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Holtec International HI-STORE Consolidated Interim Storage Facility Project

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General Comment

See attached file(s)

Attachments

Holtec Comments final 7-30-18

UP Gallup to Clovis - ACS

Southern Clovis to Carlsbad - EJ SCREEN

Rail line Raton to Belen - EJSCREEN (1)

BNSF State line to Vaughn - EJ SCREEN

Holtec's Radioactive Roulette:
Why High Level Radioactive Waste Should Not Be Stored in New Mexico

Public Citizen and the Sustainable Energy and Economic Development (SEED) Coalition appreciate the opportunity to submit the following comments to the NRC on Holtec International's application to build a consolidated interim waste storage site between Carlsbad and Hobbs, New Mexico. We are submitting these comments on behalf of 1,164 Public Citizen members in New Mexico and 5,000 members in Texas as well as 2,550 members of SEED Coalition who would be particularly affected by this proposed site either as neighbors or because they are live near the rail lines that would carry this risky radioactive cargo through their communities.

The questions raised in these comments and the issues discussed need to be explored more thoroughly in the Holtec License Application Environmental Report.

The Nuclear Regulatory Commission (NRC) held public meetings to take comments on Holtec's environmental impact statement in Roswell, Hobbs, Carlsbad, Albuquerque and Gallup. Opponents outnumbered supporters at every one of the five hearings. Our informal count tabulated that opponents outnumbered supporters by more than 3-1 over the series of five NRC meetings. Supporters were typically people who are or would be employed in relation to the project. Opponents outnumbered supporters by at least a 2-to-1 margin at the two interim committee meetings held by the New Mexico State Legislature's Radioactive Waste and Hazardous Materials Committee. The New Mexico communities of Albuquerque, Las Cruces, Lake Arthur, and Jal have passed resolutions expressing their opposition to this site and transportation of high-level waste radioactive materials through their communities as have Nueces, Bexar, Dallas and Midland counties and the City of San Antonio in Texas. The number of opponents at each hearing and communities that have passed resolutions opposing this waste expose the fallacy of the assertion that New Mexicans and Texans support this type of facility and have given "consent" to the storage of high level radioactive waste in New Mexico. Their comments raise serious questions about this application which we will summarize below:

1. What happens if a final repository is never permitted?
2. What are the transportation risks?
3. What happens if there is an accident?
4. What are the risks of a terrorist attack during transit?
5. What happens if a cask leaks and why is there no repackaging system proposed at the site?
6. What are the plans to deal with water incursion into the canisters at the site

7. Are the number of security personnel projected to be onsite and the wages that would be paid adequate to assure a topflight security force capable of protecting radioactive materials?
8. Shouldn't the nation's sixtyyear history of broken federal promises to clean up leaking radioactive sites in past require special funds be set aside to assure for clean-up and remediation of this proposed project.[1]
9. The Holtec proposal and the agency should be revised to fully analyze the impact of this site and transportation leading to it on environmental justice communities.

What happens if a permanent repository is never designated? Would New Mexicans get stuck with the financial and health risks of storing this deadly and toxic waste?

The waste consists of fuel rods that have been inside operating nuclear reactors, and still contain most of the original uranium, plutonium, cesium and strontium. Some of the waste materials will remain deadly for one million years. Exposure to this radiation is known to cause cancer and birth defects.

Holtec International's controversial license application is to "store" over 100,000 tons of this dangerous nuclear reactor waste for as long as 120 years, (Holtec pg 197). This volume is large enough to include essentially all U.S. nuclear reactor waste. Recently, Holtec told New Mexico legislators at a Radioactive and Hazardous Materials Committee hearing on July 19th they are considering future amendments that would allow them to store as much as 173,000 tons--far more than the US reactors are anticipated to produce by the time all existing reactors are decommissioned. Who would this excess capacity be built for? Does Holtec have plans to import nuclear waste from other countries?

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[1] The Nuclear Waste Policy Act required the Secretary of Energy to issue guidelines for selection of sites for construction of two permanent, underground nuclear waste repositories. DOE was to study five potential sites, and then recommend three to the President by January 1, 1985. Five additional sites were to be studied and three of them recommended to the president by July 1, 1989 as possible locations for a second repository. A full environmental impact statement was required for any site recommended to the President.
Locations considered to be leading contenders for a permanent repository were basalt formations at the government's Hanford Nuclear Reservation in Washington; volcanic tuff formations at its Nevada nuclear test site, and several salt formations in Utah, Texas, Louisiana and Mississippi. Salt and granite formations in other states from Maine to Georgia had also been surveyed, but not evaluated in great detail.[4]
The President was required to review site recommendations and submit to Congress by March 31, 1987 his recommendation of one site for the first repository, and by March 31, 1990, his recommendation for a second repository. The amount of high-level waste or spent fuel that could be placed in the first repository was limited to the equivalent of 70,000 metric tons of heavy metal until a second repository was built. The Act required the national government to take ownership of all nuclear waste or spent fuel at the reactor site, transport it to the repository, and thereafter be responsible for its containment.[5]

Furthermore, the Environmental Report is inadequate and must be revised since it analyzes storage of 100,000 MTU's, not 173,000 MTU's. If this is Holtec's intent then this is a massive difference should require a far different application.

The Federal Government has been searching for a site for spent nuclear fuel since the 1950's and has been required to find a site since the 1980's. [2]The proposed Yucca Mountain permanent repository is unlikely to be reinvigorated and constructed.[3] This consolidated interim waste site, if approved, would undermine federal efforts to develop a less risky location and storage systems for the permanent disposal of deadly radioactive waste by removing incentives for developing a viable permanent approach to our radioactive waste crisis. New Mexico could become an unsafe, inadequate de-facto nuclear waste dump for the country.

So what would happen if the Holtec site became a permanent site?

An interim storage site is not designed for and this process does not contemplate that nuclear waste might be present for a millennia let alone a million years. Yucca Mountain was required to be able to isolate waste for a million years. A process that only accounts for the consequences of storage for a few decades, or up to 120 years, is inadequate for a site that could become the de facto storage site for all time. Since there is not a permitted repository shouldn't this application process be redone based on an assumption that there will never be a final repository and using standards for evaluation established for repositories? There has been no evaluation of whether the Holtec site has the right geology for long-term storage or disposal. Would the canisters and casks last a million years? This seems highly unlikely. How long are they expected to last before though wall cracks or other defects occur? Under what conditions could there be problems with the zirconium cladding?

If and when there are radiation releases, what financial guarantees are in place to assure that New Mexicans don't get stuck with the bill for cleanup and remediation? Who would pay to periodically repackage high level radioactive waste? Who would pay to guard it? Who would

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[2] The Nuclear Waste Policy Act of 1982 created a timetable and procedure for establishing a permanent, underground repository for high-level radioactive waste by the mid-1990s, and provided for some temporary federal storage of waste, including spent fuel from civilian nuclear reactors. State governments were authorized to veto a national government decision to place a waste repository within their borders, and the veto would stand unless both houses of Congress voted to override it. The Act also called for developing plans by 1985 to build monitored retrievable storage (MRS) facilities, where wastes could be kept for 50 to 100 years or more and then be removed for permanent disposal or for reprocessing.

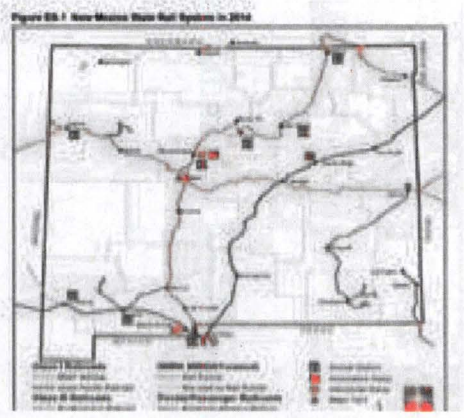
[3] Congress works to revive long-delayed plan to store nuclear waste in Yucca Mountain - *https://www.usatoday.com/story/news/politics/2018/06/03/yucca-mountain-congress-works-revive-dormant-nuclear-waste-dump/664153002/*

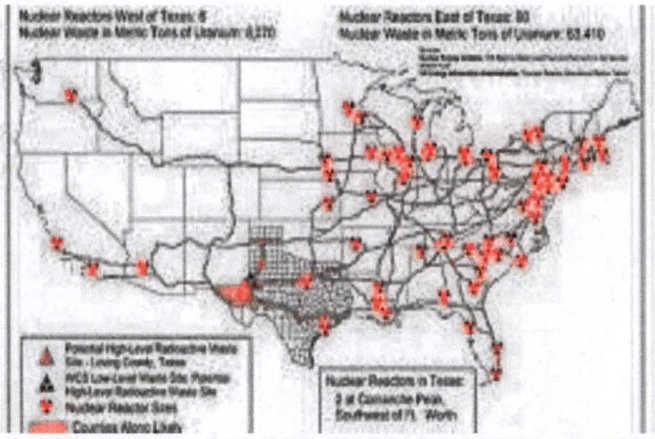
maintain it for decades? Who would pay to clean up the site in the event of an accident or if the site is not decommissioned by Holtec?

