



a projected fall 2020 cutover date to the fall of 2021 or 2022. While projects are often delayed for both fiscal and operational capacity limitations, the continued delay of this project raised serious concerns about guaranteeing reliable operability. The former system was past its end-of-life date (2009) and the vendor no longer supported the project.

After several Council discussions in 2019, the Executive agreed to keep two tower sites on schedule, and the projected cutover date was December 2020. Council received regular updates on the project status including Executive plans to maintain public safety communications in the event of a system failure. While challenges arose at a few different locations, the County stayed on schedule and on budget. The cutover date was initially scheduled for January 4, 2021, but Motorola's review of its systems detected some problems with their network monitoring operations. The root cause was identified, and the new cutover date was scheduled for January 15, 2021. Given the civil unrest and attempted insurrection at the Capitol on January 6, however, County officials decided to delay cutover until after the inauguration, to ensure that all systems were functioning properly in the case of a regional need for any public safety response. The next cutover decision was made on February 6, and the vendor determined that all systems were ready for cutover. Cutover occurred in three phases:

- February 23, 2021 (Police);
- March 4, 2021 (Fire and Rescue);
- March 9, 2021 (DOCR, DOT, and other GOVT users).

Given the timing of the cutover, during winter, the vendor had to delay one final testing component – full foliage testing – to ensure the system worked with a full summer canopy of vegetation. This testing occurred in May, and involved driving through test grides (river, off-road areas), testing 30 required buildings, and testing 20 informational buildings. The contract specifications required 95% coverage of the county; the test results were 98.34% coverage.

## **Technology**

The new system uses redundant-ring architecture microwave radio to connect the 22 County public safety radio sites. Executive staff advises this technology is “self-healing” in the event of a link failure. The decision to choose microwave connectivity was driven by the higher cost to extend fiber to numerous newly-added and remotely-located towers. The new microwave enables a second diverse path for redundancy at a lower cost than extending new FiberNet fiber along two routes to all 22 sites. The graphic below shows the locations of the 22 sites used for the new system.























# Radio System Infrastructure Project

## Budget:

- 1) It was necessary to add \$608k to project to build the Black Rock site (moved off Pepco/Quince Orchard)
- 2) Stayed on budget with project costs.
- 3) The 5 & 10 year System Obsolescence Program is within the RSI Project budget, and will be billed once in 2023 (\$835,827)\*
- 4) Rent Savings:
  - 1) Rent for 11 sites (old) = \$53K/month
  - 2) Rent for 22 sites (new) = \$42K/month
  - 3) **Savings = \$11K/month or \$136K/year**