



White Mountain Ambulance Service
PO Box 1670
Springerville AZ 85938
(928) 333-4202

May 28, 2026

TO: Apache County Planning and Zoning Commission

Apache County Board of Supervisors

After reviewing the paper “White Mountains Radio Users’ Statement of Concerns” dated May 27, 2026, regarding signal interference caused by Wind Turbines/Wind farms upon public and private emergency communications & radio signals. I agree with the **Need** for two (2) studies to be done, as stated in this paper, before **any** wind farms are issued County permits to build here.

As a Radio User on Greens Peak and Emergency Services with a Service Area consisting of the Towns of Springerville, Eagar, Greer, Alpine, and Vernon, and, the outer geographical boundaries that would be encompassed by the following points: Starting on Hwy 60 at milepost 355 on Hwy 60; then on a straight line Northeast to about Milepost 382 on Hwy 180/666 excluding Lyman Lake; then on a straight line east to the Arizona/New Mexico Border; then due south along the Arizona/New Mexico Border to a point adjacent to Blue in Greenlee County; then on line from Arizona/New Mexico Boarder through Blue to Hannagan Meadows in Greenlee County to Reservation Line, then straight line northwest from reservation line to Milepost 374 or A-1 Lake on Hwy 260, including Sunrise Ski Lodge and slopes; then continuing on a straight line northwest to Milepost 355 on Hwy 60; the point of origin.

Additionally, our Base Hospital is Summit Healthcare Regional Medical Center in Show Low, AZ, and we are required to coordinate with it for all patient transport. We are greatly concerned about the possible interference with our essential communications caused by the proposed wind farms/turbines.

Thank you for your consideration in this matter.

Mark Wade
Director of Operations
White Mountain Ambulance Service
Cell: (928) 205-9443
Email: chief1700@gmail.com



Date: 05/27/2026

To: Apache County Planning & Zoning Commission
75 West Cleveland Street
St. Johns, AZ 85936

Subject: Request for Independent Communications and Radar Impact Studies Prior to Approval of Additional Wind Energy Projects

Dear Members of the Apache County Planning & Zoning Commission,

Round Valley Fire & Medical Department respectfully submits this letter regarding concerns associated with proposed wind energy developments within Apache County and their potential impacts on emergency communications systems, public safety operations, and critical infrastructure serving the White Mountains region.

After reviewing documentation and statements of concern submitted by residents, licensed radio operators, and other stakeholders, we believe there is sufficient justification for Apache County to require additional independent analysis prior to the approval of additional wind energy projects in close proximity to Greens Peak, TV Knoll, and other critical communications sites.

Emergency communications infrastructure in this region supports fire suppression operations, emergency medical services, law enforcement, emergency management, public utilities, hospitals, transportation systems, and interagency mutual aid coordination across a large and geographically challenging response area. Reliable radio and communications capabilities are essential to public safety and emergency response operations.

Based upon the concerns outlined in the submitted materials, we respectfully request that Apache County require the following studies before issuing additional permits or approvals for wind energy development projects:

1. Independent Existing Baseline Communications Study

An independent, professionally conducted baseline study should be completed to identify and document all existing communications systems currently operating within the affected region. This study should evaluate public safety radio systems, emergency management communications, microwave links, cellular communications, aviation systems, utility communications, amateur radio systems, and any other critical communications infrastructure potentially affected by wind turbine development.

2. Cumulative Communications and Radar Impact Analysis

A comprehensive cumulative impact analysis should be conducted to evaluate the combined effects of existing, approved, and proposed wind energy projects on communications systems, radar operations, emergency response interoperability, and aviation safety. This analysis should include consultation with affected public safety agencies, communications professionals, and applicable federal and state agencies including the FCC and FAA.



Given the critical importance of uninterrupted communications during emergencies, we believe these studies are necessary to ensure that future development does not unintentionally compromise emergency response capabilities, responder safety, or public safety communications throughout Apache County.

This request is not intended to oppose responsible energy development. Rather, it is intended to ensure that development decisions are informed by objective technical analysis and that appropriate safeguards are established to protect critical public safety infrastructure relied upon by residents, visitors, and emergency responders.

We appreciate the Commission's consideration of these concerns and respectfully request that these studies be completed prior to the approval of additional wind energy projects within the region.

