Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 08-23-01
Name of Samplers: GEORGE BERLANDI, PAUL PISZCZEK	
Waterbody Name: ~~Ash Swamp Brook~~ ASHUELOT RIVER	Station ID: ~~Ash~~ IIeM-Ash
Weather: SUNNY, HIGH CLOUDS, LIGHT WINDS, ~80°F	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments – see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP): SEE CALIBRATION SHEET	
B	SURFACE	MID CHANNEL	0	1149	1152	21.4	7.03	238.4	6.58	
Is DUPLICATE to be run? (NO) (If yes, record duplicate of last set of field measurements in this row.)				N/A	N/A	Dup N/A	Dup N/A	Dup N/A	Dup N/A	6.0 std. N/A

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): B 3.0 Approximate width of river (feet): 50

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	1149	MID CHANNEL →	0
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	↓	↓	↓
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓

Aquatic Plant Growth:

	% Coverage
Macrophytes (rooted plants):	20
Phytoplankton (free floating):	0
Periphyton (attached algae):	5

Canopy (Well Shaded, Moderately Shaded, Mostly Open): MOSTLY OPEN

MOST MACROPHYTES IMMEDIATELY U/S FROM ASH SWAMP BROOK CONFLUENCE

Other Comments / Observations

Color (clear, tea-colored, etc): CLEAR

Substrate (ie, sandy, cobbles, muck, etc.): SAND, SILT, WOODY DEBRIS

Odor: NONE

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 08-23-01

Name of Samplers: GEORGE BERLANDI, PAUL PISZCZEK

Waterbody Name: ~~Ashuelot River~~ ASH SWAMP BROOK | Station ID: ~~[illegible]~~ CA-Asb

Weather: SUNNY, HIGH CLOUDS, LIGHT WIND, ~80° F

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP): SEE CALIBRATION SHEET	
B	SURFACE	MID CHANNEL	0	12:03	12:05	19.8	8.47	162.4	6.86	
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.) NO				N/A	N/A	Dup N/A	Dup N/A	Dup N/A	Dup N/A	6.0 std. N/A

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): 0.5 | Approximate width of river (feet): 5.0

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	12:05	MID CHANNEL	0
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 0
Phytoplankton (free floating): 0
Periphyton (attached algae): 0
Canopy (Well Shaded, Moderately Shaded, Mostly Open): MOSTLY OPEN

Other Comments / Observations
Color (clear, tea-colored, etc): CLEAR
Substrate (ie, sandy, cobbles, muck, etc.): SAND; SOME SILT; WOODY DEBRIS
Odor: NONE [illegible] & SPARSE EMERGENT BOTTLES

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and – 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8-23-01
Name of Samplers: Matt Jones, George Codsen	
Waterbody Name: Ashuelot River	Station ID: 1ST-Ash
Weather: Clear, Sunny	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	6"	20 ft.	[redacted] 30ft.	10:01	10:06	22.8	8.36	205.0	6.39	
Is DUPLICATE to be run? No (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): 1.5 ft. Approximate width of river (feet): [redacted] 80 ft.

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:01	20 ft	30 ft
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2			

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 50%
Phytoplankton (free floating): 5 [redacted]%
Periphyton (attached algae): 2%
Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mostly Open

Other Comments / Observations – shopping cart in river
Color (clear, tea-colored, etc): clear
Substrate (ie, sandy, cobbles, muck, etc.): sandy, mostly cobble
Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8-23-01
Name of Samplers: Matt Tom George Carlson	
Waterbody Name: S. Branch Ashuelot River	Station ID: 2-Sba
Weather: Sunny, Clear	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	6"	5 ft.	10 ft.	10:35	10:40	20.0	8.07	105.9	6.97	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): 2 ft. Approximate width of river (feet): 30 ft.

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:35	5 ft.	10 ft
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓

Aquatic Plant Growth: % Coverage
Macrophytes (rooted plants): 5%
Phytoplankton (free floating): 2%
Periphyton (attached algae): 2%
Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mostly Open

Other Comments / Observations
Color (clear, tea-colored, etc): tea-colored
Substrate (ie, sandy, cobbles, muck, etc.): mostly sand, some cobble
Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8·23·01
Name of Samplers: Matt Jones George Carlson	
Waterbody Name: Ashuelot River	Station ID: 17-Ash
Weather: Sunny Partly Cloudy	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	6"	2 ft	12 ft.	11:37	11:41	22.4	7.63	205.7	595	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): 3 ft. Approximate width of river (feet): 25 ft.

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	No	1	11:37	2ft.	12 ft.
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	↓	↓	↓
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓

Aquatic Plant Growth:	% Coverage
Macrophytes (rooted plants):	5%
Phytoplankton (free floating):	1%
Periphyton (attached algae):	1%
Canopy (Well Shaded, Moderately Shaded, Mostly Open):	Moderately Shaded

Other Comments / Observations a lot of dead limbs in water
Color (clear, tea-colored, etc): tea colored
Substrate (ie, sandy, cobbles, muck, etc.): cobble mostly, some sand
Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8-23-01
Name of Samplers: Matt Jones, George Carlson	
Waterbody Name: Ashuelot River	Station ID: 20A-Ash
Weather: Partly Cloudy, Sunny	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	6"	5 Ft.	20 Ft.	12:10	12:13	~~23~~ 21.6	7.6	87.3	6.63	
Is DUPLICATE to be run? (Yes) (If yes, record duplicate of last set of field measurements in this row.)				12:25	12:28	Dup 21.6	Dup 7.46	Dup 84.9	Dup 6.49	6.0 std. 6.04

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): 1.5 Ft. Approximate width of river (feet): 70 Ft.

