Engineering, Operations, & Technology Committee

Data Management and Data Analytics Consulting & Implementation Services Phase 1

Item 7-2

July 8, 2024

Item 7-2

Data Management and Data Analytics Consulting & Implementation Services Phase 1

Subject

Authorize and agreement with Arcadis, U.S. Inc. in an amount not to exceed $1.525 million for the Data Management and Data Analytics Consulting and Implementation Services Phase 1

Purpose

- Modernize data and analytics capabilities
- Establish an agile, cross-functional operating model to derive meaningful data insights
- Enables data-driven, fast and effective decision-making

Recommendation and Fiscal Impact

Authorize an agreement with Arcadis, U.S. Inc.

Fiscal Impact of $1,880,000

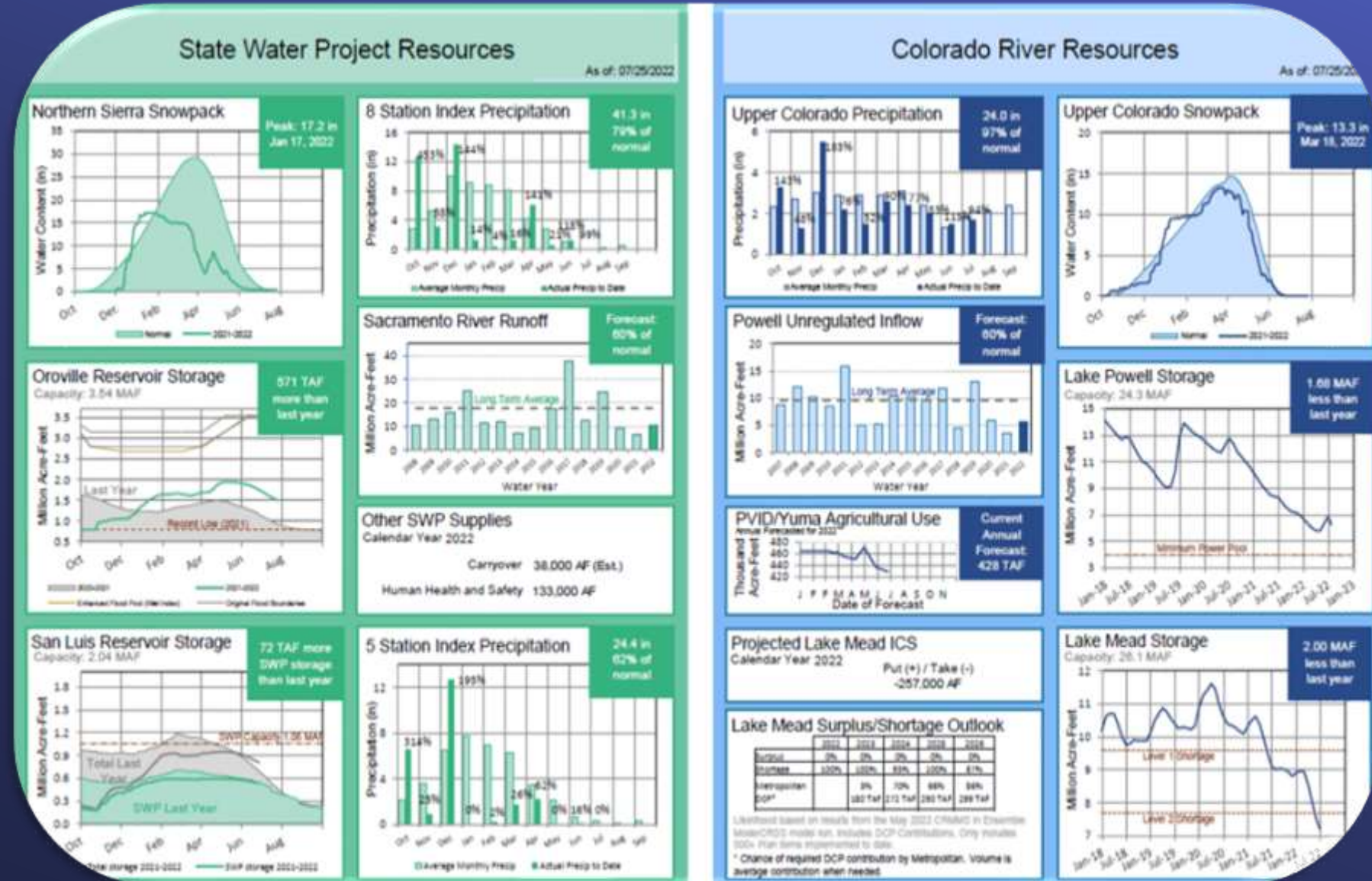## Budgeted

What is Data Analytics?

Data Analytics

[ˈdā-tə a-nə-ˈli-tiks]

The science of analyzing raw data to make conclusions about that information.

- Enhance decision-making capabilities
- Improve operational efficiencies and minimize risks
- Establish predictive analytics and prescriptive analytics

Data Analytics
Example 1

State Water and Colorado Resources Dashboard - All-in-one-place, powered by automated data processes

Data Analytics
Example 2

Rideshare Dashboard

Background

- Metropolitan has numerous data repositories including SCADA, WINS, Oracle Financials, LIMS, etc.

