

Appendix B. Public Involvement Project Information Packet and Comment Matrix

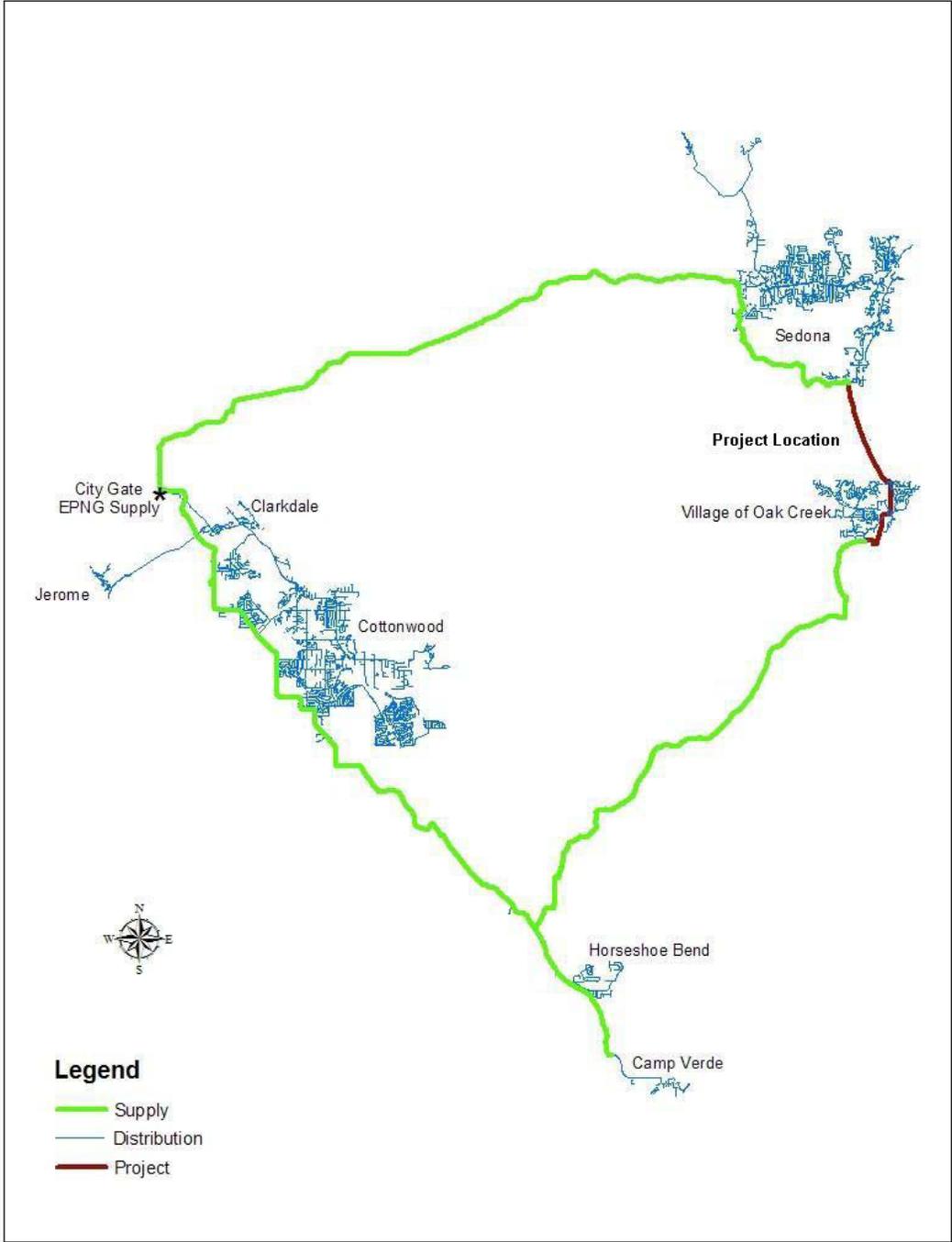


**Verde Valley Regional Loop  
Village of Oak Creek to Sedona  
Natural Gas Pipeline**

**Project Information**

Contact Information:

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# Verde Valley Regional Loop Village of Oak Creek to Sedona Natural Gas Pipeline

6-inch Pipeline between Village of Oak Creek and Sedona

## **Pipeline Project**

The Verde Valley Regional Loop project was initiated in 1993 to expand and reinforce UniSource Energy Services (UNS) natural gas service area throughout the Verde Valley Region and was approved by the Arizona Corporation Commission. One of the primary purposes of this remaining segment is to ensure adequate reliability and supply to the City of Sedona. UNS' engineering flow studies, along with observed pressures, dictate the need for this reinforcement by the heating season of 2004. Without the completion of this project there is a significant chance of customer outages or the unavailability of supply to connect new customers.

The Verde Valley Regional Loop consists of approximately 56 miles of pipeline ranging in diameters from 10-inch to 4-inch and begins at the source of supply in Clarkdale then heads southeast to Camp Verde then north to the Village of Oak Creek, then continues north to Sedona and finally west to the point of origin in Clarkdale.

The last remaining segment of the Regional Loop that requires installation is the 5.3 mile segment of 6-inch steel pipe from the southern boundary of the Village of Oak Creek to the southern boundary of the City of Sedona. Approximately 325 feet of the proposed 5.3 mile pipeline is in the City of Sedona, with the balance located in either the Coconino National Forest, A.D.O.T., or Yavapai County right of way.

The proposed 6-inch pipeline would begin at UNS' existing facilities located on the southern border of the Village of Oak Creek, and continue north to its termination point at Back-O-Beyond Road in southern Sedona. This pipeline will provide the necessary reinforcement to the existing 4-inch steel line that is 18 miles in length. This 4-inch pipeline is currently the only feed to the entire City of Sedona, which the project, will run out of capacity, for new load by the winter of 2004.

Other benefits of this pipeline include providing a second source of supply to the Village of Oak Creek and providing for critical operational flexibility. The second source of supply to the Village of Oak Creek will minimize the impact of third party damage to our facilities and provide for additional growth in the area. The operational flexibility achieved with the new pipeline will also provide the capability of reverse flow to provide for routine maintenance and unforeseen conditions.

## Background Information on the Existing Sedona Supply Line

The existing Sedona Supply Line consists of a single 4-inch steel pipe 18 miles in length that operates at high pressure. The 18-mile pipeline originates southwest of Sedona in the Town of Clarkdale and heads northeast cross-country to the western border of the City of Sedona. At the western border of Sedona, UNS has a primary feed point that has the equipment necessary to reduce the high pressure to distribution pressures that will safely be distributed throughout the City of Sedona.

The existing pipeline was installed in 1965 and was designed for less than 1,000 customers. Over the past 38 years our customer base in the City of Sedona has grown to more than 5,700.

This tremendous growth has increased gas supply demand on the existing pipeline to the point that there is significant risk of customer outages and/or curtailment should we experience temperatures in the range of 30 degrees or less combined with supply pressure reductions that we have experienced recently.

Over the past several years UniSource Energy Services has completed a multitude of system improvements to increase the distribution system performance. Even with these improvements, we are now at a point where an additional source of supply is required to adequately service our Sedona customers. This additional source of supply would be from our large diameter high-pressure pipeline on the southern side of the Village of Oak Creek.

## Supply Pressure Issues

UniSource Energy Services has been experiencing lower delivery pressures from our interstate pipeline supplier over the past few years. These lower delivery pressures have been caused by growth on our system and the addition of gas-fired electric generating stations. The growth on UNS' natural gas system is projected to continue to increase and the number of gas-fired electric generating systems is also projected to increase over the next several years.