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	Yes	2	12:10	5 Ft.	20 Ft.
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		2			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		2			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	4	↓	↓	↓

Aquatic Plant Growth:

	% Coverage
Macrophytes (rooted plants):	20%
Phytoplankton (free floating):	5%
Periphyton (attached algae):	5%

Canopy (Well Shaded, Moderately Shaded, Mostly Open): Moderately Shaded

Other Comments / Observations

Color (clear, tea-colored, etc): clear / tea-colored

Substrate (ie, sandy, cobbles, muck, etc.): mostly sand, small cobble

Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

DUP1 DUP2

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8-23-01
Name of Samplers: Matt Jones, George Carlson	
Waterbody Name: Ashuelot River	Station ID: 21-AS4
Weather: Partly Cloudy, Sunny	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	6"	5 ft.	~20 ft.	12:45	12:48	24.3	7.56	108.8	6.46	
						\	/			
						DO meter constantly reading 0.0				
						Took sample from site back to LWTF.				
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.) NO						Dup Readings	Dup taken 15 minutes	Dup after other	Dup measurements	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): 2 ft. Approximate width of river (feet): 40 ft

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	12:45	5 ft.	2 ft
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	|	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	|	1	↓	↓	↓
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	|	1	↓	↓	↓
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	|	2	↓	↓	↓

Aquatic Plant Growth: % Coverage
Macrophytes (rooted plants): 1%
Phytoplankton (free floating): 1%
Periphyton (attached algae): 0%
Canopy (Well Shaded, Moderately Shaded, Mostly Open): Moderately Shaded

Other Comments / Observations
Color (clear, tea-colored, etc): clear / tea-colored
Substrate (ie, sandy, cobbles, muck, etc.): Sandy mostly, some cobble
Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/23/01

Name of Samplers: Gregg / MC

Waterbody Name: Ashuelot River | Station ID: 16B-Ash (2)

Weather: Partly cloudy, dry

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				11:54		22.0	6.52	255.2	7.07	
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.) NO						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	11:55AM		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	"		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	"		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	"		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2	"		

Aquatic Plant Growth: % Coverage

Macrophytes (rooted plants): 5 Duckweed

Phytoplankton (free floating):

Periphyton (attached algae):

Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations

Color (clear, tea-colored, etc): Pale straw color

Substrate (ie, sandy, cobbles, muck, etc.): Sandy

Odor:

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashvelot River TMDL	Date: 8/23/01
Name of Samplers: Craig / TC	
Waterbody Name: Ashvelot River	Station ID: 16D-Ash
Weather: Partly Cloudy / Dry 70's	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				12:10PM		22.1	6.82	245.9	7.51	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	12:19PM		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	"		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	"		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	"		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2	"		

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 5 — no duck weed
Phytoplankton (free floating): 0
Periphyton (attached algae): 0
Canopy (Well Shaded, Moderately Shaded, Mostly Open): Some shade along banks

Other Comments / Observations
Color (clear, tea-colored, etc): Pale straw color
Substrate (ie, sandy, cobbles, muck, etc.):
Odor: Sandy

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

CWE 2/1/02

Flow by Velocity Meter Field Worksheet

Project: ASHLEY TMDL
Waterbody Name:
Station ID: 21-ASH
Station Description: (Draw sketch in field book)
By (Staff Names): Ken & Stacey

Date: 8-25-01
Time begin (Military): 1452
Time end (Military): 1504

Total River Width (ft-in): 32'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
5'	0'	0.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
5'9"	9"	0.10	0.05	—	—	
6'6"	1'6"	0.15	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7'3"	2'3"	0.25	0.01	—	—	
8'	3'	0.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
8'9"	3'9"	0.35	0.01	—	—	
9'6"	4'6"	0.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10'3"	5'3"	0.55	0.02	—	—	
11'	6'	0.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11'9"	6'9"	0.70	0.09	—	—	
12'6"	7'6"	0.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13'3"	8'3"	0.80	0.09	—	—	
14'	9'	0.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14'9"	9'9"	1.00	0.10	—	—	
15'6"	10'6"	1.05	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16'3"	11'3"	1.10	0.08	—	—	
17'	12'	~~1.10~~	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
17'9"	12'9"	1.20	0.12	—	—	
18'6"	13'6"	1.20	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19'3"	14'3"	1.30	0.18	—	—	
20'	15'	1.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
19'3"	14'3"	1.30	0.12	—	—	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: Abelot Trail
Waterbody Name:
Station ID: 21-ASH
Station Description: (Draw sketch in field book)
By (Staff Names): Ken & Stacy

Date: 8-23-01
Time begin (Military): 1450
Time end (Military): 1514

Total River Width (ft-in): 36'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20'9"	15'9"	1.40	0.16	—	—	
21'6"	16'6"	1.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22'3"	17'3"	1.60	0.17	—	—	
23'	18'	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23'9"	18'9"	1.70	0.20	—	—	
24'6"	19'6"	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
25'3"	20'3"	1.80	0.23	—	—	
26'	21'	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26'9"	21'9"	1.80	0.20	—	—	
27'6"	22'6"	1.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28'3"	23'3"	1.65	0.13	—	—	
29'	24'	1.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
29'9"	24'9"	1.50	0.17	—	—	
30'6"	25'6"	1.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
31'3"	26'3"	1.50	0.10	—	—	
32'	27'	1.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
32'9"	27'9"	1.40	0.13	—	—	
33'6"	28'6"	1.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
34'3"	29'3"	1.25	0.12	—	—	
35'	30'	1.20	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
34'3"	29'3"	1.30	0.14	—	—	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: Ashelot TMDL
Waterbody Name:
Station ID: 21-ASH
Station Description: (Draw sketch in field book)
By (Staff Names): Kon & Stacy

