

Forest Service Use Only  
Online Tracking ID: [ira-65786](#)  
Revision: 0.031 DRAFT

## APPLICATION PACKAGE

USDA Forest Service Urban and Community Forestry  
Inflation Reduction Act Notice of Funding Opportunity (NOFO)  
**Proposals are due by June 4<sup>th</sup>, 2023 11:55 PM EST**

### APPLICATION SUMMARY

#### **Equity Through White Pine County Urban Forestry Initiative**

Tabatha Hamilton

[thamilton@whitepinecountynv.gov](mailto:thamilton@whitepinecountynv.gov)

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## COVER SHEET

USDA Forest Service Urban and Community Forestry  
Inflation Reduction Act Notice of Funding Opportunity (NOFO)  
**Proposals are due by June 4<sup>th</sup>, 2023 11:55 PM EST**

### GRANT CATEGORY

Inflation-Reduction-Act-Urban-and-Community-Forestry: Inflation Reduction Act - Urban and Community Forestry

### PROJECT TITLE

Equity Through White Pine County Urban Forestry Initiative

### PROJECT CONTACT INFORMATION

Primary Contact:

**Tabatha Hamilton**

White Pine County

Grant Specialist

801 Clark Street

Suite 4

Ely, NV 89301

Phone: (775) 293-6594

Email: [thamilton@whitepinecountynv.gov](mailto:thamilton@whitepinecountynv.gov)

Secondary Contact:

**Delaney Marich**

White Pine County

Grant Specialist

Email: [dmarich@whitepinecountynv.gov](mailto:dmarich@whitepinecountynv.gov)

## PROPOSAL ABSTRACT

(100 word maximum)

White Pine County will use USDA Forest Service Urban and Community Forestry Inflation Reduction Act funding to provide planting, maintenance, training, planning and information throughout the communities of White Pine County located in the Justice40 designations. With this project, various maintenance and pruning, approximately 87 tree removals, and approximately 323 new trees planted will occur throughout public facilities, parks and community anchor institutions. Additionally, this project will provide opportunity for private property owners to increase equity for their own home by providing a sub granting program that will fund pruning/maintenance efforts and dangerous/dead tree removal that owners likely otherwise could not accomplish.

## NON-FEDERAL FUNDS MATCH WAIVER

Applicant is seeking non-federal funds match waiver

## FUNDING REQUEST AND MATCH

(Non-Federal Matching Funds MUST be equal to or greater than the Federal Funds Requested unless the applicant has requested a Non-Federal Funds Match Waiver.)

REQUESTED: \$3,361,897.10 + MATCHING: \$0.00 = TOTAL PROJECT: \$3,361,897.10

## REQUESTING ADMINISTRATIVE / TECHNICAL ASSISTANCE

Applicant has requested to receive administrative and technical assistance from a designated Sub-Award Partner.

## PASS-THROUGH FUNDING (SUB-AWARDS) PARTNER REQUEST

Applicant has not requested to be considered as a Pass-Through (Sub-Awards) partner.

## PROJECT PARTNERS

1. **Cracraft, Mike**

City of Ely

Public Works Director

501 Mill Street

Suite 1

Ely, NV 89301

Phone: (775) 293-6594

Fax: (775) 289-1463

Email: [publicworks@cityofelynv.gov](mailto:publicworks@cityofelynv.gov)

**PARTNER INVOLVEMENT:**

As partners in this project the City of Ely Parks Department, the Ely Tree Board, the White Pine County School District, and the Learning Bridge Charter School will be actively involved in the planning and implementation of trees within the City of Ely/project area that need to be planted, pruned, removed, or replaced. Our partners will work with White Pine County to stretch the grant dollars as far as possible to create a healthier and cleaner environment.

PARTNER COMMITMENT LETTER INCLUDED: **YES** (see appendix)

— ***End of Cover Sheet*** —

# PROJECT NARRATIVE TEMPLATE

**NOTE: Do NOT rename or rearrange the sections in this template.**

**INSTRUCTIONS:** Edit this document and complete each of the numbered sections below. Once your project narrative is completed, save this file as an Adobe Acrobat PDF file and upload it to the Grant Portal under the appropriate Project Narrative document workflow step.

The text in this narrative must be single spaced typed in standard typeface (e.g., Times New Roman, Arial, Calibri) with no smaller than 12-point font. Do NOT modify the page layout, margins, header, or footer in the document as each page must be numbered and have one-inch margins.

**NOTE: This completed project narrative document is NOT to exceed 7 single spaced pages.**

## **1. Project Scope Alignment:**

Describe the issues this project is seeking to address and how the project will contribute to the goals in this funding opportunity, including congressional, Justice40, State Forest Action Plans, and Ten-Year Urban and Community Forestry Action Plan (2016-2026) priorities.

The **Equity through White Pine County Urban Forestry Initiative Project** will provide the disadvantaged communities of Ely, Lund, Preston, Ruth and surrounding areas with increased equitable access to urban tree canopy and associated benefits.

**Justice40:** The communities of Ely, Lund, Preston, and Ruth (as well as surrounding areas) are identified as disadvantaged communities by the White House Council on Environmental Quality Climate and Economic Justice Screening Tool (CEJST). The Project will provide increased access to an equitably distributed tree canopy and canopy maintenance, improving resident health and wellness, strengthening forest health and climate resilience, and cultivating biodiversity.

**Ten-Year National Urban and Community Forestry Action Plan:** The Project will address several priorities identified in the Ten-Year Plan. **Goal 1 Planning** – White Pine County and its partners – The City of Ely, White Pine County School District, Learning Bridge Charter School and the Ely Tree Board—are cooperating to update the White Pine County tree inventory and train County and City maintenance personnel to better allow maintenance of and strengthen the health of the urban tree canopy. **Goal 2 Human Health and Wellness** – The project will improve the recreational and functional aspects of the community by providing shade, shelter from acclimate weather (wind), access to green spaces, and (if feasible) addressing food insecurity through the planting of various fruit and chestnut trees. **Goal 3 Cultivate Diversity, Equity, and Leadership in the Urban Forestry Community** – Both White Pine County and The City of Ely intend to use funding to send maintenance personnel to designated training programs on urban forestry maintenance and management. **Goal 4 Strengthen Forest Health and Biodiversity for Long-Term Resilience** – The Project intends to remove dead and diseased trees while fostering growth in healthy existing and newly planted trees for climate resilience and improved habitat resilience as well as establishing a food forest. The Project also includes

plans for training of maintenance personnel on proper tree maintenance including climate and pest resiliency training. **Goal 5 Improve Urban Forest Management, Maintenance, and Stewardship** – White Pine County and its partners listed in Goal 1 are cooperating to produce an updated tree inventory, train maintenance personnel, and develop a public outreach program that would include educational kiosks and a QR code system to educate the public on the various tree species in White Pine County’s Inventory.

**Nevada Division of Forestry State Forest Action Plan:**

The Project will accomplish each of the Goals identified in the Opportunities and Strategies for Impacting Community Forests section of the NDF State Forest Action Plan. **Goal 3-1** – White Pine County meets this goal through its partnerships with The City of Ely, White Pine County School District, Learning Bridge Charter School, and the Ely Tree Board. **Goal 3-2** – The Project will achieve this goal by improving the community’s urban tree canopy and the public outreach program. **Goal 3-3** – The Project will achieve this through updating The County tree inventory and training maintenance personnel in climate, habitat, and pest resilient tree maintenance. **Goal 3-4** – In addition to the funding provided by this grant, the County intends to apply for funding through the Nevada Division of Forestry Urban and Community Forestry grant cycle. **Goal 3-5** – The Project will increase public awareness and environmental education through a public outreach program that will include informational kiosks with QR codes with educational material on the various tree species in the County Inventory.

Failure to implement the Project will continue the decline of White Pine County’s urban and community forest placing the human health, environment, and local economy at risk. Conversely, the Project will increase the local urban tree canopy which will in turn improve human health, reduce the effects of climate change, and boost the economy by improving the quality of outdoor spaces throughout the community.

**2. Implementation Strategy/Methodology/Timeline:**

Provide a detailed explanation of the proposed approach, methodology, operations strategies, project schedule/timeline with goals/milestones, expected accomplishments or measurable outcomes, and project assessment/evaluation methods.

White Pine County is requesting funding for the Equity through White Pine County Urban Forestry Initiative Project in White Pine County, Nevada. This project is large and multi-faceted and will involve training personnel, removing dead and hazardous trees, maintaining existing healthy trees, planting new trees, opening a sub-recipient program to remove dead and hazardous trees from private property, updating the County Tree Inventory, and developing a public outreach and education program.

Based on the anticipation of this project being awarded no later than September 30<sup>th</sup>, The County believes that the project timeline will go from October 1<sup>st</sup>, 2023- September 30<sup>th</sup>, 2028. Once an award is received, the County will work with the City of Ely, the School District, the Charter School and the City Tree Board to coordinate the start of the project. Below is a schedule outlining the measurable outcomes to be completed in the 5-year time frame.

**Schedule/Deliverables:**

<b>Del #</b>	<b>Deliverable</b>	<b>Target Start Date</b>	<b>Target End Date</b>
<b>1</b>	<b>Agreement</b>	<b>10/1/2023</b>	<b>12/31/2023</b>
	Task#1 – Receive Signed Award	10/1/23	10/31/23
	Task#2 – County Commission approval	11/8/23	11/22/23
	Task#3 – Submit fully Executed Award	11/22/23	11/30/23
	Task#4 – Receive Approval to Spend Funds	12/1/23	12/31/23
<b>2</b>	<b>Planning</b>	<b>10/1/2023</b>	<b>4/1/2024</b>
	Task #1- Coordination between County, City, School District, Tree Board and other Key entities to develop RFP's / job descriptions for maintenance supervisor, project coordinator, Tree cutting/maintenance, Tree Planting, and report updating	10/1/23	4/1/24
	Task #2- Develop and release sub recipient applications	10/1/23	4/1/24
	Work with Tree Board to finalize and prioritize locations	1/1/24	4/1/24
<b>3</b>	<b>Sub-Recipient Program</b>	<b>4/1/2024</b>	<b>Until funds are spent or 9/30/2028</b>
	Task #1 –Release sub recipient application	4/1/24	5/1/24
	Task #2- Accept applications	4/1/24	9/30/28
	Task #3- Approval of applications and notification of approval	4/1/24	6/30/28
	Task #4- Coordination and scheduling of maintenance work to be completed on private properties	4/1/24	6/30/28
	Task #5- Final payments to contractor and close of sub-recipient program	4/1/24	9/30/28
<b>4</b>	<b>Maintenance Personnel to Arbor Training</b>	<b>10/1/2023</b>	<b>9/30/28</b>
	Task #1- Begin ISA Arbor Certification Training (selected maintenance personnel from City and County)	10/1/23	4/1/24
	Task #2- continuance of 5-year progressive arbor training courses periodically (selected maintenance personnel from City and County)	10/1/23	9/30/28
	Task#5 – Construction Project Completion Notice Issued	10/1/25	11/1/25
<b>5</b>	<b>Tree removal</b>	<b>4/1/2024</b>	<b>10/31/2025</b>
	Task#1 – Release RFP and advertise for contract services for tree maintenance and removal in designated project areas.	4/1/24	5/1/24
	Task#2 – Bid opening ad selection of contractor	5/1/24	6/1/24
	Task #3- County Commission approval and entering into contract	5/1/24	6/1/24
	Task #4- begin removal of hazardous or dead trees in areas listed: Marich Field, Fairground, Little League Fields,	5/1/24	10/31/24

