

COUNTY OF SANTA BARBARA  
GENERAL SERVICES

# Public Safety Radio System Replacement



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# Introduction

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- ✓ On December 12, 2017, the Board of Supervisors approved a Professional Services Agreement with Federal Engineering, Inc. to assess the current radio communications environment and develop future operational requirements to replace the Public Safety Radio System
  
- ✓ Current State of the Public Safety Radio System
  - Diverse radio communications environment
  - Several different land mobile radio systems
  - Equipment in different stages of their lifecycles, with varying technologies and capabilities
  - Lack of redundancy
  - Lack of backup dispatch location



# Introduction – Continued

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- ✓ Upgrade the County's existing land mobile radio (LMR) and microwave radio systems
  - Improve voice communication services and reliability within the County
  - Deliver greater coverage
  - Provide robust radio communications for next 10 to 20 years
  - Replace varying technologies and capabilities which are end-of-life
    - Add digital mobile radio communications
    - Replace analog UHF radios
    - Add ability to transfer data as well as voice
    - Interoperability with other radio systems



# Process Steps

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Phase 1  
Assessment

Phase 2  
Recommendation

Phase 3 & 4  
Design

Develop Funding  
Options

Phase 5  
Procurement &  
Implementation

Complete



# Existing Systems – County Users

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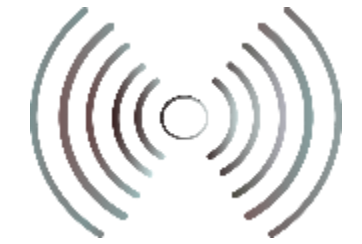
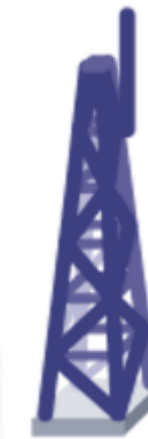
- ✓ Fire
- ✓ Sheriff
- ✓ Public Health
  - Emergency Medical Services
  - Animal Services
- ✓ Public Works
- ✓ Probation
- ✓ Parks
- ✓ General Services
- ✓ District Attorney
- ✓ Courts



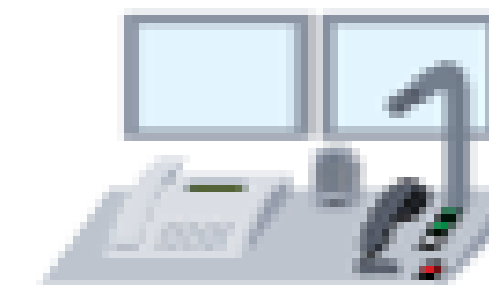


# Existing Systems – Major Areas

- ✓ Land mobile radio (LMR) systems
  - For communications between radio users and the Sheriff Dispatch Center or other radio users
- ✓ Radio Backbone System
  - Carry radio user voice signals between the LMR base station sites and the Communications (Comm) Center
- ✓ Dispatch
  - Allows voice communications between field units and dispatchers



