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I retired to Saint David because you can drink the water out of the tap and breath relatively clean air. Saint is a haven from the industrial pollution poisoning the planet.

In our industrial world we are overwhelmed with poisons and unnatural challenges 24/7. Our bodies were designed by God to live in a pristine environment, not to defend against the toxic chemicals in conventional foods, pharmaceuticals, vaccines, city water and air. Add to that electromagnetic pollution (wifi, 5g etc) and the chronic stress induced by the pace of life in the concrete jungle. Then top it off with conventional foods severely deficient in the necessary nutrients to support homeostasis in the body and compensate for chronic stress and environmental toxicity. As a naturopathic doctor I spent a career helping people eat whole healthy food and employ sometimes extreme measures to remove environmental toxins from the body.

There is a lot of push back on hydrogen chloride, so I will focus on aluminum, water and electricity..

Aluminum Dynamics / ADEQ Air Dispersion Modeling Report

Trinity Consultants: **Aluminum is not even listed in the modeled pollutant list!**

Let's put Aluminum in context and reveal why the EPA is not qualified to determine the fate of our river valley and our health.

The U.S. EPA's CompTox Chemicals Dashboard currently contains data on over 875,000 chemical compounds, including properties, bioassays, exposure, toxicity, and more -- it reflects the scale of chemicals tracked for environmental and toxicology purposes. But!

United States (TSCA context)

- **TSCA Inventory...the vast majority of chemical were "grandfathered in" without safety testing when TSCA was enacted in 1976!**
- **The EPA has formally evaluated only a tiny fraction:**
 - **Fewer than 1,000 chemicals have undergone detailed risk assessments, and the standard for risk is vastly inadequate. And, there have been no studies on the synergistic of effect of combinations of chemicals.**
 - **Only about 300–400 chemicals have had significant restrictions or bans placed on them.**
- **That means well over 80,000+ chemicals in U.S. commerce have never been comprehensively tested for long-term human health or ecological effects.**

What is Known About Aluminum

- **It's widely used in consumer products, packaging, food additives, cookware, antiperspirants, pharmaceuticals (like antacids, vaccines), and industrial applications. We are already getting far more than our daily dose of what the EPA says is "allowable."**
- **Chronic exposure: Studies link aluminum exposure to:**
 - **Neurological effects** → role in Alzheimer's disease and other neurodegenerative conditions.

- **Bone health issues** → accumulation interferes with calcium metabolism.
- **Kidney toxicity** → especially in dialysis patients, since they can't excrete it efficiently.
- **Respiratory issues** → inhalation of aluminum dust/fumes (in factories, smelters) is linked to pulmonary fibrosis, cancer, and other occupational diseases.
- Regulators like the **EPA, FDA, and WHO** have set "tolerable daily intake levels" (ie. it doesn't make you sick or kill you that one day), **while ignoring the accumulative and synergistic effect with other chemicals.**
- But **long-term low-dose exposures from multiple sources (diet, water, air, consumer products)** haven't been tested in combination.
- **Many of the epidemiological links (like with Alzheimer's) remain unresolved partly because there hasn't been enough large-scale, independent, long-term research**

EPA's General Position

- The EPA evaluates single chemicals when setting exposure limits (like a Reference Dose or Maximum Contaminant Level).
- They acknowledge that mixtures can interact (additive, synergistic, or antagonistic effects), but historically regulation has not required testing of chemical combinations.
- This means safety standards assume you're exposed to only *one chemical on a one time exposure* — which is very different from real-world continual exposure (air, food, water, pharmaceuticals, consumer products all at once, and accumulating in the body over time).
- Air pollutants → independent studies of particulate matter + ozone + metals (including aluminum) show stronger respiratory and cardiovascular effects together than alone. EPA has not set any standards that account for synergy. For aluminum, EPA has not set any standards that account for synergy. The vast majority of possible chemical combinations in the environment remain untested for synergistic toxicity.

There is no safe level of aluminum particles in the air! EPA's standard of allowable exposure is for a one time exposure and it's immediate effects! In a chronic scenario, the negative effects never go away, they accumulate in the body and the environment year after year! **Damage to the environment and humans is accumulative.** We are not dealing with just 60 tons a year (can we even trust this figure as it is presented from the Aluminum plant it self); **we are dealing with an accumulation of 60 tons every year. That's 120 tons in two years, 180 in three years...** The aluminum fallout is not biodegradable, it will build up year after year in the environment and in our bodies. Just this effect of 60 tons of aluminum in the air is enough to deny the permit.

For Flora (plants) All farming in the area will be severely effected.

- **Leaf damage:** Aluminum particulates coat leaf surfaces, blocking stomata, reducing photosynthesis, and stressing plants.
- **Aluminum particles are highly combustible adding to wild fire dangers**

- **Soil chemistry disruption:** When aluminum settles into soils, it becomes more soluble (as Al^{3+}). **Soluble aluminum is toxic to plant roots — it interferes with nutrient uptake (calcium, magnesium, phosphorus).**
- **Stunted growth:** Over time, plants show reduced root growth, weaker structure, and nutrient deficiencies.
- **Biodiversity impact:** Sensitive species die back, leaving only tolerant plants (often invasive or hardy weeds).

