

**TETON COUNTY, WYOMING**  
**FY 2018-2022 CAPITAL IMPROVEMENT PLAN**

<b>OFFICE/DEPT/DIVISION:</b>	Emergency Management
<b>PROJECT TITLE:</b>	Spare Repeater
<b>PROJECT STATUS:</b>	New project - not started
<b>START/FINISH DATE:</b>	FY2018

**PROJECT MANAGER:** Nick Beck, Communications Coordinator

*Note: Be sure to complete Project Cost Spreadsheets associated with the project request. In addition, include any other graphics that describe the project (i.e. site plan, map, etc.)*

**Project Description:**

TCEM currently has one spare repeater to use in the event that a critical radio or repeater fails and is in need of immediate replacement while the broken repeater is repaired. When radios need to go back to the manufacturer for repairs, turnaround times of 4 to 6 weeks or longer are not uncommon. Public safety agencies cannot go this long without their critical communications infrastructure which is why backup repeaters are maintained by TCEM.

**Project Justification:**

Although one repeater is kept on hand by TCEM, the expansion of the County and Town's radio infrastructure (to include a new repeater at the airport, a new radio at Targhee, a new repeater on Rendezvous mountain, and a new radio at Road & Levee), a second is needed. We are seeing more simultaneous issues with radio systems requiring these backup radios be on hand. Expanding TCEM's backup repeater cache by one radio will give the community the flexibility and redundancy it needs for critical public safety communications.

**Method for Estimating Cost:**

The last repeater purchased by TCEM cost approximately \$6,500 about 1 year ago. Extra funds include cost for spare duplexer and other repeater accessories.

**Project Status (As of July 1, 2016):**

Not started

**Lifespan/Replacement Cycle and Other Special Considerations (Future Expansion/Special Features/Etc.):**

Repeaters have a fairly long service life of 15 to 20 years. Operational life when running continuously is about the same. Spare repeaters, only used when other repeaters go down, can be expected to have a lifespan of 20 plus years depending on advancements in technology of the repeaters they are expected to back up.

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**Note: Blue Shaded areas calculate automatically**

ANNUAL ADDITIONAL OPERATING COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Personnel Costs							\$0
Operating Costs							\$0
Small Capital Expenditures							\$0
<b>FTE's Added</b>							\$0

<b>Subtotal - Operating Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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LARGE CAPITAL COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Repeater		\$7,500					\$7,500
							\$0
							\$0
							\$0
							\$0

<b>Subtotal Large Capital Costs</b>	\$0	\$7,500	\$0	\$0	\$0	\$0	\$7,500
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REVENUE & OUTSIDE FUNDING SOURCES (LIST)	FUNDING TO DATE	FY 18 FUNDS	FY 19 FUNDS	FY 20 FUNDS	FY 21 FUNDS	FY 22 FUNDS	TOTAL
							\$0
							\$0
							\$0
							\$0
<b>Subtotal - Funding</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<b>Net Project Cost</b>	\$0	\$7,500	\$0	\$0	\$0	\$0	\$7,500
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**ADDITIONAL NOTES & COMMENTS**

FY 18	A spare repeater that is used only when primary repeaters fail will have little to no maintenance costs.
FY 19	
FY 20	
FY 21	
FY 22	
ADDITIONAL NOTES	

**TETON COUNTY, WYOMING**  
**FY 2018-2022 CAPITAL IMPROVEMENT PLAN**

<b>OFFICE/DEPT/DIVISION:</b>	Emergency Management
<b>PROJECT TITLE:</b>	Department Vehicle
<b>PROJECT STATUS:</b>	Replace / New
<b>START/FINISH DATE:</b>	1-Jul-17

**PROJECT MANAGER:** Rich Ochs, Coordinator

*Note: Be sure to complete Project Cost Spreadsheets associated with the project request. In addition, include any other graphics that describe the project (i.e. site plan, map, etc.)*

**Project Description:**

New vehicle for Teton County Emergency Management. Division requires at least replacement of old vehicle, but ideally addition of second vehicle. Communications Coordinator needs a vehicle to haul communications equipment and that has off-road capability for access to mountaintop communications sites. Coordinator and Program Assistant need a reliable vehicle for response to incidents and travel across the State and to other destinations. Division needs to be able to tow generator and CERT trailer as

**Project Justification:**

Current division vehicle is a repurposed Sheriff's Office vehicle with 125,000 miles. Use of personal vehicles for out of town travel, both because the current vehicle is unreliable for significant regional travel and because division personnel cannot be left without a vehicle locally, is a significant cost to the County at .54/mile. Trips to Casper are \$301.97, Riverton is \$176.36, and Cheyenne is \$466.99. Emergency Management is required to attend quarterly coordinator meetings, and although the cost of one hotel room is paid by the State, travel is the responsibility of the County. In the past, Homeland Security grants helped to pay for these, but Teton County in the latest round of Homeland Security grants was denied funding for travel.