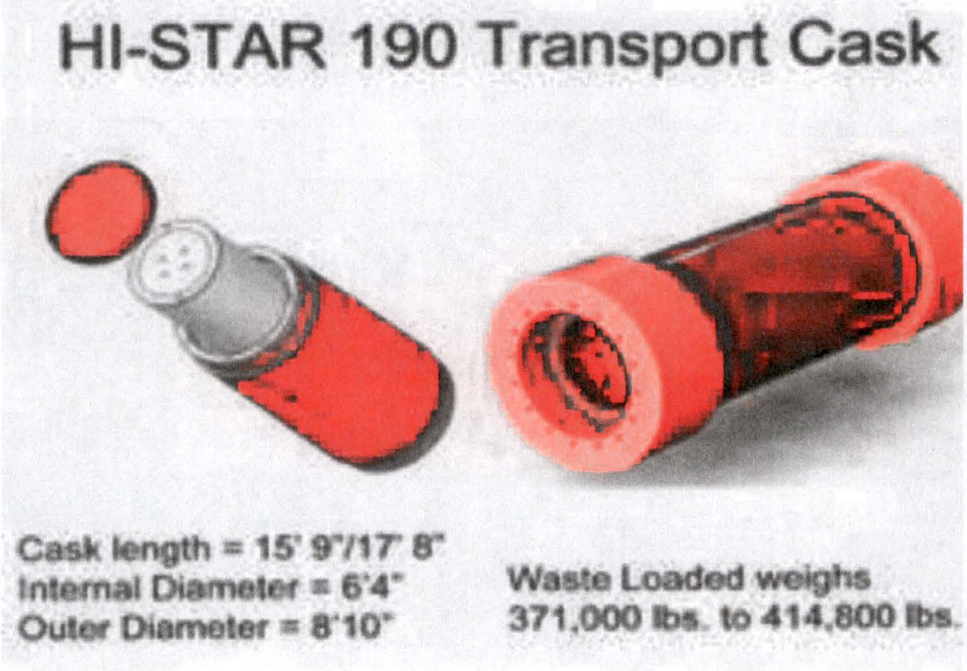
Over 10,000 Railcars of Radioactive Waste - A Train Wreck Waiting to Happen

The transportation of radioactive waste is a train wreck waiting to happen.

More than 10,000 rail cars of this risky waste would rumble on New Mexico rails, in a process that would take 20 years, likely traveling rail lines along I-10, I-40, and I-25 to Clovis and thus Carlsbad and across Texas on the routes running along 1-10, 1-20, I- 30, I-35 and I- 27







https://www.google.com/search?q=holtec+hi-star+190&rlz

Each loaded car would weigh 185 to 207 or more tons, far more that the 143 tons than the tracks are designed to carry per rail car according to testimony by railroad engineers at recent legislative hearings.

The Federal Railroad Commission has said "A more robust track structure is required to handle these heavier cars. Many short lines did not have track and bridges capable of handling the heavier loads." Summary of needs of class II and III Railroads Federal Railroad Administration 2014 pg 5 [4]

When asked if the rail lines in New Mexico could safely handle cars of this weight- both Scott Palmer and Don Gallegos of the Brotherhood of Locomotive Engineers and Trainmen said they were "not good enough" at the July 19th Interim Committee meeting in Hobbs, NM.

Public Citizen has written about the danger and lack of oversight of transported radioactive material (some high-level and some low-level) going missing. *See,* http://www.texasvox.org/file-things-never-go-missing-category/.

Holtec's application says:

> Over the course of the operational life of the CIS Facility, Holtec would receive up to 100,000 MTUs of spent nuclear fuel (SNF) in approximately 10,000 canisters from decommissioned and operating reactor sites. (Holtec Pg 198).

From Holtec's application:

> Two railroads service the area. One railroad company operates to the west of the site and the other to the east. Southwestern Railroad operates the Burlington Northern-Santa Fe (BNSF) Carlsbad Subdivision (Carlsbad to Clovis, New Mexico, plus industrial spurs serving potash mines east of Carlsbad and east of Loving, New Mexico) under a lease agreement The Carlsbad spur ends at the Intrepid Mining LLC North facility, which is 3.8 miles due west of the Site (ELEA 2007, Section 2.7.7.2). As discussed in Section 4.9 of this ER, a spur from this railroad would be constructed to serve the Site.

(Holtec Pg 157).

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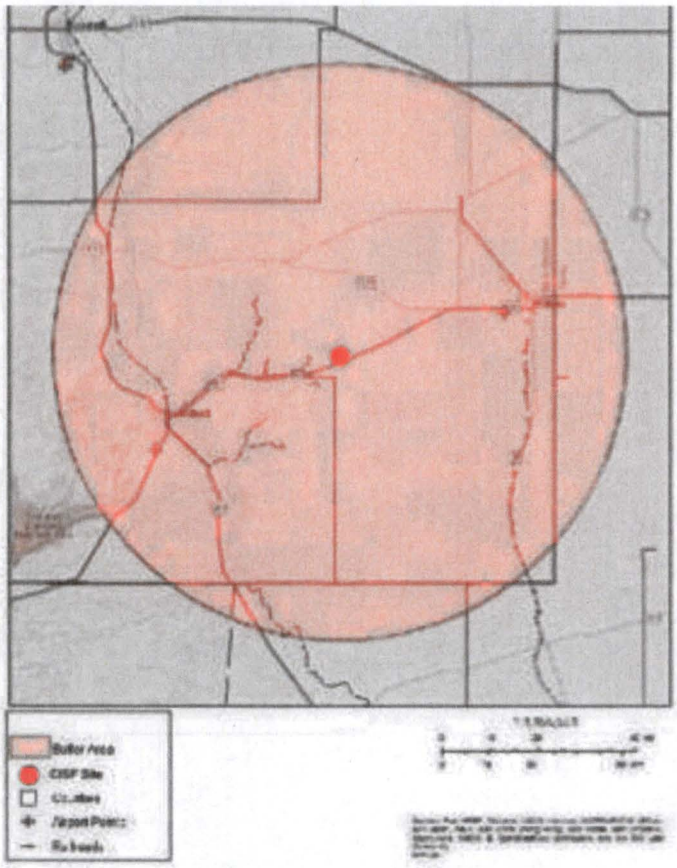
[4] From documents filed with NRC by Holtec - https://www.nrc.gov/docs/ML1623/ML16238A215.pdf



East of the Site, the Texas-New Mexico Railroad (TNMR) operates 104 miles of track near the Texas-New Mexico border from a Union Pacific connection at Monahans, Texas to Lovington, New Mexico. The railroad serves the oil fields of West Texas and Southeast New Mexico. The primary commodities hauled are oilfield chemicals and minerals, construction aggregates, industrial waste, and scrap (ELEA 2007, Section 2.7.7.2). Approximately 400 railroad cars per year travel on this rail (IIFP 2009, Section 3.2.1

Please evaluate the safety of the proposed transportation plan for this site based on the facts that there have been at least ten accidents on the railroads in New Mexico and Texas in the last three years, including a derailment near Roswell, NM and a train and truck collision in downtown Carlsbad, NM. Here are some references to those recent accidents.

- A Southwestern Railroad engineer was killed and a second crew member was seriously was injured when their train struck a train parked on a siding 10 miles southeast of Roswell on April 28, 2015.[5]
- On September 8, 2015, at 12:34 a.m. Central daylight time, westbound Union Pacific Railroad (UP) freight train AMNML-07 (striking train) collided into the side of northbound Union Pacific freight train ALDAS-06 (struck train) near Texarkana, Texas.[6]
- On Tuesday, June 28, 2016, at 8:21 a.m. central daylight time, two BNSF Railway (BNSF) trains collided at milepost 525.4 on the BNSF's Panhandle Subdivision. [7]
- On September 22, 2017, at 11:06 a.m. central daylight time, Union Pacific Railroad (UP) train (Y-GW51R-22) derailed in the UP Great Southwestern Yard in Arlington, Texas. [8]
- January 30th 2017 train derailment on I-10 near Van Horn, Texas. [9]
    - The train derailed off a railway that runs along Interstate 10 West in Luna County,

      New Mexico around noon May 30, 2017. [10]
    - May 1 2018 three cars derail near Odessa, Texas. [11]
    - July 18th, 2018 – a semi and a train collide near Carlsbad, NM.[12]
    - There were two rail derailments over one weekend, July 21 and 22, 2018, along the Clovis - Carlsbad stretch of track. [13]

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[5] One Killed, One Injured in New Mexico Head-on Train Accident, CBS News - https://www.cbsnews.com/news/1-killed-1-injured-in-new-mexico-head-on-train-accident/

[6] NTSB Railroad Accident Brief: Collision of Two Union Pacific Railroad Freight Trains, Texarkana, Texas - https://www.ntsb.gov/investigations/AccidentReports/Pages/RAB1708.aspx

[7] NTSB Collision of BNSF Eastbound Train S-LACLPC1- 26K and BNSF Westbound Train Q-CHISBD6-27L, Panhandle, Texas - https://www.ntsb.gov/investigations/AccidentReports/Reports/DCA16FR008-PreliminaryReport.pdf

[8] CBS News DFW - Union Pacific Worker Killed By Train In Arlington - https://dfw.cbslocal.com/2017/09/22/union-pacific-worker-killed-train/

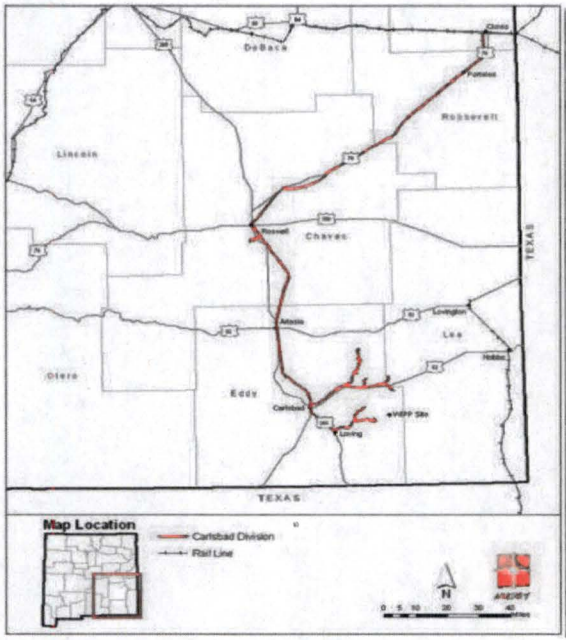
[9] KTSM.com - Train derails 40 miles east of Van Horn, TX - https://www.ktsm.com/news/local/el-paso-news/train-derails-about-40-miles-east-of-van-horn/647121099

