

The Dalles Dam Fishway Status Report

Date: 03/16/2014
 Inspection Period: 03/09/2014-03/15/2014

THE DALLES DAM



**US Army Corps
 of Engineers**
 Portland District

The Dalles Project-Fisheries
 P.O. Box 564
 The Dalles, OR 97058-9998
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Fishways are inspected twice daily plus one SCADA inspection

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 20		Temperature: 41.3 F
			Comments		Secchi: 3.0 feet
NORTH FISHWAY					
Exit differential	0	≤ 0.5'			
Count station differential	0	≤ 0.3'			
Weir crest depth	0	1.0' ± 0.1'			
Entrance differential	0	1.0' - 2.0'			
Entrance weir N1	0	depth (≥ 8')			
Entrance weir N2	0	Closed			
PUD Intake differential	0	≤ 0.5'			
EAST FISHWAY					
Exit differential	0	≤ 0.5'			
Removable weirs 154-157	1	Per forebay	Auto adjusts 1' increments. Weir 156 off be 0.1'		
Weir 158-159 differential	0	1.0' ± 0.1'			
Count station differential	1	≤ 0.3'	0.4'		
Weir crest depth	0	1.0' ± 0.1'			
Junction pool weir JP6	0	depth (≥ 7')	Manually adjusted as needed.		
East entrance differential	0	1.0' - 2.0'	Average	1.5	Daily differentials & weir depths, see AVGS tab. Manually adjusted.
Entrance weir E1	0	No criteria	Average	3.7	
Entrance weir E2	0	depth (≥ 8')	Average	13.0	
Entrance weir E3	closed	depth (≥ 8')	Average	13.0	
Collection channel velocity	0	1.5 - 4 fps	Average	2.7	
Transportation channel velocity	0	1.5 - 4 fps	Average	3.1	
North channel velocity	0	1.5 - 4 fps	Average	2.3	
South channel velocity	0	1.5 - 4 fps	Average	3.0	
West entrance differential	0	1.0' - 2.0'	Average	1.5	
Entrance weir W1	0	depth (≥ 8')	Average	10.3	
Entrance weir W2	0	depth (≥ 8')	Average	10.4	
Entrance weir W3	closed	No criteria	Average	closed	
South entrance differential	0	1.0' - 2.0'	Average	1.5	
Entrance weir S1	0	depth (≥ 8')	Average	11.2	
Entrance weir S2	0	depth (≥ 8')	Average	11.2	
JUVENILE PASSAGE					
Sluiceway operation	0	units 1,18	4 gates open. 6 gates will be open Apr1 over units 1,8,18		
Turbine trashrack drawdown	0	<1.5', wkly			
Spill volume	<45K		Spill for water Mar 15 at 1500hr		
Spill Pattern					
Turbine Unit Priority	0	per FPP	West to east block priority starts Apr1		
Turbine 1% Efficiency	0	per FPP			

OTHER ISSUES:

Birds/Sea lions:

Bird observation data collected once daily. Primarily gulls and cormorants observed resting in the spillway, and cormorants in forebay. See avian zones map and distribution details. Starting Apr1, bird observation data collection will change; RNT website will no longer be used. Data will be directly input into status report map. Data will be collected Apr1-Sept30. Zone PH1 and PH2 will be combined. Zone SW 5 will not be used. Data collection from twice to once daily. Foraging and resting birds will be counted. Further changes may apply through the FPOM avian task group.

Operations:

East fish ladder, north fish ladder, and I/T Sluiceway are in service in accordance with fish passage plan (FPP).

Current Outages:

Transformer 8 (MU15 & MU16) de-rated to single unit full load ops through Sept 2017.
Main Unit 4 out of service Jan21 to Mar20 for over haul.
Navlock out of service Mar1 to Mar15 for annual maintenance.

Maintenance:

East fishway count station bathroom freeze damage repair in progress for Apr1 fish counters start.
East exit forebay deck expansion joint leakage repair underway. FPOM coordination approved. Count station will be monitored during work. Work starting on new weir to replace 158/159.
Work to start rebuilding failed collection channel dewatering pump in preparation for next winter dewatering.
Long term repair plan items; Upgrade east exit weirs 154-157, stabilize north ladder rocks, remove collection channel unneeded diffusers, replace all entrance weir wheels with plastic composite wheels and repair/modify all east fishway dewatering pumps.
Items fish related but not fish funded; spillway evaluation to prioritize upgrades, spillway crane rehab and spillgate 10/11 wire rope replacement.
All spillway items on Critical Infrastructure list and Unfunded Requirement list

Studies:

PIT - North PIT room door lock installed. PSMFC investigating possible sluiceway antenna options. Awaiting BPA comment.
EFL - Plan for 10' dia. pipe through dam, under roadway and into AWS conduit west side junction pool. 90% DDR review complete.
PUD - FERC license modification request submitted for additional north turbine.
Lamprey - No further fishladder mods planned for this winter. Planning for tribal lamprey collection from count stations.

