

PROJECT STATUS

Emergency Communication System Upgrade (ECSU)

C800 Project Leader: John Hartsock

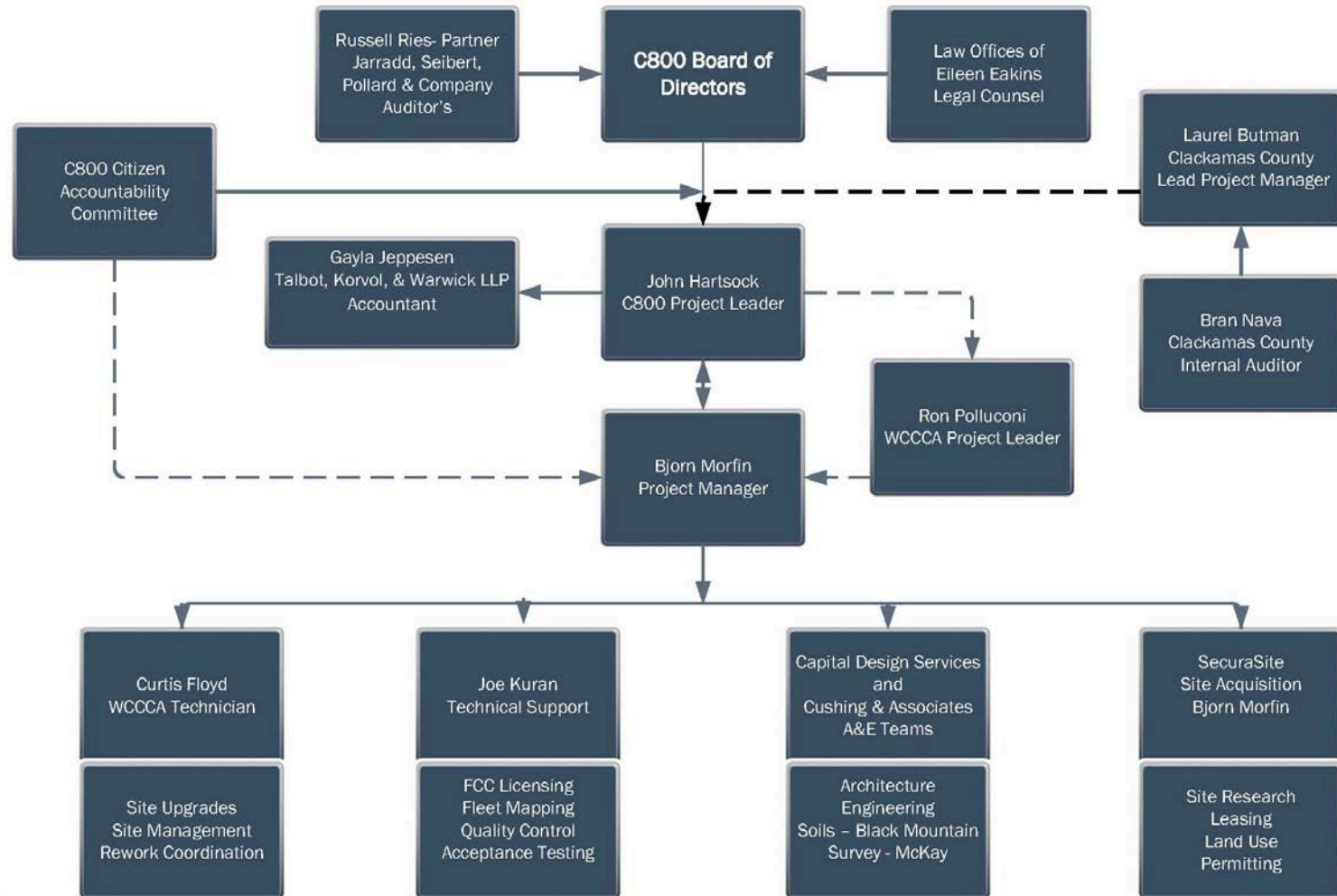
WCCCA Project Leader: Ron Polluconi

C800 Project Manager: Bjorn Morfin

Date: June 1, 2018



C800 ECSU Project Team



Project Status Summary

| | C800 |
|---|---|
| <ul style="list-style-type: none">New Site Acquisition / Design / Construction: | <ul style="list-style-type: none">Barton (Carver): Land use submittal by 15 bid project early July.Cooks Butte / Kerr Parkway Water Tank: Awaiting approved lease from City for Kerr. Design complete for Cooks and Kerr anticipate land use submittal in late June after receipt of Kerr lease.Damascus: Construction underway – tower to be erected and building set by the end of June – delayed due to HOA issue.Wilsonville: Awaiting approval of an access easement.Sandy: Construction 90% complete.Canby: Construction is 85% complete building to be set on June 15th |

