

GOLDEN STATE NATURAL RESOURCES WOOD PELLET PROJECT UPDATE

ACCG

MAY 2023

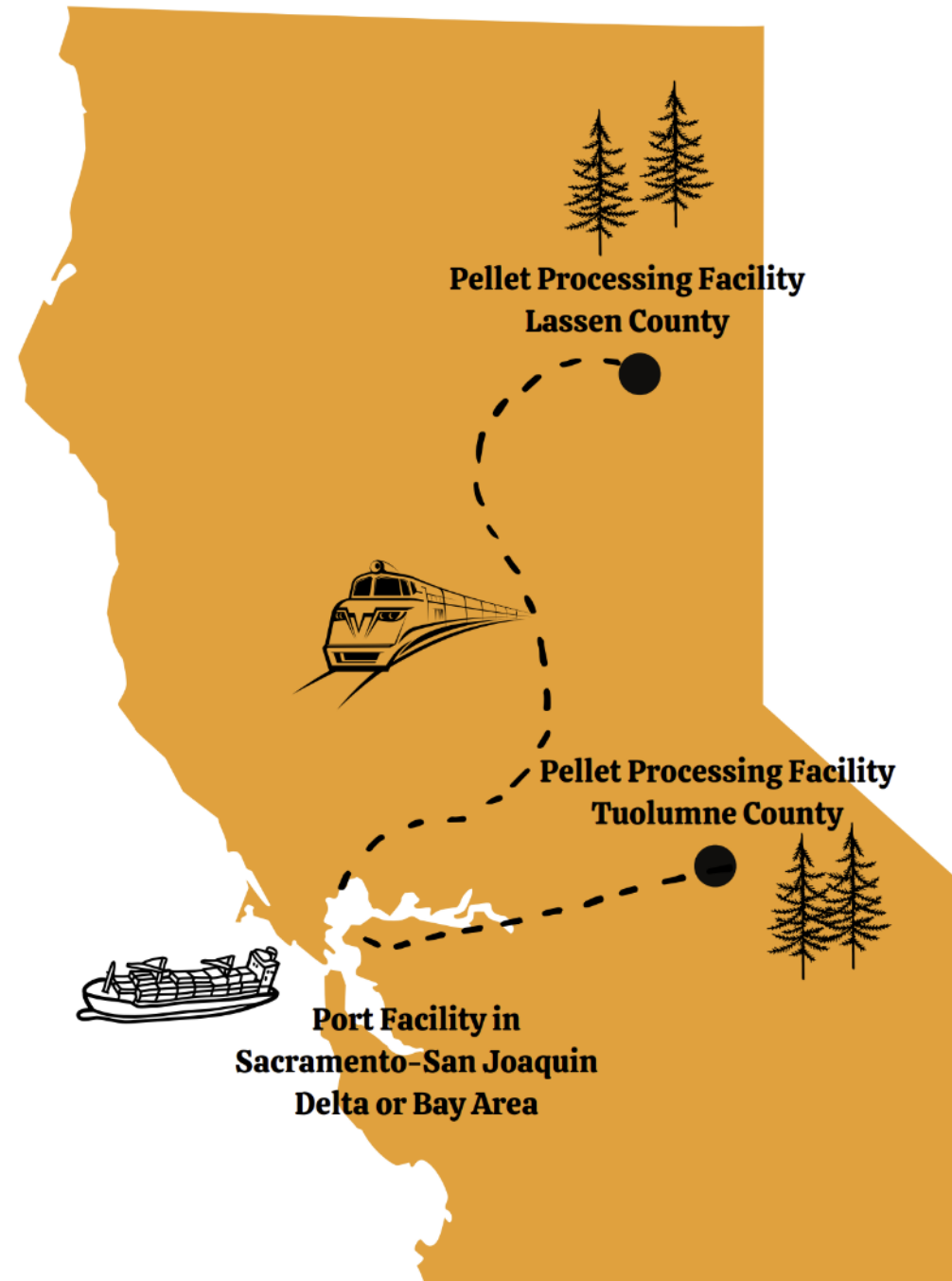


GOLDEN STATE
NATURAL RESOURCES

PROJECT SPECIFICS

Who is GSNR?

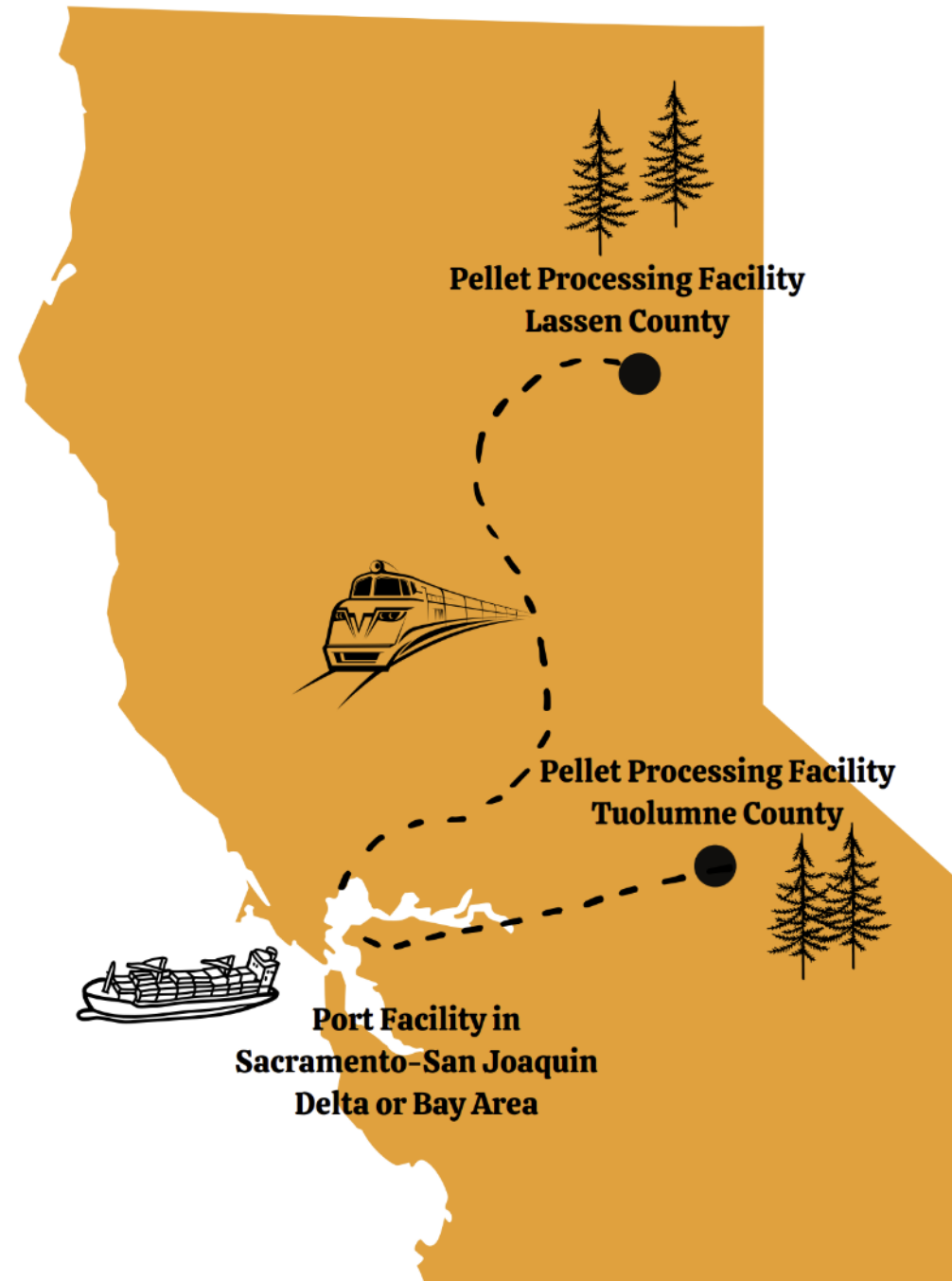
- Subsidiary of Rural County Representatives of CA (RCRC)
- **Non-profit Public Benefit Forest Resiliency Company** focused on:
 - Creating sustainable business in rural counties that will:
 - Create rural family-wage jobs
 - Support creation of resilient green forests
 - Reduce wildfire threats to rural communities
- Project will:
 - Require Capital Investment of ~\$520 million
 - All Private Financing – Debt and Equity
 - Operate as a non-profit
 - Use about 2 million tons/year of forest-derived sustainably-harvested biomass at 2 wood pellet plants
 - Partner with R-5 USFS under 20 year MSA
 - Export up to 1 million metric tons/yr of wood pellets offshore to replace coal in power plants