**Method for Estimating Cost:**

Estimated MSRP for crew cab full size pickup, topper, radio, decals, emergency lights.

**Project Status (As of July 1, 2016):**

Not started

**Lifespan/Replacement Cycle and Other Special Considerations (Future Expansion/Special Features/Etc.):**

A new vehicle should be expected to serve the department for at least 8 to 10 years. One consideration is that vehicles used by emergency services have a great deal of equipment (lights, radios, mobile repeaters, mobile hotspots, decals, extra battery, etc.) and labor put into them. Investing that equipment and labor into a new or low mileage vehicle would be more prudent than putting that time, effort, and money into a high-mileage repurposed vehicle that will need replacement in 2 to 3 years.

**TETON COUNTY, WYOMING**  
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ANNUAL ADDITIONAL OPERATING COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Personnel Costs							\$0
Operating Costs		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000
Small Capital Expenditures							\$0
FTE's Added							\$10,000

Subtotal - Operating Costs	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$10,000
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LARGE CAPITAL COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
New vehicle		\$50,000					\$50,000
							\$0
							\$0
							\$0
							\$0

Subtotal Large Capital Costs	\$0	\$50,000	\$0	\$0	\$0	\$0	\$50,000
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REVENUE & OUTSIDE FUNDING SOURCES (LIST)	FUNDING TO DATE	FY 18 FUNDS	FY 19 FUNDS	FY 20 FUNDS	FY 21 FUNDS	FY 22 FUNDS	TOTAL
							\$0
							\$0
							\$0
							\$0
Subtotal - Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Net Project Cost	\$0	\$52,000	\$2,000	\$2,000	\$2,000	\$2,000	\$60,000
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**ADDITIONAL NOTES & COMMENTS**

FY 18	
FY 19	
FY 20	
FY 21	
FY 22	
ADDITIONAL NOTES	

**TETON COUNTY, WYOMING**  
**FY 2018-2022 CAPITAL IMPROVEMENT PLAN**

<b>OFFICE/DEPT/DIVISION:</b>	Emergency Management
<b>PROJECT TITLE:</b>	(2) EOC Consolette Radios
<b>PROJECT STATUS:</b>	1 of 6 EOC Consolette Radios replaced, 2 more were funded for replacement FY2017
<b>START/FINISH DATE:</b>	FY2019

**PROJECT MANAGER:** Nick Beck, Communications Coordinator

**Note: Be sure to complete Project Cost Spreadsheets associated with the project request. In addition, include any other graphics that describe the project (i.e. site plan, map, etc.)**

**Project Description:**

Replace 6 EOC consolette base station radios prior to end of Motorola service life in October 2018. Upon reaching end of service life, Motorola will no longer supply parts or factory repair for radios. Radios are being replaced over time to help spread out the expenditures.

**Project Justification:**

Teton County's EOC has 6 consolette base station radios. These radios are used by EOC personnel during activations, and are also used by TCSO Dispatch or Teton Interagency Dispatch Center if they have a facility emergency or require surge capacity for large-scale incidents. These six radios are designed to be the County's most resilient radio services in the event of a major disaster. Without proper communications during emergencies, critical services cannot be delivered to the public, resulting in loss of life, property, and damage to the environment.

**Method for Estimating Cost:**

Past consolettes have generally cost between \$5,000 and \$6,000 with WyoLink software. Estimating slightly higher cost due to newer model radios and for inflation.

**Project Status (As of July 1, 2016):**

One of six radios has been replaced, and Capital funds have been approved in the FY2017 budget for the purchase of 2 more consolette radios. Old radios that still have useful life are being repurposed for less critical needs and saved for replacement parts if needed.