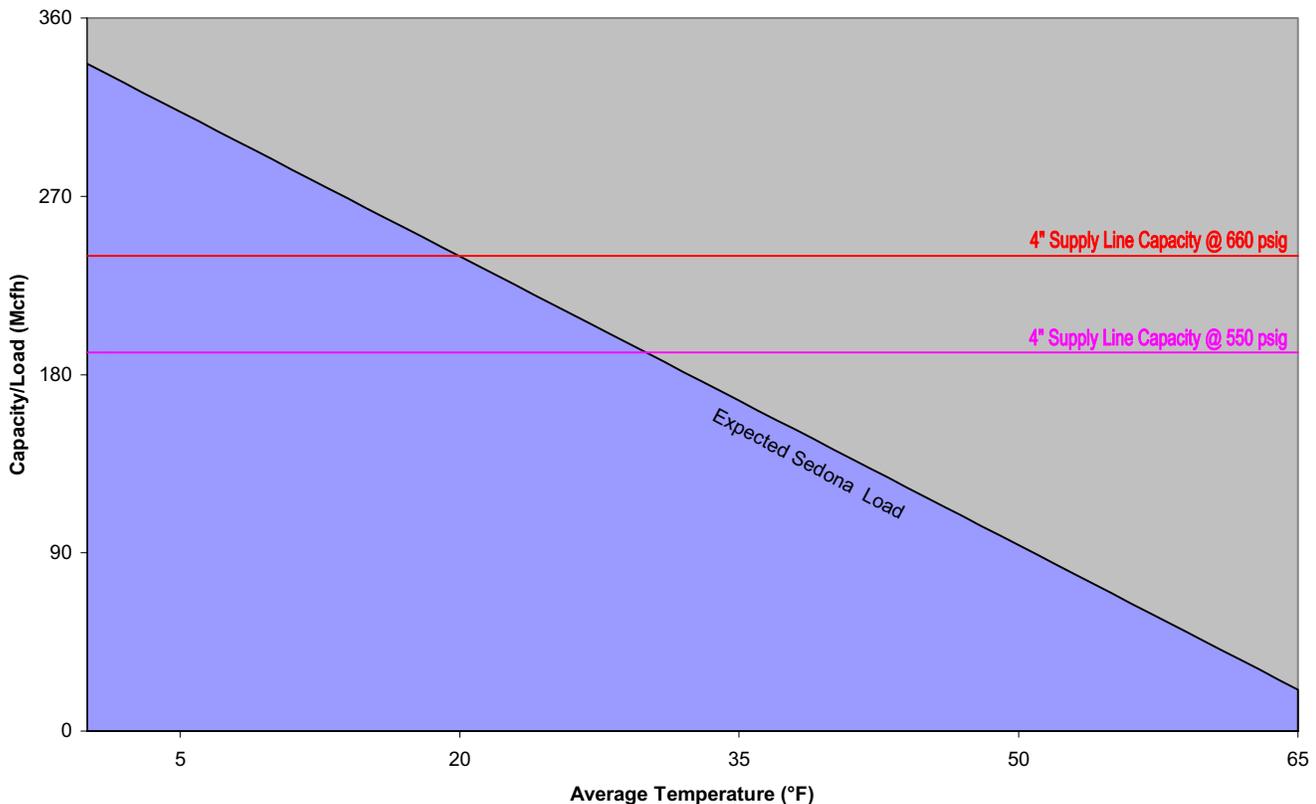
We do not anticipate that the pressure situation will improve in the near future; therefore we must act now to compensate for the lower delivery pressures. We propose to improve the pipeline capacity to the more remote ends of our distribution system such as the City of Sedona with pressure reinforcement pipelines. The proposed 6-inch pipeline is the most effective and efficient means to accomplish this goal. As the delivery pressure continues to decline, the supply line to Sedona quickly loses its ability to supply the required demand to serve more than 5,700 customers that are now served from the Sedona natural gas distribution system and provide the ability to serve the projected additional customers.

Gas service may be interrupted in many parts of Sedona if nothing is done immediately to reinforce the supply of natural gas to Sedona. UniSource Energy Services and its customers are at a significant risk of customer outages in the City of Sedona.

