

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

Stream Name: Donnelly Gulch

LLID: 1236640392033 Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32 Latitude: 39:12:12.0N Longitude: 123:39:50.0W

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	DRY	6.0	15	45	2.3									
15	6	FLATWATER	30.0	61	917	46.2	7.0	0.4	0.7	343	5143	155	2327		13
22	22	POOL	44.0	29	637	32.1	7.2	0.8	1.4	184	4044	172	3787	139	31
10	3	RIFFLE	20.0	38	385	19.4	6.5	0.2	0.5	70	696	16	162		0
Total Units	Total Units Fully Measured				Total Length (ft.)					Total Area (sq.ft.)			Total Volume (cu.ft.)		
50	31				1984					9883			6276		

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

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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 (%)
10	3	LGR	20.0	38	385	19.4	6	0.2	1	70	696	16	162		0	95
4	2	RUN	8.0	47	187	9.4	8	0.4	0.9	329	1315	152	606		3	96
11	4	SRN	22.0	66	730	36.8	7	0.4	1.1	350	3849	157	1726		18	94
10	10	MCP	20.0	32	322	16.2	8	0.8	1.8	221	2210	207	2074	173	15	94
1	1	STP	2.0	96	96	4.8	4	0.4	1.6	384	384	230	230	154	25	98
5	5	LSL	10.0	21	105	5.3	6	0.8	2	130	650	130	651	101	54	90
3	3	LSBk	6.0	18	55	2.8	8	0.9	2.2	124	372	125	375	100	23	91
3	3	BPL	6.0	20	59	3.0	8	0.9	1.8	143	429	152	457	121	58	93
3	0	DRY	6.0	15	45	2.3										91

Total Units
50

Total Units Fully Measured
31

Total Length (ft.)
1984

Total Area (sq.ft.)
9904

Total Volume (cu.ft.)
6281

Table 3 - Summary of Pool Types

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

Latitude: 39:12:12.0N

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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
11	11	MAIN	50	38	418	66	7.2	0.8	236	2594	171	1882	16
8	8	SCOUR	36	20	160	25	7.1	0.8	128	1022	101	807	43
3	3	BACKWATER	14	20	59	9	7.8	0.9	143	429	121	362	58

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
22	22	637	4044	3050

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

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

Latitude: 39:12:12.0N

Longitude: 123:39:50.0W

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
10	MCP	45	1	10	9	90	0	0	0	0	0	0
1	STP	5	0	0	1	100	0	0	0	0	0	0
5	LSL	23	0	0	4	80	1	20	0	0	0	0
3	LSBk	14	0	0	2	67	1	33	0	0	0	0
3	BPL	14	0	0	3	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
22	1	5	19	86	2	9	0	0	0	0

Mean Maximum Residual Pool Depth (ft.): 1.4

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Dry Units: 3

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

Latitude: 39:12:12.0N

Longitude: 123:39:50.0W

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
10	3	LGR	0	0	0	0	0	0	0	0	0
10	3	TOTAL RIFFLE	0	0	0	0	0	0	0	0	0
4	2	RUN	0	100	0	0	0	0	0	0	0
11	4	SRN	0	55	45	0	0	0	0	0	0
15	6	TOTAL FLAT	0	70	30	0	0	0	0	0	0
10	10	MCP	64	22	12	0	2	0	0	0	0
1	1	STP	60	10	10	0	0	0	0	0	20
5	5	LSL	20	32	48	0	0	0	0	0	0
3	3	LSBk	45	10	20	0	5	0	0	0	20
3	3	BPL	27	60	13	0	0	0	0	0	0
22	22	TOTAL POOL	45	28	22	0	1	0	0	0	3
50	31	TOTAL	40	34	23	0	1	0	0	0	3

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Dry Units: 3

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

Latitude: 39:12:12.0N

Longitude: 123:39:50.0W

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
10	10	LGR	0	0	80	20	0	0	0
4	4	RUN	0	50	50	0	0	0	0
11	11	SRN	0	9	73	18	0	0	0
10	10	MCP	10	20	60	10	0	0	0
1	1	STP	0	0	0	0	0	0	100
5	5	LSL	0	20	80	0	0	0	0
3	3	LSBk	0	0	0	0	0	0	100
3	3	BPL	67	0	33	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

Latitude: 39:12:12.0N

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Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
93	71	29	0	85	86

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 9 - Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

Legal Description: T16NR16WS32

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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	35	35	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	5	10.0
Brush	5	6	15.7
Hardwood Trees	27	21	68.6
Coniferous Trees	1	3	5.7
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 2