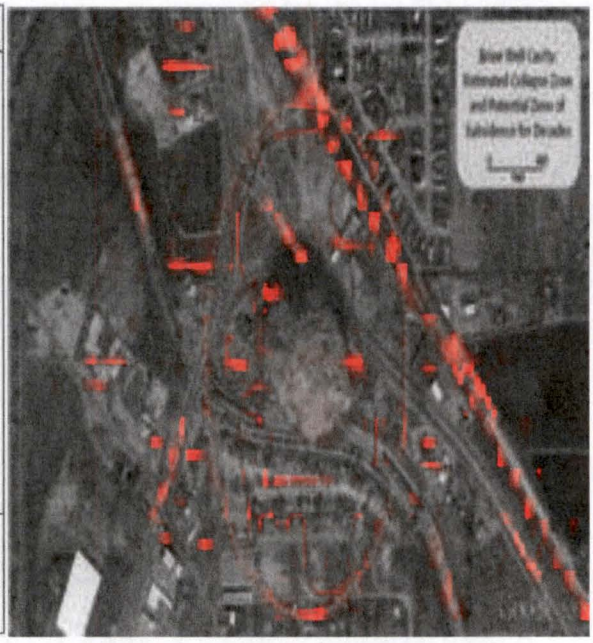
[10] Fox News -Cleanup underway for May's train derailment in Luna County, officials say - https://kfoxtv.com/news/local/diesel-fuel-spills-after-train-derails-in-luna-county-new-mexico

[11] Odessa Advocate - Train cars carrying sand derail in Odessa - https://www.oaoa.com/news/local/article_557a696c-4d91-11e8-8d96-8311b700b247.html

[12] Carlbad Current - Train, semi collide at the intersection of Brantley and U.S. Highway 285 - https://www.currentargus.com/story/news/local/2018/07/18/train-strikes-semi-near-brantley-rd/796456002/

[13] KRQE - Two trains derail in SE New Mexico over the weekend - https://www.krqe.com/news/new-mexico/two-trains-derail-in-se-new-mexico-over-the-weekend/1317185887





http://www.kob.com/new-mexico-news/nm-senate-house-approve-funding-to-stabilize-giant-sinkhole-in-waiting/4785612/#.Ww8GwpSVXQ0.gmail

The rail lines that would carry radioactive waste would run right along the edge and potentially over a mined out section of the Carlsbad sinkhole. Overweight radioactive waste trains alongside a sinkhole create a recipe for disaster. John Heaton, Holtec's spokesman, says that this concern is unfounded because the rail lines run to the north of Carlsbad, but Holtec's application (page 157) and the above New Mexico State Rail map shows that line running along Highway 285 and then east along 62 to the Holtec site.

Cost of an Accident could be huge

According to a 1999 study by the State of Nevada Nuclear Waste Project Office done regarding Yucca Mountain, even a small radiation release from a serious accident could contaminate 42 square miles of land. Clean up costs could exceed $620 million in a rural area, in an urban area, it could cost up to $9.5 billion to raze and rebuild the most heavily contaminated square mile.[14]

[14] Transportation of Spent Nuclear Fuel and High-Level Radioactive Waste to a Repository, May 20, 1999. - http://www.state.nv.us/nucwaste/trans/trfact03.htm

In a study of a proposed consolidated interim storage site for radioactive waste proposed for Andrews County, Texas, the Commission on Environmental Quality discussed a terrorist attack on radioactive waste during transport or at the site as a significant threat.[15] The report cited a study entitled "Centralized Interim Storage of Nuclear Waste and a National Interim Storage Strategy," included this reference:

> With the presence of any potentially dangerous material, it is important to anticipate the possibility of malicious attack or theft. Due to the deliberate nature of such security threats, one cannot reasonably assign them a probability and calculate an expected cost. Because these attacks often target human lives and aim to create terror, it is important to actively safeguard against the negative consequences of such an attack. Therefore, for interim spent fuel storage, spent fuel must be secured against malicious attack and its consequences at all times. For radioactive materials such as spent fuel, security threats fall into two general categories: sabotage and theft. In the former, the intent is to damage shielding and potentially disperse radioactive material, therefore exposing the environment and population to radiation. The latter involves stealing the material for future use in a radiological dispersal device or "dirty bomb," or a potential nuclear device. In addition, each of these types of events may occur during storage, transportation, or fuel transfer. Pg 24
>
> **Transportation** The transportation of spent fuel presents unique security vulnerabilities and challenges. **Differences in risk between storage and transportation are due to a reduced number of security personnel guarding transport, fewer engineered barriers during transport, and potential proximity of transportation routes to population centers. Each of these factors make spent fuel in transit a more appealing and accessible target to attackers, thus increasing risk. Pg 26.** [16]

High level radioactive waste could be shipped through major urban areas with high value terrorist targets such as the petrochemical and refinery clusters around the Port of Houston and Corpus Christi. These wastes could also come through San Antonio, with its cluster of five military bases including one that houses the Strategic Air Command. A train car filled with radioactive material and passing near to these facilities could be an attractive target for terrorists A new generation of armor piercing weapons, cyber warfare technologies, robotic weapons and drones have been developed since 9/11 [17] and more than half of the small arms were left left behind in hostile territories in the middle east making them easily obtained by

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[15] TCEQ 'Assessment of Texas' High Level Radioactive Waste Storage Options' - https://www.documentcloud.org/documents/1100389-tceq-assessment-of-texas-high-level-radioactive.html

- [16]**Petroski, Robert, "Centralized Interim Storage of Nuclear Waste and a National Interim Storage Strategy," Journal of Engineering and Public Policy, vol. 9, (2005)** - http://www.wise-intern.org/journal/2005/petroski.pdf

[17] **https://www.military.com/defensetech/2011/09/09/the-u-s-post-911-weapons-tech**

terrorists.[18] The NRC has not updated its studies on risk of terrorist attack since 9/11 and should do so.

How will the security force be trained and what are their qualifications?

- The Holtec application says the operation of the CIS Facility would require an ongoing estimated work force of less than 40 personnel and less than 15 security Personnel (Holtec Pg 238)

- The application says the mean annual salary for security guards is $29,880 (BLS 2016b). Or $14.31per hour (Holtec pg 195)

Using simple math: this means as few as 4 guards per shift:

- 2,087 work hours per year (DOL/opm) /8760/15 = 4 guards per shift

- This salary will not be competitive in SE new Mexico and may lead to underqualified, unfit and inexperienced security personnel.

What are the security force requirements?

- Would they actively patrol and how often or just sit at gate or on monitors?

- Would they be required to pass annual physicals and endurance tests in 100 degree heat?

Cask safety tests

Most of the tests on canister safety were done prior to 9/11. Many of the tests were simulations that set artificial limits. For example: one test assumed a canister on a train running into an immovable object at 60 MPH would be unharmed- yet in a recent accident in West Texas two trains collided in a head on collision at 65 mph in West Texas, resulting in damage to both trains and three fatalities. [19]

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[18]**https://www.nytimes.com/2016/08/23/magazine/how-many-guns-did-the-us-lose-track-of-in-iraq-and-afghanistan-hundreds-of-thousands.html**

[19] NTSB Collision of BNSF Eastbound Train S-LACLPC1- 26K and BNSF Westbound Train Q-CHISBD6-27L, Panhandle, Texas - https://www.ntsb.gov/investigations/AccidentReports/Reports/DCA16FR008-PreliminaryReport.pdf

The resultant fire burned for more than 12 hours (AP 8:56pm 6/28/16). The diesel fuel carried by the trains was still smoldering the next morning. (Mariah Medina, San Antonio Express-News Wednesday, June 29, 2016).

The 30 minute heat exposure tests were also flawed, according to Scott Palmer, chairman of the Oregon State legislative board of the Brotherhood of Locomotive Engineers and Trainmen. Palmer testified at the July 19, 2018 New Mexico Radioactive and Hazardous Waste Committee hearing that although fire suppression equipment is available, rail accidents often occur hours away from that equipment.[20]

The application fails to provide a method for repackaging leaking canisters

The irradiated fuel rods would be contained in thin steel canisters later surrounded by concrete These canisters aren't designed for permanent storage. Metal fatigue, stress cracks or accidents could lead to radioactive leaks. The application does not propose or show any facilities for fixing or repackage a leaking container.

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[20] Presentation provided to committee at July 19, 2018 hearing - https://www.nmlegis.gov/handouts/RHMC%20071918%20Item%202%20SNF%20Transportation%20Safety%20and%20Security%20Concerns.pdf

If Holtec consolidated interim storage facility is licensed, this dangerous waste will likely stay forever, at a site never designed for long-term disposal. The federal government has failed for decades to develop an underground permanent repository for this dangerous radioactive waste. We believe that waste stored at the Holtec site may never be removed.A new generation of armor piercing weapons, cyber warfare technologies and drones have been developed since 9/11 [21] and many were left left behind in hostile territories in the middle east making them easily obtained by terrorists.[22]

What happens if the canisters crack or leak or are stored beyond their expected lifespan – how will they be monitored or repackaged? Why is there no plan to deal with a leaking canister in the permit? Why is it reasonable to assume that there will be no cracks or leaks in any of 10,000 shipments?

Once cracks in a canister start, they can grow through the wall in 16 years (NRC). The Holtec President admits that its canisters are not feasible to repair, even if the cracks were found. He said even a microscopic through-wall crack will release millions of curies of radionuclides into the environment.

