



Protecting Tiehm's buckwheat

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Center for Biological Diversity

July 20, 2020

Nevada DCNR virtual public meeting





World is 'on notice' as major UN report shows one million species face extinction



The Extinction Crisis

- Current extinction rate is 1,000x background level
- Dozens of species going extinct every day
- Up to one million species at risk of extinction
- Sixth mass extinction

Fundamental threat to the biodiversity that makes life on earth possible.



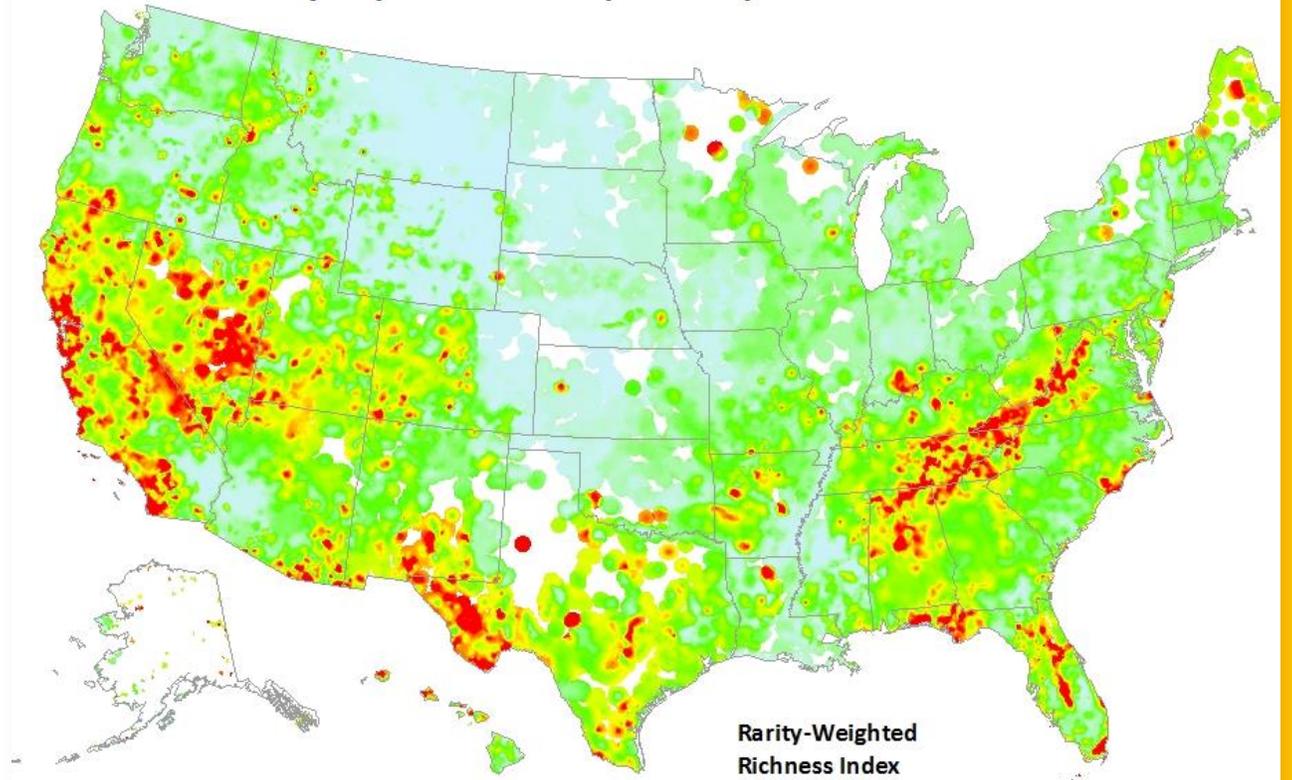
Endemism in Nevada

Nevada has high levels of endemism due to:

- Extreme aridity
- Isolated water sources
- Unique geological substrates
- Microclimates



NatureServe Rarity-Weighted Richness Model of Critically Imperiled and Imperiled Species in the United States



The continuous surface model representation of Rarity-Weighted Richness (RWR) of critically imperiled (G1) and imperiled (G2) species provides a picture of areas that represent concentrations of limited-range species and highlights locations with species composition different from adjacent areas. By combining overall species richness and the relative rarity (based on restricted distributions) of the species, this analysis points to locations that are essentially irreplaceable, and which present conservation opportunities that are found in very few other places.

