



Engineering, Operations, & Technology Committee

Construction and Shop Services to Ensure Metropolitan's Readiness and Resilience

Item 6b

October 7, 2024

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Construction and
Shop Services to
Ensure
Metropolitan's
Readiness and
Resilience

Subject

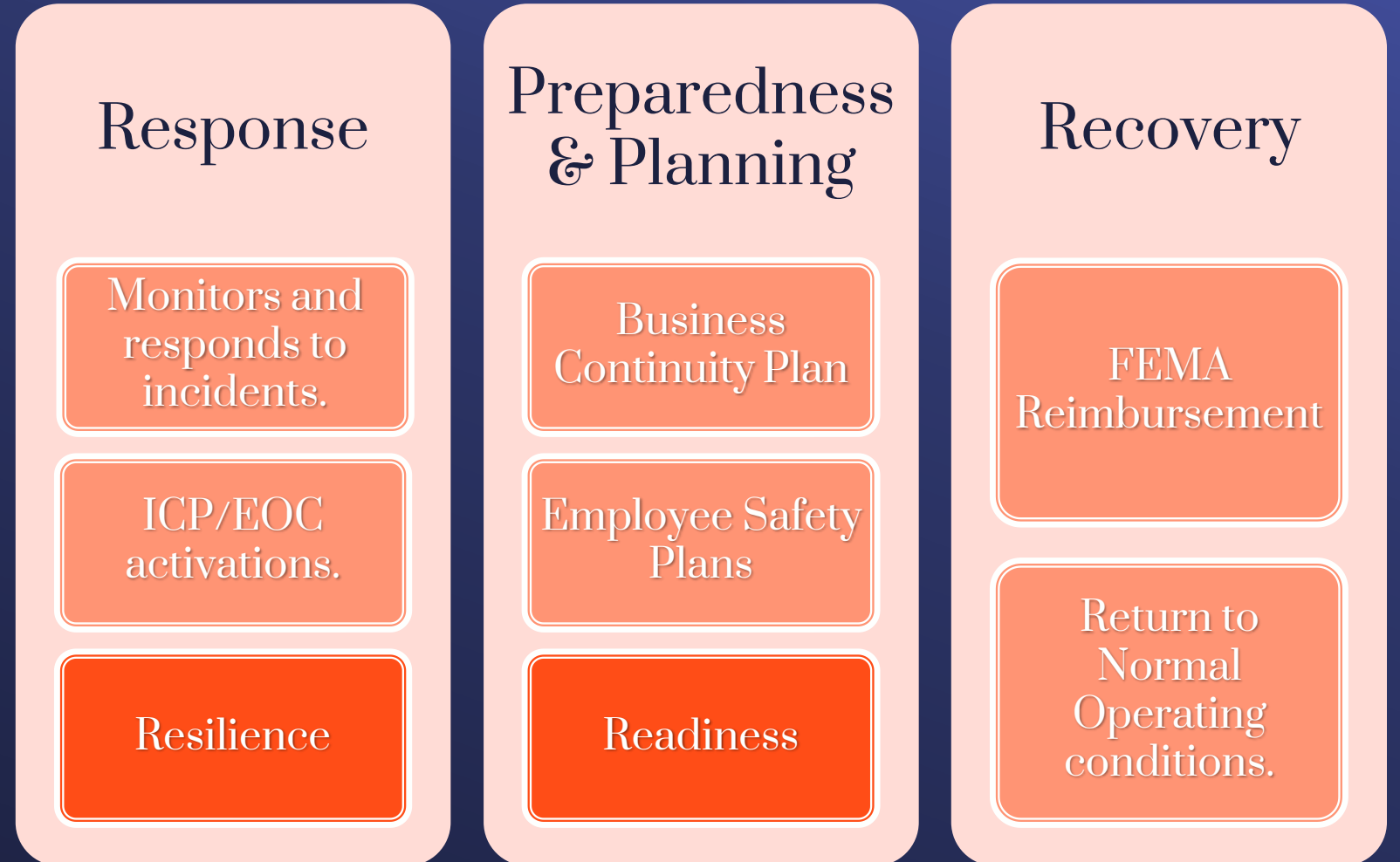
Construction Services Unit & Manufacturing Services Unit
Overview

Purpose

Overview of the construction and manufacturing services unit in water system operations including ongoing planning and emergency preparedness for responding to two simultaneous pipe breaks (two emergencies).

