

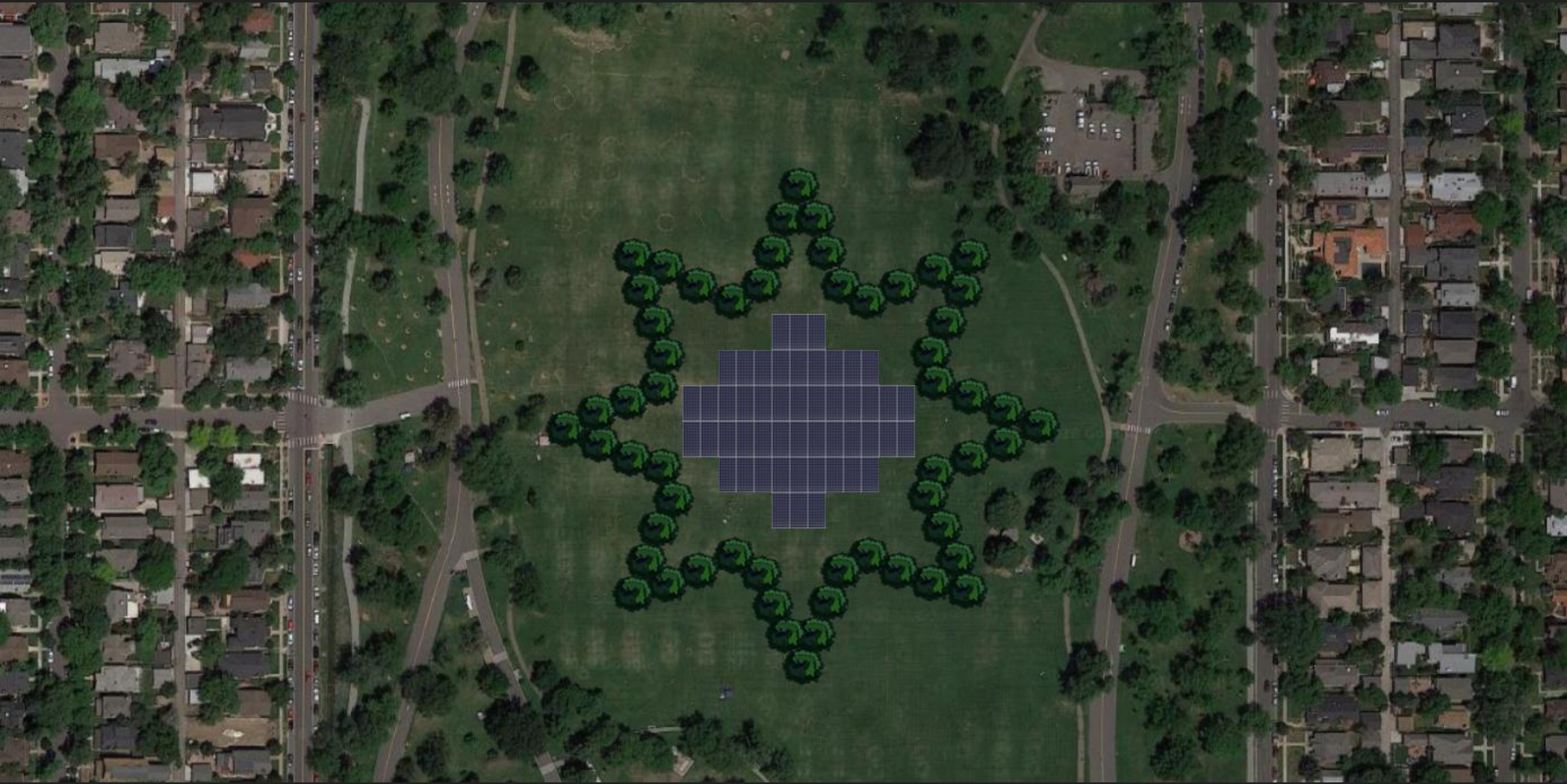


Arbesol (SOL) Cryptocurrency

Keenan Hursh, Casey Culp, Jack Thomas

Idea / Concept:

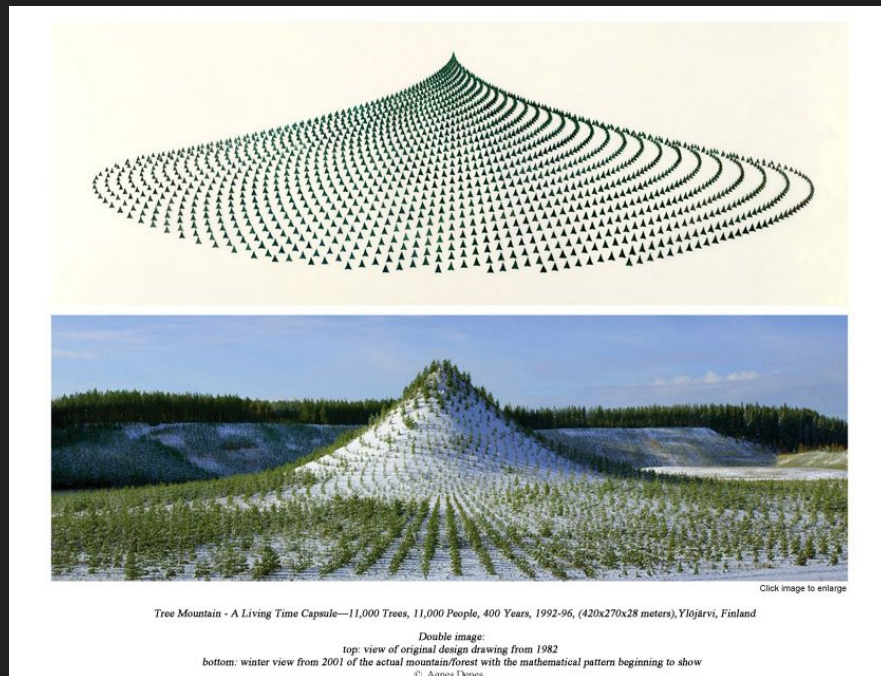
- Cryptocurrency that plants trees or installs renewable energy stations
 - Either near an individual's home
 - Or in a deforested / affected natural area
- Customers can buy and sell products / services with an added incentive
 - For people concerned with the environment and global climate change
 - They will receive Green Energy Credits from energy saved with their “stations”
 - Similar to Ecosia
- Trees planted / panels installed in a specific geometric pattern
 - Public piece of art
 - Transformation of otherwise unused land
 - Users and everyone can enjoy their impact





Inspiration

- *Tree Mountain* - Agnes Denes
 - Reclaimed old gravel pits in Finland
- Ecosia
 - Search engine that plants trees



Identity and Media Assets

- Develop a website to exhibit our installations and explain the token/GECs
- Develop an app for making transactions & tracking credits
- Social media presence with art on display



How it works

- Users buy and sell via Arbesol (SOL) currency
- A portion of every Arbesol purchase goes towards public installation
 - Close to users home / location
- Public installation reduces carbon footprint
 - Installation of solar or wind
 - Planting of trees
 - Publicly voted on by coin owners / users
- Energy produced on-site will reward Arbesol holders with Green Energy Credits
 - They can spend the money they're saving by putting power back into the grid
- Positive reinforcement will ideally create a positive feedback loop of usage
 - Users are saving money and doing the responsible, ethical thing

