Ed Styskel

Please see my attached pdf with Scoping Questions for the proposed PacWest silcon smelter.

October 25, 2018

Mr. Grant Pfeifer, Regional Director Washington Department of Ecology Eastern Regional Office 4601 N. Monroe Street Spokane, WA 99205

Re: PacWest Silicon Smelter EIS - Scoping Questions

I am a Certified Wildlife Biologist ® now retired after 29 years with the USDA Forest Service in Washington, Oregon, and Montana, and 14 years as a private consultant. Twenty-four years ago, while living in Oregon, my wife and I purchased undeveloped forest acreage near Newport with the intent to move there after retirement and apply the sustainable forest management practices I learned from training and experience. We loved the clean unspoiled environment and the small-town character of Newport. Every summer we spent 2-3 weeks at our property to control noxious weeds, thin and prune trees, monitor tree growth and other ecological conditions, remove excess woody fuels, and construct wildlife habitat improvements. Three years ago, we finally moved from Oregon to a house in Newport after changing our mind about building at our rural forest.

Upon carefully studying published literature about silicon smelting, I became extremely concerned that the PacWest proposal will dramatically harm our forest and personal health, the wider area's environment, and the community culture that my wife and I love. Our forestland is downwind from the proposed smelter by 6 miles and our residence is by 1-1/2 miles. My concern is so extreme that we expect to sell our treasured forest parcel and town home, leave local friends, and move to another area away from the smelter's influence. Accordingly, I hope that this EIS will address the following questions in pursuit of full disclosure and an unbiased analysis.

QUESTION #1: Why is the proposed PacWest smelter not also being vetted through the National Environmental Policy Act (NEPA)?

CONTEXT: It is almost certain that PacWest smelter air emissions will cross state boundaries into Idaho and Montana, and nation boundaries into Canada. Air emissions can affect federal lands in National Forests, Parks, and Refuges. And air emissions are regulated by the federal Environmental Protection Agency. The smelter will surely affect jurisdictions far outside the state of Washington, so it is difficult to understand how only a Washington SEPA review would address and satisfy these entities.

QUESTIONS #2 & 3: How will current and future information provided by PacWest be evaluated for factual accuracy, completeness, and scientific rigor? How will statements of fact in the EIS be labeled for scientific credibility?

CONTEXT: I am suspicious about the motives and information credibility of this project because huge investments, substantial profits, and suspected environmental harm are involved. The reasons for my suspicion are the absence of project details in their Department of Ecology application, and the content failings of PacWest's initial animal and plant environmental report.

First, it's difficult for me to understand how the Washington Department of Ecology would even initiate the EIS with such scant details in the project proposal.

Second, the environmental report lacks scientific rigor by omitting: (1) a GPS map or aerial photo that shows the field survey routes, dates, and start/stop times by surveyor(s) so as to quantify their effort (e.g. survey linear-feet & observer-hours), (2) how species presence was determined (e.g. sight, sound, smell, or physical evidence), and (3) the general habitat descriptions used to assess potential suitable habitat for rare, threatened, and endangered plants. The bird list also seems incomplete, suggesting that surveys did not occur at an optimal time of day and weather, or the amount of effort was minimal, or the observer(s) was under-skilled in bird identification.

Finally, there was no description of the timber production likely to be lost from the 188-acre project. Statements of fact should contain a quality-modifier (e.g. published source, or estimation, or assumption, etc.). Scientific rigor must include documentation of the methods, quantity, and extent of any survey effort. Such documentation in environmental surveys would allow peer reviewers to better gauge scientific credibility.

QUESTION #4: How will the EIS ensure and document that PacWest has factually achieved the burden-of-proof for determining environmental effects?

CONTEXT: When a project is contentious, common sense dictates that the applicant -- not opponents – be assigned the burden-of-proof responsibility to provide convincing evidence-based facts and supporting information about project details and environmental effects.

QUESTION #5: How will scientific uncertainty and a risk assessment (e.g. undesired effect, probability, consequence, & public tolerance) be used and documented in the smelter EIS?

