

Trib 6 Reach 1  
E6 Channel Type

Trib 6 Reach 2  
C6 Channel Type

Name: FIELDS LANDING  
Date: 4/17/2007  
Scale: 1 inch equals 1111 feet

Location: 040.7485795° N 124.1542458° W  
Caption: Trib #6 of Martin Slough

STREAM INVENTORY REPORT  
Unnamed Tributary #6 to Martin Slough

WATERSHED OVERVIEW

Refer to the map of Martin Slough for the location of Unnamed tributary.

Unnamed Tributary #6 is a tributary to Martin Slough, which is a tributary to Swain Slough, tributary to Elk River, tributary to Humboldt Bay, tributary to the Pacific Ocean located in Humboldt County, California. Unnamed Tributary #6's legal description at the confluence with Martin Slough is T04N R01W S03. Its location is 40°45'42" north latitude and 124°09'42" west longitude, LLID number. Unnamed Tributary #6 is an ephemeral stream according to the USGS Eureka 7.5 minute quadrangle and appears as the 2<sup>nd</sup> tributary that enters Martin Slough from the left bank. Unnamed Tributary #6 drains a watershed of approximately 1.07 square miles. No flow was recorded. Elevations range from about 5 feet at the mouth of the creek to 200 feet in the headwater areas. Mixed conifer forest dominates the watershed. The watershed is entirely privately owned and is managed for timber production and development. Vehicle access is limited and consists mostly of private timber roads or walking in from Fairway Drive in Eureka.

HABITAT INVENTORY RESULTS AND DISCUSSION

The habitat inventory of 8/23/2006 to 9/27/2006 was conducted by Amber Shows and Brooke Rahn (WSP). The total length of the stream surveyed was 4,588 feet.

Stream flow was not measured on Unnamed Tributary #6.

Unnamed tributary is an E6 channel type for 3,715 feet of the stream surveyed (Reach 1), and a C6 channel type for 873 feet of the stream surveyed (Reach 2).

The water temperatures recorded on the survey days 8/23/2006, 8/28/2006, and 9/27/2006, ranged from 50° to 55° degrees Fahrenheit. Air temperatures ranged from 50° to 60° degrees Fahrenheit. For a more complete and accurate water temperature profile, please refer to Appendix B – Thermograph Report at the end of this document.

Based on the total length of this survey, Level II habitat units consisted of 65% flatwater units, 20% pool units, 11% no-survey units, 2% culvert units and 2% riffle units. The pools are relatively shallow, with only 10 of the 34 pools having a maximum residual depth greater than 2 feet.

One of the 34 pool tail-outs measured had embeddedness ratings of 1 or 2. None of the pool tail-outs had embeddedness ratings of 3 or 4. Cobble embeddedness of 25% or less, a rating of 1, is considered best for the needs of salmon and steelhead. In Unnamed Tributary #6, sediment sources should be mapped and rated according to their potential sediment yields, and control measures should be taken.

The mean shelter rating for pools was 27. The shelter rating in the flatwater habitats was 24. A pool shelter rating of approximately 100 is desirable.

The one low gradient riffle that was fully measured had silt as the dominant substrate. This is generally considered unsuitable for spawning salmonids.

The mean percent canopy density for the stream was 98%. In general, revegetation projects are considered when canopy density is less than 80%. The percentage of right and left bank covered with vegetation was 98% and 94%, respectively.

### BIOLOGICAL INVENTORY RESULTS

One site was electrofished on October 17<sup>th</sup>, 2006, in Unnamed Tributary #6. The units were sampled by A. Shows (WSP) and M. Gilroy (DFG).

The sites sampled included habitat units 001 - 014, a series of pools, runs, and a riffle beginning at the confluence with Martin Slough. This site had an approximate length of 530 feet. The site yielded one coho salmon (young of the year, 128mm) and nine sculpin sp.

### RECOMMENDATIONS

- 1) Unnamed tributary should be managed as an anadromous, natural production stream.
- 2) The limited water temperature available suggests that the maximum temperatures are within the acceptable range for juvenile salmonids. To establish more complete and meaningful temperature regime information, 24-hour monitoring during the July and August temperature extreme period should be performed for 3 to 5 years.
- 3) Increase woody cover in the pools and flatwater habitat units. Most of the existing cover is from boulders. Adding high quality complexity with woody cover is desirable and in some areas the material is at hand.

PROBLEM SITES AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and taken from the beginning of the survey reach.

Position (ft)	Habitat Unit #	Comments:
0	001.00	Start of survey.
0	001.00	Electro-fishing sampling site.
28	002.00	Culvert #1; Diameter of 4 feet. No plunge height. Corrugated metal, no baffles or weirs. Good condition.
49	003.00	Electro-fishing sampling site.
121	004.00	Stream goes under live tree, small woody debris accumulation.
121	004.00	Electro-fishing sampling site.
128	005.00	Build up of sediment due to downstream root wad and small woody debris accumulation.
128	005.00	Electro-fishing sampling site.
155	006.00	Electro-fishing sampling site.
225	008.00	Electro-fishing sampling site.
225	008.00	Possible root wad barrier.
232	009.00	Electro-fishing sampling site.
264	010.00	Electro-fishing sampling site.
312	012.00	Electro-fishing sampling site.
377	014.00	Electro-fishing sampling site.
827	022.00	Spawning gravel throughout unit.
1178	032.00	Plunge height: 3.4 ft. Possible barrier to juveniles.

Unnamed Tributary #6 to Martin Slough

Position (ft)	Habitat Unit #	Comments:
1505	039.00	Not surveyed due to blackberry vines.
1786	041.00	Not surveyed due to blackberry vines.
2076	048.00	Root mass that stream runs completely under.
2160	050.00	Culvert #2; 3 feet in diameter, corrugated metal culvert. Very poor condition. Possible barrier to juvenile fish, plugged with sediment and severely undercut, u/s end is completely covered by sediment.
2211	053.00	Stream goes under live tree.
2211	053.00	Tributary #1: Contributes 50% of flow to main tributary; 52 degrees F upstream and downstream of tributary. Temperature of tributary is 52 degrees F. Not accessible to juveniles due to large woody debris, but accessible to adults.
2733	064.00	Stream goes underground.
3199	070.00	Stream goes underground under old debris pile; vegetation growing on top; looks like forest floor. Water probably travels over at high flows.
3297	072.00	Stream goes underground under old debris pile; vegetation growing on top; looks like forest floor. Water probably travels over at high flows.
3730	075.00	Tributary #2: Flowing in at left bank. Downstream of tributary 50 degrees F; upstream of tributary 49 degrees F; temperature of tributary is 51 degrees F. Not accessible to fish, checked upstream 40 feet. Narrow channel with 4" banks, large sediment contributor.
3776	077.00	Culvert #3: Diameter is 4 foot, corrugated metal culvert in good condition. No baffles or weirs, no plunge height.
3978	080.00	Stream goes underground under old debris pile; vegetation growing on top; looks like forest floor. Water probably travels over at high flows.
4167	082.00	Three salamanders in shallow end of pool.
4288	085.00	Stream goes underground under old debris pile; vegetation growing on top; looks like forest floor. Water probably goes over at high flows.
4442	088.00	Stream goes underground under old debris pile; vegetation growing on top; looks like forest floor. Water probably goes over at high flows.
4588	089.00	End of survey due to end of access.

**Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
3	0	CULVERT	3.4	24	73	1.6									
39	4	FLATWATER	43.8	76	2983	65.0	3.8	0.5	0.9	253	9867	139	5428		24
8	0	NOSURVEY	9.0	64	516	11.2									
34	34	POOL	38.2	27	902	19.7	6.1	1.0	1.7	163	5531	272	8980	211	27
5	1	RIFFLE	5.6	23	114	2.5	2.0	0.3	0.4	48	240	14	72		
<b>Total Units</b>	<b>Total Units Fully Measured</b>				<b>Total Length (ft.)</b>					<b>Total Area (sq.ft.)</b>			<b>Total Volume (cu.ft.)</b>		
89	39				4588					15638			14480		

**Table 2 - Summary of Habitat Types and Measured Parameters**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
5	1	LGR	5.6	23	114	2.5	2	0.3	0.4	48	240	14	72			98
4	0	GLD	4.5	40	162	3.5										
29	4	RUN	32.6	81	2340	51.0	4	0.5	1.2	253	7337	139	4036		24	97
6	0	SRN	6.7	80	481	10.5										98
14	14	MCP	15.7	24	333	7.3	6	1.0	2.9	155	2176	227	3175	174	16	100
4	4	STP	4.5	79	315	6.9	5	1.4	3.1	439	1755	975	3901	792	34	100
1	1	CRP	1.1	12	12	0.3	9	0.9	1.7	108	108	184	184	97	40	98
4	4	LSL	4.5	19	77	1.7	6	1.0	2.3	125	500	165	660	128	54	99
8	8	LSR	9.0	15	121	2.6	5	0.9	2.1	87	696	100	799	70	33	99
1	1	BPR	1.1	16	16	0.3	8	0.9	1.6	128	128	166	166	115	5	98
1	1	BPL	1.1	16	16	0.3	6	0.7	1.4	96	96	96	96	67	0	94
1	1	DPL	1.1	12	12	0.3	6			72	72				25	100
3	0	CUL	3.4	24	73	1.6										
8	0	NS	9.0	64	516	11.2										98

Total Units  
89

Total Units Fully Measured  
39

Total Length (ft.)  
4588

Total Area (sq.ft.)  
13108

Total Volume (cu.ft.)  
13088

**Table 3 - Summary of Pool Types**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid.Vol. (cu.ft.)	Mean Shelter Rating
18	18	MAIN	53	36	648	72	6.2	1.1	218	3931	311	5596	20
13	13	SCOUR	38	16	210	23	5.9	0.9	100	1304	90	1173	40
3	3	BACKWATER	9	15	44	5	6.7	0.8	99	296	91	182	10
<b>Total Units</b>	<b>Total Units Fully Measured</b>				<b>Total Length (ft.)</b>					<b>Total Area (sq.ft.)</b>		<b>Total Volume (cu.ft.)</b>	
34	34				902					5531		6952	



**Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximum Residual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurrence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
14	MCP	42	0	0	11	79	3	21	0	0	0	0
4	STP	12	0	0	1	25	2	50	1	25	0	0
1	CRP	3	0	0	1	100	0	0	0	0	0	0
4	LSL	12	0	0	2	50	2	50	0	0	0	0
8	LSR	24	0	0	6	75	2	25	0	0	0	0
1	BPR	3	0	0	1	100	0	0	0	0	0	0
1	BPL	3	0	0	1	100	0	0	0	0	0	0

Total Units	Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Foot Max Resid. Depth	Total 1< 2 Foot % Occurrence	Total 2< 3 Foot Max Resid. Depth	Total 2< 3 Foot % Occurrence	Total 3< 4 Foot Max Resid. Depth	Total 3< 4 Foot % Occurrence	Total >= 4 Foot Max Resid. Depth	Total >= 4 Foot % Occurrence
33	0	0	23	70	9	27	1	3	0	0

Mean Maximum Residual Pool Depth (ft.): 1.7

**Table 5 - Summary of Mean Percent Cover By Habitat Type**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Dry Units: 0

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
5	0	LGR									
5	0	TOTAL RIFFLE									
4	0	GLD									
29	4	RUN	35	36	13	9	8	0	0	0	0
6	0	SRN									
39	4	TOTAL FLAT	35	36	13	9	8	0	0	0	0
14	14	MCP	40	19	13	8	6	0	0	0	0
4	4	STP	33	20	0	43	3	0	3	0	0
1	1	CRP	60	20	20	0	0	0	0	0	0
4	4	LSL	15	13	73	0	0	0	0	0	0
8	8	LSR	16	14	4	66	1	0	0	0	0
1	1	BPR	0	0	0	100	0	0	0	0	0
1	1	BPL	0	0	0	0	0	0	0	0	0
1	1	DPL	90	10	0	0	0	0	0	0	0
34	34	TOTAL POOL	30	16	15	26	3	0	0	0	0
3	0	CUL									
8	0	NS									
89	38	TOTAL	31	18	15	25	4	0	0	0	0

**Table 6 - Summary of Dominant Substrates By Habitat Type**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Dry Units: 0

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
5	1	LGR	100	0	0	0	0	0	0
4	0	GLD	0	0	0	0	0	0	0
29	4	RUN	75	25	0	0	0	0	0
6	0	SRN	0	0	0	0	0	0	0
14	14	MCP	86	14	0	0	0	0	0
4	4	STP	50	50	0	0	0	0	0
1	1	CRP	100	0	0	0	0	0	0
4	4	LSL	100	0	0	0	0	0	0
8	8	LSR	63	38	0	0	0	0	0
1	1	BPR	100	0	0	0	0	0	0
1	1	BPL	100	0	0	0	0	0	0
1	1	DPL	100	0	0	0	0	0	0

**Table 7 - Summary of Mean Percent Canopy for Entire Stream**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
98	43	57	0	98	94

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

**Table 8 - Fish Habitat Inventory Data Summary**

Stream Name: 1241616407617 LLID: 1241616407617 Drainage: Eureka Plain  
 Survey Dates: 8/23/2006 to 9/27/2006 Survey Length (ft.): 4588 Main Channel (ft.): 4588 Side Channel (ft.): 0  
 Confluence Location: Quad: EUREKA Legal Description: T04NR01WS03 Latitude: 40:45:42.0N Longitude: 124:09:42.0W

