



Fairbanks & North Pole, Alaska EV Infrastructure Planning

AEA EV Q3 Working Group Meeting

Presented by Jackson Fox, FAST Planning (Fairbanks, Alaska MPO)

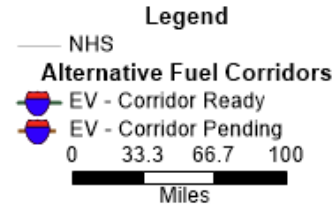
October 10, 2024

Overview

- Local Setting
- Local Government Interests
- **Cold Climate** Challenges & Opportunities
- Current EV Planning Effort
- **Funding** Challenges & Opportunities
- Draft Plan & **Implementation Strategy**



Location

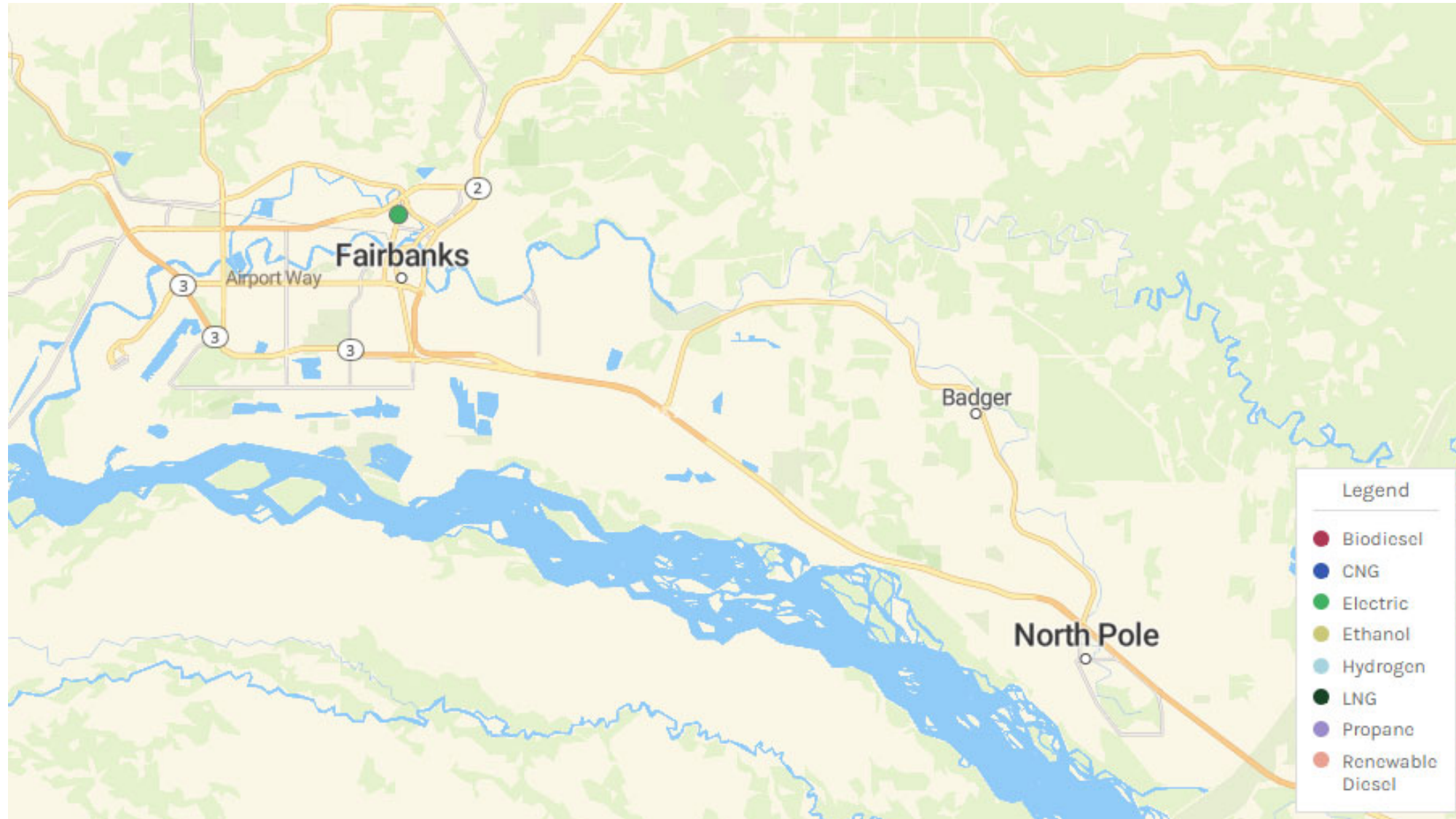


- Northernmost Urbanized Area in Alaska/U.S.



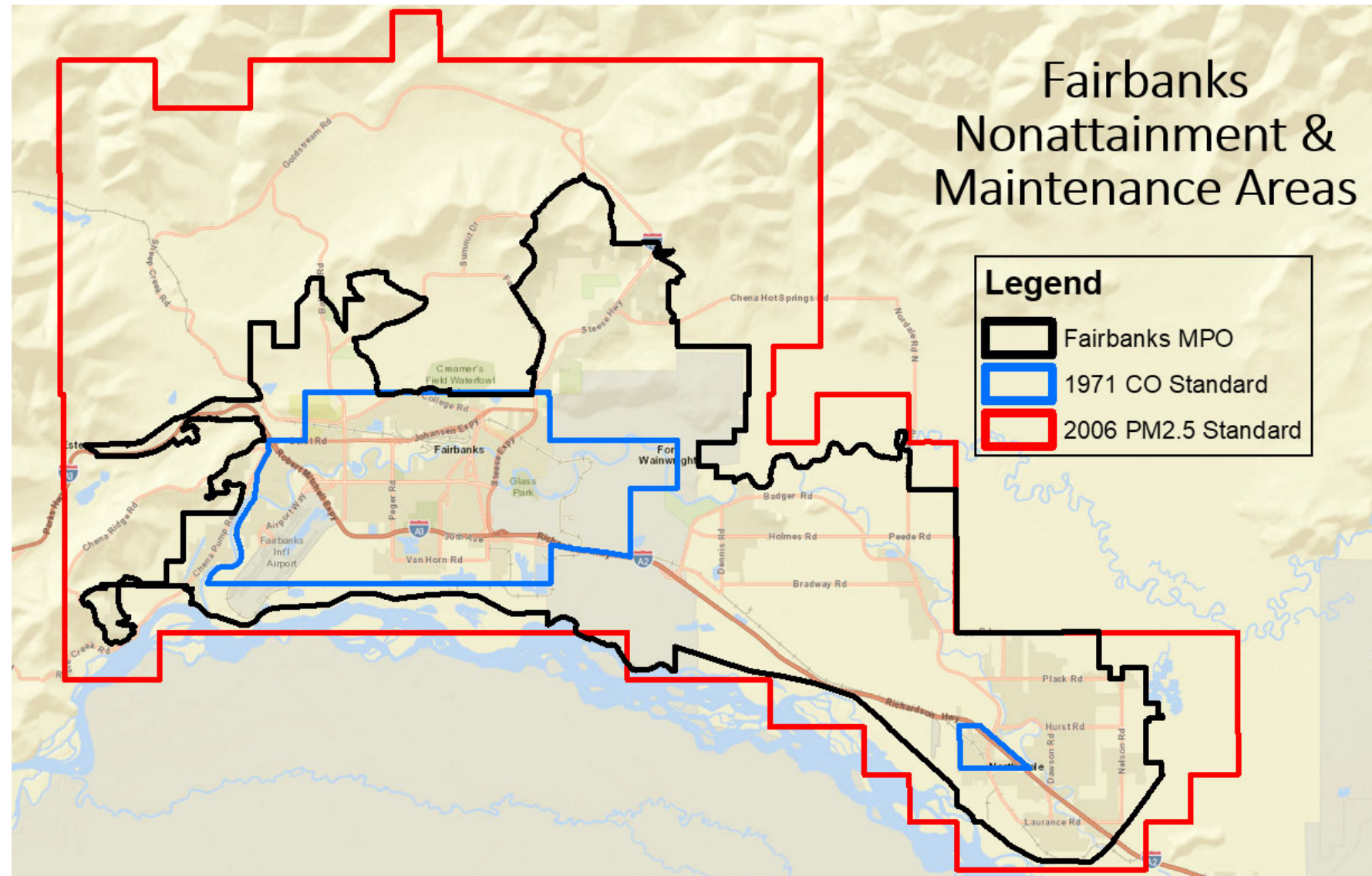
Alternative Fueling Stations in Fairbanks

- Only one (1) publicly accessible EV charging station in Fairbanks/North Pole
- Approx. 150 EVs in community