CONTEXT: A common purpose of any scientific endeavor is to reduce uncertainty and add knowledge. Uncertainty could be caused by limitations on knowledge, data quality & interpretation, methodology, statistical validity & confidence, extrapolation of results, and clarity of communication. To understand the entirety of cumulative, certain, and uncertain smelter effects, the EIS risk assessment must be summarized into <u>one table</u> identifying each individual effect, cause, probability, consequence, and public tolerance for it.

QUESTION #6: When scientific uncertainty and risk is a significant concern, how will a resulting decision significantly reduce that uncertainty?

CONTEXT: Some risks are too monumental (e.g. community safety), but minor ones can present an opportunity to add knowledge if tolerance thresholds are established, monitored, and enforced. PacWest must pay in full for any future studies, monitoring, and public disclosure of findings.

QUESTIONS #7, 8, & 9: How might PacWest smelter emissions affect Washington and Idaho state-listed Endangered, Threatened, Sensitive, or Candidate species of animals and plants? Will field surveys be conducted for Washington Sensitive and Candidate species, including invertebrates, mollusks, reptiles, or lichens? Have scientifically credible field surveys been completed for Idaho species?

CONTEXT: <u>Washington Sensitive species</u> are native in the state, vulnerable or declining, and likely to become endangered or threatened in a significant portion of their Washington range without cooperative management or removal of threats. <u>Washington Candidate species</u> have sufficient evidence suggesting that they may meet the listing criteria for State-Endangered, Threatened, or Sensitive. PacWest's initial animal and plant environmental report made no mention of invertebrates, mollusks, reptiles, or lichens. The 188-acre PacWest smelter project is expansive enough that an existing but unknown population there of Sensitive or Candidate species could cause species vulnerability or decline. To achieve full disclosure of smelter effects within this EIS, Candidate and Sensitive species must be surveyed.

QUESTION #10: How might construction and operation of the smelter affect the Townsend's big-eared bat?

CONTEXT: Townsend's big-eared bats feed on flying insects -- mostly moths -- that are likely to be attracted to the smelter's artificial night lighting. Bats may travel 1 to 10 kilometers (0.6 - 6.2 miles) from their day roost to foraging sites, and 4 to 40 kilometers (2.5 - 24.9 miles) for water (Greenwald 2012).

Nearby day roosts or hibernacula could be harmed by increased noise, heat, smoke, plinking, and human exploration or vandalism (Gruver & Keinath 2006). Seismic ground and air vibrations from blasting (and similar disturbances?) may disturb bats at hibernacula and day roosts, but can be evaluated beforehand via seismographs and prescribed protection measures (West Virginia Department of Environmental Protection 2006).

Townsend's big-eared bats also risk ingesting and accumulating surface water pollutants from collection ponds that can cause death or impairment (Gruver & Keinath 2006). Bats are usually agile at avoiding collisions with stationary objects.

QUESTION #11: How can the characteristics of wind, thermal air inversions, and ground fog be known accurately enough to evaluate their effects at the PacWest smelter site and downwind?

CONTEXT: The meteorological characteristics of the proposed smelter site are unknown and might be very different from those at measured sites such as Deer Park, WA. Thermal air inversions, ground fog, and 25+ inches annual precipitation are typical in the mountainous region of northeast Washington and north Idaho during autumn, winter, and spring. It would be scientifically negligent to not have essential meteorological data from atmospheric sounding studies at the project site and other potentiallyaffected locations for at least one full year to adequately determine how smelter smokestack emissions will be affected by wind patterns, air temperature inversions, fog, and precipitation.

QUESTIONS #12 & 13: How will County road restrictions during the spring-season affect transportation of PacWest's heavy materials, and will it unusually affect public transportation? How will road wear and damage from PacWest vehicle travel be repaid to the appropriate ownership authority?

CONTEXT: Paved and primitive roads are especially susceptible to damage during the spring thaw, so weight-limits are prescribed and enforced by Pend Oreille County and other jurisdictions. The EIS must explain how the smelter's heavy materials will be transported during that time of year, and how such transport might affect pre-smelter public transportation convenience and safety.

QUESTION #14: What is the comparative history of USA mineral smelter industries in achieving their predictions for employment, economic benefits, community safety, and environmental effects?