Del #	Deliverable	Target Start Date	Target End Date
	Steptoe Park, County Park/Old Courthouse, Broadbent Park, Stoppers Park, Terrace Park, Murry Springs, West Entry, Murry Pump house, Water Treatment Plant, Ruth Park, Ruth Ballfield, Ely Cemetery, Preston Cemetery, Lund, Community Center, School District, Lund School, Elementary/Middle/High complex, Learning Bridge Charter		
	Task #5-Begin removal again if necessary for a second season after weather allow	3/1/25	10/31/25
<b>6</b>	<b>Pruning/ maintenance</b>	<b>4/1/2024</b>	<b>10/31/2025</b>
	Task#1 – Release RFP (possibly in conjunction with planting) and advertise for contract services for tree maintenance and removal in designated project areas.	4/1/24	5/1/24
	Task#2 – Bid opening and selection of contractor	5/1/24	6/1/24
	Task #3- County Commission approval and entering into contract	5/1/24	6/1/24
	Task #4- begin maintenance and pruning of trees in areas listed: Marich Field, Fairground, Little League Fields, Steptoe Park, County Park/Old Courthouse, Broadbent Park, Stoppers Park, Terrace Park, Murry Springs, West Entry, Murry Pump house, Water Treatment Plant, Ruth Park, Ruth Ballfield, Ely Cemetery, Preston Cemetery, Lund Community Center, School District, Lund School, Elementary/Middle/High complex, Learning Bridge Charter	5/1/24	10/31/24
	Task #5-Begin maintenance again if necessary for a second season after weather allow	3/1/25	10/31/25
<b>7</b>	<b>Tree Planting</b>	<b>4/1/2024</b>	<b>8/31/2026</b>
	Task#1 – Release RFP (possibly in conjunction with pruning/maint.) and advertise for contract services for tree planting in designated project areas.	4/1/24	5/1/24
	Task#2 – Bid opening and selection of contractor	5/1/24	6/1/24
	Task #3- County Commission approval and entering into contract	5/1/24	6/1/24
	Task #4- begin planting of trees in areas listed: Marich Field, Fairground, Little League Fields, Steptoe Park, County Park/Old Courthouse, Broadbent Park, Stoppers Park, Terrace Park, Murry Springs, West Entry, Murry Pump house, Water Treatment Plant, Ruth Park, Ruth Ballfield, Ely Cemetery, Preston Cemetery, Lund Community Center, School District, Lund School,	6/1/24	8/31/24



Del #	Deliverable	Target Start Date	Target End Date
	Elementary/Middle/High complex, Learning Bridge Charter		
	Task #5-Begin planting again if necessary for a second season after weather allows	6/1/25	8/31/25
	Task #6-Begin planting again if necessary for a third season after weather allows	6/1/25	8/31/26
<b>8</b>	<b>Tree Inventory Report Update</b>	<b>8/31/2024</b>	<b>12/31/2026</b>
	Task #1 – Release RFQ and advertise for contract services for tree inventory in designated project areas.	8/31/24	12/31/24
	Task #2 – Bid opening and selection of contractor	1/1/25	1/31/25
	Task #3- Negotiations with highest ranking firm	1/31/25	3/1/25
	Task #4- County Commission approval and entering into contract	3/1/25	4/1/25
	Task #5- update of plans and information for QR codes	4/1/25	8/31/25
<b>9</b>	<b>Close Out</b>	<b>9/1/25</b>	<b>9/30/28</b>
	Task#1 – Notice of project completion to granting agency	9/1/25	9/30/28
	Task#2 – Prepare final close out report	9/1/25	9/30/28
	Task#3 – Submit final close out documents	9/1/25	9/30/28

**Evaluation Methods:** The success of this project will be evaluated by the deliverables listed in the schedule above. The project will be successful if all of the deliverables are met by the anticipated end dates. Further evaluation of the health and maintenance of the urban tree canopy will be conducted on a yearly basis beginning the first year after work begins.

### 3. Capability and Capacity:

Describe how each contributing organization is suited for (mission) and qualified to deliver the project. Provide the names, titles, and organization affiliation and specific roles of key personnel for the project. Include qualifications and experience of key personnel to implement, monitor, and assess/report project outcome.

White Pine County will be heading this project. The County has personnel experienced in development, application, implementation and closeout of various multi-million-dollar federal grant funded projects. The County will be responsible for the management and oversight of the project and its activities on all properties involved (I.E. City, School District, Charter School). The City will assist in oversight, maintenance and planning where possible. The County does not have the resources internally to complete this project in a safe and professional manner. Because of this, the County is prepared to contract a majority of the work for this project out to qualified professionals through a proper bidding process. The County will also work with the Southwest Climate Hub with the USDA Agricultural Research Station throughout this project. The County/City maintenance departments will oversee activities on their respective locations for this project. The County Manager will be responsible for ensuring policies and procedures

are followed and will be involved in the selection of contractors, progress meetings and more. The County Finance Department will take part in this project by overseeing financial and administrative duties, ensuring purchasing and procurement policies are followed and ensuring that the overall financial aspect of the project is properly completed. Additionally, the County has two full time grant administrators who will be responsible for grant oversight and management including budget tracking and reporting and more. The knowledge and expertise of local entities such as the City Tree board, White Pine Tourism and Recreation, and more will be leveraged to assist with smooth implementation of this project.

<p>Courtney Thornal Parks &amp; Building Maintenance Supt. White Pine County Public Works 953 Campton Street Ely, NV 89301 775-293-6552</p>	<p>Michael A. Wheable, Esq. County Manager White Pine County 801 Clark St., Suite 5 Ely, NV 89301 775-293-6596 (o)</p>	<p>Kathy Workman Director of Finance White Pine County 801 Clark St, Suite3 Ely, NV 89301 775-293-6530 (o)</p>
<p>Tabatha Hamilton Grant Writer White Pine County 801 Clark Street, Suite 4 Ely, NV 89301 775-293-6594</p>	<p>Delaney Marich Grant Writer White Pine County 801 Clark St. Ely, Nevada 89301 775-293-6593</p>	<p>Adam Young White Pine County School District Superintendent 1135 Avenue C Ely, NV 89301 775 289-4851</p>
<p>Mike Cracraft Public Works Supervisor City of Ely 501 Mill Street Ely, NV 89301 775-289-2430</p>	<p>Bill Wolf Ely Tree Board Representative Ely, NV 89301 775-293-2730</p>	<p>Milo Jury Learning Bridge Charter 1400 E. 13th Street Ely, NV 89301 775-293-8009</p>

**4. Communications Plan:**

Share your plans for communication on the project, including plans for 1) signage acknowledging the source of funding at project locations 2) inclusion of funding information in press and promotional materials.

All distribution materials produced with this funding will include information regarding the funding of this project. These materials may include tree QR codes and plaques (websites or electronic flyers as well), tree inventory reports, and other information/reports that can be updated with the help of this funding.

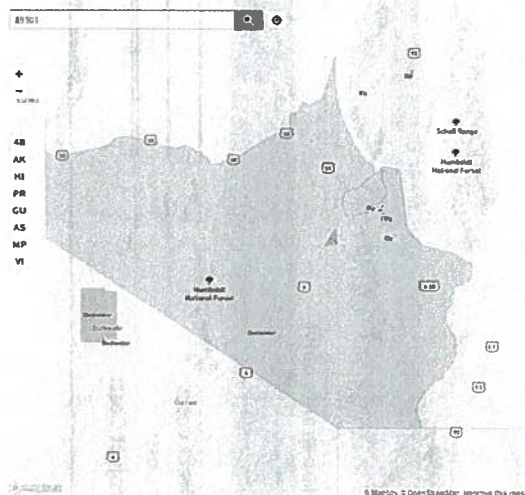
**5. Evidence of Disadvantaged Community Status for projects requesting Match Waiver (if applicable):**

Clearly describe the scope of work to be performed in disadvantaged communities, and identify online vulnerability and environmental justice equity data and/or tools referenced to support a disadvantaged community designation, (e.g., White House Council on Environmental Quality [Climate and Economic Justice Screening Tool \(CEJST\)](#), EPA Environmental Justice and Screening Mapping Tool (EJScreen), EPA [EnviroAtlas Interactive Map](#), Opportunity Zones, or other vulnerability data/tools applicable to the scope of work). Multiple tools may be used. **All work must be tracked at the level that designates disadvantaged communities.**

Primary applicants receiving cost-match waiver approval that pass-through funding (sub-award) for work in disadvantaged communities must pass through the cost match waiver to sub-awardees performing the work.

This project scope of work will be performed throughout tracts 32033970300 & 32033970200 (in the communities of Lund, Ely and outlying public areas), both of which are designated as disadvantaged areas according to the Justice40 Initiative (<https://screeningtool.geoplatform.gov/en/#10.79/39.2804/-114.9068> ). This project would provide 100% of the project funding (around \$4 million) to disadvantaged communities that struggle with low income, agriculture loss, wildfire risk, lowering water t and education. This in turn will boost the economy for these communities by providing healthier, cleaner, nicer neighborhood to work and recreate in. Property values in the area will increase and promote new businesses and developments in the area.

With this project, various maintenance and pruning, approximately 87 tree removals, and 323 new trees planted will occur throughout public facilities, parks and community anchor institutions. Additionally, this project will provide opportunity for private property owners to increase equity for their own home by providing a sub recipient program that will fund pruning/maintenance efforts and dangerous/dead tree removal that owners likely otherwise could not afford (based on the Lincoln, NE model). This will increase quality of life, provide shade and cooling, reduce physical and mental stress, boost mental health, increase property value and much more.



**Tract information**  
 Number: 32033970200  
 County: White Pine County  
 State: Nevada  
 Population: 6,321

**Tract demographics**  
 Race / Ethnicity ([show](#))  
 Age ([show](#))

Identified as disadvantaged?

**YES**

This tract is considered disadvantaged because it meets more than 1 burden threshold **AND** the associated socioeconomic threshold.

The lands of Federally Recognized Tribes that cover less than 1% of this tract are also considered disadvantaged.

**Tract information**  
 Number: 32033970300  
 County: White Pine County  
 State: Nevada  
 Population: 1,886

**Tract demographics**  
 Race / Ethnicity ([show](#))  
 Age ([show](#))

Identified as disadvantaged?

**YES**

This tract is considered disadvantaged because it meets 1 burden threshold **AND** the associated socioeconomic threshold.

The lands of Federally Recognized Tribes that cover less than 1% of this tract are also considered disadvantaged.

**BUDGET TABLE**

	Federal Funds (requested)	Non-Federal Match		Total	Source of Matching Funds
		Cash	In-Kind		
<b>Personnel</b>				\$0.00	
Grant Management and Admin	\$104,840.40			\$104,840.40	
				\$0.00	
				\$0.00	
<b>Fringe Benefits</b>				\$0.00	
				\$0.00	
				\$0.00	
				\$0.00	
<b>Travel</b>				\$0.00	
Training	\$14,056.70			\$14,056.70	
				\$0.00	
<b>Equipment</b>				\$0.00	
				\$0.00	
				\$0.00	
<b>Supplies</b>				\$0.00	
				\$0.00	
				\$0.00	
<b>Contractual</b>				\$0.00	
Tree Planting, Pruning & Maint.	\$1,848,300.00			\$1,848,300.00	
Supervisory and inventory	\$607,200.00			\$607,200.00	
				\$0.00	
<b>Other (sub-grants only)</b>				\$0.00	
sub recipient program	\$787,500.00			\$787,500.00	
Ely/Lund/Preston/Ruth					
				\$0.00	
<b>Total Direct Costs:</b>				\$3,361,897.10	
Indirect Cost:				\$0.00	
<b>Total Project Cost:</b>				\$3,361,897.10	

Location	Pruning	Pruning total	Tree removal	Removal total	Stump grinding	Grinding total	New Trees	New Trees total
County	10	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	20	\$ 32,000.00
Marich Field	58	\$ 116,000.00	\$ 200,000.00	\$ 200,000.00	\$ 20	\$ 30,000.00	31	\$ 18,600.00
Fairground	8	\$ 16,000.00	\$ -	\$ -	\$ -	\$ -	12	\$ 7,200.00
Little League Fields	12	\$ 24,000.00	\$ -	\$ -	\$ -	\$ -	12	\$ 7,200.00
Steppe Park	22	\$ 88,000.00	\$ 180,000.00	\$ 180,000.00	\$ 16	\$ 40,000.00	\$ -	\$ -
County Park/Old Courthouse	18	\$ 36,000.00	\$ 140,000.00	\$ 140,000.00	\$ 14	\$ 31,000.00	27	\$ 16,200.00
Preston Cemetery	12	\$ 24,000.00	\$ 50,000.00	\$ 50,000.00	\$ 5	\$ 7,500.00	6	\$ 3,600.00
Lund Community Center		\$ -	\$ -	\$ -	\$ -	\$ -	10	\$ 6,000.00
Ruth Park		\$ -	\$ -	\$ -	\$ -	\$ -	6	\$ 3,600.00
Ruth Ballfield		\$ -	\$ -	\$ -	\$ -	\$ -	10	\$ 6,000.00
City	16	\$ 32,000.00	\$ 20,000.00	\$ 20,000.00	\$ 2	\$ 3,000.00	10	\$ 6,000.00
Bowdoin Park	10	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 2	\$ 3,000.00	7	\$ 4,200.00
Stoppers Park	10	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	5	\$ 3,000.00
Terrace Park		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Murray Springs		\$ -	\$ 100,000.00	\$ 100,000.00	\$ 10	\$ 15,000.00	\$ -	\$ -
West Entry		\$ -	\$ 40,000.00	\$ 40,000.00	\$ 4	\$ 6,000.00	3	\$ 1,800.00
Murry Pump house		\$ -	\$ -	\$ -	\$ -	\$ -	5	\$ 3,000.00
Water Treatment Plant		\$ -	\$ 270,000.00	\$ 270,000.00	\$ 18	\$ 45,000.00	35	\$ 21,000.00
Ely Cemetery	34	\$ 68,000.00	\$ -	\$ -	\$ -	\$ -	20	\$ 12,000.00
School District		\$ -	\$ -	\$ -	\$ -	\$ -	20	\$ 12,000.00
Lund School		\$ -	\$ -	\$ -	\$ -	\$ -	50	\$ 30,000.00
Stamansky/Middle/High complex		\$ -	\$ -	\$ -	\$ -	\$ -	50	\$ 30,000.00
Learning Bridge Charter		\$ -	\$ 1,020,000.00	\$ 1,020,000.00	\$ 91	\$ 170,500.00	323	\$ 193,800.00
Learning Bridge Charter		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>210</b>	<b>\$ 464,000.00</b>	<b>\$ 877,000.00</b>	<b>\$ 1,341,000.00</b>	<b>\$ 177</b>	<b>\$ 347,500.00</b>	<b>500</b>	<b>\$ 2,688,500.00</b>

Total \$ 1,848,300.00

Total \$ 787,500.00

Tree Maintenance Supervisor (TMS) 500 \$ 480,000.00 12 weeks per year, 2 years at 40hrs/week. Includes writing scope of work for tree maintenance contract and overseeing implementation to include community education program

Project Coordinator 100 \$ 100,000.00 Coordinating TMS, tree planting, training, reporting, cooperators and suppliers. Develop TMS scope of work

Tree Inventory 120 \$ 7,200.00 Following completion of the tree maintenance and replacement program, will inventory all public trees within the grant scope of work.