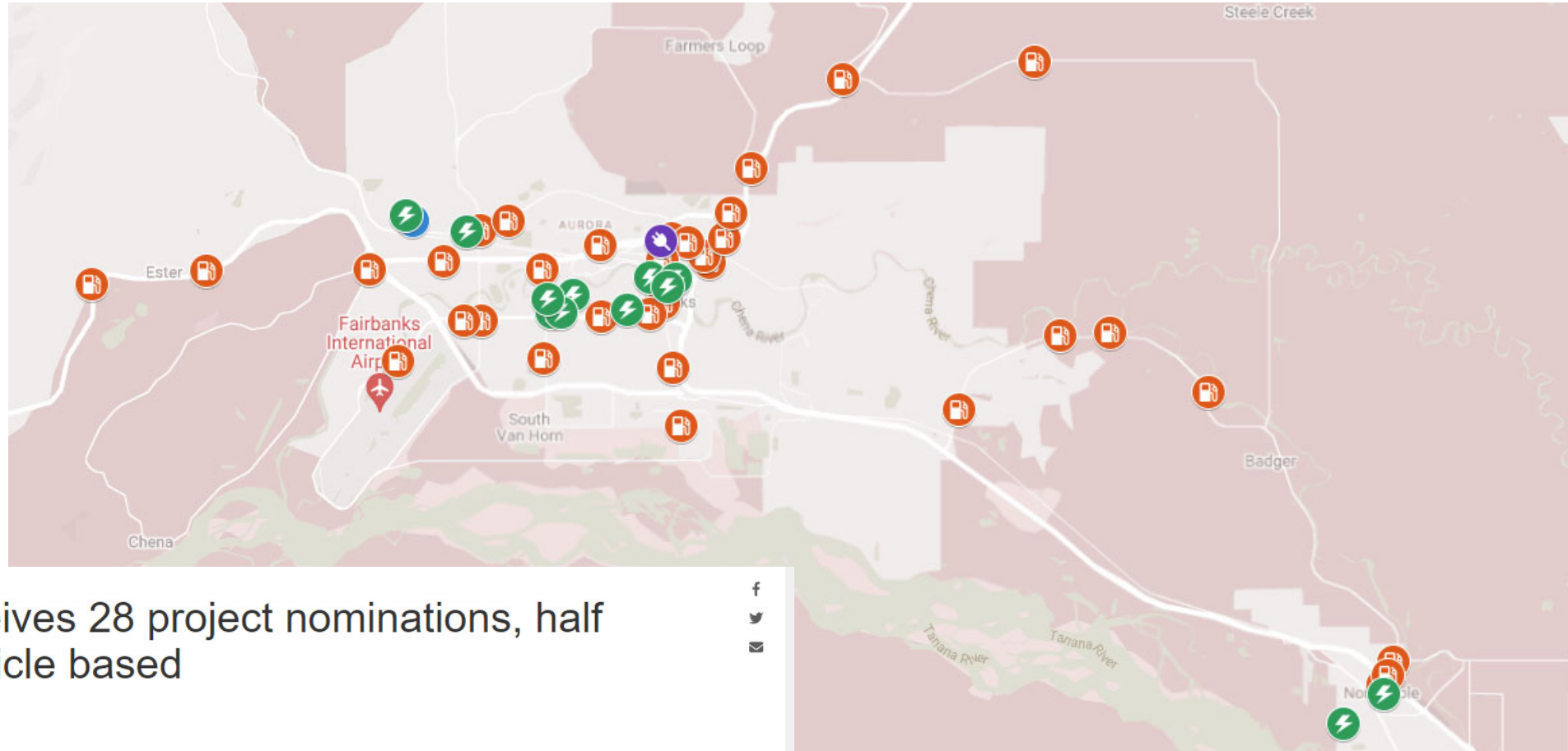
PM2.5 Serious Non-Attainment Area

- Primary emission source: residential woodstoves
- Vehicles: 6.8% emission contribution
- “Conformity Freeze” in effect on local transportation plans
- Have access to CMAQ PM2.5 Set-Aside funds



CMAQ/CRP Call for Project Nominations

- CMAQ
Suballocation:
\$2M annually
- CRP
Suballocation:
\$1M annually



FAST Planning receives 28 project nominations, half of them electric vehicle based

Jack Barnwell Mar 2, 2023



Local News



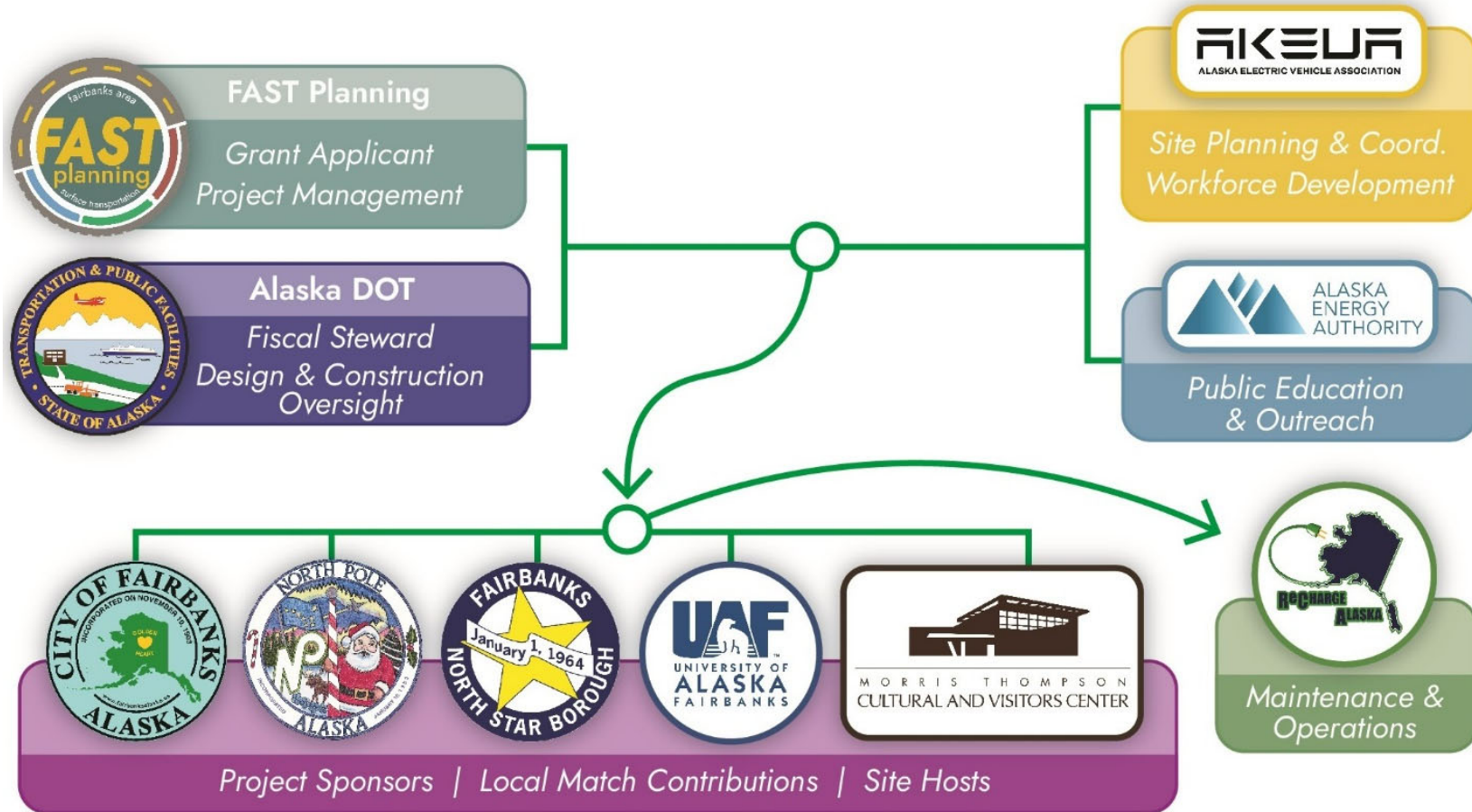
Call for Applications: Received Applications in Fairbanks and North Pole



- | | | |
|---|---|--|
| 1 UAF
<i>Two level-2 ports
& one DC Fast</i> | 4 Noel Wein Library
<i>Two level-2 ports</i> | 7 Downtown Parking
Garage
<i>Four level-2 ports</i> |
| 2 Pioneer Park
<i>40 level-2 ports</i> | 5 FNSB Admin Bldg
<i>Two level-2 ports</i> | 8 North Pole City Hall
<i>Four level-2 ports</i> |
| 3 Carlson Center
<i>Two level-2 ports</i> | 6 Morris Thompson
Cultural & Visitors Center
<i>Four level-2 ports</i> | 9 North Pole Library
<i>Two level-2 ports</i> |

CFI Grant Application – Round 1

- “Highly Recommended” but not awarded
- Resubmitted for reservation of funds for unawarded Round 1 applications
- 5 local gov’t partners
- 4 non-profit partners



The background is a light gray surface covered with numerous overlapping, organic, and hand-drawn style shapes. The shapes are primarily in three colors: a pale yellow, a light teal, and a muted blue-gray. These shapes vary in size and orientation, creating a textured, collage-like effect. Some shapes are solid, while others appear to be layered or partially obscured by others.