Green Energy Offset Credits

- Green Energy Credits are created by renewable energy plants and sold to municipal energy providers who can't produce their own green energy
- Token-Holders will receive GECs based on how much SOL they own
- GECs can be sold or traded or used to comply with any regulations or requirements by offsetting carbon footprints

Information / Transaction Flow

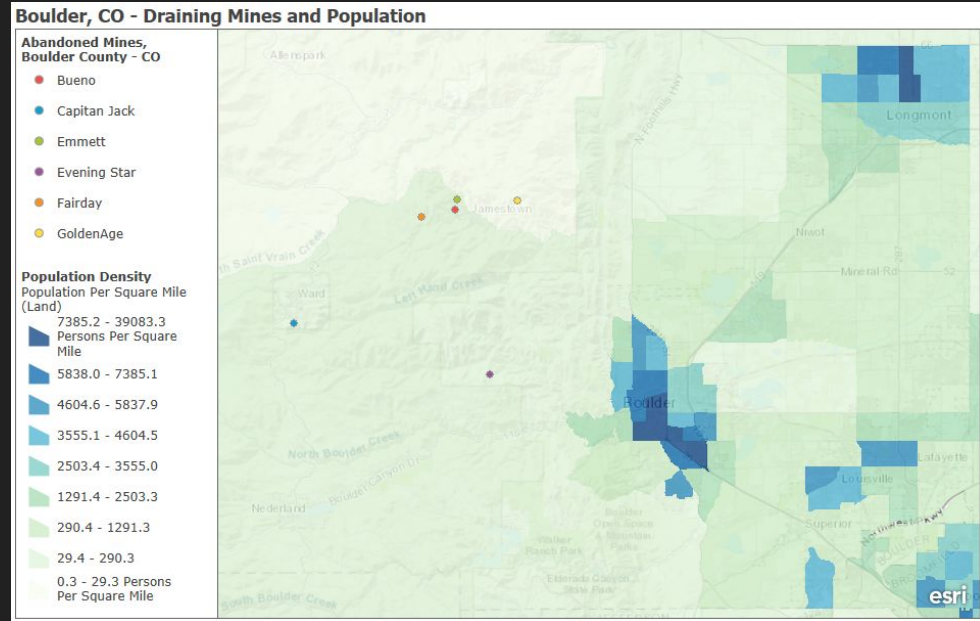
- Blockchain to track data on location
 - Will allow installations to be close to individuals homes or in a specified place
- Will allow us to anonymously track who is spending what
 - Blockchain will help us keep track of users data without compromising it
- Smart Contracts with partner organizations
- Local Coin owners will vote on where these installations will go

Stakeholders

- Users of the currency
- Founders of the company
- Board members and investors if we go public
- Land owners
- Solar installation partner
- Tree planting partner

Intended Outcomes / Targets

- Reforest abandoned mines
- Help reclaim areas with polluted soils
- Rocky Mtn. Juniper, Eastern red cedar
- Provide energy offsets
- Creation of attractive areas, cool place to check out in your community
- Local impact, make maintenance easier



Boulder, CO - Draining Mines and Population

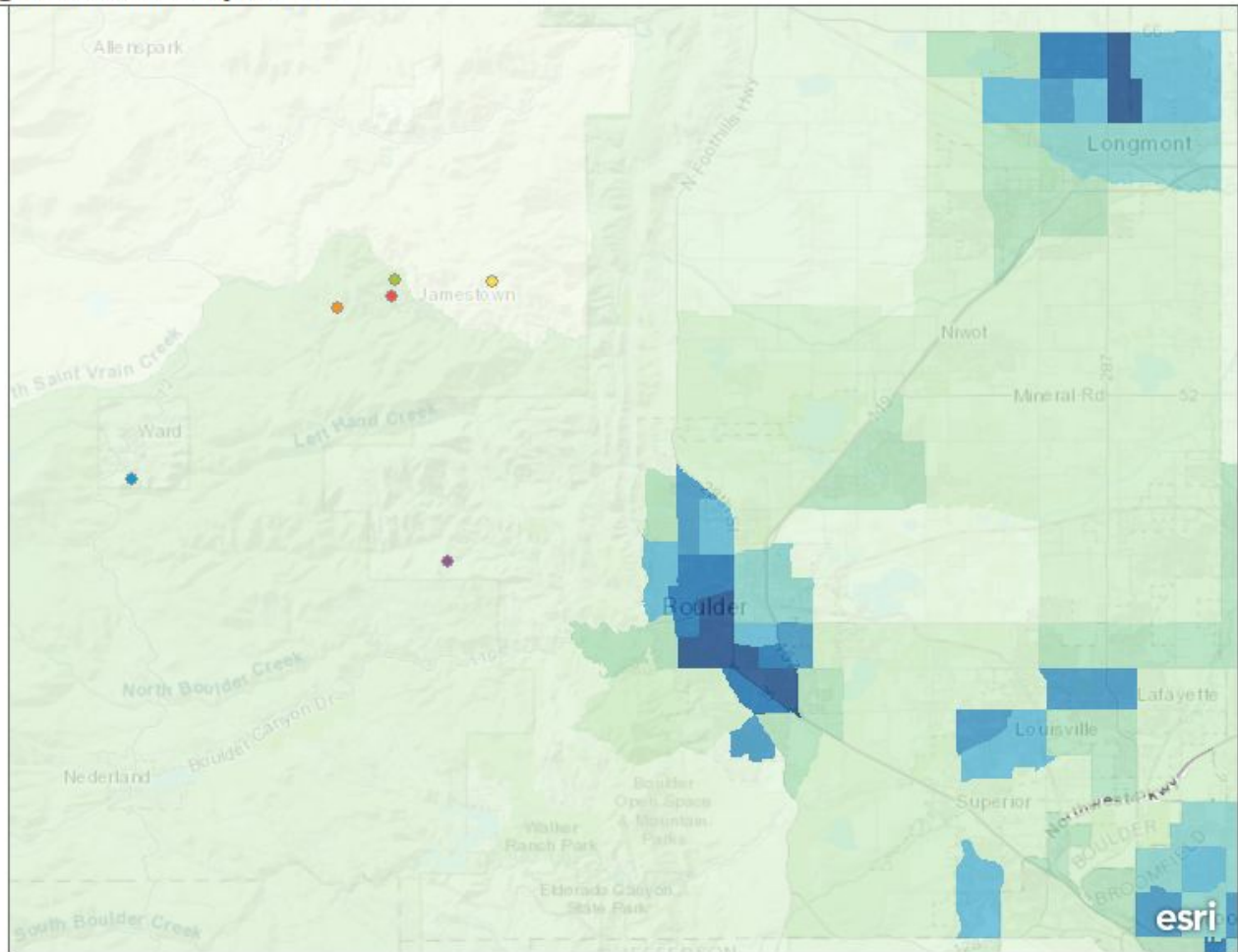
Abandoned Mines, Boulder County - CO

- Bueno
- Capitan Jack
- Emmett
- Evening Star
- Fairday
- GoldenAge

Population Density

Population Per Square Mile
(Land)

- 7385.2 - 39083.3
Persons Per Square
Mile
- 5838.0 - 7385.1
- 4604.6 - 5837.9
- 3555.1 - 4604.5
- 2503.4 - 3555.0
- 1291.4 - 2503.3
- 290.4 - 1291.3
- 29.4 - 290.3
- 0.3 - 29.3 Persons
Per Square Mile



