Arizona Game & Fish Department

Lakes ALERT System

IAFSM Annual Conference, 2011
Bloomington-Normal, Illinois

Presenter: David Meyer, RG, EIT, CFM
Synopsis

- AZ G&F Department Dams
- ALERT System Primer
- Lakes ALERT System
ALERT System Primer

Automated Local Evaluation in Real Time

Remote Sensor Station

Repeater

Base Station Server

Local Network

INTERNET
ALERT System Primer

Pressure Transducer Stage Sensor

Remote Sensor Station

Tipping Bucket Rain Gauge

Ultrasonic Stage Sensor

ALERT Transmitter
ALERT System Primer

Base Station

Base Station Antenna

Antenna

Coaxial Cable

Server

Base Station Decoders/Server

UPS

Decoders
ALERT System Primer

Base Station Server Functions

Data Collection & Storage
Data Reports & Display
Data Error Checking
Automated Alarms & Notification
Scheduled Functions
Real-Time Watershed Modeling / Forecasting
Browser Interface Host (LAN / WAN)
Lakes ALERT System

Phase I - Design
1) Power Amp
2) Directional antenna
5) FCC Licensing needed
4) USFS Permit
5) 2 Pressure transducers
Phase 3

• Seepage/Sediment Monitoring
• Base Station Enhancements
• Repeater Upgrades
Seepage/Sediment Monitoring
Seepage/Sediment Monitoring
Base Station Enhancements
Base Station Enhancements

ADWR Schultz Fire ALERT Stations

= Precipitation (inches)  = Precipitation Stations at Alarm Threshold

Precipitation (5 Minute Totals)

Updated: July 20, 2010 at 2:57 PM MST
Base Station Enhancements

ADWR Schultz Fire ALERT Stations

= Precipitation (inches)  = Precipitation Stations at Alarm Threshold

Precipitation (5 Minute Totals)

Schultz Basin 9
0.04 inches

Updated: July 20, 2010 at 2:27 PM MST
Repeater Upgrades

Figure 16 - STATE MICROWAVE MAP
Web Sites

National Hydrologic Warning Council
hydrologicwarning.org

Arizona Flood Warning System
afws2.org

JE Fuller Hydrology & Geomorphology
Jefuller.com

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