Date: 8-25-01
Time begin (Military): 1450
Time end (Military): 1504

Total River Width (ft-in): 36'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
35'9"	30'9"	1.15	0.11	—	—	
36'6"	31'6"	1.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
37'3"	32'3"	0.85	0.10	—	—	
38'	33'	0.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
38'9"	33'9"	0.55	0.04	—	—	
39'6"	34'6"	0.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
40'8"	35'8"	0.20	0.00	—	—	
41'	36'	0.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	41' BANK
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

page 1 of 3

Flow by Velocity Meter Field Worksheet

Project: Amazon Tool
Waterbody Name:
Station ID: 2-SBA
Station Description: (Draw sketch in field book)
By (Staff Names): Ken & Stacy

Date: 8-28-01
Time begin (Military): 1200
Time end (Military): 1217

Total River Width (ft-in): 34'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
4'	0	0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
4'9"	9"	0.20	0.00			
5'6"	1'6"	0.25	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
6'3"	2'8"	0.45	0.17	—	—	
7'	3'	0.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7'9"	3'9"	0.75	0.00	—	—	
8'6"	4'6"	0.95	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
9'3"	5'3"	1.20	0.17	—	—	
10'	6'	1.25	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10'9"	6'9"	1.30	0.24	—	—	
11'6"	7'6"	1.40	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
12'3"	8'3"	1.55	0.19	—	—	
13'	9'	1.75	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13'9"	9'9"	1.85	0.26	—	—	
14'6"	10'6"	2.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
15'3"	11'3"	2.00	0.27	—	—	
16'	12'	1.95	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16'9"	12'9"	1.90	0.20	—	—	
17'6"	13'6"	2.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
18'3"	14'3"	1.80	0.23			
19'	15'	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
18'3"	14'3"	1.85	0.26			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

page 2 of 3

Flow by Velocity Meter Field Worksheet

Project: Hoelet TMDL
Waterbody Name:
Station ID: 2-SBA
Station Description: (Draw sketch in field book)
By (Staff Names): Hoo & Stag

Date: 8-28-01
Time begin (Military): 1200
Time end (Military): 1217

Total River Width (ft-in): 34'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19'9"	15'9"	1.75	0.29	—	—	
20'6"	16'6"	1.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
21'8"	17'8"	1.65	0.29	—	—	
22'	18'	1.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22'9"	18'9"	1.70	0.34	—	—	
23'6"	19'6"	1.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
24'3"	20'3"	1.65	0.45	—	—	
25'	21'	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
25'9"	21'9"	1.70	0.40	—	—	
26'6"	22'6"	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
27'3"	23'3"	1.60	0.43	—	—	
28'	24'	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28'9"	24'9"	1.55	0.35	—	—	
29'6"	25'6"	1.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
30'3"	26'3"	1.50	0.39	—	—	
31 ~~30~~ 31'	27'	1.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
31 ~~32~~ 31'9"	27'9"	1.65	0.20	—	—	
32 ~~33~~ 32'6"	28'6"	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
33 ~~34~~ 33'3"	29'3"	1.55	0.12	—	—	
34 ~~35~~ 34'	30'	1.65	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
3B5"	29'3"	1.60	0.15			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

page 3 of 3

Flow by Velocity Meter Field Worksheet

Project: Arsenic TMDL
Waterbody Name:
Station ID: 2-SBA
Station Description:_(Draw sketch in field book)
By (Staff Names): Kent Story

Date: 8-23-01
Time begin (Military): 1200
Time end (Military): 1217

Total River Width (ft-in): 34'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
34'9"	30'9"	1.65	0.13	—	—	
35'6"	31'6"	1.65	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
36'3"	32'3"	1.50	ZERO	—	—	Macrophytes!
37'	33'	0.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
37'9"	33'9"	0.50	ZERO	—	—	
~~38'6"~~			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	38'0" BANK
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Page 3 of 3

Flow by Velocity Meter Field Worksheet

Project: [illegible] TMDL
Waterbody Name: [illegible] Fork
Station ID: MT [illegible]
Station Description: (Draw sketch in field book) ~ 1000' U.S. [illegible]
By (Staff Names): JH [illegible]
Meter Serial #: 2003081
Total River Width (ft-in): [illegible]

Date: [illegible]
Time begin (Military): [illegible]
Time end (Military): [illegible]

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
34.2		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
34.5		0.22	[illegible]			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	[illegible]			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
		[illegible]	[illegible]			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	1.72			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	74			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28		[illegible]	1.21			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		[illegible]	1.25			
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
25		[illegible]	1.29			[illegible] = 1.31
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: [illegible] TOTAL
Waterbody Name: [illegible]
Station ID: 147-A2a
Station Description: (Draw sketch in field book) [illegible]
By (Staff Names): JGP, PC
Meter Serial #: 2003221
Total River Width (ft-in): 32.3

Date: 11/22/21
Time begin (Military): 1239
Time end (Military): 1412

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
24.25		0.69	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23.5		0.73	1.88			
22.75		0.79	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22		0.83	2.09			
21.25		0.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20.5		0.58	2.18			TURBULENCE
19.75		0.62	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19		0.52	1.55			TURBULENCE
18.25		0.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
17.5		0.68	1.65			TURBULENCE
16.75		0.64	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16		0.50	1.85			
15.25		0.42	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14.5		0.58	1.64			
13.75		0.62	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13		0.53	1.25			
12.25		0.63	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11.5		0.40	1.28			
10.75		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10		0.14	0.54			
9.25		0.21	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
8.5		0.17	0.49	[illegible]	0.34	
7.75		0.2	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