CONTEXT: It is possible that proponents of a major project might inflate or diminish their predictions of benefits and environmental effects to gain acceptance. It is also possible that new technologies might have unanticipated outcomes in spite of sincere intentions. The EIS must report the range of industry examples from the past to gain public perspective for the PacWest smelter.

QUESTIONS #15, 16, & 17: What is the overall history of the USA mineral smelter industry for site cleanup/restoration after closure? What are the current Federal and Washington State laws/regulations regarding smelter cleanup/restoration after closure? What financial responsibility and capability will be required of PacWest to pay site cleanup, restoration, and closure costs?

CONTEXT: It is common knowledge that some industrial mining operations have defaulted or dissolved, leaving cleanup of pollution and site restoration delayed for years and/or ultimately paid by government taxpayers. These results harm the natural environment, the local economy, and human safety. Any new project that potentially produces air and water pollutants must be conditioned on legal and financial capability of the developer to promptly close and restore the site.

QUESTION #18: What are the industry qualifications and project compliance history of PacWest for planning, permitting, operating, and maintaining a silicon smelter?

CONTEXT: Any project of this size and environmental reach must be experienced enough to clearly show they have the expertise, funding, reputation, and credibility for this operation from start to finish.

QUESTION #19: How will PacWest's proprietary information and intellectual property be evaluated for operational and scientific credibility?

CONTEXT: These items must be verified as credible and effective by an unbiased and independent source.

QUESTIONS #20, 21, & 22: How might PacWest smelter emissions affect nearby organic farming and gardening operations? How might the presence of a nearby smelter affect buyer and consumer *perceptions* of the quality for those organic products? How might insect pollinators of organic products be affected?

CONTEXT: The reputation for ingredient quality of any organic product is the foundation for its worth to buyers and subsequent consumers. Growers depend on that to protect their business and family nutritional health. Also, insect pollinators might be harmed or contaminate organic products via smelter emissions. Human psychology suggests that the smelter will be a perceived -- and possibly real -- threat to the production and promotion of organic quality.

QUESTION #23: How might smelter air emissions affect insect pollinators near and far from the source?

CONTEXT: Insect pollinators nationwide are already stressed by disease, climate warming, habitat degradation, and pesticides. Air pollution is associated with both direct and indirect harmful effects on

insect populations (Fuentes et al. 2016). Ozone and other pollutants react with floral scents, modifying their chemical composition downwind of sources and interfering with the floral plumes targeted by pollinators. Ozone at 60 parts per billion -- a level the EPA considers "moderate" -- confuses and hinders bee's ability to identify local floral scents. The EIS must review and report relevant scientific literature to identify possible smelter effects.

QUESTION #24: How will the offsite environmental effects of transporting fuel and other PacWest smelter supplies to and from the PacWest smelter be scientifically evaluated in the EIS?

CONTEXT: Rail and truck traffic to and from the smelter might harm or help other communities along the way. Harmful examples are offsite coal dust or spills, truck or locomotive emissions and spills, traffic delays, accidents, noise, odors, vibration, etc.

QUESTIONS #25 & 26: How might PacWest smelter emissions affect tree lichens and ground fungi on adjacent and distant properties? How will those effects be identified, monitored, and mitigated over time and area?

CONTEXT: Certain tree lichen species (*Alectoria sarmentosa* and *Bryoria* spp.) are the primary winter forage for the Federally-Endangered Selkirk woodland caribou (Wiles 2016), and a preferred denning/roosting material for the northern flying squirrel (Hayward & Rosentreter 1994). The northern flying squirrel is a keystone species because of its role in consuming and spreading ground fungi that aid energy uptake by trees (Carey 2002). The above-mentioned lichen species, plus others, are especially sensitive to sulfur-dioxide and nitrogen air pollutants (McCune & Geiser 2009). Harmful effects from these pollutants can be interpreted by monitoring changes in lichen community composition, indicator species distribution, and physiology or appearance. Monitoring must be scientifically credible (Blett et al. 2003), continuous from baseline through smelter operation, widespread, reported to the public and authorities, and paid for by PacWest.

QUESTION #27: How might PacWest smelter emissions affect rare whitebark pine forests in northeast Washington and north Idaho?

