



2014-2015 CAPITAL BUDGET

**2015-2019 CAPITAL
IMPROVEMENT PROGRAM**

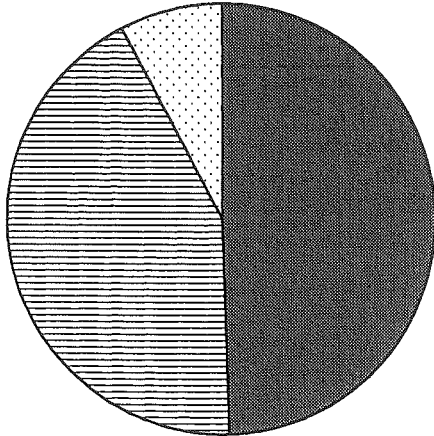


COMMUNICATIONS

COMMUNICATIONS

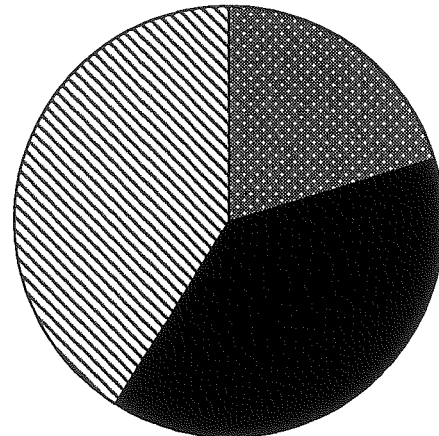
2015-2019 Capital Improvement Program

2014-2015 Proposed
Source of Funds



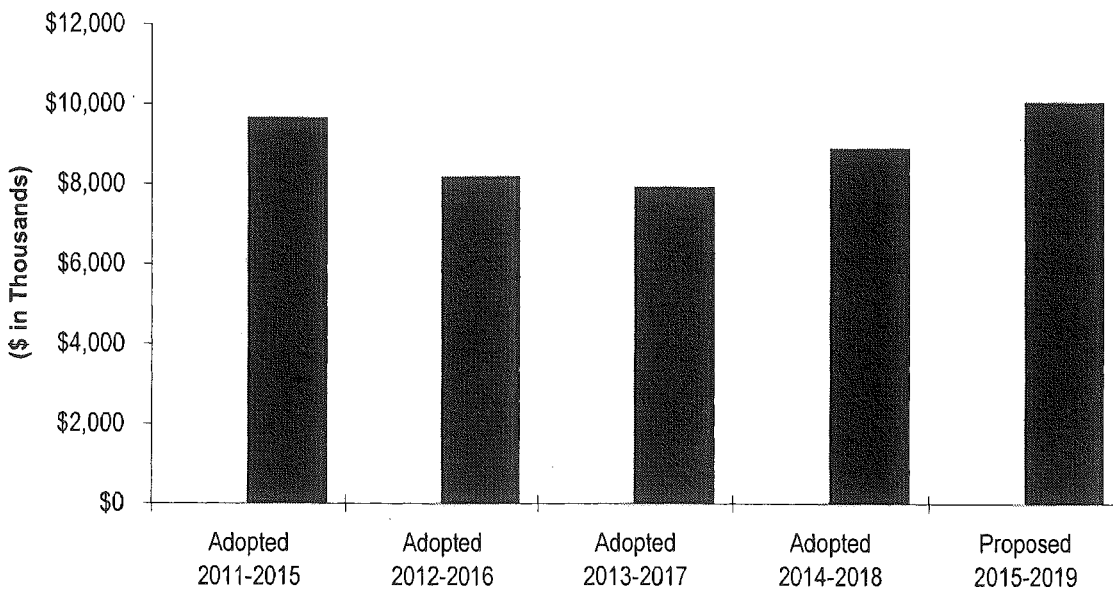
- Beginning Fund Balance
- ▨ Taxes, Fees and Charges
- ▤ Loans and Transfers

