



Operations Project Review Willamette Valley Projects



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Willamette Valley Projects - Milestones

<u>Joint & FDR</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Detroit	Replace spillway gate wire ropes	Feb	
Detroit	Replace main dam compressor	Feb	Sept
Detroit	Install oil detection for sump	Sep	
Big Cliff	Repair spillway stoplogs	Sep	
Big Cliff	Install oil detection for sump	Sep	
Hills Creek	Repair spillway gate gearboxes	Feb	
Hills Creek	Relocate Sand Prairie gauging station	Nov	
Hills Creek	Install oil detection for sump	Sep	
Green Peter	Replace emergency diesel cooling water valve	May	
Green Peter	Rebuild domestic water pump	Aug	Mar
Green Peter	Restore switchboard interlock	Sep	Apr
Green Peter	Install oil detection for sump	Sep	
Foster	Plug diesel tank vault	Jul	

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Willamette Valley Projects - Milestones

<u>Joint & FDR</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Foster	Spillway limit switch upgrade	Feb	Jul
Foster	Improve stoplog lifting beam release	Dec	Jun
Lookout Point	Repair spillway high speed gate seals/bearings/gearboxes	Feb	
Lookout Point	Breaker arc flash updates for dam distribution panel	Feb	
Lookout Point	Install oil detection for sump	Sep	
Dexter	Repair septic drainfield	Sep	
Dexter	Relocate dam feeder	Sep	
Cougar	Evaluate diversion tunnel options for long-term O&M	Mar	
Cougar	Install spillway gate motors & couplings	Jan	Jul
Cougar	Install oil detection for sump	Sep	
Cougar	Repair RO gate indication	Feb	

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Willamette Valley Projects - Milestones

<u>Joint & FDR</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Cottage Grove	Refurbish hydraulic oil	May	Nov
Cottage Grove	Install oil detection for sump	Sep	
Dorena	Refurbish hydraulic oil	Jun	Nov
Dorena	Replace packing in RO #4 emergency gate	Aug	
Dorena	Install oil detection for sump	Aug	
Fern Ridge	Install oil detection for sump	Jun	
Fern Ridge	Stilling basin repair	July	
Fern Ridge	Long Tom channel maintenance	Aug	
Fall Creek	Install oil detection for sump	Aug	
Fall Creek	Auto Gate w/card reader	Sep	
Blue River	Rehab RO hydraulics	Sep	
Blue River	Install new spillway gate motors and couplings	Jan	Aug
Blue River	Repair spillway hand rails	Mar	

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Willamette Valley Projects - Milestones

<u>Joint & FDR</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
All facilities	Support microwave backbone development	ongoing	
All facilities	Support HSS inspections	ongoing	
All facilities	Evaluate cranes and hoists	ongoing	
All facilities	Advance hydraulic/lube oil testing program	ongoing	
All facilities	QA FEM PM/job plans	ongoing	
All facilities	Routine O&M. Improve critical PM completion. Improve dam safety monitoring, manage embankment vegetation, readiness, MEVA security, provide troubleshooting, minor debris management, equipment repairs, normal and flood operations	ongoing	

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Willamette Valley Projects - Milestones

<u>Hydropower</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Big Cliff Unit-1	Annual	Jun	
Foster Unit- 1	Annual	Dec	May
Foster Unit- 2	Annual	Jan	Jun
Green Peter Unit-1	Annual	Sep	
Green Peter Unit- 2	Quadrennial	Aug	
Hills Creek Unit- 1	Annual	Jun	
Hills Creek Unit- 2	Annual	Jul	
Lookout Point Unit- 1	Annual	Apr	
Lookout Point Unit- 2	Annual	May	
Lookout Point Unit- 3	Annual	Jun	
Dexter Unit- 1	Annual	Apr	
Cougar Unit-1	Annual	Mar	
Cougar Unit- 2	Annual	Mar	

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Willamette Valley Projects - Milestones

<u>Hydropower</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Cougar	Improve CO2 system	Apr	
Cougar	Install oil detection for sump	Sep	
Cougar	Replace turbine-pit high water alarm	May	
Cougar	Update breaker for arc flash	Sep	
Cougar	Replace transformer temp gauge	Feb	Apr
Hills Creek	Install oil detection for sump	Sep	
Hills Creek	Improve CO2 system	Jul	
Detroit	Install I-Historian for SCADA	Aug	
Detroit	Install CO2 alarm and lights	Jan	
Detroit	Improve CO2 system	Mar	
Detroit	Replace transformer cooling water valve	Mar	
Detroit	Generator cooling water valves	Aug	
Detroit	Install control room roof	Aug	



