiles for fires. Obviously, this is an important worker health safety issue as well a community safety issue. Burning coal is the worst-case scenario at a terminal, and has not been addressed by Millennium.A report stated that the maximum height of any type of coal, stockpiled, should be 26 feet. At 85 feet, the Millennium stockpiles are well beyond this requirement. There is no indication that the equipment at the project site will be able to reach a fire in an appropriate timeframe. At 85 feet, spread over 75 acres, it is unlikely that a stockpile could be spread out to reach the fire source.This spontaneous combustion property of the coal, is also a worker safety health issue for any of the covered areas of the project site. This includes the covered conveyor belts to load the vessels, and the car turning area to unload the railcars. These confined spaces present a fire danger, and also concentrate the coal dust exposure for workers, beyond what's necessary.
MBTL-HIA-00095-7	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	INCREASED LENGTH OF TRAINSIn the future, the railroad companies are anticipating an increase in the length of their trains. Possibly as much as 50%. This increase without anyone's ability to discuss/influence the results, very well could drastically change a number of issues with this proposed coal terminal.The timeframes at the at-grade crossings, number of diesel locomotives per train, emergency response times, increase in waiting/idling times at railroad control signals etc. beyond those mentioned in the HIA study.The HIA doesn't seem to address this future, foreseeable change in railroad activities. Splitting trains was mentioned by BNSF at Millennium's Shoreline hearing, but there was no further discussion.
MBTL-HIA-00095-8	Chris Turner	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	CONCLUSIONI believe that the Draft HIA needs more work. For the questions that have been asked, the information provided needs to be complete, not just a little portion of the issue. More investigation needs to go into the answers that have been provided.Millennium should not be allowed, to just not provide data/documents to avoid evaluation of their project.Nor, should they be able to isolate themselves within their project fences, and not take responsibility and control over the railroad and vessels that carry their product. These avoidance tactics being used by Millennium should be mentioned within the HIA document.
MBTL-HIA-00096-1	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Oregon and Washington Physicians for Social Responsibility recognize the considerable time and effort devoted to the analysis of health impacts from the proposed coal terminal. The DHIA does include a detailed profile of baseline health status of the residents of the County including the most vulnerable populations. The DHIA also undertakes an analysis of the positive health impacts of economic growth. We find, however, that the DHIA minimizes some of the risks to health and fails to consider the full range of potential health impacts. It also falls short in its very limited geographic scope. Many organizations and municipalities requested an HIA that extended from the mines to the port, including the railroad corridor and the shipping corridor. Instead we are reviewing a DHIA that considers only a portion of Cowlitz County, WA. Nonetheless, it is important to acknowledge that there is sufficient evidence in the DHIA to support a recommendation of the HIA Steering Committee that the project not move forward because many significant negative health impacts cannot be mitigated.
MBTL-HIA-00096-10	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,2	3. AIR QUALITY MONITORING: The DHIA does not address the problem of grossly inadequate air quality monitoring in the affected areas, either for purposes of assessment or ongoing monitoring.
MBTL-HIA-00096-11	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,3	4. ECONOMIC PROSPERITY: The DHIA includes an analysis of the positive impacts of projected economic growth in the County of the proposal. It includes, however, no analysis of the economic impact of negative health outcomes. It fails to include recent information pertaining to the viability of the coal industry. The implication that the coal terminal would have a net positive effect on community prosperity is not supported.
MBTL-HIA-00096-12	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,4.1	5. GLOBAL CLIMATE CHANGE: The DHIA includes a detailed analysis of the adverse effects of global climate change on the residents of Cowlitz County. It notes that "changes in Washington's climate in the near and midterm future will likely increase hazards to human health and increase health disparities. Without preventative and protective measures, this will worsen a variety of health outcomes." It also states, "What is certain is that if increasing global GHG emissions from human activities continues on a business as usual path, residents in Washington and Cowlitz County will experience far greater harms than if the level of GHG emissions at the global level are dramatically reduced sufficient to arrest the increase in atmospheric GHG concentrations and limit global warming to under 2 degrees Celsius." The assessment, however, declines to acknowledge the negative impact of the proposed coal terminal to global climate change.
MBTL-HIA-00096-13	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.1	6. RAIL CONGESTION AND NOISE POLLUTION: There is higher noise exposure in low-income areas in Cowlitz County. Noise is associated with higher rates of high blood pressure, heart attack and heart disease. Cowlitz County and the neighborhoods that would be most impacted by increased noise already experience higher than average rates of these diseases and that increased noise will contribute to further increase in these rates. (page 23)The DHIA does not describe the full range of negative health impacts of noise and traffic congestion generated by projected increase in rail traffic, including an increase in the number of train accidents as described in the FEIS.A single train could delay traffic by 9 minutes at at-grade crossings. There will be 16 train trips each day at full operation. This could decrease accessibility of public services and increase wait times for emergency vehicles. (page 21) The DHIA does not describe the health implications of delayed response times. These include death and/or disability for cardiac and stroke patients, accident patients, and all patients threatened by emergent life and death situations.
MBTL-HIA-00096-14	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5,5,5,2	7. FOOD CONTAMINATION: The DHIA concludes that the project represents no risk to food safety, but this conclusion is based on underestimates of coal toxic pollutants including mercury, lead, arsenic, cadmium and DPM emissions. The DHIA ignores the findings of the "Assessment of the Health and Safety Implications of Coal Transport through Oakland" which states, "Coal dust typically contains toxics such as mercury, lead, arsenic, cadmium, and crystalline silica. These substances are of high health concern if inhaled or ingested and are known to cause cancer, fetal defects and neurological damage, even at very low doses. There are no known safe levels of exposure to these toxics." (Appendix V)Tribes have the right to fish and harvest seafood. Tribal members and others eating shellfish could be exposed to potentially toxic and carcinogenic polycyclic aromatic hydrocarbons due to this project. (page 25)

MBTL-HIA-00096-15	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.4	8. WATER QUALITY: The DHIA considers effects of water quality in relationship to PAH contamination of edible fish, but concludes that potential negative impacts are tiny. The DHIA additionally concludes that drinking water in the area will be safe from contamination. Again, this conclusion is based on underestimates of coal emissions and minimizes studies that document already existing toxic contamination of local ground water and aquifers.
MBTL-HIA-00096-16	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.3	9. HEALTH EFFECTS OF TOPPER AGENTS (SURFACTANTS):The DHIA concludes that these risks are minimal while acknowledging that the science behind this conclusion is limited. Review was limited because some ingredients are proprietary or were not sufficiently identified to be reviewed independently for potential health impacts. (page 26) Therefore the potential risk to the local population and rail communities from the mines to the terminal is unknown.
MBTL-HIA-00096-17	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	10. PAHS, HEAVY METALS, AND OTHER TOXINS: The DHIA fails to adequately consider negative health impacts of a number of other toxics associated with coal transport, export and combustion including mercury and other heavy metals plus polycyclic aromatic hydrocarbons (PAHs), many of which are carcinogens. There was no discussion of cumulative impacts of many toxins and air pollutants, which may have additive and synergistic effects that exacerbate negative health impacts.
MBTL-HIA-00096-18	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	11. OCCUPATIONAL HEALTH AND SAFETY: The DHIA fails to independently investigate the potential adverse effects on worker health at the coal terminal site. The DHIA does consider impacts of exposure to topper agents at the site of application. Eye, skin, and lung irritation as well as gastrointestinal disturbances are possible. The DHIA fails to consider that workers at the terminal site may be at risk for "coal mine dust lung disease," as are workers at surface coal mines.