2014-2015 Proposed
Use of Funds



- ▤ Construction
- Non-Construction
- ▨ Ending Fund Balance

CIP History



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Communications

2015-2019 Proposed Capital Improvement Program

Overview

INTRODUCTION

In October 1990, the City assumed the responsibility of providing its own emergency communications service for Police and Fire from the County of Santa Clara. The Communications Capital Improvement Program (CIP) was set up to address the replacement and upgrade of both the public safety and non-public safety radio equipment. In addition, this Program funds capital improvement related to communications facilities including land and interests in land, buildings, structures, radio and other equipment, and streets and sidewalks adjacent to City communication facilities. The 2015-2019 Proposed CIP provides funding of \$10.0 million of which \$3.1 million is allocated in 2014-2015.

| COMMUNICATIONS INFRASTRUCTURE | |
|-------------------------------|-------|
| FIXED EQUIPMENT SITES | 25 |
| BASE STATIONS | 100 |
| MOBILE RADIOS | 6,700 |

This program is part of the Strategic Support City Service Area (CSA) and supports the following outcomes from that CSA: *Safe and Functional Public Infrastructure, Facilities and Equipment*; and *Effective Use of State-of-the-Art Technology*.

PROGRAM PRIORITIES AND OBJECTIVES

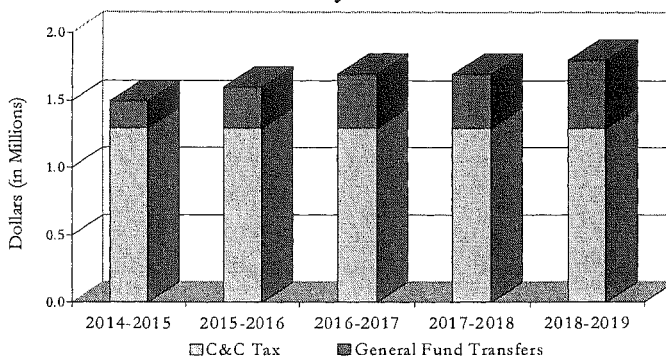
The Communications CIP's guiding objective is the provision of reliable, necessary public and non-public safety-related communications equipment for all City employees who need this equipment to perform their job duties. Based on the CSA outcomes supported by this program, the following list of priorities has been developed:

- Proactively replace public safety-related communications equipment and systems to ensure reliability and optimal performance, and compliance with rules of the Federal Communications Commission;
- Maintain existing radio equipment in a proactive manner to ensure optimal functionality and to extend the length of service; and
- Strategically plan for future major upgrades and technology changes.

SOURCES OF FUNDING

The 2014-2015 Capital Budget estimate for Construction and Conveyance (C&C) taxes is \$39.0 million, of which 3.4% is allocated to the Communications Capital Program. Approximately 99% of this tax is derived from a transfer tax imposed upon each transfer of real property with the remaining

Summary of Revenues



Communications

2015-2019 Proposed Capital Improvement Program

Overview

SOURCES OF FUNDING

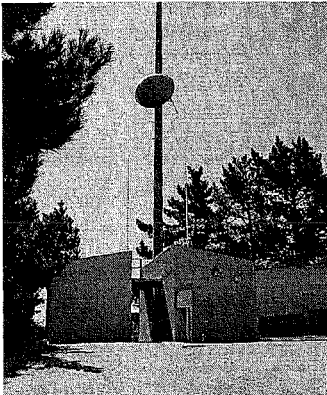
this tax is derived from a transfer tax imposed upon each transfer of real property with the remaining 1% generated from a construction tax levied on most types of construction. The 2015-2019 CIP assumes 2013-2014 C&C revenues will exceed 2012-2013 collections by 7.5%, grow another 5% in 2014-2015 to \$39 million, and then remain flat for each year of the CIP. Therefore, collections allocated to the Communications Capital Program will total \$1.3 million per year for each of the five years. For additional information regarding the C&C tax revenue, please refer to the Parks and Community Facilities Development section of the CIP.

