

Subject: Update on DWR's Hyatt and Thermalito Facilities

Purpose: To provide an update on the Lake Oroville Facilities including the Hyatt Power Plant, the River Valves and the Thermalito Power Plant.

E&O Committee name

Item #6c

Summary

To provide an operational status on the Lake Oroville Facilities including the six units at the Hyatt Power Plant, the River Valves and the Thermalito Power Plant that are either non-operational or have limited operational availability. The expected on-line operational availability will also be discussed.



DWR's Hyatt & Thermalito Facilities

Engineering and Operations Committee

Item 6c

March 11, 2013

DWR Oroville Facilities

Oroville Dam & Hyatt Power Plant



DWR Delta Facilities

Banks Pumping Plant



- Fed by Feather River and Sacramento River Flows
- Banks Plant at the Southern Delta

DWR California Aqueduct

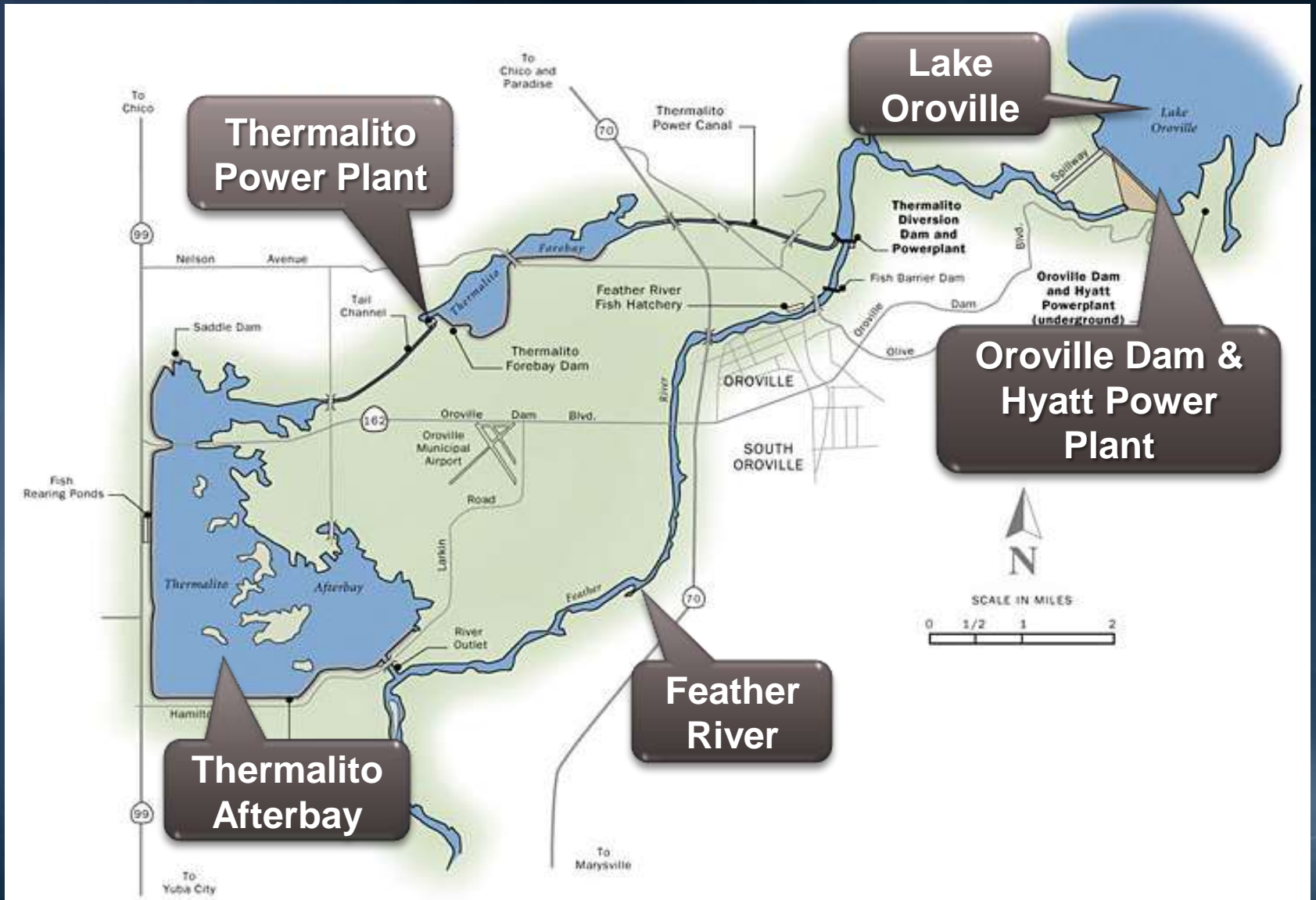


California Aqueduct

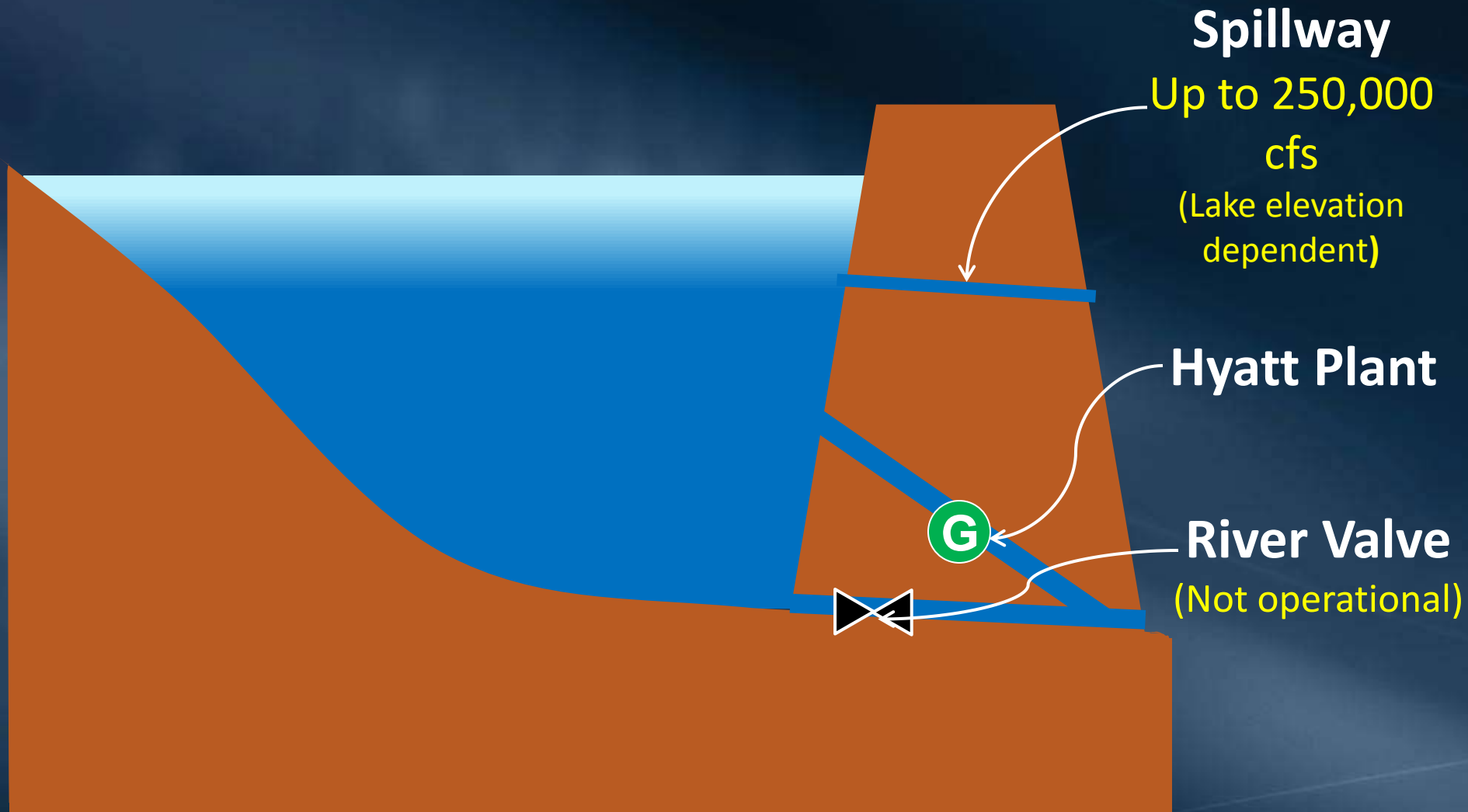


- Over 400 miles
- Max flow: >10,000 cfs
- Max single lift: 1,926 ft

DWR Oroville Facilities



Oroville Water Delivery Options



Hyatt Power Plant



Inside Hyatt Power Plant

- Three generators and three pump/generators
- Nameplate capacity of almost 17,000 cfs
- Over 800 MW total generation capacity
