

Glen Canyon Dam Adaptive Management Work Group
Agenda Item Information
February 20-21, 2013

Agenda Item

Glen Canyon Dam Facility Management

Action Requested

✓ Information item only.

Presenter

Jason Tucker, Facility Manager, Glen Canyon Dam

Previous Action Taken

N/A

Relevant Science

N/A

Background Information

Glen Canyon Dam requires constant maintenance to remain operational. Contracting for, scheduling, and completing this maintenance in concert with the other operational demands on the facility is a challenging endeavor. Reclamation will review the current water year outage schedule along with the next four years, and talk about major replacement work as well as modifications to existing power plant systems that will affect the outage schedule.

RECLAMATION

Managing Water in the West

Glen Canyon Dam Powerplant Maintenance Long Term Forecast

Adaptive Management Work Group
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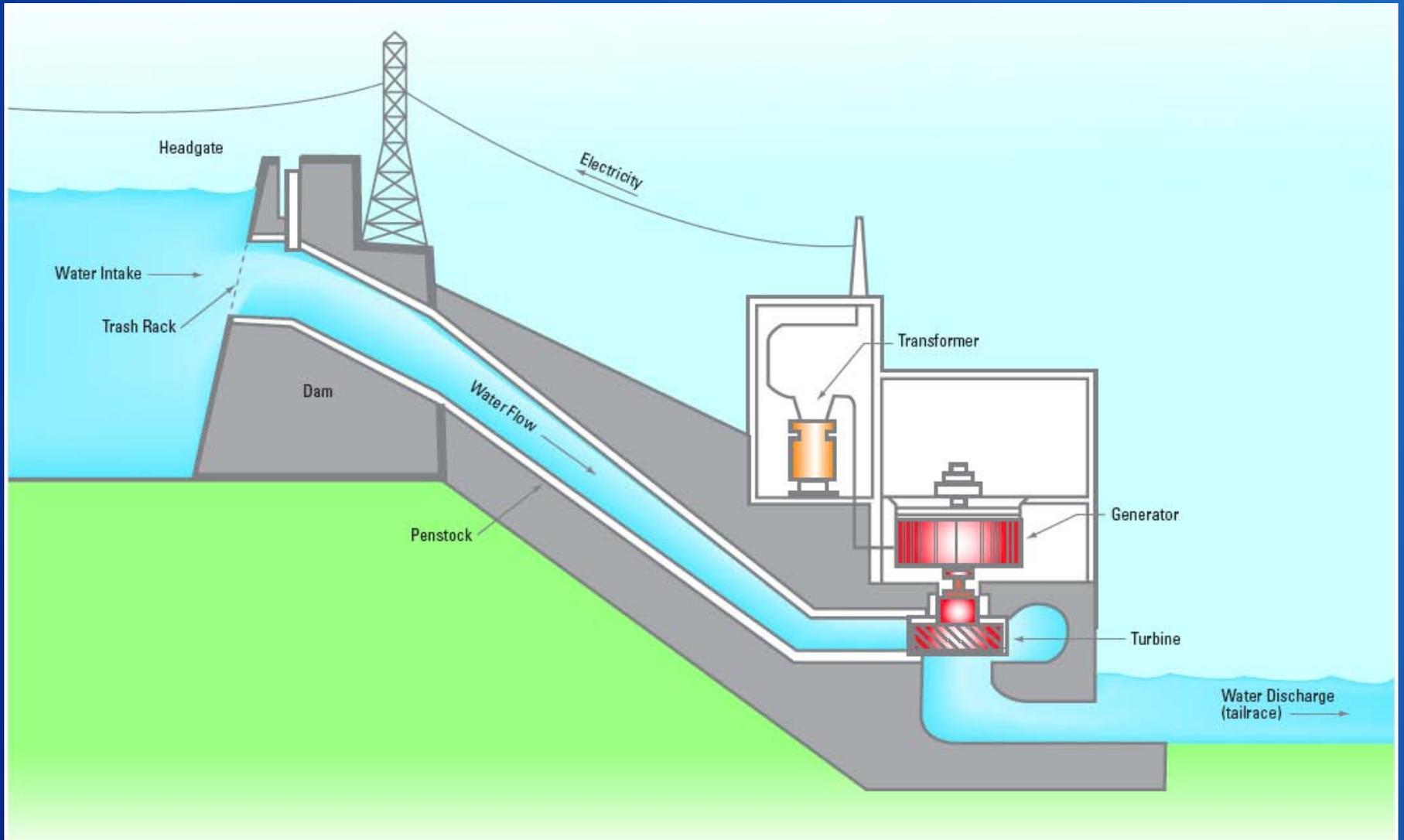