CONTEXT: It is commonly known that climate warming, seasonal drought, and bark beetles are already stressing whitebark pine trees, and these high-elevation forests have no other location to displace to. Acid deposition ("acid rain") from smelter air emissions could be the tipping point toward the loss of whitebark pine trees and ecosystems.

QUESTION #28: How might PacWest smelter emissions affect wild huckleberry plant production and survival in northeast Washington and north Idaho?

CONTEXT: The fruits of wild huckleberry (*Vaccinium* spp.) plants are a significant economic and cultural benefit to Indian tribes and other residents in this area. Acid deposition ("acid rain") from smelter air emissions might change the production and/or quality of these plants. Any possible threat to these plants must be monitored over time and area to determine and mitigate harm.

QUESTIONS #29 & 30: What are the number, size dimensions, thermal thrust height, lighting configuration, and camouflaging options for smelter smokestacks? Where will smokestacks be visible from, and how will they blend into a canopy of green trees ± 100 feet tall?

CONTEXT: The history of coal-fueled power plants has been to begin with short smokestacks of 200-300 feet and then substantially increase their height after startup to improve exhaust efficacy. PacWest initially proposed a smokestack height of 150 feet, but it seems plausible they might want smokestacks several hundred feet tall to discharge emissions above thermal air inversions and fog. Smokestack characteristics are relevant environmental factors in judging day and night visibility from human viewpoints and aerial hazards or attractions to birds and bats.

QUESTION #31: What might be the environmental effects when PacWest smelter air emissions are added to air pollution from wildfire emissions and ozone?

CONTEXT: On days with the most extreme air pollution, air quality in the northwestern USA is worse than three decades ago largely because of bigger and more frequent wildlfires (McClure & Jaffe 2018). For people with breathing difficulties, these episodic events become dangerous. Wildfires are largely uncontrollable events, but humans can choose whether to permit compounding contributors.

QUESTIONS #32 & 33: How will the PacWest facility be protected from wildfire, catastrophic accidents, and foreign or domestic terrorism? What flammable, explosive, or toxic materials will be imported, stored, used, disposed, or exported at the smelter site?

CONTEXT: Smelter operations might involve petroleum fuels, lubricants, liquid nitrogen, compressed oxygen, and other materials at a facility producing extreme heat from high-voltage electricity. Human error, abundant activity, mechanized equipment, and natural events create the possibility of accidental or intentional explosions and release of toxins onsite or to adjacent ownerships.

QUESTION #34: How might construction and operation of a heavy industry smelter affect the economic value and availability of local residential real estate?

CONTEXT: The public's perception of local heavy industries can be a significant factor in the economic value of residential real estate. Residents of Newport and the surrounding area presumably have much of their financial worth invested in their owned home, so reductions in that worth would be significant. The PacWest EIS must include a comprehensive literature review of the economic and availability effects from polluting industries on residential property at other USA communities.

QUESTION #35: How will PacWest's possible future phases of development be evaluated in this EIS?

CONTEXT: It is a public perception that, once an initial development is approved, subsequent developments are easier to approve due to the accumulation of financial investments and political influence. Accordingly, this EIS must consider the possible environmental effects from likely smelter additions (e.g. more or larger furnaces and smokestacks, different coal quality, supplemental water, etc.).

QUESTION #36: How will PacWest prevent the introduction and spread of Washington and Idaho noxious weeds?

CONTEXT: It is well known that vehicles, machinery, humans, and animal pets can dislodge the reproductive parts of noxious weeds and unintentionally transport them over long distances. State-of-theart control practices (e.g. power-washing or sterilizing equipment, etc.) must be required during smelter construction, operation, and restoration.

QUESTION #37: How will PacWest smelter construction affect community service contractor availability and pricing?

CONTEXT: It is common that communities with short-term economic expansion experience a shortage of available and qualified contractors for building and other services. This shortage affects local residents seeking these same services.

QUESTION #38: How will the forgone forest wood production, carbon storage, wildlife habitat, nutrient cycling, water and air purification, climate regulation, recreation, and other environmental services on this 188-acre site be identified and mitigated?

