Study of a Proposed Hydroelectric Project on the North Fork of the Snow River

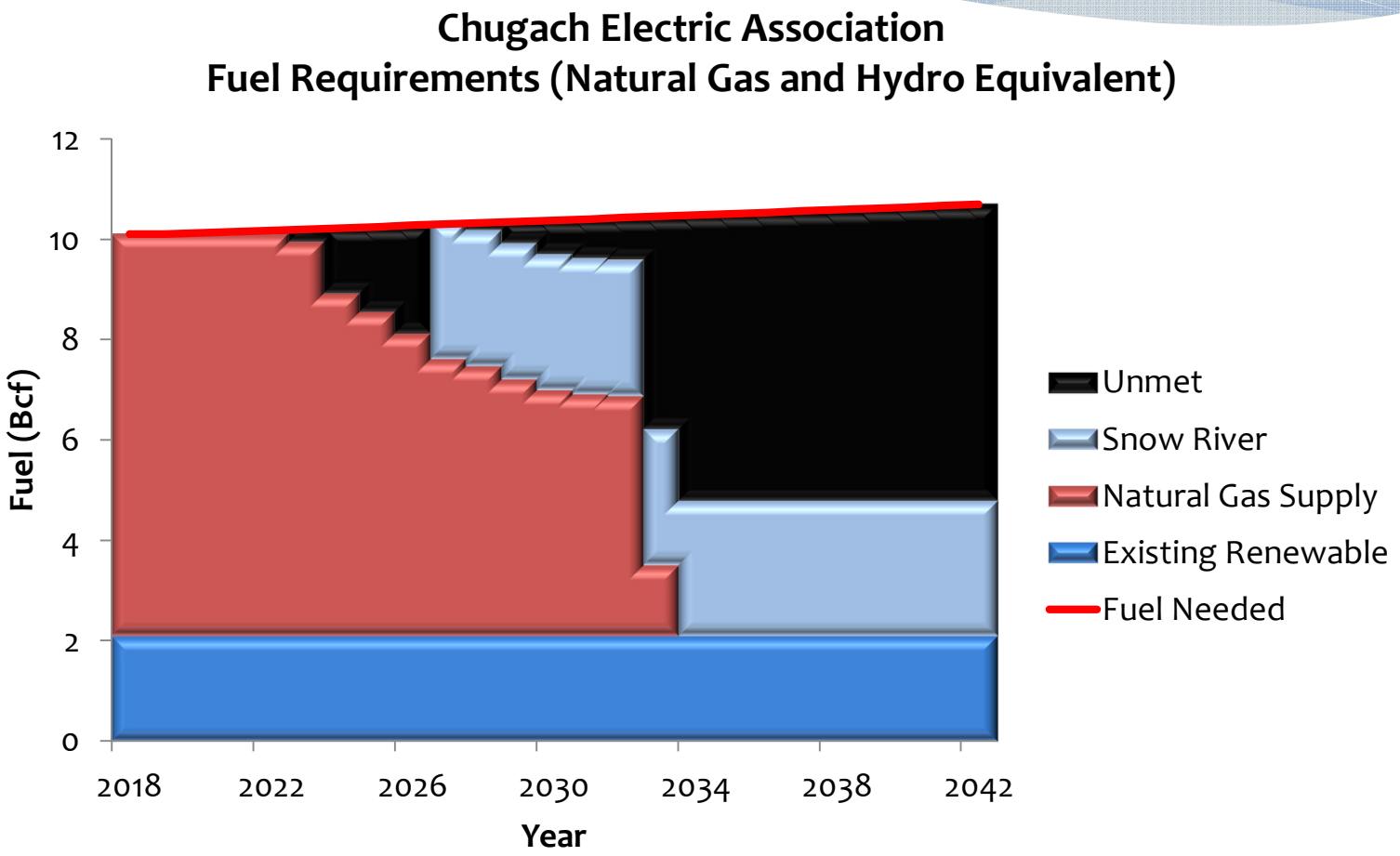
Chugach Electric Association, Inc.


