

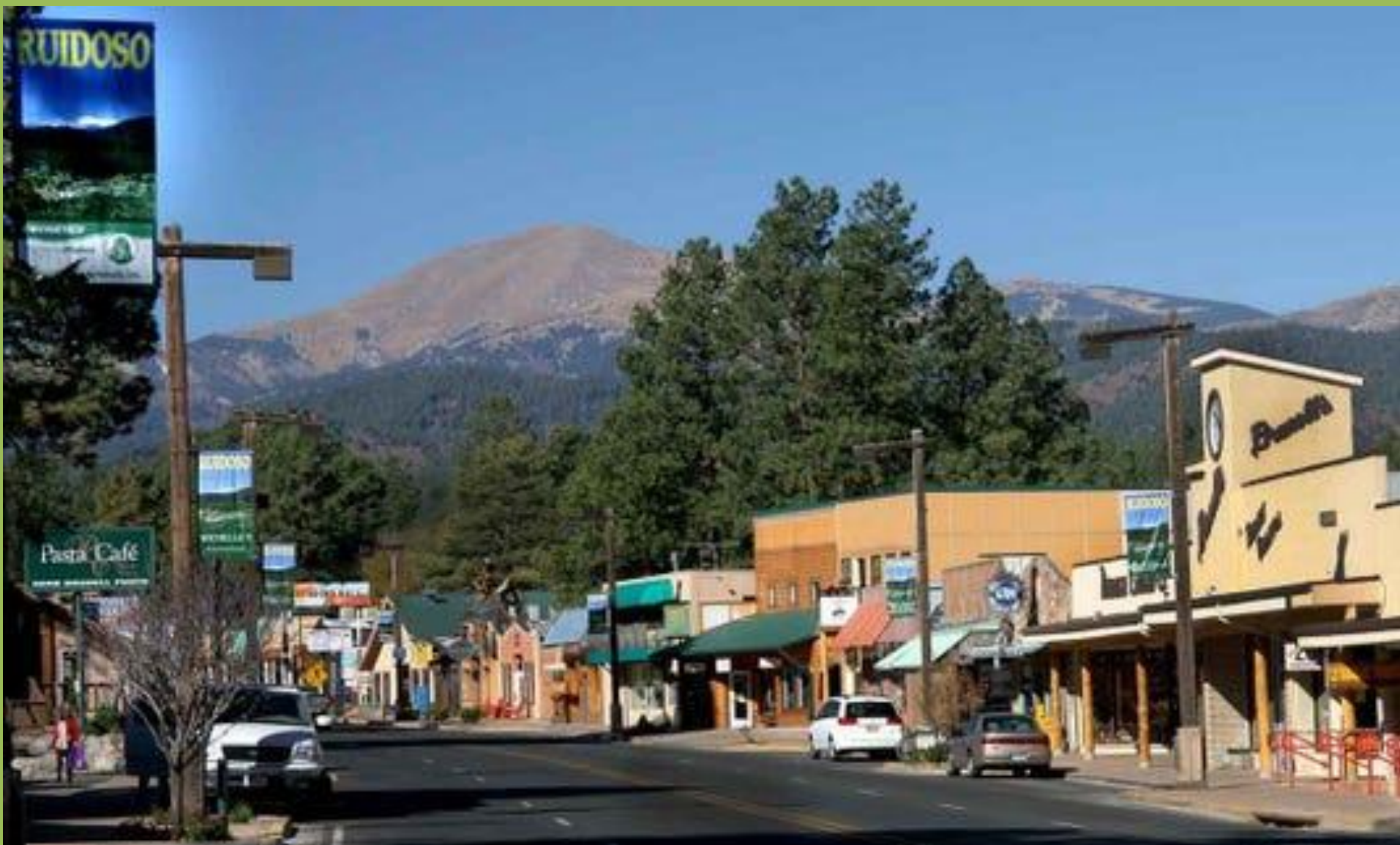


# Ruidoso – Wildland Urban Interface Fuels Mitigation

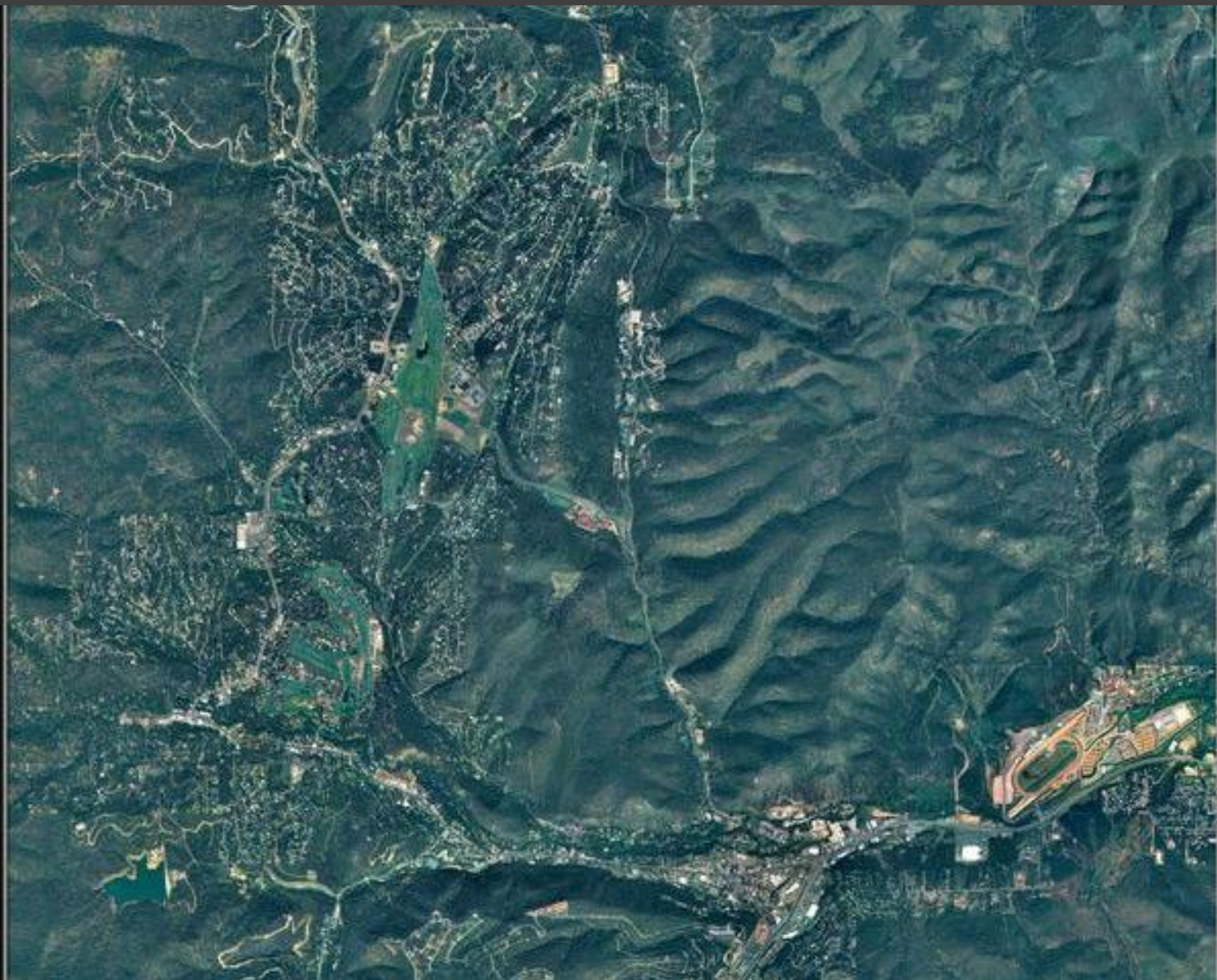




# Ruidoso, NM









As More Homes are added to the Landscape  
Fuels Management becomes more complicated





















# Mission Statement

***To address Ruidoso's Forest Health Challenges and to Protect Community Values at Risk from Wildfire through Fuels-Management.***



- **1998 - Village of Ruidoso began to formally address forest health and wildfire hazard reduction issues by purchasing a grapple truck and offering debris pick-up service. A forestry working group was appointed.**
- **2000 – A second grapple truck was purchased, and a forester was added to staff. Forester was charged with developing and implementing a Community Forest Management Plan (CFMP). The Greater Ruidoso Area Wildland Urban Interface Working Group was formed and developed a strategy for prioritization of projects. Ruidoso was ranked the #1 at risk city in New Mexico for catastrophic wildfire.**
- **2001 – Existing ordinances restricting thinning efforts were relaxed ( up until this time a landowner had to have a permit to remove a 5” diameter tree) and forestry assessments were offered to the public.**
- **2002- Village Council enacted a suite of ordinances mandating fuels reduction on all lands within Ruidoso and a fire hazard rating standard for new construction about structural ignitability and site development. Concepts from the Firewise Communities USA program plus research done on home ignitions zones were combined to establish objective fuels management standards. Kokopelli fire burned 20+ homes NW of Ruidoso.**



