



# Water Ordering and Energy Scheduling System

Organization, Personnel and Technology  
Committee

Item 7-2

June 11, 2018

# Current Action

- Appropriate \$450,000 and authorize replacement of the Energy Management System with the Water Ordering and Energy Scheduling System

# Current Energy Management System (EMS)

- Originally used to plan/schedule energy production and usage at hydroelectric plants and CRA pumps
- Energy schedule information is required by California Public Utilities Commission
- Currently used for hydroelectric plants only (CRA pumps now handled by external vendor)

# EMS Background

- Metropolitan implemented the current Energy Management System in 2007
- The technology is outdated and many of the original software features are no longer needed



The screenshot shows the login interface for the Metropolitan Water District's Power Management System. At the top, there is a header with the district's name and a landscape image. Below the header, the title "Metropolitan Water District's Power Management System" is displayed in blue. The main content area is titled "HYDRO Login Page" and contains a login form with fields for "Employee ID:" and "Password:". Below the form are "Submit" and "Reset" buttons, and links for "Forgot Password" and "Change Password". A note states "\* Employee ID and Password are case sensitive". At the bottom, there is a footer with technical specifications and copyright information: "Best viewed in Internet Explorer 8.0 or higher at 1024x768 resolution. Designed & Developed By: © 2005, Fortech Software Consulting, Inc."

# Additional Scheduling Needs

- Water Operations staff requested an on-line system for Member Agencies to request and schedule water delivery flow changes
- The EMS scheduling function can be adapted for this purpose
- A single replacement system will meet both EMS and water delivery scheduling needs

# Water Ordering and Energy Scheduling System

- Web interfaces will be used to integrate the software with other Metropolitan systems
- Will also address additional scheduling needs with other agencies (e.g., operational staff at California Department of Water Resources)

# Current State



Energy  
Scheduling



Hydroelectric  
Plant  
Energy  
Production  
Schedules



Member Agency  
Water Flow Request



Acknowledge  
Request Over the Phone

Type Request into  
Electronic System Log

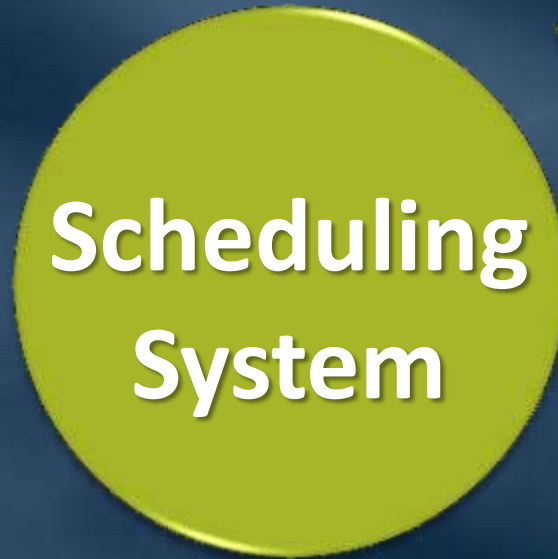
# Water Ordering and Energy Scheduling System