## System Modeling

Using SynerGEE Gas, a gas flow analysis software package, UNS created models of the 4-inch Sedona supply line to aid in the estimation of the capacities of gas UniSource Energy Services will be able to supply to the Sedona distribution system under various operating conditions. The model has been validated using actual observed pressures. Currently, our single source of supply is from the Sedona City Gate station located in Clarkdale, Arizona. At current conditions, our gas supplier provides approximately 660 psig to our Sedona City Gate Station. At this inlet pressure to our supply line, we can transport a load of approximately 240Mcfh to the distribution systems of Sedona. This load correlates to the load that would be seen in Sedona if the average daily temperature of 20°F is sustained. If the average temperature drops below this 20°F threshold, we are likely to experience gas outages in parts of Sedona. If the inlet pressure at the Sedona City Gate Station drops to the supplier contract minimum pressure of 550 psig, the load carrying capacity of the supply line drops off to 191Mcfh. This load correlates to the load that would be seen in Sedona if the average temperature is 30°F. The graph below shows the correlation between the load that is expected in Sedona and daily average temperatures. The graph also shows the supply line capacities at both the 660 psig and 550 psig inlet supply pressures.

Sedona Load Study



## Summary

There is a critical need to complete the last segment and second source of supply of the Verde Valley Regional Loop to meet the needs of our customers, particularly in the City of Sedona. The original Sedona Supply line was installed in 1965 and designed for a customer base of less than 1,000. Our customer base in the city of Sedona has increased to over 5,700 today and is projected to increase an additional 60 percent over the next 12 years. The City of Sedona is currently being served with a single 4-inch high-pressure supply line that is projected to run out of capacity by the heating season of 2004. The proposed 5.3 miles of 6-inch pipeline would run from the southern border of the Village of Oak Creek to the southern border of the City of Sedona and is the last segment necessary to complete the Verde Valley Regional Loop.

The need for this second source of supply has been validated using gas flow analysis techniques verified with actual observed pressures. With current supply pressures of 660 psig we would begin losing customers if we experience sustained temperatures below 20°F. Our records indicate that we have experienced actual temperatures of 17°F on multiple occasions over the past 10 years. If we experience contract supply pressures of 550 psig, the threshold temperature increases from 20°F to 30°F thereby significantly increasing the risk of customer outages.

This low-pressure supply issue is not new and has been a factor that UniSource Energy Services has been addressing over the last ten years. During that time the company has made considerable capital improvements by running inter-city tie-over pipelines. In addition, the company has increased the pressure in the pipelines to carry more capacity where possible. Currently there are no other options available or enhancements to the system that can be done to transport the needed gas to the far extremities of the system. The only corrective measure available is the second supply source from the Village of Oak Creek. Other benefits of the proposed pipeline include providing a second source of supply to the Village of Oak Creek as well as providing for critical operational flexibility for all customers served from the Verde Valley Regional Loop line.



# Preparing Sedona for a Warm Future



Keeping you warm when the weather gets cold is our top priority at UniSource Energy Services. That's why we're planning to build a new pipeline to improve our natural gas service to Sedona-area residents.

A pipeline linking Sedona to the Village of Oak Creek will stabilize Sedona's natural gas system. The city relies on a single supply line that was installed in 1965 to serve fewer than 1,000 customers. UES now provides natural gas to more than 5,700 customers in Sedona, and a second line is needed to maintain adequate pressure – particularly on cold winter days.

The current single-line system places Sedona customers at risk of losing gas service if average daily temperatures dip below 30 degrees for an extended period. The high gas usage associated with those low temperatures could combine with pressure reductions from UES' suppliers to interrupt service at precisely the time our customers need it the most.

The new line also will provide both Sedona and the Village of Oak Creek with a second source of natural gas, improving the reliability of service in both communities. All gas lines are vulnerable to damage, as Sedona residents learned in 1999 when the single pipeline serving the city was severed by a sewer contractor on the day before Thanksgiving. When this new pipeline is complete, UES would be able to maintain service under similar circumstances while the damage was repaired.