Water incursion

Radioactive waste needs to stay isolated and dry for a million years. The Holtec proposal would place the material near two playa lakes. Holtec acknowledges that the near surface water table appears to be 35-50 feet deep, where present, and is likely controlled by the water level in the playa lakes. (Holtec pg 179) Given the location of the proposed site relative to the playa lakes and the presence of groundwater at 35' to 50' below the surface, isn't it probable that water will leak into the site?

"The way it's built is they excavate down 30 feet and then they put a 3 foot layer of reinforced concrete on the bottom of the excavation.," Heaton said.[23]

Another 3-foot layer of reinforced concrete is added near the top of the silo so it is resistant to airplane crashes and rockets. **The applications does not contain an adequate plan to is there not an adequate plan for remove the water from a canister?**

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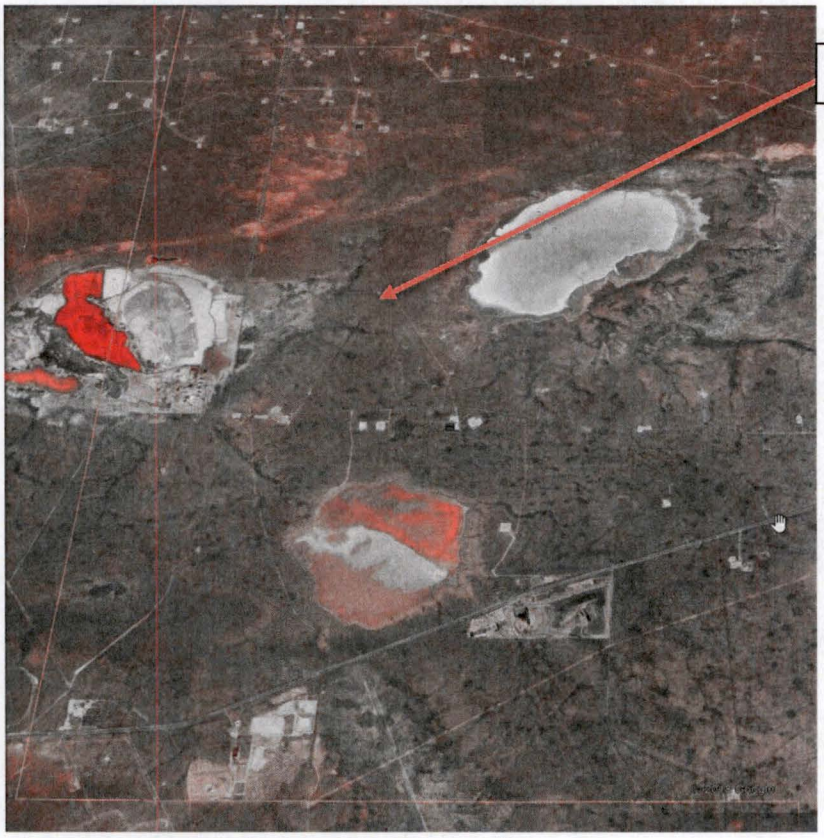
21 https://www.military.com/defensetech/2011/09/09/the-u-s-post-911-weapons-tech

22 https://www.nytimes.com/2016/08/23/magazine/how-many-guns-did-the-us-lose-track-of-in-iraq-and-afghanistan-hundreds-of-thousands.html

23 **Holtec's site for used nuclear fuel could benefit oil, gas industry** By Kathy Helms, July 28, 2018 Special correspondent cibola@gallupindependent.com



If there are no drains in Holtec's canisters how will water be removed? Shouldn't the plans include a drainage system? At recent legislative hearings the possibility of using the waste heat at the storage site to purify brackish water was been raised.

"Assuming the Holtec site is licensed, thought already has been given to using heat that comes off the storage casks to boil produced water from fracking operations, purify it, and either pipe it to nearby cities for their use, or reuse it in the oil field, Heaton said."It would be a major, major change in how water is used in our part of the world. It's a concept that we've talked about for some time," he said, and Holtec has a patented process just waiting to be integrated." [24]

How can that be done in ways that won't increase the risk that the waste will be exposed to water and imperil the waste?

What happens if there is a leak at the site? Most existing low-level radioactive waste sites have leaked, with remediation costs running into the billions of dollars. Congress has often

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[24] **Holtec's site for used nuclear fuel could benefit oil, gas industry** By Kathy Helms, July 28, 2018 Special correspondent cibola@gallupindependent.com

failed to appropriate enough money to clean them up. What would happen to New Mexico if the federal government never approves a final site and never removes this waste, or won't adequately fund a cleanup?

Broken federal promises to clean up leaking radioactive sites bode ill for this site

The following sites have had serious radiation leaks:

- **The Paducah Gaseous Diffusion Plant** (PGDP) site in Kentucky listed as a Superfund site on the National Priorities List (NPL) in 1994.[25]
- **The Hanford Nuclear Reservation** in Washington State is today America's most contaminated nuclear site.[26]
- **The Waste Isolation Pilot Plant** (WIPP) had a leak after 15 years of operation that took 3 years and $500 million to clean up.[27]
- **The Pantex Plant** is the primary United States nuclear weapons assembly and disassembly facility. Since 2000, $171 million in compensation and medical bills has been disbursed to more than 1,300 workers and families since the energy employees' compensation program began.[28]
- **Fernald uranium production facility** is the site of one of the largest environmental cleanup operations undertaken in U.S. history. It was added to the U.S. EPA's National Priorities List of Superfund Sites most in need of cleanup in 1989. The cleanup was completed after 28 years and cost $4.4 billion.[29]
- **Savannah River** Site (SRS) produced tritium, plutonium and other special nuclear materials for national defense and the space program. Past disposal practices caused site contamination. Cleanup efforts have been underway since the 1980s. Site cleanup completion is currently scheduled for 2065.[30]
- **Beatty** was the nation's first federally licensed low-level radioactive waste dump. It opened in 1962 and closed in 1992. In October of 2015, that site caught fire. The commercial operator of the closed radioactive waste dump was troubled over the

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[25] https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0404794

[26] http://strangesounds.org/2014/04/what-if-a-quake-strikes-hanford-nuclear-site-is-defenseless-against-earthquakes.html

[27] http://www.forbes.com/sites/jamesconca/2017/01/10/wipp-nuclear-waste-repository-reopens-for-business/#2e0681234b5c

[28] http://www.star-telegram.com/news/state/texas/article49500030.html

[29] http://www.fluor.com/projects/fernald-environmental-remediation

[30] https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0403485

years by leaky shipments and oversight so lax that employees took contaminated tools and building materials home, according to state and federal records.[31]

- **West Valley Demonstration Project** is a nuclear waste remediation project focusing on the cleanup and containment of radioactive waste left behind after the abandonment of a commercial nuclear fuel reprocessing plant in 1980. Despite over 30 years of cleanup efforts and billions of dollars having been spent at the site, the property has been described as New York's most toxic location in 2013.[32i]

Impact on local employment

Holtec says the total employment impact would include 80 construction workers, 40 professional staffers and 15 security guards for a total of 135 workers, 55 of them permanent--just a 0.2 percent increase to regional employment (Holtec sec 4.8.2).

Eddy and Lea Counties are the two richest oil and gas producing counties in the country. The industry employs over 8,600 people. An accident at the Holtec site could jeopardize those existing jobs.

The New Mexico dairy industry's total economic impact exceeds $5 billion annually, second only to oil and gas revenues in state economic impact. The dairy industry employs nearly 6,000 people and generates over 17,000 related jobs. A radioactive release could destroy an entire local industry due to widespread consumer distrust over the safety of the local food stocks.

Local cattlemen and pecan farmers also expressed concerns at the July 19th interim legislative committee hearing about the impact of this waste on their industry and property values if their products were considered tainted.

Why risk existing jobs for 55 jobs at the proposed waste dump? Is all this risk worth it for a 0.2% increase in employment, especially considering risks to tens of thousands of existing jobs?

Environmental Justice Concerns

The proposed site and the transport routes in New Mexico are located in predominantly low income communities of color--environmental justice communities. Holtect has not acted

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[31] https://www.theguardian.com/us-news/2015/oct/25/radioactive-waste-dump-fire-reveals-nevada-troubled-past

[32] https://en.wikipedia.org/wiki/West_Valley_Demonstration_Project

sufficiently to address or even document the disproportionate effect that this project would have on these vulnerable populations. Furthermore, the public engagement process has been discriminatory toward certain communities, particularly the non-English speaking population. Notices were not provided in Spanish or other languages, predominantly spoken around meeting locations. Nor were the meetings translated. Various federal laws and executive orders require the NRC to document the potential effects of this project on environmental justice communities and seek to limit the impact of a proposed site on these communities .

Public Citizen used the EPA Environmental Justice screening tool EJSCREEN to conduct an analysis of all rail transport routes proposed for this project. (See attachments.) The following routes were considered:

- BNSF from the state line to Vaughn; rail line from Raton to Belen; Southern line from Clovis to Carlsbad; and UP line from Gallup to Clovis. Within a ½ mile buffer of each of these lines, we found the following populations.[33]

- BNSF from the state line to Vaughn: 10,629 people; 62% minority; per capita income $17,854; 39% do not speak English at home; 26% with no high school diploma.

- Rail line from Raton to Belen: 66,058 people; 74% minority; per capita income $21,690; 46% do not speak English at home; 20% with no high school diploma.

- Southern line from Clovis to Carlsbad: 29,919 people; 61% minority; per capita income $22,027; 37% do not speak English at home; 23% with no high school diploma.

- UP line from Gallup to Clovis: 26,295 people; 74%% minority; per capita income $16,565; 36% do not speak English at home; 23% with no high school diploma.