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

StreamName: Donnelly Gulch

LLID: 1236640392033

Drainage: Albion River

Survey Dates: 7/3/2007 to 7/3/2007

Confluence Location: Quad: ELK

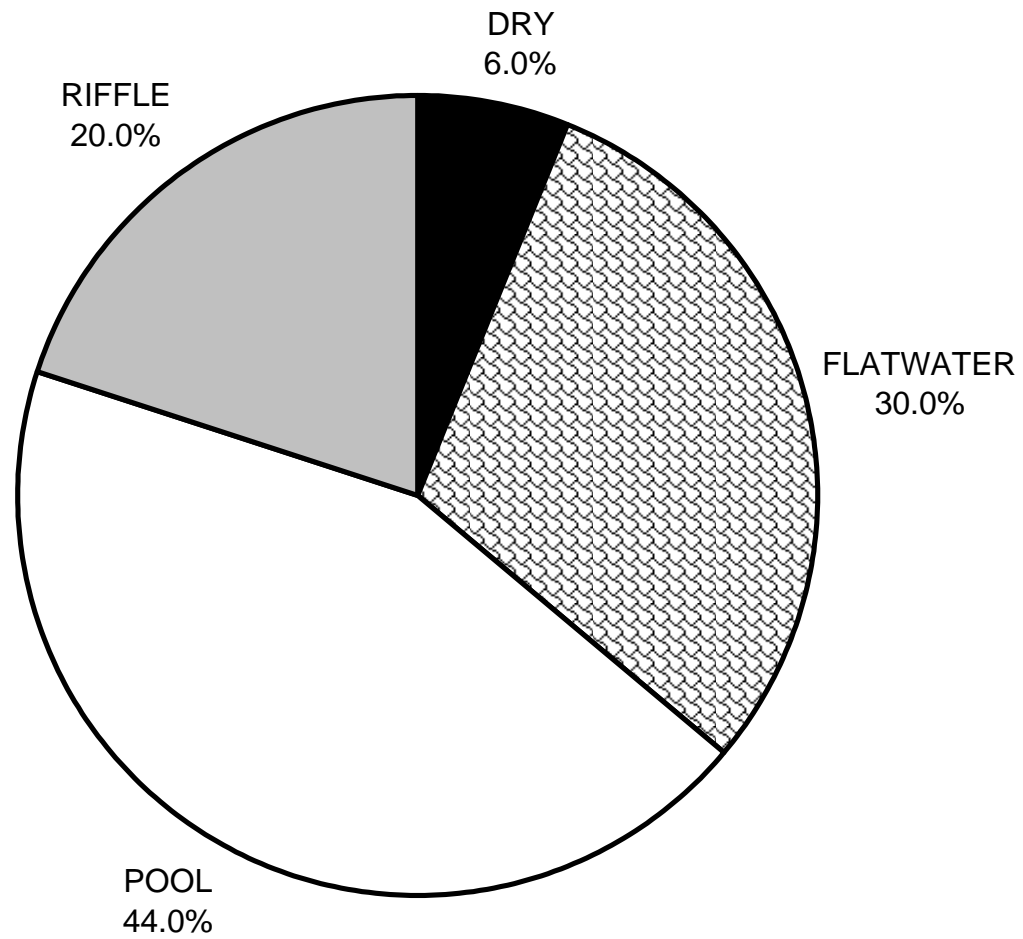
Legal Description: T16NR16WS32

Latitude: 39:12:12.0N

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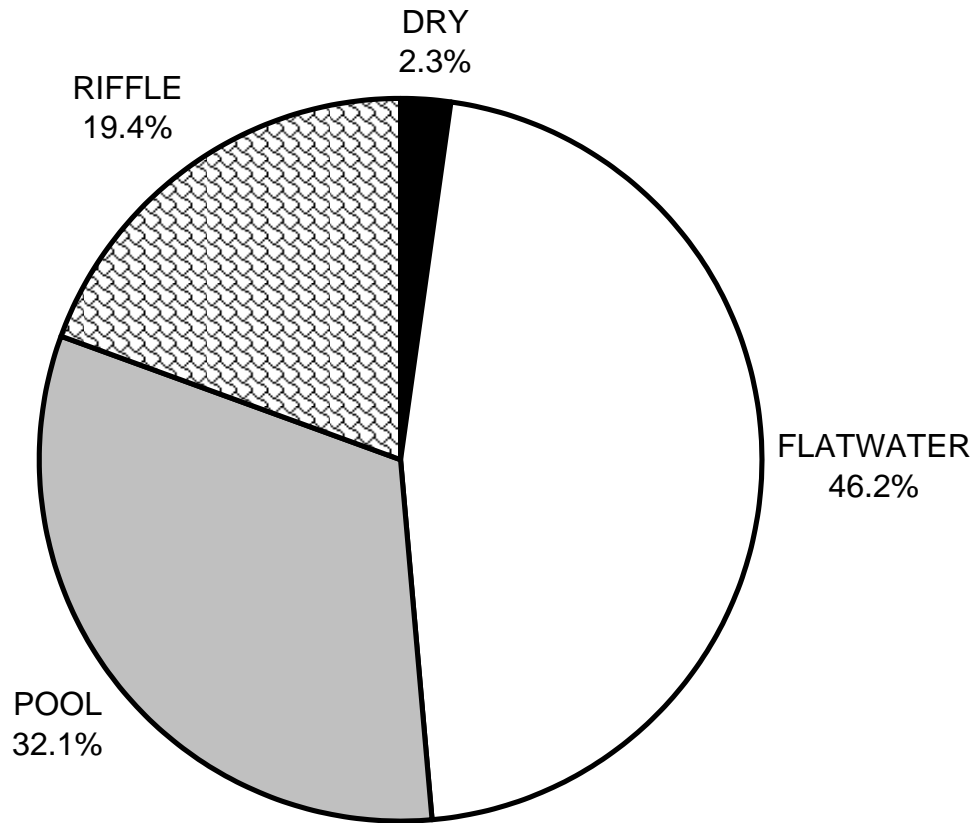
	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	45
SMALL WOODY DEBRIS (%)	0	70	28
LARGE WOODY DEBRIS (%)	0	30	22
ROOT MASS (%)	0	0	0
TERRESTRIAL VEGETATION (%)	0	0	1
AQUATIC VEGETATION (%)	0	0	0
WHITEWATER (%)	0	0	0
BOULDERS (%)	0	0	0
BEDROCK LEDGES (%)	0	0	3