Tree Climate Adaptation Plan 200 \$ 20,000.00 seeking advice on climate adapted trees to plant in Ely, HV, and perhaps connections to ensure you can get appropriate seed stock

Total \$ 607,200.00

Position	Rate	Hours	Total
Training	935.34	276.00	\$ 258,138.24
Certified Arborist	935.34	276.00	\$ 258,138.24
Municipal Specialist	935.34	276.00	\$ 258,138.24
Tree Worker Climber specialist	935.34	276.00	\$ 258,138.24
Tree Worker Aerial Lift Specialist	935.34	276.00	\$ 258,138.24
Tree Risk Assessment	935.34	276.00	\$ 258,138.24
Registration	935.34	276.00	\$ 258,138.24
<b>Total</b>	<b>4,676.70</b>	<b>1,380.00</b>	<b>\$ 3,000.00</b>

14,056.70

\$ 607,200.00

Position	Rate	Hours	Total
Grant Writer Senior	2.00	22.62	\$ 45.24
Grant Writer	2.00	20.31	\$ 40.62
Finance Director	2.00	62.12	\$ 124.24
Treasurer	2.00	34.31	\$ 68.62
Account Payable	2.00	30.01	\$ 60.02
Account Payable	2.00	22.98	\$ 45.96
Maintenance supervisor	2.00	49.68	\$ 99.36
County manager	2.00	67.84	\$ 135.68
IT support	4.00	42.00	\$ 168.00
Payroll	2.00	32.56	\$ 65.12

\$ 104,840.40

\$ 3,363,697.10

# Budget Narrative

**Personnel** \$104,840.40

Grant Management and Admin

<u>position</u>	<u>hrs</u>	<u>rate</u>	<u>months</u>	<u>total</u>
Grant writer Senior- grant management, cost tracking, and invoice entering, Etc. Approximately 2 hrs. Per month at 22.62/hr.	\$ 2.00	\$ 22.62	\$ 60.00	\$ 2,714.40
Grant writer - grant management, cost tracking, invoice entering, Etc. Approximately 2 hrs. Per month at 20.31/hr.	\$ 2.00	\$ 20.31	\$ 60.00	\$ 2,437.20
Finance Director- Financial oversight/management approximately 2 hrs. Per month at 62.12/hr.	\$ 2.00	\$ 62.12	\$ 60.00	\$ 7,454.40
Treasurer-preparing payments/ receipting grant funds approximately 1 hour per every other check run at 34.31/hr.	\$ 2.00	\$ 34.31	\$ 60.00	\$ 4,117.20
Treasurer-preparing payments/ receipting grant funds approximately 1 hour per every other check run at 30.01/hr.	\$ 2.00	\$ 30.01	\$ 60.00	\$ 3,601.20
Accounts Payable- preparing check run for payments approximately 1 hour biweekly at 22.98/hr.	\$ 2.00	\$ 22.98	\$ 60.00	\$ 2,757.60
Maintenance supervisor- project oversight/management. Approximately 5 hrs. Per week at 49.68/hr.	\$ 20.00	\$ 49.68	\$ 60.00	\$ 59,616.00
County manager- supervision and oversight for county public works 1 hour biweekly at 67.84/hr.	\$ 2.00	\$ 67.84	\$ 60.00	\$ 8,140.80
IT- IT support 1hr/week at 42.06/hr.	\$ 4.00	\$ 42.06	\$ 60.00	\$ 10,094.40
Payroll-1 hour every payroll week coding time spent on projects at 32.56/hr.	\$ 2.00	\$ 32.56	\$ 60.00	\$ 3,907.20

**Fringe Benefits**

**Travel/Training-** \$14,056.70

The training program is a five year workforce development program for cooperator employees or for community members committed to professional development. The training program will include training to become a certified arborist, municipal specialist, certified tree worker climbing specialist, certified tree worker aerial lift specialist and tree risk assessment. The budget includes mileage, per diem, lodging and registration but does not include wages.

Training	vehicle	per diem	rooms	Assumes training in Carson City at 714 miles round trip @ \$.655/mile,
<b>Certified Arborist</b>	\$ 935.34	\$ 276.00	\$ 600.00	4 workers, 2 vehicles, individual rooms @\$150 ea, 2 days travel, one day class
<b>Municipal Specialist</b>	\$ 935.34	\$ 276.00	\$ 600.00	3 days per diem @ \$69/day

Tree Worker Climber specialist	\$ 935.34	\$ 276.00	\$ 600.00					
Tree Worker Aerial Lift Specialist	\$ 935.34	\$ 276.00	\$ 600.00					
Tree Risk Assessment	\$ 935.34	\$ 276.00	\$ 600.00					
Registration				5000				

**Equipment**

**Supplies**

**Contractual** \$2,455,500

Ely, Lund, Preston and Ruth Nevada are among the most remote communities in the Lower 48 states. As such, Certified Arborist services are non-existent. The expense of bringing in qualified arborial services is prohibitive and is one reason the local urban forest is in such poor condition. All these services will have to be contracted and at a rate exceeding national norms. The nearest metropolitan areas with these services are Reno/Lake Tahoe, Salt Lake City and Las Vegas. The contract service personnel will have to relocate to Ely for the duration of the work and so have to find temporary housing.

**Tree Planting, Pruning & Maint.**

The Tree Maintenance Program will prune, remove and plant trees at schools and in public areas in Ely, Ruth, Lund and Preston, Nevada. The grant request survey conducted by the Ely Tree Board identified 217 trees needing pruning, 132 trees requiring removal and where 333 new trees might be planted. Removal of stumps left from tree removal is part of the program. The review by the TMS will determine the final plan for the pruning and removal and so those numbers may change.

Location	Pruning	Pruning total	Tree removal	Removal total	Stump grinding	Grinding total	New Trees	New Trees total
<b>County</b>								
Marich Field	10	\$ 20,000.00		\$ -		\$ -	20	\$ 12,000.00
Fairground	58	\$ 116,000.00	20	\$ 200,000.00	20	\$ 30,000.00	31	\$ 18,600.00
Little League Fields	8	\$ 16,000.00		\$ -		\$ -	12	\$ 7,200.00
Steptoe Park	12	\$ 24,000.00		\$ -		\$ -	12	\$ 7,200.00
County Park/Old Courthouse	22	\$ 88,000.00	12	\$ 180,000.00	16	\$ 40,000.00		\$ -
Preston Cemetary	18	\$ 36,000.00	14	\$ 140,000.00	14	\$ 21,000.00	27	\$ 16,200.00
Lund Community Center	12	\$ 24,000.00	5	\$ 50,000.00	5	\$ 7,500.00		\$ -

Ruth Park		\$ -		\$ -		\$ -	6	\$ 3,600.00
Ruth Ballfield		\$ -		\$ -		\$ -	10	\$ 6,000.00
City								
Broadbent Park	16	\$ 32,000.00	2	\$ 20,000.00	2	\$ 3,000.00	10	\$ 6,000.00
Stoppers Park	10	\$ 20,000.00	2	\$ 20,000.00	2	\$ 3,000.00	7	\$ 4,200.00
Terrace Park	10	\$ 20,000.00		\$ -		\$ -	5	\$ 3,000.00
Murry Springs		\$ -	10	\$ 100,000.00	10	\$ 15,000.00		\$ -
West Entry		\$ -	4	\$ 40,000.00	4	\$ 6,000.00	3	\$ 1,800.00
Murry Pump house		\$ -		\$ -		\$ -	5	\$ 3,000.00
Water Treatment Plant		\$ -		\$ -		\$ -	35	\$ 21,000.00
Ely Cemetery	34	\$ 68,000.00	18	\$ 270,000.00	18	\$ 45,000.00	20	\$ 12,000.00
School District								
Lund School		\$ -		\$ -		\$ -	20	\$ 12,000.00
Elementary/Middle/High complex		\$ -		\$ -		\$ -	50	\$ 30,000.00
Learning Bridge Charter								
Learning Bridge Charter		\$ -		\$ -		\$ -	50	\$ 30,000.00
<b>Total</b>	<b>210</b>	<b>\$ 464,000.00</b>	<b>87</b>	<b>\$ 1,020,000.00</b>	<b>91</b>	<b>\$ 170,500.00</b>	<b>323</b>	<b>\$ 193,800.00</b>

**Supervisory and inventory**

The Tree Maintenance Supervisor.

The Tree Maintenance Supervisor (TMS) will have to be a Master Certified Arborist or, at a minimum, certified Arborist. The TMS will have to have extensive experience supervising tree pruning and tree removal in high-risk areas such as cemeteries and along main thoroughfares. The TMS will review all work to assure it is done in a workman like manner and conform to industry and ANSI standards. The TMS will perform a risk analysis of hazard trees and prioritize which shall be removed first, including those part of the White Pine Regional High Risk Tree Removal Program. The TMS shall monitor the pruning and mentor, as needed, the contractor as part of a workforce development program for any employees hired locally and for staff of the cooperating partners. The TMS will develop an Urban Forest



Management Plan for the cooperating partners to guide the cooperating partners into the future. The TMS will develop the interpretive program to be incorporated into the Q-R Code Interpretive Plaque program. The TMS will work with the White Pine County School District and provide advice to the White Pine High School and the Lund School greenhouse operations along with providing guidance to the Ely Tree Board in developing a program of taking bare-root trees and growing them out to be planted within the local communities. In cooperation with the Nevada Division of Forestry and the Mt. Wheeler Rural Electric Cooperative, the TMS will update the currently distributed tree care and "right tree in the right place" guide. The TMS will also work with the Southwest Climate Hub of the USDA Agricultural Research Service to help guide the tree planting program based on our changing climate. These services in metropolitan areas may exceed \$350/hour. We are budgeting \$500/hour for 960 hours and a total of \$480,000.

#### Project Coordinator

The Project Coordinator (PC) will oversee the various components of the project ie the TMS deliverables, contracting with the selected tree service, the contracting for tree planting and the contracting for the urban forest inventory. The PC will report to the White Pine County Manager. The PC will work with county staff and ensure all grant reporting requirements are met. The PC will work with the county attorney to ensure appropriate releases are developed and signed for the White Pine Regional High Risk Tree Removal Program on private property.

#### Urban Forest Inventory

Following completion of the Tree Maintenance Program, an inventory of the Urban Forest on public land would be done. This would provide managers with an exact inventory of and condition of the Urban Forest. Together with the Urban Forest Management Plan developed by the TMS, each community would have a basis for future management decisions. We are budgeting 120 hours at \$60/hour for a total of \$7,200.

#### Tree Climate adaptation Plan

The county would work with a consultant firm in order to seek advice on specifics regarding climate adaptive trees for the area as well as identifying trees that fit local needs. This would consist of a 2-3 day adaptation workshop that would cost around \$20,000 and lead to an adaptation plan.

#### **Other (sub-grants only)** \$787,500

#### **Sub recipient program Ely/Lund/Preston/Ruth Community Risk Abatement**

White Pine Regional High Risk Tree Removal Program.