At estimated C&C tax collection levels, the General Fund will be required to provide funding of \$1.8 million over the CIP for the Communications Capital Program in order to primarily fund contributions to the Silicon Valley Regional Interoperability Authority (SVRIA). To the extent that C&C tax revenues are received above or below projected levels, the General Fund transfer to this program will be reduced or increased accordingly.

PROGRAM HIGHLIGHTS

City-wide Trunking Radio System

The City-wide Trunking Radio System uses a set of existing frequencies in a more efficient manner. The City has used trunking technology as it migrates toward the use of the 700/800MHz spectrum for its radio communications. The radio infrastructure currently in service was originally designed at a time when mobile radios (radios installed in vehicles) were the primary and, in most cases, the only radios in use. In recent years, there have been increased requirements placed on existing radio infrastructure systems due to more reliance on portable coverage. Portable radios (handheld radios), although beneficial operationally, require enhanced radio infrastructure compared to mobile radios, resulting in coverage issues. Increased building density within the City has contributed to the need for enhanced radio infrastructure as well. Trunking radio systems also allow for prioritization of police and fire emergency communications; therefore, trunking is seen as a key to the success of future public safety communications and regional interoperability for emergency response in a mutual-aid scenario by adding capacity for specialized channels. The system also features the ability to record radio transmissions for training purposes.



**Caldwaller Reservoir
Radio Tower**

Not included in the Proposed CIP, the build-out of the City-wide Trunking Radio System for San José is estimated to cost approximately \$17 million and will take several years to complete. The City is currently working with SVRIA on various funding solutions in order to complete the build-out county-wide, which may include possible grant funding and/or a parcel tax or sales tax measure. The passage of such measures would require a two-thirds voter approval.

Communications

2015-2019 Proposed Capital Improvement Program

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PROGRAM HIGHLIGHTS

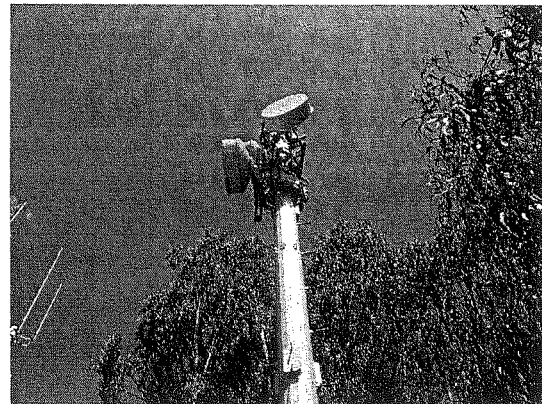
Communications Equipment Replacement and Upgrade

As the City-wide Trunking Radio System is built over several years, the existing radio system must be maintained and improved. The ongoing funding for the Communications Equipment Replacement and Upgrade project maintains the functionality of the City's communications sites, base stations, and approximately 6,700 mobile and portable radios, and allows for infrastructure repair, replacement, and upgrades as needed.

In addition, efforts are continuously undertaken to improve coverage (especially in and around dense building structures); implement simulcasting (made possible by the Emergency Communications Microwave (ECOMM) system discussed below), which improves coverage and channel efficiency; and narrow-banding, which is a Federal mandate aimed at optimizing the use of available radio spectrum. As part of the 2015-2019 CIP, the funding for this project is recommended to be increased by approximately \$155,000 annually in order to accelerate the necessary radio upgrades for the trunking system.

Silicon Valley Regional Interoperability Authority

The City, along with 14 other municipalities, constitutes the SVRIA, a joint-powers authority. The purpose of the SVRIA is to identify, coordinate, and implement communications interoperability solutions to its member agencies. One solution that the City implemented in recent years was the ECOMM system. The ECOMM system will serve as the backbone infrastructure to operate the future city-wide and county-wide Silicon Valley Regional Communications System (SVRCS) Trunking Radio System. The SVRCS will enable interoperability with other radio communications systems currently deployed throughout the greater bay area.



ECOMM Antennae at Eagle Rock

The Communications Program funds the City of San José's proportionate share of the SVRIA costs for maintenance of regional communications systems and reserves for equipment replacement and upgrade. The 2015-2019 CIP includes transfers totaling \$1.8 million from the General Fund to help offset the cost to the Communications C&C Tax Fund. The SVRIA and its member agencies continue to pursue grant funding to augment the SVRCS. Homeland security grants were awarded to the County of Santa Clara for the second stage of the SVRCS trunking project; however, considerable funding, approximately \$30.0 million, is still needed for the entire South Bay area. The City will continue to make strategic investments in mobile and portable radios that will provide full

Communications

2015-2019 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

Silicon Valley Regional Interoperability Authority (Cont'd.)

functionality with the future system, as well as minor infrastructure investments to pilot-test the future trunking coverage and operations.

MAJOR CHANGES FROM THE 2014-2018 ADOPTED CIP

- Silicon Valley Regional Interoperability project costs increased \$541,000 due to the approved 2014-2015 budget from the SVRIA Board.
- Additional funding of approximately \$155,000 annually is allocated to the Communications Equipment Replacement and Upgrade project to allow a slight acceleration of the necessary radio upgrades for the trunking system.
- Increased C&C revenue of \$1.5 million will help provide funding for the overall CIP program, mitigating some of the required General Fund support for Communications projects.

OPERATING BUDGET IMPACT

It is anticipated that there will be no additional operating and maintenance costs associated with projects included in the 2015-2019 Proposed CIP.



2014-2015 CAPITAL BUDGET

2015-2019 CAPITAL IMPROVEMENT PROGRAM



COMMUNICATIONS

SOURCE OF FUNDS

USE OF FUNDS

The Source of Funds displays the capital revenues by funding source for each year of the Five-Year Capital Improvement Program. The Use of Funds displays the capital expenditures by line-item for each year of the five-year period.

Communications
2015-2019 Proposed Capital Improvement Program
Source of Funds (Combined)

| <u>SOURCE OF FUNDS</u> | <u>Estimated 2013-2014</u> | <u>2014-2015</u> | <u>2015-2016</u> | <u>2016-2017</u> | <u>2017-2018</u> | <u>2018-2019</u> | <u>5-Year Total</u> |
|---|--------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------------|
| <u>Communications Construction & Conveyance Tax Fund (397)</u> | | | | | | | |
| Beginning Fund Balance | 1,618,954 | 1,532,658 | 1,273,158 | 1,041,158 | 773,158 | 468,158 | 1,532,658 * |
| Taxes, Fees and Charges: | | | | | | | |
| <u>Construction and Conveyance Tax</u> | 1,258,000 | 1,326,000 | 1,326,000 | 1,326,000 | 1,326,000 | 1,326,000 | 6,630,000 |
| Contributions, Loans and Transfers from: | | | | | | | |
| <u>General Fund</u> | | | | | | | |
| - Civic Center Video Equipment Repayment | 37,500 | 37,500 | | | | | 37,500 |
| - Communications Projects | 225,000 | 200,000 | 325,000 | 375,000 | 425,000 | 475,000 | 1,800,000 |
| Interest Income | 7,000 | 6,000 | 7,000 | 9,000 | 9,000 | 12,000 | 43,000 |
| Reserve for Encumbrances | 399,204 | | | | | | |
| Total Communications Construction & Conveyance Tax Fund | 3,545,658 | 3,102,158 | 2,931,158 | 2,751,158 | 2,533,158 | 2,281,158 | 10,043,158 * |
| TOTAL SOURCE OF FUNDS | 3,545,658 | 3,102,158 | 2,931,158 | 2,751,158 | 2,533,158 | 2,281,158 | 10,043,158 * |