MBTL-HIA-00096-19	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	12. MARINE ACCIDENTS AND TOXIC SPILLS: The DHIA fails to take into consideration the negative health impacts of potential marine accidents and toxic spills associated with increased shipping in the Columbia River.
MBTL-HIA-00096-2	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	The DHIA frequently fails to adhere to the Precautionary Principle, a critical component of public and environmental health practice. The Precautionary Principle states that "should an activity raise threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relations are not fully established scientifically." (Wingspread Conference, 1998). The DHIA rather tends to dismiss concerns that are not scientifically established beyond refute. The precautionary principle holds that in the event of insufficient evidence that an action may cause harms, the burden of proof falls on those taking the action to demonstrate that it will not be harmful. [5] Furthermore, it is the responsibility of decision-makers to ensure that the estimates of the number of people who might experience adverse health impacts are reasonable and reliable.
MBTL-HIA-00096-20	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	13. RAIL ACCIDENTS AND TOXIC SPILLS: The DHIA fails to take into consideration the negative health impacts of potential rail accidents and toxic spills associated with increased rail traffic.
MBTL-HIA-00096-21	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	14. CATASTROPHIC EXPLOSION: According to the Oakland Coal Export report, there are inherent hazards in transporting and handling coal, including the risk of catastrophic explosion. "Since coal is inherently combustible, each step in its handling creates hazards for workers and nearby communities." The DHIA does not examine or describe these risks to human health and safety.
MBTL-HIA-00096-22	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	15. UP- AND DOWNSTREAM COMMUNITIES: The DHIA fails to take into consideration the negative health impacts on up- and downstream communities, including Native American tribes, from increased marine traffic, rail traffic, and coal transport.
MBTL-HIA-00096-23	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	16. STAKEHOLDERS: The DHIA includes no evidence that all stakeholders, including the most vulnerable populations, have yet been involved in the assessment.
MBTL-HIA-00096-24	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,4.3	17. ACTIVE TRANSPORTATION AND RECREATION: For lack of time, the authors of the DHIA failed to answer this question. This is a key omission because we know that recreational facilities at schools, soccer fields, hiking trails and biking lanes are areas of concern. Youth and active adults engage in intensive exercise that increases breathing rates and increases the total amount of pollution inhaled. Children are at risk even if they are not intensively exercising because they respire more frequently than adults and their body weight is lower. They concentrate significantly more toxins per body weight than adults. The boundary of Woodland Primary School is 125 feet from the railroad. (page 28) This puts children at greater risk for inhalation and ingestion of coal and DPM toxic pollutants.

MBTL-HIA-00096-25	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,2.1	<p>DISCUSSION: HEALTH EFFECTS OF DPM AND COAL DUST IN COWLITZ COUNTY, SECTION II (Health Evaluation) considers these questions: Question 1. What effects will coal dust, diesel exhaust from trains, ship pollutants, and emissions from vehicles, due to increased congestion, have on the health of Longview residents and sensitive populations (such as asthmatics, elderly, pregnant, smokers, those with respiratory conditions, and youth)? Question 2. What are the short- and long-term effects of diesel exhaust and coal dust exposure? Question 3. What neighborhoods and communities will be at the greatest risk of exposure to air pollution based on proximity, prevailing winds, and other environmental factors? Some short-and-long term effects of diesel exhaust and coal dust exposure (PM 2.5 and PM 10) are well-delineated in the HIA. The current health status of the neighborhoods and communities at greatest risk of exposure are also clearly noted and found to be generally worse than that of Washington State as a whole. Health data shows higher death rates from heart disease, lower respiratory diseases, most notably emphysema in Cowlitz County, particularly in the neighborhoods near the proposed MBT (Highlands and St. Helen's) than in other areas of Washington State. This translates into a greater negative effect of air pollution on the health of the population of Cowlitz County because of the higher burden of existing illness. The DHIA omits the harmful effects of PM 2.5 on older adults in particular. Recent research has shown that the elderly are disproportionately harmed from this type of air pollution. Even a slight increase in daily PM 2.5 exposure has been shown to directly correlate with increased mortality for adults 65 and older. [Appendix III] As the HIA notes that Cowlitz County's population of adults over 65 is larger than that of Washington overall, this risk is particularly significant. What conclusions are drawn are found buried in the Appendix. In the Appendix, the DHIA notes that in "2008 the Washington Department of Ecology ranked DPM as the highest priority toxic air pollutant based on cancer potency and emission levels." Although the HIA notes significant negative health impacts of both diesel exhaust and coal dust exposure to the residents of Cowlitz County, particularly those closest to the terminal, it does not acknowledge that these effects cannot be mitigated. Because the greatest negative health impacts would occur in vulnerable communities and to those burdened by illness, pregnant women, infants and children, and those over 65 years, this project does not meet the standards of "Equity" from the International Association of Impact Assessment. [Appendix I] Furthermore, the DHIA does not discuss the adverse effects of exposure to black carbon (BC), a component of diesel particulate matter, smaller than PM 2.5, and more dangerous. There is evidence that previous estimates of the effects of PM 2.5 on health may have been underestimated as new methods of measurement have been developed to evaluate the black carbon content. Of most concern, evidence of neurodevelopmental and neurodegenerative effects of exposure to black carbon and PM2.5 and the toxicants they carry into the blood stream have been left out of the analysis. Thus, important health impacts on children, adults, and the elderly have been left out of the draft HIA. Asthma rates in Cowlitz County are very high. The DHIA does not analyze the potential for increased asthma rates and exacerbation resulting from exposure to fine particulate matter and ground level ozone. High asthma hospitalization rates are noted in the Table 8 but there is no discussion. Asthma should be added and evaluated as a health impact along with significant increases in hospitalizations for respiratory infections, COPD and bronchiectasis. The impact to other communities along the rail lines or shipping routes is also minimized or excluded and what information is provided is only found in the Appendix. The DHIA also does not</p>
MBTL-HIA-00096-26	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,4	<p>2. IMPACTS ON VULNERABLE POPULATIONS Woven into Section II (Health Evaluation) and Appendix I (Air Quality) is a detailed analysis of the baseline health of the local community and projected disproportionate impacts on vulnerable communities, including persons with underlying health conditions, and vulnerabilities associated with low-income, race, and other demographic factors. It includes a discussion of the social determinants of health as they are manifest in the local community. The document includes some additional analysis on the disproportionate impact of increased rail traffic on vulnerable and low-income communities. Disproportionate impacts of rail and marine accidents, toxic spills, and potential contamination of food and drinking water are not discussed. This is a violation of the principle of "Equity" established by the International Association of Impact Assessment. [Appendix I] For further detail see pages 40-41, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals Longview. [Appendix II]</p>
MBTL-HIA-00096-27	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,2	<p>3. AIR QUALITY MONITORING The discussion of air pollutant effects in Section II (Health Evaluation) and again in Appendix I (Air Quality) are based on baseline monitoring data in Longview from 2013 and 2016. The source of this monitoring data is from a single monitor stationed 1.5 miles from the project site. [4, page 689] This is not only an inadequate assessment of baseline air quality in the area, but is also inadequate to assess any degradation in air quality due to the coal export terminal, should MBT be allowed to proceed. Also lacking in the DHIA is information about wind speed, direction and impacts of inversions on air quality near the terminal and in Cowlitz County. See page 11 of Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals Longview. [Appendix II]</p>