Public was excluded from government tour and project opponents cut off/pushed to end of a public meeting

Wednesday, May 2, 2018, concerned members of the New Mexico communities, including local Hobbs residents, attempted to attend a government site tour to the proposed high-level nuclear waste dump in New Mexico. The Nuclear Regulatory Commission (NRC), Holtec International, and the Eddy-Lea Energy Alliance (ELEA) held a closed meeting without informing or inviting the public, violating its own Public Participation Policy. NRC claims they abide by their "longstanding practice of providing the public with substantial information on its activities

[33] See attachments. Data from the American Community Survey via EPA EJSCREEN.

and of conducting business in an open manner." (Source: Enhancing Public Participation in NRC Meetings; Policy Statement.) NRC's 10-day advance-notification policy, which involves posting a notice of a meeting between a license applicant and the NRC, was not observed for the site tour. In addition, even with the provisions to give fewer than 10 days if the 10-day rule cannot be observed, nothing was posted on NRC's website. They also failed to cite any reason for not including the public, such as trade secrets or exchange of proprietary information.

Lorraine Villegas, Hobbs resident and member of the Alliance for Environmental Strategies, said, "They want us to step up and take the nation's waste, but we don't even deserve to participate in the tour of where this waste is going to be? I'm confused. The NRC is a federal agency, a public body, and the public should have been included, not just ELEA salesmen. Also note that the green notice sign says FUTURE site, not potential, like it's already a done deal."

Susan Schuurman of the Nuclear Issues Study Group said, "We came to participate in this site visit to learn more about the proposed dump. It was a surprise when law enforcement prevented us from entering the site and hearing what was being said. If this project is as safe and transparent as they claim, what do they have to hide?"

Eddy and Lea County Sheriff's officers informed the group that they were directed by tour organizers to keep the community members from attending the site tour, keeping them to the county road alongside the Holtec site.

Cody Slama, a University of New Mexico student, reported, "The Nuclear Regulatory Commission disgraced themselves today as government officials because they failed to serve the public. As concerned citizens started to show up to tour the site, we were ignored by our government officials and separated from them by Eddy and Lea County Sheriff deputies. We wanted to be a part of the tour, so we yelled from the county road, 'We want to join you!' Multiple concerned citizens attempted to get their attention, and every single time we were ignored. The people representing the NRC showed me one thing: they are completely capable of ignoring those who will be most impacted by the decisions that they make."

In addition to being excluded from the site visit, the final scheduled NRC Public Scoping meeting in Carlsbad, held on May 3, 2018 gave opponents of Holtec's waste site less time to speak than proponents. In addition, the order of speakers was not consistent with when speakers arrived or signed up to speak. The NRC facilitator, Francis "Chip" Cameron, called on elected officials first, many of whom are proponents of the project representing the Eddy-Lea Energy Alliance, as well as a Holtec staffer. Most of those who attended and who spoke at all five meetings opposed the site.

At the tail end of the meeting were a string of speakers from the public who all opposed the Holtec project in their statements. The facilitator told those who remained to make their comments shorter than previous speakers, and cut off Artesia resident Noel Marquez from finishing his prepared statement at a fraction of the time given to previous speakers.

Marquez started his statement in Spanish and continued in English, "It's no wonder our communities hesitate to come to these badly designed meetings over two hours long and limited to a very short statement on such an extremely important issue, all while our lives are at stake." After Marquez was abruptly cut off, and audience members demanded the facilitator give Marquez one more minute to be allowed equal time as earlier supporters of the waste dump were given.

Conclusion

New Mexicans have been burdened with more than their fair share of the nation's radioactive poisons.[34] Why should they become the pay toilet for risky waste they did not produce? This long-lived and dangerous waste could threaten existing jobs and risk human health today and for generations to come. If this waste is so safe in these containers why do the people who live near this waste want it gone?

Some reactors are located in precarious locations near the ocean, rivers, or fault lines where tjis waste clearly should not be stored. Material from these reactors could be moved to the nearest safe reactor site. This would be preferable to long distance transport and reduce the risk from transportation. This interim storage strategy--rather than a new centralized site--will assure that the long-standing policy of finding a permanent repository for this waste is fulfilled. Shipping material to a site where it will be out of site and out of mind to most people in the country and will likely result in the material remaining forever in an inadequate site never designed for nor evaluated for permanent use unless the NRC acts and requires a revision of this application as a long-term site.

Almost two hundred people have spoken in opposition to this proposal and raised many significant issues that were not addressed or inadequately in the application. Over 5,000 comments in opposition to this site have been filed. The people of New Mexico and their elected officials have spoken. It is up to the NRC now to reject this application as inadequate.

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[34] Albuquerque Journal - Nuclear Waste Plan is Too Dangerous for New Mexico - https://www.abqjournal.com/1169517/plan-is-too-dangerous-for-nm.html

Public Citizen and SEED appreciate the opportunity to deliver these comments. If you wish to discuss them further, we can be reached at Smitty@citizen.org , Ashelley@citizen.org, or Karendhadden@gmail.com

Respectfully Submitted,

Tom "Smitty" Smith
Director Of Special Projects
Public Citizen

Adrian Shelley
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Director of the Sustainable Energy and Economic Development (SEED) Coalition

EJSCREEN ACS Summary Report

Location: User-specified linear location
Ring (buffer): 0.5-mile radius
Description: UP Gallup to Clovis

Summary of ACS Estimates	2011 - 2015
Population	26,295
Population Density (per sq. mile)	321
Minority Population	19,563
% Minority	74%
Households	8,412
Housing Units	9,998
Housing Units Built Before 1950	1,691
Per Capita Income	16,565
Land Area (sq. miles) (Source: SF1)	81.85
% Land Area	100%
Water Area (sq. miles) (Source: SF1)	0.12
% Water Area	0%

	2011 - 2015 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	26,295	100%	759
Population Reporting One Race	25,096	95%	2,413
White	14,266	54%	683
Black	872	3%	209
American Indian	5,422	21%	664
Asian	366	1%	157
Pacific Islander	12	0%	16
Some Other Race	4,160	16%	684
Population Reporting Two or More Races	1,198	5%	259
Total Hispanic Population	13,045	50%	674
Total Non-Hispanic Population	13,250		
White Alone	6,732	26%	495
Black Alone	772	3%	196
American Indian Alone	4,939	19%	663
Non-Hispanic Asian Alone	342	1%	152
Pacific Islander Alone	8	0%	16
Other Race Alone	13	0%	21
Two or More Races Alone	444	2%	257
Population by Sex			
Male	12,937	49%	429
Female	13,357	51%	527
Population by Age			
Age 0-4	2,652	10%	240
Age 0-17	8,394	32%	429
Age 18+	17,900	68%	496
Age 65+	3,076	12%	225

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.
Source: U.S. Census Bureau, American Community Survey (ACS) 2011 - 2015.

EJSCREEN ACS Summary Report

Location: User-specified linear location
Ring (buffer): 0.5-mile radius
Description: UP Gallup to Clovis

	2011 - 2015 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	14,877	100%	438
Less than 9th Grade	1,239	8%	210
9th - 12th Grade, No Diploma	2,161	15%	185
High School Graduate	4,582	31%	314
Some College, No Degree	4,744	32%	291
Associate Degree	1,073	7%	166
Bachelor's Degree or more	2,151	14%	292
Population Age 5+ Years by Ability to Speak English			
Total	23,643	100%	708
Speak only English	15,221	64%	599
Non-English at Home[1+2+3+4]	8,422	36%	476
[1]Speak English "very well"	6,132	26%	465
[2]Speak English "well"	941	4%	227
[3]Speak English "not well"	742	3%	192
[4]Speak English "not at all"	607	3%	254
[3+4]Speak English "less than well"	1,349	6%	318
[2+3+4]Speak English "less than very well"	2,290	10%	338
Linguistically Isolated Households*			
Total	591	100%	106
Speak Spanish	441	75%	100
Speak Other Indo-European Languages	27	5%	42
Speak Asian-Pacific Island Languages	9	2%	45
Speak Other Languages	114	19%	65
Households by Household Income			
Household Income Base	8,412	100%	235
< $15,000	1,989	24%	175
$15,000 - $25,000	1,263	15%	128
$25,000 - $50,000	2,531	30%	209
$50,000 - $75,000	1,344	16%	172
$75,000 +	1,284	15%	171
Occupied Housing Units by Tenure			
Total	8,412	100%	235
Owner Occupied	4,736	56%	181
Renter Occupied	3,676	44%	171
Employed Population Age 16+ Years			
Total	18,720	100%	501
In Labor Force	10,683	57%	406
Civilian Unemployed in Labor Force	1,400	7%	190
Not In Labor Force	8,037	43%	354

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2011 - 2015.

*Households in which no one 14 and over speaks English "very well" or speaks English only.

EJSCREEN ACS Summary Report

Location: User-specified linear location
Ring (buffer): 0.5-mile radius
Description: UP Gallup to Clovis

	2011 - 2015 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	23,643	100%	708
English	15,221	64%	655
Spanish	5,829	25%	538
French	31	0%	42
French Creole	0	0%	16
Italian	1	0%	16
Portuguese	0	0%	16
German	52	0%	65
Yiddish	0	0%	16
Other West Germanic	0	0%	16
Scandinavian	0	0%	16
Greek	0	0%	16
Russian	12	0%	24
Polish	0	0%	16
Serbo-Croatian	0	0%	16
Other Slavic	0	0%	16
Armenian	0	0%	16
Persian	0	0%	16
Gujarathi	0	0%	16
Hindi	0	0%	16
Urdu	12	0%	26
Other Indic	44	0%	71
Other Indo-European	9	0%	28
Chinese	42	0%	50
Japanese	5	0%	20
Korean	18	0%	36
Mon-Khmer, Cambodian	10	0%	45
Hmong	0	0%	16
Thai	36	0%	68
Laotian	0	0%	16
Vietnamese	13	0%	45
Other Asian	0	0%	16
Tagalog	52	0%	80
Other Pacific Island	5	0%	16
Navajo	1,962	8%	438
Other Native American	240	1%	211
Hungarian	7	0%	57
Arabic	43	0%	79
Hebrew	0	0%	16
African	0	0%	16
Other and non-specified	0	0%	16
Total Non-English	8,422	36%	965

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2011 - 2015.
*Population by Language Spoken at Home is available at the census tract summary level and up.

