

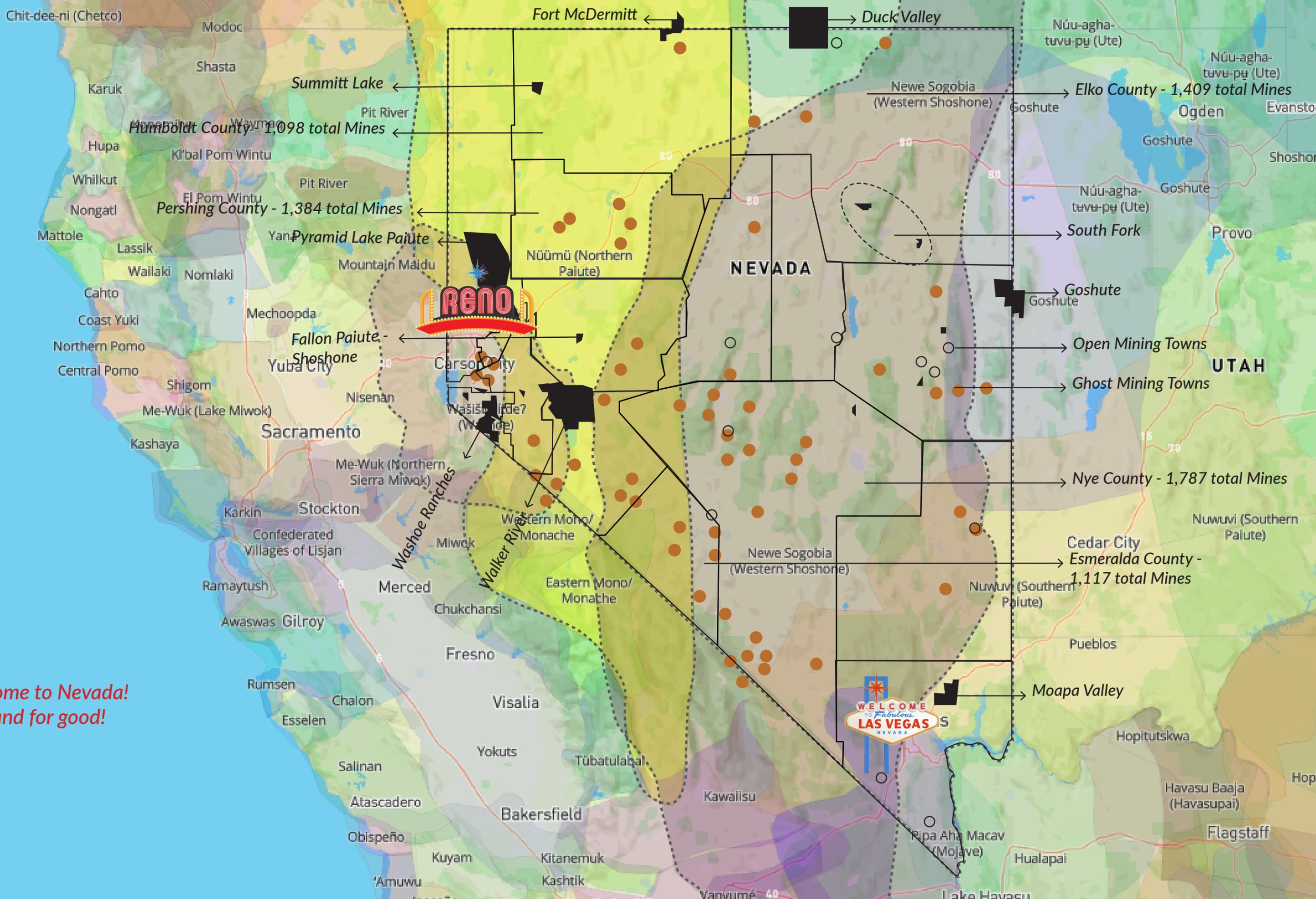
Last month, President Biden announced plans to sign a non-binding Executive Order calling for electric vehicles to make up 40-50 percent of new auto sales in the United States by 2030, and he has called the government's investment in EVs a "race for the future."