DONNELLY GULCH 2007 HABITAT TYPES BY PERCENT OCCURRENCE



GRAPH 1

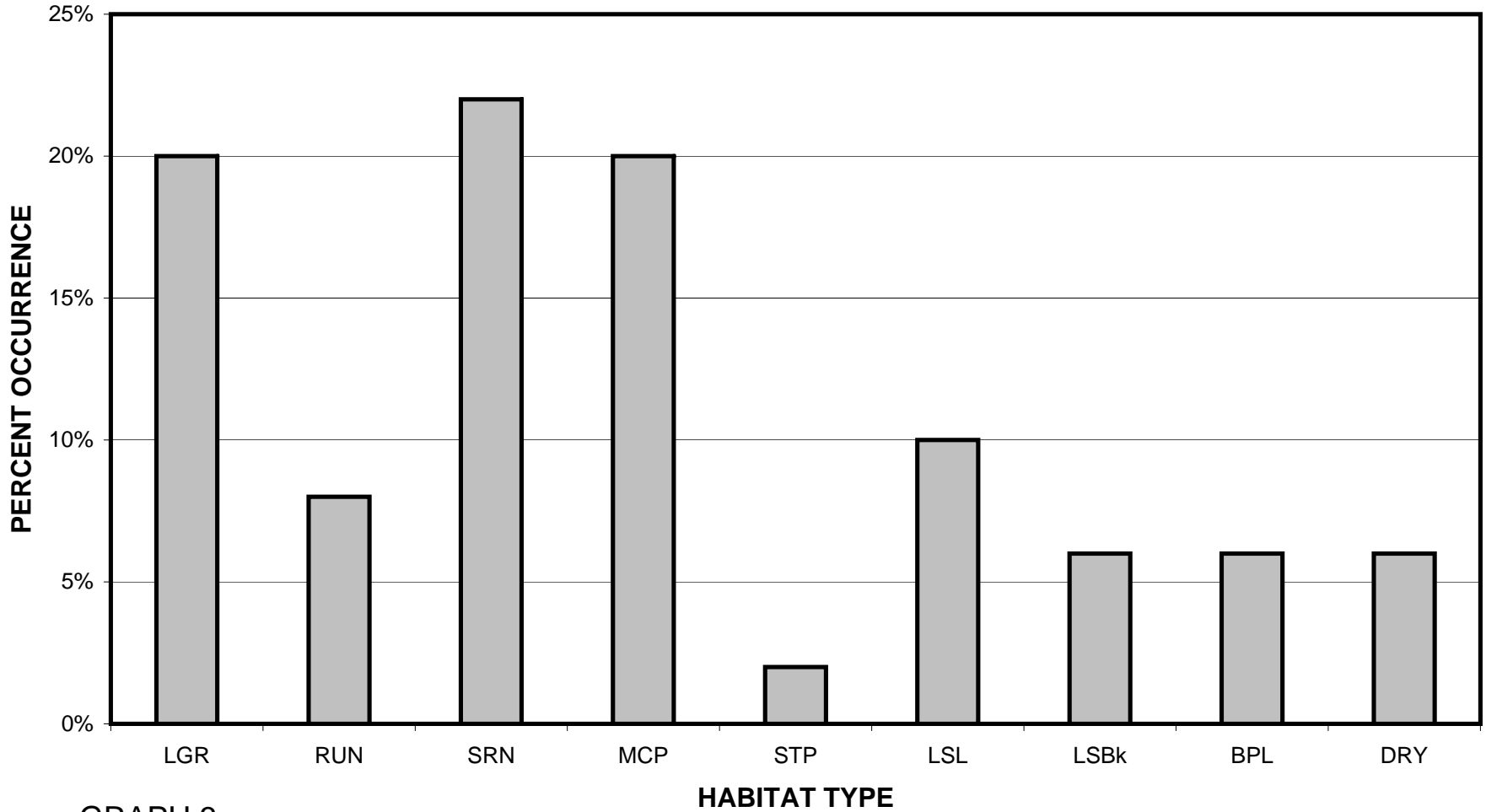
**DONNELLY GULCH 2007
HABITAT TYPES BY PERCENT TOTAL LENGTH**