Rarity-Weighted Richness Index

High
Low

0 100 200 Miles

 NatureServe

Source: NatureServe and its Natural Heritage member programs 2013
Produced by NatureServe, October 2013

Source: NatureServe



Protecting Tiehm's buckwheat

- June 2019: first site visit, whistleblower
- October 2019: petitioned USFWS and NDF for protection under the Endangered Species Act & state law respectively
- November 2019: sued BLM for authorizing mining exploration activities without proper documentation
- January 2020: reached settlement to temporarily halt exploration
- January 2020: USFWS missed 90-day deadline



Tiehm's buckwheat must be protected

NRS 527.260

(b) The people of the State of Nevada have an obligation to conserve and protect the various species of flora which are threatened with extinction.

Tiehm's buckwheat is threatened with extinction due to:

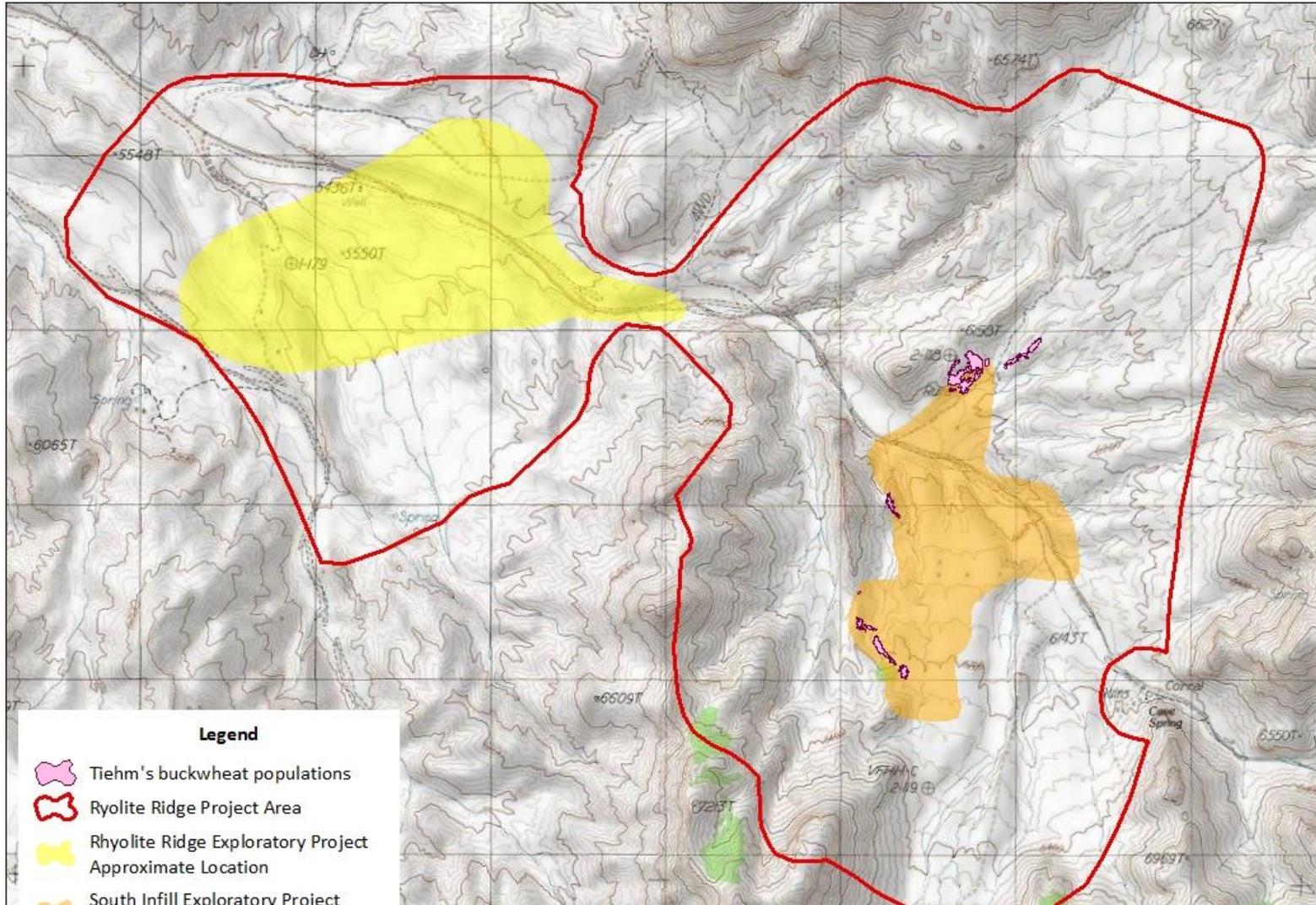
- Severity of threats
- Inadequacy of existing regulatory mechanisms
- Inadequacy of proposed mitigation schemes