* The 2015-2016 through 2018-2019 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Communications
2015-2019 Proposed Capital Improvement Program
Use of Funds (Combined)

| USE OF FUNDS | Estimated 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 | 5-Year Total |
|---|--------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------------|
| <u>Construction Projects</u> | | | | | | | |
| City-wide Trunking Radio System | 598,000 | | | | | | |
| Civic Center Broadcast Equipment Maintenance and Replacement | 1,000 | | | | | | |
| Communications Fault Management and Alerting System | 100,000 | | | | | | |
| Public Art | 38,000 | | | | | | |
| 1. Communications Equipment Replacement and Upgrade | 252,000 | 625,000 | 600,000 | 600,000 | 600,000 | 575,000 | 3,000,000 |
| Total Construction Projects | 989,000 | 625,000 | 600,000 | 600,000 | 600,000 | 575,000 | 3,000,000 |
| <u>Non-Construction</u> | | | | | | | |
| General Non-Construction | | | | | | | |
| 2. Communications Maintenance | 535,000 | 455,000 | 469,000 | 483,000 | 497,000 | 512,000 | 2,416,000 |
| 3. Silicon Valley Regional Interoperability | 481,000 | 743,000 | 814,000 | 886,000 | 959,000 | 1,022,000 | 4,424,000 |
| Total General Non-Construction | 1,016,000 | 1,198,000 | 1,283,000 | 1,369,000 | 1,456,000 | 1,534,000 | 6,840,000 |
| Contributions, Loans and Transfers to General Fund | | | | | | | |
| Transfer to the General Fund: Interest Income | 7,000 | 6,000 | 7,000 | 9,000 | 9,000 | 12,000 | 43,000 |
| Total Contributions, Loans and Transfers to General Fund | 7,000 | 6,000 | 7,000 | 9,000 | 9,000 | 12,000 | 43,000 |

Communications

2015-2019 Proposed Capital Improvement Program

Use of Funds (Combined)

| <u>USE OF FUNDS</u> (CONT'D.) | <u>Estimated 2013-2014</u> | <u>2014-2015</u> | <u>2015-2016</u> | <u>2016-2017</u> | <u>2017-2018</u> | <u>2018-2019</u> | <u>5-Year Total</u> |
|--|--------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------------|
| <u>Non-Construction</u> | | | | | | | |
| Contributions, Loans and Transfers to Special Funds | | | | | | | |
| Transfer to the City Hall Debt Service Fund | 1,000 | | | | | | |
| Total Contributions, Loans and Transfers to Special Funds | 1,000 | | | | | | |
| Total Non-Construction | 1,024,000 | 1,204,000 | 1,290,000 | 1,378,000 | 1,465,000 | 1,546,000 | 6,883,000 |
| Ending Fund Balance | 1,532,658 | 1,273,158 | 1,041,158 | 773,158 | 468,158 | 160,158 | 160,158* |
| TOTAL USE OF FUNDS | 3,545,658 | 3,102,158 | 2,931,158 | 2,751,158 | 2,533,158 | 2,281,158 | 10,043,158* |

* The 2014-2015 through 2017-2018 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

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2014-2015 CAPITAL BUDGET

2015-2019 CAPITAL IMPROVEMENT PROGRAM

COMMUNICATIONS

DETAIL OF CONSTRUCTION PROJECTS

DETAIL OF NON-CONSTRUCTION PROJECTS

The Detail of Construction Projects section provides information on the individual construction projects with funding in 2014-2015. The Detail of Non-Construction Projects section is abbreviated and provides information on the individual non-construction project, with funding in 2014-2015. On the Use of Funds statement, these projects are numbered.

Communications

2015-2019 Proposed Capital Improvement Program Detail of Construction Projects

1. Communications Equipment Replacement and Upgrade

| | | | |
|--------------------------|--|---------------------------------|---------|
| CSA: | Strategic Support | Initial Start Date: | Ongoing |
| CSA Outcome: | Effective Use of State-of-the-Art Technology | Revised Start Date: | |
| Department: | Public Works | Initial Completion Date: | Ongoing |
| Council District: | City-wide | Revised Completion Date: | |
| Location: | City-wide | | |

Description: This allocation funds the replacement of communications equipment based upon useful life expectancy.

Justification: This allocation funds essential communications equipment for Police, Fire, and non-public safety City operations.