GRAPH 2

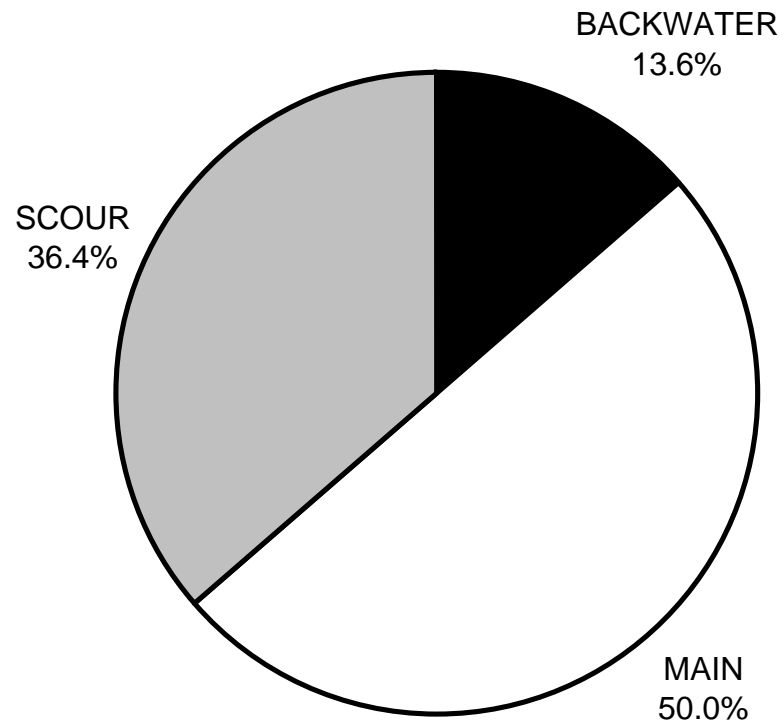
DONNELLY GULCH 2007

HABITAT TYPES BY PERCENT OCCURRENCE



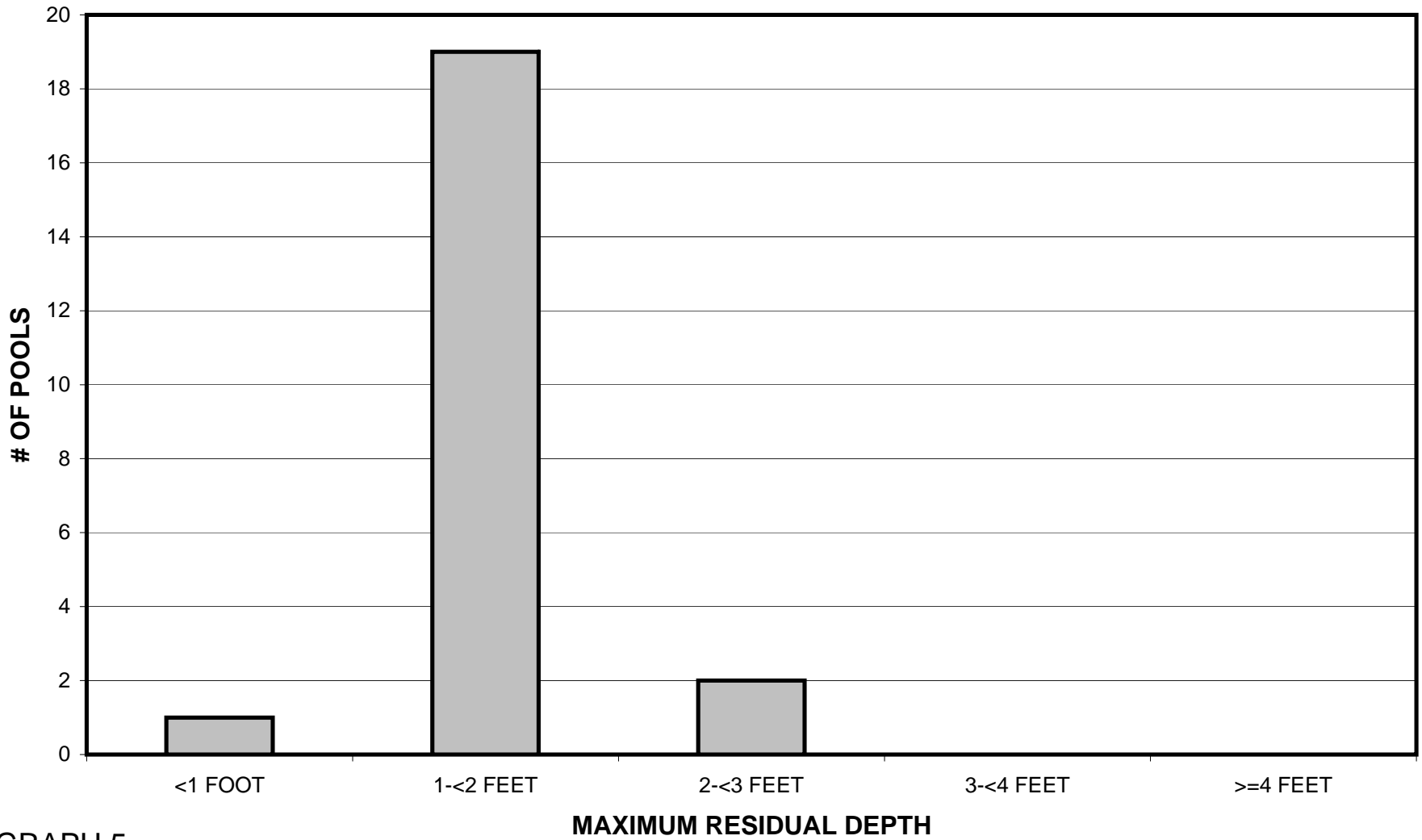
GRAPH 3

