



# PROJECT REPORT

- 2022 -



## SEAS OF TREES

### Demonstration Solar Forest

Written By  
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**WE HAVE SUCCESSFULLY  
PLANTED ALL 2,011 SAPLING TREES  
AT THE DEMONSTRATION SOLAR FOREST!**



## **Seas of Trees General Background**

Seas Of Trees is a 501(c)3 non-profit started in December of 2020. Rooted in Telluride, Colorado, our organization's goal is to plant as many trees as possible in our community and in other partner communities around the world. We strongly believe in the power of community and sharing our love for the environment with others. We are passionate about lowering carbon emissions and protecting diverse forests, while also starting new ones.

The Global Climate Emergency and biodiversity loss, deforestation, and rising temperatures are some of the greatest challenges of our time. We have reached a tipping point and our window of opportunity to respond to these crises is narrowing rapidly.

Both the United States and San Miguel County have made goals to reduce carbon emissions, but will we meet it soon enough? Seas of Trees is dedicated to taking action now by planting trees at home, and around the world in order to work towards a climate resilient, sustainable future.

The act of planting a tree is symbolic, significant, an act of service, an expression of land stewardship, and leaves an impression on each individual who gets the opportunity. Seas of Trees educates community volunteers about climate change, carbon sequestration, reforestation and soil restoration as part of our tree planting activities. Our hope is that those who plant with Seas of Trees are inspired to stay involved in environmental protection moving forward.

As an organization, one of our goals is to turn tree planting into a form of eco-tourism, where locals and visitors alike can leave their roots in the ground of the land around Telluride, a destination resort for visitors from around the globe. This year, our "tree planting army" of volunteers helped us plant 5,000 trees worldwide.

We have various programs globally, but it is our priority to ensure San Miguel County sees a fourth successful tree-planting season in 2023. This will allow both local and visiting community members to be involved in immediate climate action and contribute to a growing project that will help sequester carbon for generations to come.





**WHERE:** Our “Demonstration Solar Forest” was planted on private land in the Aldasoro Agriculture Land Subdivision, across from the Telluride Airport. Tim Erdman, and Erdman Energy, offered up the lower 4 acres of his 34 acre property, below his demonstration solar garden, to transform into a mixed native forest on the mesa.

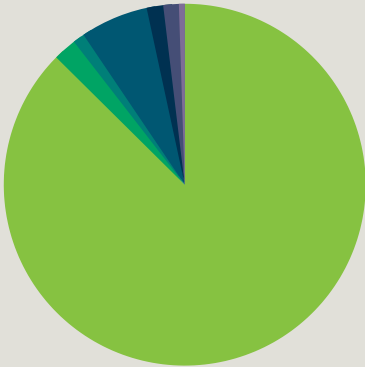


We had over 450 volunteers, ages 5 to 75, planting with our organization. Telluride Academy campers (390), local volunteers (76), BlueGrass Volunteers (10)

**Current Tree Survival Rate: 62%**

# PROJECT BUDGET

## In Kind Donation



- Fencing:** 2,800 Linear ft. of Fence & Posts to enclose 5 acres Planting Area (\$18/Linear ft.) | (100hrs of Installation)  
**Cost: \$50,400**
- Machinery:** Labor & Use of Machines for Trenching (12hrs ; \$100/hr.)  
**Cost: \$1,200**
- Professional Tree Consultation:** Telluride Arborist Services (4hrs ; \$150/hr Tree Consultation) (\$150/hr Landscape & Design)  
**Cost: \$600**
- Cured Mycelia Woodchips:** 100 cubic yards  
**Cost: \$3,500**
- Plastic Hoseline Installation:**  
**Cost: \$850**
- Thistle Mitigation:**  
**Cost: \$800**
- Mapping by Kris Holstrom:** 3hrs (\$100/hr)  
**Cost: \$300**

**Water Supply:** 8,000 gal/week

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**Subtotal: \$57,650**

## Seas Of Trees Expenses



- Hired Planters Sub Contractors:** 3 people  
**Cost: \$3,200**
- Supplies:** Soaker Hose, Shovels, Buckets, Mulch, etc.  
**Cost: \$1,800**
- Total Spent on Trees:**  
**Cost: \$4,363**

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**Subtotal: \$9,363**



In Kind Donation ■ | ■ SOT Expenses

**TOTAL COST: \$67,013**

# GENERAL CLIMATE OF AREA PLANTED



**Rainfall:** as reported to CoCoRaHS.org precipitation collected on Hastings Mesa

- June 2022: > 1 "
- July 2022: 5 "
- August 2022: 3 "
- September 2022: 1.5"

