

# West Point Improvement Update

October 28, 2020





# AECOM 2017 Assessment

## **Independent Assessment identified four recommendations:**

1. Implement a Life Safety Management (LSM) program
2. Conduct comprehensive emergency response training
3. Conduct an evaluation to address plant constraints and improve redundancy
4. Optimize a capital improvement plan to maximize redundancy

# AECOM Assessments

**2017 assessment identified 98 strategies for implementation**

**Currently:**

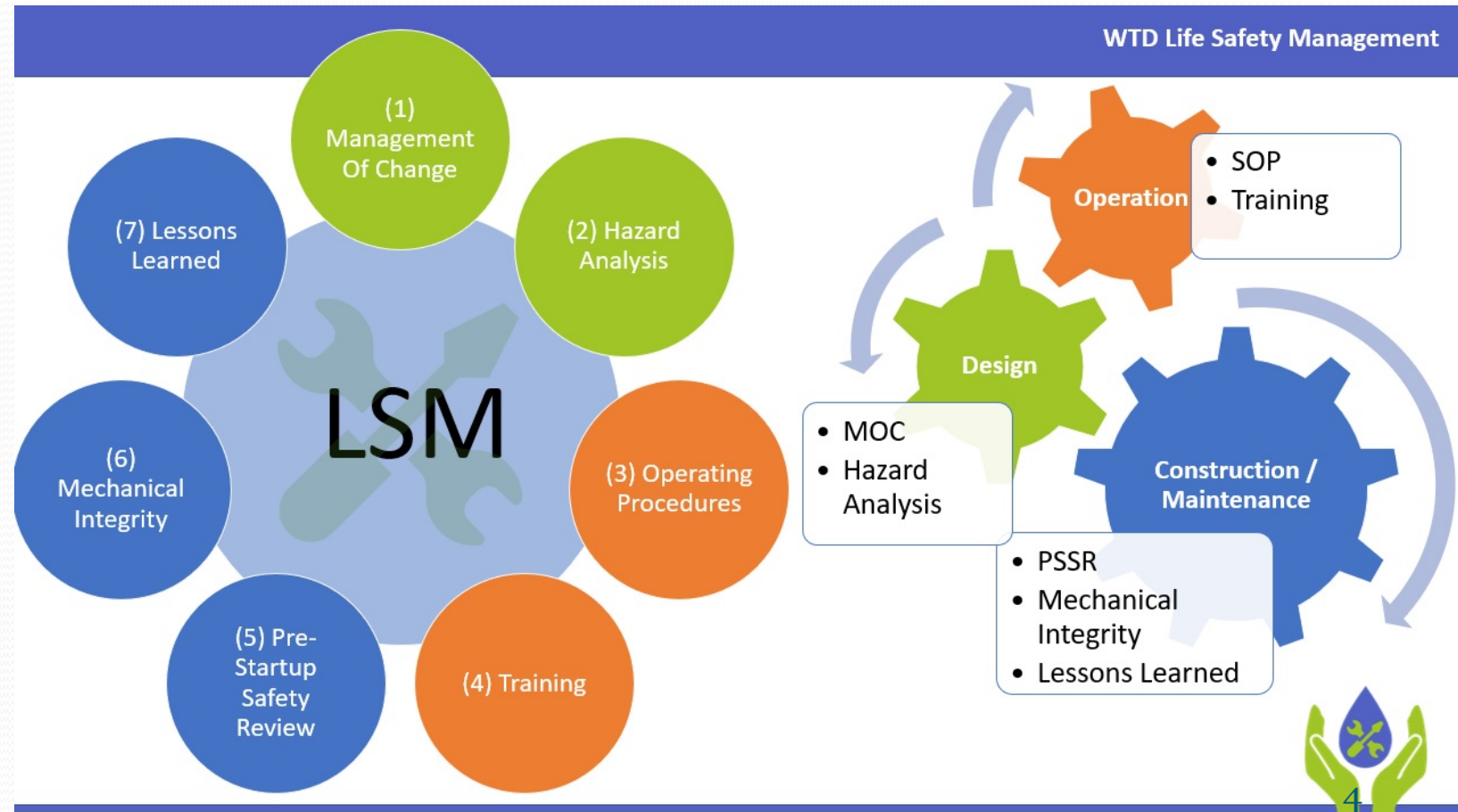
- 59 complete
- 19 in progress
- 20 not applicable / infeasible
  - Agreed upon by AECOM in 2019 follow-up report

# Recommendation #1

Implement a Life Safety Management (LSM) program

## Progress:

LSM Program implemented and ongoing. 2019 AECOM follow-up report found this item to be complete.