U.S. Department of the Interior
Bureau of Reclamation

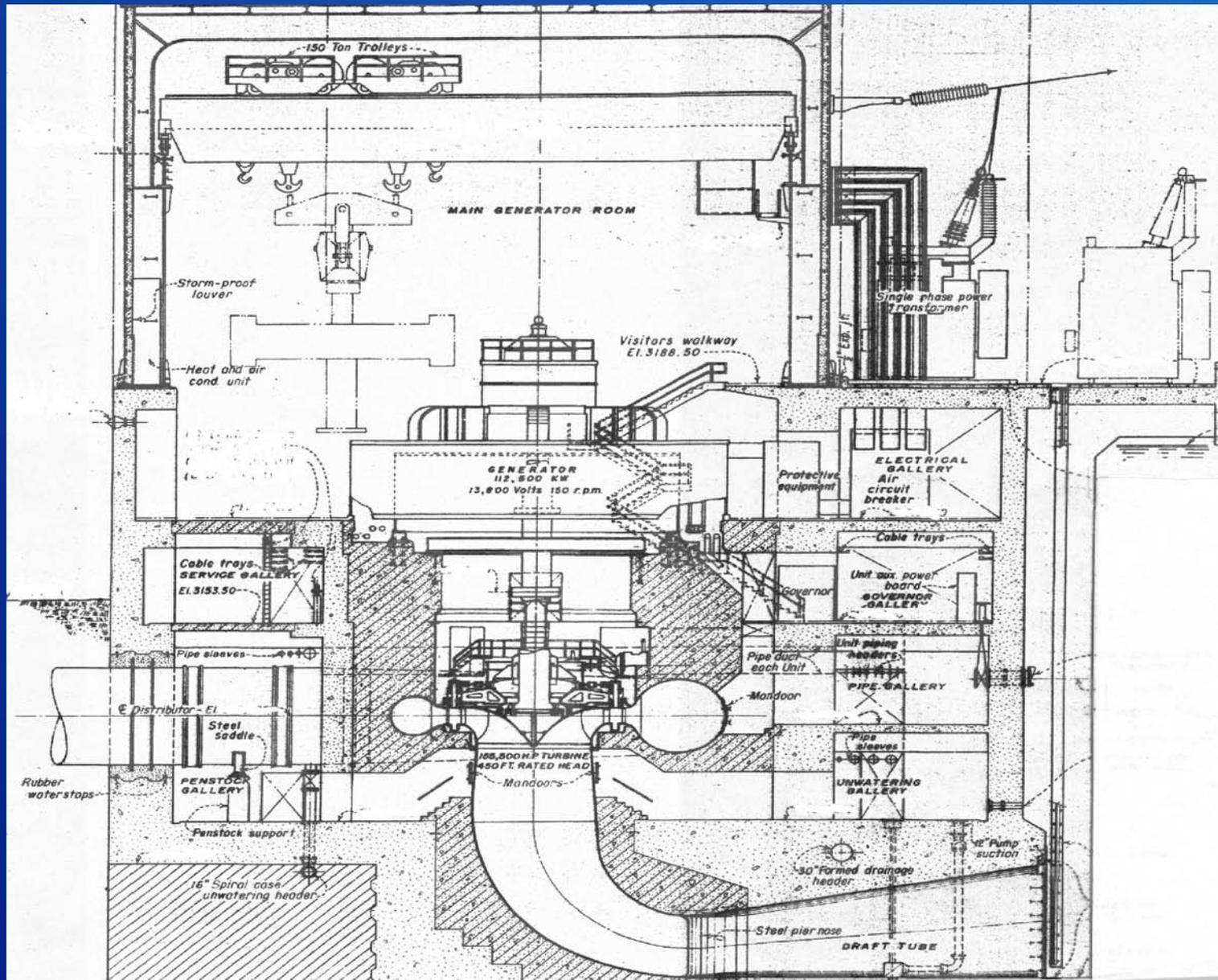
Jason Tucker
Glen Canyon Field Division
Manager

