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# STATEWIDE RADIO SYSTEM IMPROVEMENT PROJECT



# Statewide Radio System Improvement update

## Status Summary

- Coverage
  - Seven site additions completed year-to-date: Rockingham, Putney, Huntington, White River, Londonderry, E. Corinth, and *Orwell*
- Congestion
  - Seven site channel additions completed year-to-date: Williston, Wells, Castleton, St. Albans, Berlin, Jay, and Lincoln
- Performance
  - Site and channel additions precipitated new, short-term challenges
  - Issues have been addressed and the system is operating stable
  - Multi-customer testing planned in September

# Statewide Radio System—14 additional sites needed

- Commissioned seven sites year-to-date
  - Rockingham, Putney, Huntington, White River, Londonderry, E. Corinth, and Orwell
- Construction in progress at two sites
  - Topsham, Royalton
- §248(a) submitted
  - Barnet, Thetford
- Challenging sites
  - Chester, pursuing tower rebuild on behalf of town
  - Woodbury, NEPA filed
  - W. Rupert, general store in process of being sold, waiting for new owners



# Statewide Radio System—Congestion

- 22 total channel additions at 10 sites
  - Completed channel additions with requisite performance tests at seven sites
    - Williston, Wells, Castleton, St. Albans, Berlin, Jay and Lincoln
    - Inter-frequency interference (Intermodulation) experienced at channel addition sites remedied at all sites and new sites going forward
  - Final two channel addition sites to be completed in October
    - Technical issues delayed progress
    - Interference issue at White River, Middlebury, E. Corinth, and Essex
    - Call processing issues discovered during equipment additions and testing



# Statewide Radio System—Operation & Maintenance

- Middlebury interference caused by VPR transmitter
  - C<sup>2</sup> (RF engineers) conducted full site shut down to eliminate any other possible sources of interference.
  - Report cites VPR equipment as primary cause of interference
  - Interim coverage ~85% of optimal performance
  - Working with tower owner and VPR for conclusive solution
- White River Jct. radio interference—primary cause is radio station and paging company
  - Adjusted channel usage at site yielding expected normal performance
  - Delay in custom designed filter manufacturing, installation anticipated in September
- VELCO system interference with WVNY reception in E. Corinth
  - Topsham Telephone receiving antenna for WVNY Ch. 13 is collocated at E. Corinth site
  - VELCO system was causing interference with TV 13 reception
  - Newly installed filter is working as designed and interference issue is resolved



# Statewide Radio System—Operation & Maintenance

- Additions and changes to accommodate growth had introduced new issues
  - Testing in July revealed operational system issues
    - Calls not releasing properly after use during heavy usage
    - Manufacturer responded quickly issuing patches for issues found
    - Internal testing is proving that patches are working correctly
  - Retesting planned in September
    - Testing for correct and consistent operation during heavy loading
- User expectations now and in the future
  - Review system operation and support capabilities
  - Detail and verify customer needs
  - Develop requirements to meet customer needs
  - Communicate service level expectations