

BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

MEMORANDUM

BUDGET AND FINANCE COMMITTEE

SAN FRANCISCO BOARD OF SUPERVISORS

TO: Supervisor Malia Cohen, Chair
Budget and Finance Committee

FROM: Linda Wong, Assistant Clerk

DATE: October 23, 2017

SUBJECT: **COMMITTEE REPORT, BOARD MEETING**
Tuesday, October 24, 2017

The following file should be presented as a **COMMITTEE REPORT** at the Board meeting on Tuesday, October 24, 2017, at 2:00 p.m. This item was acted upon at the Committee Meeting on Thursday, October 19, 2017, at 1:00 p.m., by the votes indicated.

Item No. 37 **File No. 171012**

Ordinance appropriating \$6,814,850 Water Enterprise fund balance to fund the installation of a new Water Enterprise Land Mobile Radio System in FY2017-2018.

AMENDED, AMENDMENT OF THE WHOLE BEARING NEW TITLE

Vote: Supervisor Malia Cohen - Aye
Supervisor Norman Yee - Absent
Supervisor Katy Tang - Aye
Supervisor Aaron Peskin - Aye

Ordinance appropriating \$4,094,850 Water Enterprise fund balance and de-appropriating \$2,720,000 from the Water Enterprise's operating budget to fund the installation of a new Water Enterprise Land Mobile Radio System in FY2017-2018.

RECOMMENDED AS COMMITTEE REPORT

Vote: Supervisor Malia Cohen - Aye
Supervisor Norman Yee - Absent
Supervisor Katy Tang - Aye
Supervisor Aaron Peskin - Aye

c: Board of Supervisors
Angela Calvillo, Clerk of the Board
Jon Givner, Deputy City Attorney
Alisa Somera, Legislative Deputy Director

AMENDED IN COMMITTEE
10/19/17

FILE NO. 171012

ORDINANCE NO.

RO#18007
SA#40-07

[Appropriation and De-Appropriation – Water Enterprise Fund Balance and Operating Budget
- Land Mobile Radio System - FY2017-2018 - \$6,814,850]

Ordinance appropriating ~~\$6,814,850~~ \$4,094,850 Water Enterprise fund balance and de-
appropriating \$2,720,000 from the Water Enterprise's operating budget to fund the
installation of a new Water Enterprise Land Mobile Radio System in FY2017-2018.

Note: Unchanged Code text and uncodified text are in plain Arial font.
Additions to Codes are in *single-underline italics Times New Roman font*.
Deletions to Codes are in *strikethrough italics Times New Roman font*.
Board amendment additions are in double-underlined Arial font.
Board amendment deletions are in ~~strikethrough Arial font~~.

Be it ordained by the People of the City and County of San Francisco:

Section 1. The sources of funding outlined below are herein appropriated to reflect the funding
available for Fiscal Year 2017-2018.

SOURCES Appropriation

Fund /	Project & Activity /	Account	Description	Amount
Department ID	Authority			
25940	10029994_0010 /	Use of Fund	Water Enterprise Fund	\$6,814,850
SFWD Operating/	10000	Balance	Balance	<u>\$4,094,850</u>
232396				
Total SOURCES Appropriation				\$6,814,850
				<u>\$4,094,850</u>

1 Section 2. The uses of funding outlined below are herein de-appropriated to reflect the funding
 2 available for re-appropriation for the Water Enterprise Land Mobile Radio System as described
 3 in Section 3.

4
 5 USES De-Appropriation

<u>Fund /</u>	<u>Project & Activity /</u>	<u>Account</u>	<u>Description</u>	<u>Amount</u>
<u>Department ID</u>	<u>Authority</u>			
25940	10029994 0010 /	561000	Equipment Lease and	\$2,720,000
SFWD Operating/	10000		Purchase	
232396				
<u>Total USES De-Appropriation</u>				<u>\$2,720,000</u>

13
 14 Section 23. The uses of funding outlined below are herein appropriated in Account 584030,
 15 Capital Renewal Projects, to install a new Water Enterprise Land Mobile Radio System to unify
 16 the San Francisco Public Utilities Commission communications in Fiscal Year 2017-2018.

17
 18 USES Appropriation and Re-Appropriation

19
 20
 21
 22
 23
 24
 25

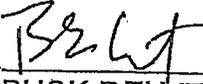
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Fund / Department ID	Project & Activity / Authority	Account	Description	Amount
26570	10015117_0001 /	584030	Capital Renewal	\$2,385,198
WTR CPF Other Fund/ 232421	15513		Projects – Communication & Monitoring	
26600	10015117_0001 /	584030	Capital Renewal	\$4,429,652
WTR CPF Wholesale Customer Fund / 232421	15513		Projects – Communication & Monitoring	
Total USES Appropriation				\$6,814,850

Section 34: The Controller is authorized to record transfers between funds and adjust the accounting treatment of sources and uses appropriated in this ordinance as necessary to conform to Generally Accepted Accounting Principles.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: 
BUCK DELVENTHAL
Deputy City Attorney

FUNDS AVAILABLE
BEN ROSENFELD, Controller

By: 
BEN ROSENFELD
Controller

<p>Items 4 and 5 Files 17-1006 and 17-1012</p>	<p>Department: Public Utilities Commission (PUC)</p>
------------------------------------------------------------------	-----------------------------------------------------------------

EXECUTIVE SUMMARY

Legislative Objectives

- **File 17-1006:** The proposed resolution would authorize the General Manager of the San Francisco Public Utilities Commission (SFPUC) to execute an agreement with Motorola Solutions Inc. (Motorola) for the purchase, installation and maintenance of a land mobile radio system, for an amount not-to-exceed \$10,906,297, for a nine-year, 3 month term from approximately December 1, 2017 through February 28, 2027.
- **File 17-1012:** The proposed ordinance would appropriate \$6,814,850 from the Water Enterprise fund balance to partially fund the installation of a new Water Enterprise Land Mobile Radio System in FY 2017-18.

Key Points

- The San Francisco Public Utilities Commission (SFPUC) Water Enterprise currently uses a radio system for day-to-day operations. The system is difficult to use and lacks critical features such as GPS to locate staff during emergencies. SFPUC selected Motorola through a competitive process to design, install, and implement a new radio system to support Water Enterprise operations across seven counties. According to SFPUC, the proposed new radio system will be interoperable with the City's Emergency Radio Replacement Project.
- The agreement with Motorola consists of three major elements: (a) complete system design and installation; (b) system network equipment; and (c) eight years of comprehensive system maintenance, repair, and upgrades for a total of \$10,906,297.
- The SFPUC will continue using the legacy system, maintained by the Department of Technology, for two years until February 2019, when the new system is operational. The new system will be maintained by Motorola from March 2019 until February 2027.

Fiscal Impact

- Of the total \$10,906,297, \$9,121,131 is allocated to project support (planning, designing, engineering, installation and testing) and equipment; and \$1,785,166 is allocated to annual maintenance in years two through nine. In addition, SFPUC will have estimated staff, rent, and power costs of \$890,984 to support the radio system between FY 2017-18 and FY 2026-27.
- The Board of Supervisors previously appropriated \$2,720,000 to the Water Enterprise FY 2016-17 and FY 2017-18 operating budget to fund the radio replacement project. Therefore, the Board of Supervisors should amend the proposed ordinance to appropriate \$4,094,850 from Water Enterprise fund balance and \$2,720,000 from the Water Enterprise FY 2016-17 and FY 2017-18 operating budget, totaling \$6,814,850.

Recommendations

- Amend the proposed ordinance to appropriate \$4,094,850 from Water Enterprise fund balance and \$2,720,000 from the Water Enterprise FY 2016-17 and FY 2017-18 operating budget, for a total appropriation of \$6,814,850.
- Approve the proposed resolution and ordinance as amended.

MANDATE STATEMENT

City Charter Section 9.103 states that Board of Supervisors may amend the appropriation ordinance for Capital Improvements.

City Charter Section 9.118(b) states that any contract entered into by a department, board or commission that (1) has a term of more than ten years, (2) requires expenditures of \$10 million or more, or (3) requires a modification of more than \$500,000 is subject to Board of Supervisors approval.

BACKGROUND

The San Francisco Public Utilities Commission (SFPUC) currently uses two radio systems. The first system, operated by the Department of Emergency Management, is a public safety radio system used by City departments as well as the State Parole and the US Marshalls. The first system covers the City only, and is currently being replaced by a new standard Motorola system as part of the Emergency Radio Replacement Project.

The second system, which was deployed in 2004, is used by SFPUC’s Water Enterprise for day-to-day operations such as power shutdowns and clearances, water valve operations, and disinfection processes. The second system is a legacy low-band radio system that has inadequate coverage across the seven counties in which SFPUC has facilities. The system is difficult to use and lacks critical features such as GPS to locate staff during emergencies and built-in portability that became an issue during the Rim fire.

In 2015, SFPUC hired AECOM, a private consulting firm, to determine options for replacing the Water Enterprise radio system. AECOM estimated in May 2015 that the design, installation and use of a new Standard 800 MHz system would cost between \$45,000,000 and \$60,000,000. Due to the high cost of the estimate, the SFPUC expanded options in their request for proposals to include cost-saving measures, such as use of existing City infrastructure.

In January 2017, SFPUC Information Technology Services issued a request for proposals (RFP) to replace the Water Enterprise’s low frequency radio system. SFPUC received three proposals for a ten (10) year contract: Motorola Solutions, Inc. (Motorola), Metro Mobile Communications, and Crystal Communications, as seen in Table 1 below.

Table 1: Summary of bids to replace the Water Enterprise’s radio system

Bidder	Cost	Lease or Own	Point total
Motorola Solutions, Inc.	\$10,906,297	Own	120
Metro Mobile Communications	\$4,821,620	Own/ lease	114
Crystal Communications	\$9,304,000	Lease	104

The proposals were evaluated by the SFPUC’s Contract Monitoring Division and subject matter experts consisting of City employees from SFPUC Information Technology Services, SFPUC Hetch Hetchy Water, and the Department of Technology. Although Metro Mobile Communications’ bid was much lower than Motorola, the proposed system did not cover the

seven counties in which SFPUC has facilities. Motorola was ranked the highest responsive bidder, and SFPUC entered into negotiations.

DETAILS OF PROPOSED LEGISLATION

File 17-1006: The proposed resolution would authorize the General Manager of the San Francisco Public Utilities Commission to execute an agreement with Motorola Solutions Inc. (Motorola) for the purchase, installation and maintenance of a land mobile radio system, for an amount not-to-exceed \$10,906,297, for a nine-year, 3 month term from approximately December 1, 2017 through February 28, 2027.

File 17-1012: The proposed ordinance would appropriate \$6,814,850 from the Water Enterprise fund balance to partially fund the installation of a new Water Enterprise land mobile radio system in FY 2017-18.

Agreement with Motorola Solutions, Inc. (File 17-1006)

The agreement with Motorola consists of three major elements: (a) complete system design and installation services; (b) system network equipment including radio infrastructure, dispatch consoles, 540 handheld radios, and 52 mobile radios for the life of the contract; and (c) eight years of comprehensive system maintenance and repair with all system upgrades for a total of \$10,906,297.

The City may terminate the agreement if Motorola fails to provide deliverables or a system that meets the acceptance criteria and tests by the City. In addition to the acceptance tests, Motorola will perform an operation test to ensure no deficiencies in the communications system.

According to Mr. Ken Salmon, SFPUC IT Director and Chief Information Officer, the SFPUC will continue using the legacy system, maintained by the Department of Technology, for two years until February 2019, when the new system is operational. The new system will be maintained by Motorola from March 2019 until February 2027.

Interoperability with San Francisco's Emergency Radio Replacement Project

In October 2016, the Board of Supervisors authorized the Department of Emergency Management and Department of Technology to enter into an agreement with Motorola for purchase, installation, maintenance and support of the Citywide 800 MHz radio system as part of the City's Emergency Radio Replacement Project. The agreement extends through September 1, 2035 for not to exceed amount of \$76,000,000. The City's Emergency Radio Replacement Project will combine the existing public safety and public service radio systems into one comprehensive network, including the Airport. According to Mr. Salmon, the Water Enterprise radio system will be interoperable, and the City will be able to patch both systems together during emergencies.

FISCAL IMPACT**Appropriation of Funds (File 17-1012)**

The sources and uses of funds to pay for the proposed agreement between SFPUC and Motorola to install and maintain a radio system of SFPUC's operation of facilities in seven counties are shown in Table 2 below.

Table 2: Sources and Uses for the Agreement Between SFPUC and Motorola

Sources	
<i>FY 2017-18 Funding</i>	
Communication and Monitoring Program Capital Fund (previously appropriated)	\$2,306,281
Water Enterprise Fund balance (File 17-1012 pending ordinance approval)	6,814,850
<i>Subtotal, FY 2017-18 Funding</i>	<i>\$9,121,131</i>
<i>Future Funding</i>	
Water Enterprise Operating Budget	1,785,166
Total Sources	\$10,906,297
Uses	
<i>Project Support</i>	
Planning and Design	\$999,567
Engineering, Permitting, Site Development	2,599,291
Installation and Testing	1,561,366
<i>Project Support Subtotal</i>	<i>5,160,225</i>
<i>Equipment</i>	
Initial Project Equipment	366,412
Infrastructure Equipment	2,667,797
Portable Radios	926,697
<i>Equipment Subtotal</i>	<i>3,960,906</i>
<i>Project Support and Equipment</i>	<i>\$9,121,131</i>
Annual Maintenance Year 2 thru 9	1,785,166
Total Uses	\$10,906,297

Of the total \$10,906,297, \$9,121,131 is allocated to project support (planning, designing, engineering, installation and testing) and equipment; and \$1,785,166 is allocated to annual maintenance in years two through nine. The SFPUC Communication and Monitoring Program Capital Fund will provide \$2,306,281 for the project, and the remaining \$6,814,850 will be appropriated from the Water Enterprise Fund balance pending approval of the proposed ordinance. If this ordinance is approved, the Water Enterprise Fund balance will be reduced from approximately \$167 million to approximately \$160 million.

Motorola Maintenance and Support Agreement

Of the total \$10,906,297, \$1,785,166 of the proposed system will be for eight years of comprehensive system maintenance and support. Table 4 below shows the yearly cost of the maintenance and support, including equipment upgrades. Annual maintenance will be funded by the annual operating budget of the Water Enterprise.

Table 4: Eight Year Maintenance and Support Costs

FY 2019-20	\$232,621
FY 2020-21	236,145
FY 2021-22	239,764
FY 2022-23	243,483
FY 2023-24	203,437
FY 2024-25	206,616
FY 2025-26	209,876
FY 2026-27	213,224
Total	1,785,166

According to Mr. Salmon, the maintenance and support agreement between SFPUC and Motorola includes a system upgrade and refresh component, which will require Motorola to upgrade all of the radio and equipment software and hardware to be compatible with new releases every two years. This will allow SFPUC to follow the Emergency Radio Replacement Project's bi-annual upgrades to allow for consistent interoperability.

Other City Costs

SFPUC estimates additional costs of \$890,984 between FY 2017-18 and FY 2026-27 to pay for a partial SFPUC Communications Manager position, rent for new radio sites, and power connections.

Table 5: Projected Additional City Costs from FY 2017-18 through FY 2026-27

Communications Manager (Partial position through FY 2021-22)	\$414,984
Rent of three new radio sites	396,000
Power connection for radio site (potential)	80,000
Total	\$890,984

The Communications Manager will be paid with funds from the SFPUC Communication and Monitoring Program Capital Fund. The rents for the three new radio sites will be paid through the Water Enterprise's Operating Budget, while the power connection, if necessary, is included in the contingency amount of the project.

POLICY CONSIDERATION

Recommended Reduction in Requested Appropriation

The Board of Supervisors previously appropriated \$2,720,000 to the Water Enterprise FY 2016-17 and FY 2017-18 operating budget to fund the radio replacement project. Therefore, the Board of Supervisors should amend the proposed ordinance to appropriate \$4,094,850 from Water Enterprise fund balance and \$2,720,000 from the Water Enterprise FY 2016-17 and FY 2017-18 operating budget, for a total appropriation of \$6,814,850.

RECOMMENDATIONS

1. Amend the proposed ordinance to appropriate \$4,094,850 from Water Enterprise fund balance and \$2,720,000 from the Water Enterprise FY 2016-17 and FY 2017-18 operating budget, for a total appropriation of \$6,814,850.
2. Approve the proposed resolution and ordinance as amended.



525 Golden Gate Avenue, 7th Floor
San Francisco, CA 94102
T 415.554.0773
cleanpowersf@sfwater.org

August 31, 2017

The Honorable Edwin Lee
Mayor, City and County of San Francisco
City Hall, Room 200

The Honorable Board of Supervisors
City Hall, Room 244

Ben Rosenfield, Controller
City Hall, Room 316

Subject: SFPUC – Land Mobile Radio Replacement System \$6,814,850

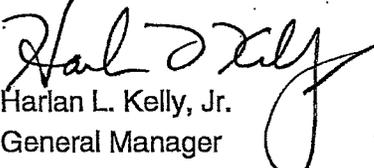
Ladies and Gentlemen:

Attached is a completed copy of the Request for Supplemental Appropriation in the amount of \$6,814,850 for the Water Enterprise.

These funds are necessary to fund the installation of a new Water Enterprise Land Mobile Radio System.

Funding for this supplemental request will come from Water Enterprise revenues.