- 2003- A Municipal Forestry Department was created and two additional grapple trucks were purchased as demand for services increased. The Village began to contract composting of the forest wastes . The Village of Ruidoso was recognized with a Fire-wise Community award and a National Forest Service Rural Communities Assistance Spirit Award.
- **2004- Community Wildfire Protection Plan was approved. Collaboration between Federal Agencies, County Government, Municipal Governments, sub-divisions, Mescalero Tribe, Industry, and community was achieved.**
- 2011- White Fire burned 11,000 acres just east of Ruidoso. 5 homes were lost.
- **2012- Swallow Fire burned 9 homes in an area that had been thinned. Fire started in an un-thinned lot then burned into a residential area that had been treated. Verified that the work being done positively affected fire behavior and allowed suppression forces to do their job.**
- 2012- Little Bear Fire burned Over 40,000 acres and 240+ structures. Properties that were treated and the camping area around Bonito Lake remained unburned and confirmed that fuel treatments worked in mitigating damage from a large fire.
- **2013 - Fuel management standards and Ordinances were updated using lessons learned from large wildfire studies. Specific spacing requirements were added.**
- 2014 – Community Wildfire Protection Plan updated for the Greater Ruidoso Area and Lincoln County.
- 2016 – Moon mountain fire . Backfire from treated Village Property stopped spread.
- 2018- Begin 2<sup>nd</sup> thinning rotation cycle in the Village.
- 2019- Community Wildfire Protection Plan was updated for the Greater Ruidoso Area and Lincoln County.



## Greater Ruidoso Wildland Urban Intermix Goals:

1. Establish and implement catastrophic fire mitigation measures on public, State, and private lands utilizing the best available science regarding wildfire hazard reduction.
2. Restore and Monitor forest ecosystems and watersheds to maintain forest health and protect natural communities.
3. Engage private enterprise by supporting existing and emerging forest based economic development.
4. Maintain the high quality of life in forest areas while sustaining and nurturing real estate and tourism-based economies.



# Strategy

- 1. Prioritize South and Southwest First**
- 2. Create Defensible Space with Fire-wise Standards around structures.**
- 3. Treat fuels on vacant properties with horizontal and vertical separation.**
- 4. Increase Separation of fuels with increasing slopes.**