Comm Center

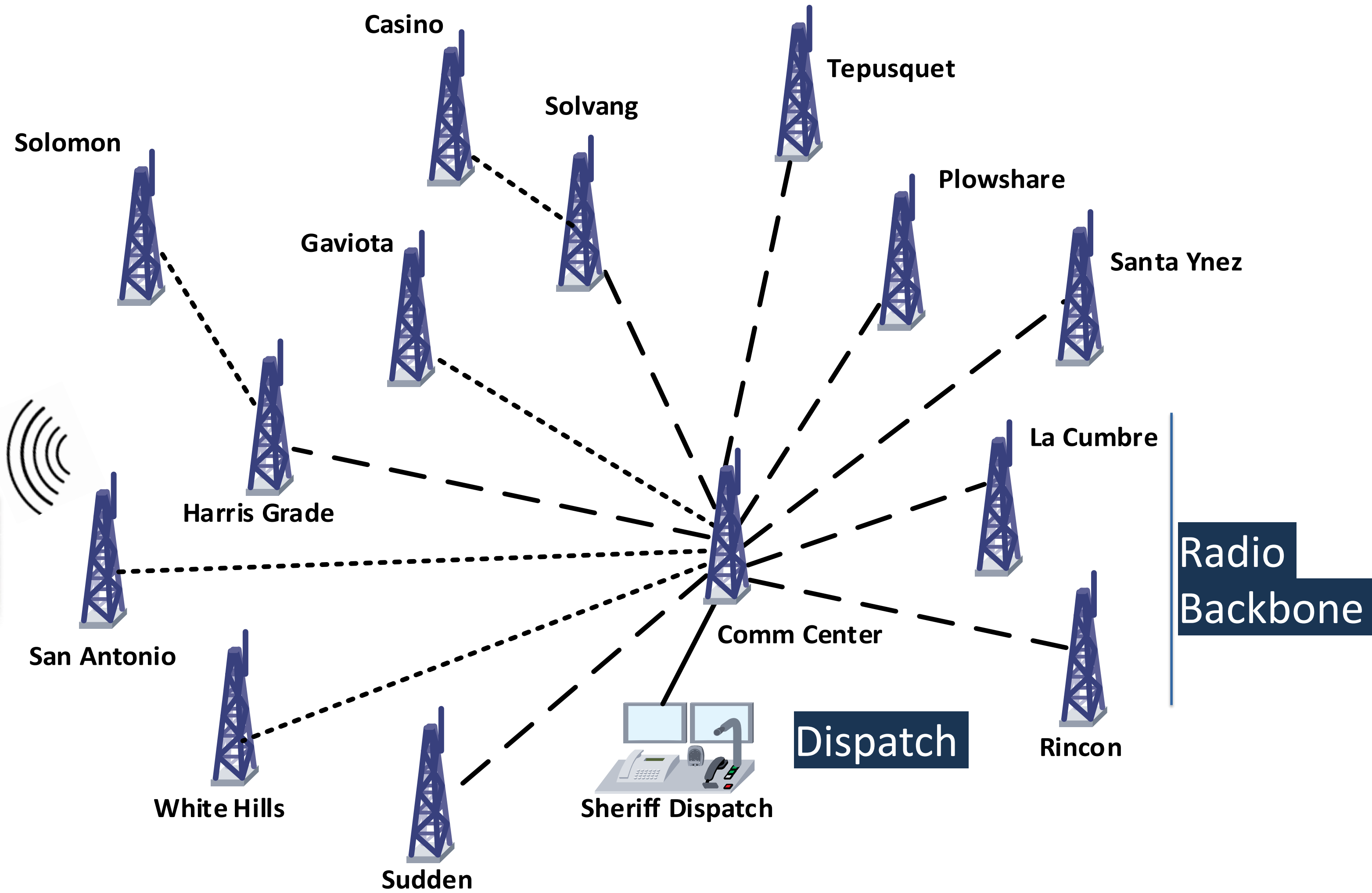


Dispatch Center





**LMR**



- Copper Cable (300-pair)
- - - - - Microwave Radio
- ..... T1 Circuit



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# Recommended Approach – Shared System

## ✓ LMR Systems

- Upgrade to a Countywide Shared Digital System, except for Fire, which will remain VHF
- Add 2 additional channels for Sheriff