Research/Contractors:

University of Idaho maintaining antennas. Plans for solar panel installation for east forebay deck antenna for next season.
Dive removal of remaining pier nose USGS antennas to resume next winter with JSAT pipe removal. Seven remaining.
Removal last set of 3 derelict Vertical Barrier Screens (VBS) from MU 12 gatewell slot scheduled week of Aug11. Pending CRFM funding.
Research approval letters forwarded for; ODFW forbay pikeminnow survey, PSMFC fish sampling at PUD, University Idaho adult radiotelemetry for adult salmonids and Lamprey, USGS total dissolved gas monitoring, Yakama Nation for adult lamprey collection and PSMFC monitoring and maintaining thin walled PIT tag antennas and computer equipment.
Normandeau fish counters computer training, project specific training and fish identification training have been scheduled.

Approved by;
Ron D. Twiner
Operation Project Manager
The Dalles Dam

The Dalles Dam Avian Zones

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T3

SW-T2

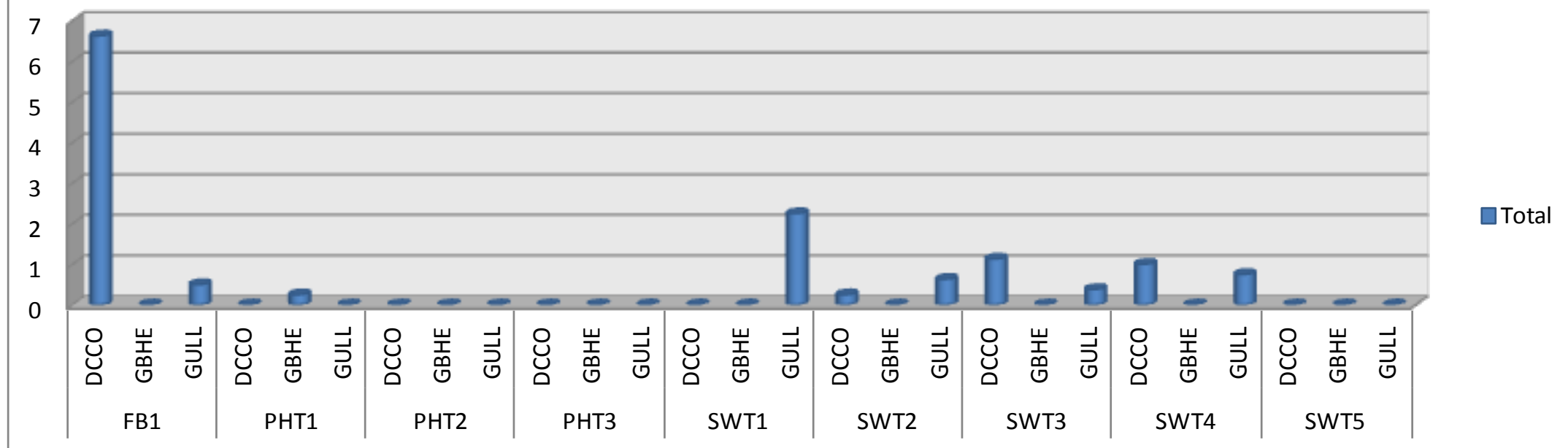
SW-T4

SW-T5

Oregon Shore

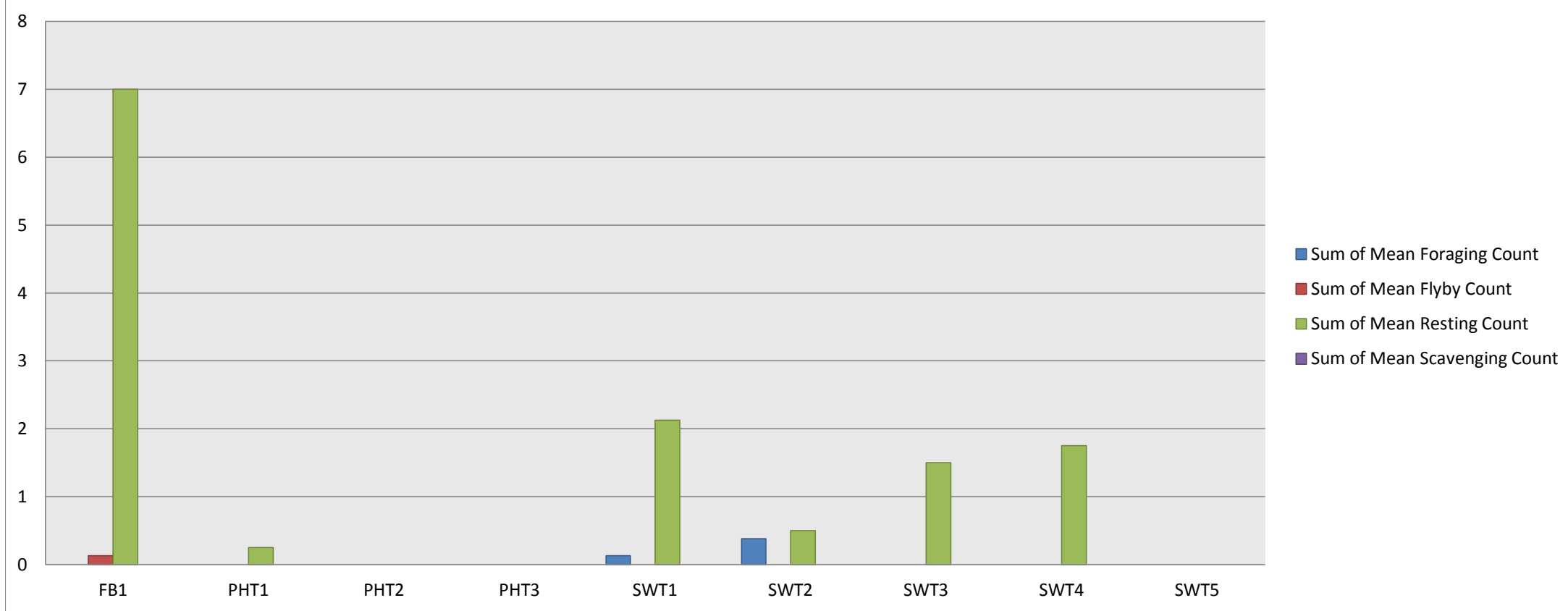


Daily Mean Count by Species



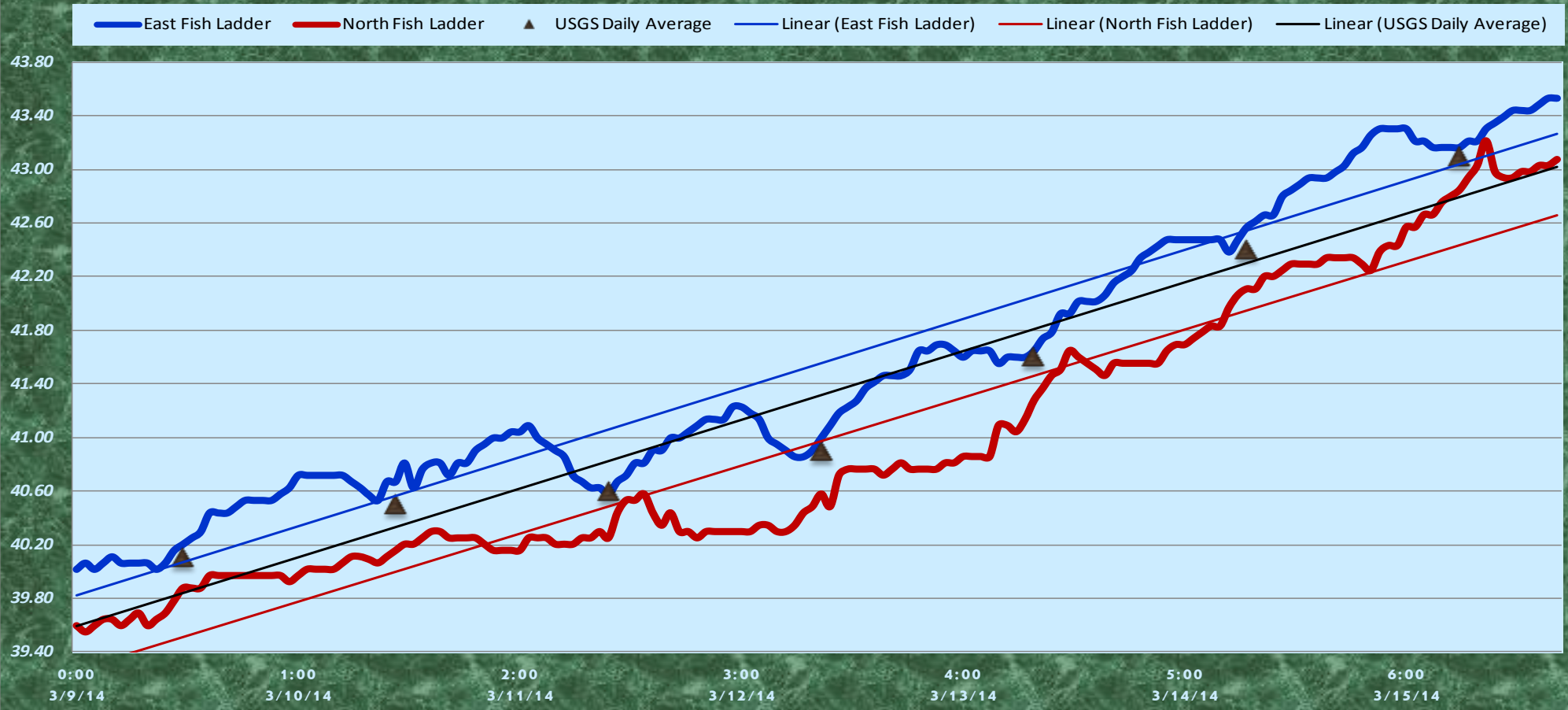
COME - Common Merganser; DCCO - double crested cormorant; GBHE - Great Blue Heron; Gull- Gull (all species)