Construction of the line was originally planned to coincide with the expansion of State Route 179, with the line's route following the expanded roadway. But that road project has been delayed repeatedly, and UES cannot wait any longer without putting its customers at greater risk of losing natural gas service. UES plans to begin building the line next year, with completion scheduled in time for winter of 2004.

In the meantime, Sedona residents can contribute to the stability of their community's natural gas service by conserving energy this winter. A programmable thermostat makes it easy to save energy by automatically turning down the heat while you're asleep or away at work. You can stop heated air from escaping your house by sealing leaks around windows and doors and closing your chimney flue when your fireplace is not in use. Installing a low-flow shower head also saves energy by reducing your water heating costs.

UES is committed to keeping you informed about our progress on the new pipeline project. For more energy saving tips and other information about your natural gas service, **visit our Web site at [uesaz.com](http://uesaz.com) or call (928) 226-2141.**

**UniSourceEnergy**  
**SERVICES**  
Energizing Arizona



**Verde Valley Regional Loop  
Village of Oak Creek to Sedona Natural Gas Pipeline**

## **Frequently Asked Questions**

### Contact Information:

Barbara Wytaske  
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2901 W. Shamrell Blvd., Ste. 110  
Flagstaff, AZ 86001  
928-226-2141  
[bwytaske@uesaz.com](mailto:bwytaske@uesaz.com)

### **What is this project?**

The Village of Oak Creek to Sedona natural gas pipeline is a 5.3 mile segment of 6-inch steel pipe that stretches from the southern boundary of the Village of Oak Creek to the southern boundary of the City of Sedona.

### **What is the purpose of this pipeline?**

This pipeline is needed to ensure adequate reliability and supply to the City of Sedona and the Village of Oak Creek. Customer growth along with supplier limitations has accelerated the need for this system improvement.

### **Why did UniSource Energy Services, Inc. determine that this pipeline is necessary?**

UniSource Energy Services, Inc. (UNS) is responsible for providing safe, reliable gas service to its customers. UNS is regulated by the Arizona Corporation Commission and has been given the responsibility to meet the needs of its customers. The current system has been improved as much as possible during its lifetime, but must now be enhanced in order to continue to serve its customers.

### **Why can't the existing gas system continue to serve the area?**

The existing pipeline was installed in 1965 and was designed for less than 1,000 customers. Over the past 38 years the customer base in the area has grown to more than 5,700. The current system cannot accommodate the growing needs of our customers during the heating season.





### **Is the customer base expected to continue to increase?**

The customer base is expected to increase an additional 60 percent over the next 12 years.

### **Is there another way to improve the system without the new pipeline?**

UniSource Energy Services, Inc. has made considerable capital improvements over the last ten years by running inter-city tie-over pipelines. We have also increased the pressure in the pipelines to carry more capacity where possible. There are currently no other options available or enhancements to the system that can be done to transport the needed gas to all of our customers.

### **When will this project be completed?**

This project must be completed by the heating season of 2004 in order to avoid potential customer interruptions.

### **Are customers in danger of service interruptions this heating season (2003)?**

UniSource Energy Services, Inc. has several plans in place to help avoid service interruptions to our customers. However, if we experience extended severe cold weather; or decreased supply pressure combined with cold weather; or damage to a line by a third party (building contractor, etc.) our customers may be at significant risk of service interruption or curtailment.

### **Where will the pipeline be installed?**

The exact path of the pipeline has not yet been determined.

