



VENTURA COUNTY
SHERIFF'S OFFICE

OFFICE OF JIM FRYHOFF, SHERIFF



Two-Way Radio Upgrade Project

September 12, 2023

Project Background

First phase of the project was approved by your Board on June 20, 2023

- Construct a new public safety radio system on the 700mhz band
 - 2-year construction timeline
 - 6 of the 16 sites have already been built and are operational today
 - Construction for the remainder of the sites will take approximately two years

Second phase of the project is to purchase replacement two-way radios for public safety personnel



PHASE 2

Two-Way Radio Upgrade

Joint effort between Sheriff, District Attorney & Probation Agency to evaluate and select new equipment

Most two-way radios in use are +/-12 years old

- No longer supported by Motorola
- Parts are unavailable

Not compatible with new radio system

- Current radios are VHF single-band radios
- Unable to communicate with several agencies, including agencies outside of Ventura County.



New Equipment Evaluation

Over a 4-month period, all major brands were tested for suitability:

- Bendix King
- Kenwood
- Harris
- Motorola
- Tait

Motorola rated highest in all categories



Enhanced Coverage Offered by Motorola

Because our mountaintop infrastructure is comprised of Motorola equipment, we were able to test a proprietary feature called **Smart Connect**.

- Feature enables radios to function on the system using mountaintop, LTE or Wi-Fi coverage.
- Vital to extending the coverage of our radio system to almost anywhere cellular service or Wi-Fi is available.
- This feature is unique to Motorola and specific Motorola two-way radios.



Starlink Satellite & Motorola Smart Connect

Radio Communication from Matilija Canyon Using Mobile Wi-Fi



Officer Safety Improvements

- GPS location of every radio / every officer
- Enhanced coverage
- Improved audio quality & reliability
- All-Band functionality enables communication with any other public safety agency in the state



Equipment Selection & Quantities

AGENCY	APX Next All-Band Portable Radio	N30 Single-Band 700mhz Portable Radio	APX 900 Single-Band Portable VHF Radio	APX 8500 All-Band Mobile Radio	APX 4500 Single-Band Mobile Radio
Sheriff - Patrol & Investigations	762	164	0	464	0
Sheriff - Jail	65	0	24	25	0
Sheriff - Search & Rescue	96	0	0	12	0
Probation Agency	5	210	0	0	60
District Attorney	65	0	0	0	65



Price Per Unit

MODEL	PRICE PER UNIT
Motorola APX Next - Portable Radio w/ accessories	\$6,403
Motorola N30 – Single-Band 700mhz Portable Radio w/ accessories	\$3,073
Motorola APX 900 Single-Band VHF Portable Radio w/ accessories	\$2,063
Motorola APX 4500 – Single-Band 700mhz Mobile Radio	\$3,705
Motorola APX 8500 - All-Band Mobile Radio	\$6,135



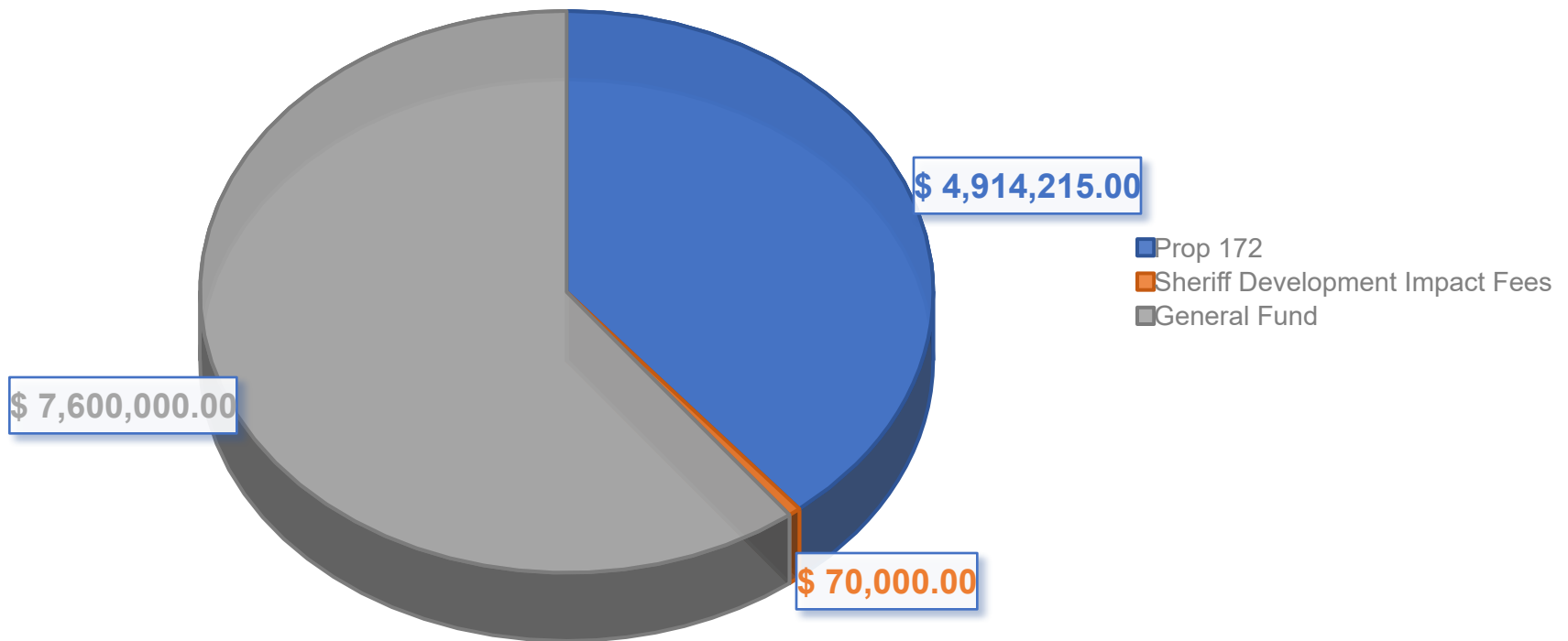
Cost by Agency

AGENCY	PRICE
Ventura County Sheriff	\$10,892,068
Ventura County Probation Agency	\$961,471
Ventura County District Attorney	\$730,674
Total:	\$12,584,215



Project Funding Sources

Project total: \$12,584,215



Cost Reasonableness

Several other agencies have purchased new radios in recent months.

- The model purchased by the other local agencies is a step down from what Ventura County is purchasing, however pricing remains competitive due to volume discounts and negotiation.

JURISDICTION	MODEL	QTY	PRICE EACH
Ventura	APX 8000	168	\$ 6,441.19
Oxnard	APX 8000	155	\$ 6,415.00
Simi Valley	APX 8000	180	\$ 7,602.58
Ventura County	APX Next	993	\$ 6,403.00



QUESTIONS?