Willamette Valley Projects - Milestones

<u>Hydropower</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Big Cliff	Replace blade packing	Apr	Mar
Big Cliff	Improve CO2 system	Jul	
Big Cliff	Install CO2 alarm and lights	Jul	
Foster	Ground transformer fencing	Aug	
Foster	Update top plate pump electrode	Feb	Jun
Foster	Update governor pump switch	Feb	Jun
Foster	Replace unit flow gauge	Aug	
Foster	Install I-Historian for SCADA	Sep	
Foster	Replace chargers, inverters, 48V	Sep	
Foster	Replace station service breaker	Aug	Mar
Foster	Install CO2 alarm and lights	Feb	Sep
Foster	Improve CO2 system	Feb	
Green Peter	Remote Racking for MUCB	Sep	
Green Peter	Install CO2 alarm and lights	Sep	
Green Peter	Improve CO2 system	Sep	



Willamette Valley Projects - Milestones

<u>Hydropower</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Green Peter	Replace battery charger/ 48V	Sep	
Green Peter	Replace station service breaker	Feb	Mar
Lookout Point	Install breaker arc flash improvements	Jan	Feb
Lookout Point	Improve CO2 system	Jul	
Lookout Point	Install I-Historian for SCADA	Jun	
Dexter	Install oil detection for sump	Sep	
Dexter	Improve CO2 system	May	
Dexter	Improve relay protection	May	
Detroit	Arc Flash study	Feb	
Big Cliff	Arc Flash study	May	
Foster	Arc Flash study	Jul	
Green Peter	Arc Flash study	Aug	
Hills Creek	Arc Flash study	Sep	
Cougar	Arc Flash study	Sep	



Willamette Valley Projects - Milestones

<u>Hydropower</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
All facilities	Support HSS inspections	ongoing	
All facilities	Advance hydraulic/lube oil testing program	ongoing	
All facilities	Develop thermographic inspection program	ongoing	
All facilities	Update all fault/load studies	ongoing	
All facilities	Complete fall protection surveys	ongoing	
All facilities	Personal protective ground updates	ongoing	
All facilities	Investigate buswork, enclosures insulators	ongoing	
All facilities	Support WECC/NERC compliance	ongoing	
All facilities	Integrate Hydroamp into PM's	ongoing	
All facilities	Improve as-built drawings	ongoing	
All facilities	Transition SCADA maintenance to GMT	Dec	



Willamette Valley Projects - Milestones

Safety/Environmental Protection	Scope	Forecast/ Baseline	Actual
All facilities	Arc flash clothing rental contract	Mar	
Detroit	Waste storage building	Jan	
Lookout Point	Waste storage building	May	
Foster	Waste storage building	May	
All facilities	Update respiratory, CO2, confined space, asbestos, lead, hazardous waste, spill response, air emissions, water quality, pha/aha's, blood borne pathogens, hazcom, emergency plan, pesticides, AED's, drinking water program	ongoing	
All facilities	EMS implementation – complete manual, implement SOP's	ongoing	
All facilities	ERGO inspections (internal/external)	ongoing	



Willamette Valley Projects - Milestones

Recreation	Scope	Forecast/ Baseline	Actual
All areas	Operate facilities at consistent service levels. Provide resource protection/visitor assistance.	ongoing	
Green Peter	Complete 3 year transition plan for development and management with Linn County	Mar	
All areas	Complete project assessment and support of Division prioritization effort. Identify management changes for FY11 changes	Jun	



Willamette Valley Projects - Milestones

<u>Recreation</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Foster	Compete evaluation and public involvement		
Cottage Grove, Dorena	Foster Lake marina Compete assessment of alcohol related incident & safety issues.	ongoing	
All	Annual water safety and public information campaign	Apr	
		ongoing	



Willamette Valley Projects - Milestones

<u>Environmental Stewardship</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
All areas	Routine land stewardship R,T&E monitoring Level 1&2 Inventories vegetation management	ongoing	
All areas	Routine real estate coordination, land availability	ongoing	
All areas	Routine boundary management Implement annual inspections Manage trespass resolutions	ongoing	
All areas	Routine cultural resources mgt Protect sites, monitor	ongoing	
All areas	Routine invasive species mgt Implement monitoring/treatment	ongoing	
Fern Ridge, Fall Creek, Hills Creek	Monitor Western Pond Turtle habitat	Sep	
Fern Ridge	TES plant grow-out	Aug	



Willamette Valley Projects - Milestones

<u>Environmental Stewardship</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Detroit, Cottage Grove, Fall Creek , Fern Ridge, Dorena Dorena	Stabilize erosion, restore vegetation, improve native plant viability	Sep	
Fern Ridge	Monitor & protect Roemer's Fescue habitat and improve population viability	Sep	
Fern Ridge	Burn wet prairies, restore upland prairies protect plant populations, manage sites in accordance with Bi-Op actions	ongoing	
Lookout Point	Monitor Kincaid Lupine & Fenders Blue Butterfly	ongoing	
	Complete & maintain BPA ROW habitat plantings	ongoing	