Legend
Cities
Project Location
Snow River Mainstem
Seward Highway
Knik
Eklutna
Anchorage
Turnagain Arm
Alaska
Magnified Area
Bering Sea
Gulf of Alaska
Hope
Whittier
Kenai Peninsula
Cooper Landing
Moose Pass
Seward
Chenega Bay
Gulf of Alaska
Snow River Hydroelectric Project
Figure A2-1: Project Location Map
N
0 12.5 25 50 Miles
CHUGACH
POWERING ALASKA'S FUTURE

Why a hydro project?

- Sustainable
- Renewable
  - Reduces CO_2 emissions
- Dispatchable
- Long -term rate stability

Fuel sustainability



Chugach's generation profile

- Gas-fired – 76%
  - Southcentral Power Project
  - Beluga
- Hydroelectric – 20%
  - Cooper Lake Power Project
  - Eklutna Power Project
  - Bradley Lake Power Project
- Wind – 4%
  - Fire Island

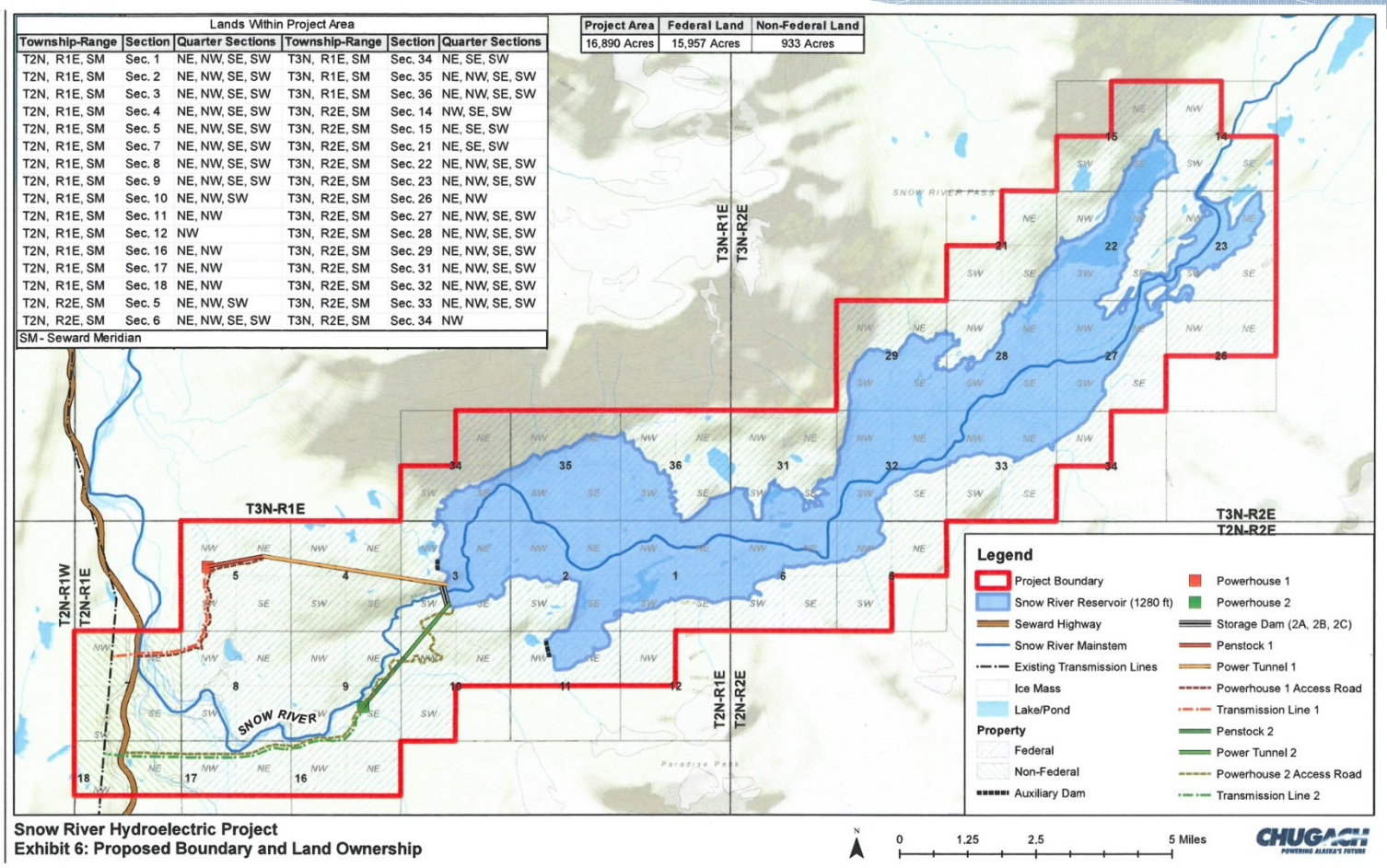
Future generation decisions

- Assurance of adequate generation and fuel resources