6.9

Checked [illegible]

Flow by Velocity Meter Field Worksheet

Project: Asbestos R. TMDL
Waterbody Name: Tr. Branch
Station ID: OA-RFA
Station Description: (Draw sketch in field book) ~1000 Ft. U.S. of Confluence w/ [illegible]
By (Staff Names): JGA RD

Date: 8/23/01
Time begin (Military): 1348
Time end (Military): 14[illegible]

Total River Width (ft-in): 20.5

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
1.5		0.13	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
2		0.17	0.16			COSINE = 0.99
2.5		0.18	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
3		0.20	0.37			
3.5		0.18	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
.4		0.19	0.48			
4.5		0.23	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
5		0.21	0.61			
5.5		0.25	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
6		0.25	0.51			
6.5		0.26	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7		0.26	0.73			
7.5		0.23	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
8		0.23	0.86			
8.5		0.26	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
9		0.27	0.79			
9.5		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10		0.30	0.69			
10.5		0.32	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11		0.31	0.83			DUPLICATE = 0.83
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: [illegible] Date: [illegible]
Waterbody Name: [illegible] Time begin (Military): [illegible]
Station ID: [illegible] Time end (Military): [illegible]
Station Description: (Draw sketch in field book) [illegible]
By (Staff Names): [illegible]

Total River Width (ft-in): [illegible]

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
11.5		0.32	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
12		0.34	0.84			
12.5		0.33	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13		0.34	0.84			
13.5		0.31	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14		0.34	0.78			
14.5		0.32	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
15		0.34	0.98			
15.5		0.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16		0.32	0.67			
16.5		0.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
17		0.26	0.70			
17.5		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
18		0.50	0.45			
18.5		0.22	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19		0.18	0.54			
19.5		0.21	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20		0.21	0.47			
20.5		0.14	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
21		0.15	0.4			[illegible]
21.5		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
[illegible]		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

* VERY LITTLE, IF ANY, FLOW COMING FROM WETLAND TRIBUTARY ON EAST SIDE OF RIVER, 2/3 RDS OF THE WAY BETWEEN WWTF & 16D-ASH

Flow by Velocity Meter Field Worksheet

checked [illegible] 2/4/02

Project: [illegible]

Date: 8/23/01

Waterbody Name: [illegible] River

Time begin (Military): 1146

Station ID: 16D-ASH

Time end (Military): 1232

Station Description: (Draw sketch in field book) ~ 1/2 Mile [illegible]

By (Staff Names): JSA [illegible]

Total River Width (ft-in): 50.7

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
52.7		0.13	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
52		0.30	0.29			COSINE = 0.95
51		0.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
50		0.30	0.34			
49		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
48		0.34	0.42			
47		0.34	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
46		0.38	0.39			
45		0.38	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
44		0.42	0.41			
43		0.40	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
42		0.42	0.39			
41		0.40	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
40		0.42	0.46			
39		0.49	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
38		0.53	0.40			
37		0.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
36		0.62	0.51			
35		0.58	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
34		[illegible]	0.56			DUPLICATE = 0.54
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: [illegible] TMDL
Waterbody Name: [illegible]
Station ID: [illegible]
Station Description: (Draw sketch in field book) [illegible]
By (Staff Names): [illegible]

Date: [illegible]
Time begin (Military): [illegible]
Time end (Military): [illegible]

Total River Width (ft-in): 50.9

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
33		0.72	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
32		0.84	0.5			
31		0.98	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
30		1.37	0.42			
29		1.22	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28		1.26	0.47			
27		1.20	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26		1.20	0.45			
25		1.10	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
24		1.12	0.33			
23		1.14	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22		1.29	0.35			
21		1.32	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20		1.38	0.22			
19		1.32	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
18		1.31	0.25			
17		1.32	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16		1.35	0.36			Q min = 0.97
15		1.33	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14		1.44	0.21			Q min = 1.97
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project:
Waterbody Name:
Station ID: [illegible]
Station Description: (Draw sketch in field book) [illegible]
By (Staff Names): [illegible]

Date: [illegible]
Time begin (Military):
Time end (Military): [illegible]

Total River Width (ft-in): [illegible]

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
13		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
12		[illegible]	[illegible]			[illegible]
11		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]			[illegible]			[illegible]
9			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
8			[illegible]			[illegible]
7		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
6		[illegible]	[illegible]			
5		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
4		[illegible]	[illegible]			[illegible]
3		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
2		[illegible]				
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: Arroyo R. Trail
Waterbody Name: Arroyo Chamiso Trail
Station ID: DA-ACT
Station Description: (Draw sketch in field book) 30 FT. U.S. of Confluence with Arroyo R.
By (Staff Names): CWA RD

Date: 8/25/2
Time begin (Military): 1305
Time end (Military): 1324

Total River Width (ft-in): 6.0

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
1.7		0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
2		0.16	0.38			
2.3		0.17	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
2.6		0.2	0.66			
2.9		0.22	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
3.2		0.23	0.56			
3.5		0.24	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
3.8		0.24	0.50			
4.1		0.26	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
4.4		0.27	1.02			
4.7		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
5		0.29	1.24			
5.3		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
5.6		0.29	1.0			
5.9		0.28	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
6.2		0.29	1.03			
6.5		0.24	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
6.8		0.21	0.55			DUPLICATE = 0.52
7.1		0.28	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7.7		0				
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Page ____ of ____

- Between 7.1 & 7.7, No Velocity Measurements Possible Due to Low Depths

Flow by Velocity Meter Field Worksheet

Project: Ashfelot TMDL
Waterbody Name:
Station ID: 17-ASH
Station Description: (Draw sketch in field book)
By (Staff Names): Ken & Stacy