**Summary of Fish Habitat Elements By Stream Reach**

**STREAM REACH: 1**

Channel Type: E6	Canopy Density (%): 98.7	Pools by Stream Length (%): 20.5
Reach Length (ft.): 3715	Coniferous Component (%): 36.7	Pool Frequency (%): 38.4
Riffle/Flatwater Mean Width (ft.): 3.5	Hardwood Component (%): 63.3	Residual Pool Depth (%):
BFW:	Dominant Bank Vegetation: Hardwood Trees	< 2 Feet Deep: 74
Range (ft.): 7 to 8	Vegetative Cover (%): 96.3	2 to 2.9 Feet Deep: 22
Mean (ft.): 8	Dominant Shelter: Root masses	3 to 3.9 Feet Deep: 4
Std. Dev.: 0	Dominant Bank Substrate Type: Sand/Silt/Clay	>= 4 Feet Deep: 0
Base Flow (cfs.): 0.0	Occurrence of LWD (%): 10	Mean Max Residual Pool Depth (ft.): 1.7
Water (F): 50 - 55 Air (F): 50 - 60	LWD per 100 ft.:	Mean Pool Shelter Rating: 29
Dry Channel (ft): 0	Riffles: 3	
	Pools: 3	
	Flat: 1	
Pool Tail Substrate (%): Silt/Clay: 82 Sand: 14 Gravel: 0 Sm Cobble: 4 Lg Cobble: 0 Boulder: 0 Bedrock: 0		
Embeddedness Values (%): 1. 0.0 2. 3.6 3. 0.0 4. 0.0 5. 96.4		

**STREAM REACH: 2**

Channel Type: C6	Canopy Density (%): 97.5	Pools by Stream Length (%): 15.9
Reach Length (ft.): 873	Coniferous Component (%): 70.0	Pool Frequency (%): 37.5
Riffle/Flatwater Mean Width (ft.): 3.0	Hardwood Component (%): 30.0	Residual Pool Depth (%):
BFW:	Dominant Bank Vegetation: Coniferous Trees	< 2 Feet Deep: 50
Range (ft.): 6 to 6	Vegetative Cover (%): 94.3	2 to 2.9 Feet Deep: 50
Mean (ft.): 6	Dominant Shelter: Large Woody Debris	3 to 3.9 Feet Deep: 0
Std. Dev.: 0	Dominant Bank Substrate Type: Sand/Silt/Clay	>= 4 Feet Deep: 0
Base Flow (cfs.): 0.0	Occurrence of LWD (%): 37	Mean Max Residual Pool Depth (ft.): 2.0
Water (F): 50 - 51 Air (F): 50 - 56	LWD per 100 ft.:	Mean Pool Shelter Rating: 18
Dry Channel (ft): 0	Riffles:	
	Pools: 6	
	Flat: 3	
Pool Tail Substrate (%): Silt/Clay: 100 Sand: 0 Gravel: 0 Sm Cobble: 0 Lg Cobble: 0 Boulder: 0 Bedrock: 0		
Embeddedness Values (%): 1. 0.0 2. 0.0 3. 0.0 4. 0.0 5. 100.0		

**Table 9 - Mean Percentage of Dominant Substrate and Vegetation**

Stream Name: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

**Mean Percentage of Dominant Stream Bank Substrate**

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percent (%)
Bedrock	0	0	0.0
Boulder	0	0	0.0
Cobble / Gravel	0	0	0.0
Sand / Silt / Clay	39	39	100.0

**Mean Percentage of Dominant Stream Bank Vegetation**

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percent (%)
Grass	2	1	3.8
Brush	0	2	2.6
Hardwood Trees	11	27	48.7
Coniferous Trees	26	9	44.9
No Vegetation	0	0	0.0