Emergency Management Program

Program Structure



Emergency Response

Two Break Scenario

MWD Operating Policy A-06

- Metropolitan forces including personnel, material, and equipment will be maintained to repair two major simultaneous pipeline failures. In addition, the ability to rapidly and progressively mobilize additional resources as needed will be maintained and documented.



CSU Mission Statement

Construction Services is committed to building the highest standards of excellence, innovation, and integrity for our customers (WSO, Engineering, and Member Agencies) to ensure that as an organization we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

CSU Radius of Operations

- Across all of Metropolitan's Service Area
 - O&M and Construction Support
- Reservoirs and Lakes
 - Ground Maintenance
- Hydro-Electric Power Plants
 - O&M and Construction Support
- 320 Miles of the Patrol Roads
 - Annual Maintenance and Storm Damage Repairs
- Earth Constructed Dams
 - Ground and Slope Maintenance
- Member Agency Service Connection
 - Meter Replacement and New Meter Construction



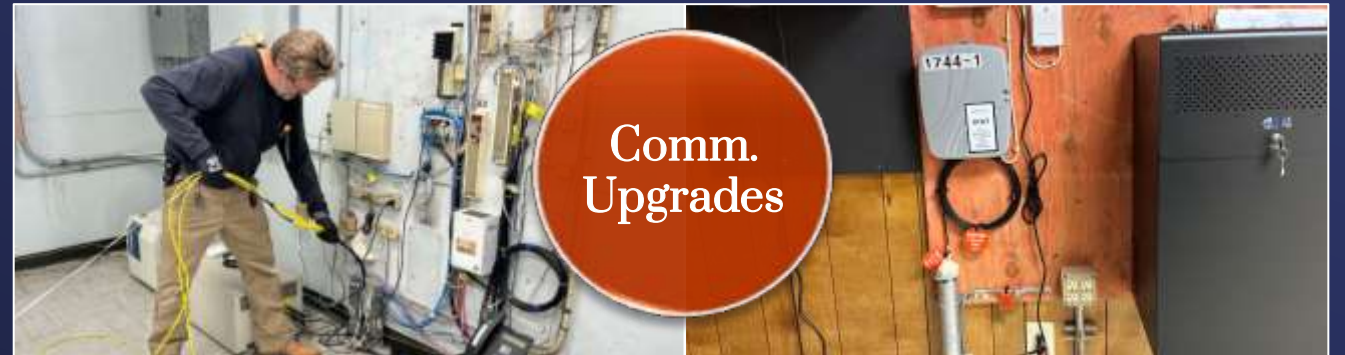
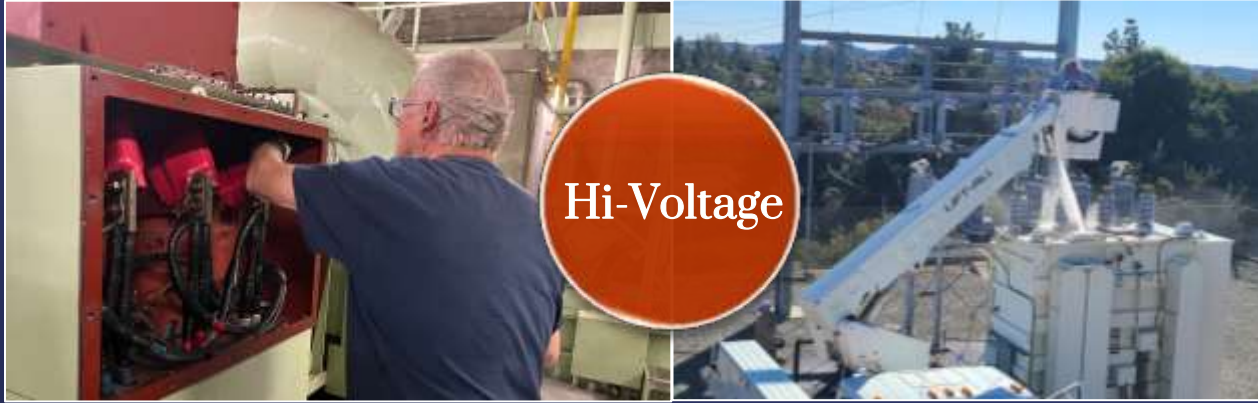
Construction Services Unit (CSU) - Services