PROJECT STATUS

At this time, GSNR is rapidly approaching the implementation stage of its proposed project, consisting of two pellet facilities and related port infrastructure, by solidifying key components of:

- Biomass Feedstock Supply
- Plant Site Design, Development, & Operations
- Port Site Development & Operations
- Environmental & Permitting
- Transportation (Rail/Truck) & Logging Capacity
- Offtake (Pellet Sales)
- Workforce Development

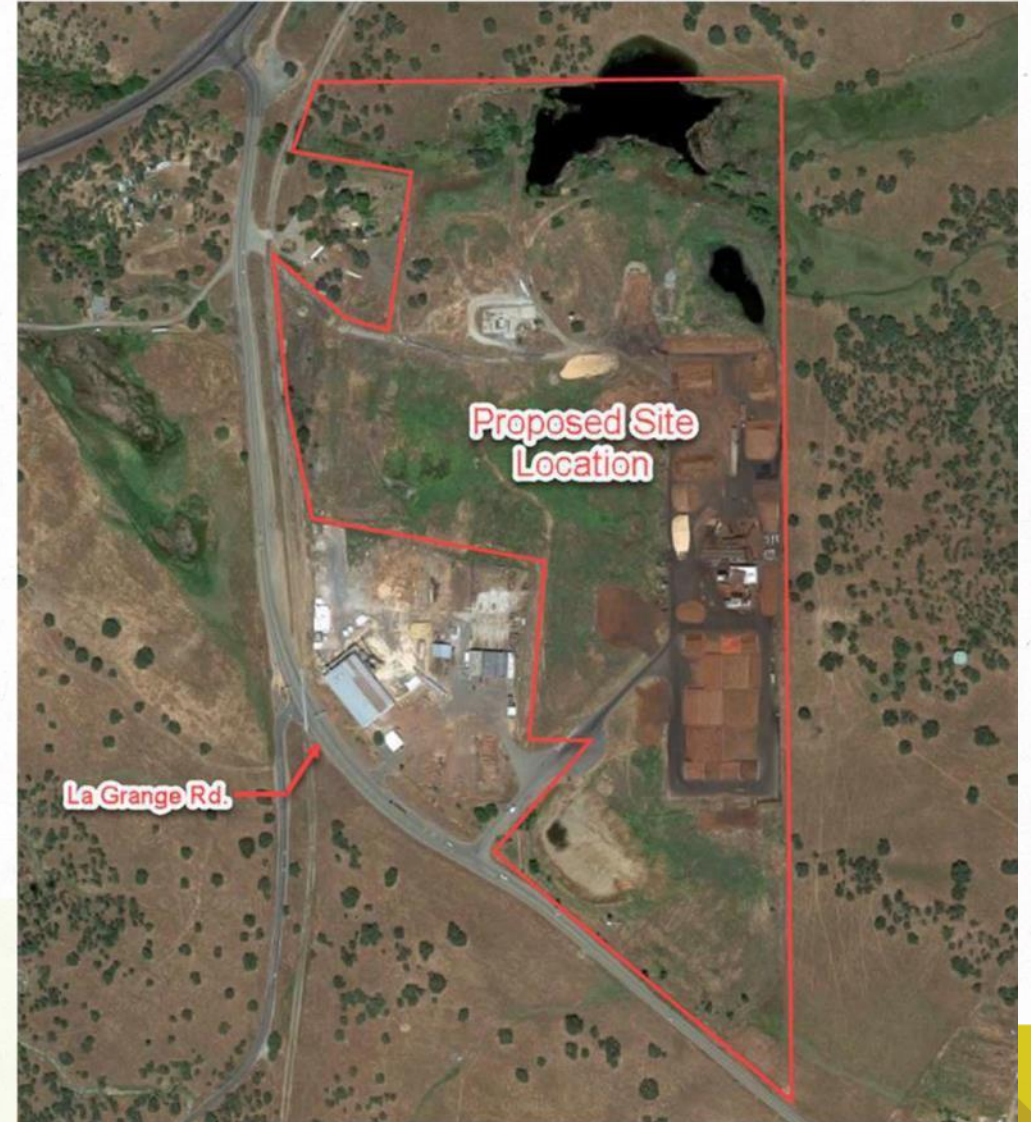


CENTRAL SIERRA SITE: KEYSTONE, TUOLUMNE COUNTY

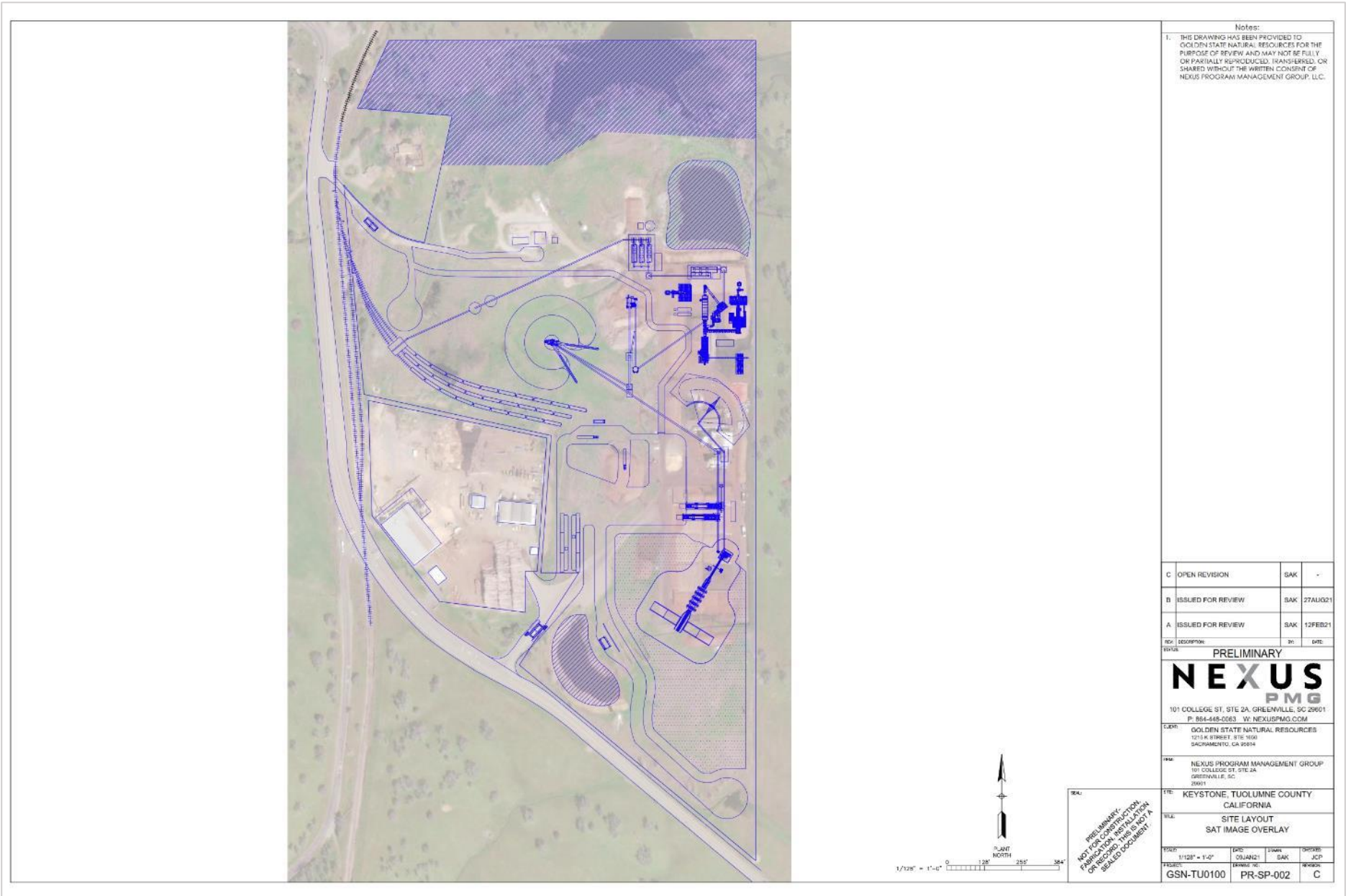
- Will produce up to 300,000 metric tons per year of industrial wood pellets
- GSNR has purchased a 60 acre site in Keystone
- All Pre-Engineering Completed
 - Process Design
 - Site Layout
 - Process Flow Diagrams
 - Heat and Material Balance
 - Equipment Specifications
 - Capital Cost Estimate

At Full Load Operation the Keystone Plant Will:

- *Employ 50 full-time family-wage employees*
- *Process an average of 80 truckloads/day of biomass logs & chips*
- *Ship 8 rail cars/day to Port*