EJSCREEN Report (Version 2017)

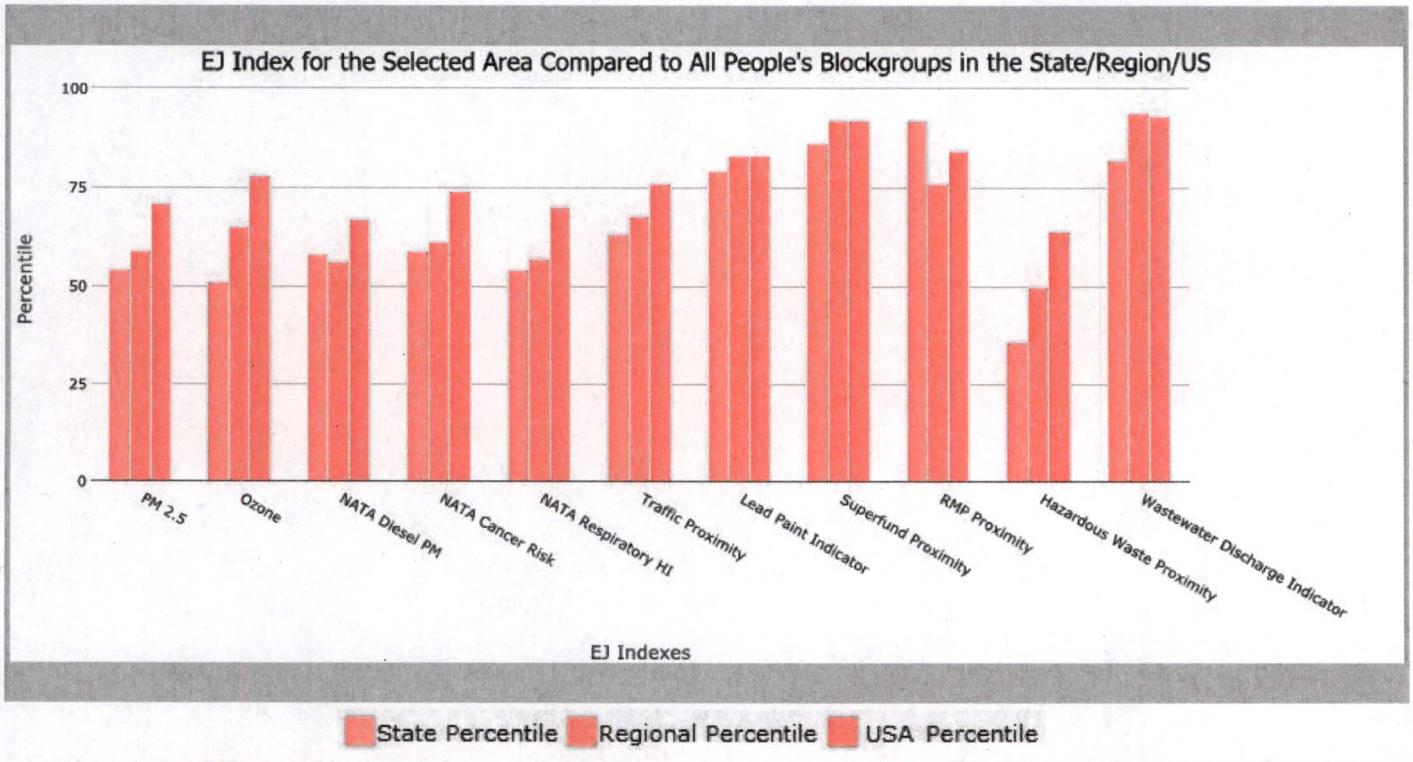
0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 29,919

Input Area (sq. miles): 183.22

Southern Clovis to Carlsbad

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	54	59	71
EJ Index for Ozone	51	65	78
EJ Index for NATA* Diesel PM	58	56	67
EJ Index for NATA* Air Toxics Cancer Risk	59	61	74
EJ Index for NATA* Respiratory Hazard Index	54	57	70
EJ Index for Traffic Proximity and Volume	63	68	76
EJ Index for Lead Paint Indicator	79	83	83
EJ Index for Superfund Proximity	86	92	92
EJ Index for RMP Proximity	92	76	84
EJ Index for Hazardous Waste Proximity	36	50	64
EJ Index for Wastewater Discharge Indicator	82	94	93



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

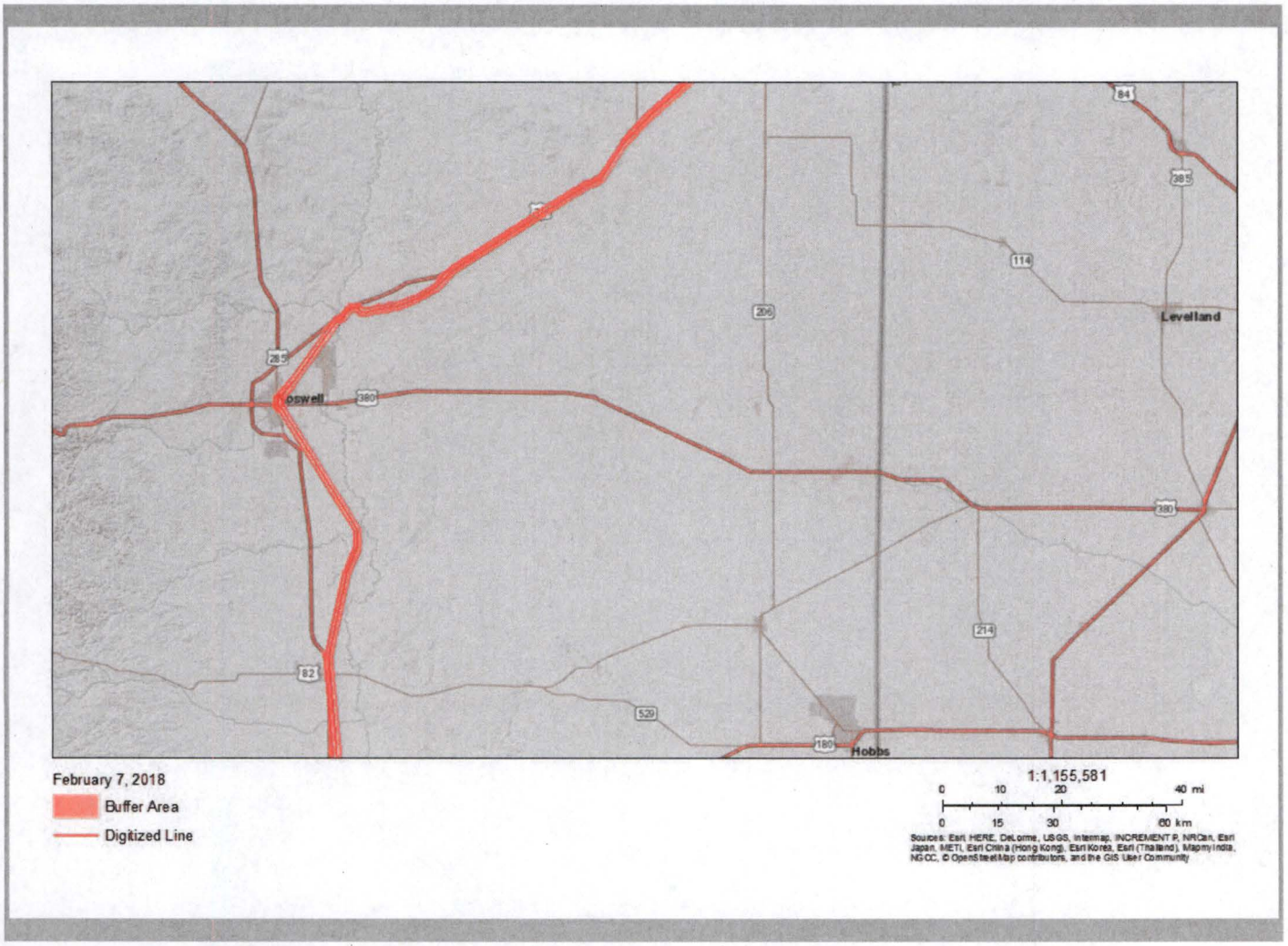
EJSCREEN Report (Version 2017)

0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 29,919

Input Area (sq. miles): 183.22

Southern Clovis to Carlsbad



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2017)

0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 29,919

Input Area (sq. miles): 183.22

Southern Clovis to Carlsbad

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	6.45	6.35	43	9.15	2	9.14	6
Ozone (ppb)	44.9	47.4	9	40.2	91	38.4	92
NATA* Diesel PM (µg/m^3)	0.305	0.473	44	0.721	<50th	0.938	<50th
NATA* Cancer Risk (lifetime risk per million)	38	32	72	42	<50th	40	<50th
NATA* Respiratory Hazard Index	1.2	1.4	48	1.8	<50th	1.8	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	130	290	55	320	57	590	54
Lead Paint Indicator (% Pre-1960 Housing)	0.38	0.19	82	0.18	83	0.29	67
Superfund Proximity (site count/km distance)	0.33	0.14	91	0.078	96	0.13	92
RMP Proximity (facility count/km distance)	0.83	0.24	93	0.8	69	0.73	72
Hazardous Waste Proximity (facility count/km distance)	0.011	0.13	18	0.083	11	0.093	7
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.026	2.1	74	0.37	90	30	85
Demographic Indicators							
Demographic Index	56%	52%	58	45%	67	36%	78
Minority Population	61%	61%	49	50%	61	38%	74
Low Income Population	51%	43%	63	39%	70	34%	77
Linguistically Isolated Population	7%	5%	70	6%	71	5%	78
Population With Less Than High School Education	24%	16%	73	17%	72	13%	82
Population Under 5 years of age	8%	7%	70	7%	65	6%	74
Population over 64 years of age	12%	15%	42	12%	54	14%	45