In the US, there is one lithium producing mine in Nevada – Albermale in Silver Peak (Clayton Valley). Prior to becoming the US prime lithium mining site, Silver Peak (and majority of Nevada) was home to the Native the Nūūmū (Paiute) and Newe (Shoshone) and referred to their land as Payahūūnadū, "The Land of Flowing Water." Water was an essential part of care - for humans, animals and cultivation of land.

Then mining was discovered and the relationship to the land (and water) changed as Nevada became known as the silver state. Since then, silver mining declined, and fire cleared out the town. In 1996, the first lithium mining began with an extreme boom and has continued to produce at a steady rate.

Today's insatiable appetite for lithium has Nevada back in the spotlight and leading the way to increase US production of mining. As we all race to a new future in our EVs, the question is how much will it really cost us to use a massive amount of vulnerable land to mine for a "green future".

LAND OF FLOWING WATERS



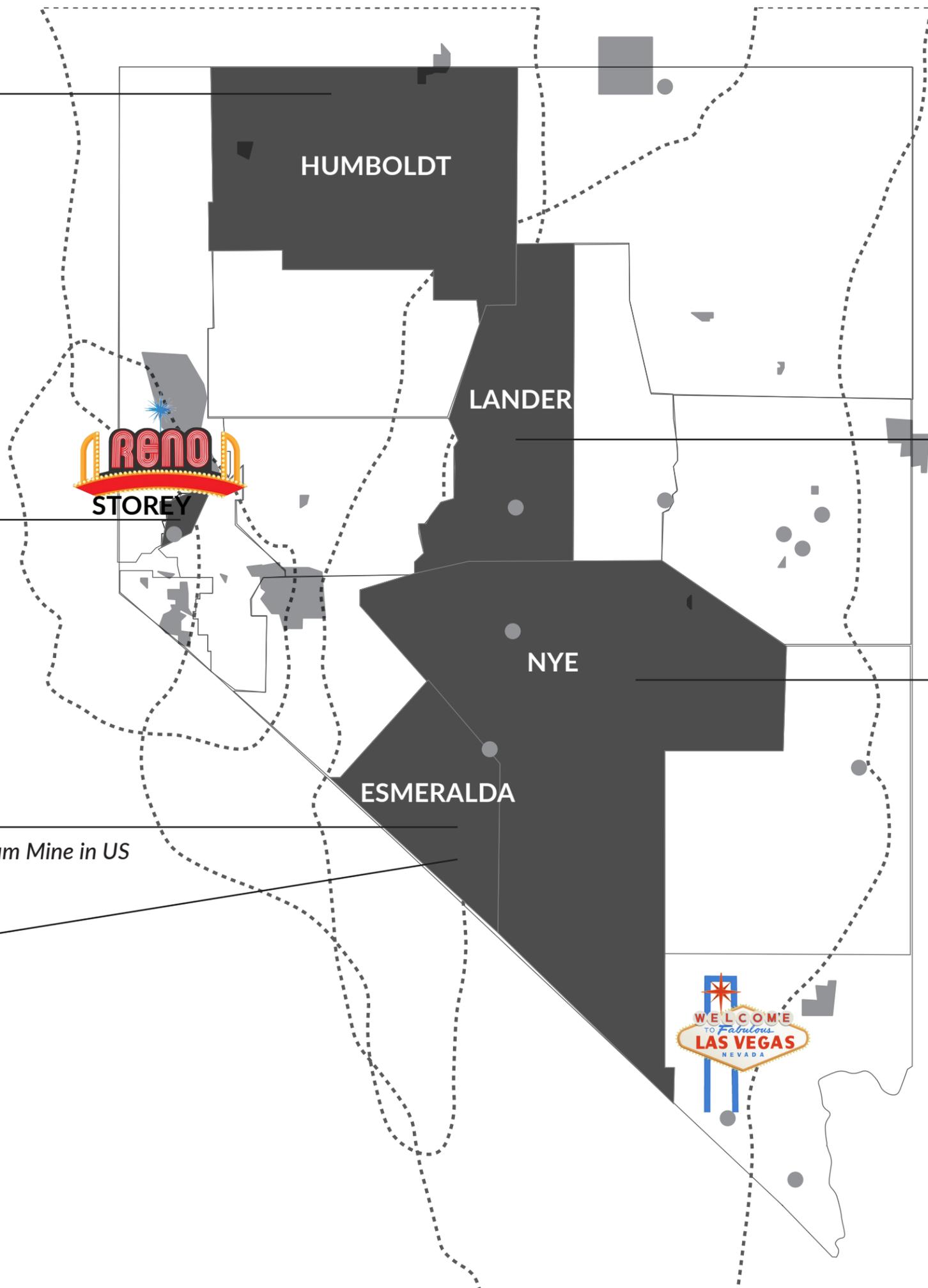
Welcome to Nevada!
The land for good!