- Data maintained in silos, not integrated with other systems

- Historical data not readily available

- Reports generated manually

Previous Activities

- Interviewed Metropolitan business users in working sessions

- Identified 81 use cases and prioritized Top 25

- Developed Data Analytics Strategy, Current & Future State Architecture & Implementation Roadmap

- Implemented a Proof of Concept (POC) using Machine Learning showcasing anomaly detection on Billing Meter readings

- Issued an RFP for Top 25 use cases implementation

Metropolitan Scope of Work

Data Management and Data Analytics Consulting & Implementation Services Phase 1

- Project management
- Technical oversight
- Provide infrastructure & toolsets
- Review of consultant's work

Data Management and Data Analytics Consulting & Implementation Services Phase 1
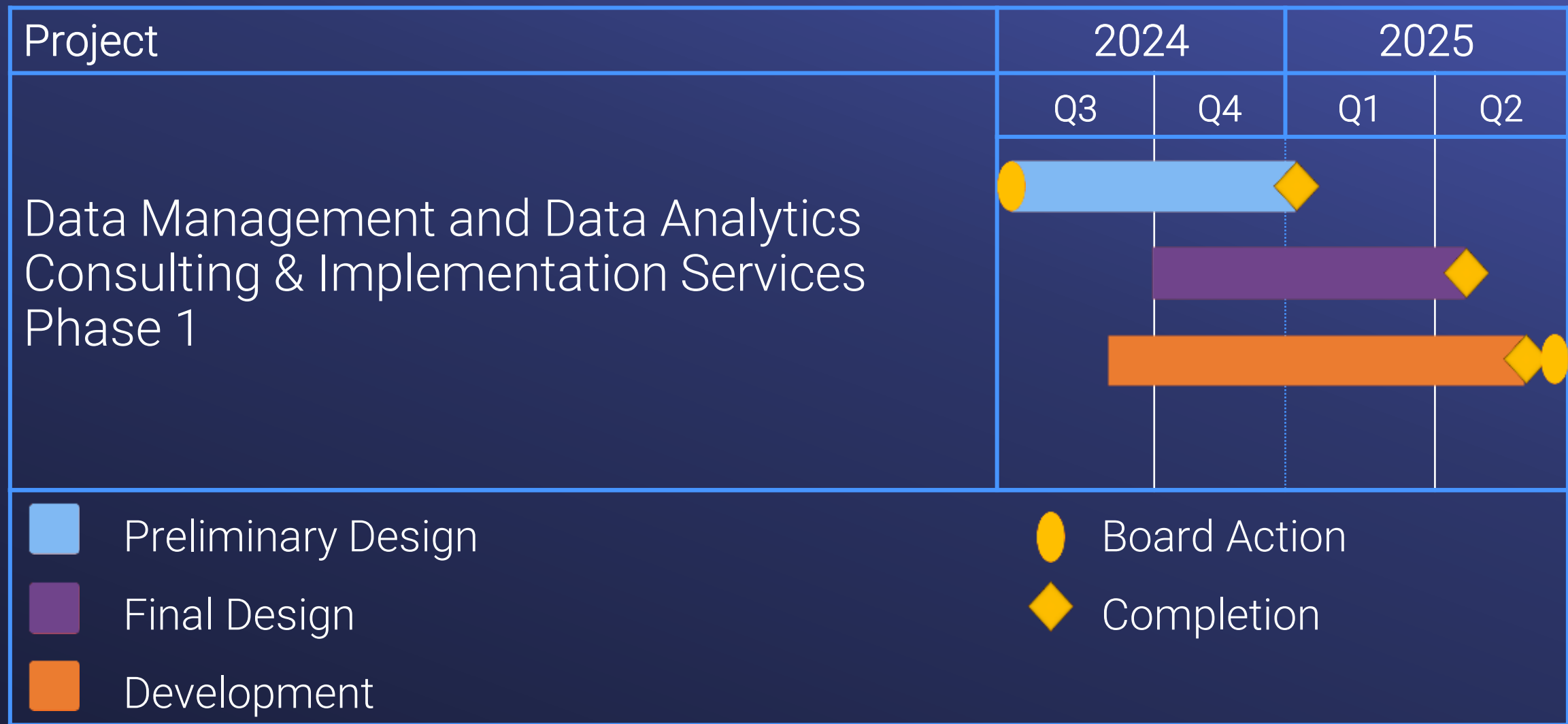
New Agreement – Arcadis, U.S. Inc.

- Selected through RFP No. 1348
- Scope of Work
  - Develop enterprise data warehouse framework for 25 use-cases
  - Develop and implement two use-cases:
    - One using both IBM Cognos Analytics and Microsoft Power BI
    - Second to be developed using one of these technologies
  - Provide knowledge transfer sessions for Metropolitan users
- NTE amount: $1,880,000
- SBE participation level: 10%

Allocation of Funds

Data Management and Data Analytics Consulting & Implementation Services Phase 1

Metropolitan Labor	$ 250,000
Professional/Technical Services	
Arcadis, U.S. Inc.	1,525,000
Contingency	105,000
Total	**$ 1,880,000**

Project Schedule

Project		2024		2025	
		Q3	Q4	Q1	Q2
Data Management and Data Analytics Consulting & Implementation Services Phase 1					

Legend:
- ☐ Preliminary Design
- ☐ Final Design
- ☐ Development
- ⬭ Board Action
- ◆ Completion

Board Options

- Option #1

  Authorize an agreement with Arcadis, U.S. Inc., in an amount not to exceed $1.525 million for Data Management and Data Analytics Consulting & Implementation Services to implement Phase 1 of the Data Analytics project.

- Option #2

  Authorize an agreement with Arcadis, U.S. Inc., in an amount not to exceed $945k for Data Management and Data Analytics Consulting & Implementation Services to implement a subset of Phase 1 of the Data Analytics project.

- Option #3

  Do nothing at this time.

Staff Recommendation

- Option #1