CENTRAL SIERRA SITE: KEYSTONE, TUOLUMNE COUNTY

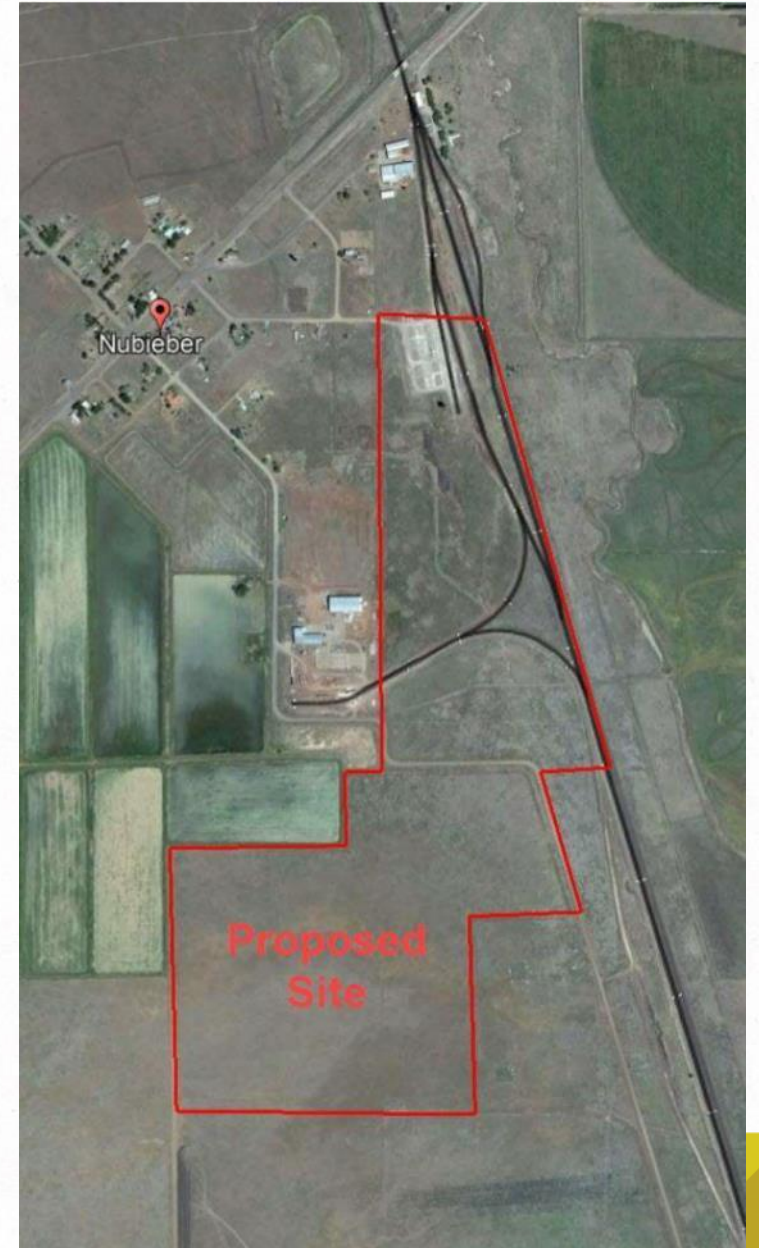


NORTHERN CALIFORNIA SITE: NUBIEBER, LASSEN COUNTY

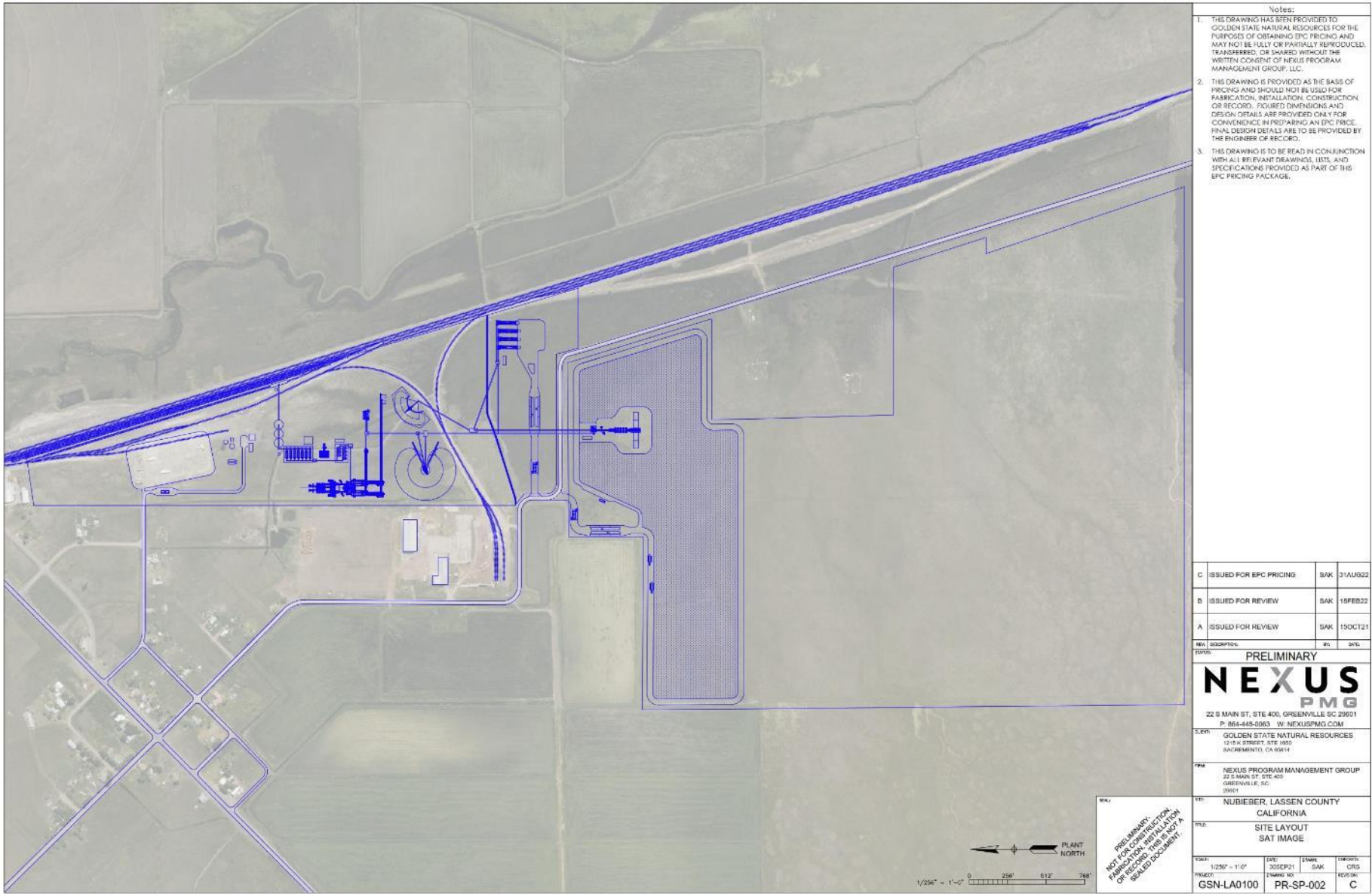
- Will produce up to 700,000 metric tons per year of industrial wood pellets
- GSNR has purchased the 65 acre site and will lease an additional 40+ acres
- All Pre-Engineering Completed
 - Engineering Development Work Completed
 - Process Design Basis
 - Site Layout
 - Heat and Material Balance
 - General Arrangements
 - Piping & Instrumentation Diagrams
 - Capital Cost Estimate

At Full Load Operation the Nubieber Plant Will:

- *Employ 60-65 full-time family-wage employees*
- *Process an average of 200 truckloads/day of biomass logs & chips*
- *Ship 25 rail cars/day pellets to Port*