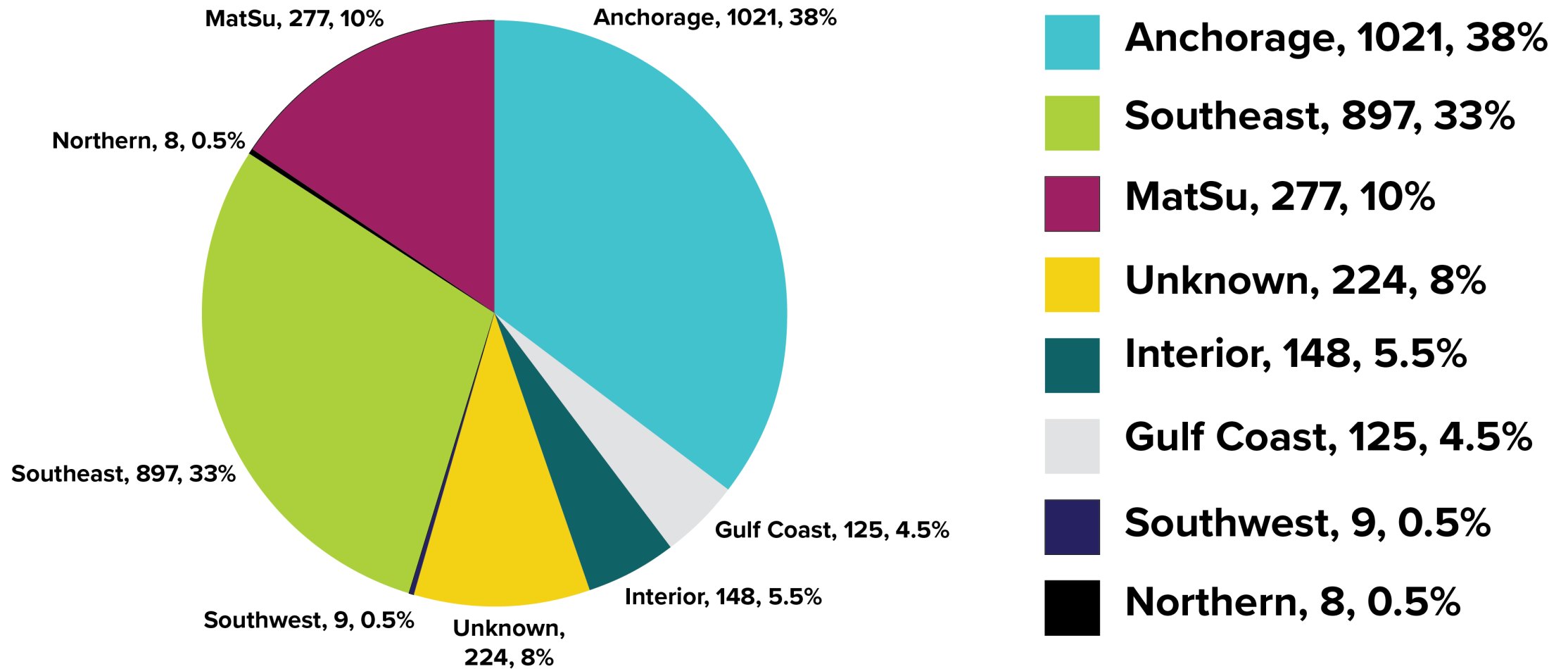
Existing Conditions

Cold Climate Challenges & Opportunities

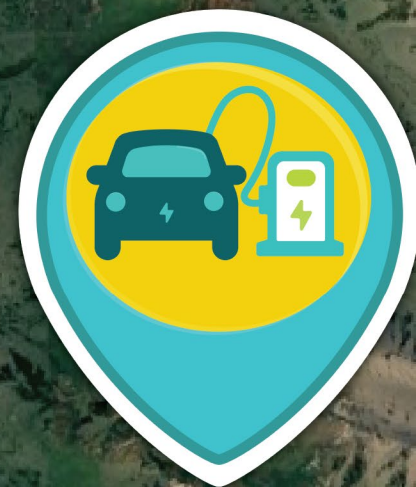
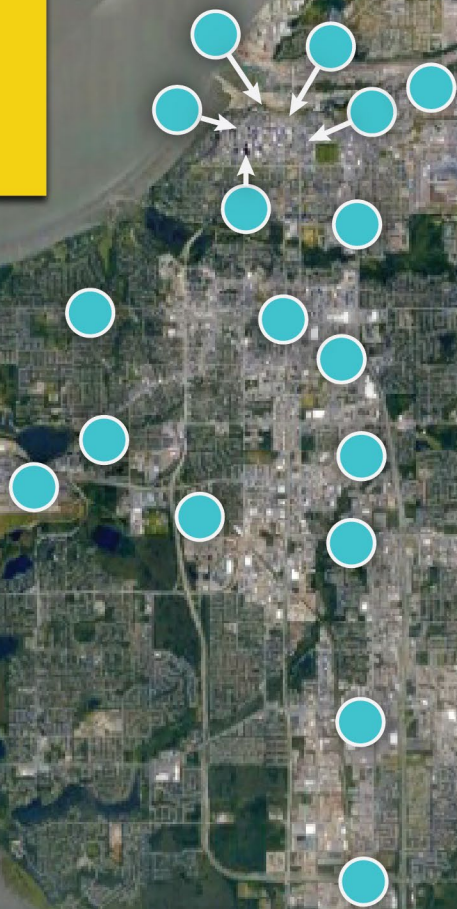
- Limited infrastructure
 - Limited adoption
 - Cold weather performance
 - Vehicle availability
 - Lack of exposure to & knowledge of EVs
-
- Cold climate testing
 - Heavy/low center of gravity
 - Limited maintenance
 - Other/unique stories