For Fauna (wildlife, aquatic and terrestrial)

- **Aquatic life:** In rivers and streams, soluble aluminum is highly toxic to fish and invertebrates. It damages fish gills, reducing oxygen exchange, leading to suffocation, especially in low-pH waters.
- **Insects & plankton:** Aluminum interferes with reproduction and feeding in aquatic insects, which cascades through the food web.
- **Terrestrial animals:** Herbivores eating contaminated vegetation will accumulate aluminum; this will affect reproduction and bone health.

For Humans Respiratory System Effects

- **Irritation & inflammation:** Inhaled aluminum particles irritate the nose, throat, and bronchi, causing coughing, wheezing, and mucus overproduction.
- **Chronic bronchitis / asthma-like symptoms:** Repeated exposure leads to chronic airway inflammation and hyperreactivity, especially in workers around smelters or aluminum powder industries.
- **Pulmonary fibrosis ("aluminosis"):** Fine aluminum dust can scar lung tissue over time, reducing elasticity and impairing gas exchange (similar to silicosis or asbestosis, though usually less aggressive).
- **Reduced lung function:** Long-term inhalation is associated with decreased vital capacity and obstructive/restrictive lung disease like cancer.

Neurological Effects

- **Blood–brain barrier crossing:** Very fine aluminum particles enter the bloodstream and cross into the brain.
- **Neurotoxicity:** Chronic inhalation exposure has been linked to higher rates of:
 - Alzheimer's disease
 - Parkinson's-like symptoms
 - Cognitive decline and memory issues

- Mood disorders (irritability, depression)
- **Mechanism:** Aluminum interferes with neurotransmitter activity, promotes oxidative stress, and disrupts calcium metabolism in neurons.

Systemic Effects

- **Bone disorders:** Once inhaled and absorbed, aluminum can interfere with calcium and phosphate metabolism, **contributing to osteomalacia (soft bones).**
- **Kidney stress:** The kidneys are the primary organ for aluminum elimination. **Inhaled aluminum that gets into circulation strains renal function, particularly in vulnerable people (elderly, kidney patients).**
- **Immune dysregulation:** Aluminum is a known immune adjuvant. **Chronic inhalation will provoke abnormal immune activation and or autoimmunity in susceptible individuals. (In the COVID era, this is extremely important!)**

Occupational Evidence

Most of what we know comes from **workers in aluminum smelters, refineries, and welding shops:**

- Higher rates of lung disease (including asthma, cancer, and chronic obstructive lung disease).
- Elevated risk of neurological disorders compared to the general population.
- **Increased all-cause mortality in long-term studies.**

General Ecological Picture

- **River valleys act as sinks.** Airborne particles often settle in low-lying areas, meaning deposition in soils and waterways would be concentrated.
- **Synergy with acid rain:** If the valley also receives acidic precipitation, aluminum becomes even more mobile and toxic.
- **Long-term impact:** The ecosystem will shift — forests thinning or more susceptible to wild fires, fish populations crashing, and reduced agricultural productivity.
- **Water contamination:** aluminum leaches into drinking water supplies, it will raise risks of kidney issues, bone disorders, and neurological effects.
- **Food chain accumulation:** Crops irrigated with contaminated water or grown in affected soil can accumulate aluminum, increasing dietary intake.

A study on the synergistic effects of aluminum and hydrogen chloride absolutely needs to be done before the EPA can measure the effects of the aluminum's plant can be ascertained. WE know that will not happen! Like I said: the EPA is not qualified to pass judgment on the effects of the 100 tons pollutants released every year into our local environment!

What About Water?

Importantly, there is no available, up-to-date estimate of current annual groundwater availability for Benson—particularly how it compares to the volume being drawn annually and the increase use of the Anide.

What's Happening Legally & Environmentally

- A lawsuit filed in 2025 challenges ADWR's failure to reassess the 100-year designation, especially given evidence that groundwater levels are already breaching thresholds tied to the San Pedro Riparian National Conservation Area (SPRNCA) [western-water.comKJZZ](https://www.western-water.com/KJZZ).
- Experts report aquifer depletion is already impacting the river and conservation areas, indicating unsustainable use—even if municipal supply continues temporarily. [indearizona.com](https://www.indearizona.com).
- From 1989–1990, Benson used about 38,845 acre-feet/year from groundwater (cultural + natural depletion).
- Based solely on those 35 year old figures a “100-year supply” was certified in 2008—but ADWR hasn't reviewed this despite legal requirements! The current sustainable supply is unknown!! Is it not true that Anide alone will use 70% more water than Benson is presently using? The proposed 28,000 home proposal and the increase use from Anide obviously threatens the water issue.
- Ongoing legal and environmental concerns already show the aquifer is under unsustainable stress. The Colorado River is drying up, the south west is in a long term drought.