**Total Stream Cobble Embeddedness Values:**

5

**Table 10 - Mean Percent of Shelter Cover Types For Entire Stream**

StreamName: 1241616407617

LLID: 1241616407617

Drainage: Eureka Plain

Survey Dates: 8/23/2006 to 9/27/2006

Confluence Location: Quad: EUREKA

Legal Description: T04NR01WS03

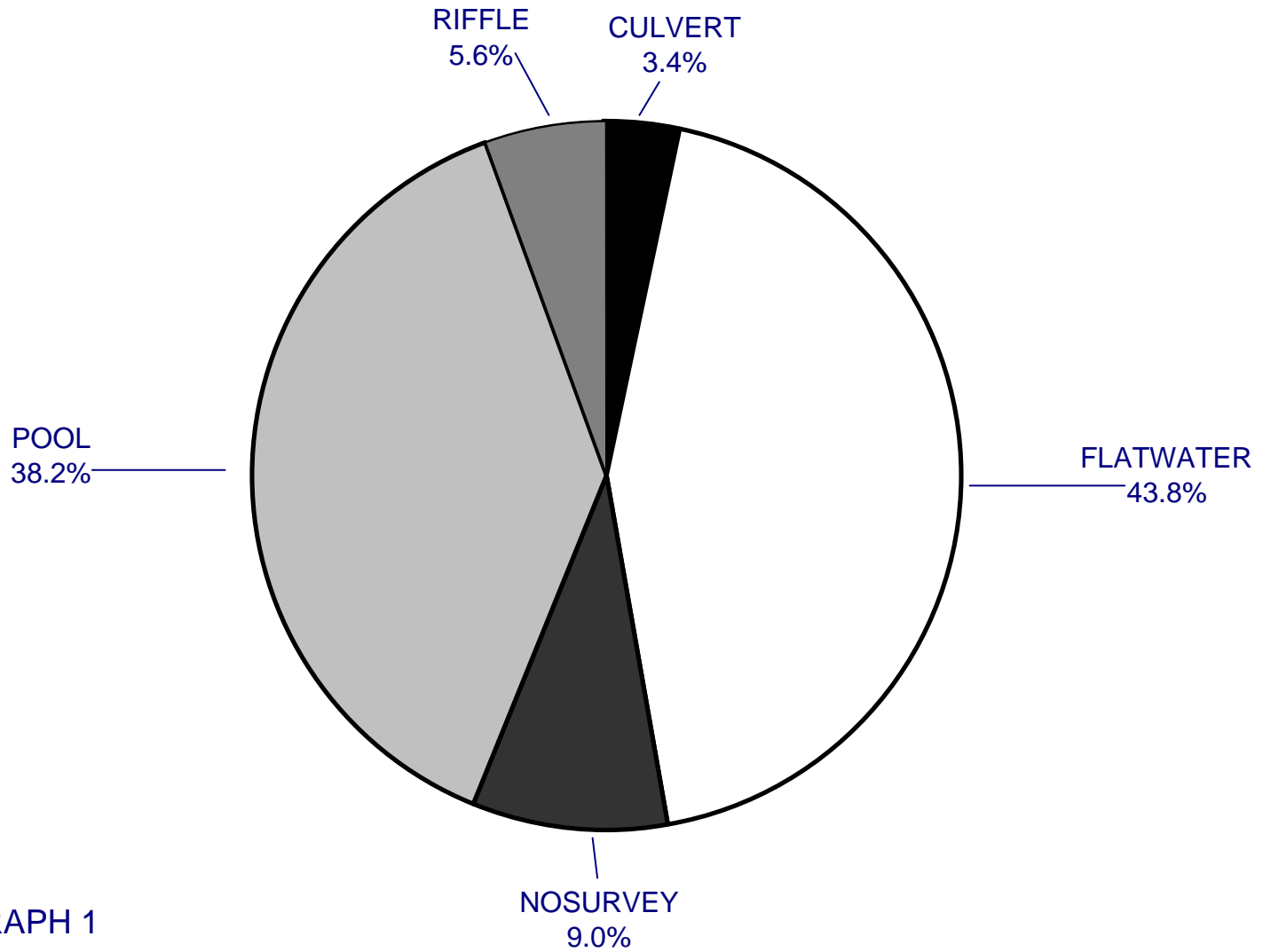
Latitude: 40:45:42.0N

Longitude: 124:09:42.0W

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	<b>Riffles</b>	<b>Flatwater</b>	<b>Pools</b>
UNDERCUT BANKS (%)		35	30
SMALL WOODY DEBRIS (%)		36	16
LARGE WOODY DEBRIS (%)		13	15
ROOT MASS (%)		9	26
TERRESTRIAL VEGETATION (%)		8	3
AQUATIC VEGETATION (%)		0	0
WHITEWATER (%)		0	0
BOULDERS (%)		0	0
BEDROCK LEDGES (%)		0	0

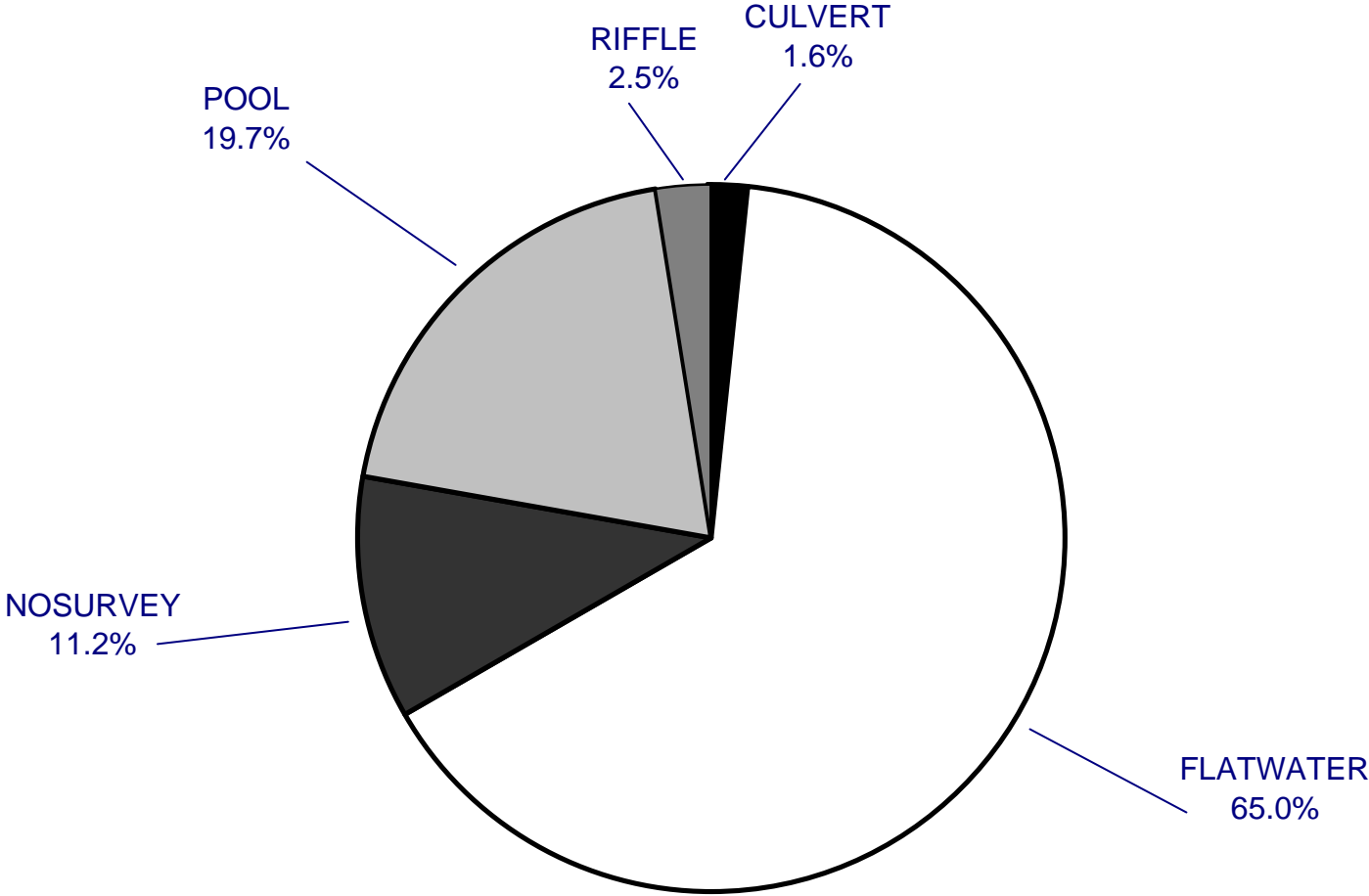
**1241616407617 2006**  
**HABITAT TYPES BY PERCENT OCCURRENCE**