- Chugach uses Integrated Resource Planning
- Evaluation of resource options
- Long-term planning
  - 20+ year horizon
- Requires information on potential options

Why this site?

- Snow River hydroelectric project potential has been recognized for decades
  - USGS (1960's)
  - AEA (1980's)
- Basin has attractive hydro project characteristics
  - Water flow
  - Reservoir storage potential
  - Elevation difference
  - Near existing infrastructure
    - Port, highway, railroad, transmission line

Watershed - reservoir



Lands Within Project Area

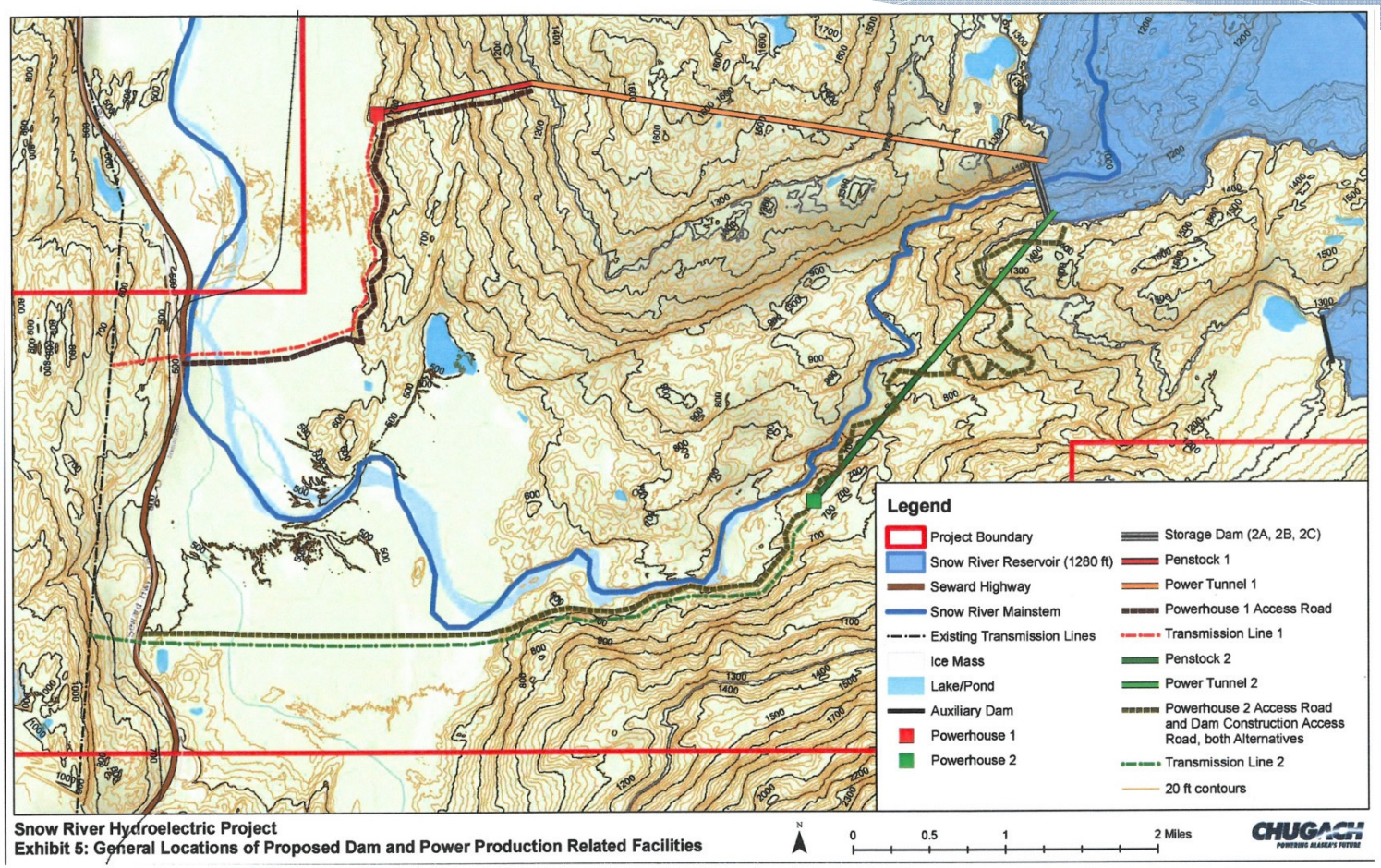
Township-Range	Section	Quarter Sections	Township-Range	Section	Quarter Sections
T2N, R1E, SM	Sec. 1	NE, NW, SE, SW	T3N, R1E, SM	Sec. 34	NE, SE, SW
T2N, R1E, SM	Sec. 2	NE, NW, SE, SW	T3N, R1E, SM	Sec. 35	NE, NW, SE, SW
T2N, R1E, SM	Sec. 3	NE, NW, SE, SW	T3N, R1E, SM	Sec. 36	NE, NW, SE, SW