MBTL-HIA-00096-28	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,3	<p>4. ECONOMIC PROSPECTS (Economic Health, Prosperity and Resiliency), Section II (Health Evaluation) takes up these questions: Question 4. How will the project affect the number and types of jobs in Longview in the long-term and how does that affect the health of those employed and the community as a whole? How does that compare to alternative site uses for the MBTL site? Question 5. How will the other aspects of the local economy be affected? Will the impact on tourism, the service economy, and the river economy increase prosperity? Question 6. How will this affect local taxes and will that affect health? Question 7. What economic, social, or environmental accountability does Millennium have to the community if they close or leave the community? Does that accountability remain if there is a bankruptcy? The analysis focuses on the positive health effects that would result from projected economic growth from the coal terminal. This is an important part of a comprehensive health impact assessment. The analysis here, and in DHIA Appendix I, is detailed, includes wage multipliers, effects on tax base, discussion of alternative uses of the site for the proposed coal terminal and the consequences to the community should the project terminate prematurely. Missing from the discussion is any analysis of the economic costs of negative health impacts such as loss of work and school days, costs of medical care, and years of potential life lost. Net effects of the project on economic prosperity cannot be predicted without further analysis, as the report itself admits: "A sophisticated economic analysis would be necessary to draw more solid conclusions on the positive health impacts of a project from a perspective of job creation and site use." [1, page 16] Furthermore, estimates for job creation, direct and indirect (on which estimates of economic growth are predicated) derive solely from the estimates provided by MBT itself with no independent assessment of the accuracy of these estimates. The DHIA clearly states that closure of the plant would have serious economic consequences for both MBT's employees as well as the community at large. It notes that there are some ways to mitigate this such as The Worker Adjustment and Retraining Notification Act (WARN). There are notable exceptions to requiring employers to comply with this including closure due to unforeseen circumstances. The DHIA notes that another way to mitigate a closure would be to require that MBT comply with the International Finance Corporation Performance Standard of having a "Retrenchment Plan" in place, which includes provisions for managing lay-offs in the event of downsizing or closure. MBT currently has no plan to develop a "Retrenchment Plan" and there is no current requirement for MBT to do this. If MBT closes its operations, the site would require major environmental cleanup efforts to make it usable for other industrial or non-industrial uses. This would be a significant negative impact on the community not only in loss of jobs but in the cost of making the site usable by other companies. The DHIA notes that the Model Toxics Control Act does not include coal as a toxic substance. It states that that they cannot offer an assessment of whether the MBT site cleanup would trigger the Model Toxics Control Act, but imply that it would be very unlikely. It is remarkable that the DHIA does not address the issue of the likelihood of closure, given the efforts of most countries, especially China, to significantly reduce the use of coal to improve air quality and limit global warming. The DHIA implies but does not clearly state that Millennium could not and would not be held accountable for the economic, emotional, and physical impacts to their workers or for the broader impact to the community. Further, it implies that there is no accountability for its environmental impact. Furthermore, recent news from Newcastle, Australia demonstrates the massive decline of coal export markets and financial risks associated with over-reliance on coal by the</p>
MBTL-HIA-00096-29	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,4.1	<p>5. GLOBAL CLIMATE CHANGE Part C (Community Health), Section II (Health Evaluation) responds briefly to the following question: Question 8: What are the potential effects of climate change on Cowlitz County residents, their health, and the linkage to increased carbon dioxide (CO2) from this project? MBT plans to export 44 million metric tons from Longview each year. 44 million metric tons of coal yields about 90 million metric tons of carbon dioxide once it is burned. This is roughly on par with Washington State's current total annual carbon dioxide emissions. (page 20). Appendix 2 (Climate Change) in the DHIA includes a more detailed discussion of global warming effects on local weather and environment and the potential adverse effects on Cowlitz County residents including: heat-related illness, respiratory disease, vector-borne illness, water- and food-borne disease, and extreme weather events and references the expected disproportional impacts on vulnerable communities. In Appendix 2, net greenhouse gas (GHG) emissions from the proposed terminal are estimated based on various policy scenarios. The calculation of net increase in GHG emissions assumes that the same coal, if not transported through Longview, would still be extracted and distributed to international markets. This assumption is not supported by evidence. While the DHIA states, "Today's decisions concerning GHG emissions and reductions in the short term will determine the severity of climate events to come in the second half of the 21st century and beyond" the document then concludes: "While these potential emissions would contribute to GHG concentrations in the atmosphere, it would be difficult to attribute these particular emissions [from MBT] to a future projected degree of global warming, resulting climate effects, and resulting health effects." [1, page 54] Since the proportional contribution of any particular project to world-wide GHG emissions is never certain, the implication is that the impact on worldwide GHG emissions of any particular project cannot be taken into consideration. This represents a failure to apply reasonable and informed judgment in the face of uncertainty. It is a violation of the Precautionary Principle in public health practice. Additionally, it flies in the face of Washington state laws and policies which require reductions in GHG emissions to protect our climate and health. For further assessment on the impact of global climate change see pages 2-6, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals. [Appendix II]</p>
MBTL-HIA-00096-3	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	<p>In addition, although authors of the DHIA state their intent to seek community input, the timing of the release of the DHIA over the busiest holiday season and the short length of time allowed for comments (December 20, 2017-January 5, 2018) did not permit gathering input from affected communities or those most vulnerable to negative impacts. This is a violation of the value of democracy from the International Association of Impact Assessment [6] emphasizing the right of people to participate in the formulation and decisions of proposals that affect their life, both directly and through elected decision makers.</p>

MBTL-HIA-00096-30	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	<p>of noise congestion and noise pollution and (Personal Health), Section I considers these questions: Question 9. What will be the health effects on the community in regards to emergency response times, commute times, and traffic congestion? Question 10. What will be the effect be on recreational and active transportation activities in Cowlitz County, such as walking, biking, and taking the bus? Question 11. What will be the health effects of noise and vibration? The FEIS concluded that increased rail traffic would cause a significant increase in area traffic congestion and delays in emergency response time. [4, Section 5.3.8] The FEIS further notes that if all suggested improvements to at-grade crossings are made, the problem of traffic congestion could be adequately mitigated. However, the County has not made these improvements a condition for project approval. [3, page 20] The HIA fails to address and resolve this issue. As noted earlier, effects on recreation and transportation activities in the area were not investigated. Recreational opportunities and active transportation are important to creation of a healthy and economically thriving community. There is considerable evidence in public health and community planning literature that improved access to walking and bicycling to and from work and school improves the health of the community. If diesel emissions and coal dust foul the air and train noise is annoying or disturbing, it is less likely that adults and children will play outside or engage in walking, biking and recreational activities. The DHIA described many of the adverse health impacts of noise exposure, but emphasized these health impacts occurred after many years of exposure even while stating that noise can trigger the body's stress response, cause sleep disturbance and increase blood pressure. Work and school performance can be adversely impacted as well. These responses to noise are short-term impacts and can have rapid adverse health impacts especially in children, the elderly, persons already under stress, and persons who are ill. Children develop better concentration skills in a quiet environment, children who are exposed to noise pollution while learning are more likely to experience reading delays, and children who spend time in noisier areas have higher resting blood pressure and higher stress levels. The DHIA notes that noise is measured in different ways, but did not consider that "averaging noise levels fails to take into account the effect of individual events, with locomotive horns and train pass-bys being perfect