In the late 1800's and early 1900's when Ely and the surrounding area was beginning its growth, boleana poplars were a common choice of tree to plant. Groundwater lowering has severely impacted these trees. Throughout the community, many of these hundred year old trees are highly stressed or dying. The expense of the dealing with these high-risk trees is beyond the means of most of the residents. We are modeling our program on the Lincoln, Nebraska At-Risk Tree Removal Program. Proof of economic need would be required along with signed releases of liability for the County. The TMS would review each application based on risk and the PC would determine eligibility.

**Application for Federal Assistance SF-424**

<b>* 1. Type of Submission:</b> <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application			<b>* 2. Type of Application:</b> <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision		<b>* If Revision, select appropriate letter(s):</b> _____ <b>* Other (Specify):</b> _____	
<b>* 3. Date Received:</b> _____		<b>4. Applicant Identifier:</b> White Pine County				
<b>5a. Federal Entity Identifier:</b> _____			<b>5b. Federal Award Identifier:</b> _____			
<b>State Use Only:</b>						
<b>6. Date Received by State:</b> _____		<b>7. State Application Identifier:</b> _____				
<b>8. APPLICANT INFORMATION:</b>						
<b>* a. Legal Name:</b> White Pine County						
<b>* b. Employer/Taxpayer Identification Number (EIN/TIN):</b> 88-6000-166			<b>* c. UEI:</b> VJ96KY794X25			
<b>d. Address:</b>						
<b>* Street1:</b> 801 CLARK STREET		_____				
<b>Street2:</b> SUITE 4		_____				
<b>* City:</b> ELY		_____				
<b>County/Parish:</b> _____		_____				
<b>* State:</b> NV: Nevada		_____				
<b>Province:</b> _____		_____				
<b>* Country:</b> USA: UNITED STATES		_____				
<b>* Zip / Postal Code:</b> 89301-000		_____				
<b>e. Organizational Unit:</b>						
<b>Department Name:</b> ECONOMIC DEVELOPEMENT			<b>Division Name:</b> _____			
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>						
<b>Prefix:</b> _____		<b>* First Name:</b> TABATHA				
<b>Middle Name:</b> _____		_____				
<b>* Last Name:</b> HAMILTON		_____				
<b>Suffix:</b> _____		_____				
<b>Title:</b> GRANT SPECIALIST						
<b>Organizational Affiliation:</b> _____						
<b>* Telephone Number:</b> 775-293-6594		<b>Fax Number:</b> _____				
<b>* Email:</b> THAMILTON@WHITEPINECOUNTYNV.GOV						

**Application for Federal Assistance SF-424**

**\* 9. Type of Applicant 1: Select Applicant Type:**

B: County Government

**Type of Applicant 2: Select Applicant Type:**

**Type of Applicant 3: Select Applicant Type:**

**\* Other (specify):**

**\* 10. Name of Federal Agency:**

U.S. Forest Service

**11. Catalog of Federal Domestic Assistance Number:**

**CFDA Title:**

**\* 12. Funding Opportunity Number:**

USDA-FS-2023-UCF-IRA-01

**\* Title:**

USDA Forest Service Urban & Community Forestry  
Inflation Reduction Act

**13. Competition Identification Number:**

**Title:**

**14. Areas Affected by Project (Cities, Counties, States, etc.):**

Add Attachment

Delete Attachment

View Attachment

**\* 15. Descriptive Title of Applicant's Project:**

White Pine County will use USDA Forest Service Urban & Community Forestry  
Inflation Reduction Act funding to provide planting, maintenance, training, planning and  
information throughout the communitie

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424**

**16. Congressional Districts Of:**

\* a. Applicant

\* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

**17. Proposed Project:**

\* a. Start Date:

\* b. End Date:

**18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="3,361,897.10"/>
* b. Applicant	<input type="text"/>
* c. State	<input type="text"/>
* d. Local	<input type="text"/>
* e. Other	<input type="text"/>
* f. Program Income	<input type="text"/>
* g. TOTAL	<input type="text" value="3,361,897.10"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

- Yes
- No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

\*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:   
Middle Name:   
\* Last Name:   
Suffix:

\* Title:

\* Telephone Number:  Fax Number:

\* Email:

\* Signature of Authorized Representative: 

\* Date Signed:

**Application for Federal Assistance SF-424**

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): _____ * Other (Specify): _____
--	--	--

* 3. Date Received: _____	4. Applicant Identifier: White Pine County
------------------------------	---

5a. Federal Entity Identifier: _____	5b. Federal Award Identifier: _____
---	--

**State Use Only:**

6. Date Received by State: _____	7. State Application Identifier: _____
----------------------------------	--

**8. APPLICANT INFORMATION:**

* a. Legal Name: White Pine County	
* b. Employer/Taxpayer Identification Number (EIN/TIN): 88-6000-166	* c. UEI: VJ96KY794X25

**d. Address:**

* Street1: 801 CLARK STREET
Street2: SUITE 4
* City: ELY
County/Parish: _____
* State: NV: Nevada
Province: _____
* Country: USA: UNITED STATES
* Zip / Postal Code: 89301-000

**e. Organizational Unit:**

Department Name: ECONOMIC DEVELOPEMENT	Division Name: _____
---	-------------------------

**f. Name and contact information of person to be contacted on matters involving this application:**

Prefix: _____	* First Name: TABATHA
Middle Name: _____	
* Last Name: HAMILTON	
Suffix: _____	
Title: GRANT SPECIALIST	
Organizational Affiliation: _____	
* Telephone Number: 775-293-6594	Fax Number: _____
* Email: THAMILTON@WHITEPINECOUNTYNV.GOV	

**Application for Federal Assistance SF-424**

**\* 9. Type of Applicant 1: Select Applicant Type:**

B: County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

**\* 10. Name of Federal Agency:**

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USDA Forest Service Urban & Community Forestry  
Inflation Reduction Act

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**14. Areas Affected by Project (Cities, Counties, States, etc.):**

Add Attachment

Delete Attachment

View Attachment

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White Pine County will use USDA Forest Service Urban & Community Forestry  
Inflation Reduction Act funding to provide planting, maintenance, training, planning and  
information throughout the communitie

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424**

**16. Congressional Districts Of:**

\* a. Applicant

\* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

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\* a. Start Date:

\* b. End Date:

**18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="3,361,897.10"/>
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* c. State	<input type="text"/>
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* e. Other	<input type="text"/>
* f. Program Income	<input type="text"/>
* g. TOTAL	<input type="text" value="3,361,897.10"/>

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**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

- Yes
- No

If "Yes", provide explanation and attach

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

\*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:   
Middle Name:   
\* Last Name:   
Suffix:

\* Title:

\* Telephone Number:  Fax Number:

\* Email:

\* Signature of Authorized Representative: 

\* Date Signed:

### ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**


**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.



9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
	County Manager
APPLICANT ORGANIZATION	DATE SUBMITTED
White Pine County	6-1-23

Standard Form 424B (Rev. 7-97) Back

Not applicable for this project.

# White Pine County, Nevada Public Tree Inventory and i-Tree Streets Analysis

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Prepared by  
The Nevada Division of Forestry,  
Urban and Community Forestry Program

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February 2, 2015



## **I. Executive Summary**

- The Nevada Division of Forestry assessed all publicly-owned trees in White Pine County in May-June 2014. A locally-based forester identified the location (with Global Positioning System), species, size class, general condition class and noted tree care problems on publically managed trees
- White Pine County owns and manages 1496 trees with over 32 distinct species represented.
- Approximately 89% of these trees are one of the ten most commonly planted trees in the county
- 87% of White Pine County trees were categorized as either in "excellent" or "good" condition
- White Pine County trees provide an annual benefit of \$191,000 to residents and visitors, or \$128 per average tree
- The replacement value of 1496 White Pine County trees is \$3,322,400
- The Nevada Division of Forestry recommendations include:
  - increasing diversity of planted tree species
  - improving structural pruning on young and middle aged trees
  - reducing negative tree management activities (trimmer damage, excessive or incorrect pruning, improper irrigation/fertilization)
  - update the tree inventory regularly, or at least annually
- This report will help White Pine County more efficiently manage the trees in its care and maximize the benefits from current and future county trees. Trees in the county that represent a risk to public safety are also identified

## **II. Introduction and Methods**

White Pine County is home to approximately 10,000 people, with the city of Ely as the county seat. Mining and hospitality are major industries in White Pine County, and a location along Highway 50, a.k.a. "the loneliest road in America," ensures a steady flow of intrepid visitors to the region.

County trees contribute to the quality of life for White Pine County residents and visitors, by lowering heating costs in the winter and cooling costs in summer. Trees absorb carbon dioxide and produce oxygen, and filter airborne pollutants (smoke and dust). Trees absorb the impact of storm water, and reduce runoff, which can cause floods. Well managed county trees are attractive to the character of the county and contribute to higher property values and tax base. Business owners benefit from trees since shoppers spend more time and money in businesses on tree-lined streets. County trees are a living asset that, if managed properly, can grow in value over time. Caring for trees demonstrates the county's commitment to quality of life for residents, visitors, and business owners.

The Nevada Division of Forestry (NDF), Urban and Community Forestry program provides financial and technical assistance to all of Nevada's communities for improving management of the State's publically managed trees. Nevada is one of the most urbanized states in the United States (#4), and the forest that most Nevadans experience is the urban forest. With declining tree cover in many of the State's urban

centers over the past few years, the importance of publically-managed trees, in terms of the benefits they provide, has grown.

With the assistance of county staff, the Nevada Division of Forestry assessed every county owned tree in White Pine County, Nevada in May-June 2014. A locally-contracted forester located, by Global Positioning System (GPS), and identified all county trees. The forester measured the diameter size class, at 4.5 feet above the ground, and placed the trees in to condition classes: poor, fair, good, and excellent. Trees in the 'poor' to 'fair' class require follow up examination, care, or even removal. The forester also took general notes about the tree care in the county.

Following field data collection, the GPS points were all added to a Geographic Information System (GIS) database that can be used by the County to manage publicly-owned trees. The data is considered public information and is freely available to anyone who requests it. The tree identification, size, and condition classes were integrated with the GPS locations in a GIS database, such that anyone can review information about any county tree with some simple data manipulation. The database also allows anyone to run reports on any attribute that was collected by the NDF arborists, including map locations.

The relative performance index (RPI) provides an indication of how each tree species' condition compares to the average tree in the total population. The average condition class for each species (rated at poor=1, fair=2, good=3, excellent=4) was calculated and divided by 3.46- the average condition class for all trees in the White Pine County population. By dividing each species' condition class by the average condition class for all trees, the Relative Performance Index (RPI) is given. Any species with an RPI over 1.0 is performing better than the average tree in the population. Any value less than 1.0 indicates a species that is underperforming the average. Trees with an RPI over 1.0 should be planted, due to their measured average performance. Trees with an RPI less than 1.0 should not be planted in the future. This measure does have an inherent bias against older trees, and consideration for future tree planting should take this into account. As smaller trees are usually found in better condition, the RPI might be higher for recently planted trees, as compared to older trees that may have demonstrated good growth and adaptation to local conditions over decades. Consideration should be given to the bias of this indicator.

Additionally, the tree data collected was inputted into the USDA Forest Service computer program, i-Tree Streets, which estimates the monetary value of tree benefits. The i-Tree Streets program is a peer-reviewed computer program that was developed to place value on tree benefits. The i-Tree Streets program, with the input of species and size of trees, can determine several benefits, including:

1. Reduction in energy use (shade from leaves helps cool in summer and no shade from deciduous trees helps retain heat in winter)
2. Reduction in CO<sub>2</sub> in the atmosphere and carbon storage in the tree (global warming)
3. Improved air quality (tree leaves remove pollutants from the atmosphere)
4. Storm-water damage reduction (roots can be a good source of erosion control)
5. A more beautiful and diverse environment (aesthetics)

For more information on i-Tree and the benefits it describes, please see:

<http://www.I-Treetools.org/>

This report provides the following information on publically managed trees in White Pine County:

- Location and number of publically managed trees (location in GIS shape files)
- Species composition of the urban forest
- Size class (tree diameter measured at 4.5 feet above ground)
- Condition class (qualified as: poor, fair, good, and excellent); numbered 1-4
- For each tree species, we calculated the relative performance index (RPI), how tree species compare to the general condition class of all trees
- i-Tree Streets economic value of benefits provided by White Pine County's public trees
- General recommendations for county tree care based on observations during assessment

### III. Results

**Distribution of Tree Condition:** The vast majority of publically managed trees in White Pine County (87%) were determined to be in the good to excellent condition class (Figure 1). These trees require the normal level of concern attributed to any healthy tree. Almost 13.4% of White Pine County's trees were found in the fair to poor condition. These trees may require immediate attention, up to and including removal, in order to remain part of the county's healthy urban forest. Dead and dying trees should be removed as soon as possible.