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN Report (Version 2017)

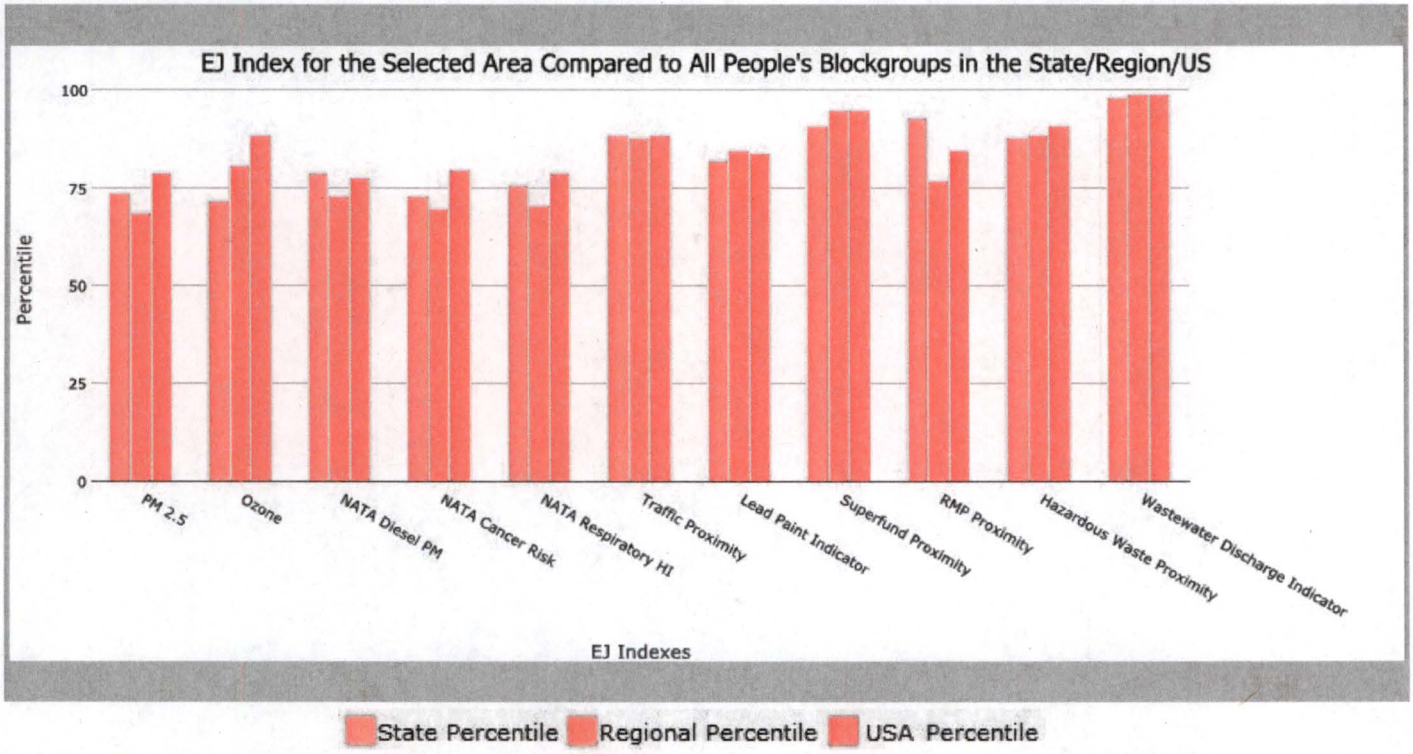
0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 66,058

Input Area (sq. miles): 272.66

Rail line Raton to Belen

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	74	69	79
EJ Index for Ozone	72	81	89
EJ Index for NATA* Diesel PM	79	73	78
EJ Index for NATA* Air Toxics Cancer Risk	73	70	80
EJ Index for NATA* Respiratory Hazard Index	76	71	79
EJ Index for Traffic Proximity and Volume	89	88	89
EJ Index for Lead Paint Indicator	82	85	84
EJ Index for Superfund Proximity	91	95	95
EJ Index for RMP Proximity	93	77	85
EJ Index for Hazardous Waste Proximity	88	89	91
EJ Index for Wastewater Discharge Indicator	98	99	99



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

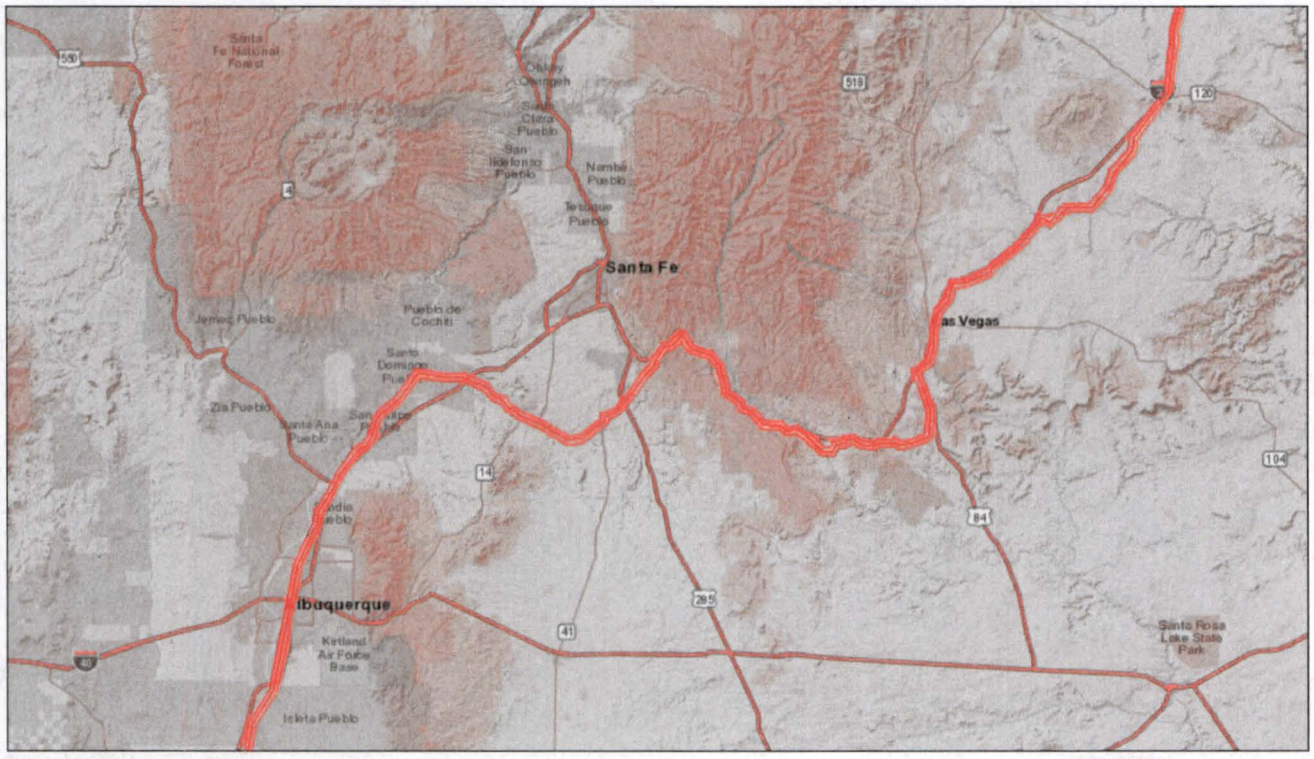
EJSCREEN Report (Version 2017)

0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 66,058

Input Area (sq. miles): 272.66

Rail line Raton to Belen



Sites reporting to EPA	
Superfund NPL	3
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

EJSCREEN Report (Version 2017)

0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 66,058

Input Area (sq. miles): 272.66

Rail line Raton to Belen

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	6.44	6.35	43	9.15	2	9.14	6
Ozone (ppb)	48.1	47.4	46	40.2	97	38.4	97
NATA* Diesel PM (µg/m³)	0.677	0.473	74	0.721	50-60th	0.938	<50th
NATA* Cancer Risk (lifetime risk per million)	33	32	51	42	<50th	40	<50th
NATA* Respiratory Hazard Index	1.5	1.4	64	1.8	<50th	1.8	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	770	290	89	320	89	590	84
Lead Paint Indicator (% Pre-1960 Housing)	0.3	0.19	76	0.18	79	0.29	61
Superfund Proximity (site count/km distance)	0.33	0.14	91	0.078	96	0.13	92
RMP Proximity (facility count/km distance)	0.68	0.24	90	0.8	64	0.73	67
Hazardous Waste Proximity (facility count/km distance)	0.2	0.13	84	0.083	92	0.093	90
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	6	2.1	96	0.37	99	30	97
Demographic Indicators							
Demographic Index	62%	52%	66	45%	74	36%	83
Minority Population	74%	61%	68	50%	72	38%	81
Low Income Population	51%	43%	63	39%	70	34%	77
Linguistically Isolated Population	7%	5%	71	6%	72	5%	78
Population With Less Than High School Education	21%	16%	67	17%	66	13%	77
Population Under 5 years of age	6%	7%	45	7%	38	6%	47
Population over 64 years of age	14%	15%	54	12%	66	14%	58