examples. ...people do not experience noise as averages - they experience noise as events." For further discussion of this point and its relevance to estimating adverse health impacts of noise exposure, see the comments of Dr. Alice Suter on the NEPA DEIS submitted on November 28, 2016. [Appendix IV] The DHIA acknowledges that "noise health risks exist for anyone in the county or along the rail line elsewhere beyond the corridor studied in the FEIS." The DHIA focuses on heart disease and found agreement with scientific studies that for each 10 dB increase in noise there is a 6% to 8% increase in population risk for adverse heart health outcomes. The DHIA found that risk for high blood pressure, heart attack and heart disease increases in a meaningful way between 52 decibels and 75 decibels, and also referenced the World Health Organization's 50 decibel nighttime threshold for high blood pressure and heart attack impacts. The draft HIA includes a map of contours of noise estimates from the FEIS that included data from noise monitoring stations and included the 55 Ldn (average day night sound level) rail noise contour that was not included in the FEIS. But the DHIA did not specifically connect the data on increased health risks with increases in noise levels within this rail noise contour and did not point out that the 55 Ldn contour includes a large residential area adjacent to the proposed MBT site. This is a serious omission. Nevertheless, looking at 5 years of</p>
MBTL-HIA-00096-31	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	<p>7. FOOD CONTAMINATION Part D (Personal Health), Section I considers these questions: Question 12. Will fish in the Columbia River be contaminated and if so, what will be the health impacts on people who eat those fish? Question 15. Will there be any health effects on residents by consuming food grown on local farmland or in residential gardens? The DHIA concludes that some accumulation of PAH in shellfish is possible, but the impact of ingestion is minimal because the harvesting of shellfish in the Columbia River is prohibited. This conclusion understates risk to tribal communities. The combined and cumulative harm that could come to fisheries from coal transport and export along Northwest waterways such as the Columbia River must be more fully considered. We object to any project that causes significant impacts to tribal fishing and treaty rights. The following words are taken from a prepared statement of the Yakama Nation given November 18, 2013, at an Oregon Physicians for Social Responsibility press conference: "First and foremost, given the direct and indirect impacts that the coal export proposals would have on the Yakama People and our Treaty-reserved rights and resources, Yakama Nation is fully opposed to all coal export proposals, including the Millennium Bulk Terminal project at the Port of Longview. As such, Yakama Nation continues to ask all permitting agencies, including the U.S. Army Corps of Engineers and other state and local authorities to deny any and all permits related to these proposals. To be clear, Yakama Nation will not negotiate nor agree to so-called mitigation for any violations of its Treaty-reserved rights." For further detail see page 40, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals. [Appendix II] The DHIA further concludes that coal dust contamination, along with its associated toxins and heavy metals, will have minimal effects on local home and commercial food crops. This conclusion is based on modeling of coal dust emissions in the FEIS [4] that significantly underestimates emissions based on actual measured emissions at coal terminals in other communities. The conclusion is therefore not warranted. Furthermore, the potential for coal dust including contaminants for which there is no known safe level of exposure (mercury, arsenic, lead, cadmium) must be more fully considered before discounting impacts on food grown on farms and in home gardens. As previously noted, the "Assessment of Health and Safety Implications of Coal Transport through Oakland" states "these substances are of high health concern if inhaled or ingested and are known to cause cancer, fetal defects and neurological damage, even at very low doses. There are no known safe levels of exposure to these toxics." [Appendix V] For further detail see pages 20 - 27, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals. [Appendix II]</p>
MBTL-HIA-00096-32	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	<p>8. WATER QUALITY Part D (Personal Health) Question 14. Will there be health effects related to changes in water quality? The report concludes that there is no evidence to support substantial contamination of groundwater that is used by the local community for drinking water. This assertion was made with inadequate evidence or analysis to support it. Studies have found gasoline, benzene, arsenic and other contaminants in local ground water and aquifers [Appendix II, pages 38-39]. If these earlier contaminants penetrated shallow and deep aquifers, why would one assume that contaminants related to the construction and operation of the MBT could not penetrate as well? Where is the description of potential health impacts that could occur should the deep aquifer (source of drinking water for residents of Longview and other communities) be contaminated by industrial and toxic pollutants? Furthermore, this conclusion of no contamination is based on coal dust emissions that are underestimated. Oil spills are not considered, as well.</p>

MBTL-HIA-00096-33	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8.5.3	9. HEALTH EFFECTS OF TOPPER AGENTS (SURFACTANTS)Part D (Personal Health), Section I (Health Evaluation) considers the following question:Question 13. What are the health impacts of topper agents on workers or residents?The section notes that "to the extent that topper agents reduce community exposure to coal dust, the use of these toppers will be beneficial for public health." [1, page 26]However, even with these agents applied, coal dust is lost in transit at high rates. [7] In addition, it is unclear whether these topper agents will be used on the coal pile at the MBT site to keep the coal dust from blowing in the wind. Even if it is not re-applied at the terminal, topper will be in the coal dust, some of which will blow in and around the project site and adjacent neighborhoods.Investigation did not reveal any potential for significant harm from toppers or surfactants, but the section concludes that "The review performed by DOH was limited. Some ingredients were proprietary or were otherwise not sufficiently identified to be reviewed independently for potential health impacts. In addition, MSDSs and toxicological databases show very little testing data for some of these ingredients." [1, page 26]The conclusion that these agents present no potential harm, given the weakness of the evidence, is not warranted. The potential toxicity must be elucidated, regardless of proprietary constituents. The Precautionary Principle should be invoked in the event that no further information on constituents is available.
MBTL-HIA-00096-34	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	10. PAHS, HEAVY METALS, AND OTHER TOXINSThe DHIA focuses its analysis on the effects of exposure to DPM, apparently because of the greater adverse health impacts of DPM. In narrowing the scope of the assessment to DPM, the health effects of exposure to toxins in coal and coal dust are largely excluded as are the effects of polycyclic aromatic hydrocarbons (PAHs), which are by-products of diesel exhaust. PAHs include formaldehyde, benzene, and 1,3-butadiene, which have documented carcinogenic and other negative health effects. Coal and coal dust contain neurotoxins and carcinogens, including lead, mercury and arsenic. [See Appendix V] The potential health effects of these toxins are not considered in the DHIA.For further detail on potential for negative health impacts see pages 14-23, Oregon and Washington Physicians for Social Responsibility Comments on Draft Environmental Impact Statement for Millennium Bulk Terminals Longview. [Appendix II]
MBTL-HIA-00096-35	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	11. OCCUPATIONAL HEALTH AND SAFETYThe individuals who will face the most substantial increase in risk from accidents and exposure to DPM, coal dust, and other toxic pollutants will be the workers at the terminal itself. Given the increased likelihood of development of chronic lung disease from this exposure, will Millennium provide protection from coal dust and DPM and other particulate matter inhalation? Will Millennium monitor workers' lung function at baseline and at recommended intervals?The DHIA notes this potential impact on health, but dismisses the concern with a single statement: "The DHIA Millennium Bulk Terminals-Longview has stated that the occupational health and safety of workers employed by the proposed project will be managed in accordance with the requirements of WISHA." (Washington Industrial Safety and Health Act) [1, page 14] As in the DEIS, "there is no mention of the effects of noise from the construction project on the workers themselves, who will be exposed to various sources, such as compressors, pneumatic tools, and train sources. Will Millennium have a hearing conservation program? Will that program meet the requirements of Washington's state plan for OSHA? Will the railroad workers and workers at the site be provided with sufficient protection from the extensive durations of high-level noise emitted by the horn?" [Appendix IV]Due diligence requires at a minimum the examination of the health and safety record of MBT by independent experts.
