

ODFW AQUATIC INVENTORY PROJECT
OREGON PLAN FOR SALMON & WATERSHEDS
STREAM RESTORATION HABITAT REPORT

STREAM: Seeley Creek (MC-60)
BASIN: Alsea River
SURVEY TYPE: Post-Tx
DATE: August 9, 2006
SURVEY CREW: Lanoah Babcock, Sharon Tippery
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.7 km²
USGS MAPS: Alsea
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Seeley Creek habitat survey extended 580 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 13.3 (range: 6.0-20.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 2.5 percent. Scour pools (44%) and beaver pools (29%) dominated stream habitat. Sand (40%), cobble (28%) and gravel (26%) dominated stream substrate. Wood volume was low at 11.7 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

The crew noted several habitat structures during the survey.

Stream Seeley Creek (MC-60)
 Basin Alsea River
 Treatment Large Wood

	ODFW Benchmark		Pre 6/16/99	Post 6/20/00	Post 8/9/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	42.4	51.6	73.6		
Number of Pools			22	36	24		
Deep Pools/km (>1.0 m)			1.3	5.2	2.7		
% Off-Channel			13.4	22.7	10.6		
LWD – Pieces/100m	>20	<10	13.8	12.1	10.9		
LWD – Volume/100m	>30	<20	13.5	18.2	11.7		
LWD – Key Pieces/100m	>3	<1	0.4	0.2	0.7		
Large Wood Jams/km			9.2	7.9	8.6		
% Riffle Fines	<10	>20	20	14	9		
% Riffle Gravel	>35	<15	50	35	44		
% Bedrock			0	0	2		

Bold is noticeable change

Comments: Since the treatment was large wood assembled in complex jams, it is no surprise that there was an increase in those variables immediately following treatment. However, with time, wood is leaving the reach and little additional is being recruited. Deep pools were increased after treatment, although differences may be a symptom of stream flows rather than an actual change. Pool area has increased since treatment while substrate has remained unchanged.

REACH 1

T13S-R07W-S28SW

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	0%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index 13.3		VWI Range: 6 - 20	

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	580	2,323	0
Secondary Channel	164	275	4
Off-Channel Units	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 3.1	Width: 7.3	8.8 (6.6 - 10.5)	11.9 (9.7 - 15.4)
Depth: 0.32	Height: 0.3	0.6 (0.6 - 0.7)	0.9 (0.7 - 1.3)

W:D ratio: 23.1
 Stream Flow Type: LF
 Average Unit Gradient: 2.5%
 Water temperature (°C): 15.5 - 15.5

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 7.1
 Habitat Units/100m (primary channel length): 9.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D30	P

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 66%
Undercut Banks:	7%	Range: 36 - 92

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	63	10.9
Volume (m ³):	68	11.7
Key pieces (>=12m x 0.60m):	4	0.7

OREGON DEPT OF FISH AND WILDLIFE

SEELEY CREEK POST-TX (2-MC, 60)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

8/9/2006

REACH 1		T13S-R07W-S28SW					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CULVERT CROSSING	1	17	1.2	0.18	20	0	0	15	80	5	0	0
DRY UNIT	2	20	2.2	0.00	40	0	0	10	50	40	0	0
POOL-BEAVER DAM	2	90	7.7	1.08	759	0	10	83	5	3	0	0
POOL-LATERAL SCOUR	22	273	3.9	0.56	1,153	1	4	66	14	10	2	4
PUDDLED UNIT	2	106	1.1	0.09	105	0	8	80	5	8	0	0
RIFFLE	15	205	2.2	0.11	442	4	0	9	44	45	2	1
STEP/BEAVER DAM	2	2	5.9	0.05	14	0	3	80	8	10	0	0
STEP/COBBLE	6	30	2.1	0.07	64	0	0	3	30	65	0	2
STEP/LOG	1	1	1.3	0.03	1	0	0	20	30	50	0	0
Total:	53	743	3.1	0.32	2,598	5	Avg: 2	40	26	28	1	2

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	2	90	7.7	1.08	759	29.22%	0	0.0	
Scour Pools	22	273	3.9	0.56	1,153	44.36%	1	0.1	
Glides	0	0			0	0.00%	0	0.0	
Riffles	15	205	2.2	0.11	442	17.03%	4	0.9	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	9	33	2.8	0.06	79	3.04%	0	0.0	
Dry	4	126	1.6	0.04	145	5.57%	0	0.0	
Culverts	1	17	1.2	0.18	20	0.79%	0	0.0	