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN Report (Version 2017)

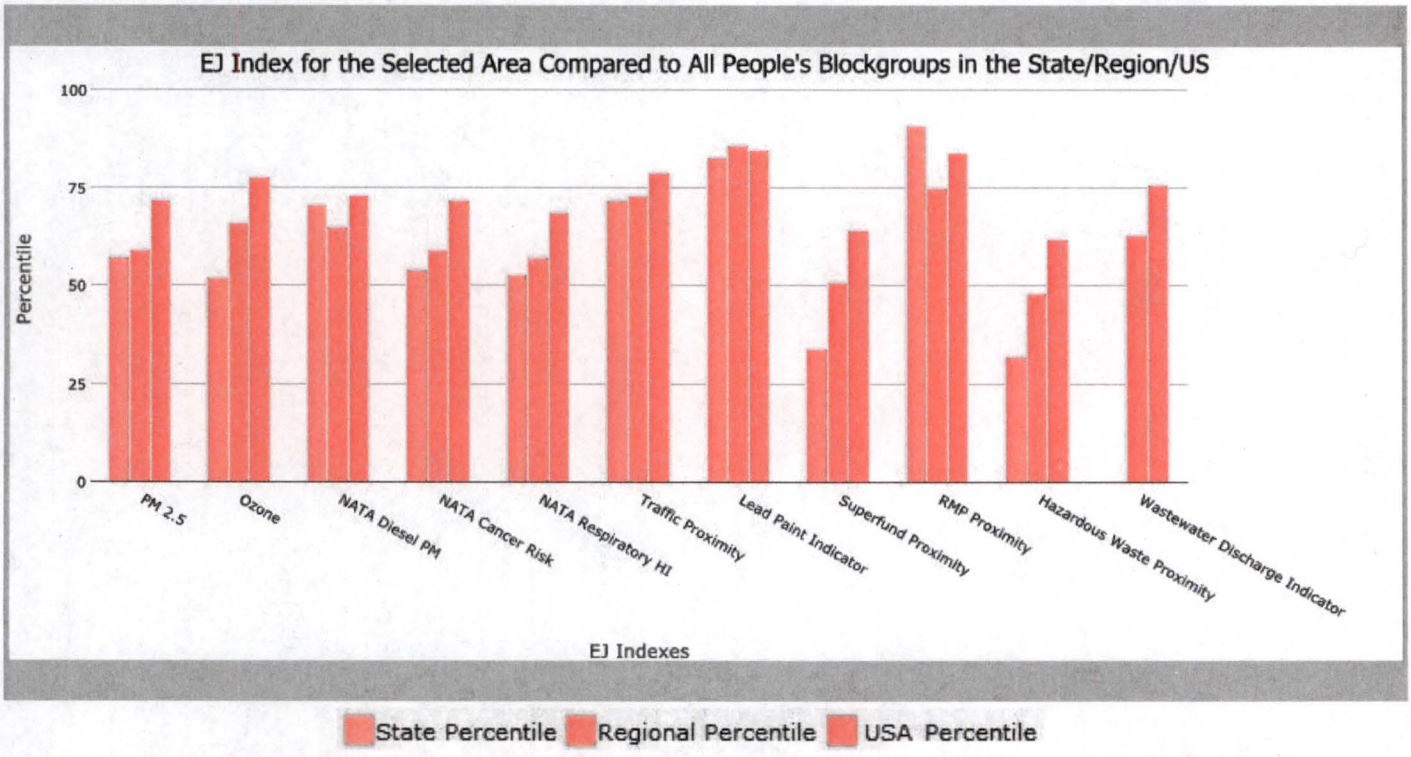
0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 10,629

Input Area (sq. miles): 140.72

BNSF State line to Vaughn

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	57	59	72
EJ Index for Ozone	52	66	78
EJ Index for NATA* Diesel PM	71	65	73
EJ Index for NATA* Air Toxics Cancer Risk	54	59	72
EJ Index for NATA* Respiratory Hazard Index	53	57	69
EJ Index for Traffic Proximity and Volume	72	73	79
EJ Index for Lead Paint Indicator	83	86	85
EJ Index for Superfund Proximity	34	51	64
EJ Index for RMP Proximity	91	75	84
EJ Index for Hazardous Waste Proximity	32	48	62
EJ Index for Wastewater Discharge Indicator	N/A	63	76



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

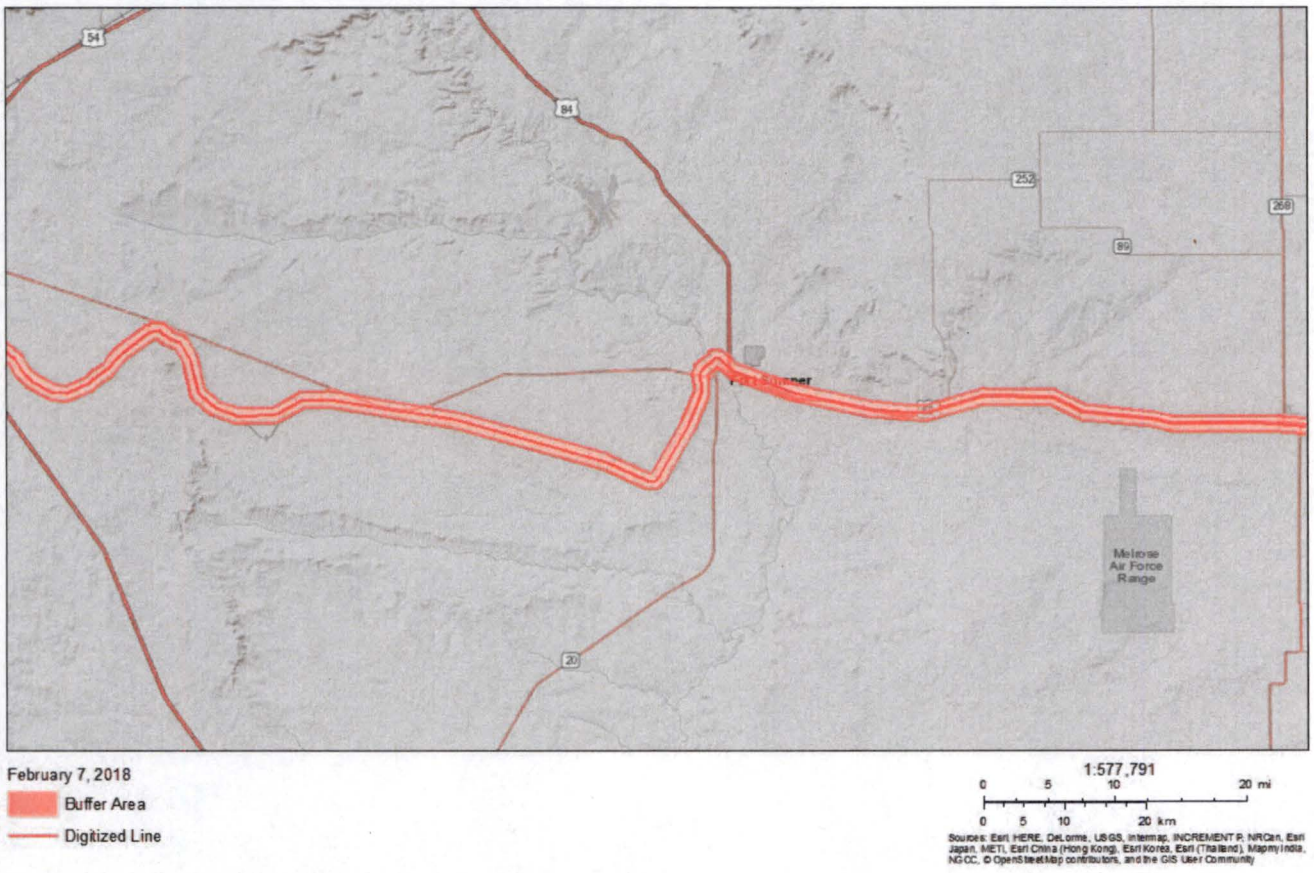
EJSCREEN Report (Version 2017)

0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 10,629

Input Area (sq. miles): 140.72

BNSF State line to Vaughn



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2017)

0.5 mile Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 10,629

Input Area (sq. miles): 140.72

BNSF State line to Vaughn

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	6.48	6.35	45	9.15	3	9.14	6
Ozone (ppb)	44.8	47.4	6	40.2	90	38.4	92
NATA* Diesel PM (µg/m^3)	0.528	0.473	63	0.721	<50th	0.938	<50th
NATA* Cancer Risk (lifetime risk per million)	29	32	33	42	<50th	40	<50th
NATA* Respiratory Hazard Index	0.87	1.4	31	1.8	<50th	1.8	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	160	290	60	320	61	590	59
Lead Paint Indicator (% Pre-1960 Housing)	0.41	0.19	83	0.18	85	0.29	69
Superfund Proximity (site count/km distance)	0.0085	0.14	3	0.078	3	0.13	2
RMP Proximity (facility count/km distance)	0.87	0.24	93	0.8	70	0.73	73
Hazardous Waste Proximity (facility count/km distance)	0.0054	0.13	2	0.083	0	0.093	1
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0	2.1	N/A	0.37	36	30	40
Demographic Indicators							
Demographic Index	60%	52%	63	45%	71	36%	81
Minority Population	62%	61%	51	50%	62	38%	75
Low Income Population	58%	43%	72	39%	77	34%	83
Linguistically Isolated Population	10%	5%	79	6%	78	5%	83
Population With Less Than High School Education	26%	16%	78	17%	76	13%	85
Population Under 5 years of age	9%	7%	72	7%	68	6%	76
Population over 64 years of age	11%	15%	38	12%	51	14%	41

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice