



Organization, Personnel and Technology Committee

Radio Equipment for Automatic Meter Reading System

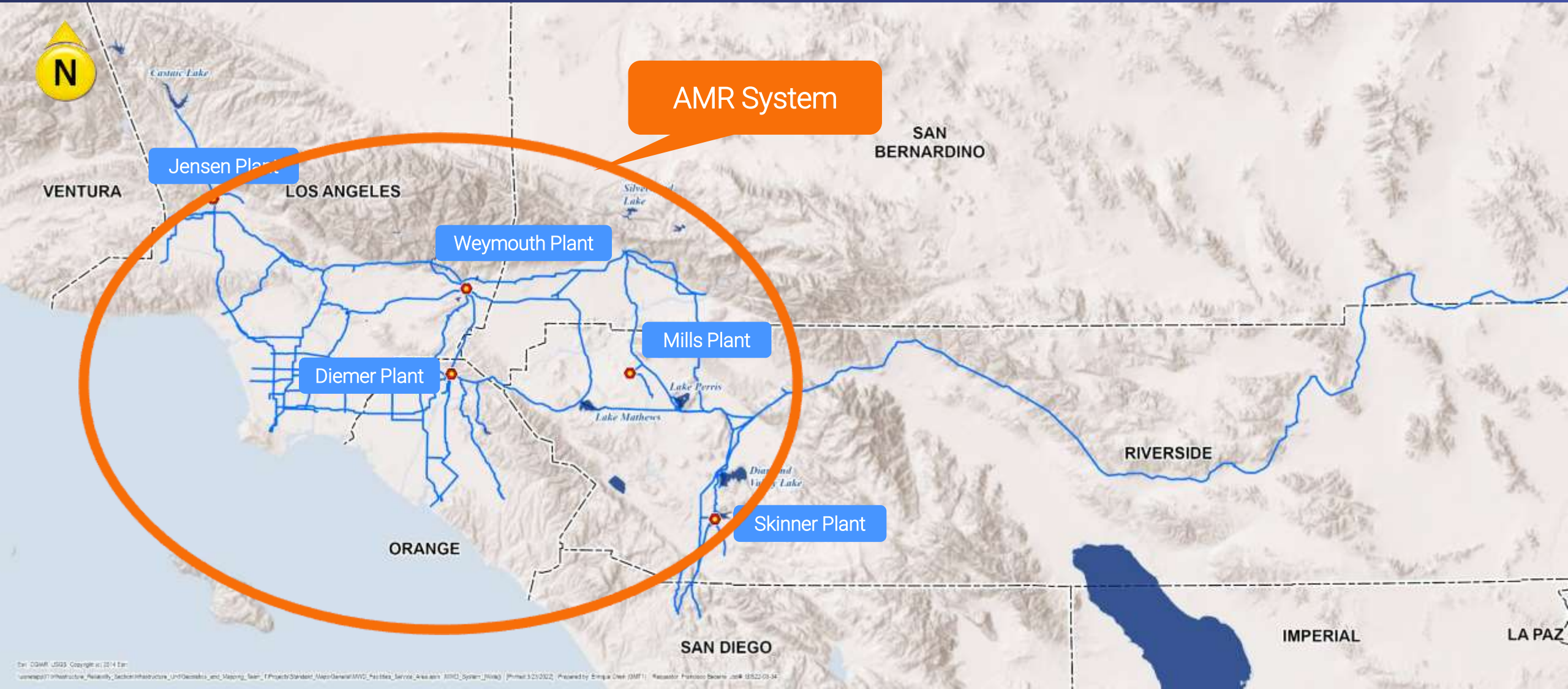
Item 7-10

December 12, 2022

Radio Equipment for AMR System

Current Action

- Authorize an agreement with Voyager Security Inc. doing business as (dba) Access Technologies in an amount not to exceed \$860,000 for procurement of radio equipment for Metropolitan's Automatic Meter Reading System
- The General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA



Radio Equipment for AMR System

Background

- Automatic Meter Reading Radio transmits water meter data mostly over the air to data aggregator sites via
 - Licensed 900 MHz (291 radio modems to 5 master stations)
 - Cellular modem (85 sites)
 - Unlicensed spread spectrum radio (6 sites)
 - Except direct LAN or MPLS connection (77 sites)
- Existing 900 MHz Radio equipment in service nearing end of useful service life (of 12 to 15 years)



Current AMR radio modem

Radio Equipment for AMR System

Procurement Strategy

- Advertise request for bid (RFB) for
 - 350 radio modems¹
 - 5 master radios¹
 - 350 Pulse Net Enterprise Licenses
 - 4 Radio Transceiver Modules
- Onsite Installation Services at four sites
 - Plan to purchase same model as used for pilot (dual licensed radio/cellular)
 - Direct purchase ancillary cables, antennas, attenuators (since site-specific lengths/needs)