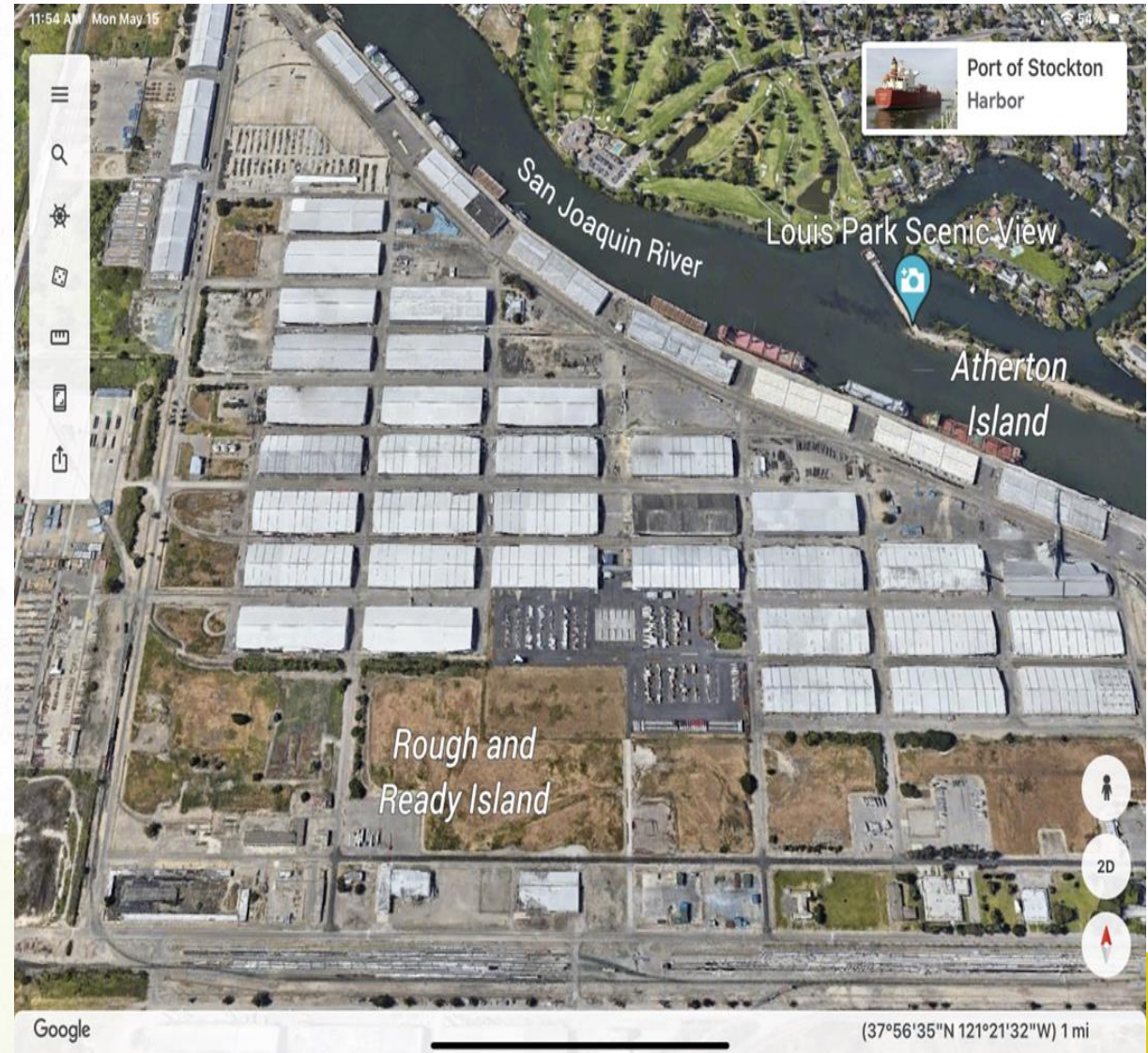


NORTHERN CALIFORNIA SITE: NUBIEBER, LASSEN COUNTY



PORT SITE: EXPORT TERMINAL AT PORT OF STOCKTON

- GSNR will develop the export facility at the Port of Stockton to receive, store, and load pellets on bulk ships
- GSNR will own unloading, storage, ship-loading equipment
- Can handle (Handymax) bulk ships (45-50,000 tonnes)
- FEL 1 Pre-Engineering Completed
 - In process of completing FEL 2 & 3 engineering
 - Process Design Basis
 - Site Layout
 - Factored Capital Cost Estimate
- Preliminary equipment sizing and budgetary pricing have been received for each process area:
 - Pellet Unloading
 - Pellet Storage
 - Conveyance
 - Vessel Loading



[illegible][illegible]

EXPORT TERMINAL: PORT OF STOCKTON



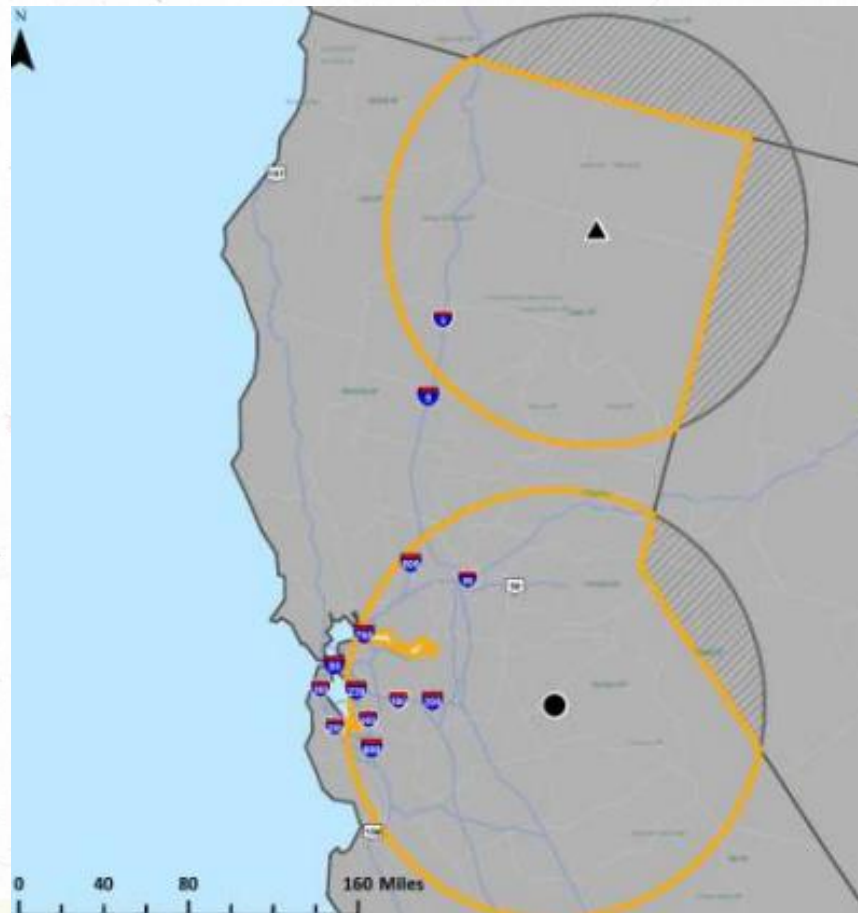
**Handymax Bulk Carrier
45-50,000 Tonnes**