GRAPH 1

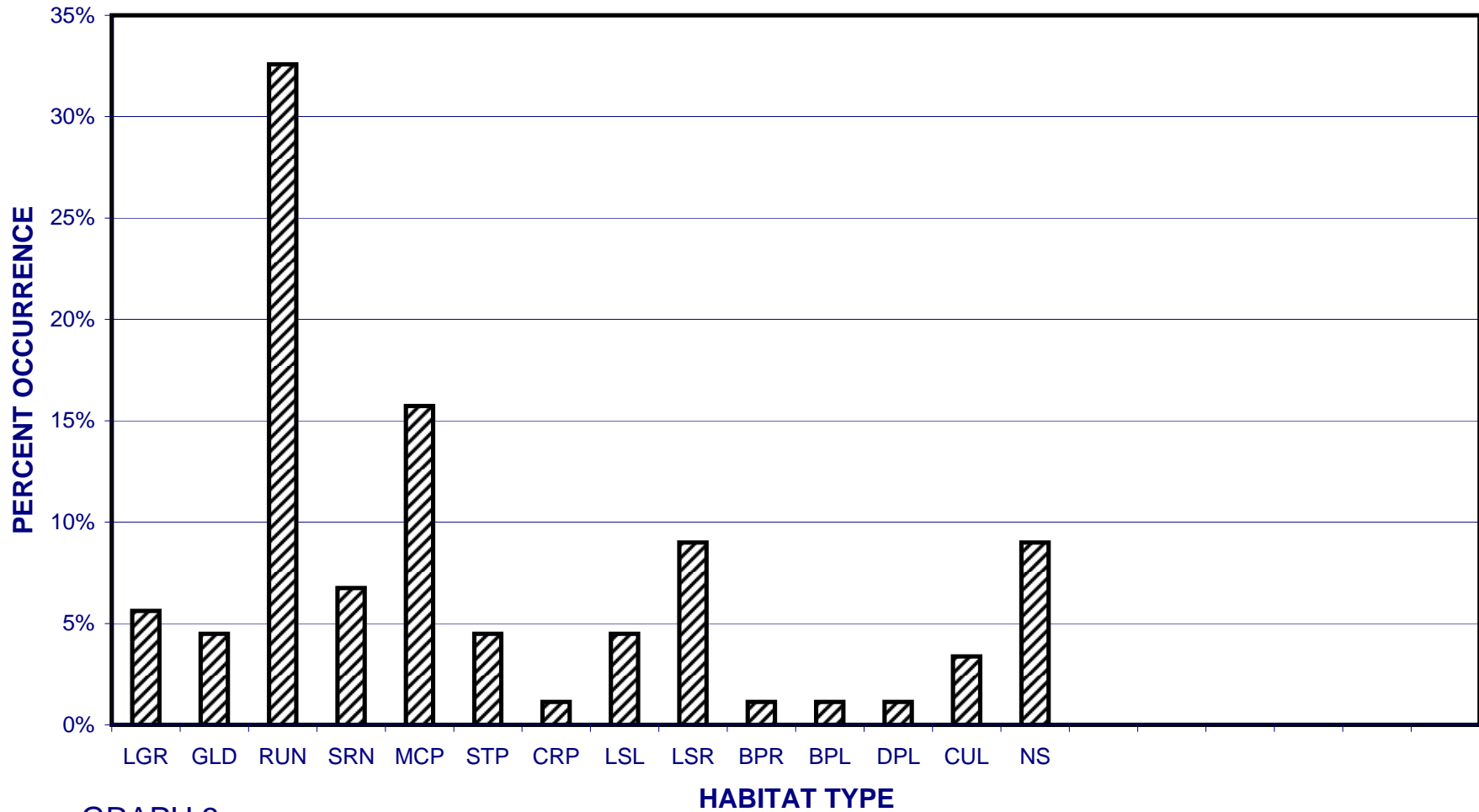


**1241616407617 2006**  
**HABITAT TYPES BY PERCENT TOTAL LENGTH**



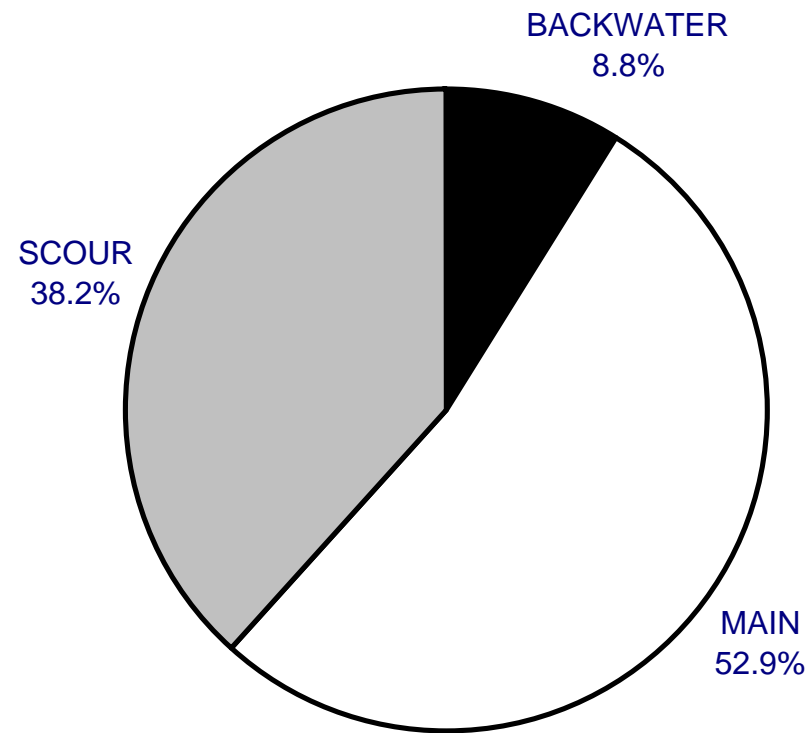
GRAPH 2

**1241616407617 2006**  
**HABITAT TYPES BY PERCENT OCCURRENCE**



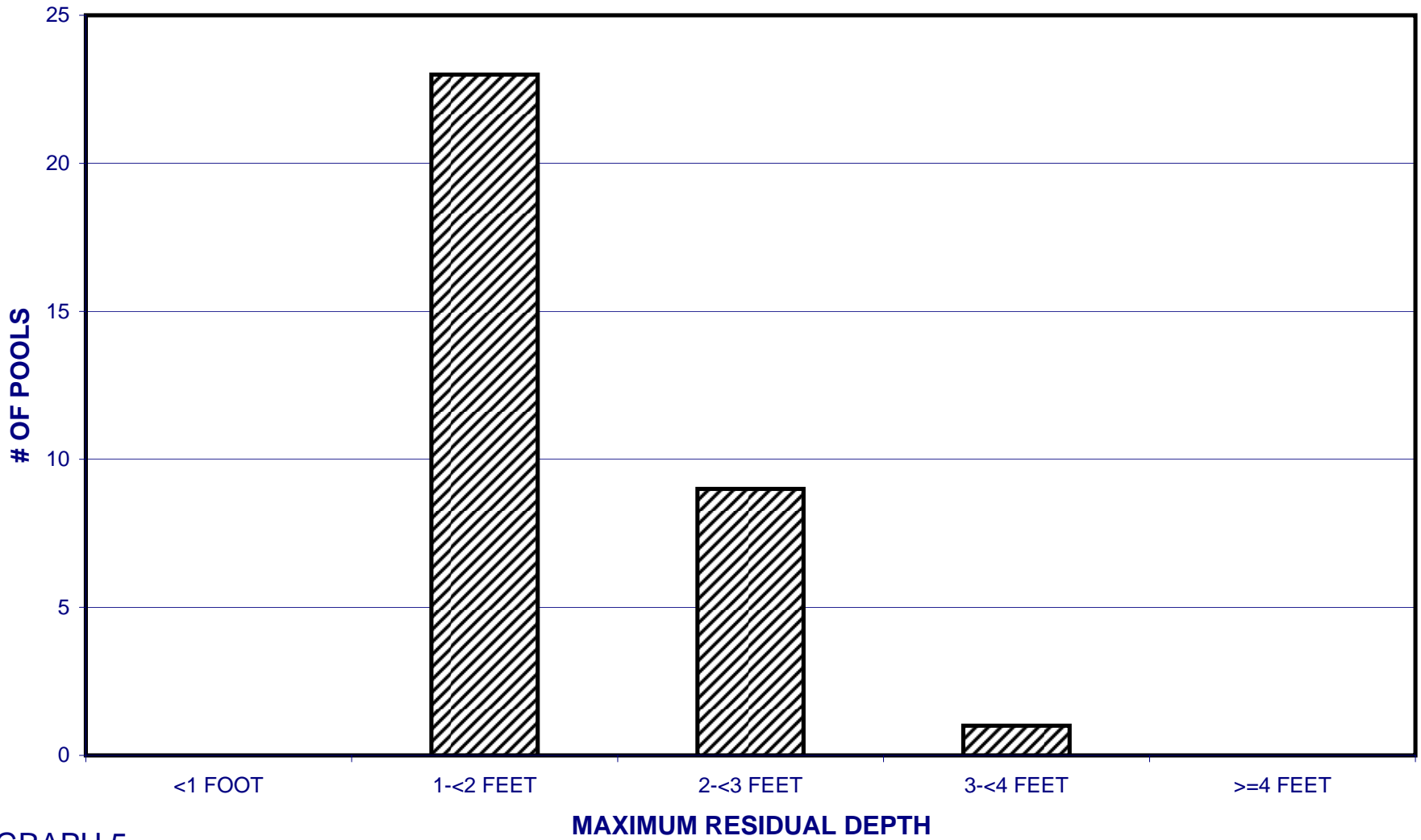