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RECLAMATION



RECLAMATION



RECLAMATION

Turbine Replacement



RECLAMATION

TURBINE REPLACEMENTS

EIGHT YEAR CONTRACT

To replace all 8 turbines
5 of the 8 are completed
Schedule for completion

- 2013 UNIT 4
- 2014 UNIT 3
- 2015 UNIT 2



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Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2013 (updated 2-1-2013)

Unit Number	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013
1												
2												
3												
4												
5												
6 (3/4 Unit)												
7												
8												
Units Available	5	8 7	7	7	5	6 7	7	7	7	7	8	5
Capacity (cfs)	19,500	25,200 21,700	21,800	21,600	14,800	18,000 21,600	21,600	21,600	21,600	21,600	25,300	14,700
Capacity (kaf/month)	1310	1380	1290	1290	920	1220	1290	1200	1290	1470	1560	1010
Max (kaf)	--	--	--	800	600	600	550	600	800	801	850	600
Most (kaf)	494	730	801	800	600	600	550	600	800	801	850	600
Min (kaf)	--	--	--	800	600	600	550	600	800	801	850	600

Unit 4 Turbine Runner Replacement



Unit 6 Stator being prepared for half coil splices



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GENERATOR REWINDS

- Units 1,3,5,6
- Unit 6 had a Winding Failure in July 2008.
- “Forced Outage”
- Reassembled in 2010 with a reduction in capacity. Now 75 % of original capacity
- Anticipate Award in 2013
- One rewind takes about a year
- Units 8,2,4,7 were rewound 1998-2006

RECLAMATION

Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2014 (updated 2-1-2013)

Unit Number	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014	Sep 2014
1												
2												
3												
4												
5												
6 (3/4 Unit)												
7												
8												
Units Available										Unit 6 Generator Rewind		
Capacity (cfs)												
Capacity (kaf/month)												
Max (kaf)												
Most (kaf)												
Min (kaf)												

Glen Canyon Transformers



RECLAMATION

Transformer Replacements

- Contract to be awarded in 2013
- Transformers will be replaced in the 2015-2018 timeframe
- Nine months to replace each set of transformers
- Two generators out of service for each transformer replacement

Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2015 (updated 2-1-2013)

Unit Number	Oct 2014	Nov 2014	Dec 2014	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	Jun 2015	Jul 2015	Aug 2015	Sep 2015
1				[Outage]								
2	[Outage]			[Outage]								
3						[Outage]						
4						[Outage]						
5	[Outage]											[Outage]
6 (3/4 Unit)	[Outage]											[Outage]
7			[Outage]		[Outage]							
8					[Outage]							
Units Available												
Capacity (cfs)												
Capacity (kaf/month)												
Max (kaf)												
Most (kaf)												
Min (kaf)												