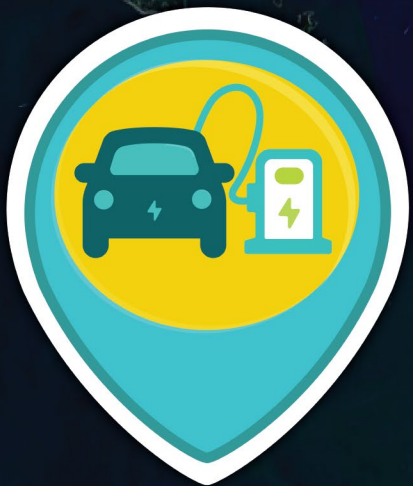


Alaska BEVs Regional Numbers as of 3/5/24

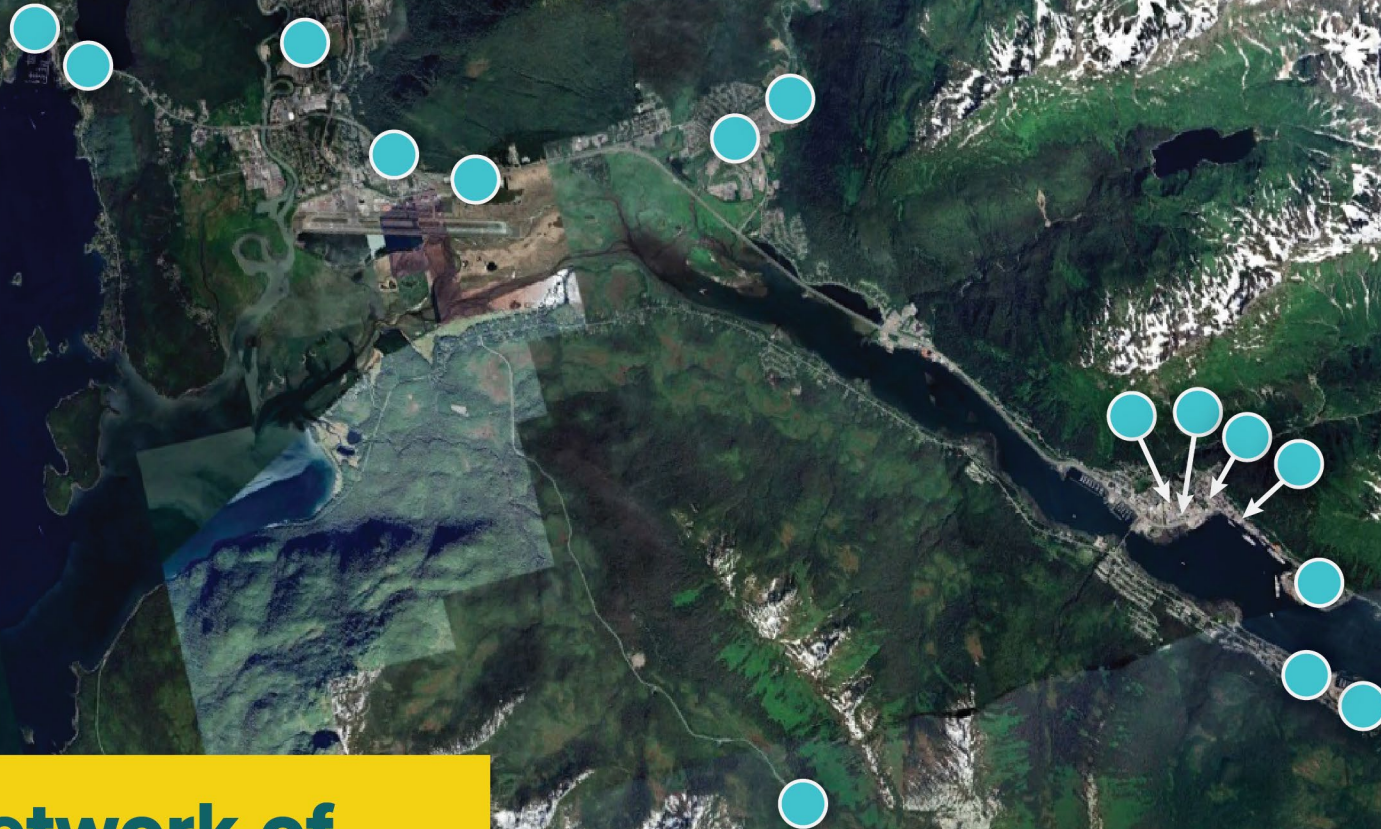


Anchorage Network of Public Electric Vehicle Charging Locations



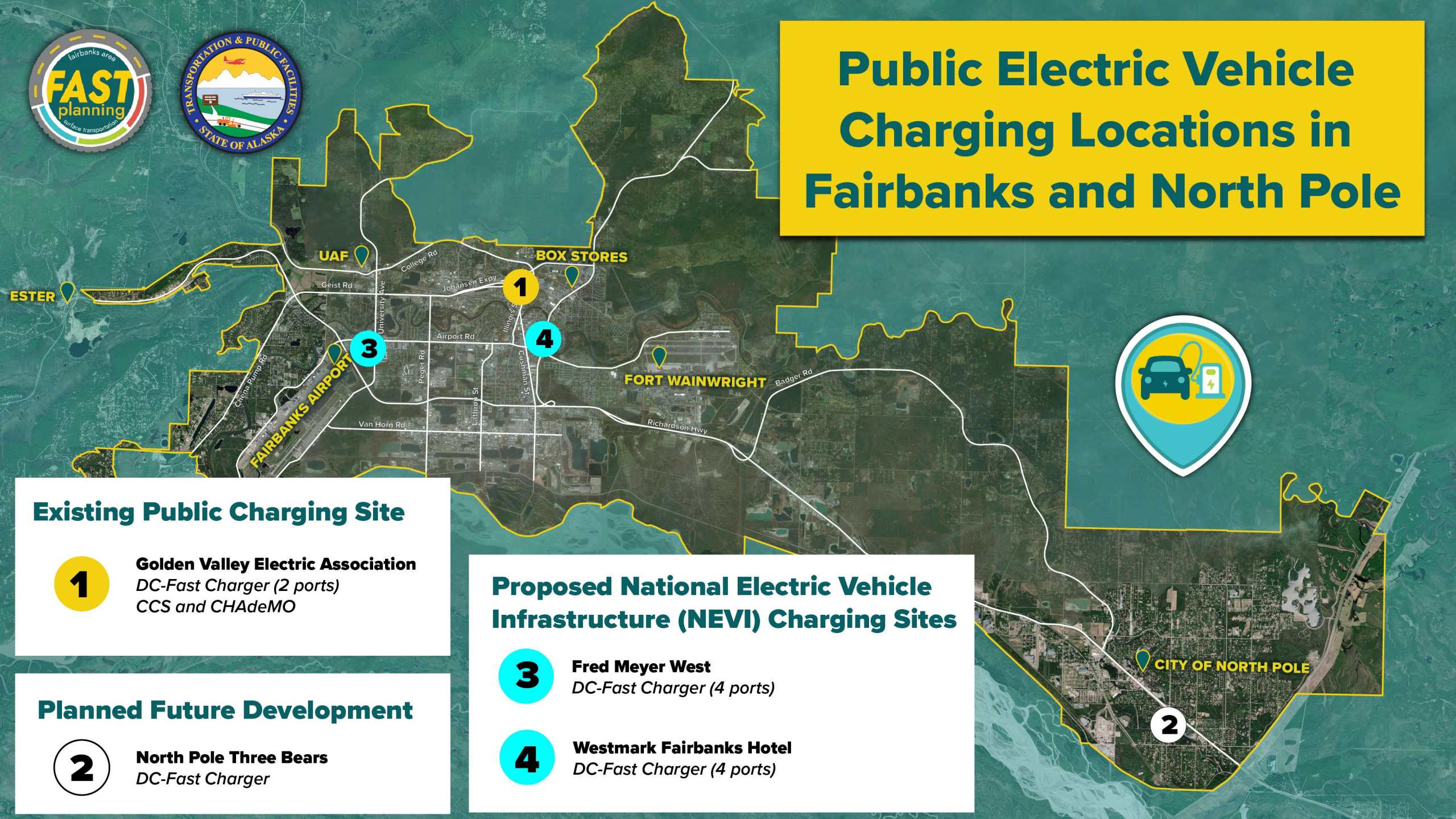


Juneau Network of Public Electric Vehicle Charging Locations





Public Electric Vehicle Charging Locations in Fairbanks and North Pole



Existing Public Charging Site

1

Golden Valley Electric Association
DC-Fast Charger (2 ports)
CCS and CHAdeMO

Planned Future Development

2

North Pole Three Bears
DC-Fast Charger

Proposed National Electric Vehicle Infrastructure (NEVI) Charging Sites

3

Fred Meyer West
DC-Fast Charger (4 ports)

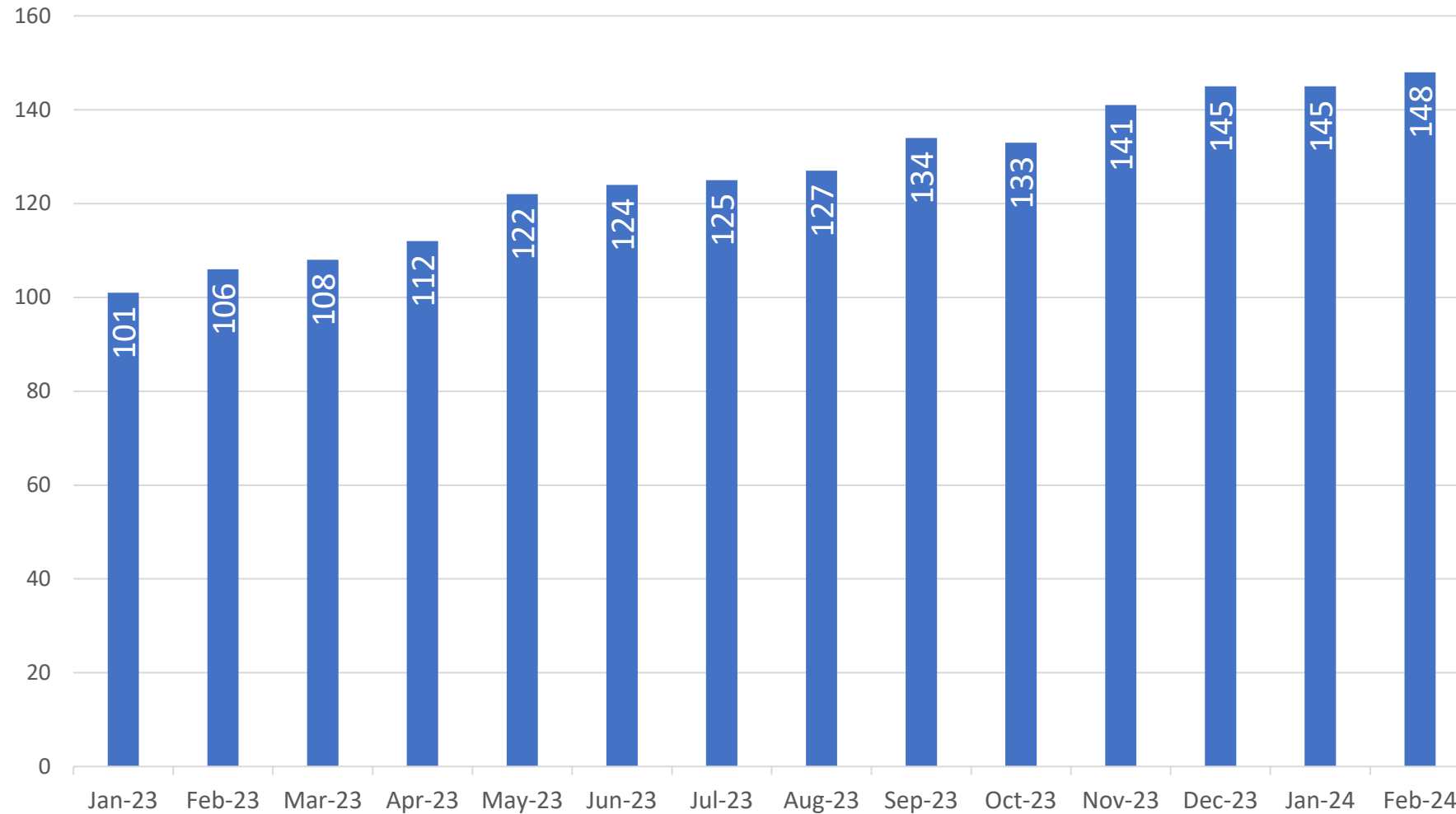
4

Westmark Fairbanks Hotel
DC-Fast Charger (4 ports)