# Recommendation #1

Implement a Life Safety Management (LSM) program

## Highlights:

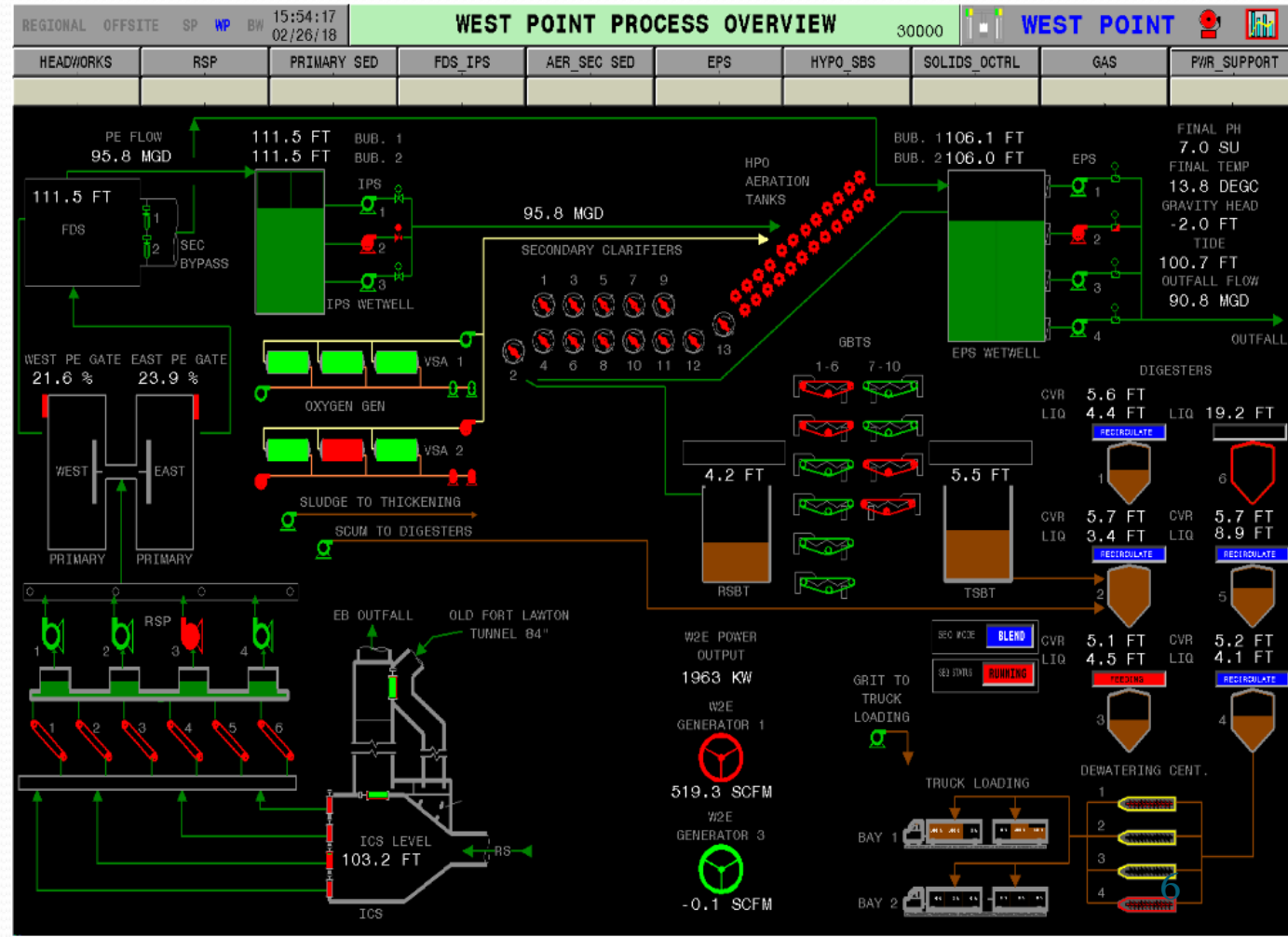
- Dedicated Life Safety Coordinator
- Flood Protection Hazard Analysis completed
- Management of Change (MOC) program