Proposed - Thacker Pass
Lithium Mine - 18,000 acres
46yrs Mine Life

Existing - Tesla GigFactory
Batteries not yet Lithium

Albermarle Silver Peak
Est. 1960s - Only Operational Lithium Mine in US

Proposed - Claytone Valley
Lithium Project - 5,590 acres
40 yrs Mine Life



HUMBOLDT

LANDER

NYE

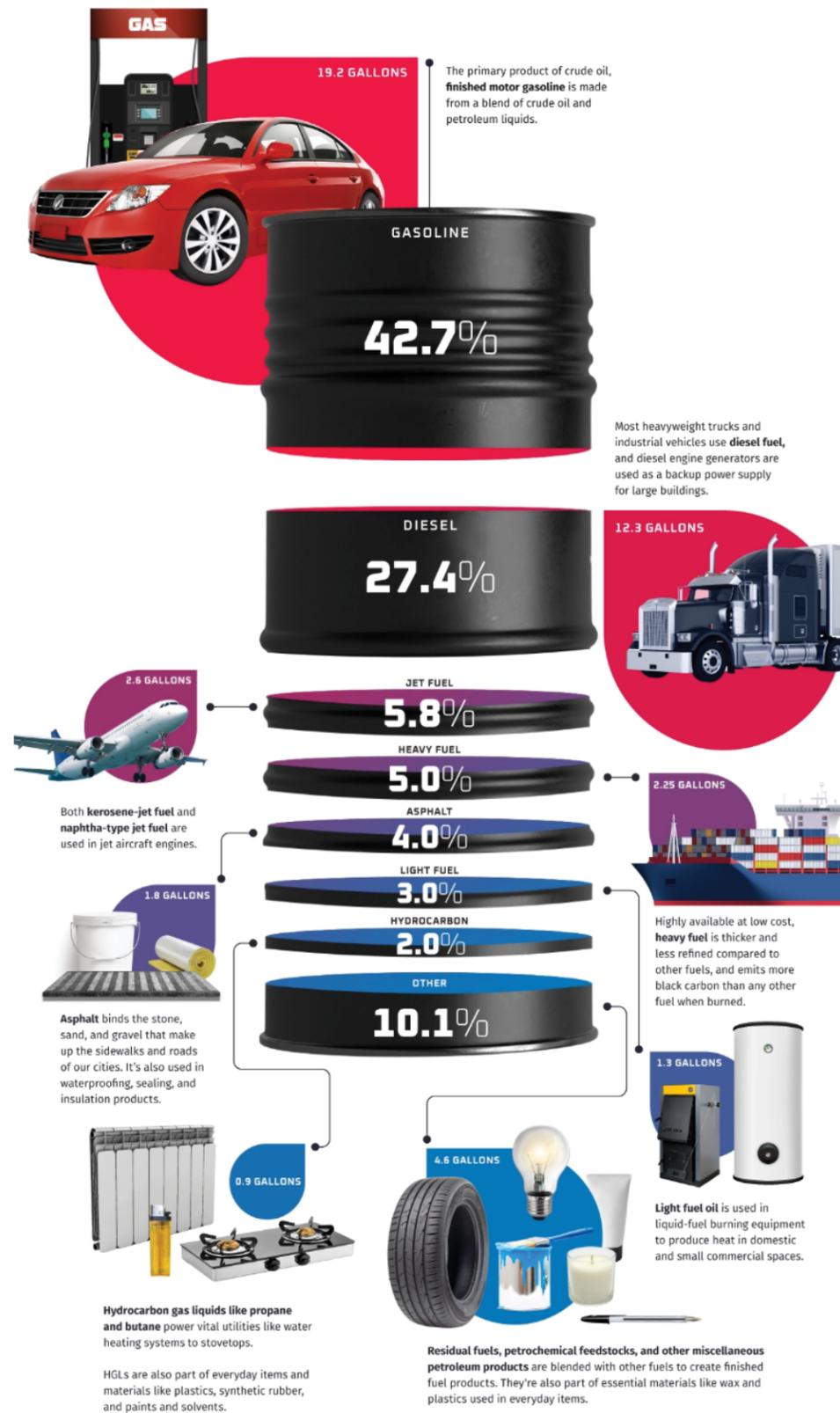
ESMERALDA

This is the near future!

Proposed - The Smith Creek
Lithium Property - 23,100 acres

Proposed - Bonnie Claire Project
18,300 acres
40 yrs Mine Life

ONE BARREL OF CRUDE OIL



A barrel of crude oil (42 gallons) produces just under 45 gallons of refined products, from transportation fuels to essential materials for everyday products.

ONE LITHIUM -ION BATTERY



1 kg = 2.204 lbs



Smartphone Batteries
2 - 3 kg



Tablet Batteries
20 -30 kg



Laptop Batteries
30 - 40 kg



Tesla Model - 51 kg



Powerwall 2.0
10 kg



Everyday Batteries -
40 -60 kg



Hybrid Electric Vehicles