Impacts from Mineral Exploration Activities

Source: Patrick Donnelly, Center for Biological Diversity





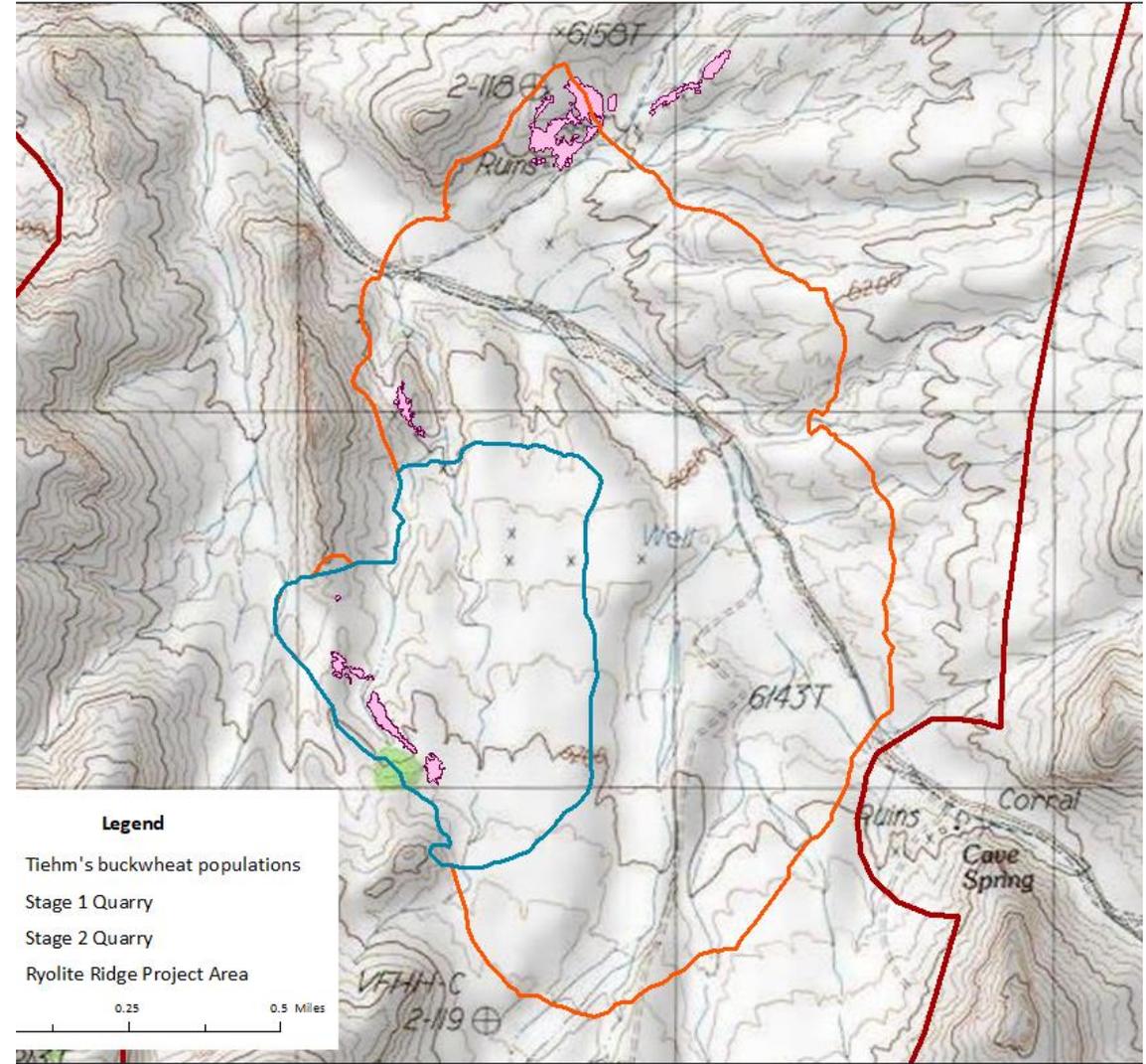
Mineral Exploration Shenanigans

Source: Kara Clauser,
Center for Biological
Diversity



Rhyolite Ridge Mine

- Phase 1, per Plan of Operations, will wipe out 30% of habitat and 60% of individuals
- Phase 2, per Definitive Feasibility Study, will wipe out >80% of habitat and 90% of individuals



