OSAP Site Features Documentation (S1.M3)

Stream Name Speed River
Site Code SPR01
Sampling Date 06-Jul-16
Site Length (m) 311.0 m

Site Feature

	Ongoing and Active	Historical Evidence	No Evidence but Reported	No Evidence	Unknown	Comments
Potential Point or Non-point Sources of Contaminants	✓	☐	☐	☐	☐	Roads, development activity, geese
Major Nutrient Sources Upstream	☐	☐	☐	✓	☐	
Channel Hardening or Straightening	✓	☐	☐	☐	☐	concreat channalized bank walls
Adjacent Land uses that Destabilize Banks	✓	☐	☐	☐	☐	Degradation on channel walls over time
Sediment Loading or Deprivation	✓	☐	☐	☐	☐	Dams and stream modification at site and upstream potentially causing sediment deprivation
In-stream Habitat Modification	✓	☐	☐	☐	☐	weirs, dams, and channel walls
Barriers and/or Dams in the Vicinity of the Site	✓	☐	☐	☐	☐	Dam's and control structure up-stream and downst
High Fishing Pressure	☐	☐	☐	☐	✓	
Log Jam Deflectors	☐	☐	☐	✓	☐	
Springs or Seeps at the Site	☐	☐	☐	☐	✓	
Impervious Substrate Limiting Burrowing Depth of Fish	✓	☐	☐	☐	☐	bedrock and concreat substrate
Fish Stocking Near Sampling Site	☐	☐	☐	☐	✓	
Other Activities that Could Influence Biota or Habitat	✓	☐	☐	☐	☐	Open park area

Source of information

Visual Immediate	✓
Visual Extended	✓
Interview	
Maps & Photos	✓

Riparian Vegetation Community

Left Bank		Right Bank	
1.5 - 10 m	Forest	1.5 - 10 m	Lawn
10 - 30 m	Forest	10 - 30 m	Lawn
30 - 100 m	None	30 - 100 m	Lawn

Temperatures

Time	14:16
Air Temp	29°C
Water Temp	21°C

Comments

Sample Period from 14:00 to 15:30; air temp 29°C; Cloud cover 50%; Wind 3 (Beaufort Scale); Precipitation - none; Precipitation last 24h - none.

OSAP Rapid Assessment for Instream Substrate (S4.M8)

Stream Name Speed River
Site Code SPR 01
Sampling Date 06-Jul-16
Site Length (m) 311 m

Channel Structure

	Pools (Hydraulic Head = 0 - 3 mm)		Glides (Hydraulic Head = 4 - 7 mm)		Slow Rifles (Hydraulic Head = 8 - 17 mm)		Fast Riffles (Hydraulic Head = >17 mm)		Total			
Depth	**No Cover**	**Cover**	**No Cover**	**Cover**	**No Cover**	**Cover**	**No Cover**	**Cover**	**Total**	**%**		
0 - 100 mm	5	5	7	1			1		**19**	**30%**		
101 - 600 mm	10	7	11	4	7	3	1	1	**44**	**69%**		
601 - 1000 mm				1					**1**	**2%**		
> 1000 mm									**0**	**0%**	**Total Cover**	**Total No Cover**
Total # Points	**15**	**12**	**18**	**6**	**7**	**3**	**2**	**1**	**64**		**22**	**42**
	Pools		**Glides**		**Slow Rifles**		**Fast Riffles**				**34%**	**66%**
	Total	**%**	**Total**	**%**	**Total**	**%**	**Total**	**%**				
	27	42%	24	38%	10	16%	3	5%				

Instream Cover

Cover Type	**Flat Rock**	**Round Rock**	**Wood**	**Macrophytes**	**Bank**	**Other**	**Total**
Number of Points	2	18	2				**22**
	9%	**82%**	**9%**	**0%**	**0%**	**0%**	

Substrate Types

	Fines (<2 mm)	**Gravel (2-100 mm)**	**Cobble (100-1000 mm)**	**Bedrock**	**Total**
Point Particle[1]	9	47	8		**64**
Point Particle %	14%	73%	13%	0%	
Max Particle		30	33	1	**64**
Max Particle %	0%	47%	52%	2%	

Hydraulic Head: A surrogate of velocity, measured as the difference in hight of water between the front and back of a ruler.

Cover: Unembedded material with a median axis greater than 100 mm and of sufficient density to block >75% of light.

Point Particle: A randomly selected partical from within a sampling point.

Max Particle: The largest partical from within a sampling point.