# Recommendation #2

Conduct comprehensive emergency response training

## Progress:

- Mitigation strategies implemented and ongoing.
- Training Manager hired.



# Recommendation #2

Conduct comprehensive emergency response training

## Highlights:

- Improved training modules and tabletop exercises
- Operations training simulator
- 1 on 1 training
- Emergency response training
- Emergency evacuation paths/procedures training

# Recommendation #2

Conduct comprehensive emergency response training

## Highlights (Cont.):

- Operator-in-Training program
- New and modified standard operating procedures (SOPs)
  - Emergency By-pass
  - EPS restart
  - Tunnel entry



# Recommendation #3

Conduct an evaluation to address plant constraints and improve redundancy

## Progress:

- Mitigation strategies are being evaluated or have been implemented and are ongoing



# Recommendation #3

Conduct an evaluation to address plant constraints and improve redundancy

## Highlights:

- Passive bypass weir study complete
  - Project initiated to construct passive weir at the Influent Control Structure
- Upstream collection optimization
  - Continual evaluation to improve upstream flow control/management
- Revised SOPs
  - Clear procedures on when and how to initiate emergency by-pass
  - Continual training / emergency drills to maintain proficiency

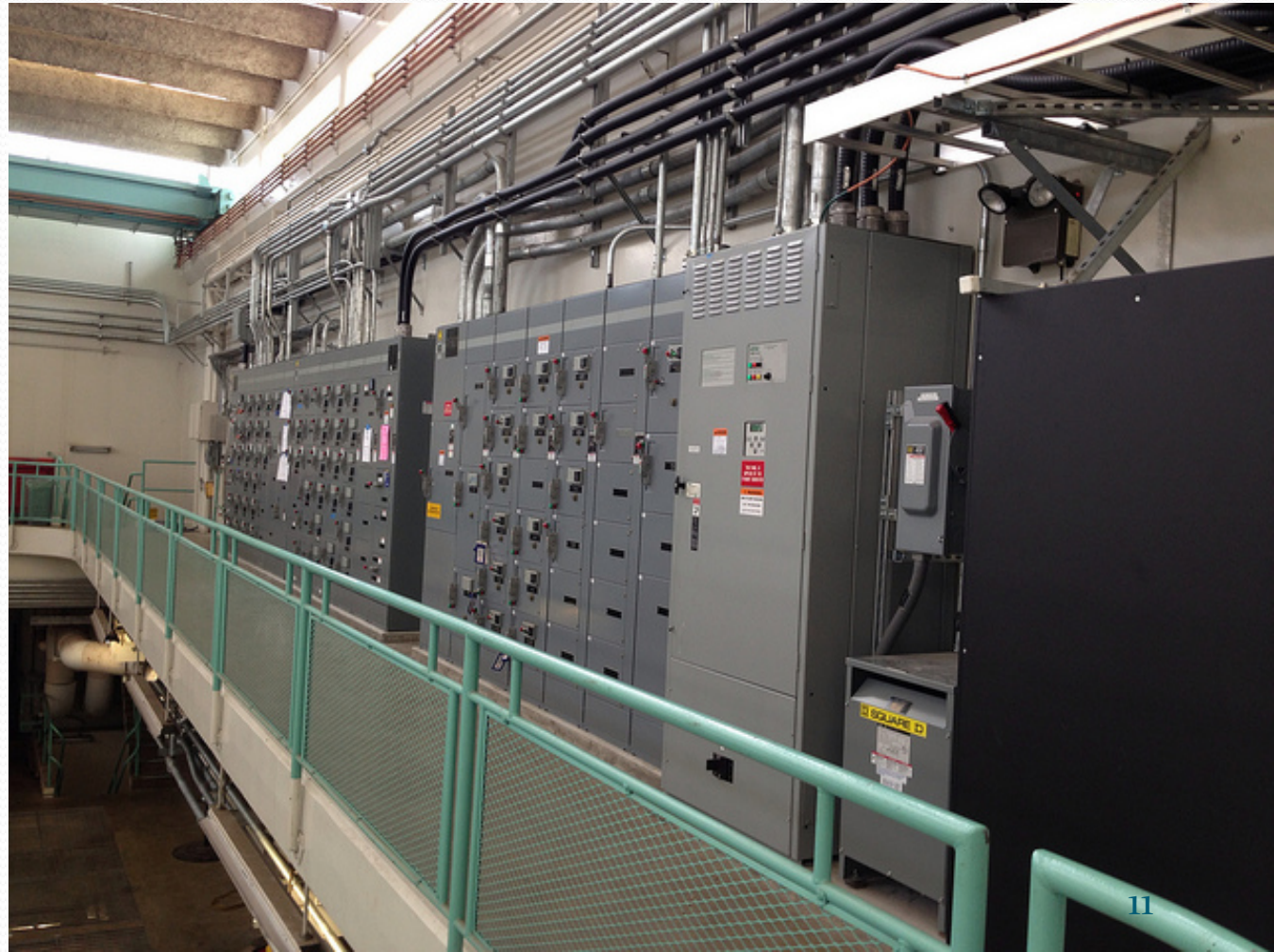


# Recommendation #4

Optimize a capital improvement plan to maximize redundancy

## Progress:

- Mitigation strategies have been implemented and are ongoing





# Recommendation #4

Optimize a capital improvement plan to maximize redundancy

## Highlights:

- Remote emergency operation of bypass and marine outfall gates
- Remote emergency pump shut-off
- Tethered float switches
- Additional hydraulic power unit
- Pump vibration monitors and variable frequency drives
- Maintenance planning and tracking processes
- Hazard Warning System project

# West Point Capital Improvement Program

| Project Title                  | Forecast (\$) | Status      | Substantial Completion |
|--------------------------------|---------------|-------------|------------------------|