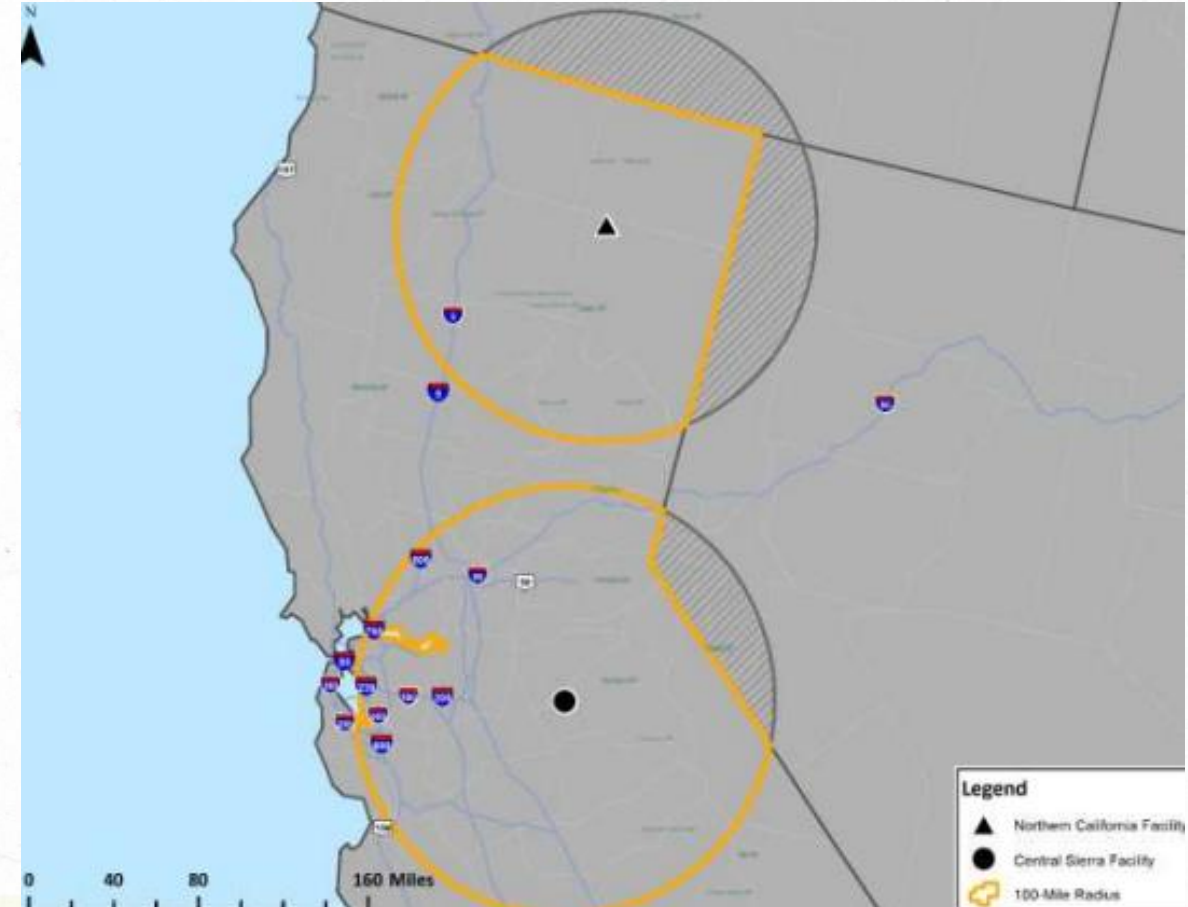


Ship Loading Conveyor

Pellet Storage Silos

FEEDSTOCK AVAILABILITY BY FOCUS REGION

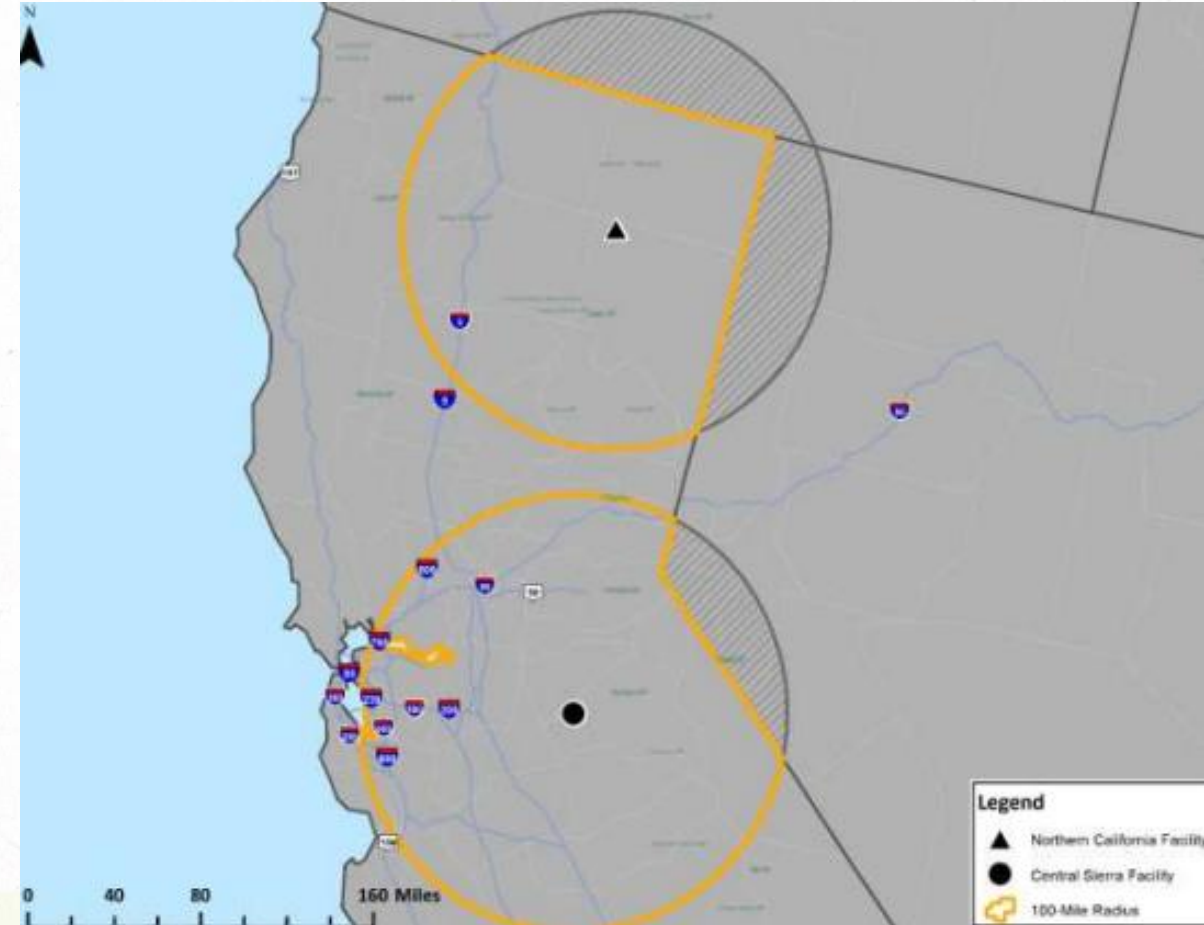
- **GSNR has commissioned multiple studies to evaluate the available volume of biomass feedstock in the Southern Cascades/Northern Sierra and Central/Southern Sierra**
 - **GIS-based Estimates Using Publicly Available Datasets to Obtain:**
 - “Practically available” standing biomass volumes by type of Ownership
 - Estimated annual net growth of green forests
 - Biomass residuals from timber harvests
 - Biomass volumes currently being used by existing facilities
 - Residuals available from existing sawmills (conservative estimates)
 - Estimated haul miles and times to derive transportation costs
 - **Biomass Volume Estimates Excluded the Following:**
 - Roadless Areas, National Parks, and Wilderness Areas
 - Wild & Scenic River Corridors
 - Spotted Owl PACs
 - Slopes >40%
 - Riparian buffers for lakes and watercourses
 - Areas >1/2 mile from existing roads
 - Moderate & High Severity Portions of wildfires over past 10 years
- 



Location map of Northern CA and Central Sierra Assessment Areas

“PRACTICALLY ACCESSIBLE” TIMBERLAND BY REGION

- **Northern California Supply Region (including southern Oregon)**
 - 5 million acres of practically accessible (still green) timberland
 - 2.4 million acres of USFS (48%)
 - 1.7 million acres of industrial private (32%)
 - 0.8 million acres of non-industrial private (18%)
 - 0.2 million acres of BLM/BIA (4%)
- **Central Sierra Supply Region**
 - 1.8 million acres of practically accessible (still green) timberland
 - 0.8 million acres of USFS (46%)
 - 0.7 million acres of non-industrial private (40%)
 - 0.3 million acres of industrial private (14%)