DONNELLY GULCH 2007 POOL TYPES BY PERCENT OCCURRENCE



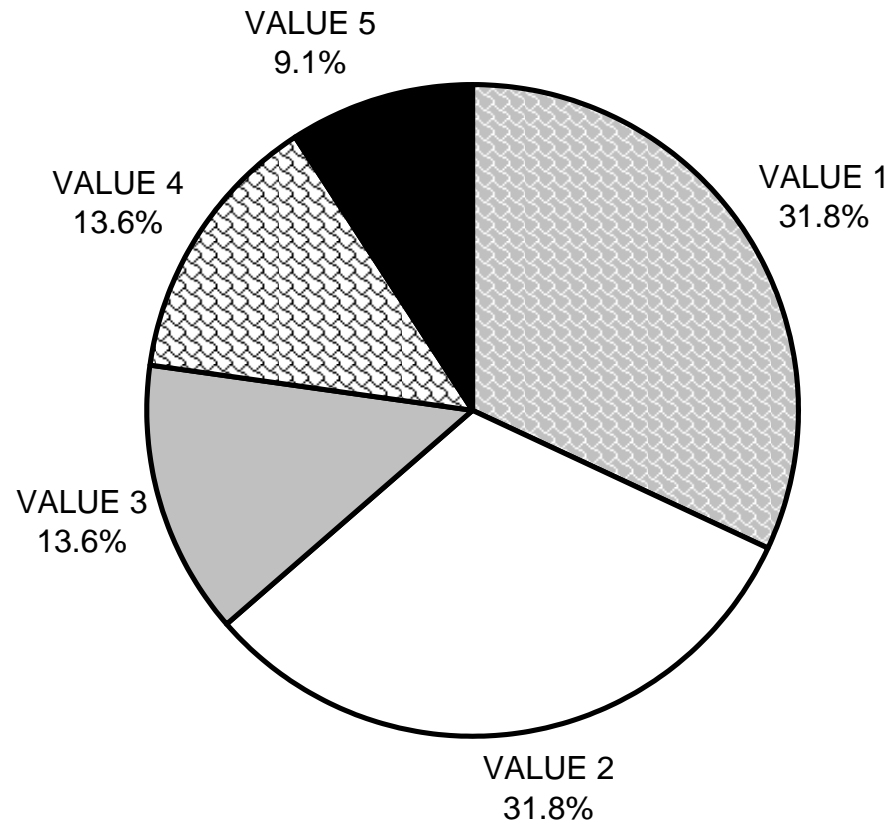
GRAPH 4

DONNELLY GULCH 2007 MAXIMUM DEPTH IN POOLS



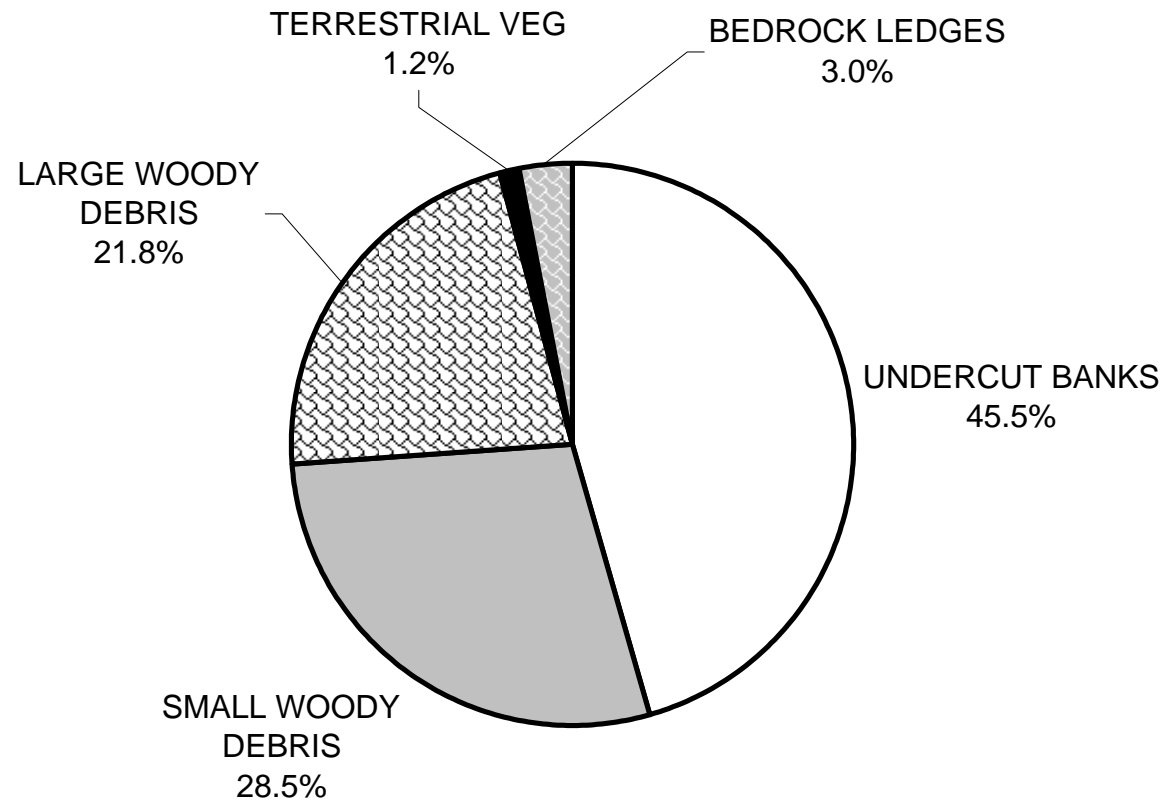