### **How is the path of the pipeline chosen?**

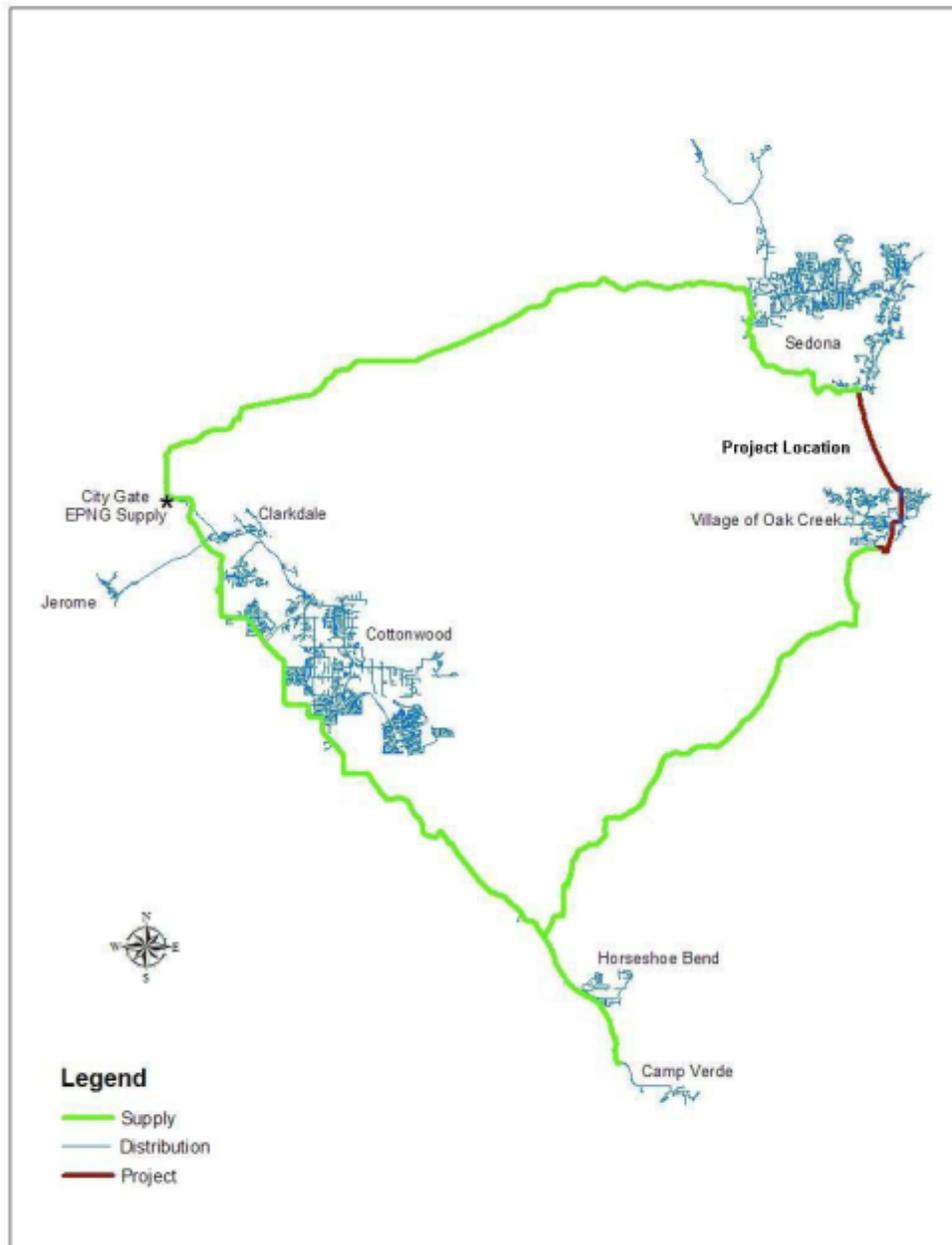
An environmental analysis is done and the results provided to the Forest Service. The Forest Service will consider the analysis along with public comment and determine the appropriate route that best preserves the integrity of the land in the area, provides the least disruption to the community and achieves the necessary infrastructure improvements.

### **How can I comment on this project?**

There are several ways to provide your comments. At the beginning of each section there is contact information provided. You can email the contact person, write a letter, make a phone call...whatever you prefer. The contact person will provide your comments to all the different participants in the project, as well as send a response to you so that you can be sure your voice has been heard. You will also be provided information concerning any additional public meetings that are held.