MBTL-HIA-00096-36	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	12. MARINE ACCIDENTS AND TOXIC SPILLSWhen fully operational, marine traffic on the Columbia River will increase by 1680 transits of ocean-going vessels per year. The FEIS estimates that this will result in 2.8 additional vessel mishaps per year of variable severity with associated potential for property damage, loss of life, toxic spills and fires. [4, section 5.4] The FEIS further concludes that there is no way to mitigate this risk.The DHIA does not take into consideration the health impacts of this risk. Furthermore, the potential negative economic impact of marine accidents is not incorporated into the analysis of the project's effects on the region's economic prosperity.MBT argues that it cannot be held responsible for marine activities conducted by third parties [3, section 9.14]. This, however, does not justify omission of the risks of marine accidents from a comprehensive HIA. This is a violation of the minimum standards for an HIA, which includes the element: "HIA systematically considers the full range of potential impacts of the proposal on health determinants, health status, and health equity." [2, page 5]
MBTL-HIA-00096-37	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	13. RAIL ACCIDENTS AND TOXIC SPILLSWhen fully operational, rail traffic in Washington and Oregon will increase by 5840 transits of loaded and unloaded trains per year. The FEIS notes that existing rail lines will be operating over capacity and estimates that this traffic will result in at least 11 additional rail mishaps per year of variable severity with associated potential for property damage, loss of life, toxic spills and fires. [4, section 5.2-8] Not all of this additional risk can be mitigated with improvements in existing rail lines.The DHIA does not take into consideration the health impacts of this risk. Specifically, it fails to describe the health impacts and potential injury from rail accidents, inhalation and contamination from spills, and risks related to fires resulting from the rail mishaps that the FEIS acknowledges will occur.Again, MBT argues that it cannot be held responsible for rail activities conducted by third parties. This, however, does not justify omission of the risks of rail accidents from a comprehensive HIA, which is a violation of minimum standards for an HIA.

MBTL-HIA-00096-38	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	14. UP- AND DOWNSTREAM COMMUNITIESThe geographic scope of the DHIA is limited to portions of Cowlitz County. However, upstream communities in Utah, Colorado, Wyoming, Montana, Idaho, and Oregon will involuntarily assume health and safety risks from the increase in rail traffic and coal transport. Likewise, downstream communities along the Columbia River in Washington and Oregon will involuntarily assume risks associated with increased marine traffic. Furthermore, these communities will assume those risks without accruing any of the compensational benefits of the project.Multnomah County (Portland) evaluated risks to its community from increased rail transport of coal and concluded that the rail traffic would impose additional health risks on their community and that those who would be most affected already bore a higher burden of disease related, in particular, to DPM exposure. [5]These additional risks would be the direct result of the MBT coal transport facility in Longview. But many, if not most, of these communities do not have the resources to conduct independent HIAs. It is not known how many of these affected communities are even aware of the potential impacts on their communities from this proposed project. This is a violation of two elements of minimum standards for an HIA:"HIA involves and engages stakeholders affected by the proposal, particularlyvulnerable populations.""HIA systematically considers the full range of potential impacts of the proposal on health determinants, health status, and health equity." [2, page 5]The disenfranchisement of up- and downstream communities is also a violation of the following principle set forth by the International Association of Impact Assessment [Appendix I]:"Democracy-emphasizing the right of people to participate in the formulation and decisions of proposals that affect their lives, both directly and through elected decision-makers. In adhering to this value, the HIA method should involve and engage the public, and inform and influence decision-makers. A distinction should be made between those who take risks voluntarily and those who are exposed to risks involuntarily."
MBTL-HIA-00096-4	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	The stated goal of the HIA is to "provide draft recommendations based on assessment results and/or the SEPA Environmental Impact Statement results; work with interested stakeholders to review and solicit input on recommendations; and approve final set of recommendations for inclusion in the final HIA report." [1] These recommendations have not yet been formulated. PSR strongly encourages that this process be undertaken in a transparent and inclusive manner, in accordance with the principles and values delineated in both "Minimum Elements and Practice Standards for Health Impact Assessment" [2] and "Health Impact Assessment: A Guide for Practice." [6]
MBTL-HIA-00096-5	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	The DHIA states that this HIA "... does not play a role in the decision to issue permits for a development project." We disagree. We believe that principles and values included in "Health Impact Assessment: A Guide for Practice" should be followed. This document states "the HIA method should involve and engage the public, and inform and influence decision-makers." [See Appendix I] There are many permit decisions that have yet to be decided and we expect that this HIA can and should inform and influence decision-makers.
MBTL-HIA-00096-6	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Recommendations should adhere to the standards outlined in the "Minimum Elements and Practice Standards for Health Impact Assessment" [2]:6. HIA provides recommendations, as needed, on feasible and effective actions to promote the positive health impacts and mitigate the negative health impacts of the decision, identifying, where appropriate, alternatives or modifications to the proposal.Note that many negative impacts of this project cannot be mitigated (FEIS [4] and "Findings of Fact, Conclusions of Law and Decision Denying Permit regarding Shorelines Permit Application of MBT [3].) The HIA Steering Committee shouldidentify denial of the MBT project as an alternative to the proposal.
MBTL-HIA-00096-7	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	8. HIA proposes indicators, actions, and responsible parties, where indicated, for a plan to monitor the implementation of recommendations, as well as health effects and outcomes of the proposal.Monitoring will require significant financial resources and, minimally, a large investment in air quality monitoring, noise monitoring and evaluation. We question the county's ability to meet this commitment given the fact that MBT has not even provided the County with resources adequate to complete the analysis for this DHIA.Specifically, if the MBT proposal were to be implemented, the City of Longview and Cowlitz County "would need to assure vigilance in monitoring, operation, oversight, and prompt remediation to ensure protection of workers, residents, and the environment. This would require adequate funding and active engagement throughout the duration of the facility's operations. The level of oversight required, given the myriad opportunities for violation of safety and environmental protection, would be very difficult to enforce and is unlikely a reliable strategy." [Appendix V]
MBTL-HIA-00096-8	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,2.1	SUMMARY FINDINGS1. HEALTH EFFECTS OF DIESEL PARTICULATE MATTER (DPM) AND COAL DUST:Coal dust and diesel particulate matter (DPM) exposures lead to death, hospitalization from heart and lung disease, asthma attacks, pneumonia, decline in lung function, asthma in children, plus growing evidence of stroke, Type 2 diabetes, neurological and cognitive impairment, cancer and pre-term and low-birth weight babies. In the Appendix, the DHIA acknowledges that in "2008 the Washington Department of Ecology ranked DPM as the highest priority toxic air pollutant based on cancer potency and emission levels."The DHIA provides data that indicates this project will lead to a higher burden of illness and increased deaths from exposure to DPM and coal dust for the residents of Cowlitz County.However, the DHIA minimizes the negative health impacts and the fact that those with underlying illnesses are most negatively impacted by poor air quality. It also fails to conclude that the impacts of these air pollutants cannot be mitigated and that these air pollutants most affect vulnerable communities already burdened by significant health inequities.

MBTL-HIA-00096-9	Regna Merritt	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	2. IMPACTS ON VULNERABLE POPULATIONS: The DHIA includes an analysis of the disproportionately negative impact the project would have on vulnerable populations. These impacts are discussed principally in relationship to air and noise pollution and neglect other negative health impacts. However, the DHIA demonstrates that higher noise exposure impacts low income areas in Cowlitz County. Noise is associated with higher rates of high blood pressure, heart attack and heart disease. Cowlitz County and the neighborhoods that would be most impacted by increased noise already experience higher than average rates of these diseases and that increased noise will contribute to further increase in these rates. (page 21)The analysis reveals that those persons most vulnerable to the negative effects of air pollution are also those who are most exposed to air pollutants, which will have the unfortunate effect of increasing health disparities, particularly in low-income communities. Cowlitz County consistently ranks near the bottom of Washington counties in health indicators. (page 13) The population of Cowlitz County already has a higher burden of illness, specifically higher rates of heart disease, lung disease, diabetes, and cancer, and will therefore be more likely to be harmed by air and noise pollution.The DHIA fails to consider the many direct and indirect adverse impacts on the health and safety of tribal members and the Treaty-reserved rights and resources of Tribal Nations.