0.8 - 2 kg

The world is shifting greener. The commercialization of lithium-ion battery is leading the way for two reason related to the properties of lithium: lithium is the lightest metal on the periodic table and has extremely high electrochemical potential (3.6 V).

Site - Silver Peak!

net sales 178% year over year
Roughly uses 18.5 million gallons
of water per day

Produces about 5,000 metric tons per year
As more brine is evaporated,
the ponds get smaller and smaller

18 to 24 months process period

Salty brine that contains lithium is pumped from between
300 and 2,000 feet underground to the surface.

a series of 23 ponds at the site

Albemarle acquired the site in 2015

Only operating lithium mine in the United States

Spans 13,000 acres

Silver Peak produces lithium from brine tapped from
the Clayton Valley basin

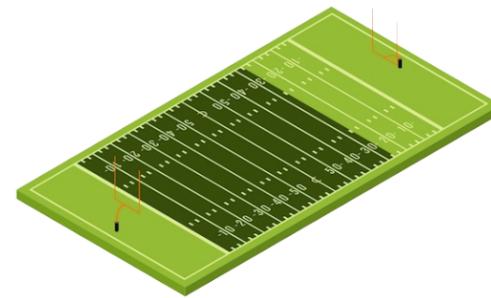
Goal - double capacity for 160,000 electric vehicles