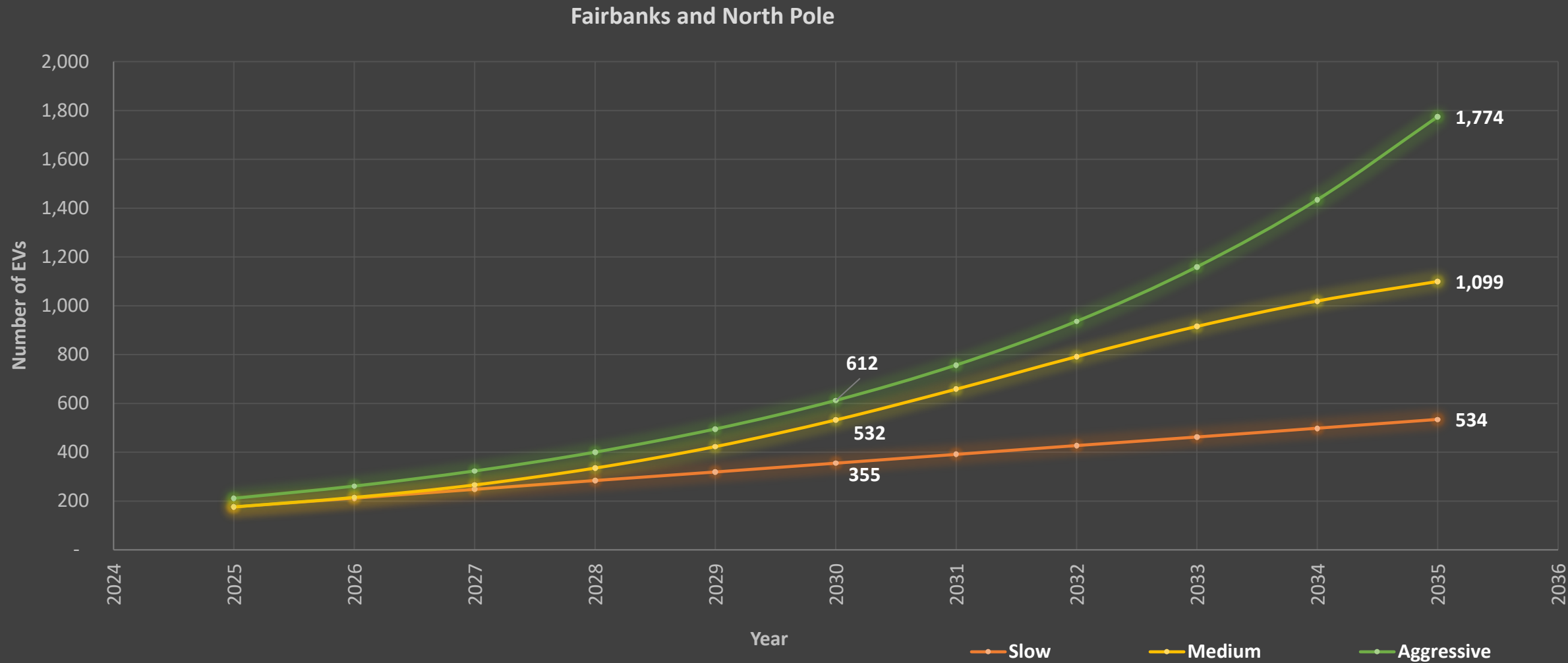


Registered BEVs

Registered BEVs in the Interior



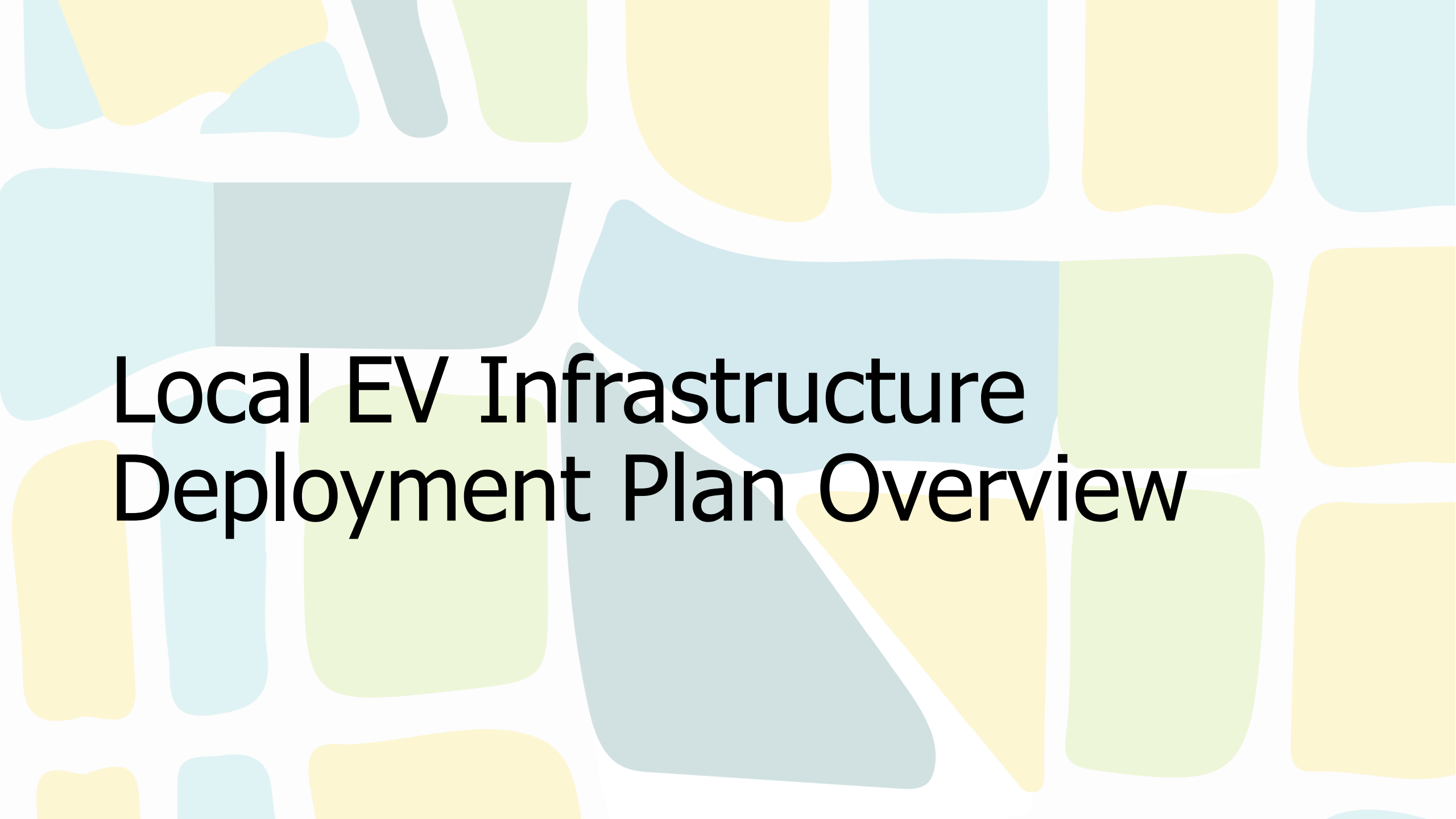
Interior Growth



The background features a collection of overlapping, rounded rectangular shapes in three colors: light blue, pale yellow, and light green. These shapes are scattered across the white background, creating a modern, abstract pattern.

Local Dealership Interviews

Feedback on EV sales/marketability

The background features a collection of overlapping, rounded rectangular shapes in three colors: light blue, pale yellow, and light green. These shapes are scattered across the white background, creating a modern, abstract pattern.

Local EV Infrastructure Deployment Plan Overview

Vision Statement

Fairbanks and North Pole aim to become **electric vehicle (EV)-ready communities** by developing a **convenient, equitable, and local** EV charging network. This network will support the integration of EVs as a **new transportation option** among existing options and provide residents and visitors with **ample charging access** to make EV ownership **feasible and accessible for all**.