*This is above the 30-year average.*



**Total 2022 rainfall recorded:** 10 " [10/01/21 - 10/01/22]

**2021:** 8"

**2020:** 4.75"



**Total Snowfall 2022:** 81"



**Total water equivalent:** 17.5 " [10/01/21 - 10/01/22]



**Summer High:** July high is around 84 degrees fahrenheit



**Winter Low:** January low is -20 degrees fahrenheit

# CARBON SEQUESTRATION AMOUNTS PER EACH TREE OVER 20 YEARS

	Bigcone Douglas Fir <i>Pseudotsuga macrocarpa</i>	Blue Spruce <i>Picea pungens</i>	Ponderosa Pine <i>Pinus ponderosa</i>	Quaking Aspen <i>Populus tremuloides</i>	Lodgepole pine <i>Pinus contorta</i>
Carbon Dioxide Uptake	\$3.96	\$2.81	\$3.14	\$7.10	\$5.84
Carbon Sequestered	46.39 lbs	32.93 lbs	36.79 lbs	83.29 lbs	68.5 lbs
CO <sub>2</sub> Equivalent	170.11 lbs	120.75 lbs	134.91 lbs	305.4 lbs	251.17 lbs
Storm Water Mitigation	\$0.02	\$0.02	\$0.02	\$0.04	\$0.03
Runoff Avoided	2.75 gal	2.27 gal	2.69 gal	4.22 gal	3.12 gal
Rainfall Intercepted	1,652.53 gal	1,364.09 gal	1,618.55 gal	2,539.76 gal	1,873.65 gal
Air Pollution Removal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Carbon Monoxide	0.2 oz	0.16 oz	0.19 oz	0.26 oz	0.23 oz
Ozone	14.01 pz	12.04 oz	15.74 oz	6.32 oz	18.09 oz
Nitrogen Dioxide	0.78 oz	0.67 oz	0.87 oz	0.2 oz	1 oz
Sulfur Dioxide	< 0.1 oz	< 0.1 oz	< 0.1 oz	< 0.1 oz	< 0.1 oz
PM <sub>2.5</sub>	0.21 oz	0.18 oz	0.25 oz	< 0.1 oz	0.29 oz



# PLANTING SITE

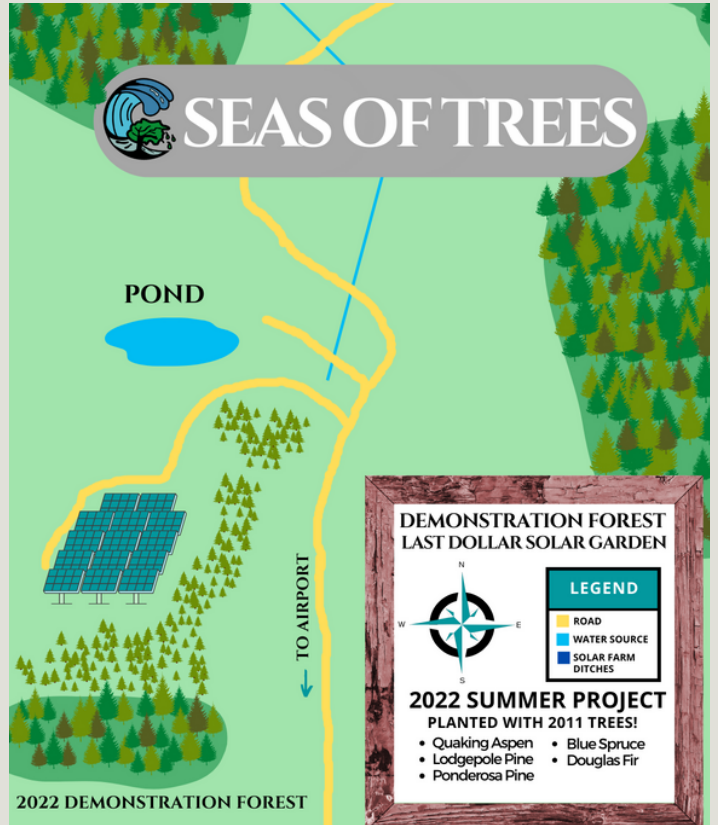
TELLURIDE LAST DOLLAR SOLAR GARDEN  
2014 Last Dollar Rd., Telluride, CO 81435



AERIAL MAP



ILLUSTRATIVE MAP





# SEAS OF TREES

**Our Mission:** Seas of Tree's mission is to educate and engage youth to act on the climate crisis by empowering them to plant trees, promote environmental advocacy and fight climate change through reducing carbon emissions.

**This project was made possible by the generous support and donations from:** Planet Blue Grass, Town of Telluride (CAASE), San Miguel County, Telluride Foundation, Telluride Arborist and Erdman Energy Enterprises.



**LAST DOLLAR COMMUNITY  
SOLAR GARDEN**



TELLURIDE



FOUNDATION