GRAPH 3

**1241616407617 2006**  
**POOL TYPES BY PERCENT OCCURRENCE**



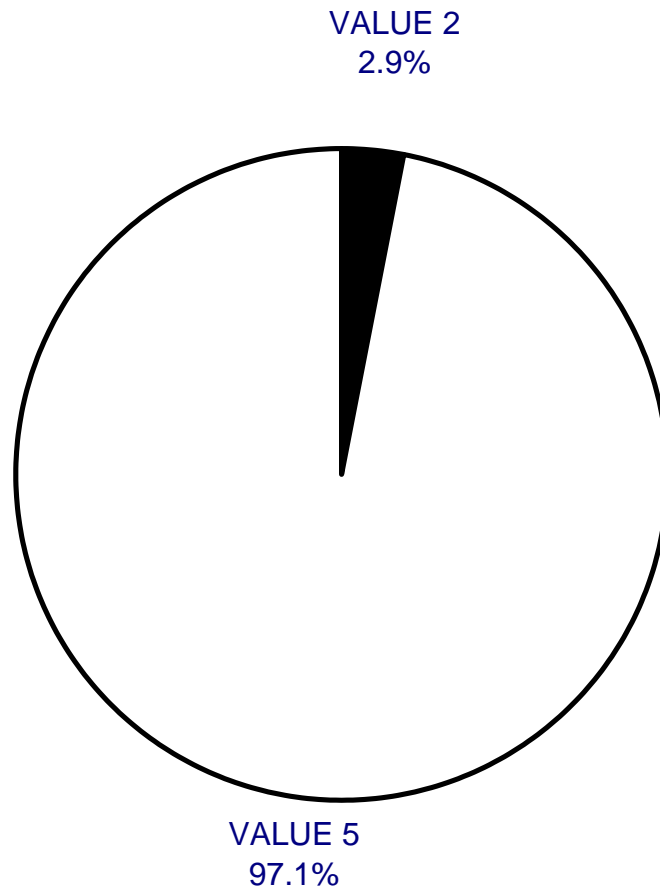
GRAPH 4

**1241616407617 2006  
MAXIMUM DEPTH IN POOLS**



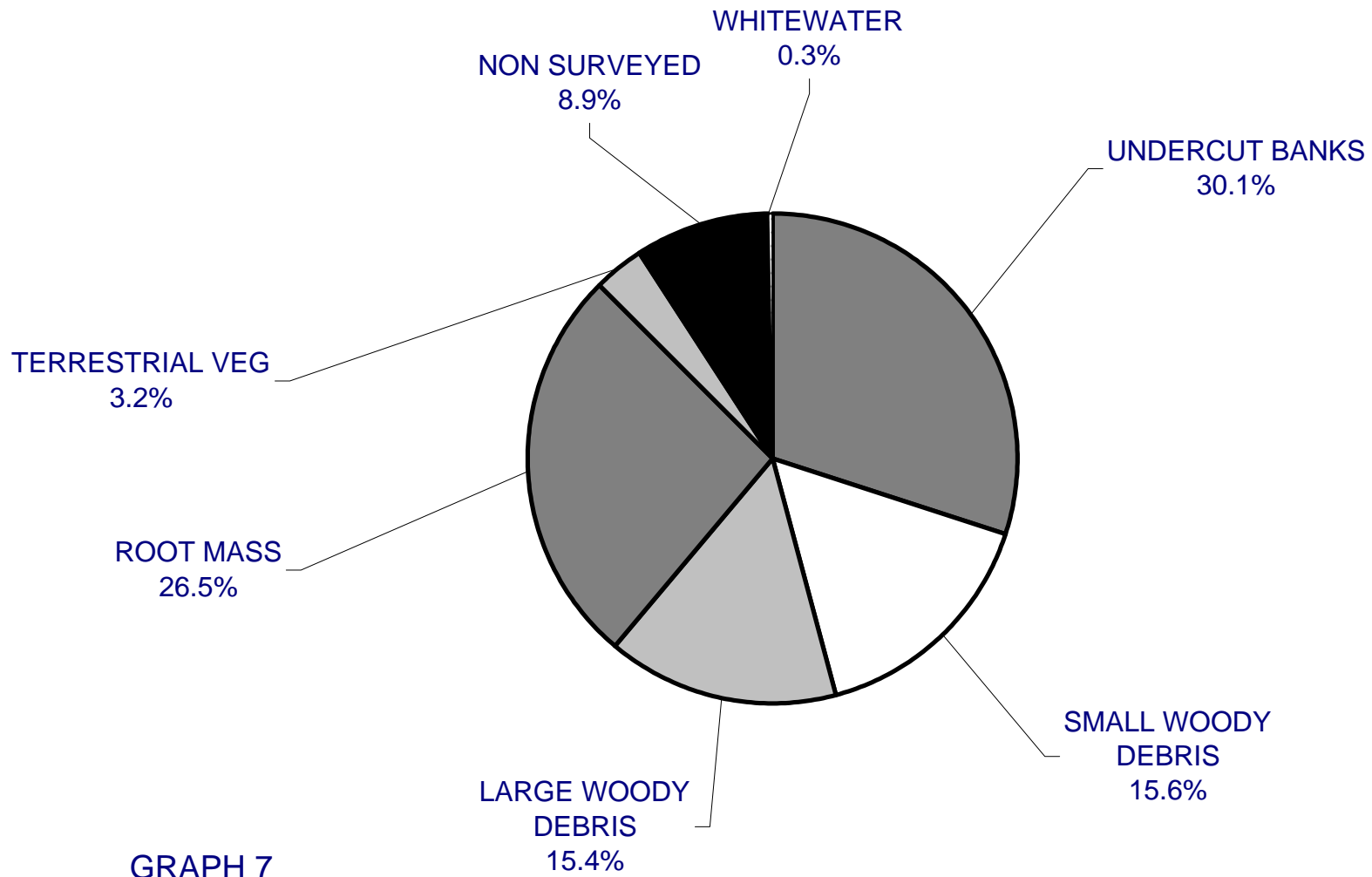
GRAPH 5

**1241616407617 2006  
PERCENT EMBEDDEDNESS**