Willamette Valley Projects - Milestones

<u>Environmental Stewardship</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Dexter	Develop wetland partnership, statement of work and EA for constructed wetland		
Blue River	Prepare SOW for EA	Jun	
Cottage Grove	Replace Lucky Boy Bridge with local partnership	Jun	
Fern Ridge	Williams Creek restoration, prepare SOW for EA	Jul	
Hills Creek	Install Fisher Butte pumps	Nov	Jan
All areas	Complete & publish public use plan with USFS	Jun	
	Finish forest stand inventory, and analyze data	Jun	



Willamette Valley Projects - Milestones

<u>Environmental Stewardship</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
Fall Creek, Dexter, Foster	Adult Chinook Salmon outplanting, monitoring	Oct	
Fall Creek, Dexter, Foster	Routine fish facility maintenance	Feb	
Middle Fork Willamette	SRP monitoring/analysis	Mar	
South Santiam	SRP monitoring/analysis	Feb	
Middle Fork/Coast Fork	Floodplain Restoration Initiative		
All tributaries	Technical Support	Sep	
All tributaries	Spring chinook spawning surveys	Sep	
All tributaries	Spring Chinook carcass surveys	Jan	
All tributaries	Flow and ramping monitoring and support	ongoing	
All projects	RM&E program development support	ongoing	
All projects	Downstream fish passage efficiency monitoring	ongoing	
Hills Creek, Cougar	Bull trout monitoring/support	ongoing	
Lookout Point, Dexter, Fall Creek	Oregon Chub monitoring/support	ongoing	17

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Willamette Valley Projects - Milestones

<u>Environmental Stewardship</u>	<u>Scope</u>	<u>Forecast/ Baseline</u>	<u>Actual</u>
All projects	Support WFOP development	ongoing	
All projects	Support COP PDT	ongoing	
Detroit, Big Cliff	Support Minto AFCF PDT	ongoing	
Cougar	Support WTCP AFCF PDT	ongoing	
All projects	Support adult release sites above dams PDT	ongoing	
All projects	Support interim downstream fish passage through reservoirs and dams PDT	ongoing	
All projects	WATER Technical & management committees support	ongoing	
All projects	Water quality monitoring support	ongoing	
Rogue	Routine fisheries support	ongoing	

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Hydropower Small Capital

Location	Scope	\$ Value
LOP	SCADA UPGRADE (IHISTORIAN)	8
LOP	SCADA MIGRATION	25
LOP	BREAKER ARC FLASH INSTALL	15
LOP	CO2 SYSTEM UPGRADES	30
DEX	OIL SPILL COUNTER MEASURES	14
DEX	CO2 SYSTEM UPGRADES	30
DEX	CONTRUCTION BATTERY ROOM WALL	50
DEX	PROTECTIVE RELAY UPGRADES	30
COU	CO2 SYSTEM UPGRADE	32
COU	OIL SPILL COUNTER MEASURES	18
COU	DIESEL COORDINATION UPGRADE	93
COU	SURGE PROTECTORS	36
COU	TURBINE PIT HIGH WATER ALARM	23
COU	TRANSFORMER TEMP GAUGES	19



Hydropower Small Capital

Location	Scope	\$ Value
DET	SCADA UPGRADE (IHISTORIAN)	8
DET	SCADA MIGRATION	4
DET	INSTALL CO2 DISCHARGE ALARM	12
DET	CO2 SYSTEM UPGRADES	39
DET	TRANSFORMER COOLING H2O VALVES	40
DET	REPLACE PH ROOF	38
BCL	CO2 SYSTEM UPGRADE	36
BCL	PURCHASE / INSTALL CO2 ALARM	12
HCR	CO2 SYSTEM UPGRADES	30
HCR	OIL SPILL COUNTER MEASURES	18
HCR	BREAKER UPGRADE	180
GRP	REMOTE RACKING PENDANT	6
GRP	CO2 ALARM INSTALL	10
GRP	REPLACE BATTERY CHARGER 48V	82
GRP	SS BREAKER REPLACEMENT	22
GRP	CO2 SYSTEM UPGRADE	30
GRP	OIL SPILL COUNTER MEASURES	18