- Many contaminated areas throughout Colorado

- AOI's

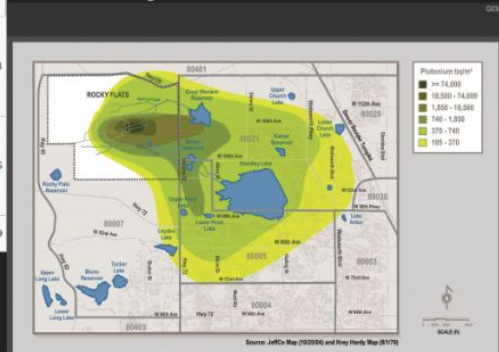
- Denver Radium Site - Ruby Hill
- Broderick Wood Products - near Regis University, creosote and pentachlorophenol (PCP)
- Old Chemical Sales Company - close to 3 public schools
- Old Marshall Landfill - just outside of Boulder, groundwater contamination

Superfund Sites in CO

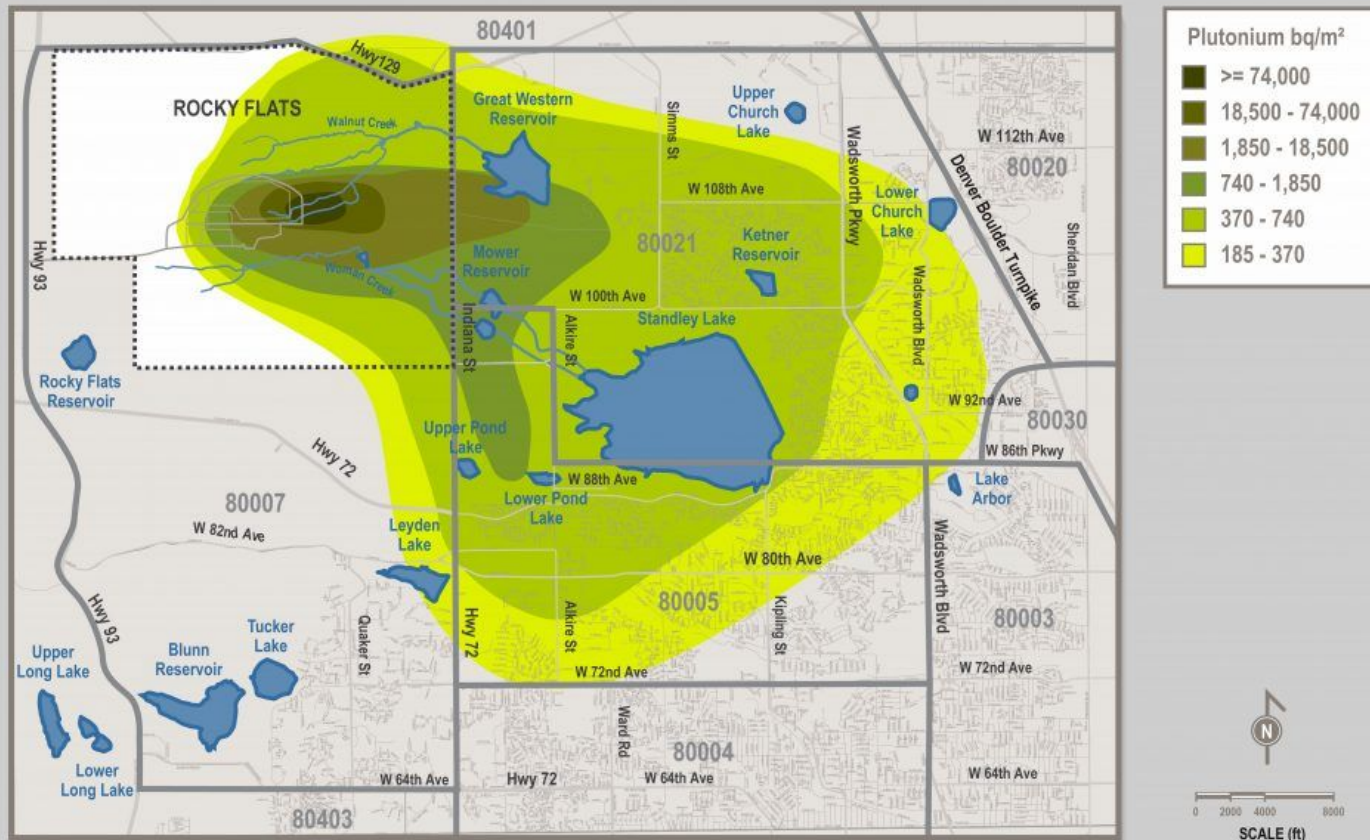
Name	County	Reason	Proposed [1]	Listed [2]
Air Force Plant PJKS	Jefferson	Groundwater, surface water, soil and buildings contaminated by TCE, PCBs and NDMA. [6]	07/14/1989	11/21/1989
ASARCO, Inc. (Globe Plant)	Adams	Groundwater, surface water, sediment and soil contamination by cadmium, lead, arsenic and zinc from metals smelting and refining. [6]	05/10/1993	—
Broderick Wood Products	Adams	Soil, surface water and groundwater contamination by PAHs, PCP byproducts, dioxins and furans, sludge, liquid waste from a former wood treatment plant. [19]	09/08/1983	09/21/1984
California Gulch	Lake	Soil, sediment, surface water and groundwater contamination by lead, arsenic, other metals and acidic mine drainage, and liquid and solid waste and sludge from mining, milling and smelting. [13] (see Leadville mining district)	07/14/1989	11/21/1989
Captain Jack Mill	Boulder	Solid waste, soil and surface water contamination by zinc, cadmium, copper and lead from mining and smelting. [12]	04/30/2003	09/29/2003
Central City/Clear Creek	Clear Creek	Soil, groundwater and surface water contamination, leaching and liquid waste contaminated with heavy metals such as zinc, copper, manganese, cadmium, lead and arsenic, from mining and milling operations within the watershed. [13] (see Argo Tunnel)	12/30/1962	09/08/1963
Standard mine	Gunnison	Surface water, groundwater and soil contamination by arsenic, lead, zinc, cadmium, copper, chromium and manganese from an isolated former mine at 11,000ft altitude. [21]	04/27/2005	09/14/2005
Summitville mine	Rio Grande	Surface water, groundwater and soil contamination by copper, cadmium, manganese, zinc, lead, nickel, aluminum and iron, leaching into the Alamosa River system from an isolated former mine at 12,500ft altitude. [24]	05/10/1993	05/31/1994
Uranium Project (Union Carbide Corp.)	Montrose	Air, groundwater, surface water, soil and sediment contamination and solid waste and debris contaminated with raffinate, raffinate crystals, lead, arsenic, cadmium and vanadium from a radium recovery plant and uranium and vanadium processing. [25]	10/15/1964	06/10/1966
Yasquez Boulevard and I-70	Denver	Lead and arsenic contamination of soil, from metal smelting and/or lawncare products. [21]	01/19/1999	07/22/1999