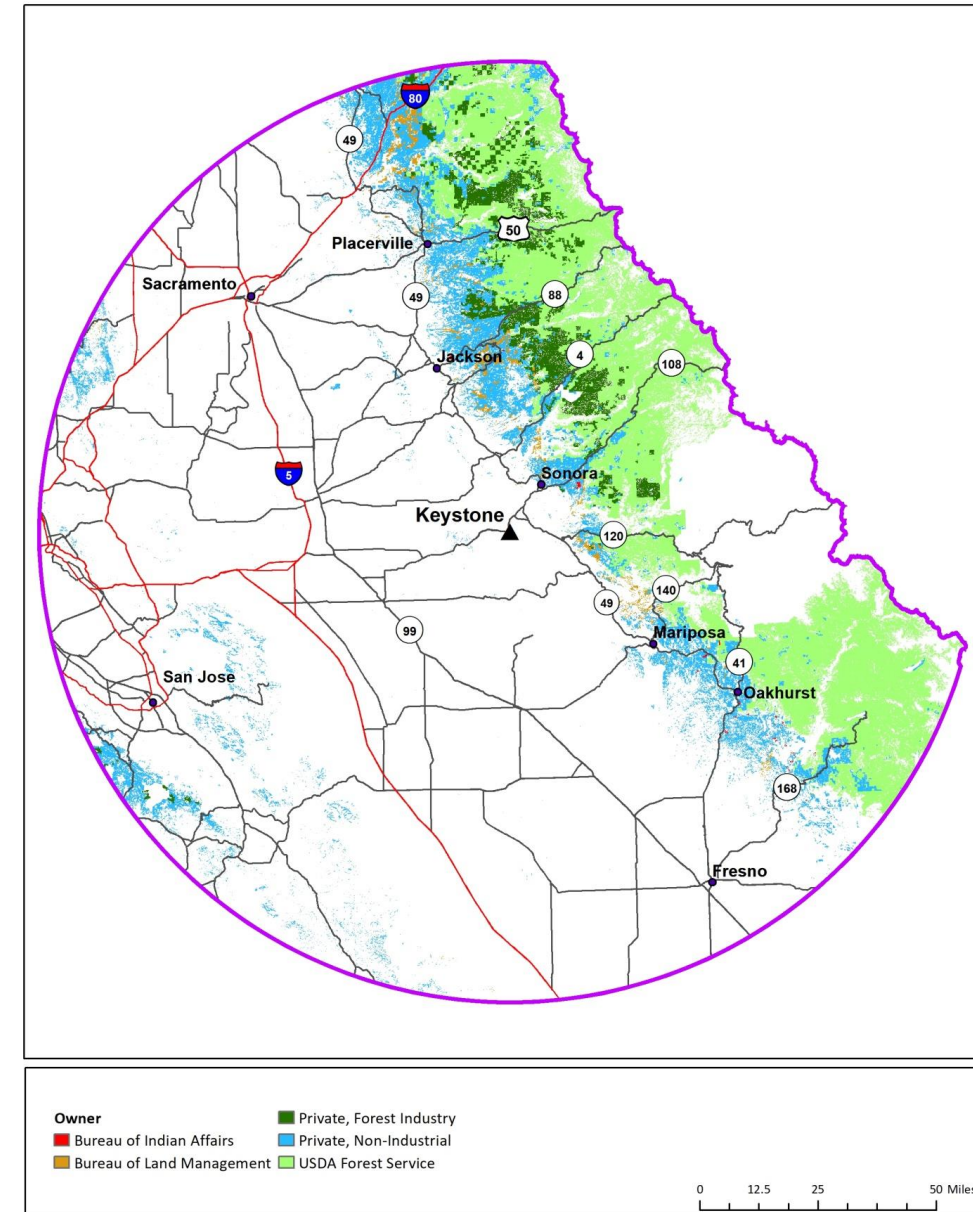


Location map of Northern CA and Central Sierra Assessment Areas

TUOLUMNE BIOMASS FEEDSTOCK SUPPLY

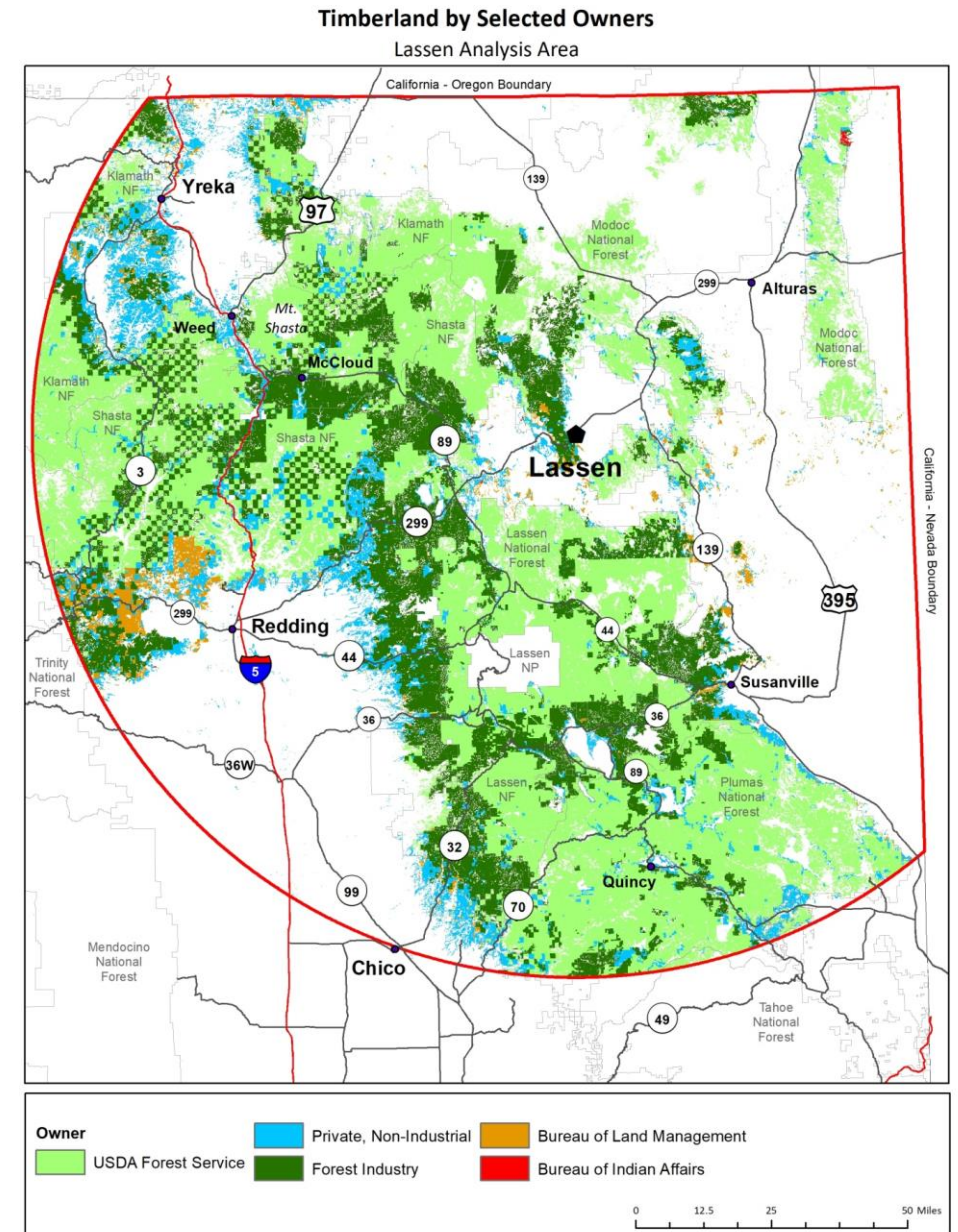
- Planned facility capacity of 300K MT/Yr
- Required fiber supply of ~ 350K BDT/Yr
- Estimated biomass volume sustainably available from within the 100-mile supply basin for is about **4 times what the plant will use.**
- Forest-derived feedstock will be a mix of each of the following:
 - Timber harvest residues (top piles / stacked burn piles)
 - Post-wildfire rehabilitation efforts
 - Unmerchantable roundwood (logs) removed in thinnings
 - Chips from biomass thinning & fuel reduction
 - Sawmill residues