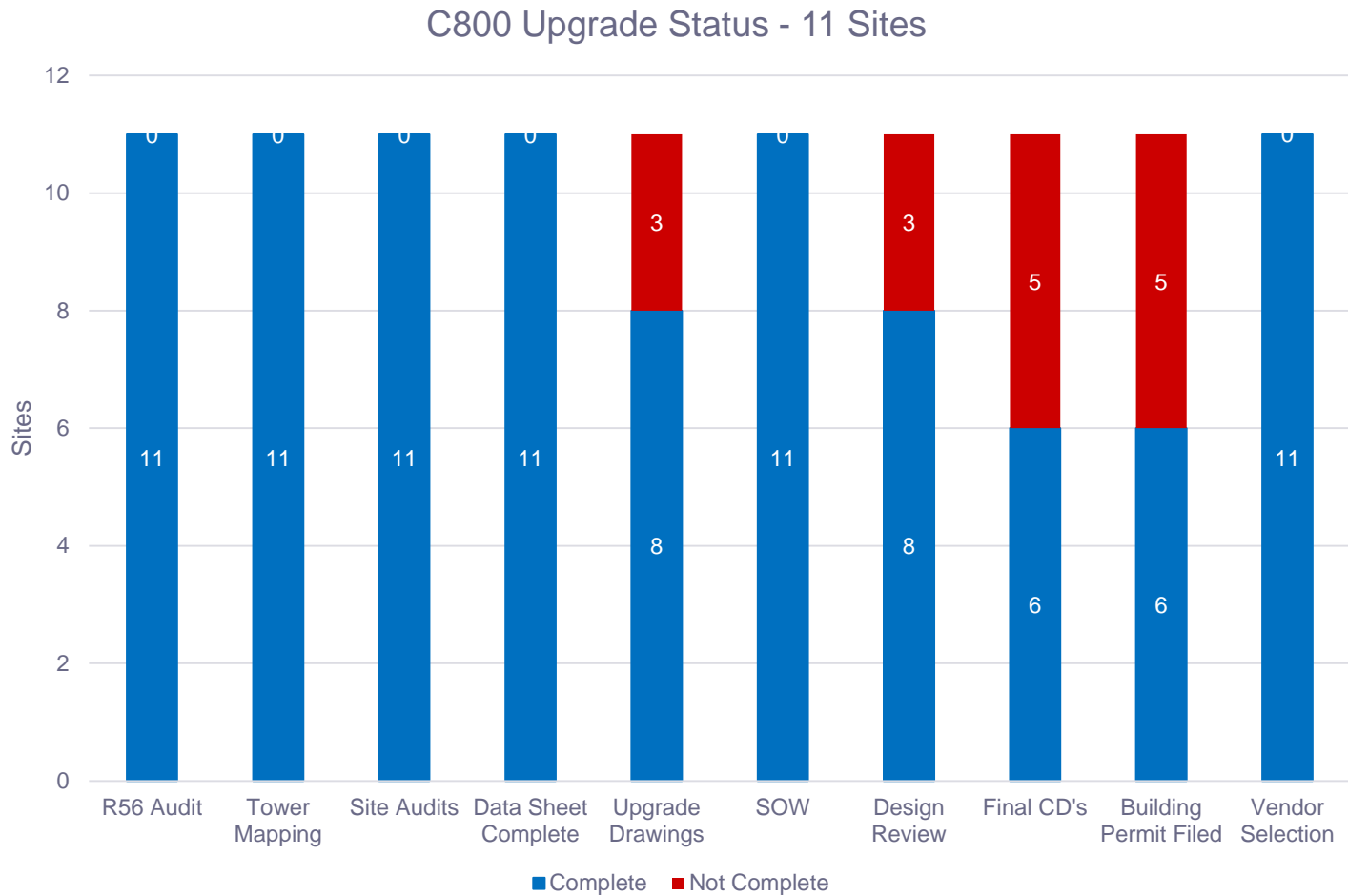
Project Status Summary

| | C800 |
|---|--|
| <ul style="list-style-type: none"> New Site Acquisition / Design / Construction: | <ul style="list-style-type: none"> Crutcher Bench (BLM): Drawings being finalized and will be submitted for permit by the end of June - bidding in July Highland Butte (BLM): Drawings being finalized and will be submitted for permit by the end of June - bidding in July Tom Dick & Harry (USFS): NEPA work underway - awaiting USFS review. Memaloose (USFS): NEPA work underway - awaiting USFS review. Oak Grove Butte (USFS): NEPA work underway - awaiting USFS review. . Whale Head (USFS): NEPA work underway - awaiting USFS review. |
| <ul style="list-style-type: none"> Existing Site Design / Construction | <ul style="list-style-type: none"> Existing Sites— 6 sites under construction Polivka and Mt Scott complete the rest are scheduled for completion by August. Balance of existing sites under design. |