Chemical Sales Company	Denver	Liquid and solid waste, groundwater, air and soil contamination by various compounds. [14]	06/24/1988	08/30/1990
Denver Radium Site	Denver	Air, soil and groundwater contamination by radium, thorium, uranium, arsenic, lead and radon gas from radium ore processing. [16]	12/30/1982	09/08/1983
Eagle Mine	Eagle	Groundwater, surface water, solid waste, soil, liquid waste, debris and sediment contaminated by arsenic, cadmium, copper, lead and zinc. [16]	10/15/1964	06/10/1966
Lincoln Park	Fremont	Air, groundwater, surface water, and soil are contaminated with radionuclides and metals including molybdenum, uranium, and uranium daughter products from uranium milling by Cotter Corporation. [17] [18]	09/08/1983	09/21/1984
Lowry Landfill	Arapahoe	Liquid and solid waste, debris, soil, surface water, groundwater, sediment and leaching contaminated by chemicals, solvents and sludges, gas emissions from buried waste. [19]	10/08/1983	09/21/1984
Marshall Landfill	Boulder	Surface water, ground water, soil and liquid waste contaminated by benzene, TCE, PCE, barium, iron, manganese and zinc. [20]	12/30/1962	09/08/1963
Nelson Tunnel/Commodore Waste Rock	Mineral	Surface contamination and mining waste rock pile contaminated with arsenic, cadmium, lead and zinc. [21]	03/19/2008	09/03/2008
Rocky Flats Plant (DOE)	Jefferson	Soil, surface water, groundwater and air contamination by plutonium, americium, uranium and VOCs from nearly forty years of nuclear weapons manufacturing. The plant was closed after being raided by the Federal Bureau of Investigation and EPA. [22]	07/14/1989	11/21/1989
Rocky Mountain Arsenal (US Army)	Adams	Soil, surface water and groundwater contamination by aldrin, dieldrin, DBCP and arsenic from chemical weapons and pesticide manufacture. [23]	10/15/1964	07/22/1967

Rocky Flats, CO

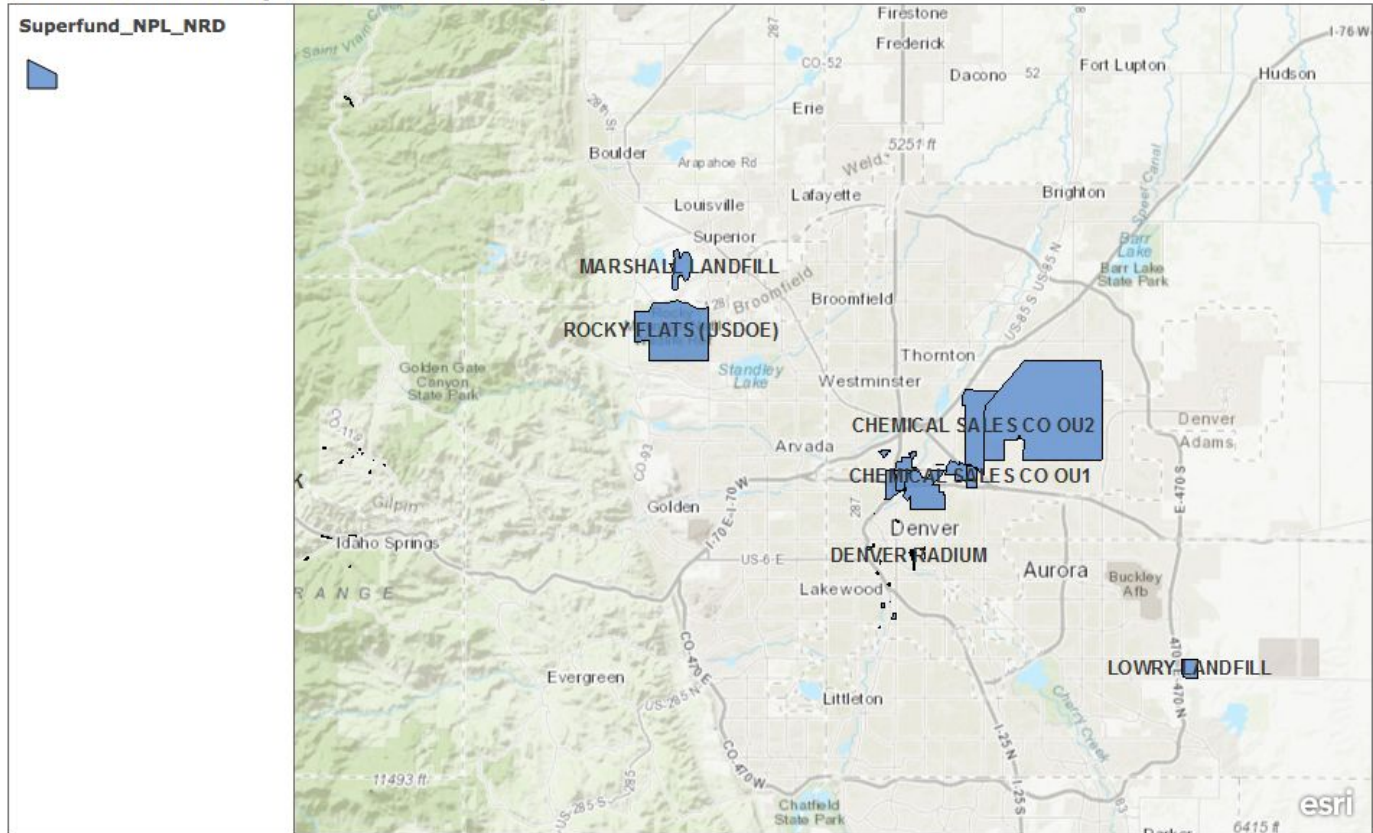


Class Area

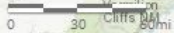
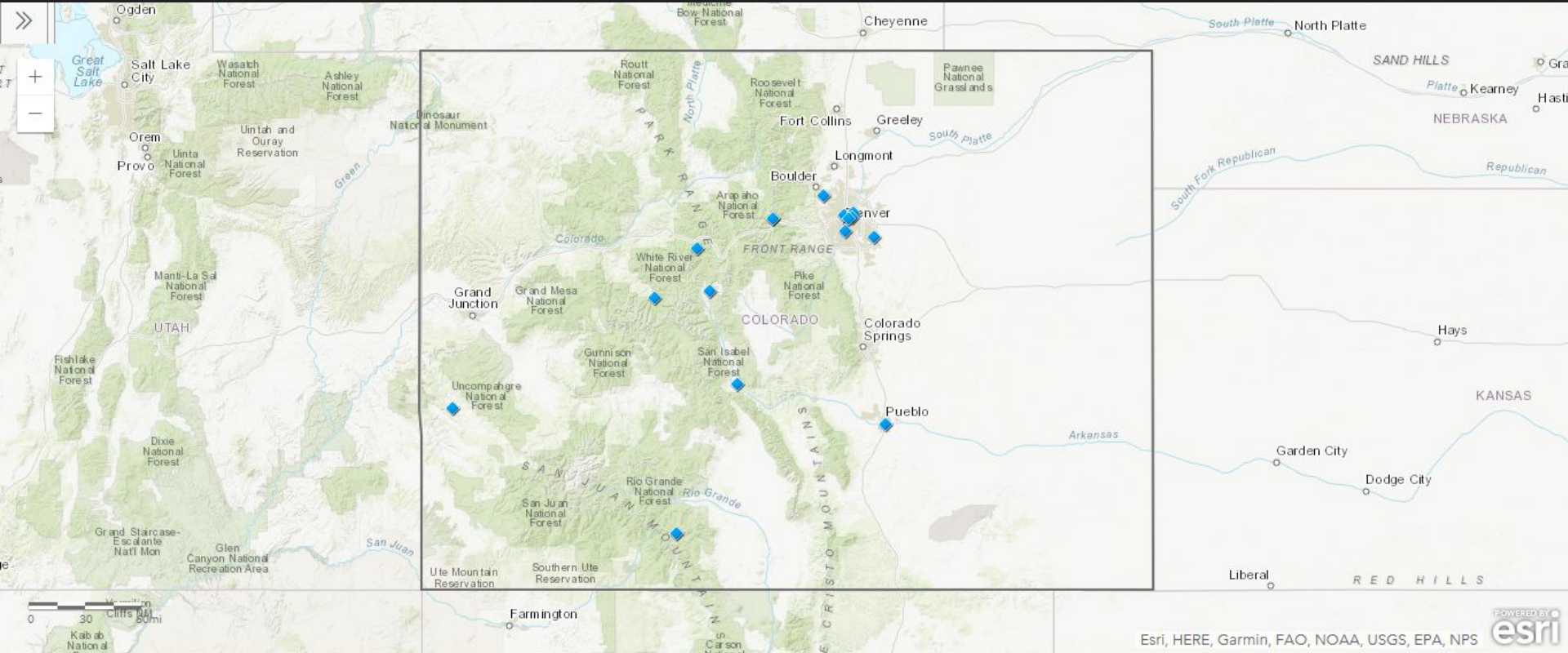


