

Health Effects of Air and Light Pollution

It is our understanding that Knife River is planning on running this proposed plant 24 hrs. a day / 7 days a week. They also plan to begin the operation with a maximum of 200 cement trucks going through the facility daily. While running the plant at night the light pollution will be like living next to a lit-up football field, combined with the added air pollution from increased diesel trucks driving down our community roads, idling waiting to get their loads, and driving back through our community to reach the 205 freeway.

The proposed site of the Concrete Batch Plant is across the railroad tracks from a new development (Curtin Creek Meadows) under construction now that alone will be 62 new dwellings. Those 62 houses are adjacent to Mt View estates and the Curtin Creek Condos, together that represents 140 homes. Mt View Estates is adjacent to Cedar 49 and the Cedar Corner development which represents another 235 homes. Additionally, there is another development of 24 houses that border the Curtin Creek Wetlands.

This represents a total of 461 households just on the west side of Curtin Creek Wetlands. These numbers do not account for the east and north side of the wetlands, or the other side of NE 72nd Ave.

Light pollution has been proven to disrupt the human Circadian Clock; our natural bodies sleep rhythm. UC Irvine has done extensive studies and have found that disruption of the circadian clock is linked to several medical disorders in humans, including depression, insomnia, cardiovascular disease, and cancer. When our sleep at night is disrupted our bodies do not reproduce regenerative hormones, tumors grow faster, and our general health deteriorates.

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The studies have found that the Circadian Clock controls 10%-15% of our genes.

A report of the 2006 National Institute of Environmental Health Sciences (NIEHS) sponsored a meeting on this issue. The reports from that meeting stated that "It may not be entirely coincidental that dramatic increases in the risk of breast and prostate cancers, obesity, and early-onset diabetes have mirrored the dramatic changes in the amount and pattern of artificial light generated during the night and day in modern societies over the decades."

In 2017 a Nobel prize was awarded to Michael Rosach, Jeffrey C. Hall, and Michael W. Young for their pioneering research into circadian rhythms, including the identification of the clock genes that regulate so much of our daily behavior.

They quantified that light pollution is a major reason why "big cities are an impediment to our inner clock. Too much light or too little light can send our natural cycles off kilter. Being off our natural cycle has been linked to many health issues in humans."

Clearly, a brightly lit up plant right next to residential housing will be the cause of increased health issues on a well-established population that has lived here for many years. Many have children and grandchildren living in, or visiting in our homes.

Many seniors are still living in their beautiful homes, many with current respiratory issues.

Let us address the issue of increased air pollution by the increase in trucks in and driving through our community.

Heavy duty trucks are the largest mobile source of nitrogen oxides, which can react in the atmosphere to form toxic pollutants like ozone and particulate matter.

Exposure to toxic air pollution is linked to a host of ailments, including heightened risk of early death and poor lung development in children.

Our neighborhood has an active community of walkers. Some with dogs and children, some walk solo. Our health will be at risk from the increased toxic air from 200 cement trucks daily within 2 miles of our homes.

Ozone and nitrogen oxides also presents a hazard to our gardens and landscape plants and trees. The two pollutants stunt the growth of our plants, and cause blossoms to prematurely drop from fruit trees, in addition to harming some pine trees. With the current cost of food our gardens are even more important today and will continue to be vital moving forward in sustaining a balanced diet at an affordable price. We must be assured that our land, water and air are not mixed with harmful pollutants.

Curtin Creek Wetlands is part of our water shed and serves as home to many species of animals, some permanent residents and some are migratory. The wetlands are host to Canadian Geese which are protected under 4 treaties with the United States.

The repercussions for attempting or succeeding in harming these Canadian Geese may result in the following: Fines ranging from \$5,000 - \$15,000 depending on the offensive action. Imprisonment for 6 months or more depending on the misdemeanor. Felony charges for guilty offenses.

Strong night lights disorient the migratory birds, strong night lights also confuse many of the animals in the wetlands. Migratory birds navigate in the dark of night. Bright lights interfere with their natural navigation. Bright lights also interfere with many species' reproductive practices.

This proposed business represents many hazards to our communities. We are asking that you cancel this "Spot Zoning" and revert it back to light industrial.

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We thought the railroad was going to be turned into a walking trail. Increased rail activity will present a whole new level of noise pollution and safety issues for the entire community.

Thank you for your attention to this vital issue.

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