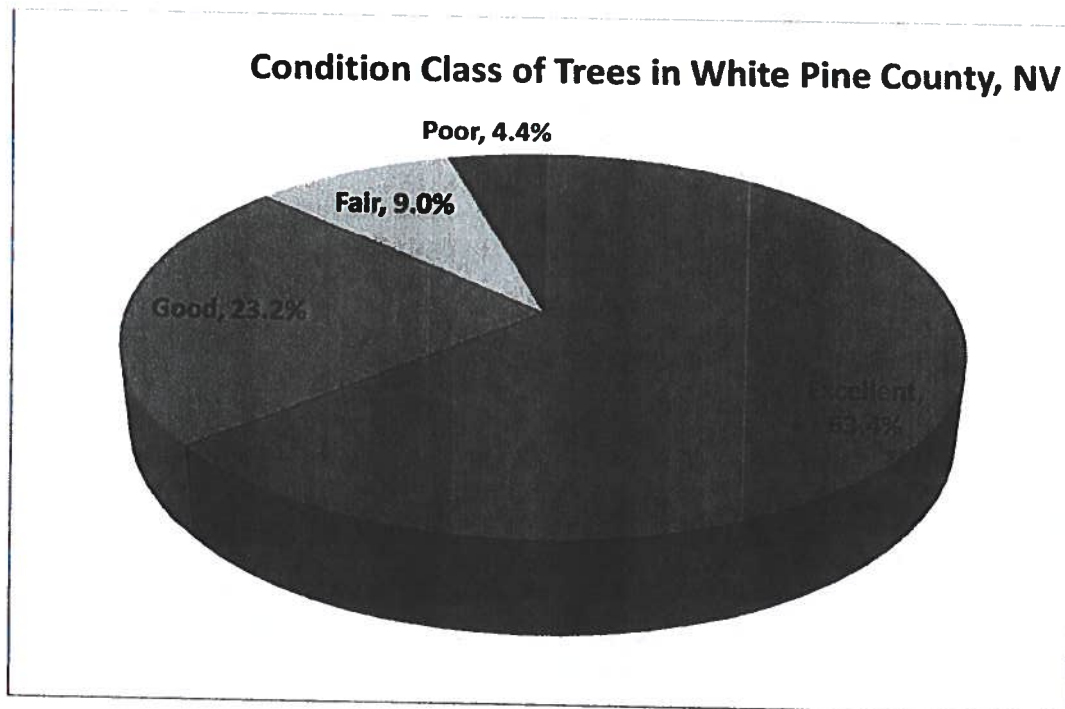


Figure 1 shows the distribution of condition class among all public trees in White Pine County, Nevada

**Tree Species Diversity:** White Pine County manages 1496 trees in parks, a golf course, fair grounds, and sports fields. These trees represent at least 32 different species. The top ten species represent 89% of all trees, while the top three species represents 59% of all trees (Figure 2). The most abundant species are as follows: Siberian Elm (25%), Colorado Blue Spruce (23%), and Rocky Mountain Juniper (11%).

Species diversity is an important consideration when managing an urban forest. In Eastern US cities in the 20<sup>th</sup> Century, two diseases – Dutch Elm Disease and Chestnut Blight –wreaked havoc, because so many street trees were of one of those two species. The Emerald Ash Borer, an exotic insect that now threatens to eliminate Ash trees from cities in the Midwest, has recently been discovered in Boulder, Colorado. As White Pine County is also located within roughly 100 miles of the Interstate-80 corridor, it is only a matter of time before the county will be affected by this insect. While there is a moderate level of diversity of tree species in the county population, the county relies on the three species for a majority of total trees. If some disease was to affect Elm, Spruce, or Juniper trees in White Pine County, for example, a significant reduction in tree canopy would occur. As a general rule, no one species should be represented by more than 10% of the total tree population. White Pine County has three species that are greater than 10% (Siberian Elm, Colorado Blue Spruce, and Rocky Mountain Juniper) and another that is approaching it (Russian Olive). Additionally, no one genus of tree should have more than 25% representation in the population. Fortunately no genus is represented by over 30% in the White Pine County population. Increasing diversity of trees in the White Pine County population should be taken into account.

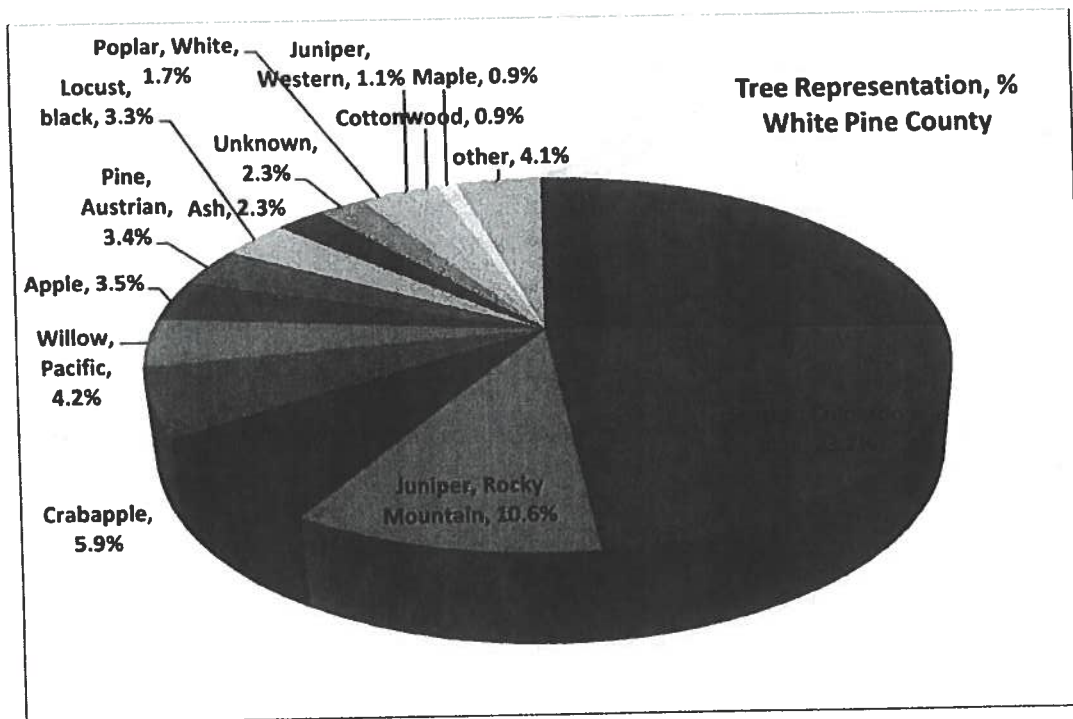


Figure 2 shows the species distribution (%) of publically managed trees in White Pine County, NV

**Size Distribution of County Trees:** The distribution of county trees by size class provides an indication of the future tree population, and allows us to consider what management is required to keep county trees growing into the next size class (Figure 3). Tree size is an indicator of tree age, and as such, the size distribution of trees allows us to consider the future benefits of the current population. The goal is to allow small trees to become large trees- since they provide the majority of benefits to county residents. When managing any tree population, an ideal distribution of tree sizes will ensure the maximum benefits from trees of all size classes. White Pine County's trees are generally small and young (Figure 3), and thus require the type of structural pruning that will allow the trees to increase in size such that they are represented in future population estimates.

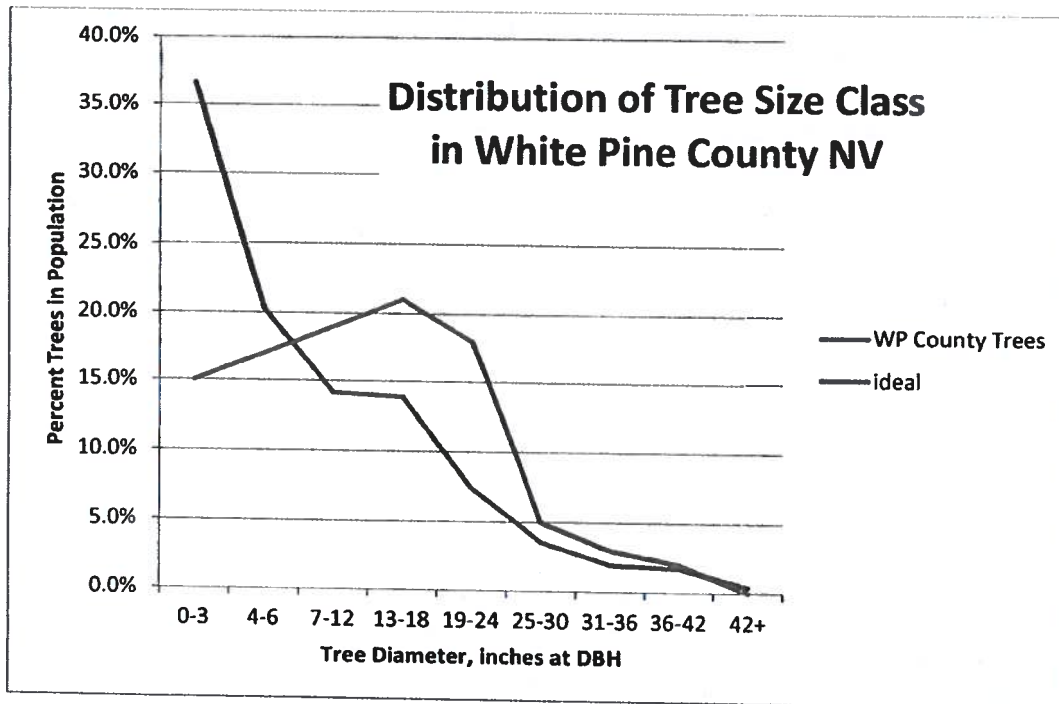


Figure 3 shows the diameter class distribution of publically-managed trees (blue line) versus an ideal distribution (red line) in White Pine County, Nevada



**Relative Performance Index (RPI):** The RPI for the top ten most prevalent tree species is reported in Table 1. Most of the species on this list perform with an RPI over 1.0. The exceptions are: Siberian Elm and Crabapple. The most prevalent species are performing somewhat well, according to the RPI analysis. Table 2 shows the RPI for all species with N>1. Species with an RPI over 1.0 should be considered for future planting, and those with and RPI less than 1.0 should not be planted.

**Table 1 shows the relative performance index (RPI) of the ten most common publically-managed trees in White Pine County, Nevada**

Species	PI	RPI	N
Elm, Siberian	3.12	0.90	376
Spruce, Colorado blue	3.70	1.07	347
Juniper, Rocky Mountain	3.46	1.00	158
Russian olive	3.54	1.02	112
Crabapple	3.41	0.99	88
Willow, Pacific	3.83	1.11	63
Apple	3.55	1.03	52
Pine, Austrian	3.67	1.06	51
Locust, black	3.57	1.03	49
Ash	3.65	1.05	34

**Table 2 shows the RPI for most common tree species with a high RPI (>1, keep planting) and with a low RPI (<1, do not plant) in White Pine County, Nevada**

Species	PI	RPI	N
Ash, white	4.00	1.16	4
Chokecherry, Canada Red	4.00	1.16	4
Juniper, Western	4.00	1.16	17
Oak	4.00	1.16	3
Pine, singleleaf pinyon	4.00	1.16	3
Willow, Pacific	3.83	1.11	63
Birch	3.71	1.07	7
Spruce, Colorado blue	3.70	1.07	347
Pine, Austrian	3.67	1.06	51
Pine, bristlecone	3.67	1.06	3
Ash	3.65	1.05	34
Pine, ponderosa	3.60	1.04	5
Locust, black	3.57	1.03	49
Apple	3.55	1.03	52
Russian olive	3.54	1.02	112
Juniper, Utah	3.50	1.01	4
Juniper, Rocky Mountain	3.46	1.00	158
Crabapple	3.41	0.99	88
Ash, narrow leaf	3.33	0.96	34
maple	3.21	0.93	14
Elm, Siberian	3.12	0.90	376
Cottonwood, narrow leaf	3.11	0.90	9
Poplar, white	3.00	0.87	26
Cottonwood	2.93	0.85	14
Aspen, quaking	2.71	0.78	7

**i-Tree Streets Results:** The i-Tree Streets computer model provides an estimate of monetary benefits that are derived from county trees on an annual basis. Figure 4 (Appendix I) shows the dollar value of annual benefits provided by common public trees to White Pine County residents and visitors. Table 3 shows the per tree contribution to the annual i-Tree benefits. The average public tree in White Pine County provides \$128 in annual benefits to county residents and visitors. Large trees generally provide greater benefits due to larger canopy coverage.