Verticle

Horizontal





# Moon Mountain Fire

















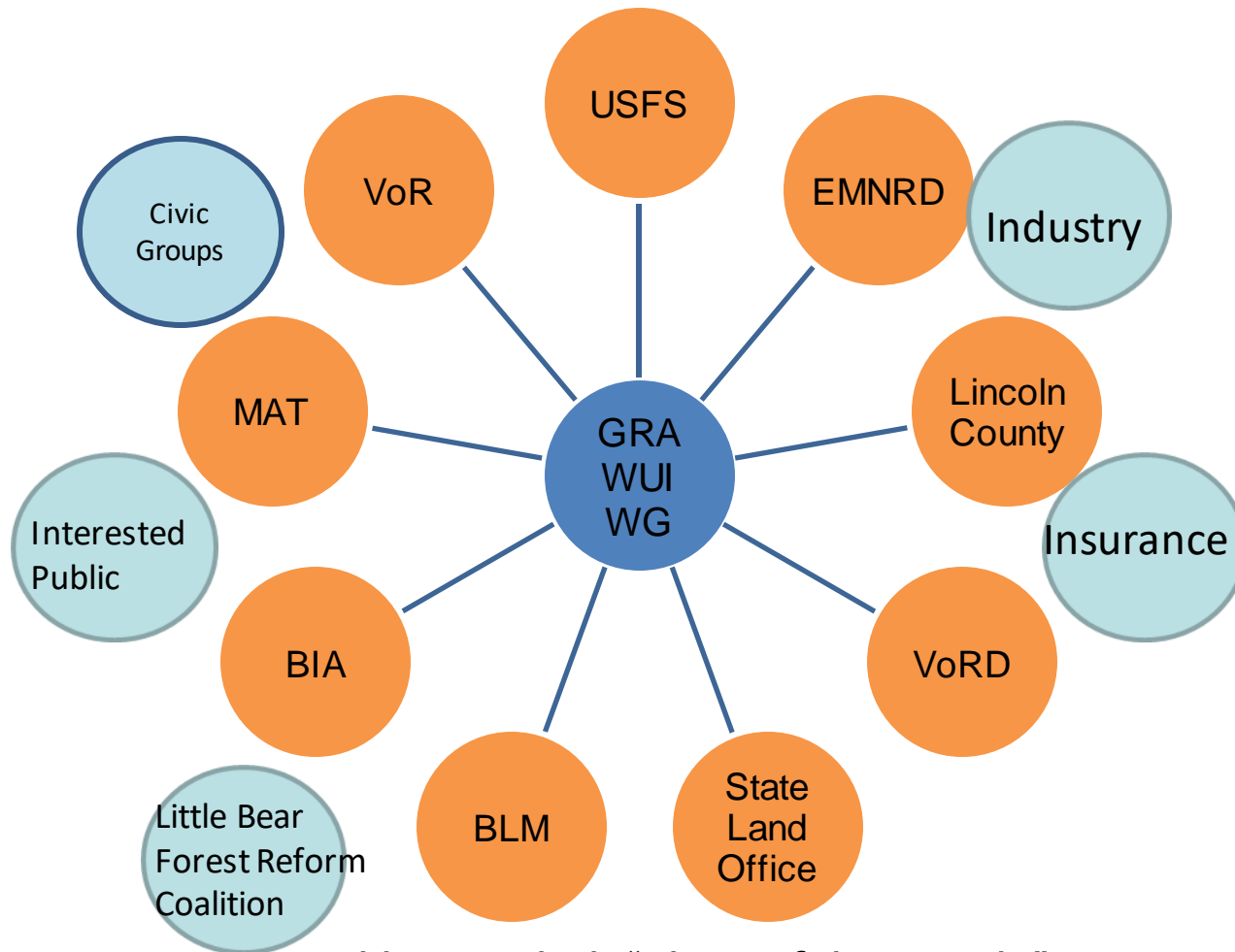
# **IMPLEMENTATION**

## **THROUGH**

- **COLLABORATION**
  - **EDUCATION**
- **COORDINATION**
  - **LEVERAGE**
- **HARD WORK**



*Greater Ruidoso Area WUI Working Group* created to implement individual management objectives in strategic locations.



...working on their “piece of the puzzle”

# Key to Successful Implementation

- Identify Key Players and Political Champions
- Land Managers coordinate and collaborate
- Meet regularly to share information
- Keep Policy Makers and Public Informed
- Stay flexible and open to new ideas in terms of treatment and new businesses.
- Develop and implement an aggressive public awareness campaign
- Work with and educate landowners



# **Lessons Learned from 10 years of Large Fires (from University and Federal Research)**

## **INFLUENCE OF VEGETATIVE TREATMENTS ON WILDFIRE BEHAVIOR AND SEVERITY**

- Treatments to Reduce Fuels Can Significantly Modify Fire Behavior and Severity and Reduce Environmental Damage Caused by Wildfire. (This Can Significantly Reduce Costs of Rehabilitation).**
- Treatments Which Reduce Crown Density and Continuity, Raise Crown Height, and Reduce Surface Fuels Are Most Effective.**
- The More Open the Stand Structure the Less the Severity.**
- With Few Exceptions, All Treatments Regardless of Type Suffered Less Severity Than Untreated Areas.**

Communication

And

EDUCATION



- One on one contact with landowners.
- Presentations to Service Clubs.
- Monthly Seminars in conjunction with ENMU .
- Signage on Projects.
- Participation in Local events (home and garden show, Smokey Bear days)
- Speakers at WUI meetings.
- Presentations for Homeowners associations.
- Presentations to Insurance Companies and Real Estate Groups
- Presentations at Council Meetings.
- Field Trips with interested groups.

# COOPERATIVE WILDLAND/URBAN INTERFACE TREATMENT

The trees in this area have been thinned to create defensible space within the wildland/urban interface. This treatment improves forest health and wildlife habitat while reducing excess forest fuels. The thinned trees were used for firewood and the slash (smaller branches and limbs), was consumed by a prescribed burn. Treatment in the area began in 2001.