## ✓ Radio Backbone

- Add 6 sites
- Add redundancy

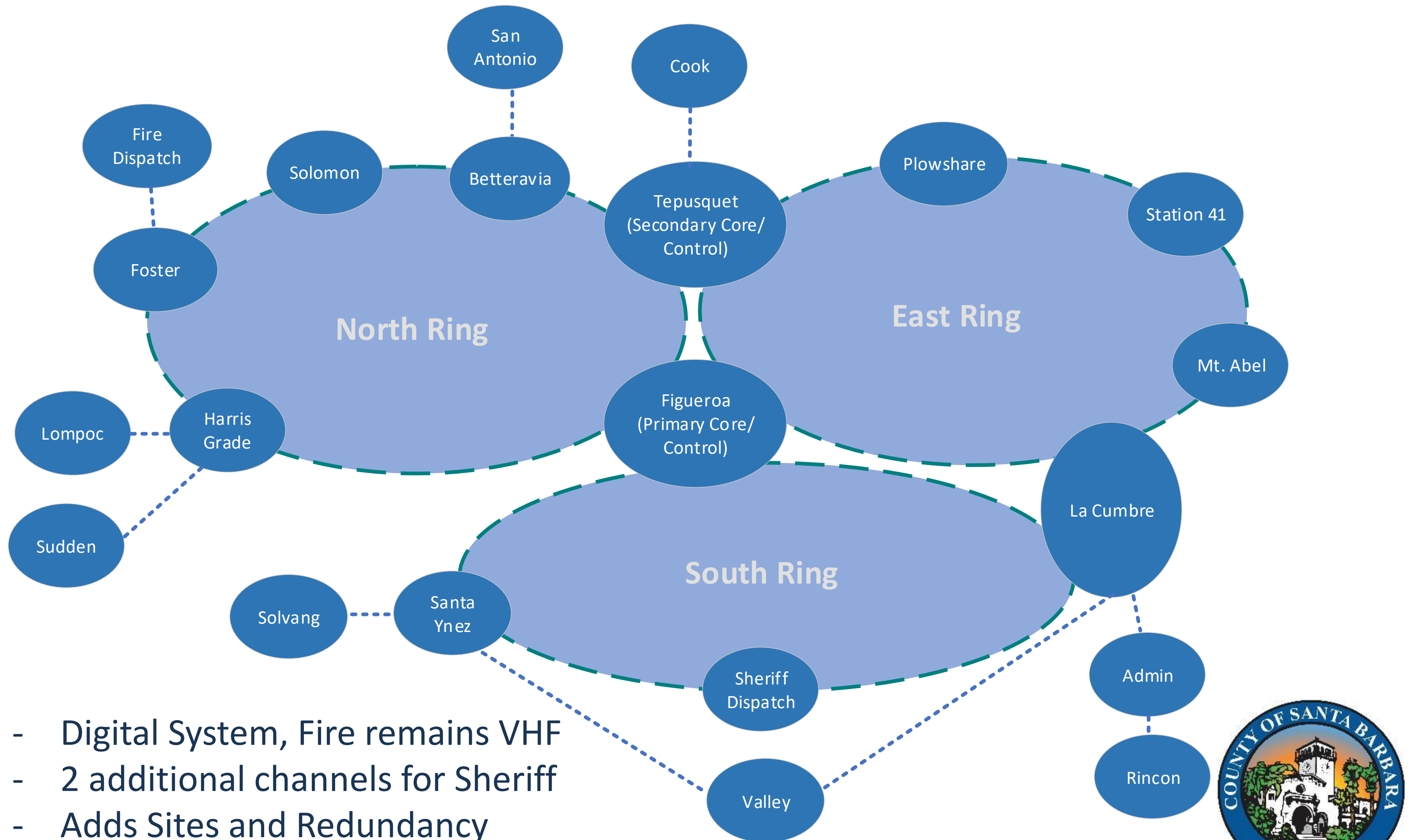
## ✓ Dispatch

- Upgrade communications equipment and add a backup site





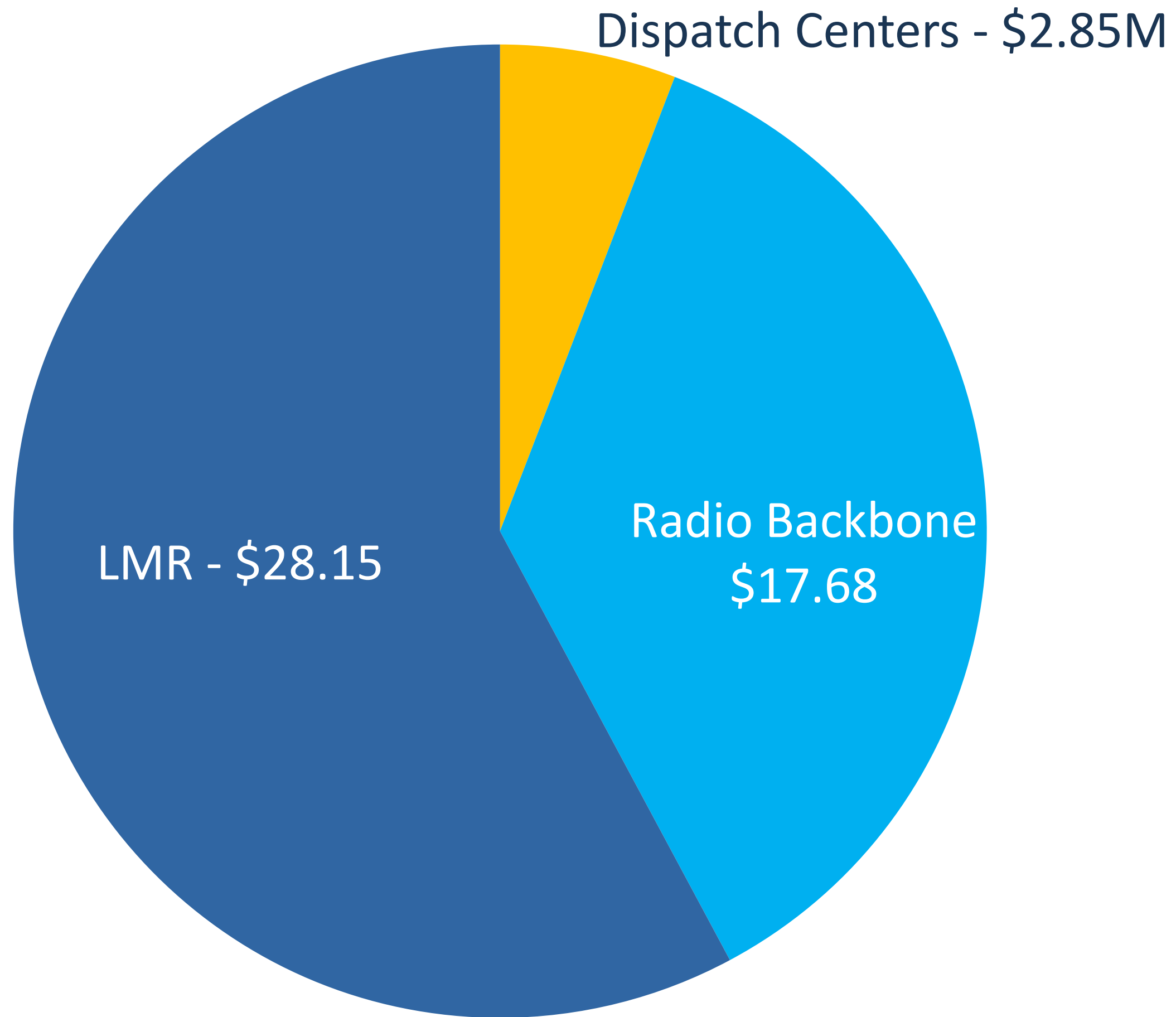
# Recommended Approach – Shared System



- Digital System, Fire remains VHF
- 2 additional channels for Sheriff
- Adds Sites and Redundancy
- 2 dispatch centers



# Capital Cost – \$48.68M



# Next Steps

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- ✓ Finalize design and develop request for proposal process
- ✓ Develop funding options
- ✓ Return to BOS for procurement
- ✓ Begin phased implementation of Public Safety Radio Replacement





# Recommendations

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- ✓ Receive and file the Federal Engineering, Inc. Public Safety Radio Replacement Project Report
- ✓ Approve and authorize the Agreement with Federal Engineering, Inc., for Phases 3 and 4
  - Select a design and identify associated costs
- ✓ Determined not a project under CEQA



THANK YOU

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QUESTIONS?

