



Department: Information Technology
Cost Center: 1101
For Agenda of: 2/4/2025
Placement: Consent
Estimated Time: N/A

FROM: Greg Hermann, Deputy City Manager
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SUBJECT: SURPLUS DESIGNATION OF RADIO INFRASTRUCTURE EQUIPMENT

RECOMMENDATION

Authorize the surplus designation of radio backend equipment and disposal of the equipment through a combination of transfer to California Polytechnic State University San Luis Obispo (Cal Poly), transfer to the Cal Poly Radio Club, and auction in accordance with the City's policies and procedures as prescribed in the Financial Management Manual Section 480-A and 480-B.

POLICY CONTEXT

In compliance with the City's Charter Section 906, policies and procedures that govern how surplus materials are disposed of are provided in Section 480-A and 480-B of the Financial Management Manual. The equipment recommended for surplus is no longer used and is ready to be designated as surplus. These items have an estimated value of more than \$1,000 and, therefore, require Council approval before they can be designated surplus.

DISCUSSION

Background

The City has policies and procedures governing the designation of surplus items. This report discusses the radio backend infrastructure no longer used by the Information Technology Division (IT), which has been assessed to have sufficient value to require Council approval prior to a surplus designation.

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The radio backend equipment requested for surplus was put into operation in 2010 to serve the communication needs of the City's first responders and frontline personnel. Upon entering 11 years in service, IT staff started experiencing issues with sourcing replacement parts for portions of the system as they failed. This was anticipated based on the projected lifecycle, with a planned replacement Capital Improvement Project (CIP) for the radio backend infrastructure in the 2017-19 Financial Plan. The project was not executed until 2021, with the South Hills Radio Tower and Shelter Replacement taking precedence. The radio backend replacement project reached completion in Fall 2021, replacing the QS2 Public Safety Radio System. This rendered the requested surplus equipment (listed below) obsolete.

Surplus Equipment List:

Manufacturer	Model	Estimated Value	Quantity	Total
Tait	TB9100 ¹	\$ 700.00	1	\$ 700.00
Tait	TB8100 ²	\$ 500.00	38	\$ 19,000.00
Raytheon	JPS SNV-12 ³	\$ 400.00	10	\$ 4,000.00
Tait	QS2 Central Processor ⁴	\$ 250.00	8	\$ 2,000.00
Tait	T801 Reference ⁵	\$ 100.00	3	\$ 300.00
Grand total				\$ 26,000.00

¹ The Tait TB9100 is a P25-capable base station with analog support. The P25 standard refers to a two-way radio that adheres to the "Project 25" standard, which is a set of standards designed to ensure interoperability between different public safety agencies' radio systems, allowing them to communicate effectively during emergencies across various departments like police, fire, and EMS. The TB9100 consolidated many of the features found in other pieces of equipment into one chassis, thus reducing cost and space requirements.

² The Tait TB8100 base stations are analog base stations with P25 support but require additional hardware to support digital transmissions. Most of the City's previous radio system was built to be analog only, and these base stations were used heavily.

³ The Raytheon JPS SNV-12 is a signal and noise voter required for proper voting of signal strength provided by TB8100 units in a simulcast system. Units will analyze inbound signals to determine which base station is receiving the best quality signal to prevent multiple audio paths and ensure only the best signal is selected.

⁴ The Tait QS2 Central Processor is used in analog radio systems to process simulcast transmissions, ensuring that all transmit sites send synchronized signals to prevent garbled transmissions.

⁵ The Tait TB801 Frequency Reference Module was used to maintain the frequency of TB8100 and TB9100 base stations at each transmit site, providing pulse per second (PPS) timing and global positioning system (GPS) site synchronization to ensure reliable and synchronized transmissions.