Bank Stability

	Number	**%**	
Eroding Bank	**0**	**0%**	Angle >45 ° , erodible soil, undercut or bare soil
Vulnerable Bank	**0**	**0%**	Angle >45 ° , erodible soil, no sign of recent erosion
Protected Bank	**20**	**100%**	Angle >45 ° , non-erodible material/soil
Deposition Zone	**0**	**0%**	Angle <45 ° , gradual slope from river, fine grained sediment

Stream Measurments

Mean Stream Width (m)	**58.0 m**
Maximum Depth at Crossover (mm)	**230 mm**
Maximum Particle Size (mm)	**>1000 mm**
Bank Full Width	**58.0 m**
Bank Full depth	**NA**
Entrenchment	**NA**

OSAP Site Features Documentation (S1.M3)

Stream Name Speed River
Site Code SPR02
Sampling Date 06-Jul-16
Site Length (m) 58.0 m

Site Feature

	Ongoing and Active	Historical Evidence	No Evidence but Reported	No Evidence	Unknown	Comments
Potential Point or Non-point Sources of Contaminants	✓	☐	☐	☐	☐	Roads, development activity,
Major Nutrient Sources Upstream	☐	☐	☐	✓	☐	
Channel Hardening or Straightening	☐	☐	☐	✓	☐	
Adjacent Land uses that Destabilize Banks	☐	☐	☐	✓	☐	
Sediment Loading or Deprivation	✓	☐	☐	☐	☐	Dam and stream modification upstream potentially causing sediment deprivation
In-stream Habitat Modification	☐	✓	☐	☐	☐	Large concrete block present in watercourse
Barriers and/or Dams in the Vicinity of the Site	✓	☐	☐	☐	☐	Dam's and control structure up-stream and downstream
High Fishing Pressure	☐	☐	☐	☐	✓	
Log Jam Deflectors	✓	☐	☐	☐	☐	Minor log jams along bank
Springs or Seeps at the Site		☐	☐	☐	✓	
Impervious Substrate Limiting Burrowing Depth of Fish	✓	☐	☐	☐	☐	Bedrock
Fish Stocking Near Sampling Site	☐	☐	☐	☐	✓	
Other Activities that Could Influence Biota or Habitat	☐	☐	☐	☐	✓	

Source of information

Visual Immediate	✓
Visual Extended	✓
Interview	
Maps & Photos	✓

Riparian Vegetation Community

	Left Bank		Right Bank	
1.5 - 10 m	Forest	1.5 - 10 m	Wetland
10 - 30 m	Wetland	10 - 30 m	Forest
30 - 100 m	Forest	30 - 100 m	Forest

Temperatures

Time	11:30
Air Temp	28°C
Water Temp	21°C

Comments

Sample Period from 10:00 to 11:30; air temp 28°C; Cloud cover 50%; Wind 3 (Beaufort Scale); Precipitation - none; Precipitation last 24h - none.

OSAP Rapid Assessment for Instream Substrate (S4.M8)

Stream Name Speed River
Site Code SPR02
Sampling Date 06-Jul-16
Site Length (m) 58.0 m

Channel Structure

	Pools (Hydraulic Head = 0 - 3 mm)		Glides (Hydraulic Head = 4 - 7 mm)		Slow Rifles (Hydraulic Head = 8 - 17 mm)		Fast Riffles (Hydraulic Head = >17 mm)		Total			
Depth	**No Cover**	**Cover**	**No Cover**	**Cover**	**No Cover**	**Cover**	**No Cover**	**Cover**	**Total**	**%**		
0 - 100 mm	3	2							**5**	**7%**		
101 - 600 mm	26	10	9	5	4	2		6	**62**	**91%**		
601 - 1000 mm			1						**1**	**1%**		
> 1000 mm									**0**	**0%**	**Total Cover**	**Total No Cover**
Total # Points	**29**	**12**	**10**	**5**	**4**	**2**	**0**	**6**	**68**		**25**	**43**
	Pools		**Glides**		**Slow Rifles**		**Fast Riffles**				**37%**	**63%**
	Total	**%**	**Total**	**%**	**Total**	**%**	**Total**	**%**				
	41	60%	15	22%	6	9%	6	9%				

Instream Cover

Cover Type	**Flat Rock**	**Round Rock**	**Wood**	**Macrophytes**	**Bank**	**Other**	**Total**
Number of Points	3	15	6				**24**
	13%	**63%**	**25%**	**0%**	**0%**	**0%**	

Substrate Types

	Fines (<2 mm)	**Gravel (2-100 mm)**	**Cobble (100-1000 mm)**	**Bedrock**	**Total**
Point Particle	19	27	10	12	**68**
Point Particle %	28%	40%	15%	18%	
Max Particle	5	16	32	13	**66**
Max Particle %	8%	24%	48%	20%	

Bank Stability

	Number	**%**	
Eroding Bank	**1**	**6%**	Angle >45 ° , erodible soil, undercut or bare soil
Vulnerable Bank	**5**	**28%**	Angle >45 ° , erodible soil, no sign of recent erosion
Protected Bank	**0**	**0%**	Angle >45 ° , non-erodible material/soil
Deposition Zone	**12**	**67%**	Angle <45 ° , gradual slope from river, fine grained sediment

Stream Measurements

Mean Stream Width (m)	**26.2**
Maximum Depth at Crossover (mm)	**410**
Maximum Particle Size (mm)	**>1000**
Bank Full Width	**28.2**
Bank Full depth	**710**
Entrenchment	**Unentrenched**

Hydraulic Head: A surrogate of velocity, measured as the difference in height of water between the front and back of a ruler.

Cover: Unembedded material with a median axis greater than 100 mm and of sufficient density to block >75% of light.

Point Particle: A randomly selected partial from within a sampling point.

Max Particle: The largest partial from within a sampling point.