**Verde Valley Regional Loop  
Village of Oak Creek to Sedona Natural Gas Pipeline  
Map of Proposed Pipeline**





**Verde Valley Regional Loop  
Village of Oak Creek to Sedona Natural Gas Pipeline**

**FACT SHEET**

Contact Information:

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- This 5.3 mile pipeline is necessary to ensure adequate reliability and supply to the City of Sedona and the Village of Oak Creek. Continued customer growth along with supplier limitations has accelerated the need for this system improvement.
  - This project must be completed by the heating season of 2004 in order to avoid potential customer interruptions or the unavailability of natural gas supply to connect new customers.
  - This is the last remaining segment of the 56-mile Verde Valley Regional Loop project that was initiated in 1993 to expand and reinforce UniSource Energy Services (UNS) service area throughout the Verde Valley Region and was approved by the Arizona Corporation Commission.
  - The proposed 6-inch pipeline would begin at UNS' existing facilities located on the southern border of the Village of Oak Creek and continue north to its termination point in southern Sedona.
  - The new pipeline will provide the necessary reinforcement to the existing 4-inch steel line that is 18 miles in length and originates in Clarkdale. This 4-inch pipeline is currently the only feed to the entire City of Sedona, which we project, will run out of capacity for new load by the winter of 2004.
- 



■ Other benefits of the new pipeline include providing a second source of supply to the Village of Oak Creek and providing for critical operational flexibility.

■ The existing pipeline was installed in 1965 and was designed for less than 1,000 customers. Over the past 38 years our customer base has grown to more than 5,700. The customer base is expected to increase an additional 60 percent over the next 12 years.

■ This tremendous growth has increased gas supply demand on the existing pipeline to the point that there is significant risk of customer outages and/or curtailment should we experience temperatures in the range of 30 degrees or less combined with supply pressure reductions that we have experienced recently.

■ UniSource Energy Services, Inc. has made considerable capital improvements over the last ten years by running inter-city tie-over pipelines. We have also increased the pressure in the pipelines to carry more capacity where possible. There are currently no other options available or enhancements to the system that can be done to transport the needed gas to all of our customers.

■ UniSource Energy Services, Inc. has several plans in place to help avoid service interruptions to our customers. However, if we experience extended severe cold weather; or decreased supply pressure combined with cold weather; or damage to a line by a third party (building contractor, etc.) our customers may be at significant risk of service interruption or curtailment this winter.



**Verde Valley Regional Loop  
Village of Oak Creek to Sedona Natural Gas Pipeline**

**CONTACT LIST**

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- [brian@frontline-energy.com](mailto:brian@frontline-energy.com)

**For questions concerning the analysis process  
or other Forest Service related questions contact:**

- Judy Adams
- **USDA Forest Service**
- Red Rock Ranger District
- P.O. Box 300
- 250 Brewer Road
- Sedona, AZ 86339
- 928-282-4119
- [jadams05@fs.fed.us](mailto:jadams05@fs.fed.us)

There are several ways to provide your comments. You can email a contact person, write a letter, make a phone call...whatever you prefer. The contact person will provide your comments to all the different participants in the project, as well as send a response to you so that you can be sure your voice has been heard. You will also be provided information concerning any additional public meetings that are held. *Thank you for your interest!*



**Verde Valley Regional Loop  
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## **CONTACT US**

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**This is a web site link only. Not meant for our information packets.**

This is just another button that will be on our website so that people can contact us (actually, it will go to me directly).

This will allow people to ask questions that they have, seek additional information, sign up and be added to a mailing list (so we can inform them of upcoming meetings), etc.....