Energy  
Scheduling



Member Agency  
Water Flow Request



Hydroelectric  
Plant  
Energy  
Production  
Schedules



Acknowledge  
Request

Recorded in  
Electronic  
System Log



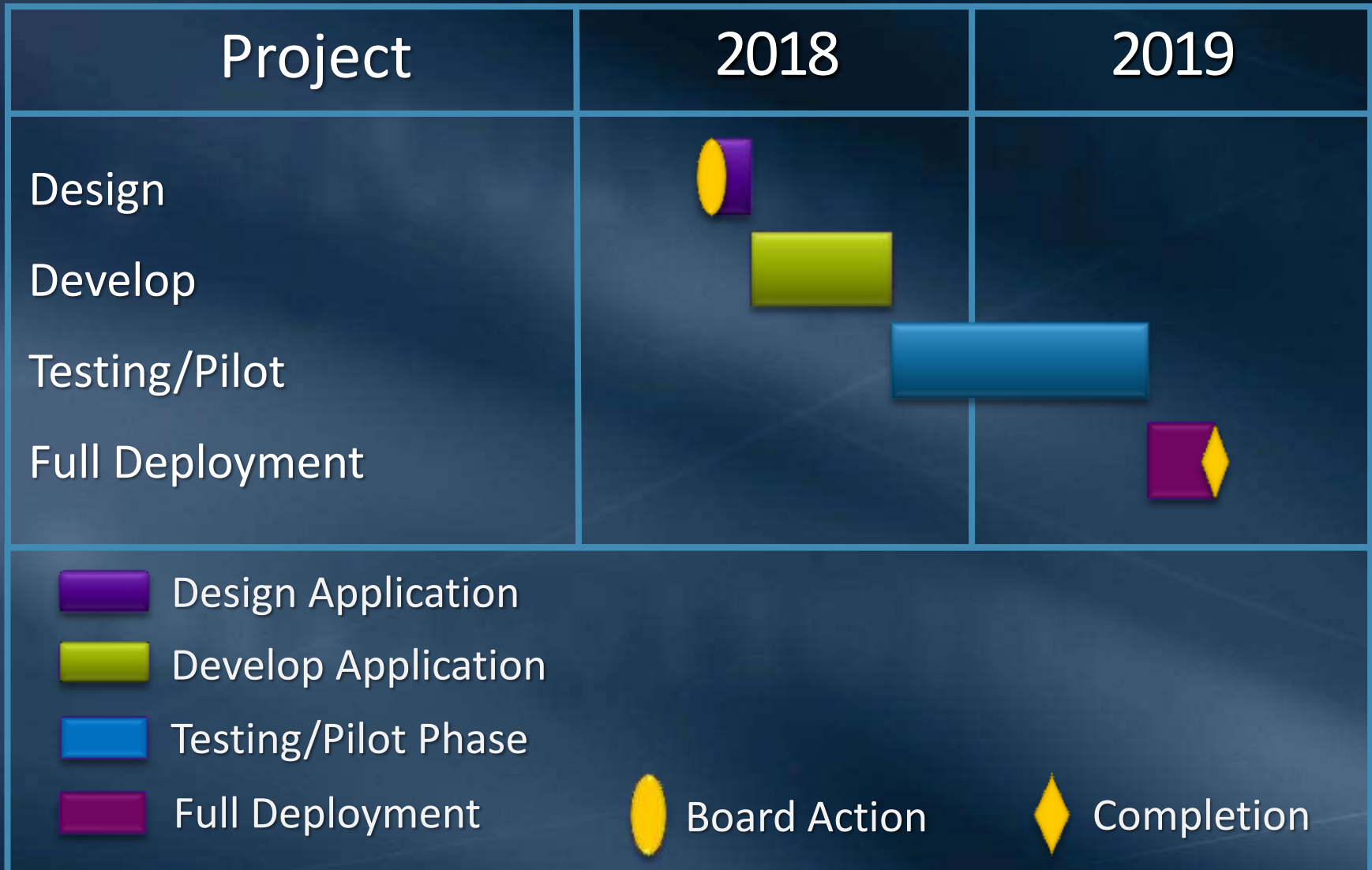
# Water Ordering and Energy Scheduling System

- Scope of work
  - Designing, developing, and deploying the web-based application
  - Purchasing and configuring server hardware and software (cloud-based options will be explored)
  - Testing period with member agencies

# Requested Funds for Water Ordering and Energy Scheduling System

Labor	249,000
Materials & Supplies	126,000
Remaining Budget	75,000
<hr/>	
Total	\$450,000

# Schedule



# Board Options

- Option #1

Adopt CEQA determination that the proposed action is not defined as a project and is not subject to CEQA

- Appropriate \$450,000

- Replace the Energy Management System with the Water Ordering and Energy Scheduling System, incorporating additional scheduling and reporting functionality

# Board Options

- Option #2

Do not proceed with the project at this time

# Staff Recommendation

- Option #1