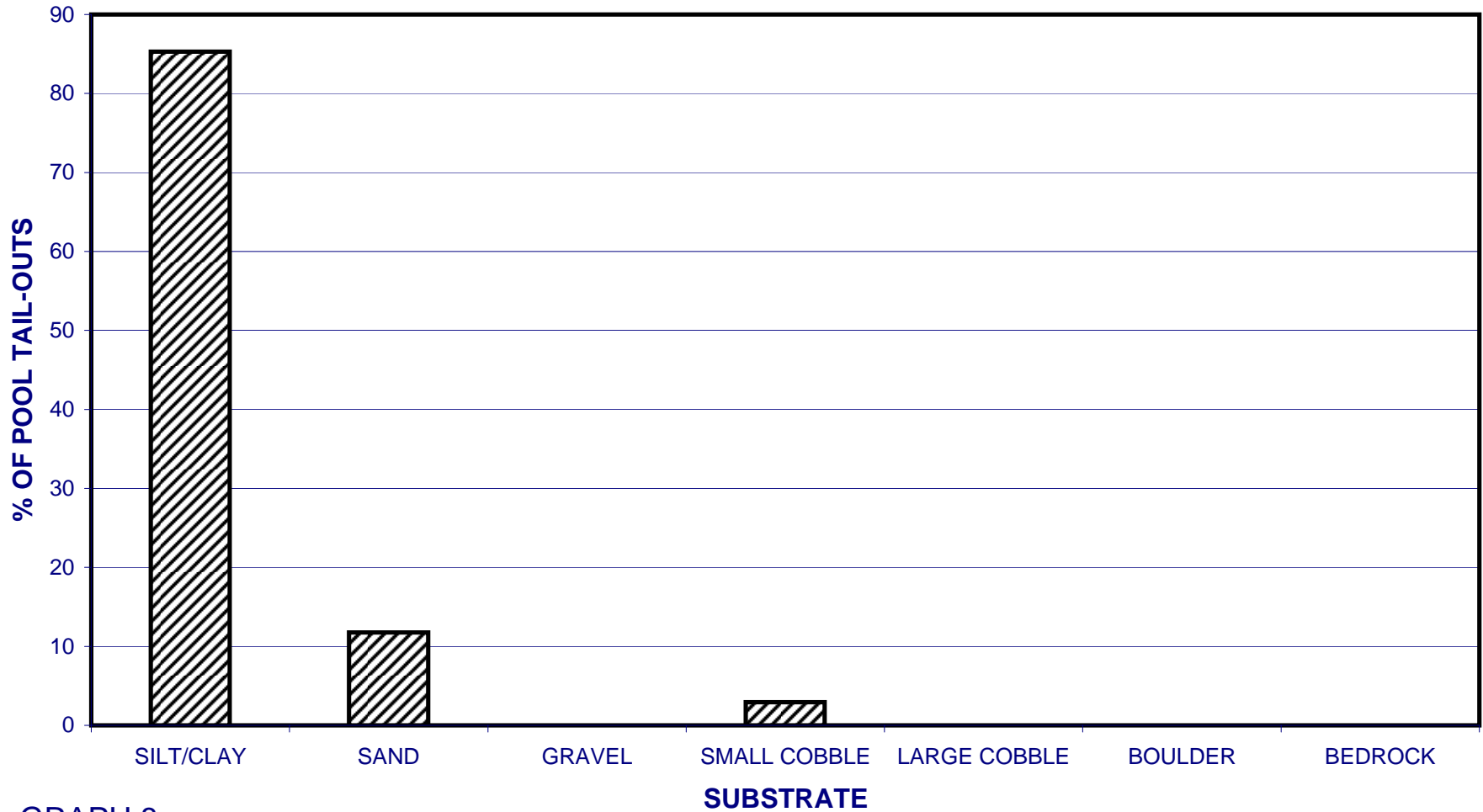
GRAPH 6

**1241616407617 2006**  
**MEAN PERCENT COVER TYPES IN POOLS**



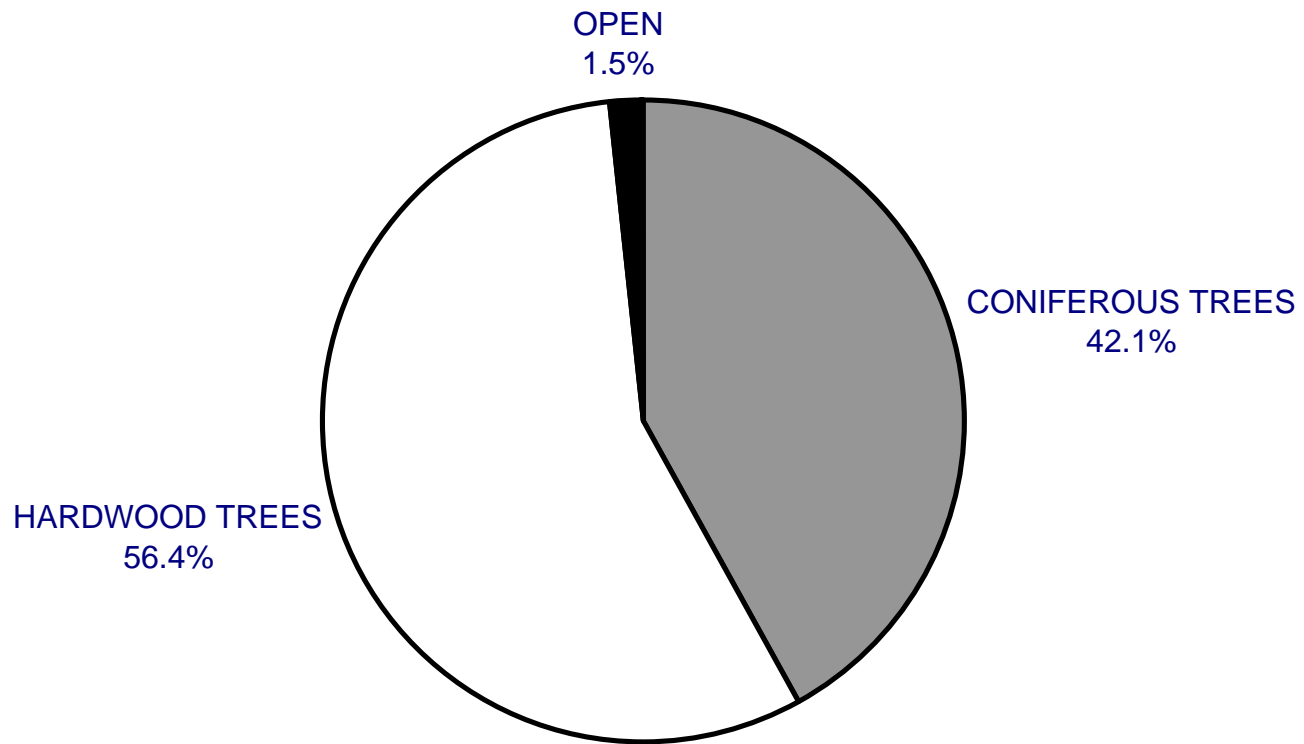
**GRAPH 7**

**1241616407617 2006**  
**SUBSTRATE COMPOSITION IN POOL TAIL-OUTS**



GRAPH 8

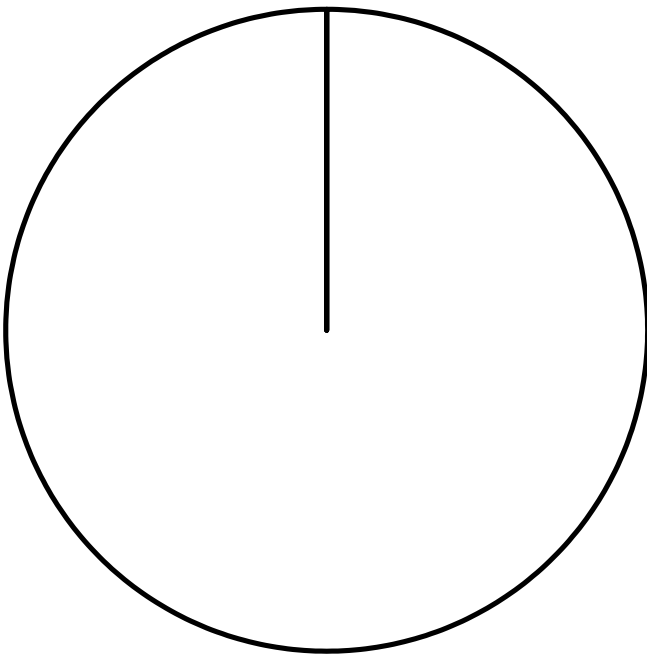