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Construction Services Unit (CSU) - Services



Project
Assessment
Risk Factors



Construction Services Unit (CSU) – SMN-01 Venturi Repair



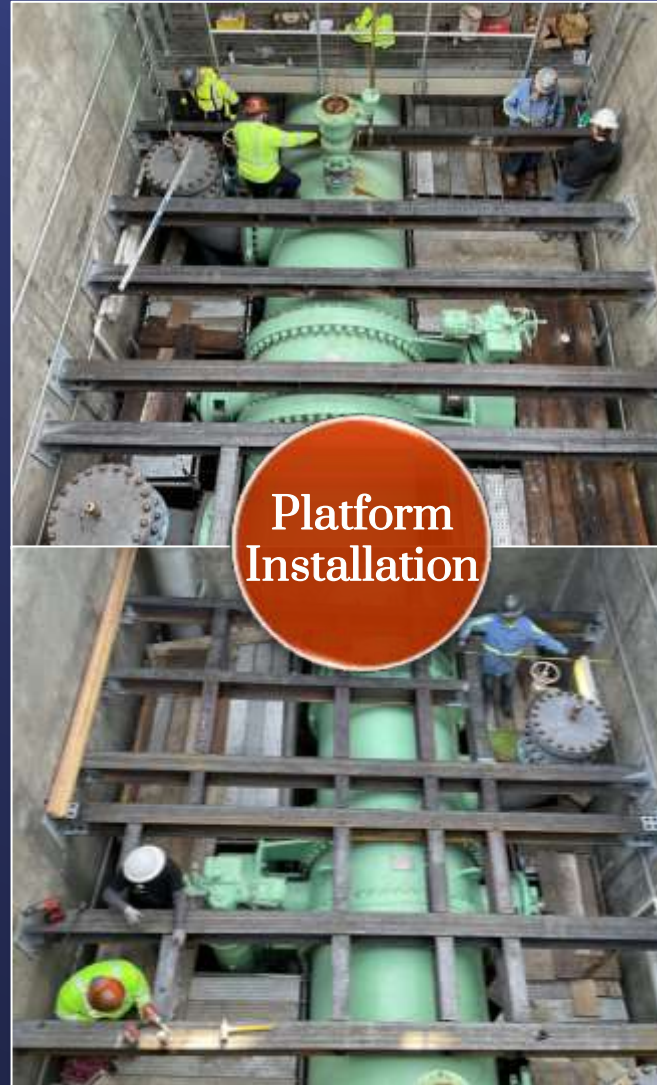
Site Preparation



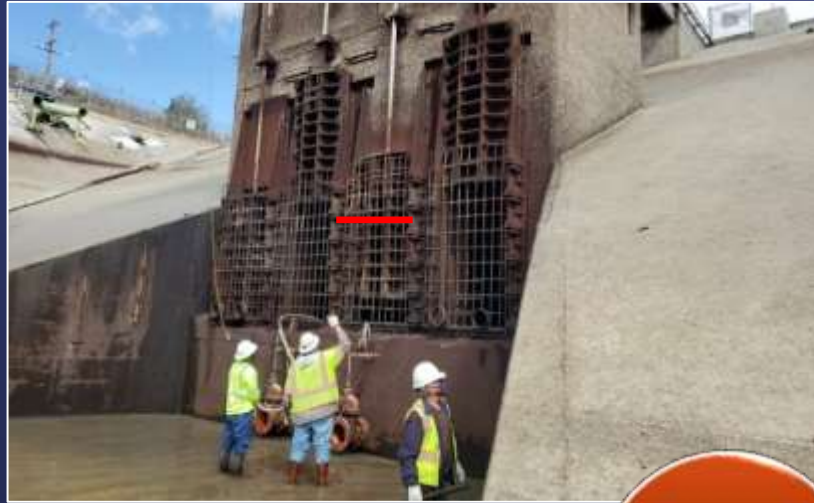
Meter Replacement



Construction Services Unit (CSU) – OC-88 Bypass



Construction Services Unit (CSU) – Lake Mathews Gate 12



2020
Shutdown



2023
Shutdown



Construction Services Unit (CSU) – Tropical Storm Hillary



MSU Overview



What Does MSU Do?