**Lifespan/Replacement Cycle and Other Special Considerations (Future Expansion/Special Features/Etc.):**

Radios can generally be expected to have a lifespan of 10 to 15 years, with end of service life generally around 15 years after initial production. Newer consolette radios have the advantage of being network-ready, meaning that instead of relying on phone lines, they can leverage the County network to connect radios to remote locations. This means that radios in the EOC can be controlled from any County network port, increasing readiness and the ability to set up command posts in various County facilities. This can also eliminate the need to pay for commercial phone line service for certain connections.

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ANNUAL ADDITIONAL OPERATING COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Personnel Costs							\$0
Operating Costs							\$0
Small Capital Expenditures							\$0
<b>FTE's Added</b>							<b>\$0</b>

<b>Subtotal - Operating Costs</b>	<b>\$0</b>						
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LARGE CAPITAL COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
(2) Consolette radios		\$14,000					\$14,000
							\$0
							\$0
							\$0
							\$0

<b>Subtotal Large Capital Costs</b>	<b>\$0</b>	<b>\$14,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$14,000</b>
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REVENUE & OUTSIDE FUNDING SOURCES (LIST)	FUNDING TO DATE	FY 18 FUNDS	FY 19 FUNDS	FY 20 FUNDS	FY 21 FUNDS	FY 22 FUNDS	TOTAL
							\$0
							\$0
							\$0
							\$0
<b>Subtotal - Funding</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>Net Project Cost</b>	<b>\$0</b>	<b>\$14,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$14,000</b>
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**ADDITIONAL NOTES & COMMENTS**

FY 18	Once installed, consolette radios typically require little if any maintenance aside from preventative maintenance checks by Communications Coordinator. Operating costs above are for items like failed
FY 19	
FY 20	
FY 21	
FY 22	
ADDITIONAL NOTES	

**TETON COUNTY, WYOMING**  
**FY 2018-2022 CAPITAL IMPROVEMENT PLAN**

<b>OFFICE/DEPT/DIVISION:</b>	Emergency Management
<b>PROJECT TITLE:</b>	APX Portable Radios for Radio Cache
<b>PROJECT STATUS:</b>	Maintaining current cache
<b>START/FINISH DATE:</b>	FY2021

**PROJECT MANAGER:** Nick Beck, Communications Coordinator

*Note: Be sure to complete Project Cost Spreadsheets associated with the project request. In addition, include any other graphics that describe the project (i.e. site plan, map, etc.)*

**Project Description:**

Teton County Emergency Management maintains a communications cache. It is made up of two portable radio repeaters, two cell phone boosters, 10 WyoLink Motoroal XTS 1500 portable radios, and 10 HT-100 VHF portable radios.

**Project Justification:**

Emergency Management's radio cache has been used on incidents such as the Budge Landslide, the Andrews Sisters search, the Reitmann search, the Fauna Jackson search, and several special events in order to quickly give responders communications interoperability for life-safety missions. It has been noted in multiple publised after-action reports that there is a significant need to grow the size of this cache and keep it maintained.

The HT-100 radios are no longer supported by Motorola, and when they break they need to be disposed of. Motorola is discontinuing support of the XTS radios on December 31, 2018. In anticipation of this, Emergency Management is looking to phase in the purchase of new Motorola APX radios to replace failing HT and XTS radios that are no longer supported.

**Method for Estimating Cost:**

Quotes from radio vendors with inflation and accessory costs taken into account.

**Project Status (As of July 1, 2016):**

Emergency Management has been able to repurpose one APX portable radio into the radio cache. On past incidents, 10 WyoLink radios are not enough for integrating Federal and other outside partners. It is estimated that a cache of 15-20 radios is needed, taking into account other radio resources available locally and in the State.

**Lifespan/Replacement Cycle and Other Special Considerations (Future Expansion/Special Features/Etc.):**

Public safety radios generally have a lifespan of 10 - 15 years for service life, but if parts, factory repairs, or software updates are not needed, can last 15 years or more.

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ANNUAL ADDITIONAL OPERATING COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Personnel Costs							\$0
Operating Costs							\$0
Small Capital Expenditures							\$0
<b>FTE's Added</b>							<b>\$0</b>

<b>Subtotal - Operating Costs</b>	<b>\$0</b>						
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LARGE CAPITAL COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
(3) APX portable radios		\$16,500					\$16,500
							\$0
							\$0
							\$0
							\$0

<b>Subtotal Large Capital Costs</b>	<b>\$0</b>	<b>\$16,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,500</b>
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REVENUE & OUTSIDE FUNDING SOURCES (LIST)	FUNDING TO DATE	FY 18 FUNDS	FY 19 FUNDS	FY 20 FUNDS	FY 21 FUNDS	FY 22 FUNDS	TOTAL
							\$0
							\$0
							\$0
							\$0
<b>Subtotal - Funding</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>Net Project Cost</b>	<b>\$0</b>	<b>\$16,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,500</b>
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**ADDITIONAL NOTES & COMMENTS**

FY 18	Portable radios occassionally fail and require factory repair. Operating costs above take occasional failures into account for the entire radio cache.
FY 19	
FY 20	
FY 21	
FY 22	
ADDITIONAL NOTES	

**TETON COUNTY, WYOMING**  
**FY 2018-2022 CAPITAL IMPROVEMENT PLAN**

<b>OFFICE/DEPT/DIVISION:</b>	Emergency Management
<b>PROJECT TITLE:</b>	Service Monitor
<b>PROJECT STATUS:</b>	Replace - not started
<b>START/FINISH DATE:</b>	FY2018

**PROJECT MANAGER:** Nick Beck, Communications Coordinator

**Note: Be sure to complete Project Cost Spreadsheets associated with the project request. In addition, include any other graphics that describe the project (i.e. site plan, map, etc.)**

**Project Description:**

TCEM's Communications Coordinator utilizes a sophisticated piece of diagnostic equipment called a service monitor to troubleshoot portable, mobile, base-station, and repeater radios. This equipment can read RF signals, generate tones, and record issues for further diagnosis by radio manufacturers to help repair radios. TCEM was notified that our current service monitor will no longer be supported in 2017.

**Project Justification:**

The Service Monitor is only useful if it is properly calibrated. Although the current service monitor is working within specified range and was calibrated 2 years ago, if anything on it breaks or it deviates out of calibration (as they do over time with normal use), starting in 2017 we will no longer be able to repair or maintain it. This equipment is required for the Communications Coordinator to carry out his job responsibilities of troubleshooting and diagnosing public safety radio system issues.

**Method for Estimating Cost:**

When originally purchased in 2005, service monitor cost just over \$29,000. Taking inflation into account, \$40,000 was requested for this project. TCEM is waiting to hear back from manufacturer on quote for new monitor and possible trade-in discount.

**Project Status (As of July 1, 2016):**

Not started

**Lifespan/Replacement Cycle and Other Special Considerations (Future Expansion/Special Features/Etc.):**

Lifespan should be expected to last at least 10 years.

**TETON COUNTY, WYOMING**  
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ANNUAL ADDITIONAL OPERATING COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Personnel Costs							\$0
Operating Costs		\$0	\$1,700	\$0	\$1,700	\$0	\$3,400
Small Capital Expenditures							\$0
FTE's Added							\$3,400

<b>Subtotal - Operating Costs</b>	<b>\$0</b>	<b>\$1,700</b>	<b>\$0</b>	<b>\$1,700</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,400</b>
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LARGE CAPITAL COSTS	BUDGET TO DATE	FY 18 COST	FY 19 COST	FY 20 COST	FY 21 COST	FY 22 COST	TOTAL
Service monitor		\$40,000					\$40,000
							\$0
							\$0
							\$0
							\$0

<b>Subtotal Large Capital Costs</b>	<b>\$0</b>	<b>\$40,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$40,000</b>
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REVENUE & OUTSIDE FUNDING SOURCES (LIST)	FUNDING TO DATE	FY 18 FUNDS	FY 19 FUNDS	FY 20 FUNDS	FY 21 FUNDS	FY 22 FUNDS	TOTAL
							\$0
							\$0
							\$0
							\$0
<b>Subtotal - Funding</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>Net Project Cost</b>	<b>\$0</b>	<b>\$40,000</b>	<b>\$1,700</b>	<b>\$0</b>	<b>\$1,700</b>	<b>\$0</b>	<b>\$43,400</b>
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**ADDITIONAL NOTES & COMMENTS**

FY 18	Service monitor requires calibration at least every 2 years.
FY 19	
FY 20	
FY 21	
FY 22	
ADDITIONAL NOTES	