| WP Passive Weir Installation   | \$5,000,000   | In Progress | 9/30/2023              |
| WP Raw Sewage Pump Replacement | \$170,000,000 | In Progress | 12/31/2029             |
| WP Power Monitoring Upgrades   | \$5,200,000   | In Progress | 12/31/2023             |
| CMMS Replacement               | \$4,400,000   | In Progress | 12/31/2023             |

# Conclusions

- WTD is committed to the West Point improvement effort and full implementation of the AECOM recommendations to improve overall plant safety and effectiveness.
- AECOM's 2019 follow-up study reported that WTD is making significant progress implementing the four recommendations from the 2017 Independent Assessment.



# Conclusions (Cont.)

## 1. Implement a Life Safety Management (LSM) program.

- AECOM 2019 Follow-up evaluation:
  - The LSM program has been initiated and implementation of this recommendation is complete. Work is ongoing. No additional actions are recommended to support recommendation #1.

# Conclusions (Cont.)

## 2. Conduct comprehensive emergency response training.

- AECOM 2019 Follow-up evaluation:
  - WTD has made significant improvement to its operator training program, including the emergency response training program. Planned future actions involve continued progress towards a comprehensive emergency training and exercise program.

# Conclusions (Cont.)

## 3. Conduct an integrated evaluation to address plant constraints and improve redundancy.

- AECOM 2019 Follow-up evaluation:
  - The strategies that WTD has implemented or plans to implement address the lack of existing passive systems at the plant. No additional actions are recommended to support recommendation #3.



# Conclusions (Cont.)

## 4. Optimize a capital improvement plan to maximize redundancy.

- AECOM 2019 Follow-up evaluation:

Evaluators found that WTD has implemented many of the short-term improvement strategies and is in the planning process to implement the longer-term improvement strategies. No additional actions are recommended to support recommendation #4.

# Questions?

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