- Emergency and routine work...
- Manufacture/refurbish critical equipment
- Dive inspections/repairs
- Floating reservoir maintenance/repairs
- Crane maintenance and annual certification
- Facilities maintenance support
- Support Member Agencies, DWR, etc.

MSU Mission

Mission Statement

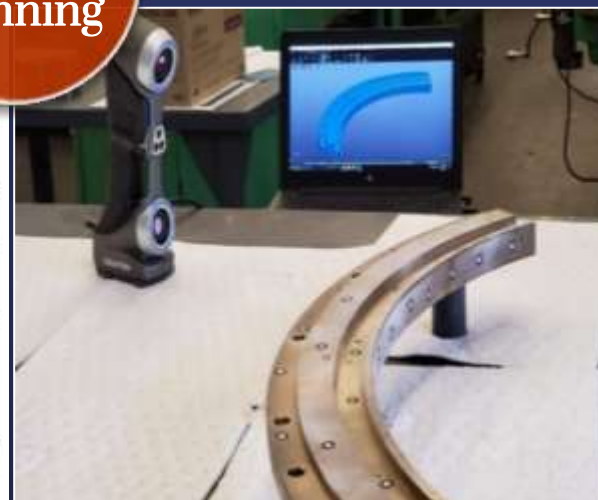
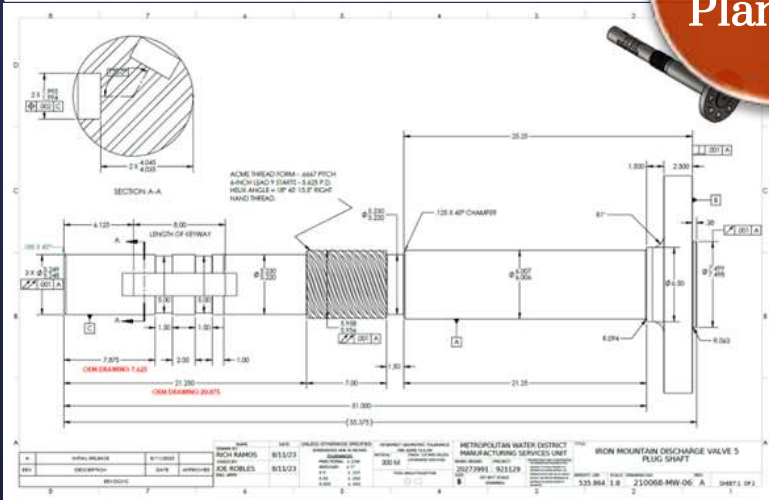
- To be a one stop solutions provider for emergency, shutdown, regulatory, and routine services
- Internal, member/public agencies



Manufacturing Services Unit Production Planning



Production Planning



Services

- Shop Floor Planning
- Reverse Engineering
- Manufact. Drawings
- Crane Certifications
- Project Management

Manufacturing Services Unit (MSU) – Valve and Dive



Valves
&
Actuators

Services

- Commercial Diving
- Valve Repair/Refurb
- Actuator Repair/Refurb
- Troubleshooting
- Valve installation
- Cover Maint/Repair



Dive
Services



Manufacturing Services Unit (MSU) – Fab and Machine



Pipe
Fab



Machining



Welding



Services

- Welding
- Corrosion Repair
- Pipe Manufacture
- Fabricated Structures
- CNC/Conv. Machining
- Inspection
- As Found Assessment

Manufacturing Services Unit (MSU) – Coatings



Blasting



Industrial Coating



Mortar Lining



Services

- Abrasive Blasting
- Industrial Coating
- Fiberglass Repair
- Powder Coating
- Mortar Lining
- Concrete Injection