- Numerous equipment challenges experienced last year
- DWR and consultants working to address problems
- MWD providing support through reimbursable agreement

Hyatt Power Plant – Unit Status

- DWR has increased the capacity at Hyatt by about 3,000 cfs since last summer
- DWR Goal – Five units available by summer at 11,000 CFS capacity

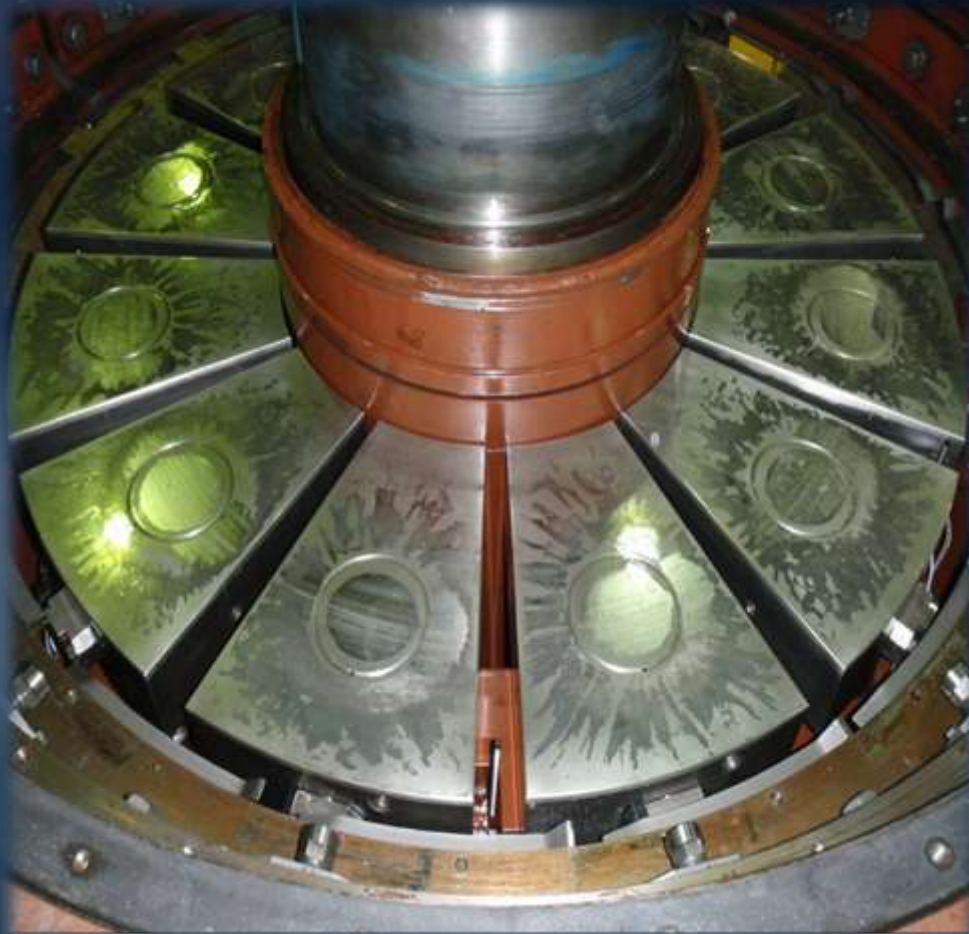
Unit	1	2	3	4	5	6
Type	G	P/G	G	P/G	G	P/G
Current Capacity	900 cfs	--	3,000 cfs	2,400 cfs	--	--
Issues	Thrust bearing concerns	Head cover bolts	--	--	Thrust bearing failures	High turbine leakage
Return to Service (est.)	1/3 Capacity Available	June 2013	Available	Available	May 2013	Late Summer 2013