MBTL-HIA-00097-1	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	These comments will offer suggestions on how to improve the draft HIA in hopes that the final HIA will be a more effective document.According to the draft HIA, the goals of the HIA are to create an assessment of the health effects of the proposed Millennium project during its construction, operations, and demise in order to inform the Applicant, government agencies, and citizens. To do that the draft HIA answers fifteen questions created by the HIA Steering Committee. These questions are excellent but too narrow in scope, both in terms of public health concerns and geography. The draft HIA is an opportunity to gather a wide range of information and opinion to use in creating public policy. In this regard the draft HIA is disappointing because, despite stating that it will incorporate sources of information provided by members of the Steering Committee and input from community members, the draft HIA relies almost entirely on the Final Environmental Impact Statement (FEIS) and its sources of information. There is no sign in the draft HIA of the well-documented input from the five community focus groups that were held, nor is it clear which community sectors or groups were engaged. Some of the new information the draft HIA does provide is excellent, while other new information is too general to offer reliable insights. Finally, some recent or forthcoming studies should be considered in the process of creating the final HIA.Most important, the draft HIA states that it will follow the latest standards and steps for Health Impact Assessments (Bhatia et. al. 2014), but it does not. First, the draft HIA includes no direct recommendations to improve or mitigate the project. Second, the draft HIA includes no proposals for improving the monitoring of the proposed project. Finally, the draft HIA does not incorporate direct input from community groups or those parts of the population most affected by the proposed project - residents along the coal train railways; Longview residents living closest to the proposed coal terminal in the Highlands, St. Helens, and Lexington neighborhoods and along the northern border of the proposed terminal; and students, their parents, and staff in Woodland Primary School.
MBTL-HIA-00097-10	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Conclusion: In order to create a full picture and exercise its advisory role in protecting the public health, the final HIA should broaden its scope and include recommendations for mitigation and monitoring. To do this well, in addition to engaging those residents most negatively affected by the proposed coal terminal, Cowlitz County and the Steering Committee must make a strong effort to engage colleges, universities, non-profits, and community groups to gather the information and value-laden opinions that will be necessary for substantive, well-considered recommendations and community support for those recommendations.This will mean finding more funding and more time for work, perhaps more than a year, but the results will be worthwhile. Since the denied permits are still in the judicial appeal process, time for a more thorough HIA is available. Time will also tell whether micro-particle emissions from proposed industrial projects with proposed increased vessel traffic on the Columbia River, and diesel truck traffic in Longview, such as the NWW Methanol Plant in Kalama and especially the PCF liquid fertilizer plant in the Mint Industrial Farm, should be considered when calculating background levels of emissions.Instead of Cowlitz County producing a final HIA with a rushed process that "jumped through the hoops" but did not live up to the potential of a high-quality HIA process, Willapa Hills Audubon Society hopes that the final HIA will be a document that shows the County's true commitment to protecting the health of county and regional residents.
MBTL-HIA-00097-11	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.1	- The draft HIA concludes that elevated noise and vibration from 16 additional trains per day will negatively affect the health of residents living close to the coal train tracks, especially those near crossings. The DEIS stated the Millennium would create and fund a "quiet zone" in Longview, but there was no legal way to enforce this. However, this is an important health effect, and if local and state health agencies do not ask for this mitigation, it will not happen. The HIA should recommend that quiet zones be created for all crossings for residents in Cowlitz County, Washington State, and our region if the increased noise from an additional unit coal trains per day will create adverse health effects.
MBTL-HIA-00097-12	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,4.1	- The draft HIA mentions that proposed climate change mitigation in the FEIS is based on the one of four modeled scenarios that now no longer exists, the International and U.S. Energy Policy scenario. The Trump administration repealed the 2015 Clean Power Plan in October 2017. The HIA should recommend that climate change mitigation be based on the No Clean Power Plan scenario, which will double the climate change mitigation requirements as they will henceforth be based on Net Annual Emissions in 2028 of 3.76 million metric tons of CO2e and Total Net Emissions, 2018-2018 of 51.25 million metric tons of CO2equivalents.
MBTL-HIA-00097-14	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,5.1	- In addition, the monitoring for noise proposed in the FEIS is for only two fence-line residences with no monitoring near coal route rail tracks. The final HIA should recommend adding noise monitors along tracks in the Highlands, Lexington and St. Helens' neighborhoods, at Woodland Primary School, and at other points along the coal rail routes where residents are within 150 feet of the tracks. This monitoring will be necessary to ensure that the quiet zones created at railroad crossings are effective.- If the final HIA makes any recommendations for mitigating the health effects of the Millennium project, it should also include recommendations for how best to monitor the effectiveness of those modifications.

MBTL-HIA-00097-2	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	<p>Narrowness of scope:In limiting the scope of the draft HIA, the Steering Committee made its own task easier, but it did a disservice to Millennium, the residents of both the county and the region, and participating agencies. A wider review would put the health effects of the proposed Millennium project in context for all target audiences. An HIA is an advisory document and has no legal requirement to consider only a particular scope of concerns or geographical area. The FEIS and Corps of Engineers' NEPA for the Millennium Coal Terminal in Longview were widely criticized for their narrow scope, but the HIA has the opportunity to go beyond that narrow focus and find information to clear up questions raised in public comments by residents from across the state and region. It can also recommend mitigation actions not included in the FEIS. Willapa Hills Audubon Society strongly suggests that the final HIA should address both a broader scope of health and economic factors and a wider geographical area. Perhaps the narrow scope reflects the lack of funding, or the funding source, Millennium Bulk Terminals. If so, we suggest that other funding and funders be found before creation of the final HIA.</p>
MBTL-HIA-00097-3	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	<p>Here are a few of the questions that should be answered in the HIA:- What plans can be put into place to prevent and respond to increased risk of rail accidents from the project and rail coal spills in Cowlitz County and across the state? The draft HIA lost a golden opportunity by not including any research about safety measures for rail accident prevention and response. The FEIS's treatment of this problem is too general and vague to inspire public confidence, but the final HIA can and should repair this inadequacy. - How will commercial and recreational fishing in the Columbia River be affected by impacts on fish, including listed species like eulochon and salmon?Commercial fishing is a proud occupation and source of healthy food for both Native and non-Native residents of our county and region. Recreational fishing is widely considered to be a form of relaxation that contributes to better mental health and household food. Both, commercial and recreational fishing contribute to the region's economy. The HIA should document the effects of the proposed project on fishing in Cowlitz County and the region. - How will residents across the Columbia River in Oregon be affected by the proposed project? This analysis should include effects on access to essential goods and services, especially emergency medical care, that will be affected by increased traffic and delays at vehicle/rail crossings. - How will residents in the entire Washington State be affected along the proposed rail routes for the coal trains? While the draft HIA briefly discusses possible effects of increased coal dust and diesel emissions along coal rail routes in other communities in Washington, the final HIA should include analysis throughout Washington State of other effects along the coal train rail routes, such as increased traffic and delays at rail/vehicle crossings, especially for emergency vehicles; health effects of noise from increased train traffic; local training and equipment for emergency response to coal train accidents and derailments; and whatever increased health effects might be borne by low-income or other vulnerable populations that live, work, or study close to the rail lines.- How will the proposed Millennium project affect the health of people outside Washington State?We are concerned about the health of residents of Idaho, Utah, Montana, and Wyoming, not just people in Oregon and Washington. How will residents along all the proposed coal train rail routes from the mines in the Powder River Basin and Utah to Washington State be affected by increased emissions, noise, and traffic delays? How will increased demand for coal mining negatively affect ranching, other agriculture, and residential well water near the mines?</p>