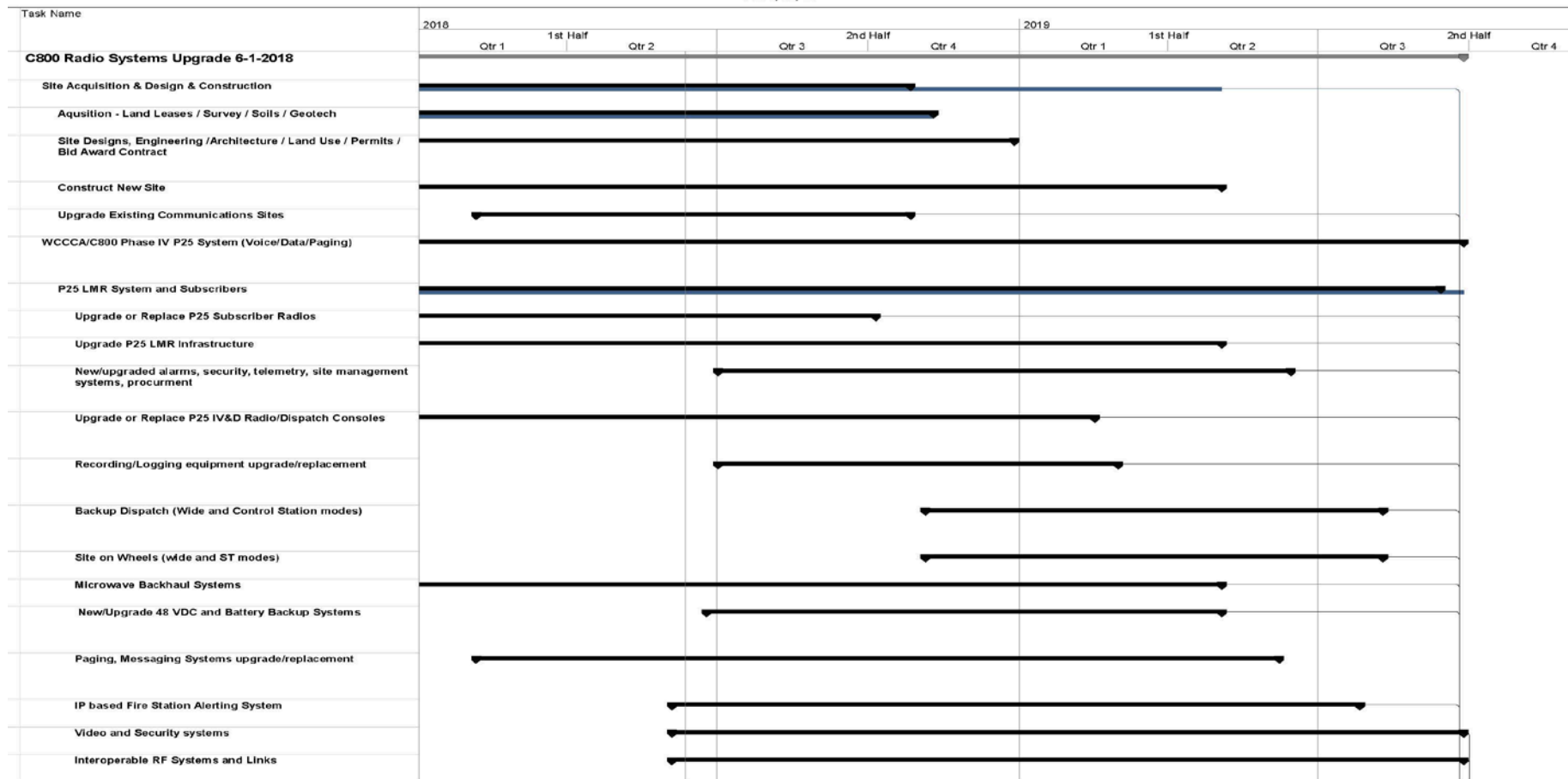
Site Acquisition Status – C800



Site Upgrade Status – C800



Project Schedule



- New Site Design & Construction complete: May 2019
- Existing Sites Upgrade complete: October 2018
- System Operational Date: October 2019



6/1/18

C800 Radio System Upgrade Budget ⁽¹⁾

| Item | Budget | Original Encumbrance | Additional Encumbrance / Change Order | Estimate to Complete | Percent Complete | Estimated Total | (Over) Under Budget | Expended |
|---|------------|----------------------|---------------------------------------|----------------------|------------------|-----------------|---------------------|--------------|
| Soft Cost | | | | | | | | |
| Site Acquisition Consulting - Quest | 60,000 | 30,000 | 40,000 | 0 | 95.81% | 70,000 | (10,000) | 67,069.81 |
| Site Acquisition Consulting / Permits - Securasite | 320,000 | 268,500 | 50,000 | 0 | 72.65% | 318,500 | 1,500 | 231,390.13 |
| Site Planning A&E - Cushing/Capital | 725,000 | 317,178 | 312,822 | 50,000 | 88.20% | 680,000 | 45,000 | 599,778.45 |
| Geotechnical+13:45 / Environmental Consulting - Black Mtn | 250,000 | 89,100 | 128,356 | 50,000 | 89.66% | 267,456 | (17,456) | 239,791.05 |
| Survey - McKay | 75,000 | 50,160 | | 20,000 | 65.46% | 70,160 | 4,840 | 45,930.00 |
| USFS Land Use Fees | 15,000 | 10,000 | 25,000 | 10,000 | 74.09% | 45,000 | (30,000) | 33,338.70 |
| Land Use Fees | 25,000 | 8,379 | | 20,000 | 29.53% | 28,379 | (3,379) | 8,379.00 |
| Plan Check / Permit Cost | 60,000 | 5,800 | | 50,000 | 17.07% | 55,800 | 4,200 | 9,525.20 |
