

Stream Location and Conditions

(use a new data sheet for each stream section surveyed)

Module 1

| | | |
|--|--|---|
| Stream Name/Nearest Town: <u>PORT COQUITLAM</u> <u>HYDE CREEK - COQUITLAM</u> | | Date: <u>FEB 16, 2009</u> |
| Organization Name: <u>AQUATEC RESOURCES</u> | | Watershed code <u>100-026700-07200-97700</u> |
| Contact Name: <u>SCOTT DUCHARME</u> | | Phone # <u>604-690-1474</u> |
| Crew Names: <u>THIBAUT DOIX</u> | | Stream Segment # |
| | | Stream Section # <u>1</u> |
| | | Length Surveyed <u>1807m</u> |

Survey Start Point (when applicable)

| | | |
|---|--|--|
| Mapsheets number | Type | Scale |
| Start Point Location (distance from known stream landmark, directions to start) <u>HYDE CREEK / CEDAR CREEK CONFLUENCE - ACCESS at PUMP</u> <u>HOUSE ON CEDAR DRIVE, PORT COQUITLAM</u> | | |
| Time: <u>1:45</u> | Weather | <input checked="" type="checkbox"/> clear • shower (1-2.5 cm in 24 hr) • snow <input type="checkbox"/> overcast • storm (>2.5 cm in 24 hr) • rain on snow |
| Water turbidity (cm visibility) <u>> 30cm</u> | Temperature °C (leave thermometer 2 min.) air <u>7</u> water <u>5°C</u> | |
| Measurements taken every <u>1.0 m</u> | | |
| Bankfull Channel width | <u>7.1 (m)</u> | Average depth <u>1.06 (m)</u> |
| Wetted Channel width | <u>5.8 (m)</u> | Average depth <u>0.195 (m)</u> |

Survey End Point (when applicable)

| | | |
|--|--|--|
| Mapsheets number | Type | Scale |
| End Point Location (distance from known stream landmark) <u>AT Culvert AT Coast Meridian Rd. - downstream side</u> <u>- upstream of Hyde Creek hatchery.</u> | | |
| Time: <u>12:30</u> | Weather | <input type="checkbox"/> clear • shower (1-2.5 cm in 24 hr) • snow <input checked="" type="checkbox"/> overcast • storm (>2.5 cm in 24 hr) • rain on snow |
| Water turbidity (cm visibility) <u>> 30cm</u> | Temperature °C (leave thermometer 2 min.) air <u>5°C</u> water <u>5°C</u> | |
| Measurements taken every <u>1.0 m</u> | | |
| Bankfull Channel width | <u>5.16 (m)</u> | Average depth <u>1.7 m (m)</u> |
| Wetted Channel width | <u>4.1 (m)</u> | Average depth <u>0.38 (m)</u> |

(Start Point)

First and Last Measurements taken 0.1 m from streambank edge

(End Point)

| | | | | | | | | |
|----------------|----|-----|-----|-----|-----|-----|-----|----------------|
| Left Bank | m | 1.0 | 1.1 | 1.1 | 2.5 | 1.0 | 1.0 | Right Bank |
| Wetted Depth | cm | 36 | 20 | 20 | 11 | 22 | 19 | Wetted Depth |
| Bankfull Depth | m | 1.4 | 1.3 | 1.3 | 0.7 | 0.8 | 0.9 | Bankfull Depth |

| | | | | | | | | |
|----------------|----|-----|-----|-----|-----|-----|-----|----------------|
| Left Bank | m | 1.0 | 1.0 | 1.0 | 1.5 | 3.0 | 1.0 | Right Bank |
| Wetted Depth | cm | 36 | 40 | 37 | 40 | 38 | 35 | Wetted Depth |
| Bankfull Depth | m | 1.4 | 1.2 | 1.7 | 2.0 | 2.0 | 2.0 | Bankfull Depth |

Take measurements every 0.5m in streams less than 5m wide, every 1m in streams 5 to 15m

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Introductory Stream Habitat Survey
 revision - March 2000