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Collectively, the current value of the radio backend equipment parts is estimated at \$26,000. Staff are requesting authorization to dispose of the equipment by three methods:

- Transfer to California Polytechnic State University, San Luis Obispo (Cal Poly)
- Transfer to Cal Poly Radio Club
- Auction

Transfer to California Polytechnic State University San Luis Obispo

California Polytechnic State University San Luis Obispo (Cal Poly) currently uses the surplus models of Tait radio equipment to maintain radio communications on campus for operational departments and the University Police Department. This equipment is also used for communication with City Fire and Police Departments when providing service on campus. Cal Poly Information Technology Services (ITS) has indicated that the surplus models would be beneficial and support their ongoing operations. As such, the following subset of equipment is recommended for transfer to Cal Poly ITS:

Manufacturer	Model	Estimated Value	Quantity	Total
Tait	TB9100	\$ 700	1	\$ 700
Tait	TB8100	\$ 500	10	\$ 5,000
Raytheon	JPS SNV-12	\$ 400	5	\$ 2,000
Grand Total				\$ 7,700

In exchange for the value of the equipment provided, Cal Poly ITS staff have agreed to provide a corresponding amount of in-kind service for specialized support of City radio systems. Cal Poly has a certified radio support staff person with the ability to provide support that would otherwise require the City to work with an outside contractor and will therefore provide a small budget savings.

Transfer to Cal Poly Radio Club

The California Polytechnic State University Amateur (Ham) Radio Club (the Club) has a long tradition of providing communications services on campus and in San Luis Obispo County. Their club station, W6BHZ, is equipped with high-frequency radio transceivers capable of worldwide communications. The station also acts as a San Luis Obispo County Emergency Communications Center, as it is fully equipped with emergency power and radio equipment to support various public safety agencies in the event of a disaster. The club trains routinely with local agencies in mock-disaster situations. It has provided emergency communications during the Highway 41 Fire, the Loma Prieta earthquake, and other local and statewide disasters. The club also supports non-emergency events such as bicycle races, triathlons, and parades. Club radio operators maintain communications both for event logistics and medical emergencies. The Club's current equipment inventory is significantly dated compared to the proposed surplus equipment. This donation would serve as an upgrade in addition to providing replacement parts. This will allow the Club to better serve the community when called upon, especially in disaster situations. The following subset of equipment is recommended for transfer to the Club:

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Manufacturer	Model	Estimated Value	Quantity	Total
Tait	TB8100	\$ 500	4	\$ 2,000
Raytheon	JPS SNV-12	\$ 400	2	\$ 800
Grand Total				\$ 2,800

Auction

It is recommended that the remainder of the surplus equipment be auctioned per the policies and procedures that govern how surplus materials are disposed of provided in Section 480-B of the Financial Management Manual. The remainder of the equipment is as follows:

Manufacturer	Model	Estimated Value	Quantity	Total
Tait	TB8100	\$ 500	24	\$ 12,000
Raytheon	JPS SNV-12	\$ 400	3	\$ 1,200
Tait	QS2 Central Processor	\$ 250	8	\$ 2,000
Tait	T801 Reference	\$ 100	3	\$ 300
Grand Total				\$ 15,500

Previous Council or Advisory Body Action

Council approved the Public Safety Radio Infrastructure Replacement project, which made this equipment obsolete at the [April 6, 2021, Council Meeting](#).

Public Engagement

This item is on the 02/04/2025 City Council meeting agenda and will follow all required postings and notifications. The public will have an opportunity to comment on this item at or before the meeting.

ENVIRONMENTAL REVIEW

The California Environmental Quality Act (CEQA) does not apply to the recommended actions in this report, because none of the actions constitute a "Project" under CEQA Guidelines Sec. 15378.

FISCAL IMPACT

Budgeted: No
 Funding Identified: N/A

Budget Year: 2024-25

Fiscal Analysis:

Funding Sources	Total Budget Available	Current Funding Request	Remaining Balance	Annual Ongoing Cost
General Fund	\$0	\$0	\$0	\$0
State				
Federal				
Fees				
Other:				
Total	\$0	\$0	\$0	\$0

Staff conservatively estimates that the sale of surplus items will generate approximately \$10,000 at auction. Funds generated by the sale of surplus items will be returned to the General Fund.

ALTERNATIVES

1. **Council could decide to deny the surplus designation.** Denial of the surplus designation would result in e-waste costs to dispose of the property and would deny partner agencies the ability to serve the community better; therefore, staff does not recommend this alternative.
2. **Council could specify a different mix of surplus methods.** For example, Council could approve the transfer to only one of the partner agencies listed and direct a greater share to auction.

ATTACHMENTS

None.