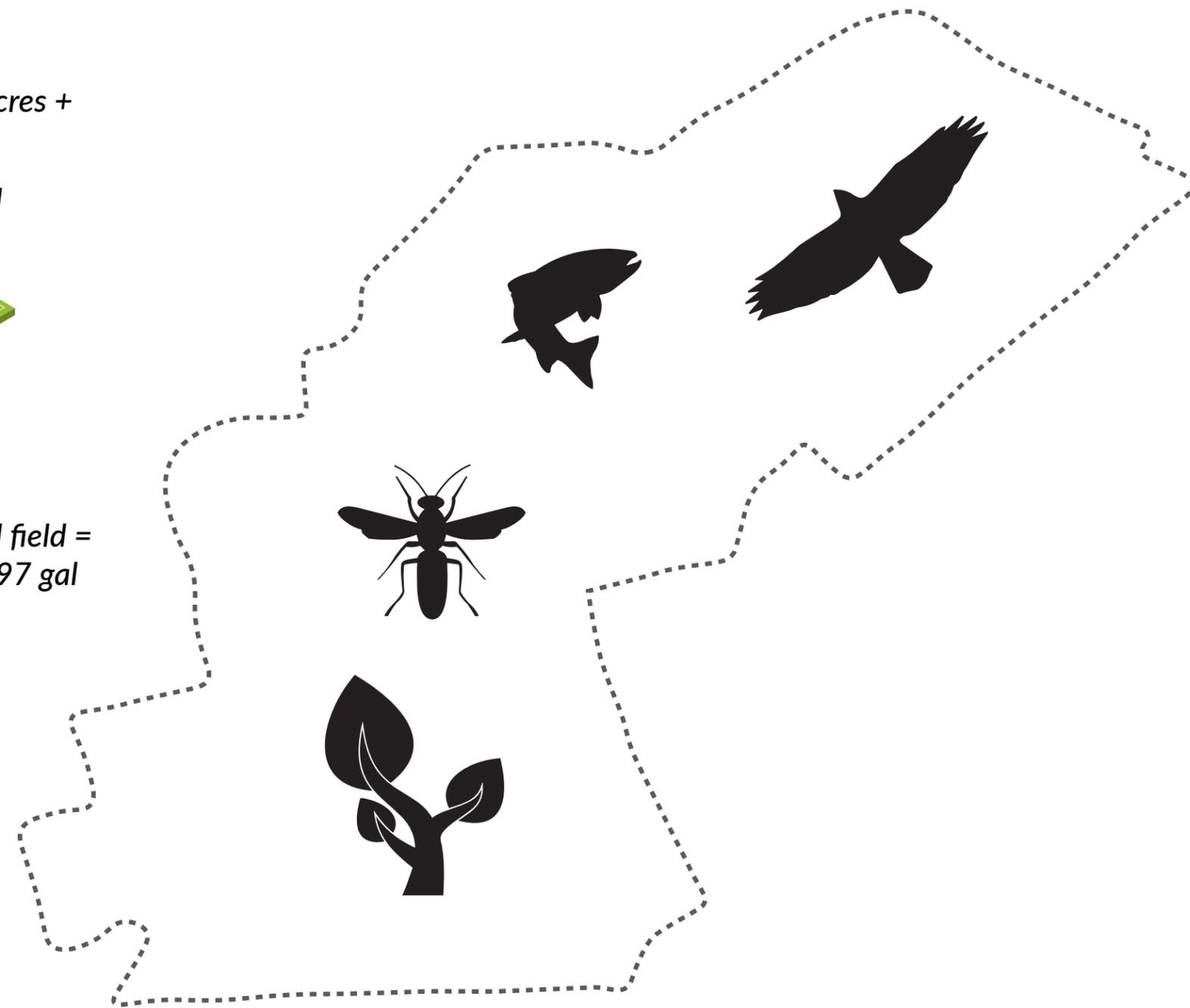
“What is the cost of green energy if it causes the extinction of whole species?”

One lithium site spans 13,000 acres +
uses 18.5M gal of water per day

one acre = 75% of a football field

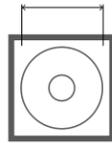


one inch of rainfall on a football field =
35,897 gal



* not drawn to scale

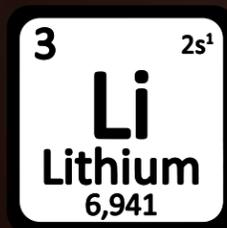
3.5 - 30 in. hole diameter



Depth - 1,000 ft - 30,000 ft

CAN MINING SELF HEAL?