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	24	32.3	41.4
Pools >=1m deep:	2	2.7	3.5
Complex pools (LWD pieces>=3):	5	6.7	8.6
Pool frequency (channel widths/pool):	4.3		
Residual pool depth (avg):	0.54		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

SEELEY CREEK POST-TX
GCG: 2-MC SITE ID: 60

Survey Date 8/9/2006
Report Date: 3/5/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	386
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
15-30cm	0.7	0.7	1.0	2.3	1.3	0.0	3.0	3.0
30-50cm	0.0	1.7	0.0	0.0	1.0	0.7	1.0	2.3
50-90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	3.3	1.0	2.3	2.3	0.7	1.3	2.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	66		76		82	
Shrub cover	13		38		29	
Grass/forb cover	88		63		69	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		17	
High terrace	50		67		67	
Low terrace	33		33		17	
Floodplain	17		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	12		8		15	

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	386
Total conifers/1000 ft	244
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	0.7
15-30cm	3.0	3.0
30-50cm	1.0	2.3
50-90cm	0.0	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
18	LF	1	HT	17	65	30	70	Conifer		2					
								Hardwood							
18	LF	2	HT	9	80	35	65	Conifer		2					
								Hardwood		1					
18	LF	3	HT	5	80	30	70	Conifer		2	1				
								Hardwood							
18	RT	1	LT	10	60	5	95	Conifer							
								Hardwood		1	1				
18	RT	2	HT	15	85	45	55	Conifer							
								Hardwood		2					
18	RT	3	HS	28	90	30	60	Conifer							
								Hardwood			1				
31	RT	1	HT	23	70	15	85	Conifer							
								Hardwood				1			
31	RT	2	HT	5	75	95	5	Conifer							
								Hardwood		2					
31	LF	3	HT	14	90	40	60	Conifer		2	1				
								Hardwood							
31	LF	2	LT	11	80	30	70	Conifer		1					
								Hardwood		2					
31	LF	1	LT	9	60	15	85	Conifer							
								Hardwood	2	1	1			10T0456199- UTM4917100 3D EPE14 TRANS	
31	RT	3	HT	35	85	30	70	Conifer				1			
								Hardwood							
40	LF	1	FP	3	70	0	100	Conifer						BEAVER POND	
								Hardwood			2				
40	LF	2	LT	5	70	10	90	Conifer						NO TREES	
								Hardwood							
40	LF	3	LT	7	80	40	60	Conifer							
								Hardwood			1				
40	RT	1	HT	12	70	10	90	Conifer							
								Hardwood			1				
40	RT	2	HT	5	65	10	90	Conifer						NO TREES	
								Hardwood							
40	RT	3	HT	3	65	5	95	Conifer						NO TREES	
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **60** SEELEY CREEK POST-TX