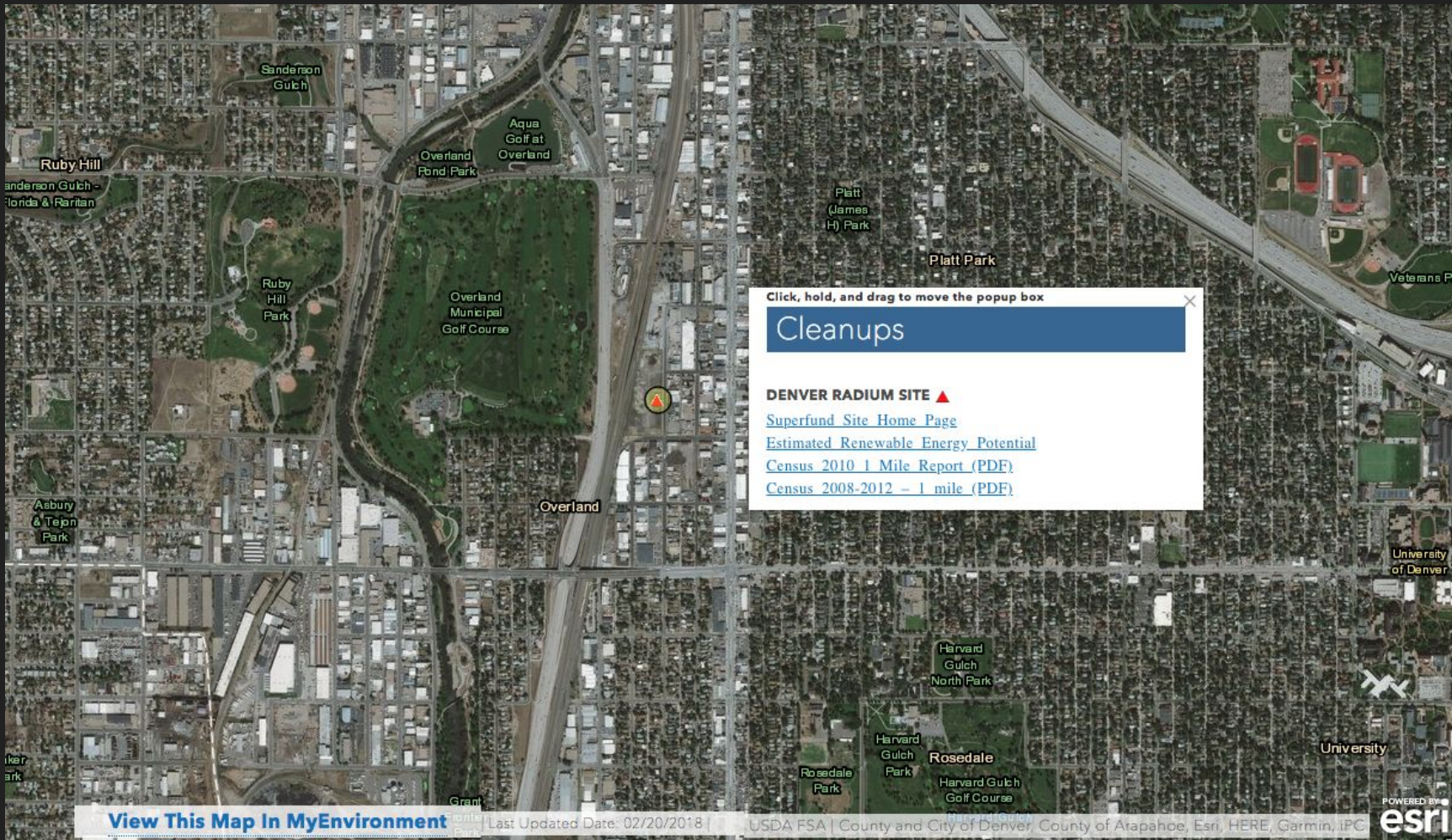
Source: JeffCo Map (10/25/04) and Krey Hardy Map (8/1/70)

CDPHE Colorado Superfund NPL NRD map



A site qualifies for the National Priorities List (NPL or Superfund list) when the U.S. Environmental Protection Agency determines there's a release or threatened release of hazardous substances that may endanger public health, welfare or the environ





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Cleanups

DENVER RADIUM SITE ▲

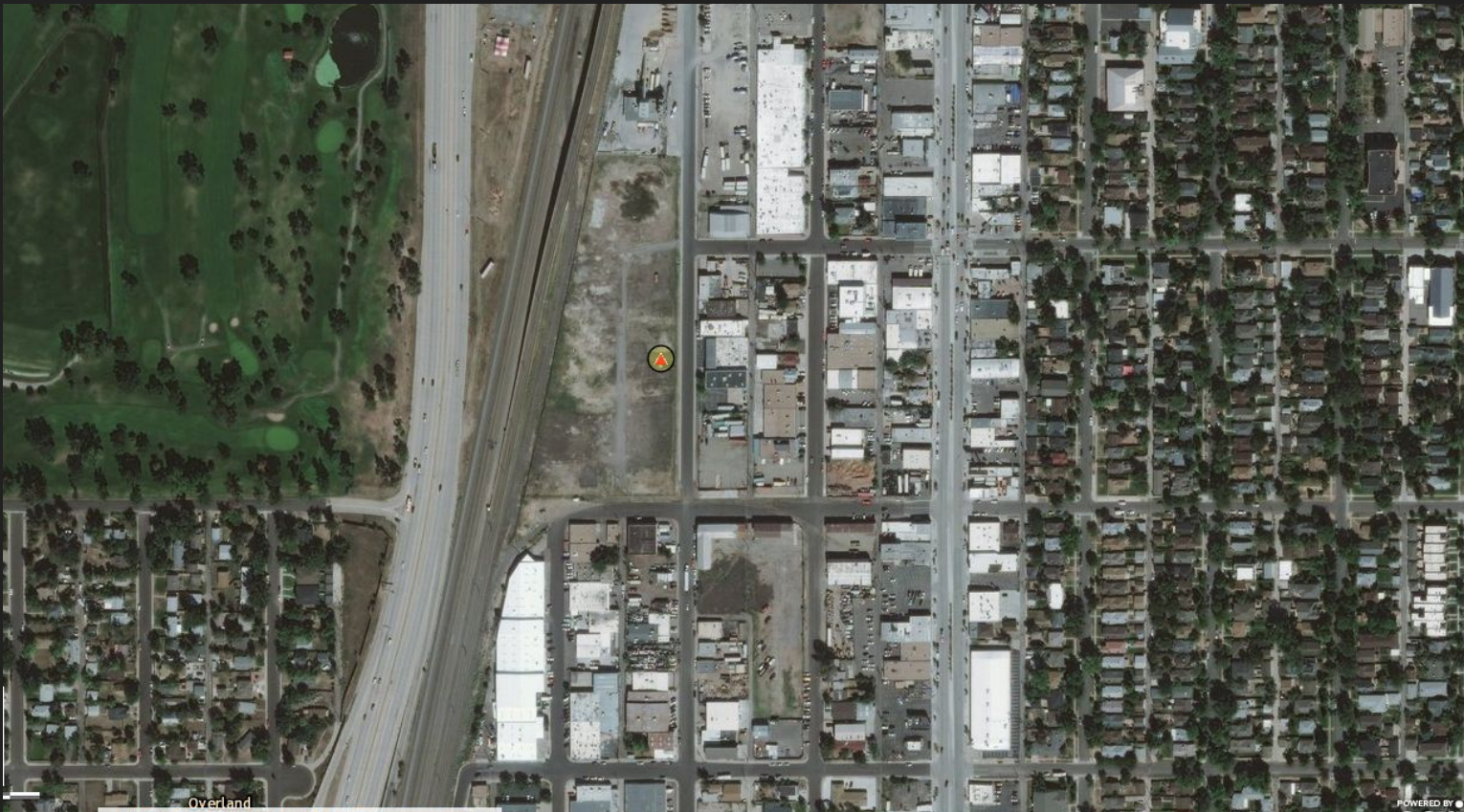
- [Superfund Site Home Page](#)
- [Estimated Renewable Energy Potential](#)
- [Census 2010 1 Mile Report \(PDF\)](#)
- [Census 2008-2012 – 1 mile \(PDF\)](#)