Sincerely,

Brannon Eagar
Town Manager

Where Roads Hit The Trails

P.O. Box 1300 * 22W 2nd Street * Eagar, AZ 85925 *
928-333-4128 * eagaraz.gov



418 E. Main Street, Springerville, AZ 85938 • Phone (928)333-2656

May 28, 2026

Community Development
Attn: Apache County Planning and Zoning Commission
75 W. Cleveland
PO Box 238
St. John, AZ 85936

Dear Commission:

I am writing in support of two proposed studies: a baseline study to document radio frequency (RF) communications and a study of the cumulative effect of wind turbines on RF communications. Law enforcement and emergency service agencies need to know that their communications will not be degraded by the proposed wind turbines.

Thank you,

A handwritten signature in black ink, appearing to read "Ted Soltis", is written over a horizontal line.

Ted Soltis
Interim Town Manager

May 31, 2026

TO: Apache County Planning and Zoning Commission

Apache County Board of Supervisors

Subject: Need for further Impact Studies prior to approval of proposed wind energy projects in Apache County

As **Manager of the Amateur Radio Emergency Operators in Arizona**, (some 23,700 strong), we provide communications support and public service operations to all the counties here in our state. We utilize local repeater facilities which support and backup our first responders and their managerial staff as well. We recently assisted in maintaining communications here in Apache County when the major trunks of digital and analog communications were severed. We maintain repeaters on several local mountaintops which are connected by Microwave, to the rest of Arizona which includes a backup Internet capability for Emergency Operations in each county.

We rely on clear and reliable communications capability and are concerned that the introduction of the proposed wind towers and high-tension power lines, as well as the increases in electromagnetic spectral noise that will adversely affect our ability to support operations both here in Apache County and our linked systems across the Rim Counties.

My Chief Emergency Communications Coordinator Dennis Bietry, at the DEMA office in Phoenix, supervises the activities of each of our District teams and has warned me of the detriment these wind turbine installations will have in our ability to provide support for Apache County and the surrounding Rim Country.

The proposed wind machines not only emit broadband noise: The presence of hundreds of microwave transponders (one for each tower) and the associated internet spectral crowding will deplete the ability to communicate here in the areas near Greens Peak. Our UHF links to other major peaks in Arizona depend on low RF background noise and presence of reflective radiation which would be caused by the tower installations and their support facilities creates multi-path interference which degrades our already limited path loss capabilities.

We suffer from already overcrowded Cell and Internet facilities in the remote locales where we rely on the ability to notify Authorities using our daily SKYWARN and ARES reporting networks.

We support the local authorities here in Eagar and Springerville in the need for a Baseline Communications Study which would expose the jeopardy the increased spectrum crowding would pose to our daily and emergency support communications abilities. The report from these studies should combined effects on Aviation, GPS, Cellular, Utilities, Amateur Radio Emergency Support and the many other agencies here in the county that have to have reliable response operability.

Given the necessity of guaranteeing existing and future emergency communications capabilities, we urge the Commission to insist on conducting comprehensive and independent studies, to assure that we who provide support in this county can continue to supply necessary capabilities.

Sincerely,

/s/ Richard Paquette W7RAP

ARRL Manager Arizona

W7RAP@ARRL.Org

(520) 425-6877
72 Spring Road CR N1047 and Springerville AZ

To: **Apache County Planning and Zoning Commission**

June 1, 2026

and **Apache County Board of Supervisors**

As a representative of the **Greens Peak Users Group** and as an RF Engineering professional with extensive experience in public safety communications systems throughout Northern Arizona, I am writing to formally express significant concern regarding any proposed wind-energy development projects within Apache County and Navajo County that may impact the Greens Peak communications environment.

Greens Peak serves as one of the most critical high-elevation communications sites in the region and supports numerous public safety, government, utility, transportation, and emergency communications systems. Due to its unique geographic elevation and wide-area RF (radio frequency) coverage characteristics, many agencies rely upon Greens Peak for dependable line-of-sight radio communications across large portions of northeastern Arizona.

Based upon well-documented industry findings and real-world engineering studies, wind turbines have the potential to negatively affect radio communications systems through signal reflection, diffraction, multipath distortion, obstruction of line-of-sight paths, and degradation of microwave and land-mobile radio systems. These effects can become especially problematic for modern digital public safety systems such as P25 trunked radio networks, microwave backhaul infrastructure, dispatch systems, utility SCADA systems, railroad communications, and interoperability channels relied upon during emergency operations.

