#### DIGITAL MOBILE RADIO REQUEST FOR PROPOSAL

NEXT GENERATION OF RADIO TECHNOLOGY FOR RELIABLE COMMUNICATIONS

October 2, 2017

BOARD ACTION REQUESTED



### WHY ARE WE HERE

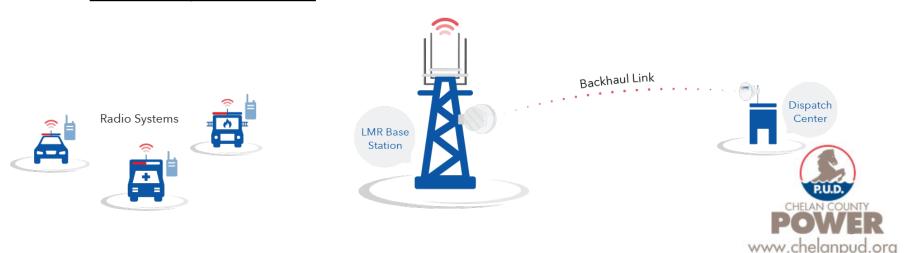
- Review the need to replace this critical communication system
- Summarize steps to replace the Land Mobile Radio system
- Request Board action to authorize Request for Proposal (RFP) for Digital Mobile Radio (DMR)



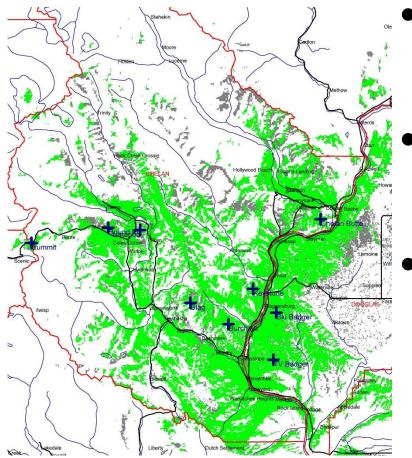
# SYSTEM DESCRIPTION

- Land Mobile Radio
  System
  - Dedicated and purposebuilt radio system used to deliver critical <u>voice</u> <u>communication to</u> District personnel

- Microwave System
  - Highly reliable radiobased <u>transmission</u> <u>system</u> used to transport critical voice and data traffic



#### WHY SYSTEM NEEDS TO BE REPLACED



Predicted coverage map for Existing Radio System

- Important component of safe and efficient operations Districtwide
- System provides reliable communications for mobile crews
- It has exceeded its useful life
  - 20-year old equipment
  - No longer supported
  - Increasing risk of failure



# PROJECT DEVELOPMENT

- Feasibility Study 2015
  - Recommended replacement with Digital Mobile Radio (DMR)
- Coverage Study 2016
  - Recommended replacement first, followed by coverage expansion
- Project Recommendation and Business Case
  - Replace Microwave and Radio systems



# PROJECT APPROVAL

- Conducted extended outreach to radio users to validate core requirements, eliminating alternatives
- Confirmed Microwave and Radio systems are essential to District operations and safety
- Reinforced recommendation of original feasibility study
- Business Case approved by Senior Management Team
- Presented project to the Board on February 6



# REPLACEMENT PROJECT

- Site and Power Improvements
  - Under construction
- Microwave Network Replacement
  - Finalizing scope of work with Nokia to use State Contract
  - Anticipate replacement 2018 Q2
- Land Mobile Radio Replacement
  - Digital Mobile Radio (DMR) standard selected
  - Ready to publish Request for Proposals (RFP)
  - Anticipate replacement starting 2018 Q3



### DIGITAL MOBILE RADIO

- Benefits
  - Open Standard
  - Digital Audio Quality
  - Double Channel Capacity
  - Longer Battery Life
  - Advanced Features
    - Data applications
    - Caller ID
    - Enhanced Security





#### NEXT STEPS

- Request Commission approval of resolution to authorize advertisement of RFP 17-50 Digital Mobile Radio
- If approved, begin outreach to employees





Burch Mountain Microwave/Radio Tower