CONTEXT: Lumber and other forest products from local private and public land are essential for the survival and prosperity of local processing mills, woods workers, and associated small businesses. Sources of these environmental services are usually local for access and economy, so mitigation must also be local.

QUESTIONS #39, 40, 41, 42, & 43: What are the dimensions and locations of water retention ponds planned for dust control, fire control, and woodchip wetting? How will water overflow from filled retention ponds be controlled to prevent erosion? How will retention ponds be filled in the dry months of summer? How will emission particulates and production chemicals that accumulate onsite affect the chemical composition of pond-stored or runoff water? Will ponds be accessible to birds or bats as resting, foraging, or drinking sources?

CONTEXT: Water retention ponds can be vulnerable to leaking from extreme weather events such as icing and intense or prolonged rainfall. Open-air retention ponds in the dry season are likely to attract wildlife and invertebrates. Those ponds may become contaminated by an accumulation of air- and water-deposited toxins or heavy metals. Contaminates may become concentrated as ponds lower or dry. Bat and bird species risk ingesting and accumulating pollutants that can cause death or impairment (Gruver & Keinath 2006).

QUESTION #44: How will onsite surface water that leaches into the ground be monitored for ground surface contamination and pathway to the underground water table?

CONTEXT: Gravel, sand, and silt soils in this area are commonly porous to surface water movement and infiltration. Soil contamination from onsite toxins is a potential threat to water aquifers.

QUESTIONS #45, 46, 47, & 48: What are the number, dimensions, orientation, and juxtaposition of smelter buildings? How might metal-clad buildings affect sunlight glare and heat reflection toward other near and far properties? Will buildings, perimeter fencing, and utility line structures to the smelter be visible from offsite viewpoints such as residential developments and paved travel routes? What mitigation might prevent harm?

CONTEXT: The magnitude and unnatural character of the smelter complex will surely be noticed by residents and visitors to this area. It is likely to be in sharp contrast to our existing rural and small town character, possibly degrading visitor perceptions of our pristine environment.

QUESTION #49: How might the smelter's artificial night-lighting affect the Bortle Dark Sky Scale or other measures of nighttime darkness for local nighttime astronomy and adjacent property owner privacy, or for animal and plant life onsite or elsewhere?

CONTEXT: Northeast Washington and north Idaho are sparsely inhabited and have few towns with human concentrations. This rural characteristic is a desirable attraction to many residents who value dark night skies and nighttime silence. Night-sky artificial light pollution in the USA is increasing in radiance and extent with corresponding harm for plants, invertebrates, wildlife, and human well-being (Kyba et al. 2017). Ecological light pollution comes from sky glow, lighted structures, street lights, security lights, lights on vehicles, and bonfires. Artificial light pollution erodes the remaining land area that experiences natural day-night light cycles under which most life-forms evolved (Van Doren et al. 2017; Rich & Longcore 2006) Artificial night-lighting that comes from the 188-acre smelter could be equivalent to several contiguous residential subdivisions, and essentially another small town. That effect, when added to lighting from nearby Newport and Oldtown, will significantly enlarge the zone of dark sky light pollution. When exposed to a light field at night, migrating birds hover, slow, shift direction, or circle from their straight flight path (Gauthreaux & Belser 1999, In: Rich & Longcore 2006). Those birds tend to move toward lights and then are reluctant to leave. Fog and low clouds compound the effect. The result is that more flight energy reserves are consumed than for straight line flight; this effect is especially detrimental for birds in long-distance migrations because of possible delayed arrival at wintering grounds. Horizon glow from cities can influence the orientation behavior of birds, especially immature birds. Tower guywires, building glass, red (vs. white) lights, and fixed (vs. blinking) lights become flight hazards for birds at night. Potential influences of artificial lights at night on mammals include disruption of foraging behavior, increased risk of predations, disruption of biological clocks, increased deaths from collisions on roads. and disruption of dispersal movements and corridor use (Rich & Longcore 2006). One experimental study involving the nocturnal northern flying squirrel found that encountering artificial light at their usual dark arousal time caused them to return to their nest to sleep, delaying their circadian clock by 40 minutes (DeCoursey 1986, In: Rich & Longcore 2006). Such shortening of activity could affect the time needed to gather foods for survival.