| Printing | 2,500 | | | 2,500 | 0.00% | 2,500 | 0 | 0.00 |
| Bid Advertising | 3,500 | 60 | | 3,400 | 16.37% | 3,460 | 40 | 566.48 |
| Materials Testing & Inspection | 40,000 | 1,200 | 2,500 | 35,000 | 6.78% | 38,700 | 1,300 | 2,623.75 |
| Project Management | 300,000 | 80,000 | 202,000 | 25,000 | 41.03% | 307,000 | (7,000) | 125,969.54 |
| Legal Fees | 30,000 | 12,000 | 10,000 | 10,000 | 39.96% | 32,000 | (2,000) | 12,787.60 |
| Licensing | 20,000 | 62,000 | | 20,000 | 74.79% | 82,000 | (62,000) | 61,326.50 |
| Miscellaneous | 30,000 | 6,800 | 75,000 | 4,000 | 10.68% | 85,800 | (55,800) | 9,160.88 |
| | | | | | | | | |
| Sub-Total Soft Cost | 1,956,000 | 941,177 | 845,678 | 299,900 | 69.37% | 2,086,755 | (130,755) | 1,447,637 |
| Construction Cost | | | | | | | | |
| Site Construction | 8,895,000 | 1,681,161 | | 7,213,839 | 13.16% | 8,895,000 | 0 | 1,170,914.61 |
| Buildings | 1,350,000 | 2,710,369 | | (1,360,369) | 27.46% | 1,350,000 | 0 | 370,756.60 |
| Towers | 660,000 | 511,282 | | 148,718 | 35.45% | 660,000 | 0 | 233,969.70 |
| Generator | 500,000 | 428,750 | | 75,000 | 49.61% | 503,750 | (3,750) | 249,916.21 |
| 48VDC | 1,065,000 | | | 1,065,000 | 5.99% | 1,065,000 | 0 | 63,816.00 |
| Lake Oswego Antenna | 18,000 | 17,500 | 0 | 0 | 100.07% | 17,500 | 500 | 17,511.75 |
| Existing Sites | 100,000 | 6,400 | | 93,600 | 6.40% | 100,000 | 0 | 6,400.00 |
| | | | | | | | | |
| Sub-Total Construction Cost | 12,588,000 | 5,355,462 | 0 | 7,235,788 | 16.78% | 12,591,250 | (3,250) | 2,113,284.87 |