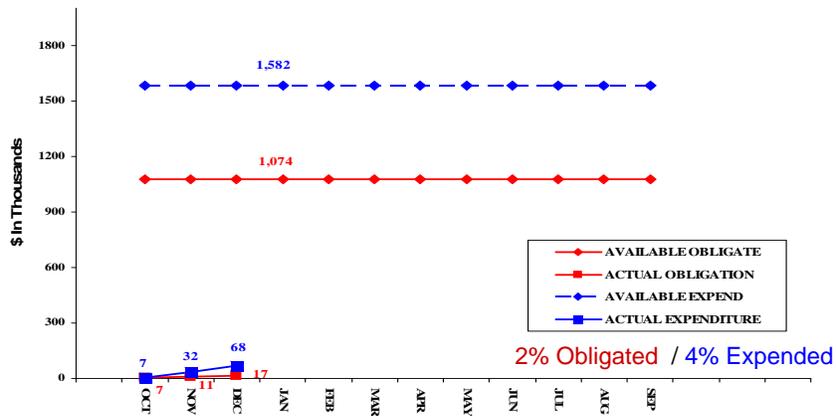


Hydropower Small Capital

Location	Scope	\$ Value
FOS	SCADA UPGRADE (IHISTORIAN)	8
FOS	CO2 ALARM UPGRADE	12
FOS	TRANSFORMER FENCE GROUNDING	10
FOS	TOP PLATE PUMP ELECTRODE UPGRADE	12
FOS	GOVERNOR PUMP SWITCH UPDATE	20
FOS	UNIT FLOW GAUGE UPGRADES	40
FOS	CO2 SYSTEM UPGRADES	33
FOS	REPLACE BATTERY CHARGES / 48V	82
FOS	OIL SPILL COUNTER MEASURES	18
FOS	SS BREAKER REPLACEMENT (INSTALL)	11



Small Capital Program Expense / Obligations thru 31 Dec 2008

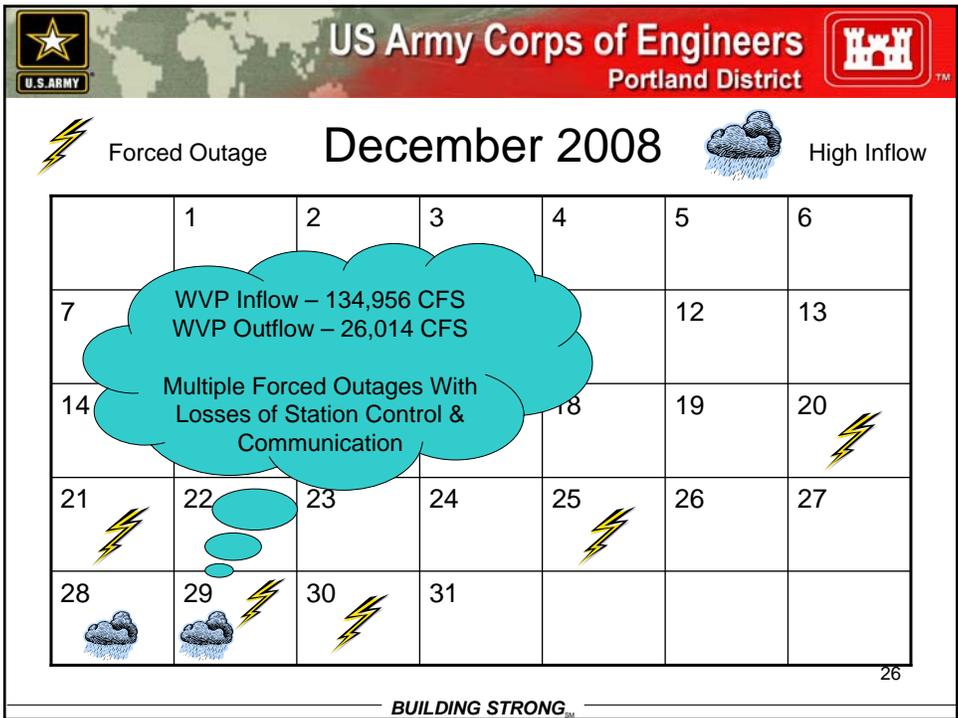
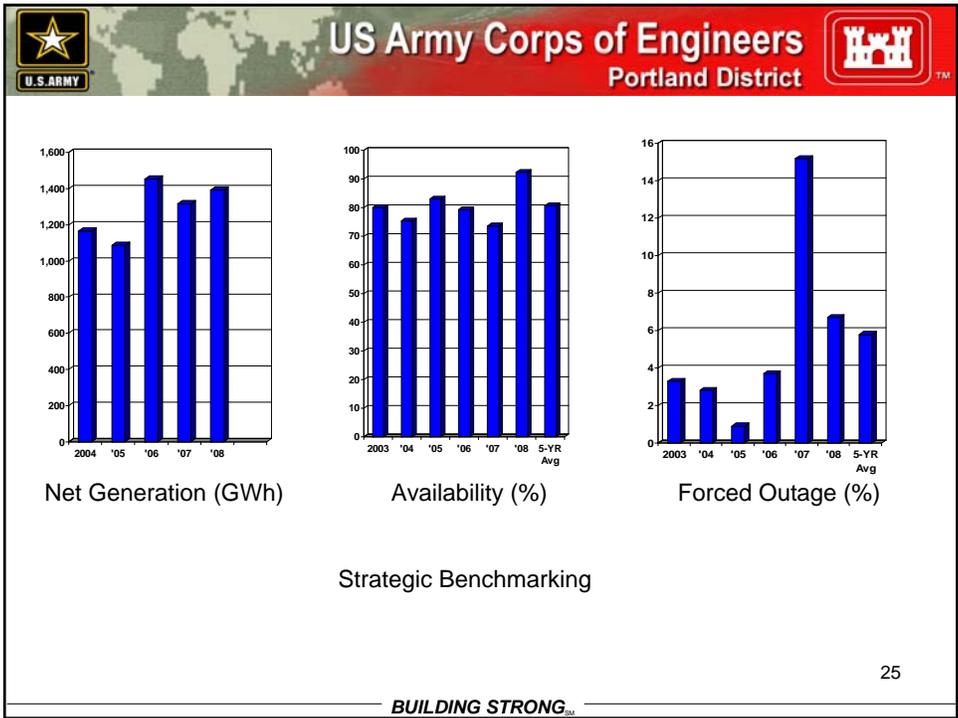