Streamkeepers Module 1

Stream Reconnaissance Field Data Sheet

Feature Information con't

Module 1

| Feature # | Photo # | m upstream of last feature | Feature Description and Size (see App. 3) | Stream-bank (L or R) | Adjacent Land Use * | Actions/Comments/ Water Quality Concerns |
|-----------|---------|----------------------------|--|----------------------|---------------------|---|
| 1 a1 | 2 4 | 5m | PEDESTRIAN BRIDGE " BENCHMARK" Height = 3.5m. | R-L | TRAIL | Start Point 5m FROM HYDE AND CEDAR CONFLUENCE. |
| 2 | 3 | 2m | Rock WIER Enhancement 6m x 2m wd = 21.6cm. | stream | TRAIL | Functioning well. |
| 3 | 4 | 6m | BANK EROSION EXPOSED clay. ↑ 60 cm x | L R | R TRAIL | EXPOSED during High FLOWS. |
| 4 | 6 | 22m | BANK EROSION - UNDE-CUT ↑ 1.8m x 350m | R | Trail | Roots Keeping Bank STABILIZED |
| 5 a2 | 7 | 16m | - Artificial MODIFICATION - Concrete remains FROM OLD BRIDGE | R L | R trail | - STABLE AT Present |

* Adjacent Land Use Codes: Undisturbed, Agriculture, Forestry, Residential, Parks, Commercial, Industrial

General comments on this section of the stream

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|-----------|----------|----------------------------|---|----------------------|---------------------|---|
| 6 | 8 9 | 41m | BANK Erosion Beginning under-cut ↑ 3m x 15m | L | U | Erosion during hi-flow. |
| 7 | 10 | 63m | Tributary (feeder) height = 1.2m H ₂ O = 40C | L | U | - min Flow. - Drainage Catchment Area (natural) |
| 8 | 11 | 51m | TRIBUTARY Height = 95cm width = 55cm BF = 1.7m low = 90cm H ₂ O = 50C | L | U | may provide temp refuge during hi-flow |
| 9 | 12 13 | 2m | LWD JAM - potential barrier | L | P | - ongoing monitoring |
| 10 | 14 | 110m | Discharge Pipe DIA = 30cm Height = 65cm | R L | trail U | - min Flow - upstream side of CV is Park drainage ditch. |

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|-----------|----------|----------------------------|--|----------------------|---------------------|--|
| 11 | 15 | 25m | Tributary BF = 1.4 LWW = 52 cm | L | u | No Flow - SALMON Skeleton |
| 12 | 16 17 | 59m | TRIBUTARY Height = 1.1m plunge pool = 50cm BF = 5m LW = 3.2m H ₂ O = 4.5°C | L | u | lots of flow - SWD jam blocking access - clear left side |
| 13 | 18 | 1m | Bank Erosion Height = 1.2m length = 171m Exposed + starting under-cut. | R L | trail R | - AFFECTED BY hi flows. - skeletons observed. |
| 14 | 19 | 90m | Bank Erosion - height = 1.8m length = 5m | L | u | under-cut just beginning - pool depth = 1m. - salmon carcass |
| 15 | 20 21 | 5m | Bank Erosion under-cut. height = 0.7m to 1m length = 103m | L | u | Exposed clay in substrate. |

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| 16 102 | 22 | 76m | - Artificial MODIFICATIONS - BANK ARMORING with Rip/Rap - - 1.8m x 23m - Rip/Rap - .5m size | R L | trail U | - Bank Protection |
| 17 101 | 23 | 37m | Drainage Area. - not flowing 3.7m x 2.2m | L | U | - catchment Bos Area provides seepage to creek. - observe 1 carcass. |
| 18 | 24 | 16m | BANK Erosion Exposed soil 1.8m x 76m | R | trail | - sections are armored with Rip/Rap. |
| 19 102 | 25 | 12m | Artificial Modification BANK ARMORING with Rip/Rap 1.2m x 20m | R | trail | - 30cm - 50cm size rip/rap. |
| 20 103 | 26 | 43m | PEDESTRIAN Bridge crossing. " BENCHMARK " Height = 3m. width = 17.5m. | R-L | | - Located adjacent to LINCOLN Ave trail access. |