Research shows (water table & baseflow)

- **Aquifer setting at Benson:** The basin-fill aquifer is mostly unconfined, but Benson sits over locally confined conditions where thick silts/clays overlie lower basin fill. Groundwater generally flows from mountain fronts toward the river, then north. [Arizona Department of Water Resources](#)
- **Regional storage is declining:** ADWR's 2024 Supply & Demand Assessment estimates groundwater in storage fell from ~4.40 million AF (1990) to ~4.18 million AF (2023)—a persistent basin-wide deficit where demand outpaces supply! [Arizona Department of Water Resources](#)
- **Average baseflow & capture:** ADWR estimates average annual baseflow ~15,800 AF/yr (1990–2023). Long-term USGS work shows baseflow and low flows have decreased over decades, tied to vegetation ET and pumping (“capture”). [Arizona Department of Water Resources](#)[U.S. Geological Survey+1](#)

- **Local groundwater level behavior around Benson:** Historic ADWR water-level compilations show **several-to-tens of feet declines north of Benson have been documented over long records.** [Arizona Department of Water Resources](#)
- **Surface-water persistence is shrinking:** 25+ years of **Wet/Dry mapping** (TNC/BLM) find **total wet miles within the SPRNCA have trended downward**—evidence of reduced summertime surface water during the driest period. [Bureau of Land ManagementThe Nature Conservancy](#)
- **Gages to watch near Benson:** USGS maintains **09471800 (San Pedro River near Benson)** and **09471000 (at Charleston)** for real-time flow; these are the best indicators of how baseflow responds seasonally and over years. [USGS Water Data+1](#)

Future outlook & predictions

- **ADWR 2024 projections to 2075 (Upper San Pedro):**
 - **Continued deficit:** The basin remains supply-negative under most scenarios; storage continues to erode without demand reductions.
 - **Riparian demand rises with warming:** Modeled riparian ET increases by 2075 under medium–high emissions scenarios, adding pressure on baseflows. [Arizona Department of Water Resources](#)
- **Groundwater–surface water adjudication modeling:** ADWR released a **2024 Groundwater Flow Model of the Upper San Pedro** to quantify **subflow depletion and cones of depression** for legal testing. This will underpin future management and pumping restrictions tied to river impacts. [Arizona Department of Water Resources](#)
- **Expectation for baseflow:** Decadal studies indicate **continued sensitivity of summer/early-fall low flows** to ET and pumping; absent significant recharge or pumping cuts near the channel, **more frequent dry segments in summer are likely, especially in intermittent reaches near and north of Benson.** (Synthesis of USGS trend work + Wet/Dry records). [U.S. Geological SurveyThe Nature Conservancy](#)

Development & legal context (why this matters near Benson)

- **Reserved water rights & monitoring wells:** A 2023 court order quantified federal reserved rights for the SPRNCA and relies on **monitoring wells to ensure compliance; advocacy groups flagged 2024 data showing several wells below target levels, highlighting the system’s fragility** (note: advocacy interpretation of USGS data, but signals stress). [Center for Biological DiversityCenter for Biological Diversity](#)
- **Large proposed pumping (Vigneto/Benson):** Technical letters and analyses argue substantial, long-term drawdown and added depletion of near-river groundwater from large new pumping near Benson; impacts are contested and under regulatory/legal scrutiny. [Center for Biological Diversity](#)

A current study to access the present amount of water compared to present usage obsoletely needs to be done prior to making a decision of allowing the 28,000 home project and tremendous use by Anide.

Electrical Concerns

Az electricity use has been growing exponentially, and now with installation of data centers, electrical needs are going to jump astronomically. The amount of generation, transmission, and substations that need to be built in the next 5 years is going to be incredibly expensive. How much strain with that add to out put of local power and what effect on the environment will that have to produce that power. Moreover there has been a 14% increase in residential rates compared to only 6% increase for industry. How much will the aluminum plant increase the demand for power? The lion share of cost burden will put on the backs of the residents serviced by the local power company.

Summary

A large portion of the population here are retired and elderly. As we age our ability to maintain homeostasis and combat infection and toxins degrades yearly. If the county and city is so concerned with revenue, they should think twice about killing off their tax base, and destroying the quality of life here effecting the real estate market.

Aside from filling the city's and county's pockets with big revenues, and providing more jobs for the slave class, this plant will cause undeniable harm to the environment and the population without providing any benefit to the community.

A final note on the EPA: all of these gov agencies (FDA, WHO, etc) are run by executives that come in the revolving door from Big Business. They do not have the public's interest at heart. Whose side is the ADEQ on? We pay for your existence, not EPA, the Fed Gov, not Big Business. You have a contract with We the People to protect our environment. Do the right thing—protect the health and welfare of this beautiful river valley. I'm sure God would agree that keeping life clean and pure is far more important than fiscal and corporate interests.