**1241616407617 2006  
MEAN PERCENT CANOPY**



GRAPH 9



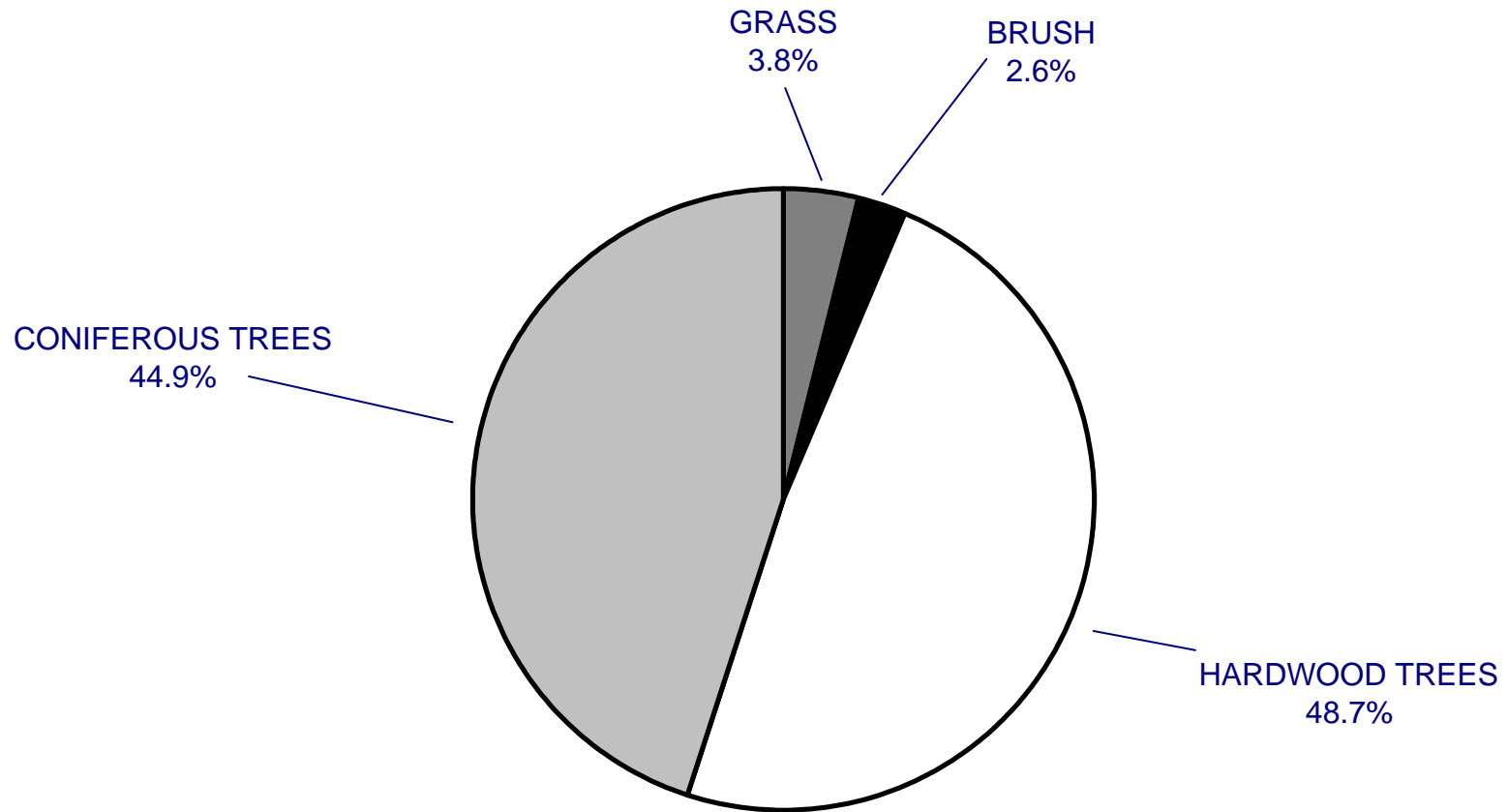
**1241616407617 2006**  
**DOMINANT BANK COMPOSITION IN SURVEY REACH**



SAND/SILT/CLAY  
100.0%

GRAPH 10

**1241616407617 2006**  
**DOMINANT BANK VEGETATION IN SURVEY REACH**



GRAPH 11