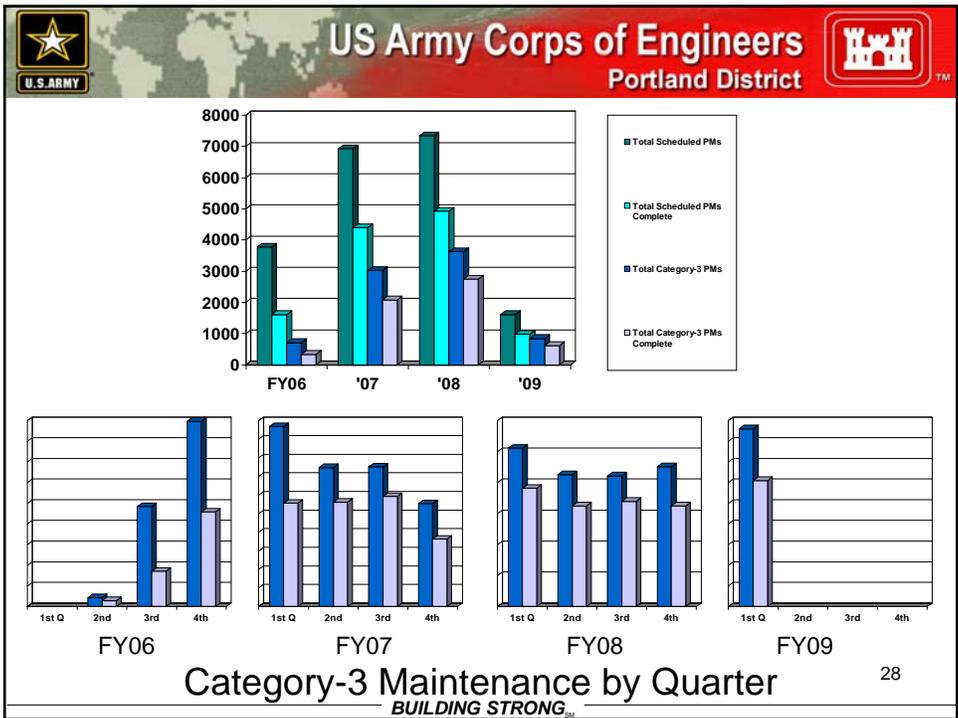
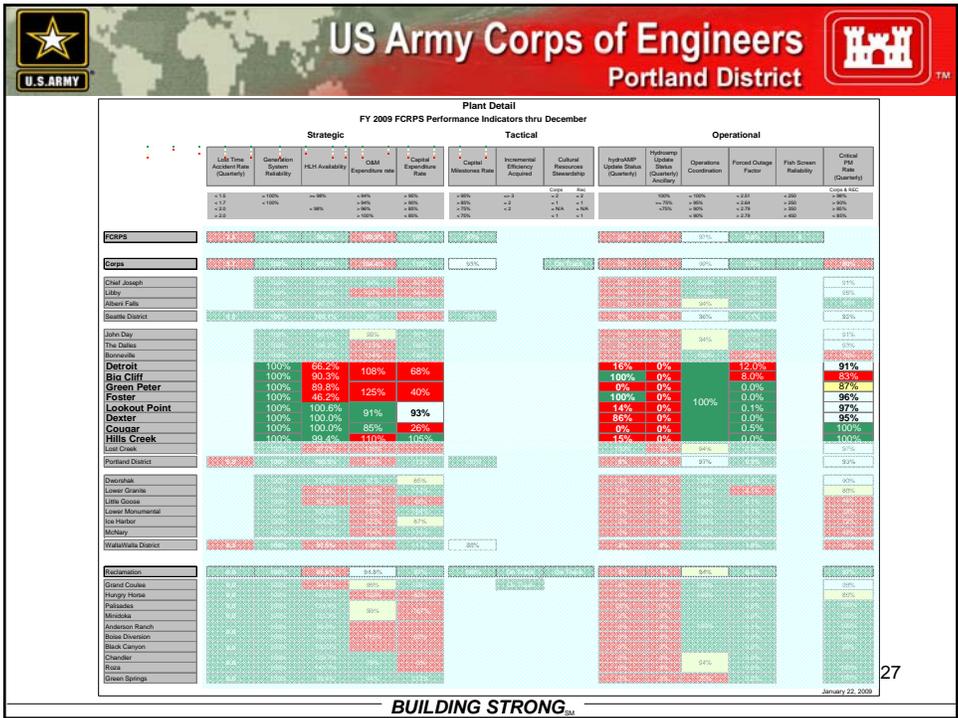
 US Army Corps of Engineers Portland District 									
PM Activity on Critical Equipment – 1st Qtr. Restricted to Powerhouse, Dam/Spillway & Fish Screens									
<i>FCRPS Maintenance Performance Indicators</i> <i>PM Activity on Critical Equipment</i>									
From 10/1/2008 to 12/31/2008 Restricted to powerhouse, dam/spillway and fish screens									
	Open as of 10/1/2008	Opened during this period	Closed during this period	Open as of 12/31/2008	WPCOND as of 12/31/2008	% Completed of total open PMs	% Completed less WPCOND		
		Status, count	# with labor	# with labor	hours				
Portland District									
BIG CLIFF	23	61	42	42	0	41.7%	41.7%		
		COMPLETED	35	33	94.3%	112			
		NOLAB	7	0	0.0%				
BONNEVILLE	65	648	401	311	0	50.6%	50.6%		
		COMPLETED	361	353	97.8%	946			
		NOLAB	13	0	0.0%				
		NOUSEAGE	1	0	0.0%				
		PLANNING	1	0	0.0%				
		SCHCON	25	0	0.0%				
COUGAR	16	58	59	13	0	79.7%	79.7%		
		COMPLETED	59	59	100.0%	141			
DETROIT	54	80	34	100	0	22.4%	22.4%		
		COMPLETED	30	30	100.0%	47			
		NOUSEAGE	4	0	0.0%				
DEXTER	9	34	38	4	0	83.7%	83.7%		
		COMPLETED	36	36	100.0%	70			
		NOLAB	2	0	0.0%				
FOSTER	30	151	128	53	0	67.4%	67.4%		
		COMPLETED	122	121	99.2%	164			
		NOACCESS	1	0	0.0%				
		NOLAB	3	0	0.0%				
		NOUSEAGE	2	0	0.0%				
GREEN PETER	74	127	121	80	0	52.2%	52.2%		
		COMPLETED	105	99	94.3%	859			
		NOACCESS	3	0	0.0%				
		NOLAB	4	0	0.0%				
		NOUSEAGE	7	0	0.0%				
		SAFETY	1	0	0.0%				
		WATERCND	1	0	0.0%				
HILLS CREEK	13	79	82	7	0	89.1%	89.1%		
		COMPLETED	82	80	97.6%	290			