[View This Map In MyEnvironment](#)

Last Updated Date: 02/20/2018 |

USDA FSA | County and City of Denver, County of Arapahoe, Esri, HERE, Garmin, IPC





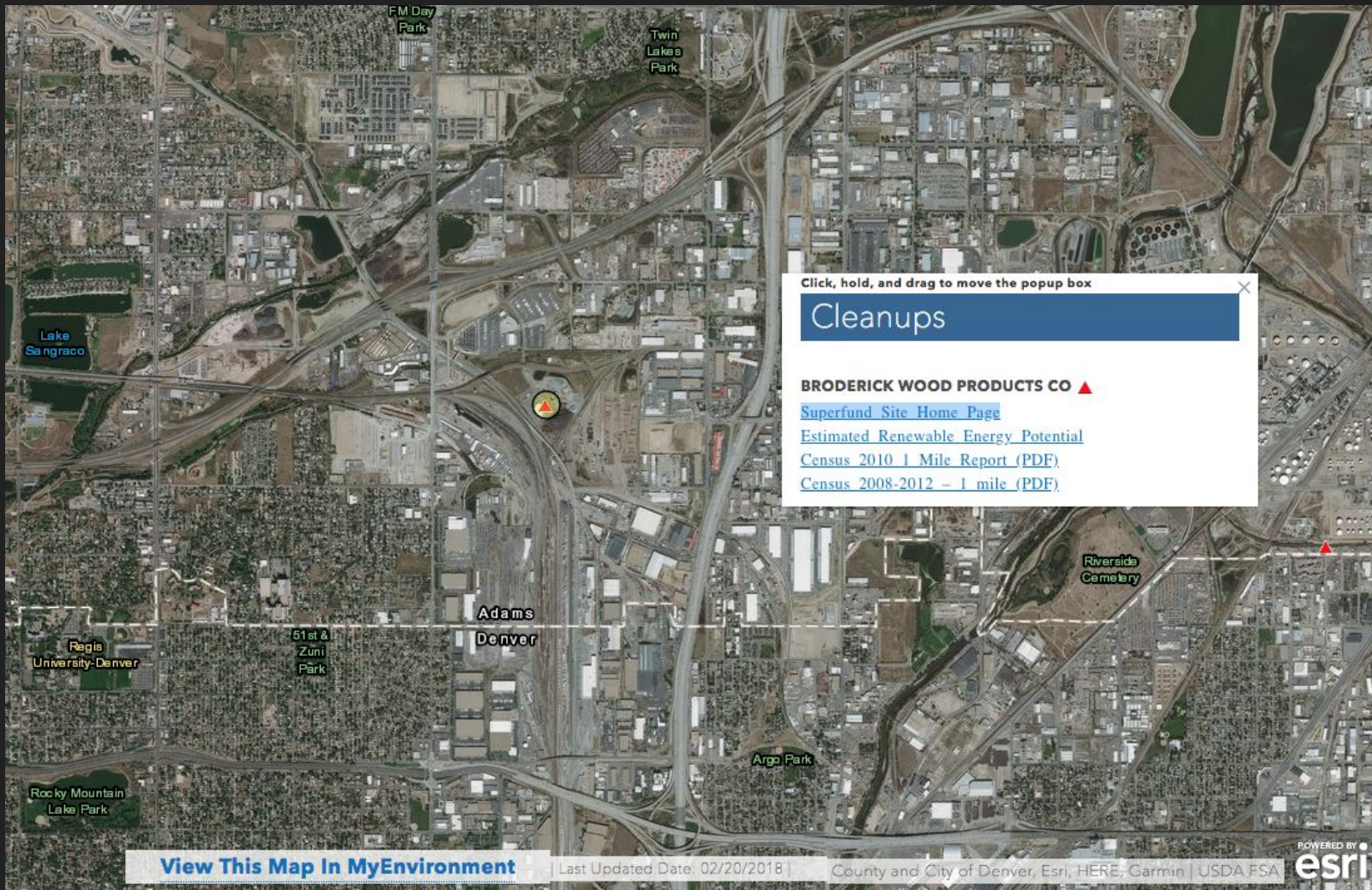
Overland

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Cleanups

BRODERICK WOOD PRODUCTS CO ▲

[Superfund Site Home Page](#)

[Estimated Renewable Energy Potential](#)

[Census 2010 1 Mile Report \(PDF\)](#)