T2N, R1E, SM	Sec. 4	NE, NW, SE, SW	T3N, R2E, SM	Sec. 14	NW, SE, SW
T2N, R1E, SM	Sec. 5	NE, NW, SE, SW	T3N, R2E, SM	Sec. 15	NE, SE, SW
T2N, R1E, SM	Sec. 7	NE, NW, SE, SW	T3N, R2E, SM	Sec. 21	NE, SE, SW
T2N, R1E, SM	Sec. 8	NE, NW, SE, SW	T3N, R2E, SM	Sec. 22	NE, NW, SE, SW
T2N, R1E, SM	Sec. 9	NE, NW, SE, SW	T3N, R2E, SM	Sec. 23	NE, NW, SE, SW
T2N, R1E, SM	Sec. 10	NE, NW, SW	T3N, R2E, SM	Sec. 26	NE, NW
T2N, R1E, SM	Sec. 11	NE, NW	T3N, R2E, SM	Sec. 27	NE, NW, SE, SW
T2N, R1E, SM	Sec. 12	NW	T3N, R2E, SM	Sec. 28	NE, NW, SE, SW
T2N, R1E, SM	Sec. 16	NE, NW	T3N, R2E, SM	Sec. 29	NE, NW, SE, SW
T2N, R1E, SM	Sec. 17	NE, NW	T3N, R2E, SM	Sec. 31	NE, NW, SE, SW
T2N, R1E, SM	Sec. 18	NE, NW	T3N, R2E, SM	Sec. 32	NE, NW, SE, SW
T2N, R2E, SM	Sec. 5	NE, NW, SW	T3N, R2E, SM	Sec. 33	NE, NW, SE, SW
T2N, R2E, SM	Sec. 6	NE, NW, SE, SW	T3N, R2E, SM	Sec. 34	NW