Of particular concern is the potential for turbine blade movement and large tower structures to introduce multipath interference and signal fading into critical communications paths serving law enforcement, fire, EMS, search and rescue, public works, forestry/wildfire-fighting, utilities, and emergency management agencies operating throughout Apache and Navajo Counties.

For these reasons, I strongly recommend that no wind-energy project move forward within visual or RF line-of-sight proximity to Greens Peak until **comprehensive, independent** Baseline and RF Impacts studies are completed by unbiased, qualified communications engineering professionals. Such a study should include, at minimum:

- Public safety land-mobile radio analysis (VHF, UHF, 700/800 MHz)
- Microwave path and Fresnel-zone obstruction analysis
- P25 digital simulcast and interoperability impact assessment
- Existing licensed spectrum coordination review
- Terrain and propagation modeling
- Pre-construction field measurements and baseline signal studies
- Evaluation of impacts to utility, transportation, and emergency communications infrastructure

Public safety communications are mission-critical systems that directly affect responder safety, emergency coordination, wildfire response, medical dispatch operations, and regional interoperability. Any degradation to these systems could have serious consequences during emergency incidents and natural disasters.

It is my professional opinion that Apache County and Navajo County planning authorities should require a formal RF communications baseline and impact assessments as part of any permitting or zoning review process associated with future wind-energy development proposals near Greens Peak or within the surrounding regional communications footprint.

Enclosed is a brief summary paper on this topic.

Thank you for your consideration of this important matter and for your commitment to protecting the integrity and reliability of public safety communications systems serving the citizens of Northern Arizona.

Respectfully,

/s/ Matt Lunati

Vice President, Greens Peak Users Association

CET (ms RF) , FCC GROL (PG-00069876)

Encl.: **Wind Farm Impacts on Public Safety Radio Communications**

Wind Farm Impacts on Public Safety Radio Communications

**Professional White Paper for Public Safety Agencies, Utilities, and
County Planning Commissions**

Prepared for RF Engineering, Public Safety Communications, and Infrastructure Planning

Executive Summary

Wind turbines can affect radio communications by blocking, reflecting, and scattering radio signals. The effects are most significant where turbine structures intrude into line-of-sight radio paths. Microwave systems, radar installations, and digital control networks are the most vulnerable. Public safety VHF, UHF, and 700/800 MHz systems can experience localized degradation in fringe coverage areas. While analog systems tend to degrade gradually, digital systems often exhibit a sudden loss of communications when signal quality falls below operational thresholds.

Public Safety Frequency Band Comparison

Frequency Band	Typical Service	Impact Level	Most Affected Mode
30-50 MHz	Low-Band Public Safety	Low	Analog FM
150-174 MHz	Fire, EMS, Public Works	Moderate	Analog FM, P25
220 MHz	Rail and Control Systems	High	Digital Data
450-470 MHz	Public Safety / Utilities	Moderate	DMR, NXDN, P25
700 MHz	Statewide P25 Systems	Moderate	P25 Digital
800 MHz	Trunked Public Safety	Moderate	P25 Simulcast
>1 GHz	Microwave Backhaul	High	Digital Microwave

Turbine-Induced Multipath Diagram

Radio Site -----> Wind Turbine -----> Mobile User

Direct Path: Radio Site -----> Mobile User

Reflected Path: Radio Site ---> Turbine Reflection ---> Mobile User

When reflected signals arrive later than the direct signal, fading, distortion, and digital bit errors can occur. This phenomenon is known as multipath propagation.

Key Findings

The greatest risks are associated with microwave links, radar systems, and digital control networks. For public safety systems, turbine-related impacts are generally localized and most likely in weak-signal areas. Proper engineering studies including path analysis, propagation modeling, and field measurements are recommended before approving wind-energy projects near critical communications infrastructure.

References and Citations

- Ofcom. Tall Structures and their Impact on Fixed Wireless Links.
- Ofcom. Wind Farm Impact Studies on Fixed Wireless and Telemetry Systems.
- U.S. Department of Transportation. Wind Farm Interference Impact on 220 MHz Communications.
- NTIA Technical Report TR-08-454. Assessment of Wind Farm Effects on Radar Systems.
- ITU-R Recommendations concerning propagation, diffraction, and obstruction effects.