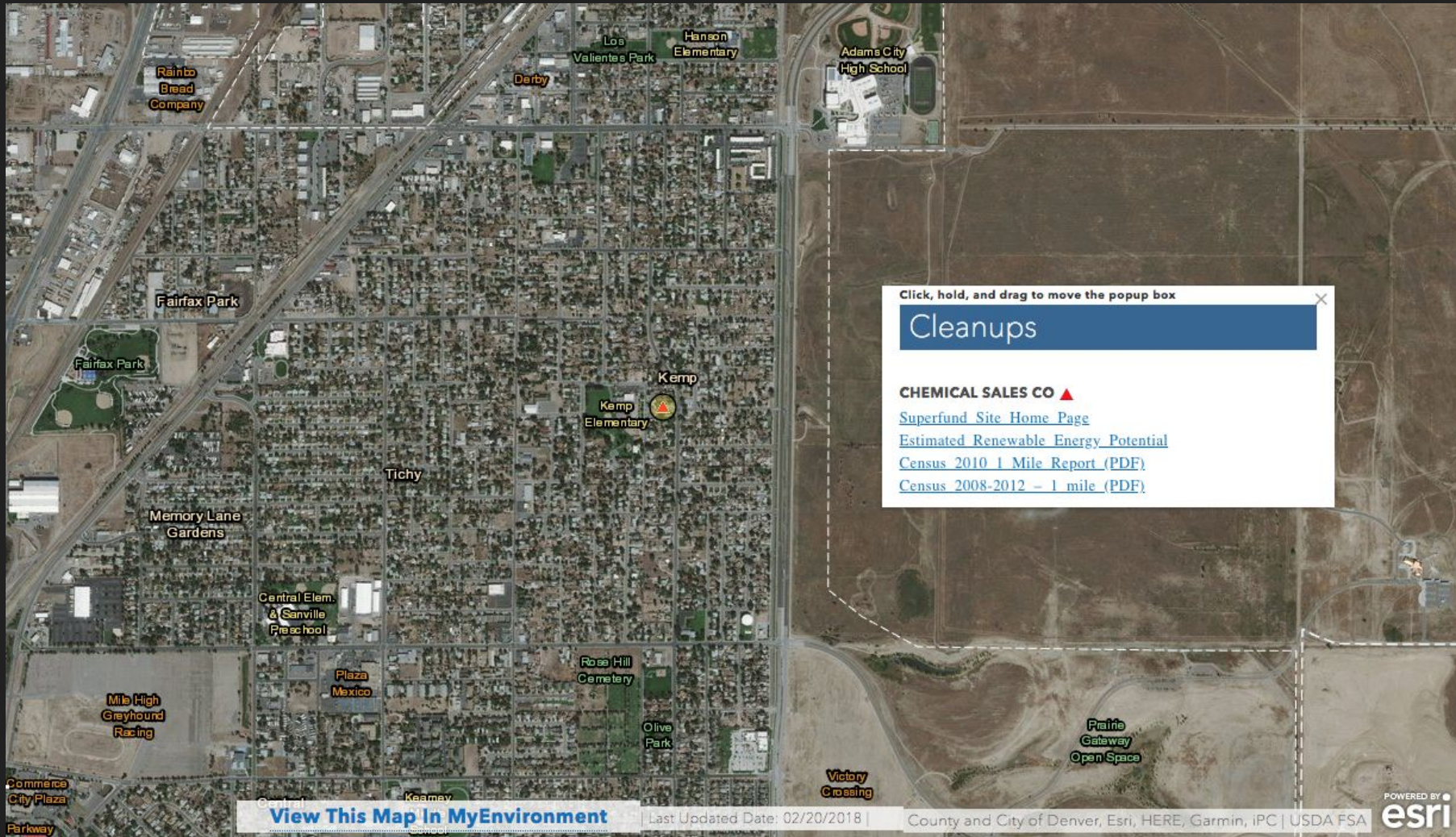
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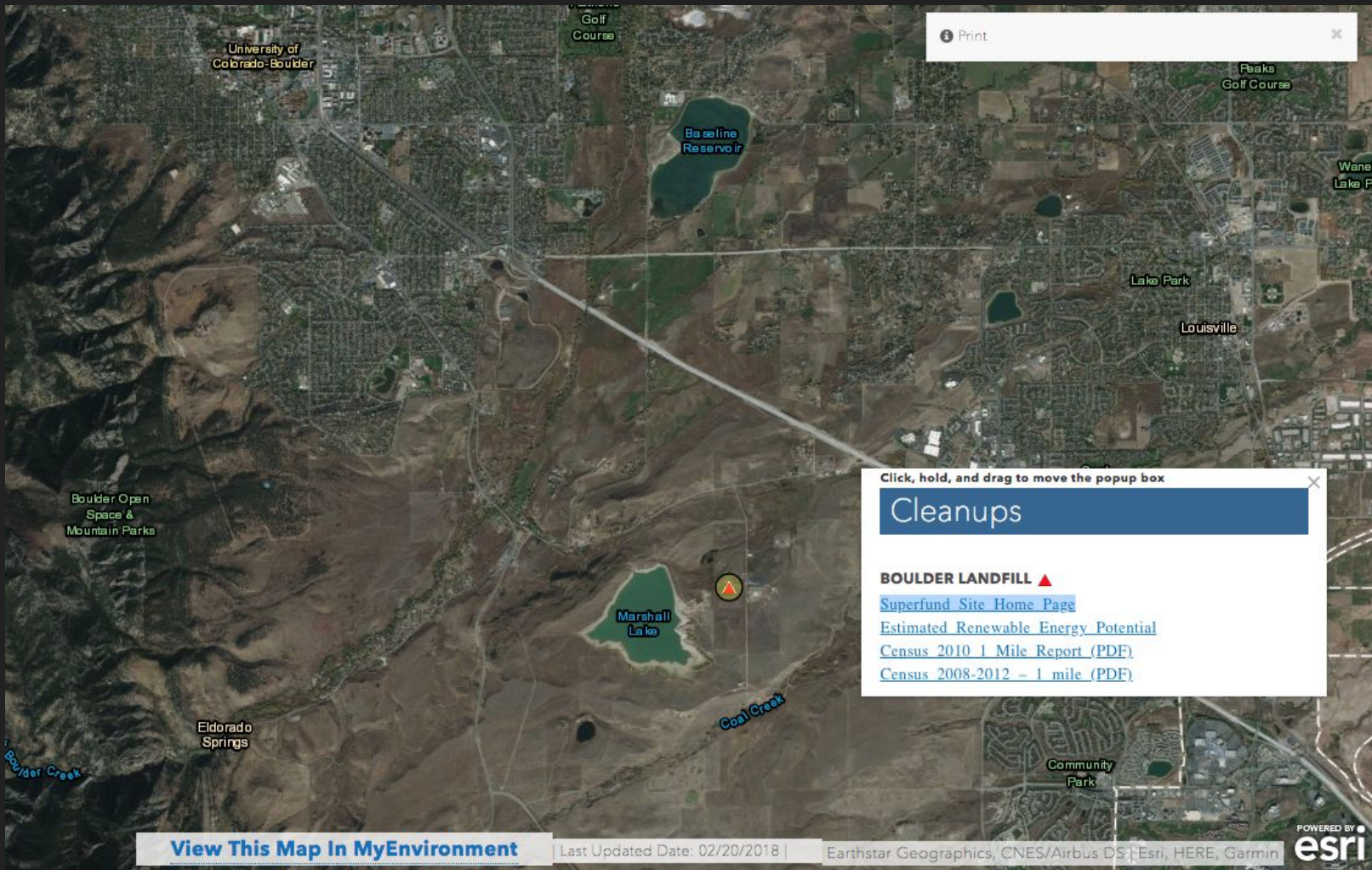
CHEMICAL SALES CO ▲

[Superfund Site Home Page](#)

[Estimated Renewable Energy Potential](#)

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[Census 2008-2012 - 1 mile \(PDF\)](#)