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 US Army Corps of Engineers Portland District 									
PM Activity on Critical Equipment – 1st Qtr. Restricted to Powerhouse, Dam/Spillway & Fish Screens									
<i>FCRPS Maintenance Performance Indicators</i> <i>PM Activity on Critical Equipment</i>									
From 10/1/2008 to 12/31/2008 Restricted to powerhouse, dam/spillway and fish screens									
	Open as of 10/1/2008	Opened during this period	Closed during this period	Open as of 12/31/2008	WPCOND as of 12/31/2008	% Completed of total open PMs	% Completed less WPCOND		
		Status, count	# with labor	# with labor	hours				
Portland District									
JOHN DAY	30	322	199	151	0	55.1%	55.1%		
		COMPLETED	194	193	99.5%	5,117			
		NOACCESS	2	0	0.0%				
		NOLAB	1	0	0.0%				
		NOTOOL	1	1	100.0%	1			
		SCHCON	1	0	0.0%				
LOOKOUT POINT	39	101	113	27	0	78.6%	78.6%		
		COMPLETED	110	110	100.0%	694			
		NOACCESS	1	0	0.0%				
		NOLAB	1	0	0.0%				
		NOUSEAGE	1	0	0.0%				
LOST CREEK	30	100	125	5	0	96.2%	96.2%		
		COMPLETED	125	95	76.0%	233			
THE DALLES	5	169	116	58	4	62.1%	63.8%		
		COMPLETED	108	108	100.0%	2,334			
		NOACCESS	1	0	0.0%				
		NOLAB	7	0	0.0%				
Portland Totals	388	1930	1458	851	4	59.0%	59.1%		
		COMPLETED	1,367	1,317	96.3%	11,007			
		NOACCESS	8	0	0.0%	0			
		NOLAB	38	0	0.0%	0			
		NOTOOL	1	1	100.0%	1			
		NOUSEAGE	15	0	0.0%	0			
		PLANNING	1	0	0.0%	0			
		SAFETY	1	0	0.0%	0			
		SCHCON	26	0	0.0%	0			
		WATERCND	1	0	0.0%	0			

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Inspection Follow-up

ERGO

2007 Internal 95% findings corrected
2008 External (partial) Report (received January, 2009) 79 findings – unknown % corrections (50 Major, 12 Minor, 17 Management Practices).
2009 Continue to resolve findings from previous ERGO assessments
2009 Next partial external in August
2009 Internal July