SMOKEY BEAR R.D. OF RUIDOSO VILLAGE

Lincoln National Forest





Ruidoso's ***Community Forest Management Plan*** for private land developed a logo through Ruidoso High School Art class contest.....




...14 year old, 9<sup>th</sup> grader Samuel Klinekole won the contest, along with a \$500.00 scholarship provided by Zia Natural Gas.



Other collaborations include educational monitoring and field evaluations.





A group of students and an adult are in a forest. The adult, wearing a white hard hat, an orange safety vest, and blue jeans, is pointing at a large tree trunk. Several students, also wearing white hard hats, are standing around him, looking at the tree. One student is kneeling on the ground. In the background, there are more trees, a yellow building, and mountains under a blue sky with some clouds.

Field evaluations shared with  
Ruidoso High students.





Group works well because of a networking and collaboration format as opposed to an authority based entity.







# Utilization and Economic Development





**A key to Ruidoso's  
success...**

**Since 2000, Ruidoso  
has invested in  
infrastructure and  
staff to create a forest  
debris Curbside Pick-  
up Service**

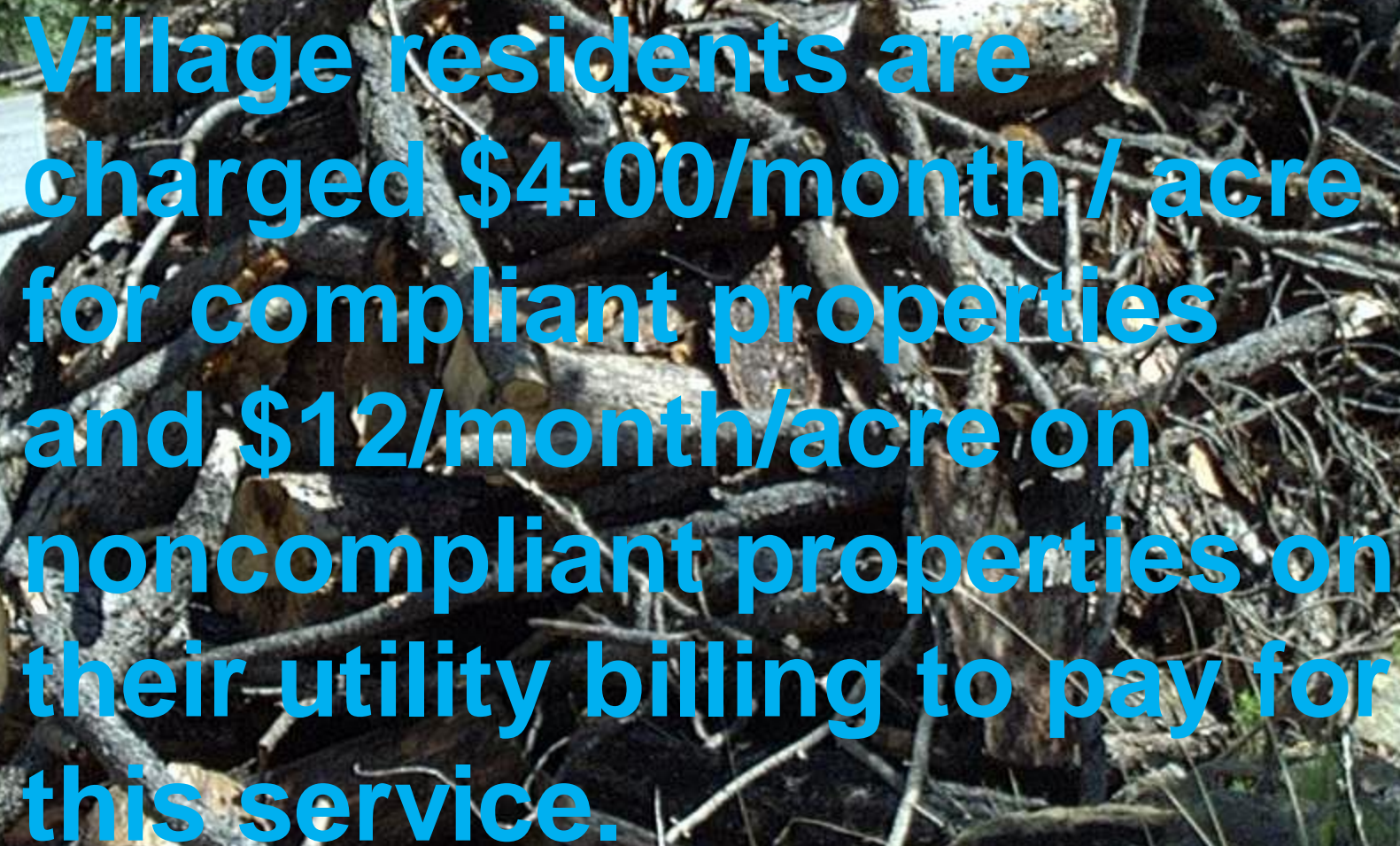


**One of five Solid Waste  
Department “grappling”  
trucks ...**



...providing a forest waste  
disposal service where 100% of  
the material is recycled or  
utilized.





**Village residents are charged \$4.00/month / acre for compliant properties and \$12/month/acre on noncompliant properties on their utility billing to pay for this service.**





**Over 2 million cubic yards of  
Green Waste have been  
Removed**



**STAGNER**  
LANDSCAPE

•Landscaping • Tree Thinning•  
•Year Round Maintenance•  
•Property Clean-Up • Gravel Drives•  
•Bob Cat & Dump Truck Work•  
575-336-2321

**FIREWOOD**

**STAGNER**  
LANDSCAPE

•Landscaping • Tree Thinning•  
•Year Round Maintenance•  
•Property Clean-Up • Gravel Drives•  
•Bob Cat & Dump Truck Work•  
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**FIREWOOD**



Other ways to  
utilize small  
diameter trees...

Grizzly's bears and  
other novelties





GRIZZLYS

OPEN

GRIZZLY'S  
WORKSHOP







Animal bedding and  
wattles



**Firewood and mulch are made  
Available to the public.**







































Warrior Project  
In Progress



















# Leverage:

How do you get it done with a small staff?

- **Forestry Department** – A Director, 2 technicians, an office manager. Assisted by 5 grapple trucks from Solid Waste.