GRAPH 5

DONNELLY GULCH 2007 PERCENT EMBEDDEDNESS



GRAPH 6

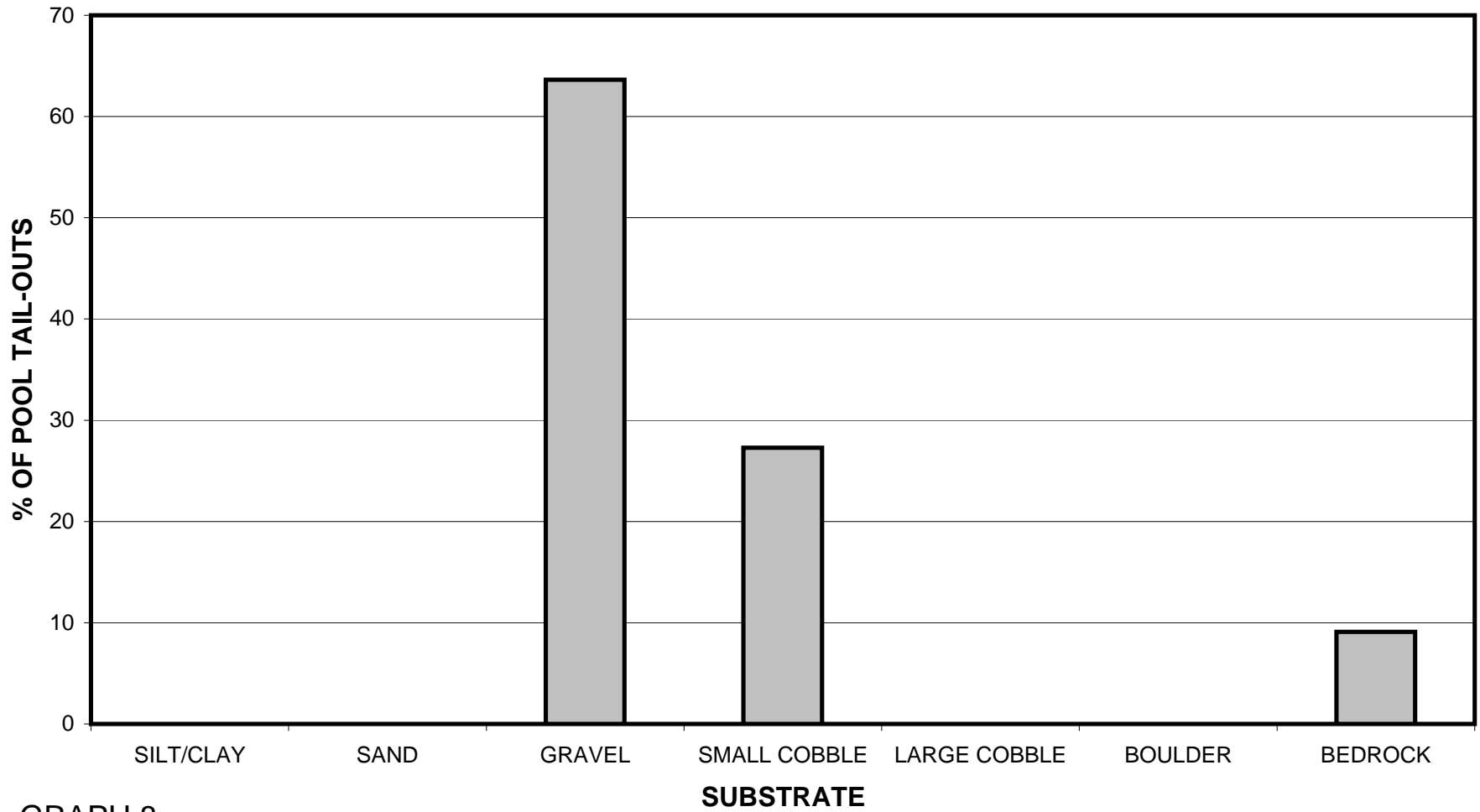
DONNELLY GULCH 2007 MEAN PERCENT COVER TYPES IN POOLS