C800 Radio System Upgrade Budget ⁽²⁾

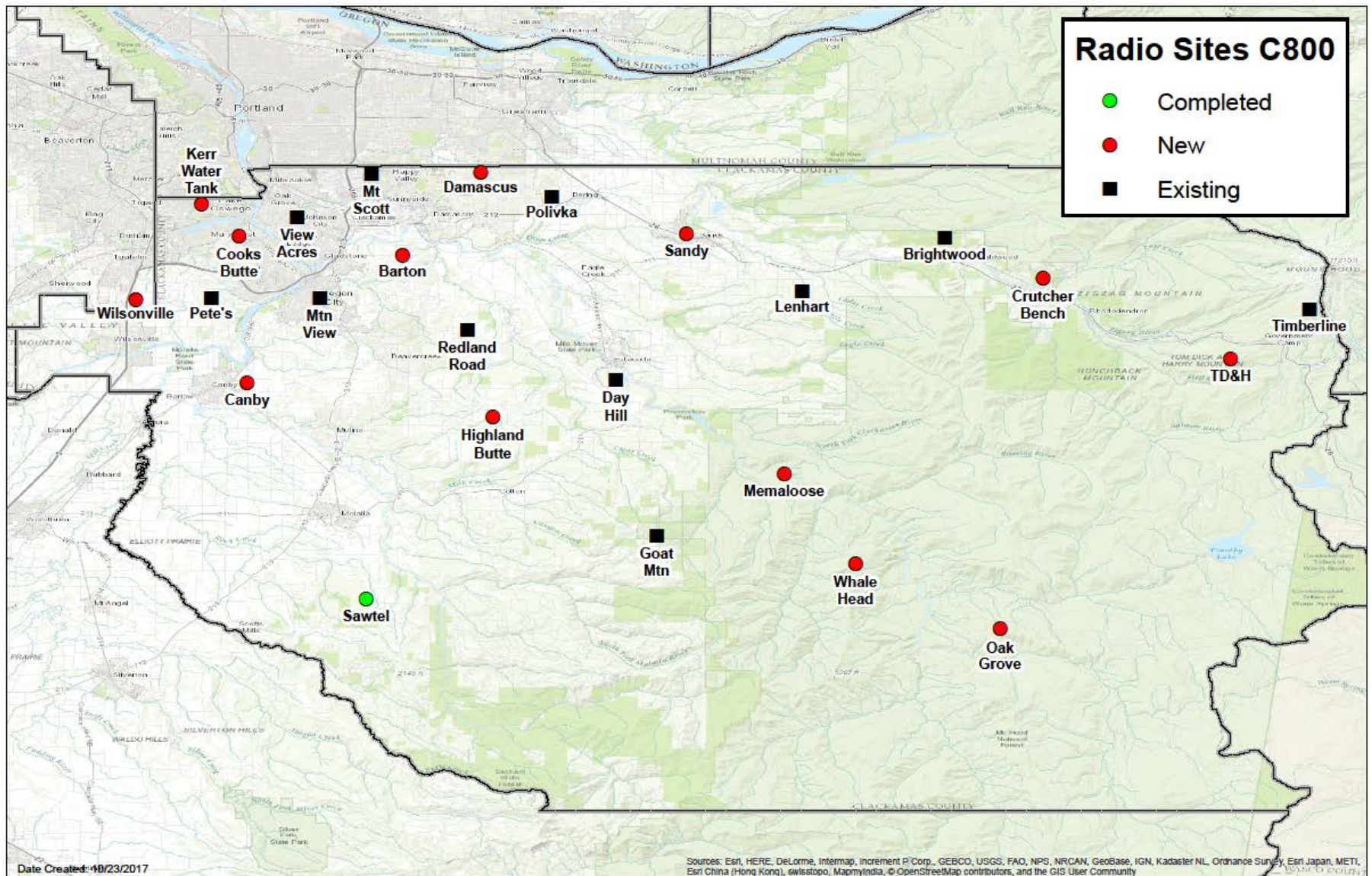
| Item | Budget | Original Encumbrance | Additional Encumbrance / Change Order | Estimate to Complete | Percent Complete | Estimated Total | (Over) Under Budget | Expended | |
|--------------------------------|--------------|-------------------------|---|-------------------------|---------------------|-----------------|------------------------|---------------|--|
| Equipment Costs | | | | | | | | | |
| Simulcast Equipment | 20,726,000 | \$19,571,566.00 | | 1,000,000 | 15.76% | 20,571,566 | 154,434 | 3,241,197.67 | |
| Master Site Equipment | in Simulcast | | | 0 | | 0 | | 0.00 | |
| Console | in Simulcast | | | 0 | | 0 | | 0.00 | |
| Back up Dispatch | in Simulcast | | | 0 | | 0 | | 0.00 | |
| Spares | 1,200,000 | | | 1,200,000 | 0.00% | 1,200,000 | 0 | 0.00 | |
| Paging | 373,000 | | | 373,000 | 0.00% | 373,000 | 0 | 0.00 | |
| Subscriber Radios | 5,000,000 | 2,151,904 | 8,542,935 | (5,694,840) | 107.76% | 4,999,999 | 1 | 5,388,193.54 | |
| Unified Push to Talk | in Simulcast | | | 188,000 | 0.00% | 188,000 | | 0.00 | |
| Asset Management | 119,000 | | | 119,000 | 0.00% | 119,000 | 0 | 0.00 | |
| Post Warranty / System Refresh | 5,800,000 | 5,812,085 | | 0 | 100.00% | 5,812,085 | (12,085) | 5,812,058.44 | |
| Test Equipment | 100,000 | | | 100,000 | 0.00% | 100,000 | 0 | 0.00 | |
| Microwave | 3,368,000 | 406,169 | | 2,961,831 | 17.62% | 3,368,000 | 0 | 593,477.01 | |
| Security System | 1,364,000 | | | 1,364,000 | 0.08% | 1,364,000 | 0 | 1,079.96 | |
| | | | | | | | | | |
| | | | | | | | | | |
| Subtotal Equipment Costs | 38,050,000 | 27,941,724 | 8,542,935 | 1,610,991 | 39.47% | 38,095,650 | 142,350 | 15,036,007 | |
| | | | | | | | | | |