Date: 8-28-01
Time begin (Military): 1259
Time end (Military): 1315

Total River Width (ft-in): 44'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
5'	0'	0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
6	1	0.40	0.00	—	—	
7	2	0.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
8	3	0.90	0.01	—	—	
9	4	1.10	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10	5	1.20	0.08	—	—	
11	6	1.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
12	7	1.40	0.11	—	—	
13	8	1.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14	9	1.60	0.13	—	—	
15	10	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16	11	1.80	0.15	—	—	
17	12	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
18	13	1.65	0.20	—	—	
19	14	1.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20	15	1.80	0.21	—	—	
21	16	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22	17	1.90	0.15	—	—	
23	18	1.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
24	19	1.85	0.15	—	—	
25	20	1.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
24	19	1.85	0.14	—	—	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet page 2 of 3

Project: Abbott Trail
Waterbody Name:
Station ID: 17-7541
Station Description: (Draw sketch in field book)
By (Staff Names): Kent Story

Date: 8-28-01
Time begin (Military): 1239
Time end (Military): 1255

Total River Width (ft-in): 44'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26	21	1.80	0.12	—	—	
27	22	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28	23	1.80	0.12	—	—	
29	24	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
30	25	1.80	0.03	—	—	
31	26	1.75	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
32	27	1.70	0.06	—	—	
33	28	1.65	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
34	29	1.50	0.08	—	—	
35	30	1.40	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
36	31	1.45	0.08	—	—	
37	32	1.40	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
38	33	1.25	0.08	—	—	
39	34	1.15	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
40	35	1.10	0.06	—	—	
41	36	1.05	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
42	37	0.95	0.05	—	—	
43	38	0.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
44	39	0.50	0.03	—	—	
45	40	0.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
44	39	0.50	0.02	—	—	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

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Flow by Velocity Meter Field Worksheet

Project: Ashepoo TMDL
Waterbody Name:
Station ID: 17-ASH
Station Description: (Draw sketch in field book)
By (Staff Names): Ken & Stacy

Date: 5-23-01
Time begin (Military): 1237
Time end (Military): 1258

Total River Width (ft-in): 44'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V @ 80% depth from surface	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
46	41	0.60	0.02	—	—	
47	42	0.70	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
48	43	0.35	0.01	—	—	
49			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	49' Bank
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>>>>>>
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	

Checked 2/11/02 JJ

Flow by Velocity Meter Field Worksheet

Project: Abbott Trail
Waterbody Name:
Station ID: 20A-ASH
Station Description: (Draw sketch in field book) OLD STONE ARCH BRIDGE
By (Staff Names): Ken & Steve

Date: 8-23-01
Time begin (Military): ~~1350~~ 1350
Time end (Military): 1420

Total River Width (ft-in): 56

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
6'	0	0.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7'	1	0.40	-0.03	—	—	
8	2	0.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
9	3	0.75	0.01	—	—	
10	4	1.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11	5	1.00	0.01	—	—	
12	6	1.10	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13	7	1.05	0.01			
14	8	1.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
15	9	1.65	0.00	—	—	
16	10	1.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
17	11	1.85	0.02	—	—	
18	12	1.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19	13	1.60	0.05	—	—	
20	14	1.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
21	15	1.55	0.06	—	—	
22	16	1.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23	17	1.55	0.05	—	—	
24	18	1.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
25	19	1.70	0.08	—	—	
26	20	1.75	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
25	19	1.65	0.07	—	—	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: Abnaki TMDL
Waterbody Name:
Station ID: 20A-ASH
Station Description: (Draw sketch in field book) OLD STONE ARCH DAM
By (Staff Names): Ken & Story

Date: 8-23-01
Time begin (Military): 1350
Time end (Military): 1420

Total River Width (ft-in): 56'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT (Top / Bottom)		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
27	21	1.90	0.07	—	—	
28	22	2.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
29	23	2.05	—	0.08	0.02	
30	24	2.15	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
31	25	2.30	—	0.07	0.00	
32	26	2.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
33	27	2.30	—	0.06	0.02	
34	28	2.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
35	29	2.30	—	0.06	0.03	
36	30	2.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
37	31	2.35	—	0.05	0.02	
38	32	2.25	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
39	33	2.20	—	0.05	0.02	
40	34	2.20	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
41	35	2.10	—	0.05	0.01	
42	36	2.10	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
43	37	2.20	—	0.06	0.04	
44	38	2.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
45	39	2.45	—	0.06	0.01	
46	40	2.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
45	39	2.45	—	0.07	0.01	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: Hybrid TMDL
Waterbody Name:
Station ID: 208-ASH
Station Description: (Draw sketch in field book) OLD STONE ARCH BRIDGE
By (Staff Names): Ken & Stacy

Date: 8-25-01
Time begin (Military): 1350
Time end (Military): 1420

Total River Width (ft-in): 56'

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT (TOP / BOTTOM)		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
47	41	2.60	——	0.08	0.02	
48	42	2.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
49	43	2.50	——	0.07	0.01	
50	44	2.50	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
51	45	2.45	——	0.08	0.04	
52	46	2.10	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
53	47	2.15	——	0.06	0.01	
54	48	2.20	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
55	49	2.10	——	0.05	0.01	
56	50	1.95	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
57	51	0.40	0.02	——	——	LOG-LOST DURING CUT OF H20 ON 8-16-01
58	52	0.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
59	53	1.10	0.01	——	——	
60	54	0.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
61	55	0.60	0.01	——	——	
62	56	0.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	EDGE
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