QUESTION #50: How might the smelter affect current and future research studies at 4 Research Natural Areas on the Colville N.F., 19 Research Natural Areas on the Idaho Panhandle N.F., 2 Natural Area Preserves of the Washington Department of Natural Resources in Stevens County, the Priest River Experimental Forest of the Forest Service Rocky Mountain Research Station, and the USGS Newport Geophysical Observatory in Pend Oreille County?

CONTEXT: U.S. Forest Service Research Natural Areas (RNAs) permanently protect some of the most pristine examples of natural ecosystems for the purposes of scientific study, baseline monitoring, education, and maintenance of biological diversity. These protected areas, which are maintained in natural condition and managed with minimal human intervention, are available for non-manipulative research and low-impact educational activities. Some RNAs have been studied over several decades. Washington DNR Natural Area Preserves protect outstanding examples of native ecosystems, habitat for endangered, threatened and sensitive plants and animals, and scenic landscapes, and are available for approved scientific research and other environmental education activities. The Geophysical Observatory, established in 1966, supports several geophysical operations. The scientific findings and financial

investments of research collected over many years might be compromised or invalidated by smelter air emissions.

QUESTIONS #51 & 52: What will happen to smelter approvals if computer modeling or other predictions used in the environmental analysis underestimate harmful environmental effects which become significant? Will financial and permitting inertia allow subsequent harmful effects to continue after unsuccessful mitigation?

CONTEXT: Sometimes even sophisticated modeling and analysis do not reliably predict significant environmental harm. If mitigation is unsuccessful, a significant harm will continue unless there are permitting protections to prevent that.

QUESTIONS #53, 54, 55, & 56: What employee qualifications will be required for the various types of smelter jobs to be filled? What payroll or other financial benefits will employees receive? What will employee working conditions be like inside the smelter furnace building and elsewhere onsite? How will they be protected daily from onsite fine particulates and chemical pollutants?

CONTEXT: A comparison of employee qualifications, compensation, working conditions, and toxic protections from other USA silicon smelter locations must be reported in this EIS so that local demand and continuing community support for those type of jobs can be estimated.

QUESTION #57: How will the smelter's fine particulates (PM_{2.5}) and ultra-fine particulates (UFP), when carried by ground-surface dust and air emissions, be measured and controlled?

CONTEXT: The book authored by Brugge (2018) is a comprehensive reference on the human health effects of particulates from fossil fuel combustion, and from it I condensed the following facts.

The greatest toxic risk of particulate matter comes from the burning of fossil fuels such as coal, gasoline, diesel, or heating oil. Combustion produces tiny bits of solid or liquid that suspend in the air. Fine particles ($PM_{2.5}$) measure <2.5 microns in diameter, and ultrafine particles (UFP) measure <0.1 micron in diameter. The smallest ultrafines can be viewed only by a microscope.

In high-income countries, air pollution is mostly invisible, except when seen as summertime haze or coming out an exhaust pipe. In the USA, with mostly clear skies, it is still estimated that over 100,000 deaths per year may be attributable to ambient $PM_{2.5}$ (Cohen et al. 2017). In comparison, secondhand smoke and radon in homes each cause a fraction of that many deaths.

 $PM_{2.5}$ is mostly a regional pollutant, in that levels are spread across large geographic areas changing little over distances of miles within those areas. People living there receive similar exposures. This is because $PM_{2.5}$ is mostly formed as a secondary pollutant. Gases released by combustion undergo reactions in the atmosphere that lead to particle formation.

Coal combustion was found to be a far greater cardiac risk than particulates from other major particulate matter sources in the USA (Laden et al. 2006). $PM_{2.5}$ can travel deep in the lungs, raising the concern about this size particle and human health.

The public have been conditioned to think that pollution affects primarily respiratory health. But the largest health impacts are to the cardiovascular system. Given that effects from particulate matter are so considerable to the hearth and blood (leading to heart attacks, strokes, and other things), attention has focused heavily on blood pressure and blood inflammation.