Hyatt Power Plant – Long Term Plan

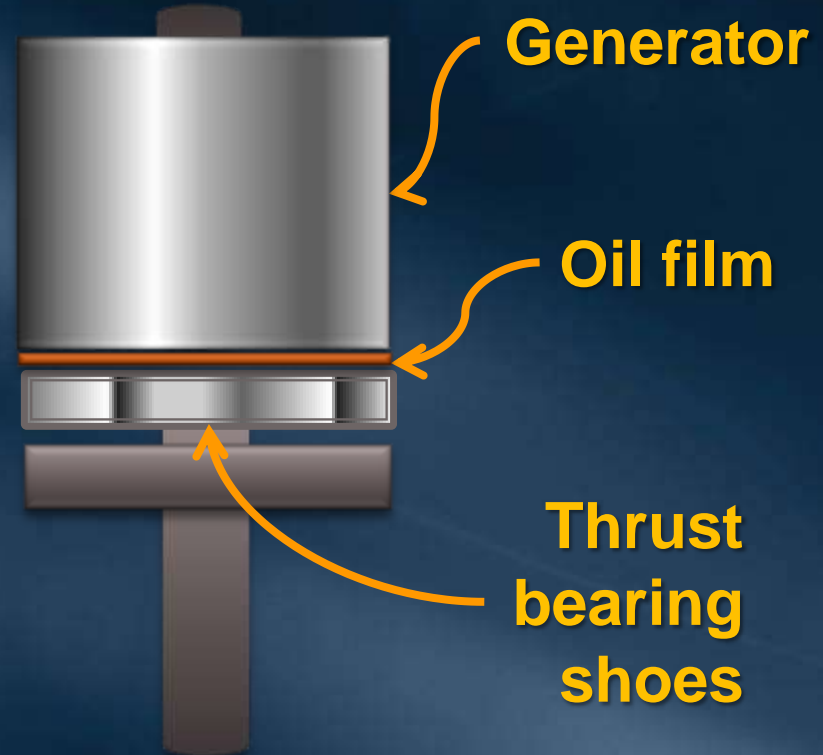
- ☑ Conduct engineering study
- Conduct equipment evaluation
- Prototype tests
- Replace runners on all units