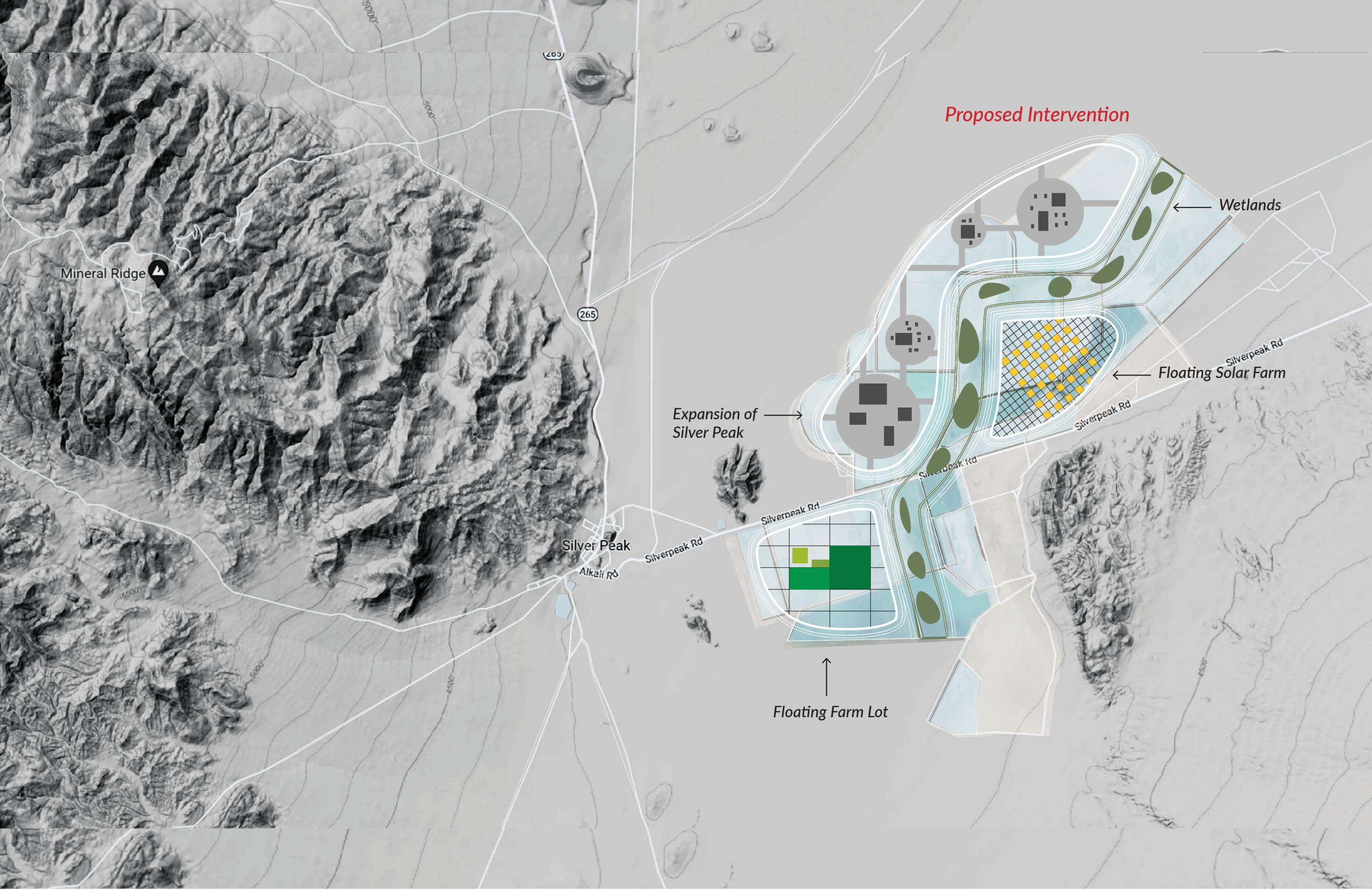
To create



= H₂O + SUN + TIME

TIME + SUN + H₂O = To Heal

The process for mining lithium uses a simple formula that is quite natural - sun, water, and time. If so, can we use the same formula to heal the land from years of mining? Can mining self heal? Yes! And it requires the same formula to transform (in this example Silver Peak) into a site for productive use. The site can slowly transform to support uses that are at most needed for the community of Silver Peak.



Proposed Intervention

Mineral Ridge

265

Silver Peak

Alkali Rd

Silver Peak Rd

Expansion of Silver Peak

Floating Farm Lot

Floating Solar Farm

Wetlands

The Land of Flowing Waters!