Dam Safety

2008 No periodic inspections conducted
2009 Lookout Point, Dexter, Hills Creek and Fall Creek Scheduled
2007-2008 Continue to implement IRRP's for SPRA evaluated facilities
2008-2009 EC Spillway Gate Technical Support FCR, HCR, BLR, COU, FRN, LOP, DEX, GRP

Safety Management Evaluation (Comprehensive Safety Review)

2006 – Corrected 80% of findings, the remainder are in-progress
2008 – Recreation – have not received report – anticipate in March

HSS Inspection

Proceeding based on need and availability
2009 COU, DOR, HCR Regulating Outlets

Oil Spill Countermeasures

Spill Prevention, Control and Countermeasure Plan (SPCC) update completed March 2007

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Inspection Follow-up

Comprehensive Power Review
2005 Lookout Point/Dexter

	Recommendations	Complete	In Progress
Category 1	1	1	0
Category 2	54	19	29
Category 3	19	15	3

Annual Checksheets

	Protocols	Met	Did not meet
2008 Valley-Wide	91	62	29

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WECC & NERC Compliance

Process

- Job Plans/Work Orders in FEM reflect compliance with current work practices
- Maintenance records are coded by the specific *NERC Standard and Requirement* as Priority-3 or "Critical"
- Work Orders are completed by specific crews and signed-off by supervisors/managers
- FEM stores and retrieves project maintenance records providing an audit path

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Oil/Water Protection

Activities

- No substantive change on the ground at the present time from the last assessment
- Good plans in place for FY09 progress
- Phase 1 transformer oil protection included in 2406 program
- Installing hydrocarbon detection in sumps this year in concert with other priorities
- 4 level status noted in read-ahead materials

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Report Date: 2/10/2009

HydroAmp Summary of Condition Index Scores

Plant Name	Unit Id	Generator		Transformer		Turbine		Governor		Exciter		Unit Breaker	
		Condition Index	Condition Rating										
Lookout Point	1	8.8	Good	7.9	Fair	2.3	Poor	8.9	Good	10.0	Good	6.7	Fair
Lookout Point	2	8.8	Good	6.0	Fair	2.3	Poor	7.7	Fair	10.0	Good	10.0	Good
Lookout Point	3	7.5	Fair	7.0	Fair	2.3	Poor	7.7	Fair	10.0	Good	10.0	Good
Dexter	1	8.8	Good	7.3	Fair	7.5	Fair	6.5	Good	9.0	Good	10.0	Good
Hills Creek	1	7.6	Fair	8.6	Good	5.3	Marginal	8.9	Good	9.0	Good	9.6	Good
Hills Creek	2	8.8	Good			5.3	Marginal	8.9	Good	9.0	Good	9.6	Good
Cougar	1	8.8	Good	9.5	Good	10.0	Good	8.9	Good	10.0	Good	10.0	Good
Cougar	2	8.8	Good			10.0	Good	8.9	Good	10.0	Good	10.0	Good
Detroit	1	8.8	Good	5.8	Marginal	5.8	Marginal	9.7	Good	10.0	Good	6.7	Fair
Detroit	2	5.9	Marginal	6.4	Fair	5.3	Marginal	9.7	Good	10.0	Good	10.0	Good
Big Cliff	1	8.2	Good	6.4	Fair	5.3	Marginal	9.7	Good	10.0	Good	10.0	Good
Green Peter	1	7.5	Fair	8.1	Good	3.4	Marginal	9.7	Good	10.0	Good	10.0	Good
Green Peter	2	8.8	Good			4.7	Marginal	9.7	Good	10.0	Good	10.0	Good
Green Peter	F1	8.8	Good			8.2	Good	9.7	Good	10.0	Good	10.0	Good
Foster	1	8.8	Good	7.5	Fair	5.4	Marginal	4.9	Marginal	10.0	Good	9.5	Good
Foster	2	7.5	Fair			5.9	Marginal	4.9	Marginal	10.0	Good	9.5	Good

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Calendar Year	2006	2007	2008	2009
1. Number of OSHA Recordable Injuries	9	10	11	0
2. Number of Lost Work Day Cases	3	5	3	0
3. Number of Days Lost Due to Lost Time Cases (Above)	14	25	7	0
4. Total Hours Worked (Exposure)	200,688	206,016	254,800	63,700
1. Number of OSHA Recordable Injuries				
Operations Section	1	0	1	0
Maintenance Section	8	9	9	0
Engineering & Contracts Section	0	0	0	0
Administration Section	0	1	0	0
Natural Resource Management Section	0	0	1	0
2. Number of Lost Work Day Cases				
Operations Section	0	0	0	0
Maintenance Section	3	5	3	0
Engineering & Contracts Section	0	1	1	0
Administration Section	0	0	0	0
Natural Resource Management Section	0	0	0	0
3. Number of Days Lost Due to Lost Time Cases (Item 2)				
Operations Section	0	0	0	0
Maintenance Section	14	25	7	0
Engineering & Contracts Section	0	0	0	0
Administration Section	0	0	0	0
Natural Resource Management Section	0	0	0	0
4. Total Hours Worked (Exposed)				
Operations Section	98,520	35,520	41,600	10,400
Maintenance Section	90,956	90,956	108,160	27,040
Engineering & Contracts Section	18,648	18,648	24,960	6,240
Administration Section	24,864	27,528	37,440	9,360
Natural Resource Management Section	31,080	33,744	42,640	9,880
Total FTE for Year	113*	114*	124*	125*