## Public Involvement Comment Matrix

hr1/22/04

First Name	Last Name	Street No.	Street Name	City	State	Zip	General Comment	Letter Date
Larry	Dreyfuss	431	Morgan Rd	Sedona	AZ	86336	Glad we have postponed construction and hope we postpone it longer for ADOT to choose hwy 179 route.	June 16,2003
Stephen	DeVol	215	Inspirational Dr	Sedona	AZ	86336	Does not see any pressing need to justify pipeline installation right now.Use existing right of way of current highway.	June 18,2003
William & Virginia	Eich	230	E Ridge Rd	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	June 19,2003
David	Tracey	115	Schnebly Hill Rd	Sedona	AZ	86336	Does not see any pressing need to justify pipeline installation right now.Thinks we should wait for ADOT construction.	June 27,2003
Diane & Gary	Carson	195	Sky Line Dr	Sedona	AZ	86336	Does not see any pressing need to justify pipeline installation right now.Thinks we should wait for ADOT construction.	June 27,2003
James	Bishop	113	Wilson Rd	Sedona	AZ	86336	Does not oppose project just thinks we should wait for final decision on SR179.	June 28,2003
Cathy & Paul	Gazda		PO Box 20533	Sedona	AZ	86341	Thinks we should wait until hwy 179 route is decided and under construction.	June 28,2003
Karen & Mike	Schmitt	6	Vista Bonita	Sedona	AZ	86336	Does not see any pressing need to justify pipeline installation right now.Thinks we should wait for ADOT construction.	June 30,2003
Karen	Strauch	148	Cathedral Ln	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	June 30,2003
Charles Hinkley	& Naomi Niles	50	Sombart LN #209	Sedona	AZ	86339	Does not see any pressing need to justify pipeline installation right now.Thinks we should wait for ADOT construction.	June 30,2003
M & M	Di Palma	37	Sage Dr	Sedona	AZ	86336	Opposed to project all together but insist we postpone.	July 1,2003
Eric Levitt	& Dick Ellis	120	Roadrunner Dr	Sedona	AZ	86336	Does understand need for pipeline project but thinks we should postpone until hwy 179 route is decided.	July 1,2003
Mariel	Bradley	55	Cathedral Rock Dr #43	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	July 1,2003
Bill	Pumphrey	360	Brewer Rd	Sedona	AZ	86339	Does not see any pressing need to justify pipeline installation right now.Thinks we should wait for ADOT construction.	July 2,2003
Ethel	Schelz	25	Beaver Creek Dr	Sedona	AZ	86351	Thinks we should wait until hwy 179 route is decided and under construction.	July 3,2003
June	Cornelison	590	Grove Dr	Sedona	AZ	86336	Does understand need for pipeline project but thinks we should postpone until hwy 179 route is decided.	July 3,2003
James	Gibson	10	Mano Pl	Sedona	AZ	86351	Does understand need for pipeline project but thinks we should postpone until hwy 179 route is decided.	July 3,2003
Ms. Eddie	Maddock	70	Cypress	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	July 3,2003
David	Benore	185	Fairway Oaks Dr	Sedona	AZ	86351	Does understand need for pipeline project but thinks we should postpone until hwy 179 route is decided.	July 3,2003
William	Eich	230	E Ridge Rd	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	July 5,2003
Virginia	Eich	230	E Ridge Rd	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	July 5,2003

## Public Involvement Comment Matrix

hr1/22/04

First Name	Last Name	Street No.	Street Name	City	State	Zip	General Comment	Letter Date
Steven	Pratt	207	N Highway 89a	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	July 5,2003
Robert	Stuckey	63	Antelope Dr	Sedona	AZ	86336	Thinks we should wait until hwy 179 route is decided and under construction.	July 5,2003
James	Bishop	113	Wilson Rd	Sedona	AZ	86336	Does not oppose project just thinks we should wait for final decision on SR179.	July 5,2003
Vincent	Chris	115	Concho Dr	Sedona	AZ	86351	Thinks we should wait until alignment of 179 is chosen.	July 5,2003
Allan	Fairchild	152	W Fox Hill Dr	Buffalo Grove	IL	60089	Feels that Citizens Gas Co has given the City Council ample time to choose route for 179 and was counting on gas in VOC before he moves in winter of 2003.	July 6,2003
Harry	Newman	220	Rockridge Dr	Sedona	AZ	86336	Thinks we should wait until alignment of 179 is chosen	July 6,2003