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Checked 2/13/02 cwc

Flow by Velocity Meter Field Worksheet

Project: Hewlett TMDL
Waterbody Name:
Station ID: 12-ASP \ @ RTE 10 CROSSING
Station Description: (Draw sketch in field book)
By (Staff Names): Kay Stacy

Date: 8-23-01
Time begin (Military): 1042
Time end (Military): 1129

Total River Width (ft-in): 77' 0"

surface = water surface

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
4	0	0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
5 1/2	1 1/2	1.4	0.02	—	—	
7	3	1.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
8 1/2	4 1/2	1.85	0.10	—	—	
10	6	2.2	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11 1/2	7 1/2	2.6	—	0.12	0.13	
13	9	2.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14 1/2	10 1/2	2.50	—	0.13	0.10	
16	12	2.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
17 1/2	13 1/2	2.90	—	1.10	0.05	
19	15	2.65	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20 1/2	16 1/2	2.70	—	0.11	0.06	
22	18	2.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23 1/2	19 1/2	2.80	—	0.12	0.09	
25	21	2.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26 1/2	22 1/2	2.65	—	0.17	0.02	
28	24	2.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
29 1/2	28 1/2	2.45	—	0.19	0.10	
31	27	2.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
32 1/2	28 1/2	2.45	—	0.23	0.15	
34	30	2.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
32 1/2	28 1/2	2.45	—	0.24	0.14	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

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Flow by Velocity Meter Field Worksheet

Project: Shuteye TMDL
Waterbody Name:
Station ID: 19-ASH | @ RTE 10 CROSSING
Station Description: (Draw sketch in field book)
By (Staff Names): Ken & Stacy

Date: 4-23-01
Time begin (Military): 1042
Time end (Military): 1129

Total River Width (ft-in): 77' 0"

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
Tape (ft)	Bank (ft)		FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
			V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
35½	31½	2.70	——	0.17	0.04	
37	33	2.60	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
38½	34½	2.65	——	0.19	0.16	
40	36	2.65	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
41½	37½	2.75	——	0.22	0.18	
43	39	2.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
44½	40½	2.65	——	0.26	0.23	
46	42	2.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
47½	45½	2.75	——	0.23	0.18	
49	45	2.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
50½	46½	2.80	——	0.21	0.15	
52	48	2.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
53½	49½	2.80	——	0.22	0.16	
55	51	2.80	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
56½	52½	2.65	——	0.28	0.10	
58	54	2.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
59½	55½	2.55	——	0.21	0.18	
61	57	2.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
62½	58½	2.40	——	0.15	0.13	
64	61	2.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
62½	58½	2.40	——	0.17	0.04	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

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Flow by Velocity Meter Field Worksheet

Project: Ashley TMDL
Waterbody Name:
Station ID: 12-JSH \ @ RTE 10 CROSSING
Station Description: (Draw sketch in field book)
By (Staff Names): Kandi Story
Meter Serial #
Total River Width (ft-in): 77'0"

Date: 9-25-01
Time begin (Military): 1042
Time end (Military): 1029

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
65½	61½	2.40	——	0.14	0.12	
67	63	2.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
68½	64½	2.35	——	0.12	0.10	
70	66	2.30	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
71½	67½	2.10	——	0.13	0.07	
73	69	2.05	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
74½	70½	1.90	0.12	——	——	
76	72	2.00	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
77½	73½	1.20	0.12	——	——	
79	75	1.15	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	80': ZERO DEPTH
80½	76½	0.60	0.00	——	——	
~~82~~	~~77~~		>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
81	77	ZERO	ZERO			EDGE
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Field Meter Calibration Field Sheet

Date: ~~08-22~~ 08-23-01 **Sampling Team ID:** —

Project Name: ASHUELOT RIVER TMDL

Meter Serial Numbers for Each Team

Sampling Team	EMST 1	EMST 2	ST 1	ST 2	ST 3	ST 4
Team Member Initials	GC, DP	GB, SD	GB, PP	AB, DS	SL, TC	GC, MJ
DO/Temp Meter Serial No.	01C0248AB	01C0218AM	01C0218AB	01C0218AM	98MD308	01C0218AN
PH Meter Serial No.	010732	014093	~~014093~~ 010732	014093	012979	014166
Spec Conductivity Meter Serial Number	01C0665AD	00D0153AA	01C0665	00D0153AA	00D0053AB	00C0071AB