- **Solid Waste Department** – Makes disposal simple for landowners. Disposes of 60,000+ cubic yards per year. Carries material to woodcutting area.
- **Thinning Contractors** - 25 + contractors employ over 100 employees. Utilize much of the wood products in the form of logs for lumber sold to small sawmills, firewood, and wood products.
- **Grants** – Forestry Department has acquired approximately \$4,000,000 in FEMA, State Forestry, and Forest Service Grants. These have been used to treat Village owned property and cost share with landowners.
- **Landowners** – One on one contact: Opportunity to Educate. Make landowner responsible. Approx. 30% were cost-shared.
- **Ordinances** – The Village of Ruidoso Fuels Management Ordinances are key to the accomplishment of the Goals.



# Accomplishments

- **90 to 95% of Village Property and private property has been Treated within the Village boundaries.**
- **Hundreds of Acres of Forest Service properties south and west have been treated.**
- **Hundreds of Acres of Mescalero Tribal land have been treated.**
- **State Trust lands on Moon Mountain Treated.**
- **Many acres on private land within the WUI outside the Village have been treated with assistance of Resource Conservation & Development Council and State Forestry Department.**
- **Treatments by BLM in the NE part of the WUI.**
- **Solid Collaboration is being achieved.**
- **Ruidoso is a Safer Place in respect to catastrophic wildfire.**



- Compliance Process:

1. Divide Village into implementation areas with entries at least every 10 years.
2. Early in year select area and send letters to landowners notifying them of due date.
3. Inspect properties as requested by landowners with landowner present if possible.
4. June – send reminder letters to non-responders.
5. September – send Certified letters to non-responder.
6. After Due Date- refer non-compliant to Court.
7. Work with Court referrals to get certification.
8. Get 90% to 95% compliance each year.



# Challenges Remain

- Treating Enough Landscape To Impact Fire Behavior
- Maintenance of Fuel Reduction Projects (Most are effective for about 10 years)
- Balancing Utilization and Fuels Management Goals versus Disposal Challenges
- Handling Wood from the Stump to disposal (\$\$)
- Long term commitment. (maintenance is never ending)
- Insect Outbreaks and Disease Infections.
- Extended drought cycles.
- Declining Grant Revenue (Most Grants are for initial treatment and do not allow for maintenance treatments)



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Forestry tab. (Ordinances and Information)