*FTE totals taken from FTE report of actual on-board strength for year

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STAFFING ANALYSIS

Crews	Assigned Strengths	Vacancy	Deployments (GWOT)	Other Absences	Filled w/in 90 days	Assessment of Shortage
Powerhouse Maintenance	43	11	0	0	0	Red
General Maintenance	15	4	0	0	0	Yellow
Operations	23	4	0	0	0	Red
Tech	16	4	0	0	0	Yellow
Administration	27	1	0	0	0	Green
Natural Resource Management	29	2	0	0	0	Red
TOTAL	153	26	0	0	0	Red

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Five Year Staffing and Budget Forecast

Mission

- Assumes significantly increasing workload
- Goal to balance efforts between BiOp, recapitalization, repairs, and routine preventive maintenance
- Leverages effective use of contracts and rehired annuitants
- Highlights the need for new tactics to facilitate progress on O&M performance
- Deployments have not generally been a significant factor in balancing workload
- TES & landscape context will shape priorities/partnerships

People

- Historically lean organization
- Culture changing with mission, performance transparency and resource interdependency
- Staffing numbers ramped-up significantly over last several years
- Must continue to expand capacity, human capital

Budget

- Recognizes baseline plus 3% paradigm is inflexible and does not support mission performance
- Assumes regional and partner support for increased baseline routine hydropower budget
- Assumes new O&M and capital funding in support of Willamette BiOp
- Small Capital Budget based on asset needs, including 2406 scope voids (dynamic)
- Need regional support in leveling using RecBest tool

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People Changes

2007:

- Perm Supervisor Facility Operations Superintendent
- 3 Power Plant Trainees LOP

2008:

- Perm Electrical Engineer
- Perm Safety Officer
- Perm Environmental Protection Specialist
- Perm Office Clerk
- Perm File Clerk
- Perm Fishery Biologist
- Temporary Office Clerk (Part Time)
- 4 STEP Office Clerks

2009:

- Perm Natural Resources Manager (eliminated position)
- Perm Mechanical Engineer
- Perm Supply Technician
- Perm Warehouseman (Expeditor)
- Perm Power Plant Mechanic FOS (reassignment)
- Perm Chief Power Plant Operator
- Perm Maintenance Manager
- Perm Electronics Control Tech LOP
- 2 Term Power Plant Electrician LOP/DET
- 2 Term Power Plant Mechanic DET/FOS
- Power Plant Trainee LOP
- STEP Office Clerk (Budget)

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Willamette Valley Projects – UFR's

<u>Unfunded Requirement</u>	<u>Cost</u>	<u>Schedule</u>	<u>Change</u>
Detroit spillway gate wire ropes	\$120	1 st quarter	funded
All areas routine recreation funding	\$360	2 nd quarter	\$185 need
All areas routine hydropower funding	\$500	3 rd quarter	\$400 need
Dexter repair spillway gate stoplogs	\$ 50	1 st quarter	funded
Arc flash studies / implementation	\$300	2 nd quarter	
Arc Flash PPE (clothing rental service)	\$150	3 rd quarter	
Fall Creek trunnion bearing rehab	\$300	2 nd quarter	criticality?
Cougar RO system rehab	\$400	2 nd quarter	assessment?
Cougar repair emergency diesel controls	\$ 25	3 rd quarter	small cap funded
All facilities elevator maintenance contract	\$120	4 th quarter	

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Noteworthy Topics

- Spillway Gate Conditions
 - Foster repairs
 - EC technical assistance visits
 - Job plan changes
 - Aggressive maintenance activities
- Labor / program balance adjustments
 - Recreation – balanced w/ flood, need resource leveling (RecBest)
 - Baseline hydropower needs
- CWIS consolidation
 - Efforts ongoing
 - Need focus and support
- Staffing
 - Attrition / training & teambuilding
 - Automation & remote operation
 - Managing transitions & building capacity
- Biological opinion
 - Defining broader team and approach
 - Heavy information needs
 - New operating constraints
- Communications, security & automation
 - Reliability & risk
 - Redundancy
 - New constraints

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Noteworthy Topics

- Capital integration
 - Scopes change
 - Labor underestimated
 - Committed to success
- Water management - conservation season
 - Dry winter, low SWE
 - BiOp impacts – balancing
 - New mechanisms
- Recreation issues
 - Stimulus gains – long term efficiency
 - Relationships key
 - Diminish management intensity – alcohol restrictions
- Administrative facilities
 - Matrix organization
 - Marginal facilities
 - Regional approach?
 - Resources

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