MBTL-HIA-00097-4	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	<p>New or clarified information:The draft HIA in general summarizes information and conclusions reached in the FEIS, with some notable exceptions:- Information about the health indicators of residents of the Highlands, St. Helens and Lexington neighborhoods in Longview. This information provides detail not present in the FEIS, and shows high levels of poor health in those neighborhoods. The low population numbers in these neighborhoods lead to few statistically significant differences between those populations and the general Cowlitz County population, but the raw differences are so striking that the information is convincing.- Analysis outside Longview but along coal train corridors within Cowlitz County of 10PM and 2.5PM emission impacts from diesel emissions and coal dust. It is good for the public to learn from their local and state agencies that few residents would be adversely affected (only part of the Highlands Neighborhood in Longview and the Woodland Primary School), that the increase in cancers for these residents would be only 1%, and that emissions would be just at Washington State's maximum standard for diesel emissions of 10 new cancers per million people.- Clarification that residents within 50 to 100 feet of rail tracks would have "nuisance" levels of coal dust on window sills and outside furniture, but that state and federal regulations do not exist for this kind of problem. Bigger coal particles are not regulated, only the micro-level particles. - Socioeconomic information from Newcastle, Australia, where there are apparently many coal storage piles and rail-to-ship transport systems. This is in the form of a chart (Table 3) that compares Newcastle to Cowlitz County. While no direct conclusions are drawn in the text of the draft HIA, the chart seems to attempt to make the case that coal storage, handling and export have no adverse economic effects and perhaps some economic stimulation in Newcastle. But the comparison of Newcastle and Longview is so superficial that it is hard to draw any firm conclusions. There just is not enough situational context. For example, what proportion of Newcastle's industrial employment is in coal transportation? Are national or regional forces driving the apparent housing price and building bubble in Newton? How far is Newton from coal mines and from other major population centers? This kind of context would go a long way toward showing that Newton, a city of 150,000 in a 72-mile area, is comparable in any significant socioeconomic way to Cowlitz County, where just over 100,000 people live in an area of over 100,000 square miles.- A screenshot of a daily pollution forecast for Newcastle with information on particle emissions (Figure 6). This graphic seems to imply that coal storage and transport in Newcastle is benign in terms of health (small particles of 2.5PM and 10PM), if perhaps buildings are coated with soot from larger particles above 10PM. However, so much information is left out about how coal is transported and stored in Newcastle that it is not clear that in Cowlitz County the health effects would be the same. For example, in Newcastle are similar or more stringent diesel engine emission standards in place as in Cowlitz County? Are similar or different measures required for coal dust reduction for railcars, coal storage piles, and vessel loading?Newcastle's experience with coal transportation and storage could help evaluate the long-term health effects of the proposed Millennium project and the effectiveness of different mitigation measures for diesel engine emissions and coal dust. By not delving into the situation behind the emissions forecast in any detail, the draft HIA loses that opportunity AND makes moot any comparison of Newcastle with Cowlitz County in terms of health effects.</p>

MBTL-HIA-00097-5	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8.2.1	Additional information and sources:- The draft HIA is to be commended for its clear explanation that micro-particle emissions in coal dust and diesel emissions are correlated with a range of cardiovascular diseases, from asthma to heart attacks, as well as some correlation with other diseases, and that low-income people who already suffer from stress-related disease and other vulnerable parts of the population, such as infants, children, the elderly and those with chronic health conditions, will be more adversely affected by increases in micro-particles than healthy working-age adults with adequate incomes. The draft HIA also explains that the direct evidence for these adverse health effects from coal dust is lacking in terms of controlled subject or large population studies for non-coal industry workers. To improve the lack of scientific studies, the final HIA should consider adding the evidence of a recent study-Jha and Muller 2017, which looks at the health and economic effects of coal storage and transportation on regions of the Eastern U.S.A. Also please plan to incorporate the results of the promised BSNF study, due in 2018, of the effectiveness of covers for coal trains (Le 2016). - The most important information that is lacking in the draft HIA is the World Health Organization's standards for micro-particle emissions (WHO 2005):PM2.5: 10 µg/m3 annual mean 25 µg/m3 24-hour mean PM10: 20 µg/m3 annual mean 50 µg/m3 24-hour mean (WHO 2005, p. 9)Inclusion of these standards would follow the precedent in the draft HIA of referring to the WHO standards for noise levels. The WHO emission standards are basically half the federal government's NAAQS approved levels. The WHO standards are based on years of studies of disease effects from PM2.5 and PM10 particles, and factor in the practicality of both measuring emission levels and enforcing standards to protect elderly, young, and health-compromised populations who are so much more affected by increases in micro-particles. The draft HIA states that the modeled emission levels predicted for the Millenium project, while just short of the NAAQS maximums, is still unhealthy. However, reference to the WHO standards would clarify how strong the consensus is that U.S. federal standards do not adequately protect vulnerable populations who experience long-term exposure to micro-particle emissions.
MBTL-HIA-00097-6	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Recommendations and Monitoring:Washington public agencies have denied five permits for the Millennium project, denials based on its effects on air quality, train noise, vehicle traffic, shoreline modification, and rail and dock accidents. These are significant effects that cannot be mitigated and that will adversely affect the health of both human and fish populations. In effect, denial of the permits sends the message that these adverse effects are so great that the project should be terminated.Yet the draft HIA includes no recommendations or monitoring of any kind. As mentioned earlier, recommendations and monitoring and evaluation are essential steps in the 2014 standards for Health Impact Assessment (Bhatia et al 2014) that the draft HIA says it will follow. More important, by leaving out these steps, the draft HIA loses an important opportunity. Recommendations in the final HIA are not legally binding, so the Steering Committee is free to suggest whatever would help protect the health of our region's residents. Please seize this opportunity!
MBTL-HIA-00097-7	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8.4.2	Suggested recommendations: - The draft HIA summarizes information from the FEIS on traffic delays caused during coal terminal operations. These traffic delays may mean increases in morbidity and injury for passengers in vehicles trying to access emergency health care. The final HIA should include recommendations about how to mitigate those traffic delays, including strategies for staggering coal train arrival times to coincide with low traffic periods or even recommending that operations not begin until planned rail crossing upgrades are complete.
MBTL-HIA-00097-8	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8.2.1	Suggested monitoring:- Monitoring for micro-particle emissions as currently proposed in the FEIS is inadequate for a 23-year project which will not reach full capacity until 2028. According to the FEIS, as part of mitigation Millennium would install one fence-line particulate matter monitor and report pollution levels to the Department of Ecology for five years. However, monitoring should take place for the entire period of the project and beyond, after cleanup of the project site. A monitoring plan should also include installing more than one monitor, and it should be for all pollutants regulated by federal and state laws, not just particulate matter. The final HIA should recommend adding emissions and coal dust monitors at further distances from the coal terminal in Longview, at Woodland Primary School, and at other points along the coal rail routes where residents are within 150 feet of the tracks, and that the monitoring period extend until the company permanently closes down operations.
MBTL-HIA-00097-9	C. Persons	Technical	Unique	Organization	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Public input into the HIA process:One of the important goals of HIA methodology is to gather information that would otherwise not be available for public policy-making, especially the ideas and suggestions of residents most affected by the policy. The small Steering Committee and five small focus groups of the draft HIA's process do not represent well the residents who live along the coal train rail corridor and whose health and living conditions will be most affected by the proposed coal export terminal. Unfortunately the timing of the draft HIA release, on December 20, 5 days before Christmas, the short fifteen-day comment period, and the planned all day, daytime public meetings, on Jan. 12 and Jan. 20, only a month after publication of the draft HIA, all give the impression that Cowlitz County is not serious about engaging those residents. Willapa Hills Audubon Society strongly suggests that Cowlitz County make a real effort to reach out to residents living and working close to the proposed export terminal and along the tracks-through schools, parent organizations, churches, and public agencies. This may mean holding more community meetings at various times and in easily accessed places near those residents, undertaking house-to-house surveys, residence-based focus groups, or other creative efforts to get these residents' input. However, contacting parents and staff at Woodland Primary School should be relatively easy. Getting the most affected residents' ideas and opinions now will make the final HIA's recommendations stronger and will create more community buy-in for those recommendations. It will also begin the public education campaign that will be needed if coal export terminal operations do start.