Potential Sites for Arbesol Installations

Potential Sites - Denver

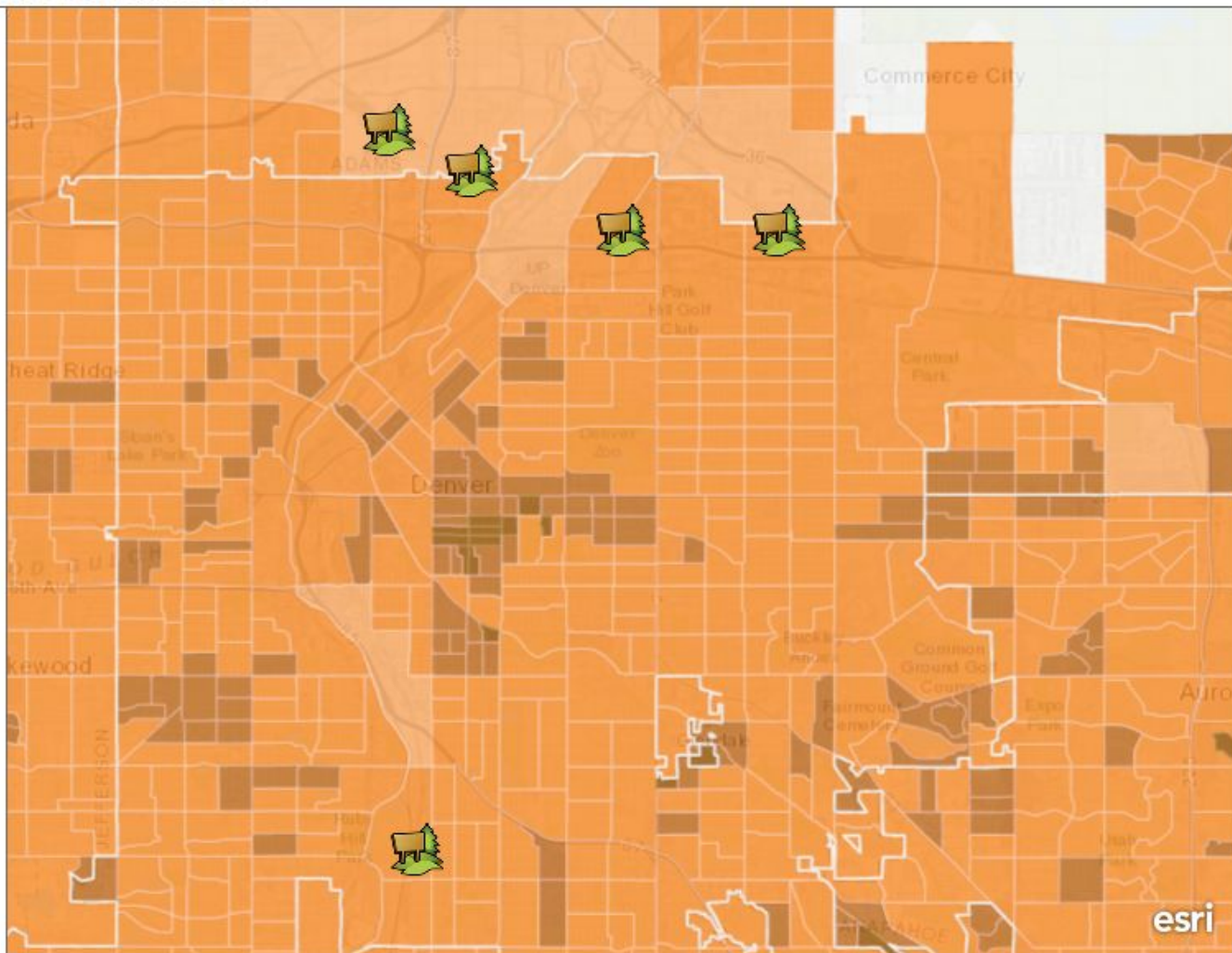


Denver Population Density

Persons per square mile

Block Groups

- 100,001 or more people
- 25,001 to 100,000 people
- 10,001 to 25,000 people
- 1,001 to 10,000 people
- 101 to 1,000 people
- 100 or less people
- No population



Potential Sites for Arbesol Installations

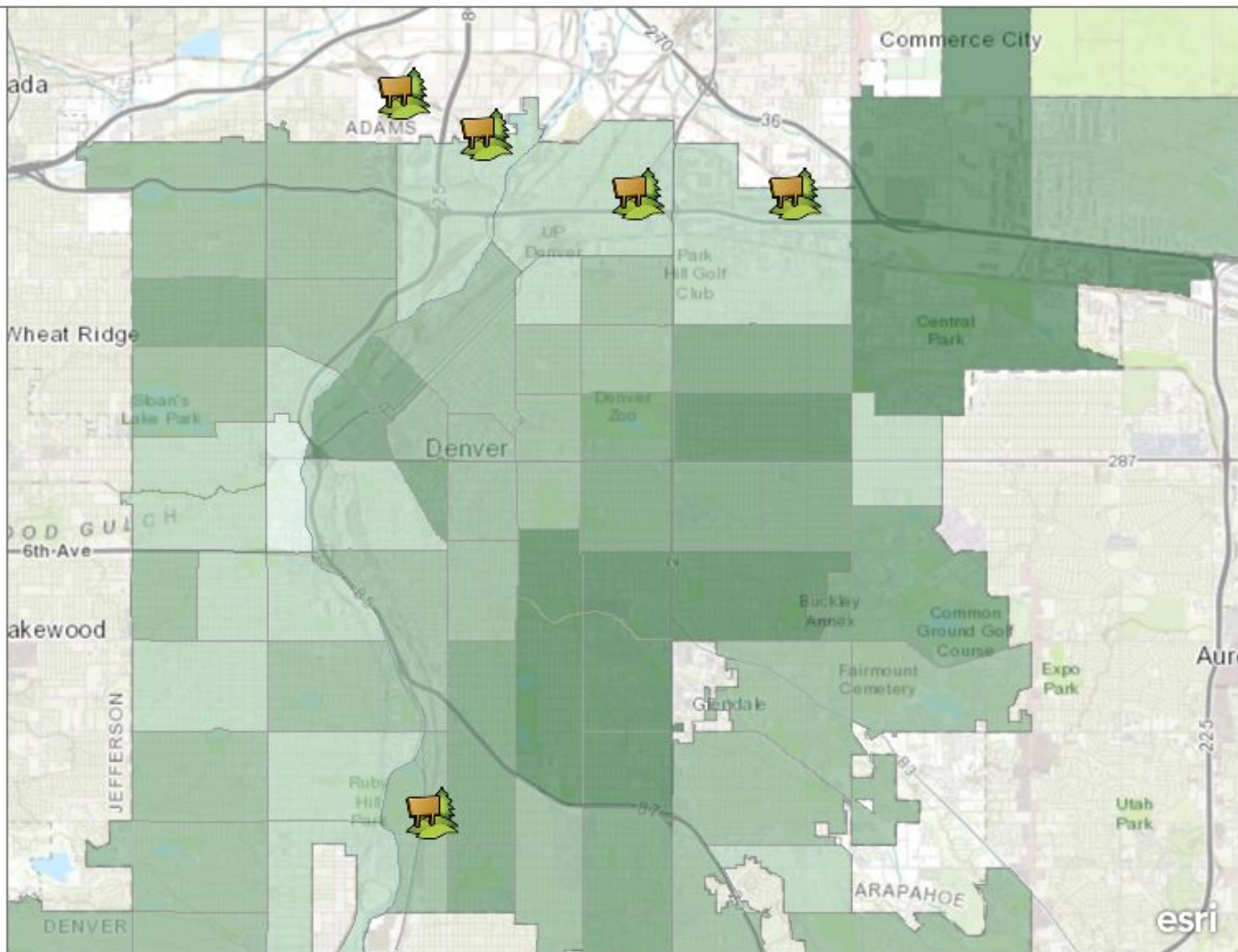
Potential Sites - Denver



Denver Average Household Income

AVG_HH_INCOME

- \$125,000.01 - \$182,902.00
- \$75,000.01 - \$125,000.00
- \$45,000.01 - \$75,000.00
- \$25,000.01 - \$45,000.00
- \$12,164.00 - \$25,000.00



Thank You