Plan Outline



Introduction



Vision, Goals, &
Objectives



Stakeholder &
Public
Involvement



Existing
Conditions

- Current EV Landscape
- Challenges
- Existing Infrastructure
- Utilities
- Policies and Regulations
- FAST Call for Applications
- Alaska NEVI Efforts



Needs Analysis

- Projected Infrastructure Needs
- Cost Estimates
- Funding Opportunities
- Policy and Regulation Modifications
- Battery Disposal and Recycling



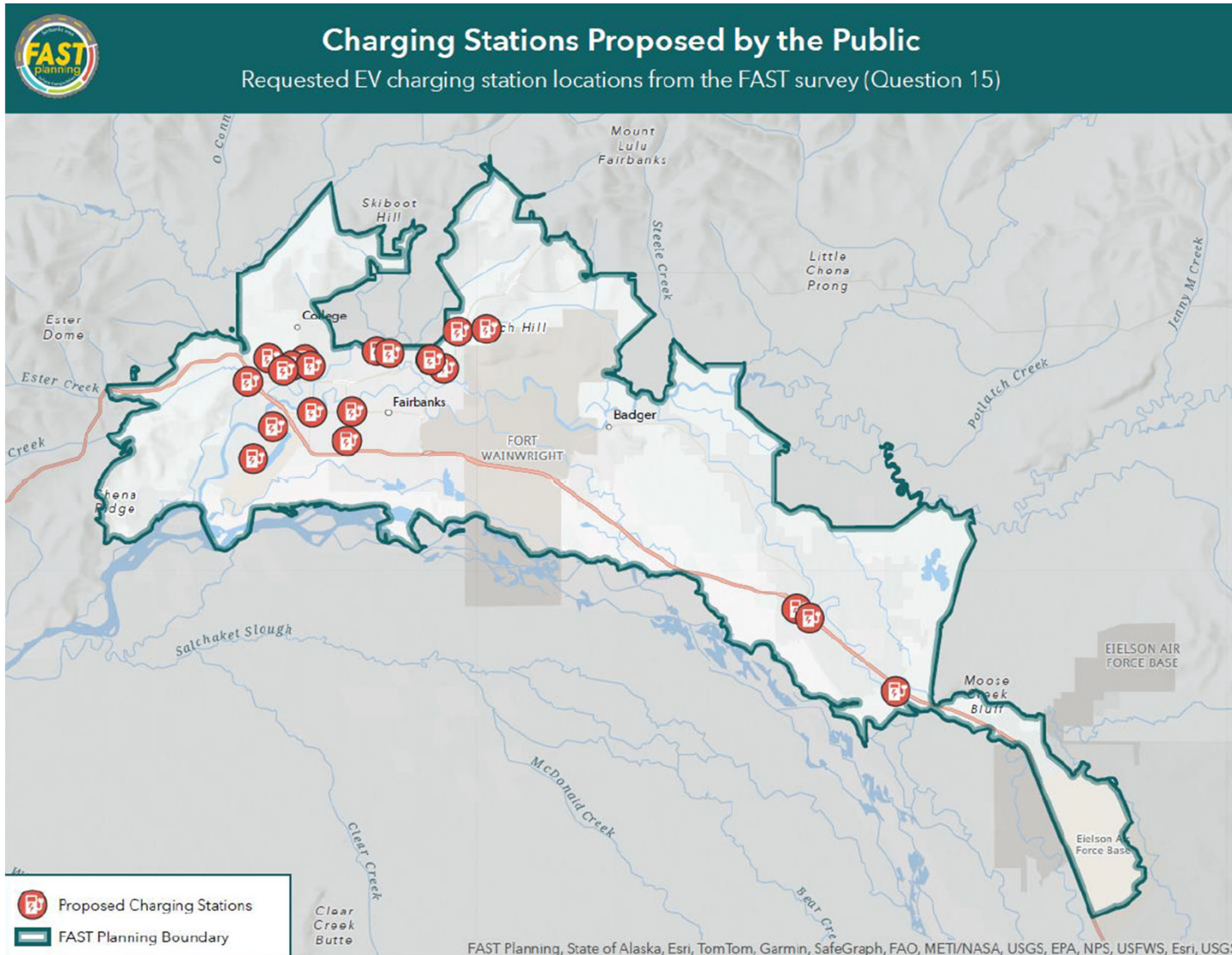
Recommendations



Implementation
Strategy



Charging Stations proposed by Public



PLANNING FOR ELECTRIC VEHICLES OPEN HOUSE

Help determine the **future** locations
of EV charging stations & more!

TUESDAY | MARCH 19TH

@ MORRIS THOMPSON CULTURAL & VISITOR'S CENTER

101 DUNKEL STREET, FAIRBANKS, AK 99701

5:00 - 7:00 PM



FREE FOOD! come hungry | sandwiches & drinks provided

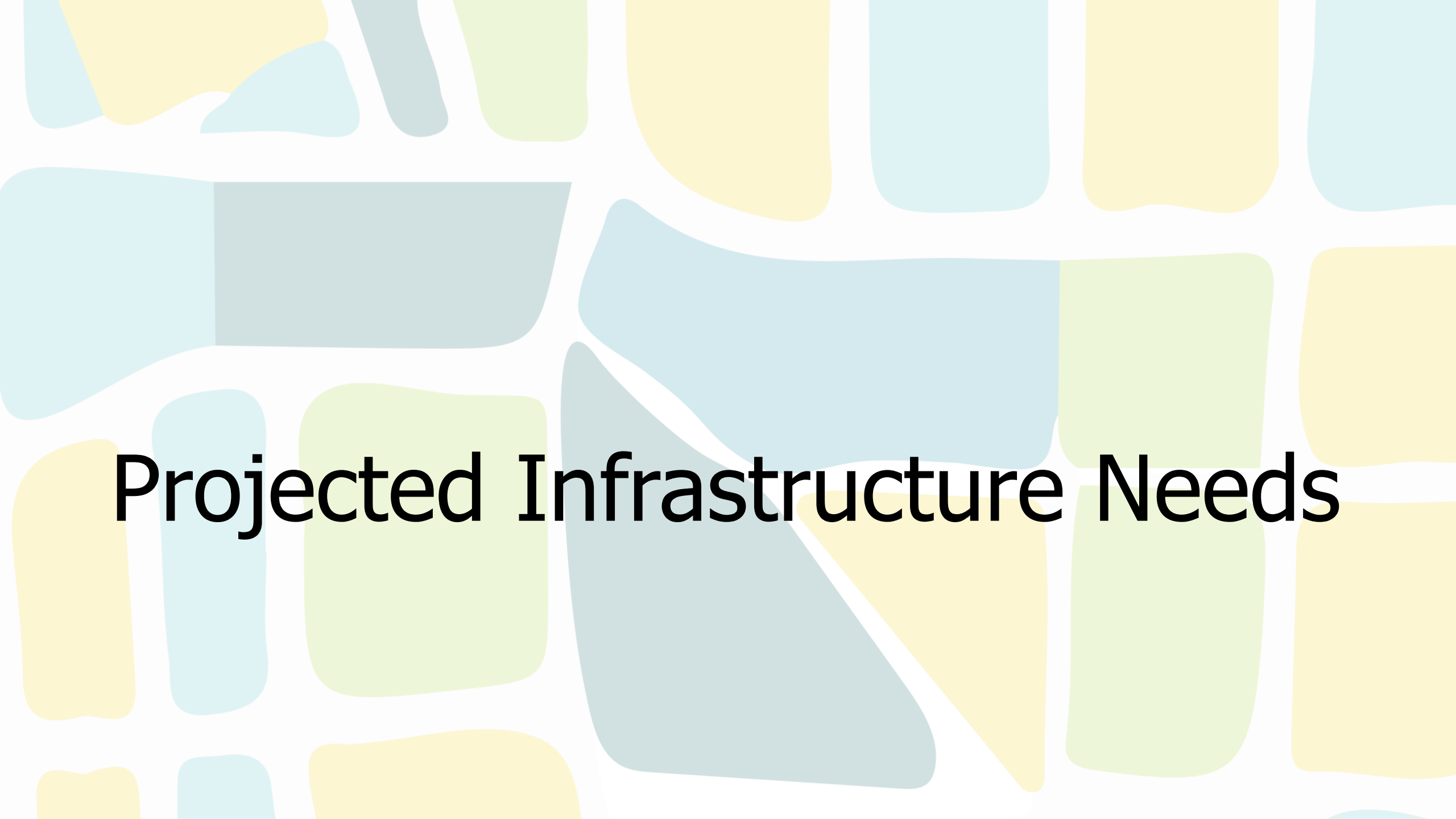
NEED MORE INFO? Call/Text (907) 251-7248

100 cushman street, suite 205 or www.fastplanning.us



A FAST Planning Carbon
Reduction Program-funded
plan in partnership with:

**Michael Baker
INTERNATIONAL**

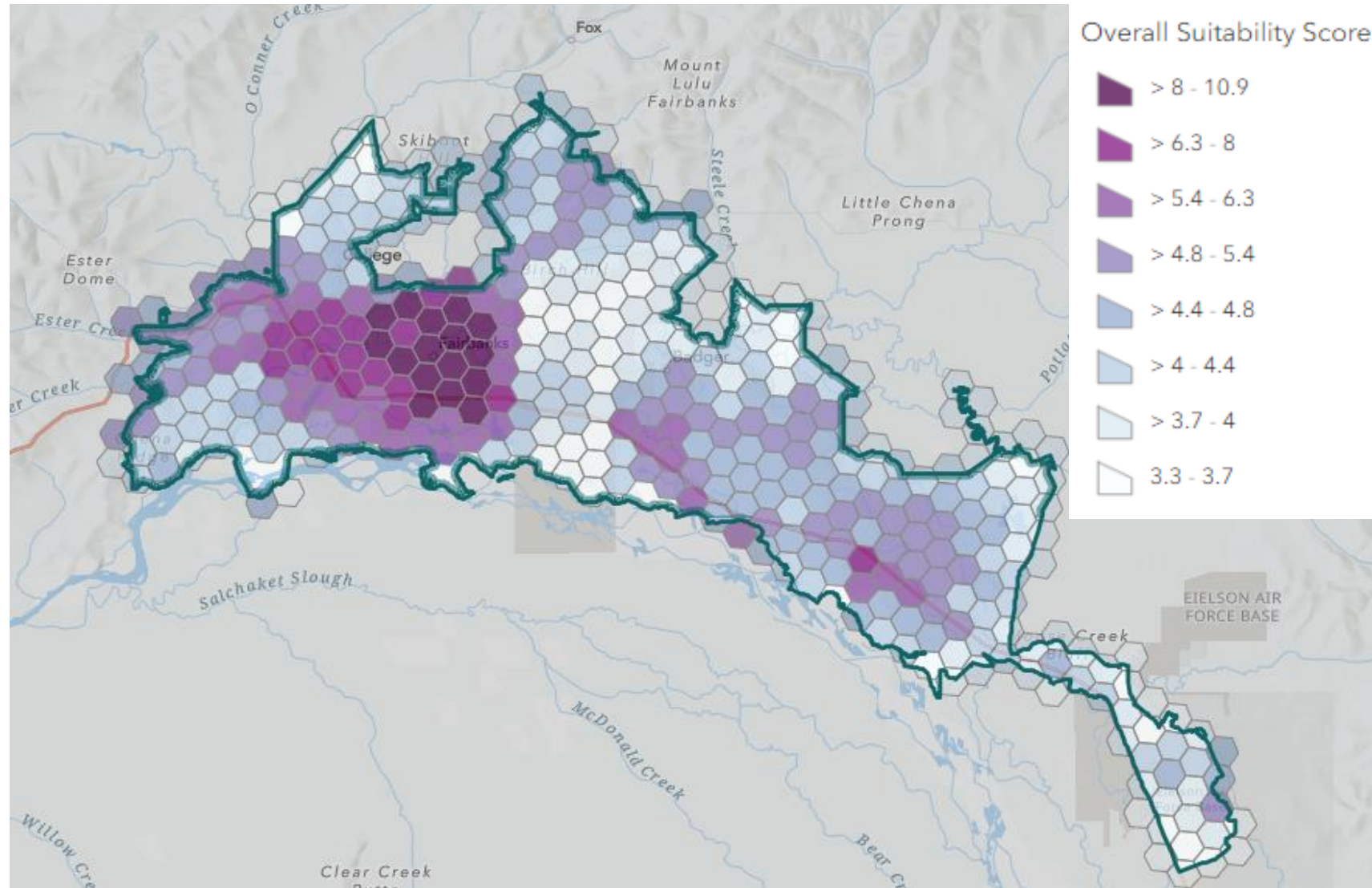
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Projected Infrastructure Needs

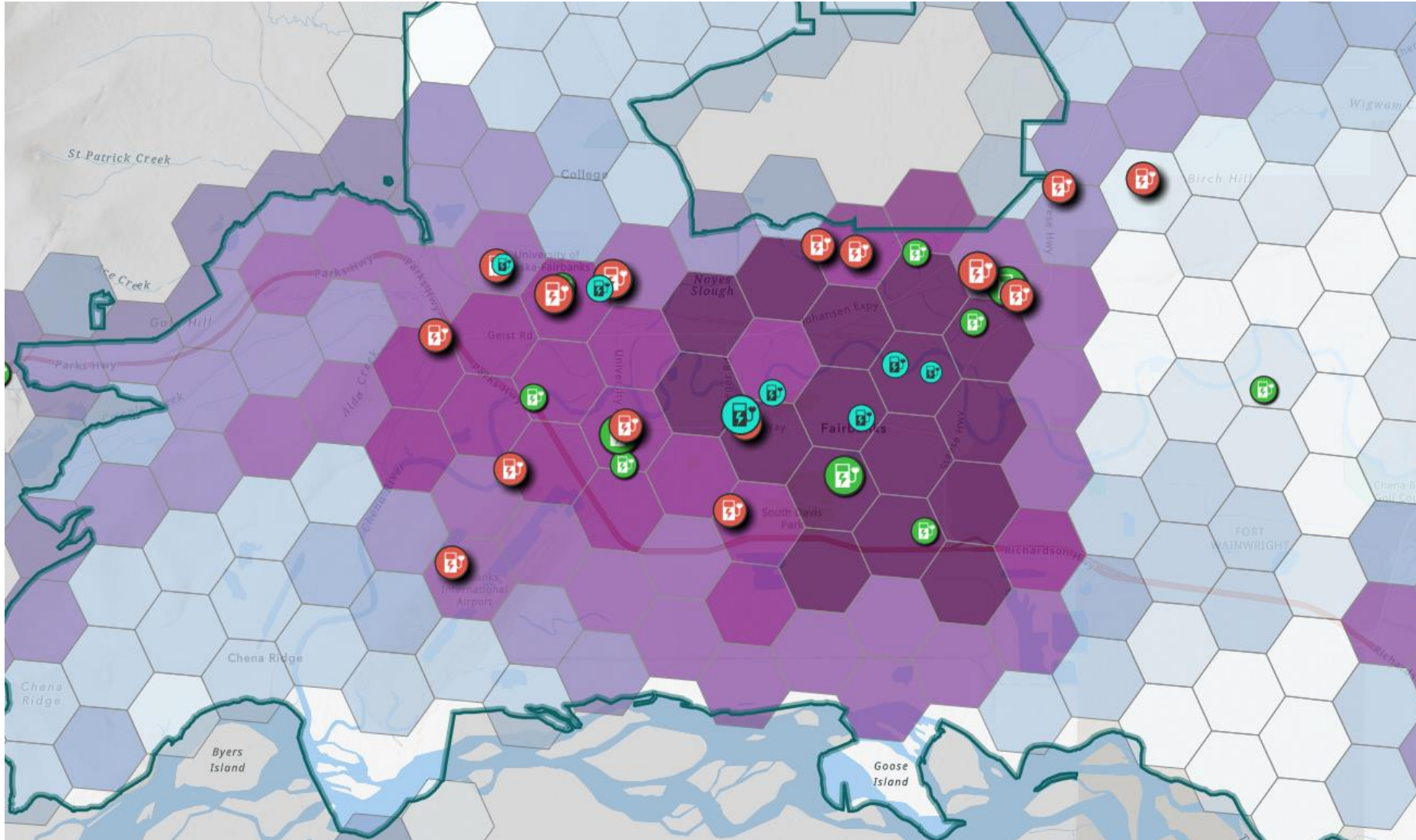
Results

Recommended Ports	Existing Ports	Known Planned Ports	Remaining Ports Needed
100	2	14	84