- The dollar Annual Benefit of County-managed trees sums the categories of aesthetics, reduced energy use, CO<sub>2</sub> in the atmosphere, air pollution and storm damage: **\$ 191,000**
- The amount of money required to replace all the trees is **\$ 3,425,000**

If costs (such as planting, pruning and irrigation) and benefits (such as the reduction in electricity and gas usage and mitigation benefits of less erosion) are input into the model, cost/benefits reports can be generated. White Pine County's return on investment can be calculated when budget information is added to the model. This information can be easily incorporated into a future version of this report.

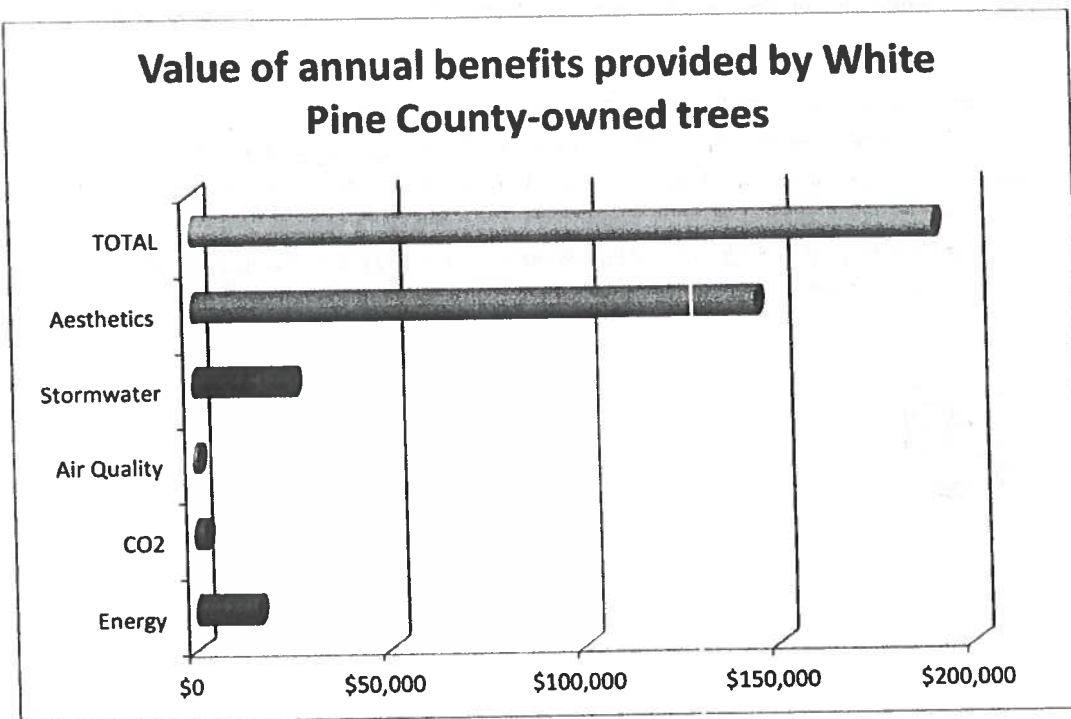


Figure 4 shows the partial and total monetary value of annual benefits provided by publically-managed trees in White Pine County, Nevada

#### **Nevada Division of Forestry Recommendations:**

1. Keep planting trees on 'available' sites, to increase canopy coverage
2. Large stature trees need to be planted to maximize benefits (where appropriate)
3. Keep up maintenance of existing trees- regular pruning cycles (<7 years)
4. Implement a structural pruning program for small trees to ensure they become large trees
5. Increase diversity of tree species
6. Reduce trimmer damage, poor pruning (use mulch to keep grass away from trunks)
7. All tree work should be done by International Society of Arboriculture (ISA) certified arborists
8. Maintain and update the inventory database

#### **IV. Acknowledgements**

This tree inventory and i-Tree Streets analysis was made possible by a grant from the United States Department of Agriculture Forest Service (USDA FS) through the Nevada Division of Forestry (NDF), which has committed to conducting tree inventories in Nevada for the purpose of improving urban forest management. Additional in-kind services were provided by White Pine County to complete this project.

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**Appendix I: Average Annual Benefits of All Trees by Species (\$/tree) in White Pine County, Nevada**

Species	Energy	CO2	Air Quality	Stormwater	Aesthetic/Other	Total
Siberian elm	20.65	3.62	2.42	33.85	229.20	289.74
Blue spruce	9.52	1.52	- 0.83	22.03	55.19	87.42
Rocky mountain juniper	3.65	0.50	- 0.33	5.21	44.01	53.03
Russian olive	5.80	1.12	1.19	2.92	42.34	53.37
Paradise apple	2.21	0.43	0.07	1.54	70.70	74.95
Willow	18.22	3.33	3.11	20.12	98.65	143.43
Crabapple	1.10	0.22	0.07	0.33	24.24	25.96
Austrian pine	5.98	0.90	- 0.02	14.24	53.75	74.86
Black locust	4.22	0.81	0.42	3.13	49.22	57.79
Ash	1.36	0.24	0.07	0.44	27.71	29.83
Broadleaf Deciduous Medium	1.95	0.40	0.07	1.58	64.71	68.72
White poplar	23.84	3.38	5.36	34.33	40.37	107.28
Juniper	4.52	0.57	- 0.39	6.31	41.92	52.93
Maple	1.87	0.36	0.12	1.16	39.92	43.43
Cottonwood	31.94	4.61	7.28	46.84	43.66	134.33
Narrowleaf cottonwood	26.44	4.52	5.01	32.22	94.60	162.80
Birch	8.06	1.39	0.40	6.30	70.92	87.07
Quaking aspen	0.42	0.17	- 0.02	0.40	70.99	71.96
Ponderosa pine	4.27	0.65	0.01	9.45	42.29	56.67
Pine	0.77	0.11	0.00	1.02	18.37	20.27
Common chokecherry	0.82	0.15	0.04	0.14	23.94	25.09
White ash	10.26	1.50	0.72	6.01	123.18	141.67
Pinyon pine	5.13	0.73	- 0.47	7.25	60.43	73.07
Oak	1.35	0.24	0.07	0.38	27.29	29.32
Plum	0.73	0.10	0.04	0.89	52.48	54.25
Black poplar	10.42	1.96	0.90	9.65	124.83	147.76
Cherry plum	0.82	0.15	0.04	0.14	23.94	25.09
Elm	10.42	1.96	0.90	9.65	124.83	147.76
<b>Citywide Total</b>	<b>10.63</b>	<b>1.80</b>	<b>0.82</b>	<b>17.40</b>	<b>97.18</b>	<b>127.83</b>

# City of Ely, Nevada Public Tree Inventory and i-Tree Streets Analysis



Prepared by  
The Nevada Division of Forestry  
Urban and Community Forestry Program



December 30, 2014

**I. Report Summary**

- The Nevada Division of Forestry (NDF) assessed all municipal-owned trees in the City of Ely from May 12th-23<sup>rd</sup>, 2014. An NDF contractor identified the location (with Global Positioning System), species, size class, general condition class and noted tree care problems on publically managed trees in the City
- The city of Ely owns and manages 314 trees with at least 19 distinct species represented.
- Approximately 95% of these trees are one of the ten most commonly planted trees in the city
- 95% of Ely city trees were categorized as either “excellent” or “good” condition
- Ely trees provide an annual benefit of \$55,882 to residents and visitors, or \$178 per tree
- The replacement value of Ely city trees is \$1,149,000
- The Nevada Division of Forestry recommendations include:
  - increasing diversity of planted tree species (less Siberian Elm or Colorado Spruce)
  - improving structural pruning on young and middle aged trees
  - reducing negative tree management activities (trimmer/mower damage, excessive or incorrect pruning, improper irrigation)
- This report will help the city of Ely to more efficiently manage the trees in its care and maximize the benefits from current and future city trees. Trees in the city that represent a risk to public safety are also identified

## II. Introduction and Methods

Ely is the county seat of White Pine County, Nevada, and home to approximately 4,200 persons. Mining and tourism are key industries in Ely, and a location along highway 50, the Lincoln Highway, a.k.a. the Loneliest Road in America, ensures a steady supply of visitors to the City.

City trees contribute to the quality of life for Ely residents and visitors, by lowering heating costs in the winter and cooling costs in the summer. Trees absorb carbon dioxide and produce oxygen, and filter airborne pollutants (smoke and dust). Trees absorb the impact of storm water, and reduce runoff, which can cause floods. Well-managed city trees are attractive to the character of the city and contribute to higher property values and tax base. Business owners benefit from city trees since shoppers spend more time and money in businesses on tree-lined streets. City trees are a living asset that, if managed properly, can grow in value over time. Caring for urban trees demonstrates the city's commitment to quality of life for residents, visitors, and business owners.

The Nevada Division of Forestry (NDF), Urban and Community Forestry program provides financial and technical assistance to all of Nevada's communities for improving management of the state's urban forests. Nevada is one of the most urbanized states in the United States (#4), and the forest that most Nevadan's experience on a daily basis is the urban forest. With declining tree cover in many of the state's urban centers over the past few years, the importance of publically managed trees, in terms of the benefits they provide, has grown significantly.

With the assistance of city staff, retired BLM Forester Harry Rhea assessed every city owned tree in Ely on May 12-23, 2014. Mr. Rhea located, by Global Positioning System (GPS), and identified all city trees. Mr Rhea measured the diameter size class, at 4.5 feet above the ground, and placed the trees in to condition classes: poor, fair, good, and excellent. Trees in the 'poor' to 'fair' class require follow up examination, care, or even removal. Mr. Rhea also took general notes about the tree care in the city.

Following field data collection, the GPS points were all added to a Geographic Information System (GIS) database that can be used by the City to manage public trees. The data is considered public information and is freely available to anyone who requests it. The tree identification, size, and condition classes were integrated with the GPS locations in a GIS database, such that anyone can review information about any city tree with some simple data manipulation. The database also allows anyone to run reports on any attribute that was collected, including map locations.

The relative performance index (RPI) provides an indication of how each species' condition compares to the average tree in the total population. The average condition class for each species (rated at poor=1, fair=2, good=3, excellent=4) was divided by 3.64- the average condition class for all trees in the Ely population. By dividing each species' condition class by the average condition class for all trees, the Relative Performance Index (RPI) is given. Any species with an RPI over 1.0 is performing better than the average tree in the population. Any value less than 1.0 indicates a species that is underperforming the average. Trees with an RPI over 1.0 should be planted, due to their measured average performance. Trees with an RPI less than 1.0 should not be planted in the future.



Additionally, the data collected was inputted into the USDA Forest Service computer program, i-Tree Streets, which estimates the monetary value of tree benefits. The i-Tree Streets program is a scientifically peer-reviewed computer program that was developed to place value on tree benefits for various regions of the United States. The i-Tree Streets program, with the input of species and size of trees, can determine several benefits, including:

1. Reduction in energy use (shade from leaves helps cool in summer and no shade helps retain heat in winter)
2. Reduction in CO2 in the atmosphere and carbon storage in the tree (global warming)
3. Improved air quality (tree leaves remove pollutants from the atmosphere)
4. Storm-water damage reduction (roots can be a good source of erosion control)
5. A more beautiful and diverse environment with a higher economic value (aesthetics)

For more information on i-Tree and the benefits it can describe, please see:

<http://www.itreetools.org/>

This report provides the following information on all publically managed trees in Ely:

- Location and number of publically managed trees (location in GIS shape files)
- Species composition of the urban forest
- Size class (tree diameter measured at 4.5 feet above ground)
- Condition class (qualified as: poor, fair, good, and excellent); numbered 1-4
- For each tree species, we calculated the relative performance index (RPI), how that tree species compares to general condition class of all trees
- i-Tree Streets economic value of benefits provided by Ely's public trees
- General recommendations for city tree care based on observations during visit to Ely

### III. Results

**Distribution of Tree Condition:** The vast majority of publically managed trees in Ely (95%) were determined to be in the good to excellent condition class (Figure 1). These trees require the normal level of concern attributed to any healthy tree. Roughly 5% of Ely's trees were found in the fair to poor condition. These trees may require immediate attention, up to and including removal, in order to remain part of Ely's healthy urban forest. Dead and dying trees should be removed as soon as possible.