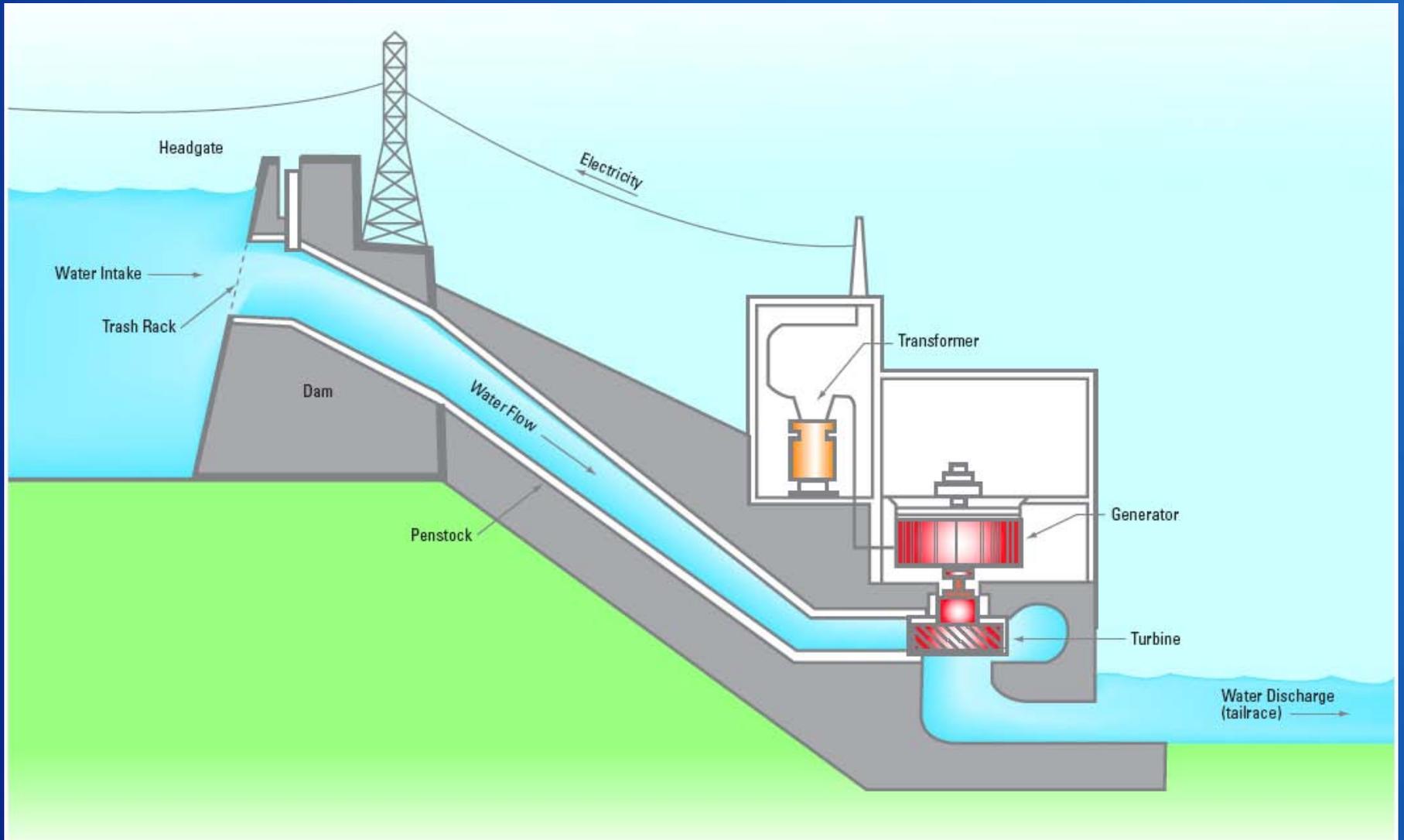
Unit 1 Generator Rewind and Unit 1-2 Shared Transformer Replacement

Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2016 (updated 2-1-2013)

Unit Number	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016
1												
2												
3												
4												
5												
6 (3/4 Unit)												
7												
8												
Units Available												
Capacity (cfs)												
Capacity (kaf/month)												
Max (kaf)												
Most (kaf)												
Min (kaf)												

Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2017 (updated 2-1-2013)

Unit Number	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
1												
2												
3												
4												
5												
6 (3/4 Unit)												
7												
8												
Units Available												
Capacity (cfs)												
Capacity (kaf/month)												
Max (kaf)												
Most (kaf)												
Min (kaf)												



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