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| 21 01 | 1 2 | 8m | Artificial Modification WATER SAMPLING site, - 2 - 10cm sampling pipes. | R | | - water gauge mounted on boulder. |
| 22 02 | 3 4 | 9m | TRIBUTARY BF = 3.5m WW = 1.0m WD = 8cm H ₂ O = 4.5°C | L | U | - Access first 5m only. |
| 23 | 5 | 4m | BANK EROSION ↑ 1.5m x (533m) ongoing over ↑ | R | trail | Bank along trail side, exposed + under-cut in several areas. |
| 24 03 | 6 | 99m | BANK EROSION ↑ 1m x 7m → | R | trail | |
| 25 04 | 7 | 18m | Tributary BF = 1.7m WW = 1.1m WD = 15cm H ₂ O = 7°C | L R | U trail | - Flowing - NO ACCESS AFTER 1st 1.5 meters due to LWD JAM. mainstem temp = 5°C |

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| 26 ob | 8 9 10 | 18m | Enhancement. START OF LWD (ROOTWADS, STUMPS) AND BOULDERS TOTAL OF 77 po's OVER 914m | L-R | | note: Some LWD sites have shifted to center of creek, causing erosion on bank behind structures - Creating POOL/RIFLE |
| 27 ob | 11 | 143m | Enhancement. Boulder Placement. 5m size wide = 4.3m length = 3.5m | instream | | Functioning RIFLE area. |
| 28 ob | 12 13 | 10m | Tributary BF = 1.5m WW = 40cm H ₂ O = 5°C Wd = 3.5cm. | L | U | min flow not suitable habitat at low |
| 29 ob | 14 | 25m | Enhancement. Boulder placement on BANKS and instream. width = 4.0m length = 2.0m | R-L instream | | Functioning properly and stable. - creating riffle |
| 30 a | 15 | 58m | Enhancement. Boulder & rock placement. width = 4.1m length = 2.0m | R-L instream | | - creating riffle area |

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| 31 10 | 16 | 12m | Bank Erosion under-cut. ↑ 80cm x 5m. | L | U | - gravel and sand deposit behind stump structure. |
| 32 11 | 17 | 24m | Bank Erosion ↑ 1m x 8m ↔ - under-cut | L R | U trail | stable at present flow |
| 33 12 | 20 21 23 | 138m | Bank Enhancement & modification Boulder Placement 1.75m to 1.5m size length = 500m.. | R-L | | - SERIES OF rock weirs e 9 sites over 500 m. |
| 34 13 | 22 | 83m | Benchmark. Viewing Platform structure. | R | P | located behind Hyde Creek Rec Center. |
| 35 13 | 22 | ∅m | Culvert discharge DIA = 30cm Height = 90cm. | R | P | NO FLOW storm drain from Rec Center Parking Lot. |

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| 36 14 | 24 | 230m | Bank Erosion low grade slump Height = 40cm length = 7.2m. | L | trail | no Boulder location here for BANK stabilization |
| 37 15 | 25 | 70m | Culvert discharge height = 40cm. DIA = 60cm. | R | | - NO FLOW |
| 38 16 | 26 | 12m | PEDESTRIAN Bridge crossing "benchmark" height = 2.2m width = 10m length = 1.7m | R-L | trail | ' Boulder placement around BASE. |
| 39 17 | 27 | 106m | Culvert Discharge & gate. - open except during extreme flows - DIA = 60cm H2O = 3.5°C | R L | - trail u | EFFLUENT From Hyde Creek rearing pond. & channel. |
| 40 18 | 28 | 3m | END OF Instream Rock / Boulder placement. | Instream | | - LAST wier adjacent to Hatchery side |

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| 41 19 | 30 | 13m | LACK OF Riparian Vegetation height = 1.9m length = 6m | R L | trail u | not stable during higher FLOWS |
| 42 20 | 31 32 | 22m | Culvert Discharge - gated - no access DIA = 65cm Instream | L R | u trail | 'no FLOW AT present. • ABSORBENT Booms connected to OUTFALL. |
| 43 21 | 31 | 2m | Culvert AT COAST MARIANA RD. height = 1.9m width = 2.45m length = 27m. | Instream | | Ribbed Culvert Rock, gravel substrate. |
| 44 - | 33 | 3.5m | Water Withdrawal Creek intake FOR Hyde Creek Hatchery. Intake = 30cm slotted pipe x 72" long. | L | | Inside Culvert 'wrappers in FABRIC, |
| 45 | 35 | 20m | Culvert discharge DIA = 40cm height = 1.0m H ₂ O = 7.5°C | R | Instream OF culvert | - Flowing clear. |

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