SM - Seward Meridian

Project Area	Federal Land	Non-Federal Land
16,890 Acres	15,957 Acres	933 Acres

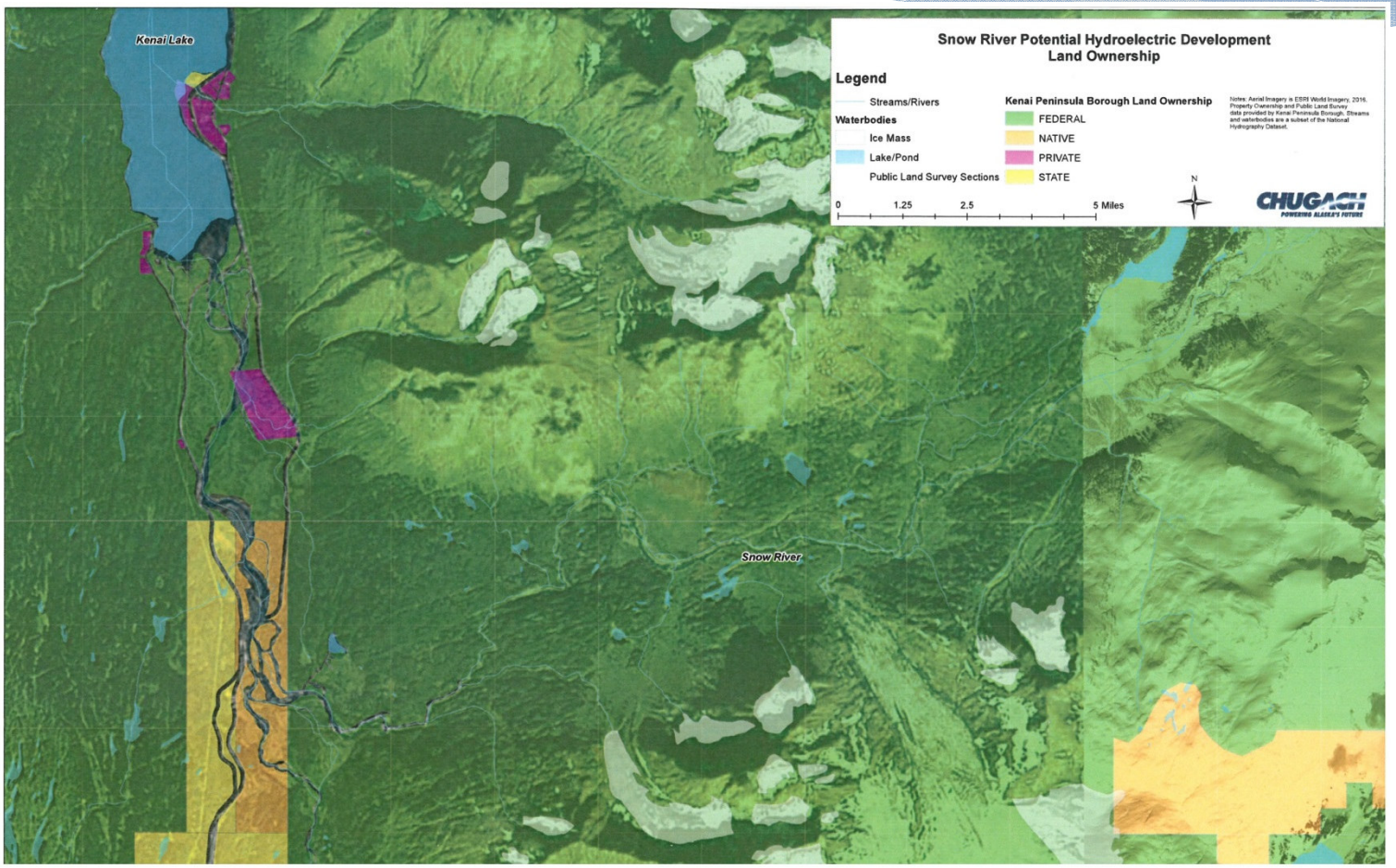
Snow River Hydroelectric Project
Exhibit 6: Proposed Boundary and Land Ownership

Proposed facilities (2 alternates)



Snow River Hydroelectric Project
Exhibit 5: General Locations of Proposed Dam and Power Production Related Facilities

Land ownership



FERC process

- Secure FERC Preliminary Permit
  - Provides 3 years to study concept
  - Can be extended
- FERC License Application
  - Supported by studies, engineering, proposed protection, mitigation and enhancement measures
- FERC Review
  - Comprehensive
  - Dam safety
  - Conditions
- Construction

Project needs to be feasible

- Can you license it?
- Can you finance it?
- Can you build it?
- Does it make financial sense?

Prospective timeline

- Preliminary Permit 3-5 Years
- License application 2-3 Years
- Construction 3 Years

Chugach decisions

- Those that have been made:
  - Secure a Preliminary Permit
  - Study the potential of the concept
  - Fund 2017 activities
- Those that have not been made:
  - Continue studying the concept past 2017
  - Whether to submit a license application
  - Whether to build the project

Key early activity

- Understand Forest Service wild and scenic classifications
- Gather existing resource information
- Field reconnaissance/site evaluation
- Evaluate effects of jokulhlaups
- Identify information needs

Questions?