Maintaining Facility Reliability in a Sea of Change

Baywork
Maintenance & Asset Management Workshop
April 2015
Bob Marsheck
Alameda County Water District

Fremont, Newark and Union City
Serve population of 340,000

900 miles of pipe
4 Production Facilities
Groundwater Recharge Facilities
12 Storage Facilities
15 Boosters Stations
20 Regulator Stations
Why are we Here?

“It is the mission of the Alameda County Water District to provide a reliable supply of high quality water at a reasonable price to our customers.”

“An ounce of prevention is worth a pound of cure”
– Ben Franklin
a Sea of Change

People and Processes
... a Sea of Change

People

- Facilities Maintenance Manager
  - General Maintenance Supervisor
    - Fleet Mechanic
      - Facility Maint Worker
      - Facility Maint Worker
      - Gardener
      - Gardener
      - Gardener
    - Utility Mechanic
      - Utility Mechanic
      - Utility Mechanic
      - Utility Mechanic
    - Electrician
      - Electrician
      - Electrician
    - Instrument Technician
      - Instrument Technician
      - Instrument Technician
      - Instrument Technician
  - Facilities Maintenance Supervisor
  - Facilities Engineering Supervisor
    - SCADA Engineer
    - Electrical Engineer
    - Mechanical Engineer
    - Planner / Scheduler
    - Planner / Scheduler
    - Engineering Technician
... a Sea of Change

Processes

- **Enterprise Resource Software** – major change
  - Asset management
  - Work orders
  - Purchasing
  - Time entry
  - Financials
Maintaining Facility Reliability . . .

Training

Utility Mechanics, Electricians, Instrument Technicians

• Work Processes
• Regulations
• Technical
Maintaining Facility Reliability . . .

Maintenance Planning & Scheduling

<table>
<thead>
<tr>
<th>Facilities Maintenance</th>
<th>Weekly Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Monday 13 April 2015</td>
</tr>
<tr>
<td><strong>Janusz</strong></td>
<td><strong>Vacation</strong></td>
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<tr>
<td><strong>Mike</strong></td>
<td>Corrective Maintenance Scott Creek Booster</td>
</tr>
<tr>
<td><strong>Ted</strong></td>
<td>Off</td>
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<tr>
<td><strong>Robert</strong></td>
<td>Corrective Maintenance Scott Creek Booster Prep Alameda Aft. Valve</td>
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<tr>
<td><strong>Voltaire</strong></td>
<td><strong>Vacation</strong></td>
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<tr>
<td><strong>Bill</strong></td>
<td>Corrective Maintenance Money Switch Clear Battery Charger WOF 63036</td>
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<tr>
<td><strong>Danny</strong></td>
<td>Corrective Maintenance Curtner P-1</td>
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<tr>
<td><strong>Roberto</strong></td>
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<tr>
<td><strong>Tim</strong></td>
<td>Instrument P/Ms Blender</td>
</tr>
<tr>
<td><strong>Dave</strong></td>
<td>Corrective Maintenance Scott Creek Booster</td>
</tr>
</tbody>
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Maintaining Facility Reliability . . .

Preventive Maintenance
Maintaining Facility Reliability . . .

Facility Assessments

- Regulator Stations
- Booster Stations
- Storage Facilities
- Take-Offs
- Production Facilities
Maintaining Facility Reliability . . .

- Training the Trades
- Maintenance Planning & Scheduling
- Preventive Maintenance
- Facility Assessments
Challenges and Next Steps

- Staffing
- Culture Change
- Focus
- Persistence
Thank you.