GRAPH 7

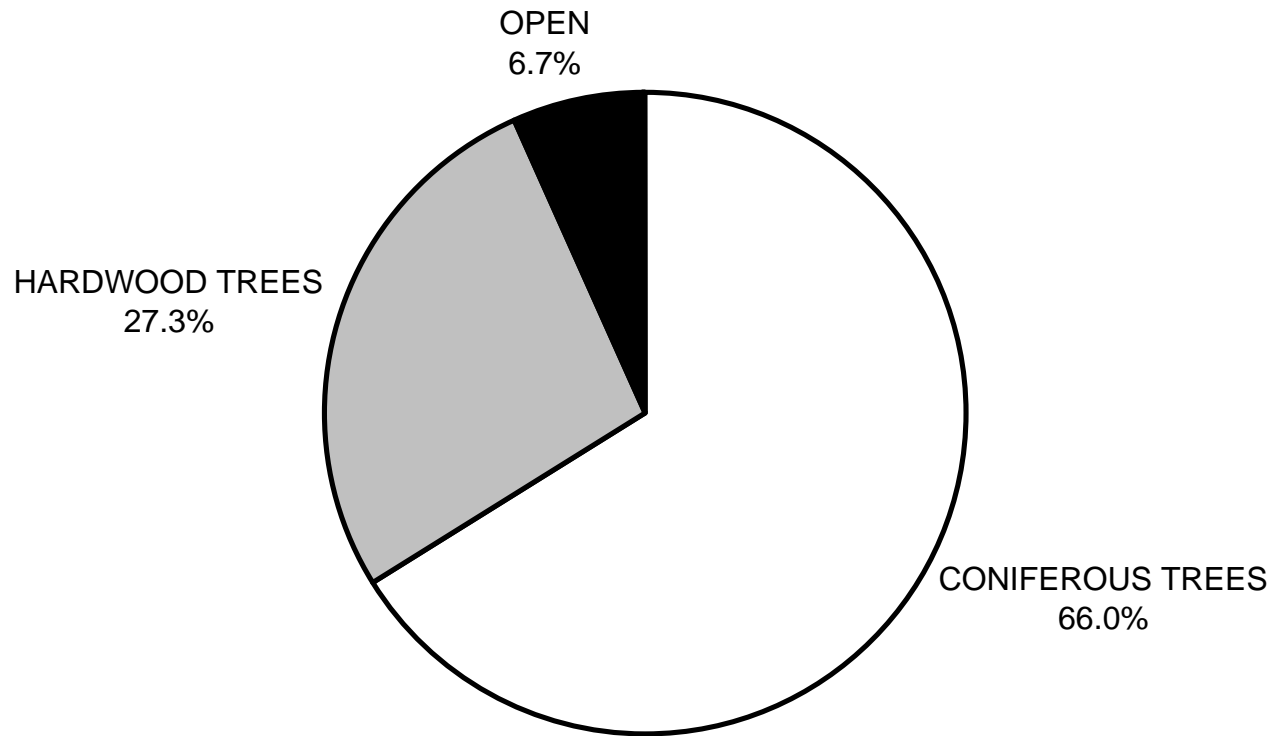
DONNELLY GULCH 2007

SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



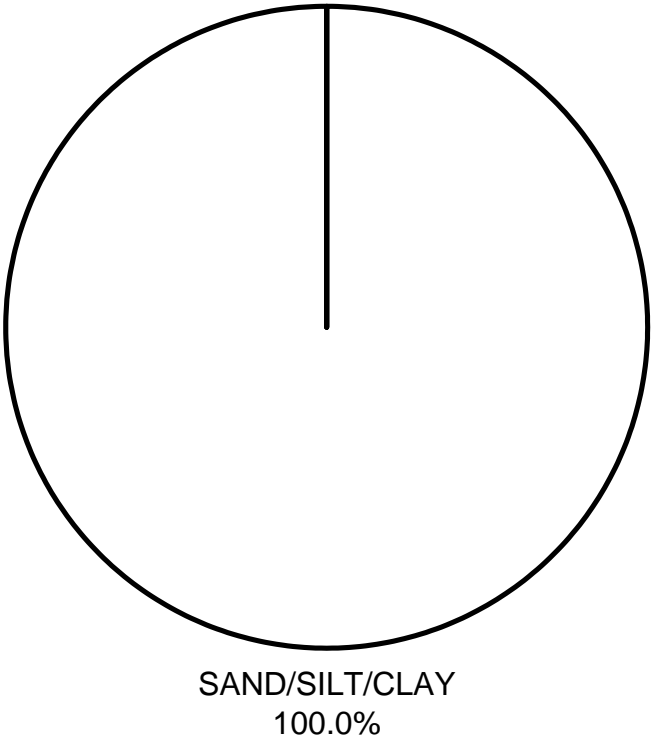
GRAPH 8

**DONNELLY GULCH 2007
MEAN PERCENT CANOPY**



