

San Juan County Fact Sheet

Air Pollution

- The Four Corners Power Plant stands alone as the highest NO_x emitter in the United States.¹ Based on 2006 data from the EPA Clean Air Markets Division, FCPP is the largest source of NO_x emissions in the US (nearly 45,000 tons per year of NO_x). Every year this plant alone burns enough coal to fill over ten Empire State Buildings.²
- Navajo Generating Station is the fourth largest source of NO_x emission in the US (nearly 35,000 tons per year).³
- The exceptionally high level of NO_x pollution emitted from these facilities reflects emission rates that far exceed those achieved in practice at modern coal-fired plants.⁴
- According to EPA's Toxic Release Inventory, San Juan County has the highest rate of toxic chemical release in New Mexico (7.3 million pounds).⁵
- The extensive volume of NO_x emissions from these smokestacks have an immediate adverse impacts in the vicinity of the facilities and drift tens and hundreds of miles.⁶
- Mercury emissions from these the Navajo and San Juan plants and other sources are believed to be contributing to numerous fish consumption advisories on the Navajo Nation, AZ, CO, UT, and NM.⁷
- The NM Surface Water Quality Bureau has identified all parts of the San Juan Basin as being impaired by one or more pollutants. Sources of impairment include mercury in fish tissue that has been attributed by NMED to air deposition.⁸

Health Impacts

- NO_x emissions contribute to elevated concentrations of ozone ("smog"). Elevated ozone levels are associated with an increase in school absenteeism, increases in respiratory hospital emergency department visits among asthmatics and patients with other respiratory diseases; an increase in hospitalizations for respiratory illnesses; an increase in symptoms associated with adverse health effects, including chest tightness and medication usage; and an increase in mortality.⁹
- Ozone levels in the vicinity of Navajo and Four Corners are already in the range of ozone levels deemed to be harmful to human health by the EPA's Clean Air Scientific Advisory Committee.¹⁰
- Long-term exposure to ozone increases the risk of death from respiratory causes. A NM Health Dept. study found that summertime ozone concentrations in San Juan County are as high as those in urban areas like Seattle and Santa Clara County.¹¹ NM Health Dept. study found that increased ozone was associated with increased odds of at least one asthma-related medical visit by 42%. When ozone increased by 20 ppm, the number of emergency room visits increased by about 34%.¹²

¹ Center for Biological Diversity, *RE: Comments on EPA's Advanced Notice of Proposed Rulemaking regarding BART for the Navajo Generating Station and the Four Corners Power Plant*, October 28, 2009. Pg. 2.

² *It's Time to Clean up the Haze of Pollution*, <http://www.nmpolitics.net/index/2010/08/it%E2%80%99s-time-to-clean-up-the-cause-of-haze-pollution>.

³ *Id.*

⁴ *Id.*

⁵ *Id.* at 18.

⁶ *Id.* at 2.

⁷ *Id.* at 14.

⁸ *Id.* at 24.

⁹ *Id.* at 2.

¹⁰ *Id.* at 11.

¹¹ *Id.* at 13.

¹² Mountain Studies Institute, *Assessment of Foliar Ozone Injury: Pilot Project*, November 30, 2009. Pg. 10.

- The EPA found that there is a public health problem in San Juan County due to air pollution in the region. A U.S. Geological Survey study found that people living in Shiprock are more than 5 times as likely to be seen at HIS for respiratory complaints as are residents of other nearby communities.¹³
- 38% of hospital visits in communities within 30 miles of New Mexico's coal plants were made up of children 15 years of age and younger, even though they only represent 12% of the population.¹⁴
- There are significant health effects related to mining and burning coal, which include heart attacks, strokes, chronic bronchitis, asthma, reduced lung function, cancer, and other cardiovascular events. These effects will be marked in the local Native American population. Local prevailing winds and frequent high pressure inversion weather conditions will cause these emissions to spread hundreds of miles from the coal plant, reaching residents of the region and visitors to nearby public lands.¹⁵
- Studies among Native American tribes have shown high levels of mercury in urine and hair samples, consistent with diets that are high in fish. Warnings are in place for the San Juan River and Morgan Lake, which have fish consumption advisories in place for mercury and selenium levels.¹⁶

Economic Impact

- Elevated ozone levels are responsible for an estimated \$500 million reduction in crop production each year.¹⁷
- Current health care costs borne by the Navajo for cardiovascular diseases, strokes, and asthma are approximately \$200 million per year. Each of these conditions can be aggravated by exposure to pollutants from power plants or dust from coal mining.¹⁸
- Health-related costs: American Lung Association estimated we spent \$16.1 billion in national health care costs in 2006 to treat asthma associated with air pollution, and \$365.4 billion in health care costs for cardiovascular disease and stroke.¹⁹
- Because of the excellent wind resources on Navajo lands and their vicinity to transmission lines, it is feasible that three wind farms could be built with a wind capacity of 900-1400 MW and would create approximately 301 long-term jobs and 672 construction jobs.²⁰
- The most direct way to develop the economy of the Navajo Nation and address environmental justice concerns via an energy project is not to provide a small number of high paying jobs to those who happen to live close enough to work in coal mines or power plants. Rather, it is to make direct investments in decentralized renewable energy projects which would provide power to Navajo homes that have no electricity, water, heat, or cooling.²¹
- Renewable energy technologies would produce 10 times as many jobs in the U.S. than comparable investments in fossil fuels or nuclear.²²

¹³ Center for Biological Diversity at 34.

¹⁴ Diné Citizens Against Ruining our Environment, *Energy and Economic Alternatives to the Desert Rock Energy Project*, January 12, 2008. Pg. 20.

¹⁵ Diné Citizens Against Ruining our Environment at 13.

¹⁶ *Id.* at 16.

¹⁷ Mountain Studies Institute at 5.

¹⁸ Diné Citizens Against Ruining our Environment at 13.

¹⁹ *Id.* at 21.

²⁰ *Id.* at 83.

²¹ *Id.* at 90.

²² *Id.* at 91.