Source: Ioneer Definitive Feasibility Study;
Kara Clauser, Center for Biological Diversity



Inadequacy of existing regulatory mechanisms



- loneer's voluntary measures during exploration insufficient:
 - Newfields on-site personnel encountered on October 27, 2019 did not know where the buckwheat grew or how to avoid it;
 - habitat fragmented by new roads;
 - sump pits left unfenced;
 - exploration notices not followed.
- BLM has not adhered to FLPMA, NEPA.
- BLM Sensitive Species designation toothless.
- Conflicts of interest at Department of Interior.
- USFWS already violating statutory listing deadlines; years of delay and litigation possible.
- NNHP recommended protection 25 years ago.

Inadequacy of mitigation plan

AP

Who's greener? Mine fight pits electric cars against flower

By SCOTT SONNER March 7, 2020

USNews

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Mining Company Extends UNR Research on Rare Wildflower

A mining company has announced a \$168,000 grant to the University of Nevada, Reno to extend a five-year research contract to study a rare desert wildflower that critics say could be harmed by plans to build a lithium mine in Nevada.

VOICES | Opinion *This piece expresses the views of its author(s), separate from those of this publication.*

Research at UNR will put fragile wildflower at risk | Fraga

Naomi Fraga

Published 8:53 a.m. PT May 16, 2020



Tiehm's Buckwheat (*Eriogonum tiehmii*)

Protection Plan

Draft
April 2020

I don't necessarily agree with this title. This document isn't a protection plan, but actually is a mitigation plan. I would recommend changing it.

Inadequacy of mitigation plan

I don't necessarily agree with this title. This document isn't a protection plan, but actually is a mitigation plan. I would recommend changing it.

Source: USFWS Freedom of Information Act request

FWIW, this document is at best a mitigation plan, certainly not a "protection plan."
But I'm guessing I'm not the only one with that thought...

Source: USFWS Freedom of Information Act request





Inadequacy of mitigation plan

I am not used to such a focus on in-progress research. I feel like maybe one very important thing isn't clear, and that's that these plants could die at any stage of this experiment. We are asking a lot of them, and doing our best to set them up for success with the things we can control, but there are a lot of places where things could go south, which are out of our control.

Unseasonably hot weather, herbivores, vandals, unsuitable site conditions, brittle roots, picky plants... so many things could go wrong here, I can't even list them all. We are doing our best but the risks are very real.

Unless you are prepared to talk about that in this blog, I would not move forward with it.

Source: Dr. Beth Leger email to Loneer PR company, 04/14/20, obtained via public records request





Inadequacy of mitigation plan

Scientist letter

“If the project were approved, there is no doubt that it would cause the extinction of an irreplaceable component of Nevada’s native heritage. In fact, the proposed impact to Tiehm’s buckwheat is so egregious that **no mitigation measures are acceptable or could lessen the impact to the species.**”

Signed by over 100 scientists including:

Peter H. Raven, Ph.D.
Missouri Botanical Garden

Katherine Heineman, Ph.D.
Center for Plant Conservation

James M. Andre
University of California Riverside

Dieter H. Wilken, Ph.D.
Santa Barbara Botanic Garden

Denise Knapp, Ph.D.
Santa Barbara Botanic Garden

Brent D. Mishler, Ph.D.
University of California, Berkeley

Emily R. Roberson, Ph.D.
Native Plant Conservation Campaign

Ben Grady, Ph.D.
Ripon College
President, Eriogonum Society

Bruce G Baldwin, Ph.D.
University of California, Berkeley

Bart O’Brien, MLA
East Bay Regional Parks District

Jenn Yost, Ph.D.
Cal Poly State University, San Luis Obispo

Rachel Martin, Ph.D.
University of California





- Overwhelming scientific consensus that Tiehm's buckwheat needs protections.
- Law does not allow the state to deny protections solely based on economic considerations.
- Allowing Tiehm's buckwheat to go extinct or be severely threatened with extinction in its natural habitat would violate NRS 527.270.
- The fate of Tiehm's buckwheat largely lies in the hands of the Nevada Department of Conservation and Natural Resources.

Source: Patrick Donnelly, Center for Biological Diversity