Timberland by Selected Owners



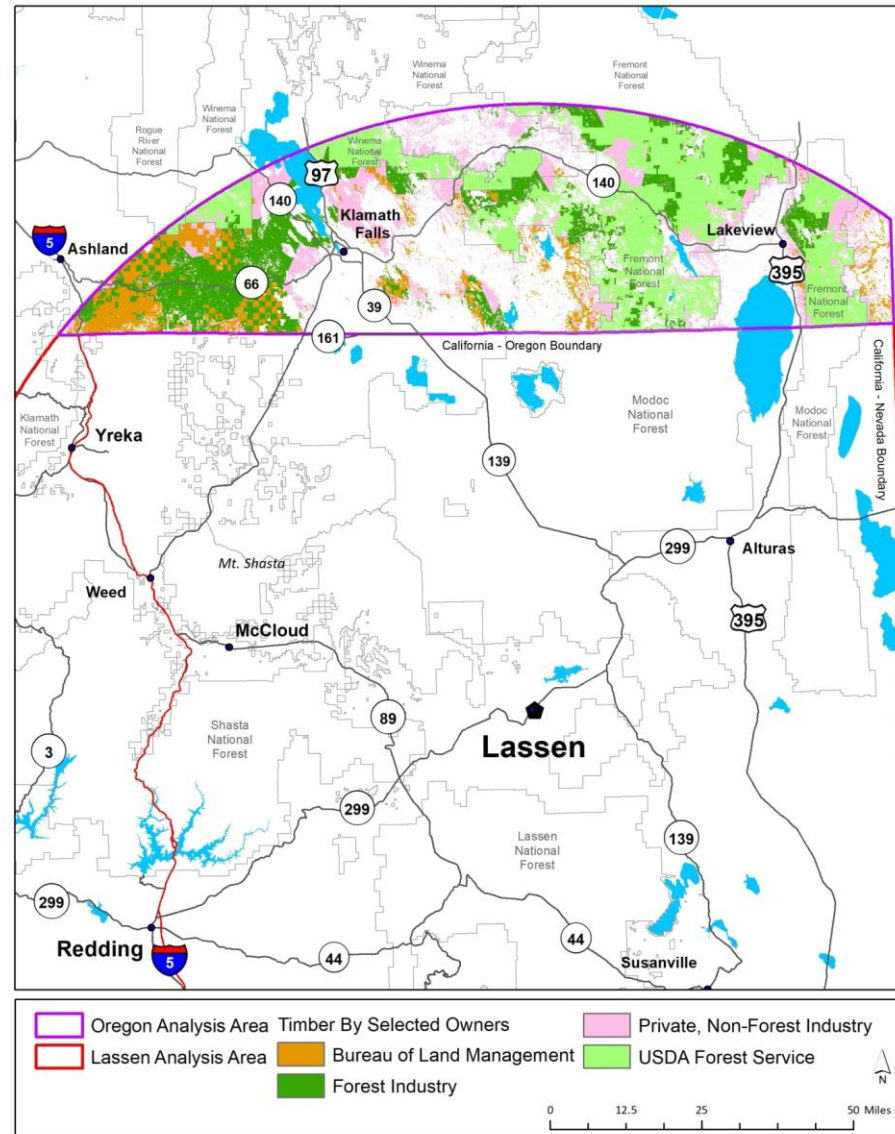
LASSEN BIOMASS FEEDSTOCK SUPPLY - CALIFORNIA

- Planned facility capacity of 700k MT/Year
- Required biomass supply of ~ 800k BDT/Year
- Estimated biomass volume (including southern Oregon) sustainably available from within the 100-mile supply basin is about **5 times what the plant will use.**
- Forest-derived feedstock will be a mix of each of the following:
 - Timber harvest residues (top piles / stacked burn piles)
 - Post-wildfire rehabilitation efforts
 - Unmerchantable roundwood (logs) removed in thinnings
 - Chips from biomass thinning & fuel reduction
 - Sawmill residues



LASSEN BIOMASS FEEDSTOCK SUPPLY – SOUTHERN OREGON

Timberland by Selected Owners
Oregon Analysis Area



BIOMASS FEEDSTOCK FROM TIMBER HARVEST RESIDUALS



BIOMASS FEEDSTOCK FROM TIMBER HARVEST RESIDUALS



BIOMASS FEEDSTOCK FROM POST-WILDFIRE RESTORATION



BIOMASS FEEDSTOCK FROM POST-WILDFIRE RESTORATION



FEEDSTOCK FROM PLANTATION THINNING



“PULP LOGS” FROM THINNING OPERATIONS



"PULP LOGS" FROM THINNING OPERATIONS



Download from
Dreamstime.com

This watermarked comp image is for previewing purposes only.

ID 67862998

Taina Sohlman | Dreamstime.com

MILL RESIDUES



ENVIRONMENTAL & PERMITTING

Currently working on completion of the environmental review process under the California Environmental Quality Act (CEQA), and issuance of the required permits for the two facilities and the Port of Stockton.

CEQA and Environmental Impact Report (EIR) Process

- **November 2022:** Initial Notice of Preparation + Public Meetings
- **May 2023:** Revised Notice of Preparation for Public Input
- **June 2023:** More Public Meetings
- **Early July 2023:** Draft EIR for Public Review (www.goldenstatenaturalresources.com)
- **November 2023:** CEQA Completion and Certification of Final EIR



ENVIRONMENTAL & PERMITTING

CEQA and Environmental Impact Report (EIR) Process Will Evaluate Impacts on:

- ✓ **Aesthetics**
- ✓ **Air Quality**
- ✓ **Biological & Cultural Resources**
- ✓ **Tribal Cultural Resources**
- ✓ **Geology & Soils**
- ✓ **Energy**
- ✓ **Forest Resources**
- ✓ **Greenhouse Gas Emissions**
- ✓ **Hydrology & Water Quality**
- ✓ **Land Use & Planning**
- ✓ **Noise**
- ✓ **Human Population & Housing**
- ✓ **Public Services**
- ✓ **Transportation – Forest to Plant via Truck & Plant to Port via Rail**
- ✓ **Wildfire**
- ✓ **Utilities & Service Systems**

NEXT STEPS/TARGETS

- **June 2023:** Enter into Pellet Offtake (Sale) Agreements
- **Q4 2023:** Finalization of EIR and environmental permitting
- **Q4 2023:** Receive Initial COC & Sustainability Certifications – PEFC & SBP
- **December 2023:** Financial close
- **Q2 2024:** Facility construction begins (including Port)
- **Q1 2024:** Begin receiving and stockpiling biomass feedstock
 - **Mainly otherwise unmerchantable logs in 2024 until plant operations begin**
- **2025:** Begin pellet plant operations

COMMENTS/QUESTIONS?