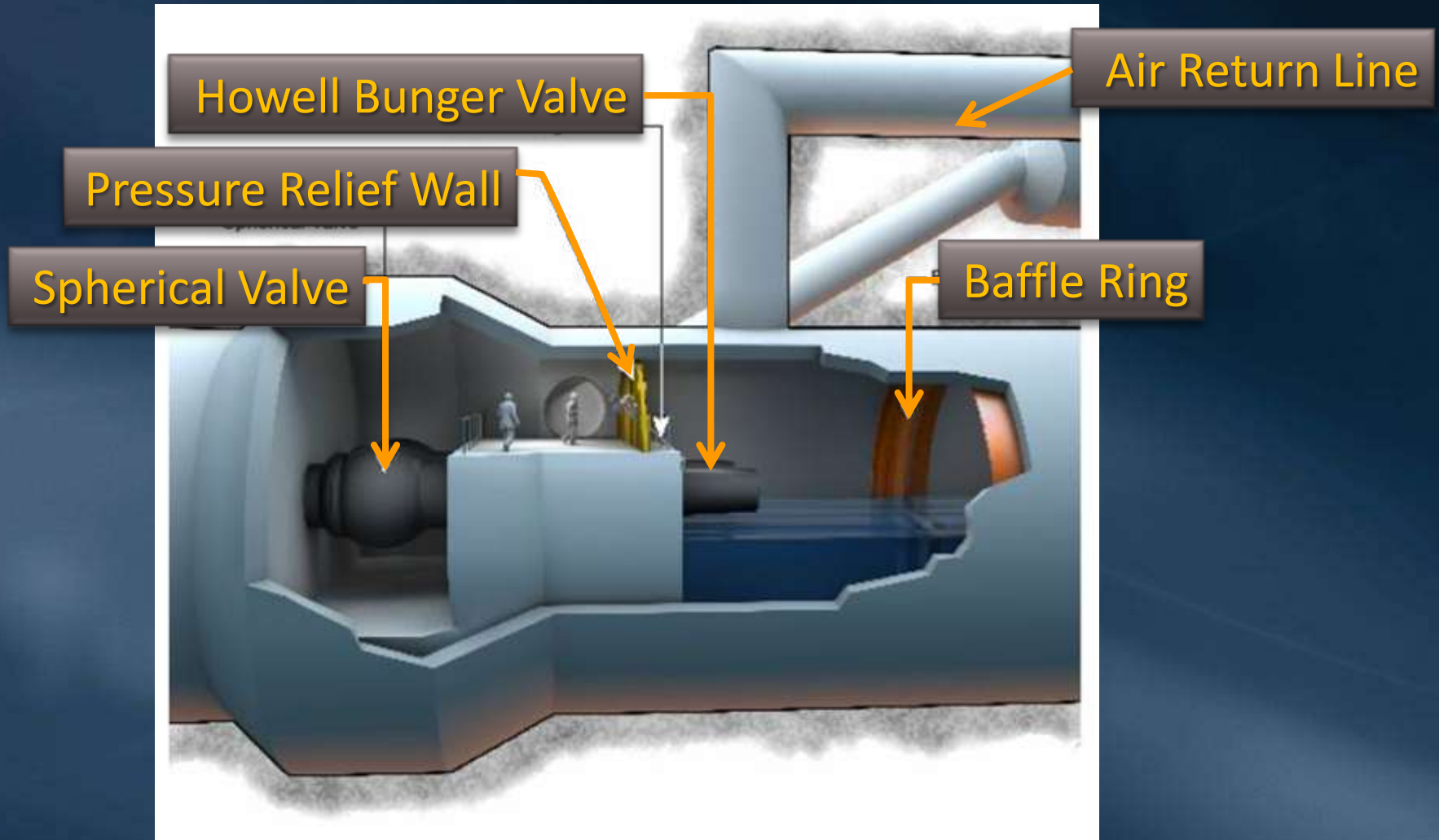
Hyatt Power Plant – Unit Status



Failed or Wiped Thrust Bearing Shoes



Oroville Dam River Valve Chamber



River Valve Update

- DWR hired a technical consultant
- Conducting a feasibility study/conceptual design
 - Safely isolate outlet valves
 - Rehabilitate existing outlet valves
 - Interim solution to deliver 1500 cfs
 - Final solution to deliver 5400 cfs
 - Eventually relocate outlet valves
- Complete study/design by late summer 2013

Thermalito Fire



Thermalito Fire

- Thanksgiving morning, November 22nd
- Water reliability not affected
- SWP energy supply loss estimated at 5% of total project need
- Facility is currently being bypassed
- On going facility cleanup
- Damage assessment is progressing
 - DWR has hired forensic fire damage consultants
 - Stored Hyatt unit components have been removed