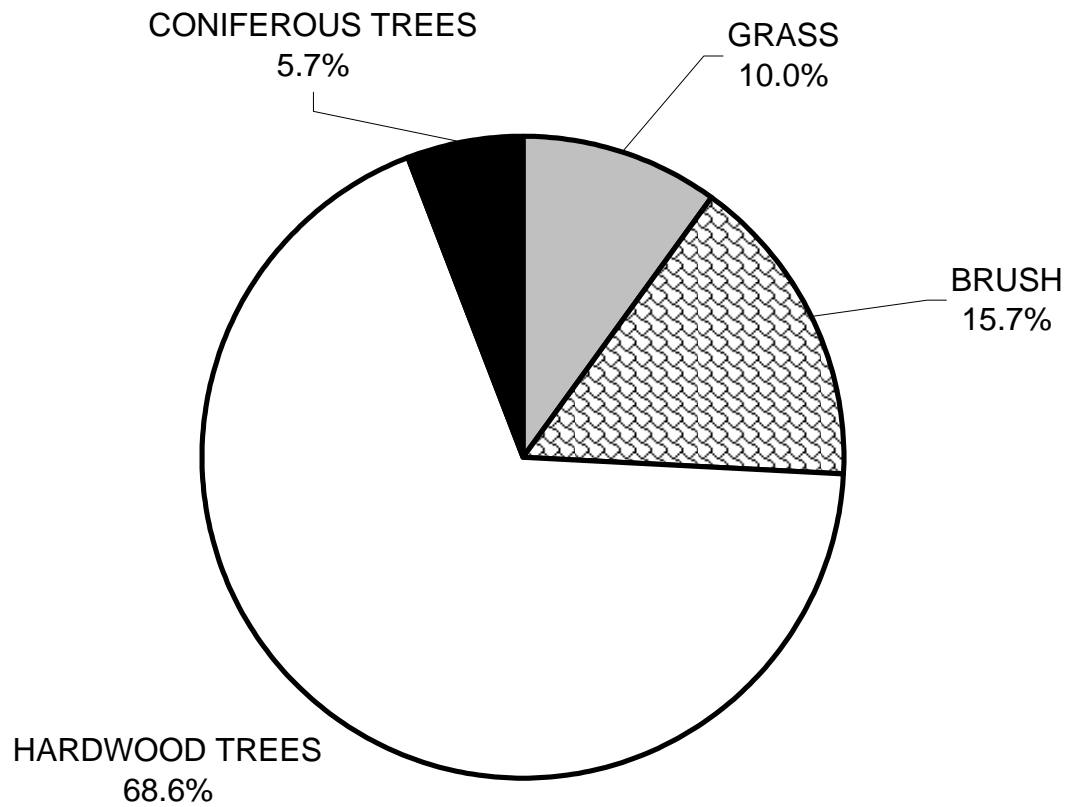
GRAPH 9

**DONNELLY GULCH 2007
DOMINANT BANK COMPOSITION IN SURVEY REACH**



GRAPH 10

DONNELLY GULCH 2007 DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