Site Suitability Results



Combined

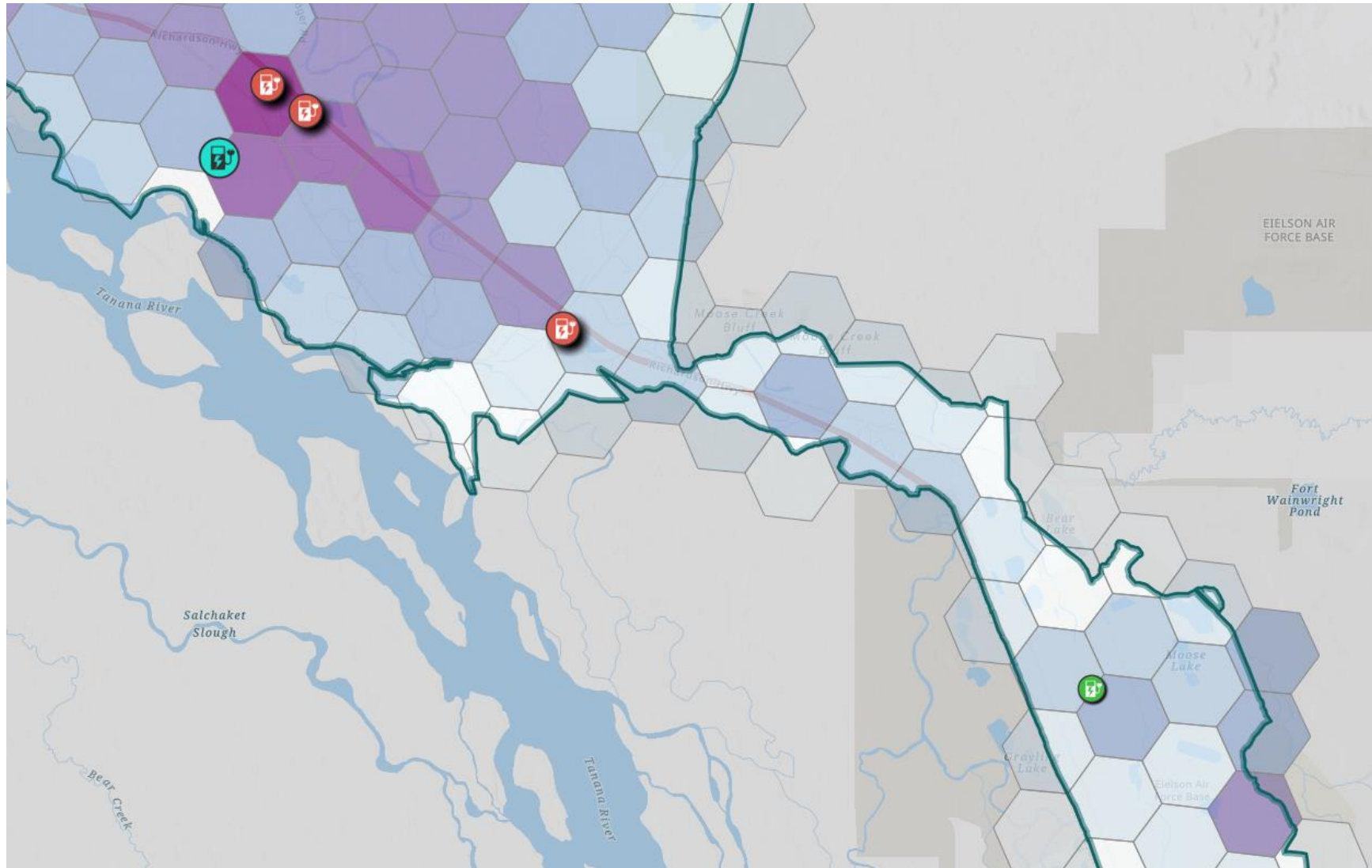


Cyan: Call for Projects

Red: Survey responses

Green: Open House responses

Combined



Cyan: Call for Projects

Red: Survey responses

Green: Open House responses

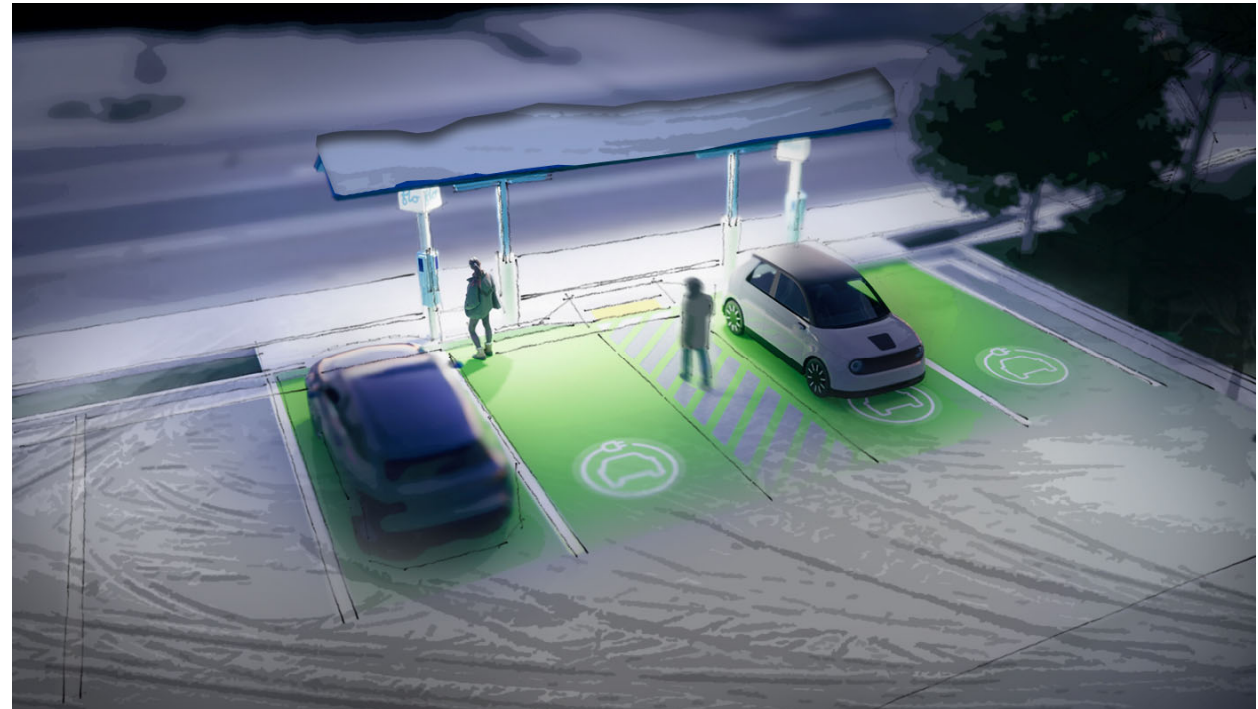
Funding Opportunities

- Local CMAQ/CRP Suballocations: \$3M annually
- CFI Discretionary Grant funding opportunity
- NEVI Formula Funds, following buildout of Alternative Fuel Corridor
- Cold Climate research for EVs and charging station infrastructure



Funding Challenges

- FHWA requirement to apply Uniform Act to all projects that receive Title 23 funds – State must acquire access rights to EV charging sites
- Four (4) port minimums, and Level 2 vs 3 (DC/Fast) requirements
- Alternative Fuel Corridor buildout
- 20% match requirement
- Manufacturing certification
 - Need to operate at -40°F
- Local dealerships
 - Marketability
 - Tax incentives (domestic/foreign)
 - Maintenance equipment needs



The background features a collection of abstract, organic shapes in four colors: light blue, pale yellow, light green, and a muted teal. These shapes are scattered across the white background, some overlapping and others separate, creating a modern, minimalist aesthetic.

Implementation Strategy

Implementation Strategy

**Issue Call
for Projects**

**Procure
Engineering
Design
Study
Report**

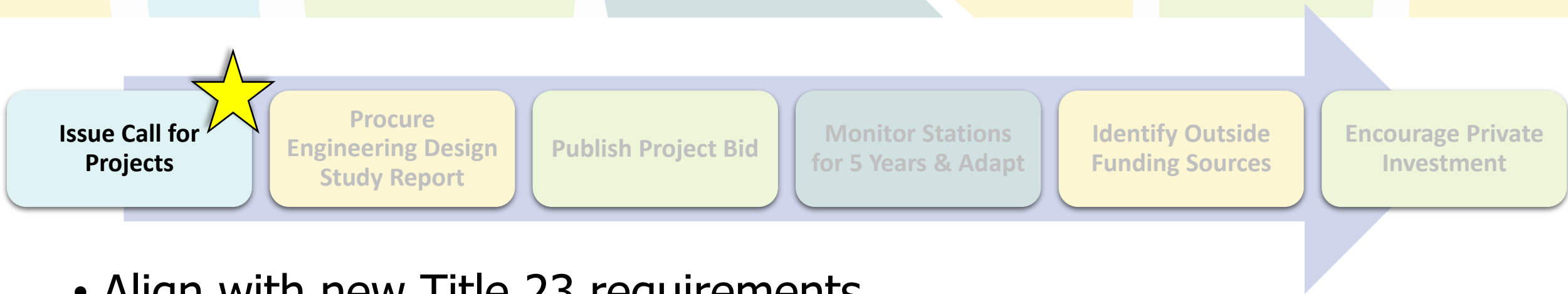
**Publish
Project Bid**

**Monitor
Stations for
5 Years &
Adapt**

**Identify
Outside
Funding
Sources**

**Encourage
Private
Investment**

Implementation Strategy



- Align with new Title 23 requirements
- Reflect lessons learned from previous efforts, including NEVI program
- Timeline
 - Two months for developing the call
 - One-month open submission period
 - One month to evaluate responses
 - Two weeks for selecting initial sites

Next Steps

Policy Board
and Technical
Committee

Public
Comment
Period

Public Open
House

Finalize Plan

Next Steps

- Technical Committee: 10/2/2024
- Policy Board: 10/10/2024
- Public Comment Period: 10/13/24 – 11/12/24
- Public Open House: 11/7/24
- Final Plan to FAST: 11/27/24
- Technical Committee: 12/4/24
- Policy Board: 12/11/24
- PLAN COMPLETE



THANK YOU!