Regards,


Harlan L. Kelly, Jr.
General Manager

Attachments

Edwin M. Lee
Mayor

Anson Moran
President

Ike Kwon
Vice President

Ann Moller Caen
Commissioner

Francesca Vietor
Commissioner

Vince Courtney
Commissioner

Harlan L. Kelly, Jr.
General Manager



OFFICE OF THE MAYOR
SAN FRANCISCO



EDWIN M. LEE

TO: Angela Calvillo, Clerk of the Board of Supervisors
FROM: *Ed* Mayor Edwin M. Lee *Ed*
RE: Appropriation – \$6,814,850 of Water Enterprise Fund Balance to fund the
installation of a new Land Mobile Radio System – FY 2017-2018
DATE: September 19, 2017

Attached for introduction to the Board of Supervisors is an ordinance appropriating \$6,814,850 Water Enterprise fund balance to fund the installation of a new Water Enterprise Land Mobile Radio System in FY 2017-2018.

Should you have any questions, please contact Mawuli Tugbenyoh (415) 554-5168.

RECEIVED
BOARD OF SUPERVISORS
SAN FRANCISCO
2017 SEP 19 PM 4:02
Ed

7u 171012



San Francisco
Water
Power
Sewer

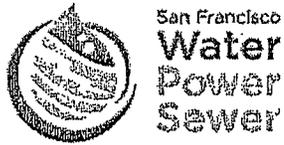
Services of the San Francisco Public Utilities Commission

SFPUC Land Mobile Radio System Replacement Project

October 17, 2017

**Ken Salmon, Director
IT Services**

82



Background

SFPUC currently uses two radio systems:

1) High-Band CCSF Radio System:

- Used by CCSF
- Used by SFPUC Wastewater, Power, Customer Service Bureau and some local Water Enterprise staff
- CCSF is replacing this system with a new Motorola System

2) Low-Band Water Enterprise System:

- Used only by SFPUC Water Enterprise
- Spans seven counties
- Has incomplete coverage
- Lacks necessary features
- Unreliable for daily and disaster recovery communications
- System is end-of-life and must be replaced



Request for Proposals

- In January 2017, SFPUC issued an RFP to replace Water Enterprise's Low-Band Radio System. Open to different options with emphasis on the following:
 - Turn-Key, trunked, digital system
 - Interoperability with CCSF system
 - 7 county coverage
 - Priority and resiliency/disaster preparedness
 - Fully licensable spectrum
 - Cost-effective
 - Open to lease and/or purchase
 - System warranty and post implementation support



Motorola Solutions (Selected Proposal)

- SFPUC received 3 proposals. Selected Motorola Solutions for the following reasons:
 - Turn-key, standard, digital, trunked radio system with proven technology used by CCSF, Wastewater, Power, Customer Service Bureau and some of Local Water available for purchase.
 - Interoperable with the CCSF and mutual aid partners' standard radio systems. Inherent prioritization because the SFPUC will not share channels.
 - Fully feasible and licensable with guaranteed coverage/voice quality that exceeds SFPUC's requirements across all seven counties.
 - SFPUC will own the system equipment (including all radio infrastructure, towers, dispatch consoles, and radios) and FCC licenses to operate the system beyond ten years.
 - 24/7 break/fix support over life of the contract.



San Francisco
Water
Power
Sewer

Funding

- **Contract Not-to-Exceed Amounts:**

Purpose	Expense Type	Amount
Equipment & Services	Capital	\$9,121,131
Annual Maintenance	Operating/8 yrs.	<u>\$1,785,166</u>
		\$10,906,297

- **Funding :**

- **Equipment & Services (\$9,121,131):**

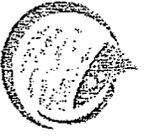
- Existing \$2,306,281 available in SFPUC Capital Budget.
- Ordinance to appropriate \$4,094,850 from Water Enterprise fund balance and \$2,720,000 from the Water Enterprise FY 2016-17 and FY 2017-18 operating budget, totaling \$6,814,850.

- **Maintenance (\$1,785,166):** Water Enterprise operating budget will provide total of \$1,785,166 for the 8 years of maintenance.



Summary of Requests

- **Approve** Ordinance appropriating \$4,094,850 from Water Enterprise fund balance and \$2,720,000 from the Water Enterprise FY 2016-17 and FY 2017-18 operating budget, totaling \$6,814,850.
- **Authorize** the SFPUC General Manager to enter into a 10 year contract to purchase and maintain a turn-key radio voice communications system for an amount not-to-exceed \$10,906,297.
- We agree with the recommendations of the BLA Report.



San Francisco
Water
POWER
SOURCE

Questions?