EXPENDITURE SCHEDULE (000'S)

| Cost Elements | Prior Years | 2013-14 Appn. | 2013-14 Estimate | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 5-Year Total | Beyond 5-Year | Project Total |
|---------------|----------------|------------------|---------------------|------------|------------|------------|------------|------------|-----------------|------------------|------------------|
| Equipment | | 252 | 252 | 625 | 600 | 600 | 600 | 575 | 3,000 | | |
| TOTAL | | 252 | 252 | 625 | 600 | 600 | 600 | 575 | 3,000 | | |

FUNDING SOURCE SCHEDULE (000'S)

| | | | | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|------------|--------------|--|--|
| Communications Construction & Conveyance Tax Fund | 252 | 252 | 625 | 600 | 600 | 600 | 575 | 3,000 | | |
| TOTAL | 252 | 252 | 625 | 600 | 600 | 600 | 575 | 3,000 | | |

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project. In the 2015-2019 CIP, an increase of approximately \$155,000 annually will address additional maintenance, replacement, and upgrade needs of communications equipment for Police, Fire, and non-public safety City operations.

| | | | |
|--------------------------------|---------|--------------------|------|
| FY Initiated: | Ongoing | Appn. #: | 4056 |
| Initial Project Budget: | | USGBC LEED: | N/A |

Communications

2015-2019 Proposed Capital Improvement Program Detail of Non-Construction Projects

2. Communications Maintenance

CSA: Strategic Support
CSA Outcome: Effective Use of State-of-the-Art Technology
Department: Public Works
Description: This allocation funds staffing costs associated with the replacement and maintenance of communications equipment.

EXPENDITURE SCHEDULE (000'S)

| Cost Elements | Prior Years | 2013-14 Appn. | 2013-14 Estimate | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 5-Year Total | Beyond 5-Year | Project Total |
|---------------|-------------|---------------|------------------|------------|------------|------------|------------|------------|--------------|---------------|---------------|
| Maintenance | | 535 | 535 | 455 | 469 | 483 | 497 | 512 | 2,416 | | |
| TOTAL | | 535 | 535 | 455 | 469 | 483 | 497 | 512 | 2,416 | | |

FUNDING SOURCE SCHEDULE (000'S)

| | | | | | | | | | | | |
|---|--|------------|------------|------------|------------|------------|------------|------------|--------------|--|--|
| Communications Construction & Conveyance Tax Fund | | 535 | 535 | 455 | 469 | 483 | 497 | 512 | 2,416 | | |
| TOTAL | | 535 | 535 | 455 | 469 | 483 | 497 | 512 | 2,416 | | |

Notes:

Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 7116

3. Silicon Valley Regional Interoperability

CSA: Strategic Support
CSA Outcome: Safe and Functional Public Infrastructure, Facilities, and Equipment
Department: City Manager
Description: This allocation funds contractual services to perform maintenance, monitoring, and service support in order to enhance the inter-agency communication between 14 separate jurisdictions' public safety agencies as part of the Silicon Valley Regional Interoperability Project.

EXPENDITURE SCHEDULE (000'S)

| Cost Elements | Prior Years | 2013-14 Appn. | 2013-14 Estimate | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 5-Year Total | Beyond 5-Year | Project Total |
|---------------|-------------|---------------|------------------|------------|------------|------------|------------|--------------|--------------|---------------|---------------|
| Maintenance | | 481 | 481 | 743 | 814 | 886 | 959 | 1,022 | 4,424 | | |
| TOTAL | | 481 | 481 | 743 | 814 | 886 | 959 | 1,022 | 4,424 | | |

FUNDING SOURCE SCHEDULE (000'S)

| | | | | | | | | | | | |
|---|--|------------|------------|------------|------------|------------|------------|--------------|--------------|--|--|
| Communications Construction & Conveyance Tax Fund | | 481 | 481 | 743 | 814 | 886 | 959 | 1,022 | 4,424 | | |
| TOTAL | | 481 | 481 | 743 | 814 | 886 | 959 | 1,022 | 4,424 | | |

Notes:

Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 7333