UFP from air pollution can travel directly into the brain without having to traverse the lungs and blood stream or cross the blood-brain-barrier (Maher et al. 2016). There is growing evidence that particulate matter exposure affects brain and nerve function, including elevated risk of developing autism for children and increased risk of cognitive decline in the elderly. UFP have such little mass or weight that they must be measured via sophisticated and expensive instruments such as *condensation particle counters* that record the number per volume of air.

A very clean environment – inside a well-sealed building with air recirculation and a good filter, for example – might have a few thousand particles per cubic centimeter. A highly polluted area, perhaps next to a highway or road tunnel, could have 50,000 to one-million particles per cubic centimeter of air. These concentrations can vary rapidly and spike when a diesel truck passes by. High doses next to a freeway were found to drop substantially at approximately 600 feet away. Humans and domestic pets spending a lot of time near a source (e.g freeway, major road, etc.) would be exposed to much higher concentrations of UFP than elsewhere. It is clear that living or driving on major roads or highways results

in higher levels of exposure to UFP than most other locations. UFP have not been studied as much as $PM_{2.5}$ and are largely unregulated.

QUESTION #58: Does the proposed PacWest smelter meet policy direction in the 2015 Pend Oreille County Comprehensive Plan, the Washington Growth Management Act, and the 2015 Pend Oreille County Development Regulations, especially regarding protection of land zoned for public purpose, the environment, and public facilities and service?

CONTEXT: Pend Oreille County's human population is decidedly rural. The 2010 National Census reports that the County's total population was 13,001, of which only five communities were incorporated. Newport is the most populous at 2,126 persons, while the other four vary in size from 173 to 447 persons. The great majority -- 9,810 (75 percent) -- of county residents live on rural parcels or in unincorporated towns.

The 2015 Pend Oreille County Comprehensive Plan, Preface Statement of Values (Why We Live Here, second paragraph), poetically describes the lifestyle that County citizens want here.

"Pend Oreillle County residents value the rare opportunity of raising our families in an affordable rural environment, with friendly neighbors; where people still wave as they drive by and shopkeepers know us by name; where the lifestyle is still relaxed; where lifestyle and livelihood are connected to the land; where problems can be solved on a local level; and where the ethic of hard work brings the highest respect. We appreciate the distinct changes in the four seasons and are undaunted by the hardships the seasons may bring. We realize the benefits of the open spaces maintained by agriculture and the timber industry, and value the quality of life that results from being in close proximity to the County's mountains, valleys, lakes, rivers, and wildlife. We appreciate the clean water in the area's streams, rivers, and lakes, the clean air quality, and the abundant wildlife habitat."

The proposed PacWest smelter seems to be at odds with these values and several policy statements from the Comprehensive Plan. Rural Land Use Policy #3 requires performance standards that address noise, traffic generation, illumination, and operating hours of new development. Rural Land Use Policy #5 requires that new industrial or commercial uses be separated from residential areas by adequate buffers. Natural Resource Policy #3 requires "larger" buffers between industrial and residential uses.

The proposed PacWest smelter seems to be at odds with Planning Goal (8) of the Washington Growth Management Act, which encourages the conservation of productive forestlands and discourages incompatible uses. Planning Goal (10), which protects the environment and enhances the state's high quality of life, including air and water quality, and the availability of water, is also compromised.

The proposed PacWest smelter seems to be at odds with the 2015 Pend Oreille County Development Regulations (page 236), which state that a Zoning Map may be amended after considering Planning Commission findings about the: (1) adequacy of public facilities such as sewer, water, and other required public services; and (2) amendment's compliance with applicable goals and requirements of the Washington State Growth Management Act.

It is my understanding that the County sold one or more public-owned land parcels -- zoned for Public Use at the time – to the Pend Oreille Public Utility District. Subsequently, the POPUD sold that land to PacWest. These transactions occurred over a timeframe suspiciously short enough to appear coordinated, and there was little or no public awareness about the combination of sales until they were completed. PacWest now wants the land rezoned to allow commercial use, a seeming violation of purpose for County taxpayers, POPUD rate payers, and the Washington Growth Management Act. The EIS should identify and document these procedural steps and timeframes for the record to verify that the Growth Management Act was followed.

Thank you for this opportunity to present my comments.

Respectfully,

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