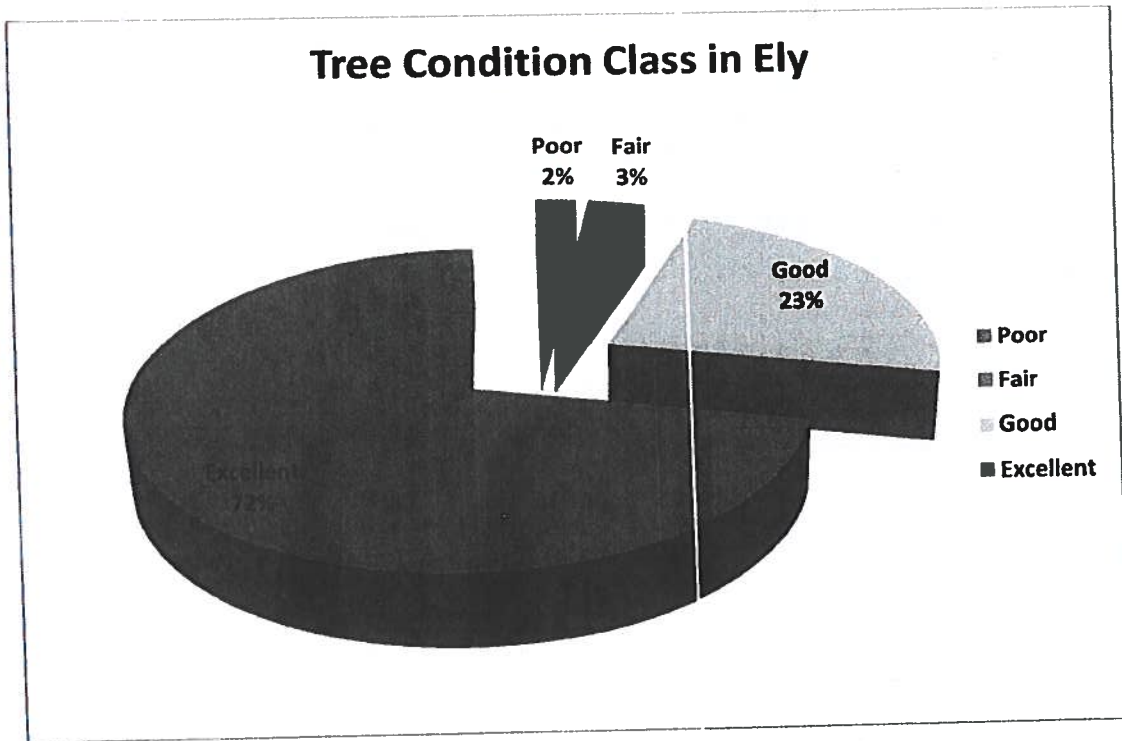


Figure 1 shows the distribution of condition class among all public trees in Ely, Nevada

**Tree Species Diversity:** The City of Ely manages 314 trees in parks, public right of ways, cemeteries, and sports fields. These trees represent at least 19 individual species. The top ten species represent 95% of all trees, while the top two species represents 71.3% of all trees (Figure 2). The most abundant species are as follows: Siberian Elm (42%) and Colorado Blue Spruce (30%).

Species diversity is an important consideration when managing a city forest. In Eastern US cities in the early 20<sup>th</sup> Century, two diseases – Dutch Elm Disease and Chestnut Blight –wreaked havoc, because so many street trees were of one of those two species. The Emerald Ash Borer, an insect that now threatens to eliminate Ash trees from cities in the Midwest, has recently been discovered in Boulder, Colorado. As Ely is also located relatively close to Interstate 80, it is only a matter of time before the city will be affected by this pest. Fortunately, this species is not highly represented in the City and should not be planted in the future. While there is a moderate level of diversity of tree species in the city forest, the city relies on the two species for a majority of total trees (71%). If some disease was to affect either of these species, a significant reduction in tree canopy could occur. As a general rule, no one species should be represented by more than 10% of the total tree population. Ely has two species that are well beyond 10% (Siberian Elm and Colorado Blue Spruce). Additionally, no one genus of tree species should have more than 25% representation in the population. As such, the city should consider other species to plant, in addition to replacing the pine and other trees that are already part of the city forest.

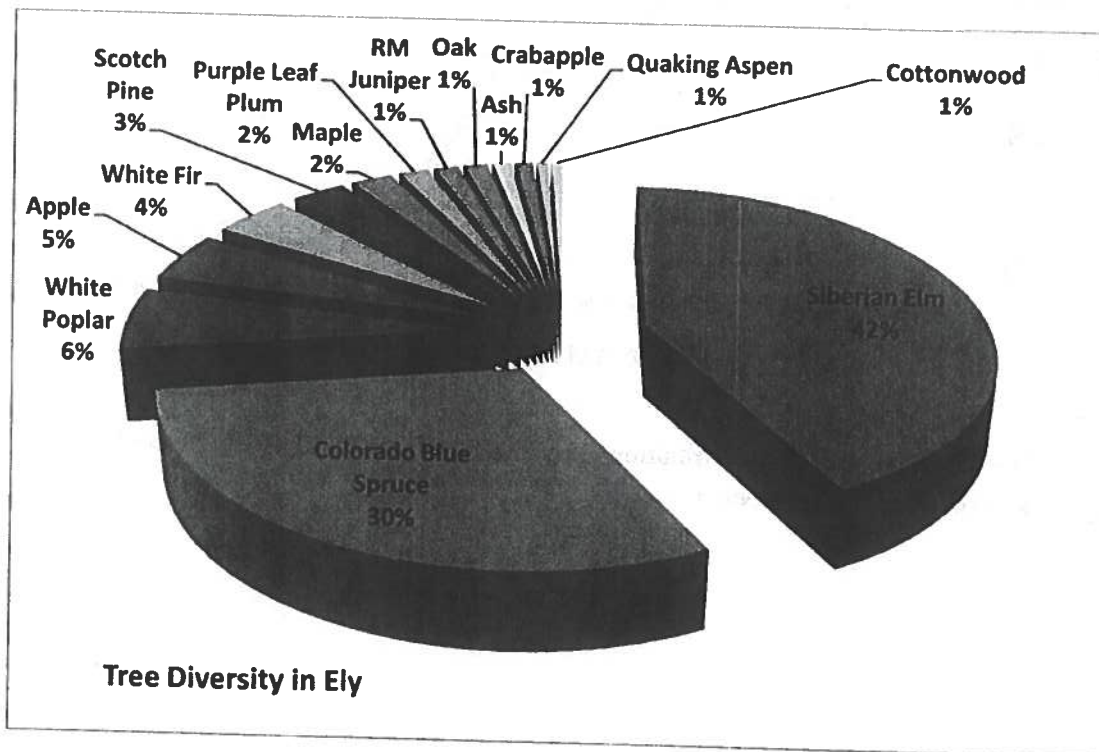


Figure 2 shows the species distribution (%) of publically managed trees in Ely, NV. Only trees with at least 1% representation are shown.

**Size Distribution of City Trees:** The distribution of city trees by size class provides an indication of the future tree population, and allows us to consider what management is required to keep city trees growing into the next size class (Figure 3). Tree size is an indicator of tree age, and as such, the size distribution of trees allows us to consider the future benefits of the current population. The goal is to allow small trees to become large trees- since they provide the majority of benefits to city residents. When managing any tree population, an ideal distribution of tree sizes will ensure the maximum benefits from trees of all size classes. Ely's trees are generally small to moderately sized (Figure 3), and thus require the type of structural pruning that will allow the trees to increase in size. Size distribution is similar to the ideal distribution, especially in trees greater than 12 inches in diameter.

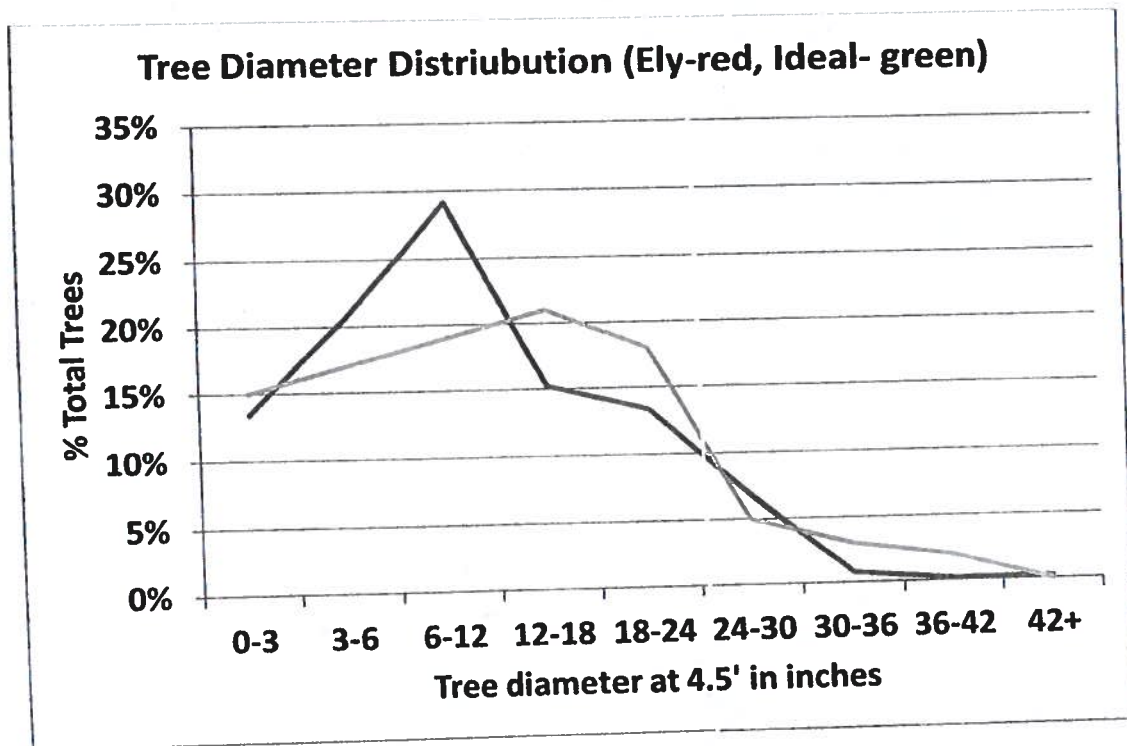


Figure 3 shows the diameter class distribution of publically-managed trees (red line) and an ideal distribution (green line) in Ely, Nevada

**Relative Performance Index (RPI):** The RPI for the top ten most prevalent tree species is reported in Table 1. Species with an RPI over 1.0 should be considered for future planting, and those with an RPI less than 1.0 should not be planted. Some species with very low representation have high RPIs, and may be species that may perform well in Ely.

Table 1 shows the relative performance index (RPI) of the ten most common publically-managed trees in Ely, NV

Species	N	% population	PI	RPI
Siberian Elm	131	43.96%	3.54	0.97
Colorado Blue Spruce	93	31.21%	3.80	1.04
White Poplar	19	6.38%	3.68	1.01
Apple	15	5.03%	3.38	0.93
White Fir	13	4.36%	4.00	1.10
Scotch Pine	9	3.02%	3.89	1.07
Maple	7	2.35%	3.86	1.06
Purple Leaf Plum	5	1.68%	3.80	1.04
Rocky Mountain Juniper	4	1.34%	3.25	0.89
Oak	4	1.34%	3.75	1.03
Ash	3	1.01%	4.00	1.10
Crabapple	3	1.01%	4.00	1.10
Quaking Aspen	2	0.67%	4.00	1.10
Cottonwood	2	0.67%	3.50	0.96

**i-Tree Streets Results:** The i-Tree Streets computer model provides an estimate of monetary benefits that are derived from city trees on an annual basis. Figure 4 (appendix) shows the dollar value of annual benefits provided by public trees to Ely residents and visitors. Table 3 shows the per tree contribution to the annual i-Tree benefits. The average public tree in Ely provides \$178 in annual benefits to city residents and visitors. Large trees generally provide greater benefits due to a larger canopy coverage. Table 3 (appendix) provides a per tree estimate of these benefits to the City of Ely.

- The dollar Annual Benefit of City-managed trees sums the categories of aesthetics, reduced energy use, CO<sub>2</sub> in the atmosphere, air pollution and storm damage: **\$ 55,882**
- The amount of money required to replace all the trees is **\$ 1,149,000**

If costs (such as planting, pruning and irrigation) and benefits (such as the reduction in electricity and gas usage and mitigation benefits of less erosion) are input into the model, cost/benefits reports can be generated. Ely's return on investment can be calculated when budget information is added to the model. This information can be easily incorporated into a future version of this report.