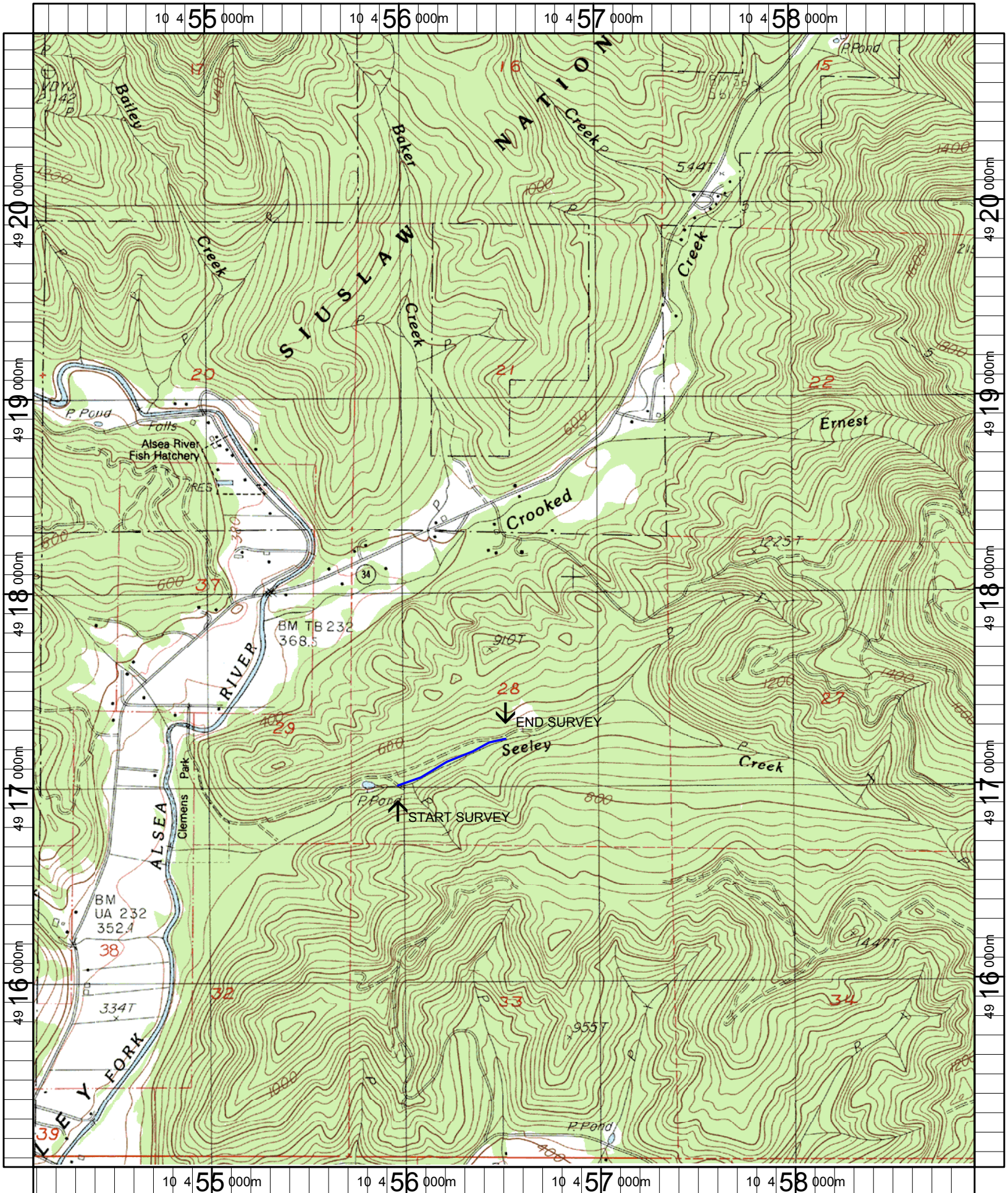
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	15	WL	CC	RSN(3), FISH, START ON A
2	CC	00	32	CC	1.78x1.67m METAL BOTTOM	METAL BOTTOM THROUGH
3	RI	00	52			SALMON SPAWNING SUR
5	LP	01	75	WL	COHO	RSN, COHO
7	LP	01	91	HS	HS	
8	SC	01	97	BV		
9	LP	01	112	BV; WL		COHO
13	LP	02	112	HS	BEES!	HS SAME AS UNIT7; BEES
15	SL	00	112.5		H=0.2M	
17	RI	01	132.5			CAUTION - BEES!
18	LP	01	137.5		RIP#1 INTO THE GRASS & N	
21	LP	00	151.5	BV; WL	SS/	COHO; DEER TRACK
22	RI	00	161.5	SS; BV	MONKEY FLOWER	
23	LP	00	172.5	BV		COHO
25	LP	00	198.5			COHO
27	LP	00	218	HS	HS	
28	RI	00	227	BV		HS SIGN + ORANGE FLAG
29	LP	00	239.5	BV		
31	LP	00	277.5	BV	RIP#2, NEWTS	COHO
34	RI	01	300.5			PINK FLAG
35	LP	01	311.5			FISH 4"; COHO; BEES

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **60** SEELEY CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
37	SD	01	324.1	BD	H=0.65M, BV	
38	BP	01	354.1	BV		NO COHO SEEN IN BP
39	SD	01	355.6	BD	H=0.80M, BV	
40	BP	00	415.6	BV, HS, WL	BV, RIP#3 - NO CHANNEL ME	RSN MANY; HS AT 50M MA
41	PD	02	415.6	BV	NEWTS	
42	SC	00	420.2	BV		
43	LP	00	461.2	WL		COHO; DEER TRACK
45	LP	00	491.2	COHO	COHO	
47	SC	00	523.7	BV		
49	SC	01	542.7	HS		ORANGE FLAG
51	RI	01	571.7			END SIGN /ALDER
53	LP	00	579.7	HS;WL	HS	RSN



Name: ALSEA
 Date: 1/23/2006
 Scale: 1 inch equals 2000 feet

Location: 10 456520 E 4917953 N
 Caption: SEELEY CREEK UPPER - #60 - RESTORATION SITE - ALSEA BASIN