Daily Mean Counts by Behavior



°F

The Dalles Adult Fish Ladder(s) River/Water Temperatures



Temp:			Secchi:
40.1	SUN		3.0
40.5	MON		3.5
40.6	TUES		3.5
40.9	WED		3.8
41.6	THUR		3.5
42.4	FRI		2.0
43.1	SAT		2.0
AVG:	41.3	AVG:	3.0

The Dalles Dam Daily Readings and Averages for
Temperatures, Secchi, Entrances, and Spill

= out of criteria

Date:	North Fish Ladder		East Fish Ladder										SPILL ON SEAL				
			East Entrance					West Entrance			South Entrance						
			Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential		S1 Depth	S2 Depth		
9-Mar-14																	
9-Mar-14	1.4	9.6	1.5	6.0	13.0	12.9	14.7	1.5	11.0	11.4		1.6	10.4	10.5			
9-Mar-14	1.4	9.7	1.4	5.9	12.9	13.0	12.6	1.5	10.9	11.0		1.6	10.4	10.4			
10-Mar-14			1.7	5.9	12.9	12.9	14.1	1.5	11.1	11.0		1.6	10.6	10.6			
10-Mar-14	1.3	9.6	1.5	5.9	12.9	12.9	13.8	1.5	10.9	10.9		1.6	10.4	10.4			
10-Mar-14	1.5	9.5	1.6	6.0	13.0	13.0	13.9	1.4	11.0	11.0		1.5	10.7	10.7			
11-Mar-14			1.5	5.6	13.0	13.0	14.2	1.5	10.6	10.6		1.6	10.6	10.6			
11-Mar-14	1.4	9.5	1.5	5.0	13.1	13.1	14.5	1.5	10.6	10.6		1.6	10.6	10.5			
11-Mar-14	1.4	9.6	1.5	3.5	12.9	13.1	15.7	1.6	11.1	11.0		1.5	11.4	11.5			
12-Mar-14			1.5	3.4	13.0	12.9	14.4	1.5	10.9	11.0		1.5	11.3	11.4			
12-Mar-14	1.4	9.5	1.5	3.5	13.0	13.0	15.8	1.5	11.0	11.1		1.5	11.6	11.5			
12-Mar-14	1.4	9.5	1.6	3.5	13.0	12.9	14.0	1.4	11.1	11.0		1.4	11.5	11.6			
13-Mar-14			1.6	3.7	13.2	13.2	13.6	1.4	11.3	11.2		1.3	11.9	11.9			
13-Mar-14	1.4	9.6	1.5	2.0	12.9	13.0	13.7	1.5	10.0	9.9		1.4	11.6	11.6			
13-Mar-14	1.3	9.6	1.7	2.0	12.9	12.9	14.5	1.8	10.0	10.0		1.7	11.4	11.4			
14-Mar-14			1.3	2.2	13.1	13.1	12.8	1.2	10.0	10.0		1.3	11.6	11.7			
14-Mar-14	1.4	9.5	1.6	2.1	13.0	13.0	13.3	1.5	9.1	9.0		1.4	11.6	11.5			
14-Mar-14	1.4	9.6	1.6	2.2	13.1	13.1	13.9	1.6	9.0	9.0		1.4	11.6	11.5			
15-Mar-14			1.7	2.0	13.0	13.0		1.7	9.0	9.1		1.5	11.5	11.4			
15-Mar-14	1.4	9.6	1.4	1.9	12.9	12.9	13.6	1.5	9.0	8.9		1.5	11.3	11.4			
15-Mar-14	1.5	9.5	1.7	2.5	12.9	12.9	14.0	1.7	9.2	9.3		1.5	11.4	11.4			
AVG:	1.4	9.6	1.5	3.7	13.0	13.0	14.1	1.5	10.3	10.4		1.5	11.2	11.2			