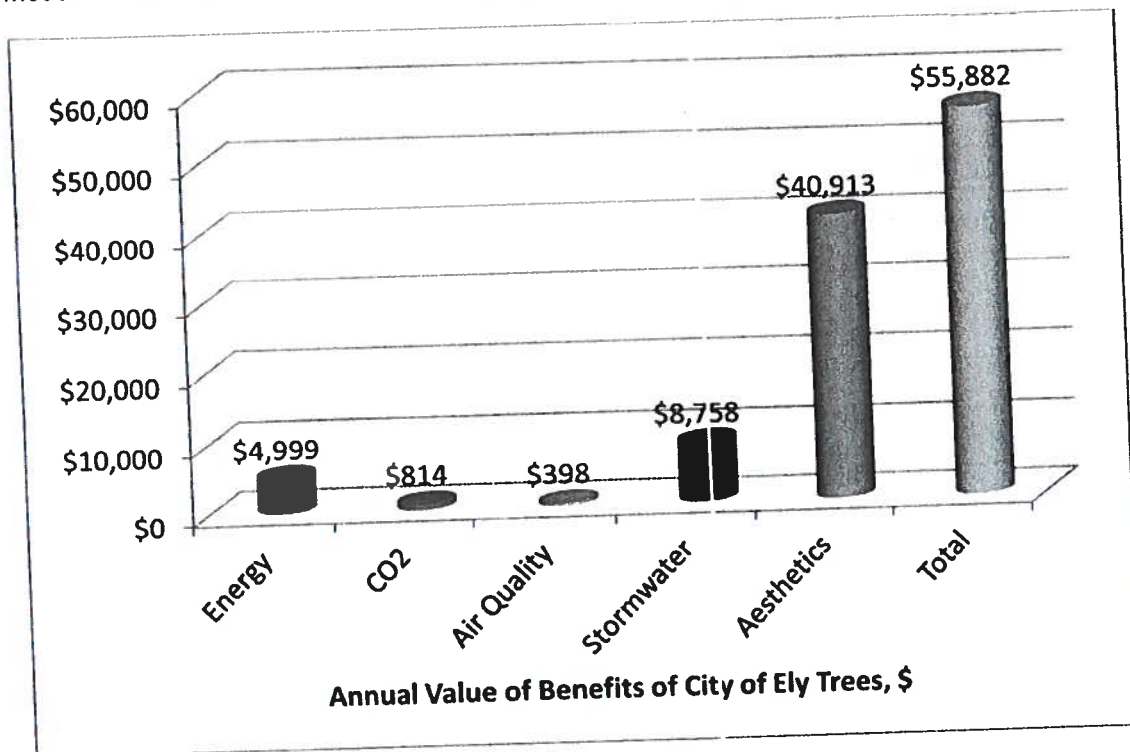


Figure 4 shows the partial and total monetary value of benefits provided by publically-managed trees in Ely, Nevada

#### **Nevada Division of Forestry Recommendations:**

1. To improve diversity of species, plant trees other than Siberian Elm or Colorado Blue Spruce
2. Keep planting trees on 'available' sites, to increase canopy coverage
3. Large stature trees need to be planted to maximize benefits (where appropriate)
4. Keep up maintenance of existing trees- regular pruning cycles (<7 years)
5. Implement a structural pruning program for small trees to ensure they become large trees
6. Maintain and update the inventory database
7. Reduce trimmer and mower damage, poor pruning (use mulch to keep grass away from trunks)
8. All tree work should be done by International Society of Arboriculture (ISA) certified arborists

#### **IV. Acknowledgements**

This tree inventory and i-Tree Streets analysis was made possible by a grant from the United States Department of Agriculture Forest Service through the Nevada Division of Forestry, which has committed to conducting tree inventories in Nevada for the purpose of improving urban forest management. Additional in-kind services were provided by the City of Ely to complete this project. Rod Haulenbeek of Reno, NV provided i-Tree Streets analysis for the City of Ely inventory.

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## Ely, Nevada

### Annual Benefits of Public Trees by Species (\$/tree)

Species	Energy	CO <sub>2</sub>	Air Quality	Stormwater	Aesthetic/Other	Total (\$) Standard Error
Siberian elm	23.13	3.91	2.82	37.87	230.15	297.88 (N/A)
Blue spruce	12.67	1.99	-1.11	29.71	62.69	105.95 (N/A)
White poplar	29.53	3.93	6.33	42.76	57.85	140.40 (N/A)
Broadleaf Deciduous	3.54	0.64	0.14	2.60	70.71	77.64 (N/A)
Paradise apple	3.11	0.53	0.11	1.82	70.22	75.78 (N/A)
Scotch pine	2.33	0.33	-0.03	5.25	33.98	41.86 (N/A)
Maple	3.17	0.60	0.24	2.49	53.85	60.35 (N/A)
Cherry plum	1.33	0.28	0.09	0.48	25.19	27.36 (N/A)
Oak	1.81	0.34	0.11	1.06	38.34	41.67 (N/A)
Rocky mountain	3.94	0.56	-0.35	5.51	48.35	57.99 (N/A)
Crabapple	1.45	0.31	0.10	0.57	25.51	27.93 (N/A)
Ash	4.99	0.95	0.40	4.38	74.54	85.26 (N/A)
White fir	1.98	0.50	-0.17	4.41	51.06	57.78 (N/A)
Quaking aspen	3.10	0.53	0.11	1.82	70.22	75.77 (N/A)
Cottonwood	5.88	1.10	0.49	5.01	76.06	88.54 (N/A)
Black locust	29.93	6.14	5.05	28.88	152.86	222.86 (N/A)
Juniper	1.33	0.23	-0.19	2.39	37.87	41.63 (N/A)
Pine	0.61	0.08	0.01	0.38	14.24	15.33 (N/A)
Pinyon pine	0.37	0.04	-0.01	0.28	12.09	12.77 (N/A)
<b>Citywide Total</b>	<b>15.92</b>	<b>2.59</b>	<b>1.27</b>	<b>27.89</b>	<b>130.30</b>	<b>177.97 (N/A)</b>

Appendix: Table 2 shows the per tree individual contribution of to identified i-Tree benefits



## CHAPTER 3

### TREE BOARD

#### SECTION:

#### 2-3-1: Board Created; Membership

#### 2-3-2: Term; Vacancy

#### 2-3-3: Compensation

#### 2-3-4: Duties And Responsibilities

#### 2-3-5: Operation

#### 2-3-6: Public Tree Protection

#### 2-3-1: BOARD CREATED; MEMBERSHIP:

There is hereby created and established a tree board for the city which shall consist of five (5) members, citizens and residents of the city, who shall be appointed by the mayor with the advice and consent of the city council. (Ord. 524, 9-10-1998; amd. Ord. 603, 2-12-2004; Ord. 742, 6-24-2021)

#### 2-3-2: TERM; VACANCY:

The term of the five (5) persons to be appointed by the mayor shall be three (3) years except that the term of one of the members appointed to the first board shall be for only one year and the term of one of the members of the first board shall be for two (2) years. In the event that a vacancy shall occur during the term of any member, his successor shall be appointed for the unexpired portion of that term. All terms shall expire December 31st of the respective year. (Ord. 524, 9-10-1998; amd. Ord. 603, 2-12-2004; Ord. 742, 6-24-2021)

#### 2-3-3: COMPENSATION:

Members of the board shall serve without compensation. (Ord. 524, 9-10-1998)

#### 2-3-4: DUTIES AND RESPONSIBILITIES:

A. Tree Plan: It shall be the responsibility of the board to study, investigate, counsel and develop and/or update and administer a written plan for the care, preservation, pruning, planting, removal or disposition of trees and shrubs in parks, along streets, and in other public areas. Such plan will be presented annually to the city council and upon the council's acceptance and approval shall constitute the official comprehensive city tree plan for the city.

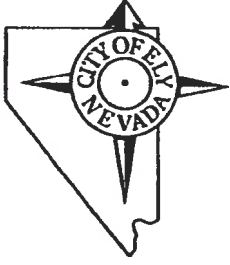
B. Special Matters: The board, when requested by the city council, shall consider, investigate, make findings, reports and recommendations upon any special matters of question coming within the scope of its work. (Ord. 524, 9-10-1998)

#### 2-3-5: OPERATION:

The board shall be subject to the provisions of the Nevada open meeting law. The board shall choose its own officers, make its own rules and regulations, subject to approval by the city council, and keep a journal of its proceedings. A majority of the members shall be a quorum for the transaction of business. (Ord. 524, 9-10-1998)

#### 2-3-6: PUBLIC TREE PROTECTION:

No person shall damage, transplant, top, remove or mutilate any public tree without the consent of the Ely city council. All planting, care, maintenance and removal of public trees shall be in accordance with the standards established by the International Society of Arboriculture (ISA). (Ord. 619, 6-28-2007)



# CITY OF ELY


501 Mill Street Ely, Nevada 89301

City Hall (775) 289-2430

Cityofelynv.gov

## **USDA Forest Service Urban & Community Forestry Inflation Reduction Act Notice of Funding Opportunity (NOFO) Project Partner**

As a partner in the Equity Through White Pine County Urban Forestry Initiative project, the City of Ely Parks and Cemetery Departments will be actively involved in the planning and implementation of trees within the City of Ely that need to be pruned, removed, or replaced. We will work with White Pine County to stretch the grant dollars as far as possible to create a healthier and cleaner environment. I have overseen many park and cemetery projects and have a lot of experience with where trees have thrived in our community. The City of Ely is invested in the long-term care of trees for sustainability.

  
Mike Cracraft, Public Works Supervisor

June 1, 2023

**The City of Ely is an equal opportunity provider and employer.**

*White Pine County School District*  
1135 Avenue C Ely, Nevada 89301 (775) 289-4851 FAX (775) 289-3999



May 25, 2023

On behalf of the White Pine County School District and the Board of Trustees, I am writing to fully support the Urban and Community Forestry Grant. As a partner, White Pine County School District is committed to planning, planting, and caring for trees planted on campuses in White Pine County School District. Our custodial and maintenance crews are fully vested in the maintenance and beautification of our campuses.

Again, I along with the Board of Trustees for White Pine County School District are in full support of the Urban and Community Forestry Grant.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adam Young'. The signature is fluid and cursive, written over a light blue horizontal line.

Adam Young, Superintendent

BOARD OF SCHOOL TRUSTEES  
*Terri Borghoff, Chair • Candice Campeau, Vice Chair • Krystal Blades, Clerk*  
*Amy Fullmer, Member • Angela McVicars, Member • Lindsay Costello, Member • Shella Nicholes, Member*  
*Adam Young, Superintendent*

The White Pine County School District operates without discrimination on the basis of sex, religion, national origin, age or disability in compliance with the Title VI, Title VII, Title IX, Section 504, and all other applicable civil rights legislation.



1400 E 13th St  
Ely, Nevada 89301

**Learning Bridge Charter School**  
Learning Bridge is an equal opportunity employer and provider.

Phone: 775-293-8009  
[www.elylearningbridge.org](http://www.elylearningbridge.org)

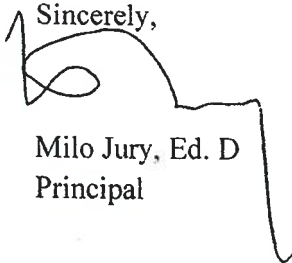
May 31, 2023

To Whom It May Concern:

The Learning Bridge Charter School Board of Directors and the Learning Bridge community support the Urban and Community Forestry Grant. The school is excited to partner with other local groups to improve equitable access to urban tree canopy and its associated benefits.

We are committed to the planting and caring for trees on the LBCS Campus and will give our best efforts to ensure this initiative is successful.

Sincerely,

A handwritten signature in black ink, appearing to read "Milo Jury", with a large, sweeping flourish extending to the right and then down.

Milo Jury, Ed. D  
Principal

May 31, 2023

Dear IRA grant review team:

On behalf of the United States Department of Agriculture (USDA) Southwest Climate Hub, I write to confirm our collaboration on the Equity through White Pine County Urban Forestry Initiative application to the USDA Urban and Community Forestry IRA proposal.

The USDA Southwest Climate Hub will provide technical assistance via adaptation planning, decision-support, or convening as appropriate and feasible for both parties.

The Southwest Climate Hub may review proposed tree lists and suggest climate-smart trees for the area, as well as provide climate information, in consultation with requests from project partners.

Please do not hesitate to contact me should you have any questions about this commitment at [emile.elias@usda.gov](mailto:emile.elias@usda.gov).

Sincerely,



Emile Elias  
Director, USDA Southwest Climate Hub



**LANDFILL ENTRY**  
575 FEET

**Legend**

- Ely City Landfill
- landfill entry planting 575 ft