DO/Temp Meter

		EMST 1	EMST 2	ST 1	ST 2	ST 3	ST 4
Date when membrane cap and KCL solution were last changed.		08-23-01	08-23-01	08-23-01	08-23-01	08-23-01	08-23-01
	Calibration Elevation (Ft)	500	500	500	500	500	500
Calibration Check 1	Time (Military)	06:08	06:08	09:16	09:16	09:16	09:16
	Temp (deg C)	15.0	12.3	23.3	21.3	25.0	25.5
	% Sat Reading (calibration chamber- should be > 98%)	97.7 [98.2]cal	~~98.0~~ 98.0 [98.2]cal	~~98.1~~ [98.3]	~~98.1~~ [98.1]	~~98.1~~ [98.1]	~~98.1~~ [98.1]
Group check (all probes same bucket- should be within 0.4 mg/L or 4%, whichever is larger)							AI SOLUTION, MEMBRANE CALIBRATION O.K.
	Temp (deg C)	20.8	20.8	21.1	21.1	21.1	21.5
	DO (mg/L)	~~6.93~~ 6.92	6.93	6.54	~~6.62~~ 6.93	~~6.43~~ 6.62	6.38
	Comments						
Calibration Check 2	Time (Military)	07:07	07:07	11:02	11:02	11:02	11:02
	Temp (deg C)	16.5	17.0	~~25.~~ 26.0	25.6	29.5	26.9
	% Sat Reading (calibration chamber- should be +/- 2% of CAL 1 value)	94.5	93.0	95.3	96.7	96.3	95.1
Group check (all probes same bucket- should be within 0.4 mg/L or 4 %, whichever is larger)							
	Temp (deg C)	20.0	20.0	21.9	21.9	21.3	~~21.0~~ 21.7
	DO (mg/L)	6.91	6.21	6.86	6.76	~~7.16~~ 7.27	6.81
	Comments			% 96.2 98.0 [illegible] (21.3)	95.7 98.0 7.07 (21.3)	7.07 (21.3)	97.6 98.1 6.99 (21.8)
Calibration Check 3	Time (Military)	09:06	09:06	14:47	14:47	14:47	14:47
	Temp (deg C)	23.2	12.6	~~24.~~			
	% Sat Reading (calibration chamber- should be +/- 2% of CAL 1 value))	96.5	88.4	90.6	96.6	97.8	0.0 DEAD
	EMST #1 RECALIBRATE DO METER DUE TO POWER OFF						
Group check (all probes same bucket- should be within 0.4 mg/L or 4%, whichever is larger)	Temp (deg C)	20.5	20.9	27.0	27.0	26.7	27.3
	DO (mg/L)	6.23	~~5.83~~	7.14	7.29	7.61	0.0
	Comments	DIFFERENCES NOTED MAY BE RESULT OF RECALIBRATION OF EMST #1 DO METER					

See back for pH Calibration Check

Entered 2/11/02 CW

pH Meter Calibration Field Sheet

	EMST 1	EMST 2	ST 1	ST 2	ST 3	ST 4
Calibration 1						
Time (Military)	—	—	09:05	09:05	09:05	09:05
% Slope using 7.0 and 4.01 standard	—	—	~~96.4~~ 98.7	99.3	95.8	96.8
pH Reading using 6.0 test buffer	—	—	~~6.19~~ 6.01	6.04	6.00	6.04
pH reading - Group check (all probes in same bucket)	—	—	6.66	6.62	7.51	6.81
Comments	—	—	BUCKET CHECK AFTER 12th		TWO SAMPLE SITES TIME: 11:05	
Calibration 2						
Time (Military)	—	—	11:07	11:07	11:07	11:07
% Slope using 7.0 and 4.01 standard	—	—	~~98.7~~	99.6	97.1	97.7
pH Reading using 6.0 test buffer	—	—	6.07	6.04	5.97	6.01
pH reading - Group check (all probes in same bucket)	—	—				
Comments	—	—				
Calibration 3						
Time (Military)	—	—	14:53	14:53	14:52	14:53
% Slope using 7.0 and 4.01 standard	—	—				
pH Reading using 6.0 test buffer	—	—	6.15	6.06	6.07	6.11
pH reading - Group check (all probes in same bucket)	—	—	6.87	6.91	6.77 ~~7.31~~	6.70
Comments	—	—				

Sampling Field Worksheet

Project: Ashuelot River TMDL — Date: 8/23/01

Name of Samplers: SL / TC — (8/22/01 @ 11AM - 8/23/01 @ 8AM)

Waterbody Name: Keene WWTF — Station ID: Keene WWTF

Weather: Partly Cloudy / Dry

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B				1:15PM*		22.8	8.39	748	7.54	
									(7.37)	
				(Composite sample)		(20.0)	(7.68)	(763)		
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): — Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
BOD5 and/or BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	(Same here)		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	"		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	"		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	"		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2	"		

Aquatic Plant Growth: % Coverage
Macrophytes (rooted plants): _____
Phytoplankton (free floating): _____
Periphyton (attached algae): _____
Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations: *No effluent flow since 8:40AM
Color (clear, tea-colored, etc):
Substrate (ie, sandy, cobbles, muck, etc.):
Odor:

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Keene WWTF

24 Hour Flow Compositing

first sample at: 11 am date: 8/22/01 final sample at: _____ date: 8/23/01

maximum chart reading: 3.2

Time	Flow	% of maximum flow	X 375 ml	= amount from	bottle #
11 am	3.2	100%	375	375	1. ✓
noon	2.9	90.6		340	2. ✓
1 pm	3	93.8		352	3. ✓
2 pm	2.7	84.4		317	4. ✓
3 pm	2.8	87.5		328	5. ✓
4	2.5	78.1		293	6. ✓
5	2.3	71.9		269	7. ✓
6	2.2	68.8		258	8. ✓
7	2	62.5		234	9. ✓
8	2.2	68.8		258	10. ✓
9	2.3	71.9		269	11. ✓
10	2.3	71.9		269	12. ✓
11	2.3	71.9		269	13. ✓
midnite	1.7	53.1		199	14. ✓
1 am	1.6	50.0		188	15. ✓
2	1.3	40.6		152	16. ✓
3	.9	28.1 ~~+++~~		105	17. ✓
4	.8	25.0		94	18. ✓
5	.9	28.1		105	19. ✓
6	.9	28.1		105	20. ✓
7	1	31.3		117	21.
8	1.7	53.1		199	22.
9	0	0		—	23.
10	0	0		—	24.
					25.
					26.
					27.
					28.
					Standby

rfp 9/95

Sampling Field Worksheet

Project: Ashuelot River TMDL — Date: 8/23/01

Name of Samplers: S Larson/T Croteau — (8/22/01 @ 11:30AM - 8/23/01 @ 11:30AM) Composite

Waterbody Name: W. Swanzey WWTF — Station ID: W. Swanzey WWTF

Weather: Overcast, warm 70's

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				2:01 PM		24.6	3.61	788	7.27	
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): — Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
BOD5 and/or BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	No	1	(see above)		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1			
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2			