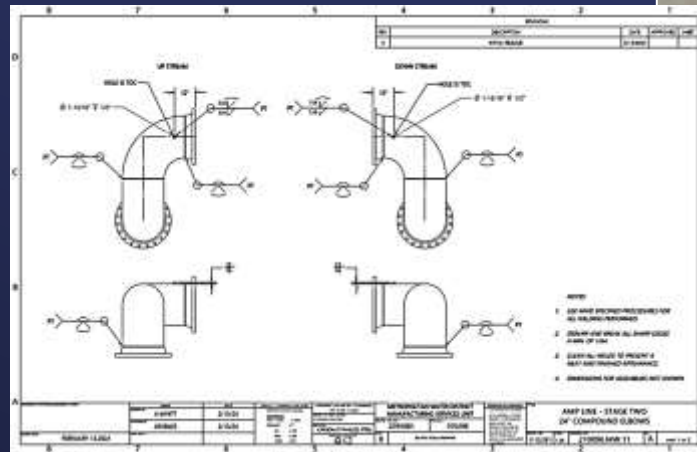
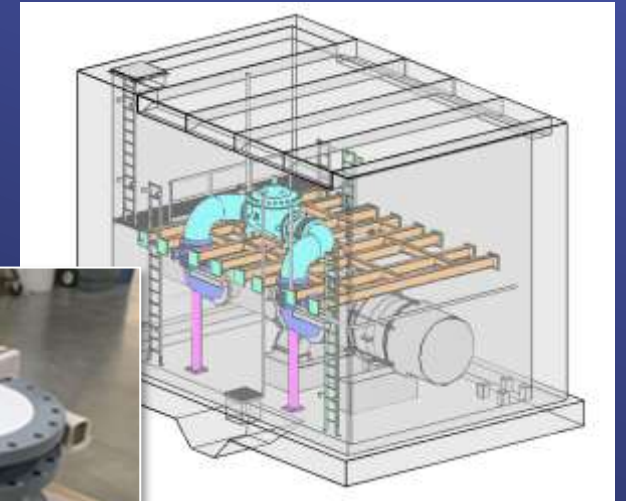
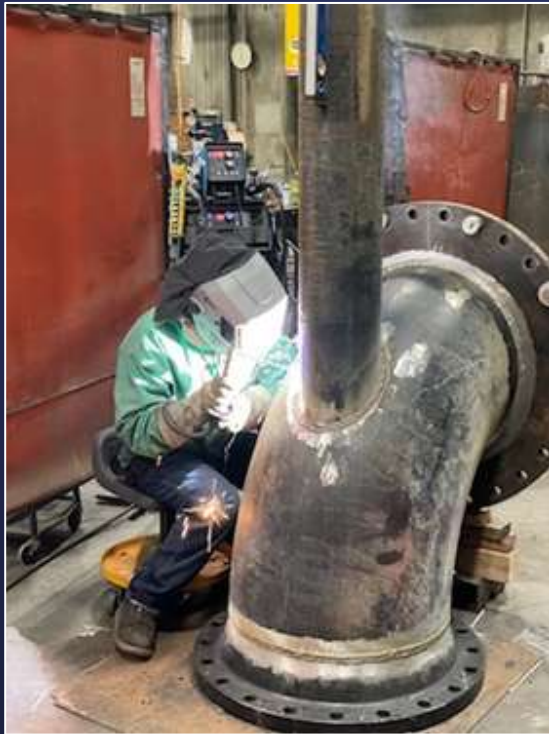
SM-01 Service Connection Leak Repair

Rapid
Response



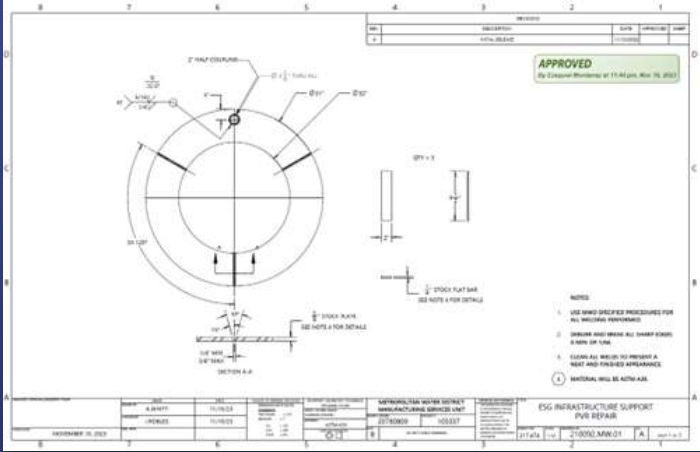
Allen McCulloch OC-88 Bypass

Rapid
Response



Palos Verdes Feeder Leak Repair

Rapid
Response



Looking Ahead

Ensuring readiness and resilience

- Continued focus on ability to respond to emergencies at a moments notice
- Seek opportunities to grow staff abilities and keep up with industry trends
- Continuing to support ongoing operations and maintenance

Managing Challenges

- Demand for services has remained high for past few years
- Inflationary and contract limits are a challenge
- Managing shift to zero emissions while remaining reliable is a focus area