MBTL-HIA-00099-1	Inga Fisher Williams	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	A> SERIOUS OMISSION in Draft HIA: Dredging of Columbia for Deep Draft Coal Barges. The Draft HIA for Millennium Bulk Terminal omits entirely the health impacts from dredging sludge disposal. I object in the strongest possible terms to the proposed disposal of the dredging sludge at Ross Island Sand & Gravel in Portland, Oregon. The Willamette River already has a Super Fund site in the Portland Harbor from WWII activities; we do not need another one. It stands to reason that the contamination from the Reynolds Aluminum plant operation was not limited to the proposed site but extended into the river bed as well. The toxicity testing may not be part of this application (permit pending, was the MBT statement) BUT the failure to even include it in the Draft HIA shows a limited focus on site-specific impacts.

MBTL-HIA-00101-1	Fred Greef	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,2.2	I believe there are a couple of key flaws that should be addressed before the report is finalized since they may lead to significant underestimation of the public health consequences. PM 2.5 and diesel emissions (DPM) from huge barges may be underestimated. The 2013 and 2016 background air quality monitoring for Longview may not have explicitly focused on the most impacted corridor, and likely does not represent true PM 2.5 background levels, or true diesel particulate (DPM) levels for that zone. The PM 2.5 emissions in those neighborhoods following build-out were modeled at 89% federal Ambient Air Quality Standards. The background level used in the modeling may not represent the critical impact zone levels, which are higher than other parts of Longview. I believe the true background level in the critical impact zone has never had adequate annual measurements. These are questions that should be addressed before the final HIA report. The DPM estimates may also be underrepresented in the HIA modeling since the huge barges diesel emissions (docked outside of the study area) were not even counted. The fine particles in these emissions travel great distances with any wind up or down river, and no "wind rose" air quality modeling was conducted to justify the assumption of no additional PM 2.5 or DPM impact in the critical corridor. Washington Department of Ecology air quality modellers should look closely at all of these assumptions before we can say national air quality standards will not actually be violated.
MBTL-HIA-00101-2	Fred Greef	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,2.1	Air quality monitors should be set up in the critical corridor where most severe health impacts and excess cancer deaths are predicted. At least one full year of ambient air quality monitoring background data should be collected in these neighborhoods before any project approvals. Public officials should then look more closely at all the modeling assumptions to determine whether this proposal will actually violate federal standards for PM 2.5, NO2, and DPM. If health standards cannot be met the project must not be denied. I think there are some real questions here and real public health issues that call for air quality monitoring in these neighborhoods with true PM 2.5 PBR coal dust measurements. An Australian study based on PM 10 size coal particles is not good enough for the citizens of Longview. Powder River Basin (PRB) coal breaks down into a much higher percentage of the finer sized PM 2.5 particles than coal from many other parts of the world. The HIA assumes particle size will be largely in the PM 10 size range. Coal dust impacts in Australia and other locations such as England were used to estimate Longview impacts. Modeling assumed that most of the coal dust would be in the PM 10 size class as in these other areas. The true PM 2.5 levels in the critical corridor area may well exceed the federal ambient air quality standard. 89% of the federal standard is way too close for comfort especially with several potentially faulty assumptions. The citizens of the most impacted neighborhoods in Longview already suffer much poorer health than most Washington citizens, from the same types of air pollution that this proposal will cause. Powder River Basin (PRB) coal—the type that would be exported—is notoriously difficult to handle. One technical analysis finds that "PRB coal is extremely friable and will break down into smaller particles virtually independent of how the coal is transported or handled." According to the study's authors, "PRB coal represents the extremes of handling problems." So much coal dust escapes from the open-top rail cars used for transporting coal that it creates safety problems for rail traffic. Coal dust deposits sometimes cause spontaneous fires, and in 2005, for example, coal dust that had accumulated in ballast, the layer of crushed rock that supports rail tracks, caused derailments. Published and peer-reviewed scientific research by Dan Jaffe, a professor of atmospheric science at the University of Washington, casts doubt on the real-world effectiveness of controlling coal dust from rail transport even with use of surfactants. In 2013 and 2014, Jaffe installed air monitoring equipment that enabled him to analyze the emissions from hundreds of trains. He concluded that passing coal trains do in fact spread notable quantities of dust. The bulk storage piles at the Port of Longview will also be difficult to handle and manage and much PM 2.5 will wind up in many Longview neighborhoods whenever the wind blows. It travels much farther than PM 10 assumptions used for the HIA modeling.
MBTL-HIA-00101-3	Fred Greef	Technical	Unique	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	The connection between heavy coal traffic and oil train disasters must be also be considered. Wooden railroad ties may rot from coal dust and rain forming acid. The US Department of Transportation classifies coal dust as a "pernicious ballast foulant that can weaken and destabilize rail tracks." This adds to the already severe threat of explosive and highly flammable Bakken oil trains using the same rail lines that the coal will follow. All the Washington towns along these routes face the same threat as the Mosier Oregon derailment. If those cars had exploded instead of just burning, the grade school 300 feet away would have been gone, including all the children.
MBTL-HIA-00102-10	Patricia Bode	Technical	Form Letter Master	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	In addition to these health threats, the draft HIA fails to recognize the serious threats posed by many heavy metals and other toxics that would be released due to the proposed coal export terminal.
MBTL-HIA-00103-1	Kevin Baier	Technical	Form Letter Master	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8	Although lacking in some areas, this document is a strong first draft. It should provide the basis for clear recommendations from the HIA Steering Committee to prevent construction of the MBTL project and forever protect the health of communities from the dangers of coal mining, transport, storage and export. It can also be a tool to protect the health and safety of Cowlitz County residents from future projects that endanger human health and our climate.
MBTL-HIA-00103-10	Kevin Baier	Technical	Form Letter Master	General Public	8	Issues with the HIA (limited scope of analysis, analysis omissions, recommendations to improve analysis)	8,4.2	Please acknowledge that the significance of the draft HIA is limited due to the severely constrained geographic scope of the study area. The section on impacts from 16 trains passing through at-grade crossings in Cowlitz County each day and related health impacts due to delayed emergency response time is sorely lacking. If improved, it would help inform the municipalities along the transportation corridor of potential impacts to their residents and emergency services.
MBTL-HIA-00020-1	R Rapport	Technical	Form Letter plus Text	General Public	9	Other	9	*AS RECENTLY PROVEN, DERAILMENTS ARE DEADLY
MBTL-HIA-00065-5	Chris Lish	Technical	Form Letter plus Text	General Public	9	Other	9	Please do NOT add my name to your mailing list. I will learn about future developments on this issue from other sources.
MBTL-HIA-00082-1	L G Franklin	Technical	Form Letter plus Text	General Public	9	Other	9	What YOU decide will have far reaching implications for the consideration of Health, Risks (environmental from water to air to fauna and flora. ANY accident will fall on the RESIDENTS and local governments to handle with the investing corporations taking to expensive litigation which will stall real cleanup and the placing of responsibility with those who are set to make lots of money off of naive, trusting Washintonians. who are known for working IN GOOD FAITH, unlike the Coal Industry's players.