| Bond Cost | 300,000 | 290,372 | | 0 | 111.43% | 290,372 | 9,628 | 323,547 | |
| | | | | | | | | | |
| Subtotal Project Cost | 52,894,000 | 34,528,735 | 9,388,613 | 9,146,679 | 35.66% | 53,064,027 | 17,973 | 18,920,476 | |
| | | | | | | | | | |
| Contingency | 6,106,612 | | | 6,106,612 | 0.00% | 6,106,612 | 0 | | |
| | | | | | | | | | |
| Total Project Cost | 59,000,612 | 34,528,735 | 9,388,613 | 15,253,291 | 31.98% | 59,170,640 | 17,973 | 18,920,476.01 | |
| | | | | | | | | | |
| Premium | 7,165,794 | | | | | | | | |

Q3'18 Quarterly Outlook

| | C800 |
|---|--|
| <ul style="list-style-type: none"> Procurement | <ul style="list-style-type: none"> Bid and award Barton / Highland Butte / Crutcher / Cooks Butte / Kerr Rd projects Bid and award DC power systems |
| <ul style="list-style-type: none"> Leases & Land Use Applications | <ul style="list-style-type: none"> Submit Cooks Butte and Kerr Rd Water Tank location for land use Submit Barton for land use and building permits |
| <ul style="list-style-type: none"> Existing Site & Building Upgrades | <ul style="list-style-type: none"> Continue to construct civil work relating to shelter/generator foundation upgrades, doors, electrical, and related site compound renovations. Bid antenna/tower upgrades |
| <ul style="list-style-type: none"> Radio / Microwave | <ul style="list-style-type: none"> Approve radio / microwave design Order radio backbone and stage system Order microwave equipment and stage system Finalize subscriber template design and distribute radios |

Appendix C

C800 Site Locations



PROJECT SUMMARY: To create an efficient, dependable public safety radio communications system that works in all parts of Clackamas County!

What's Happening With the Communications Upgrade Project?





Damascus Site



Canby Site





Sandy Site