Licensed 900
MHz + cellular

1 Includes
spares

Radio Equipment for AMR System

New Agreement with Voyageur Security Inc. dba Access Technologies

- Selected using Competitive Bidding
 - RFB-PR-412908, posted 8/10/2022, only one bidder
- Scope of Work
 - Provide new radio equipment and software licenses
 - Commissioning and installation of radio equipment

Radio Equipment for AMR System

Alternatives Considered

- Pilot four communications technologies:
 - 900 MHz Technology
 - Satellite Technology
 - Two Way Radio Technology
 - CAT M1 Cellular Technology
- Selected option
 - Pilot Test 900 MHz Technology at Garvey
 - Create procurement package for remaining portion of 900 MHz system; 350 radio modems and 4 master stations
 - Rollout 900 MHz Technology to other locations

Radio Equipment for AMR System

Project Scope of Work

- Procurement of Radio equipment
- Installation of Radio Equipment by Metropolitan forces
- Testing and Commissioning of Radio Equipment
- Additional Procurements under General Manager's Authority
 - Network Equipment
 - Antennas and cables
 - Temporary AMR Controllers till next phase with associated configuration

Allocation of Funds

Radio Equipment for AMR System

Labor

Owner's Cost (Project Management)	\$ 210,000
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Metropolitan Force Construction	\$ 1,060,000
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Materials & Supplies Radio Equipment	\$ 860,000
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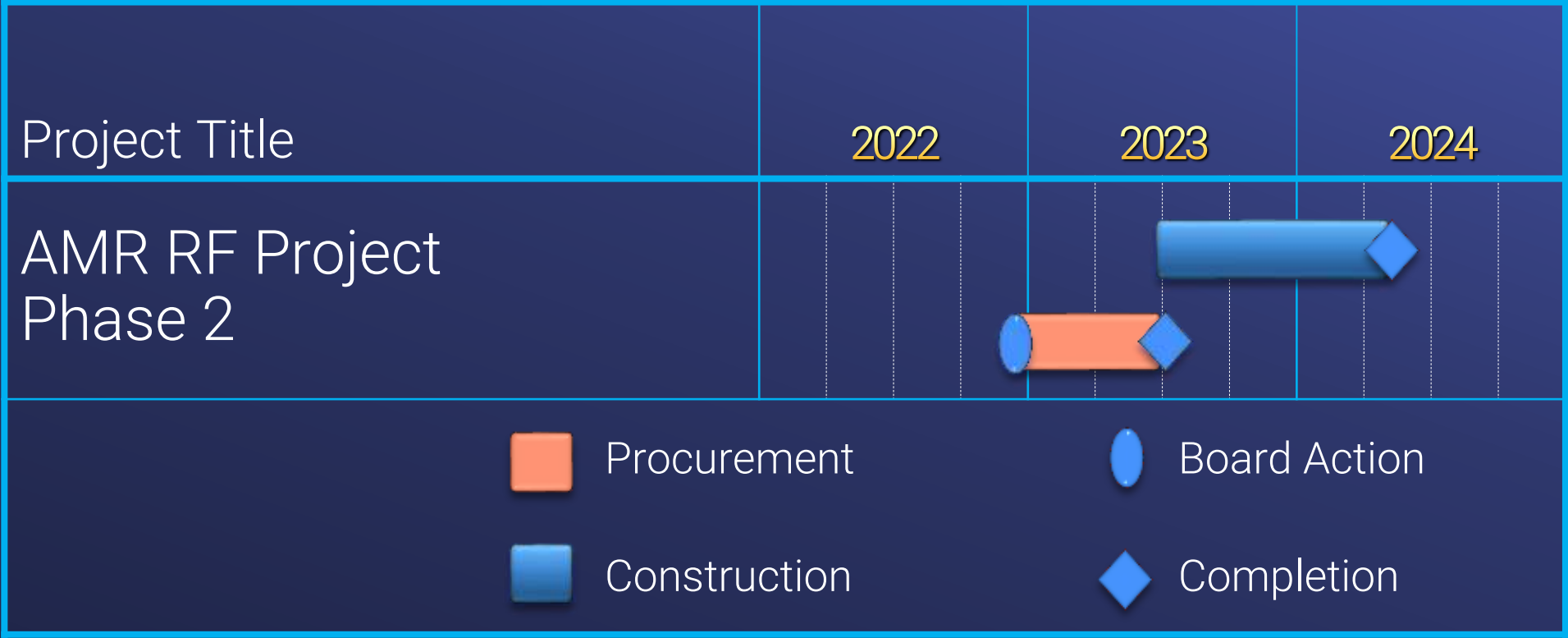
Materials & Supplies Other Network/Control Equipment	\$ 600,000
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Professional /Technical Services	\$ 310,000
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Remaining Budget	\$ 300,000
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Total	\$ 3,340,000
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Project Schedule



Board Options

- Option #1 – Authorize an agreement with Voyageur Security Inc. dba Access Technologies in an amount not-to-exceed \$860,000 for the procurement for radio equipment for Metropolitan's AMR System; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA
- Option #2 – Do nothing at this time and forgo an opportunity to increase the reliability of the AMR System

Next Step

Staff Recommendation

- Option #1