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): _____
Phytoplankton (free floating): _____
Periphyton (attached algae): _____
Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations
Color (clear, tea-colored, etc):
Substrate (ie, sandy, cobbles, muck, etc.):
Odor:
Total flow 172,900 gallons

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sukanteg

24 Hour Flow Compositing

first sample at: 11:30 a.m. date: 8/22/01 final sample at: 10:30 a.m. date: 8/23/01

maximum chart reading: 1800 %

Time	Flow	% of maximum flow	330 ml.	= amount from	bottle #
11:30 am	1800	100%	330	330	1.
12:30 pm	1800	100			2.
1:30		100			3.
2:30		100			4.
3:30		100			5.
4:30		100			6.
5:30		100			7.
6:30		100			8.
7:30		100			9.
8:30		100			10.
9:30		100			11.
10:30		100			12.
11:30	1800	100	330	330	13.
12:30 am	1700	94.4	330 ~~312~~	312	14.
1:30 am	1700	94.4		312	15.
2:30	1700	94.4		312	16.
3:30	1650	91.7		303	17.
4:30	1650	91.7		303	18.
5:30	1650	91.7		303	19.
6:30	1800	1800		330	20.
7:30	1800	1800		330	21.
8:30	1800	1800		330	22.
9:30	1800	1800		330	23.
10:30	1800	1800		330	24.
~~11:30~~					25.
					26.
					27.
					28.
					Standby

rfp 9/95

Swanzey Waste water Treatment Plant

12 day Chart - EFF FLOW X 100

Flow totalizer:

Readings are taken 6:30 Am

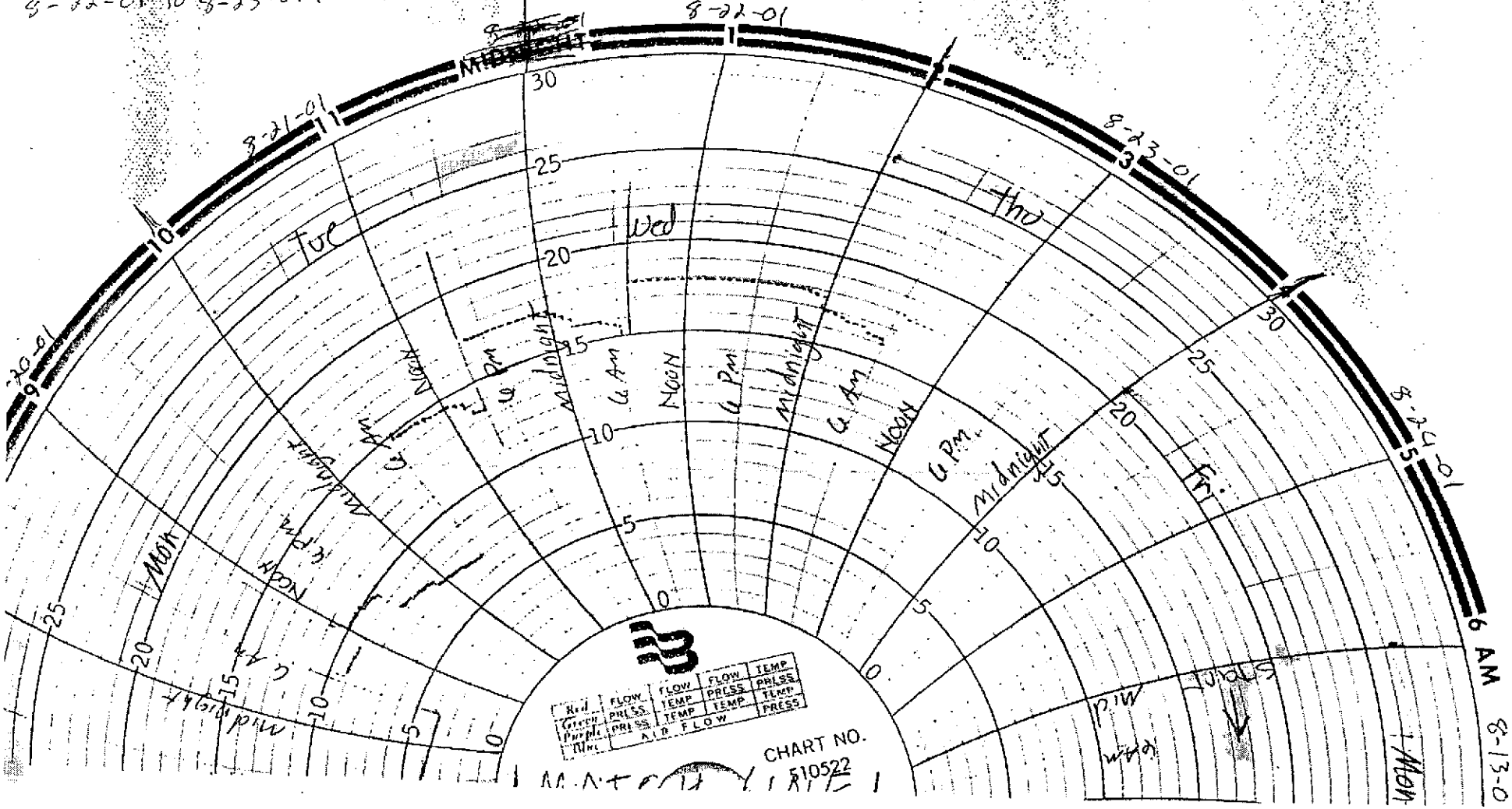
8-20-01 to 8-21-01 : 88600 Total Flow (in gallons)

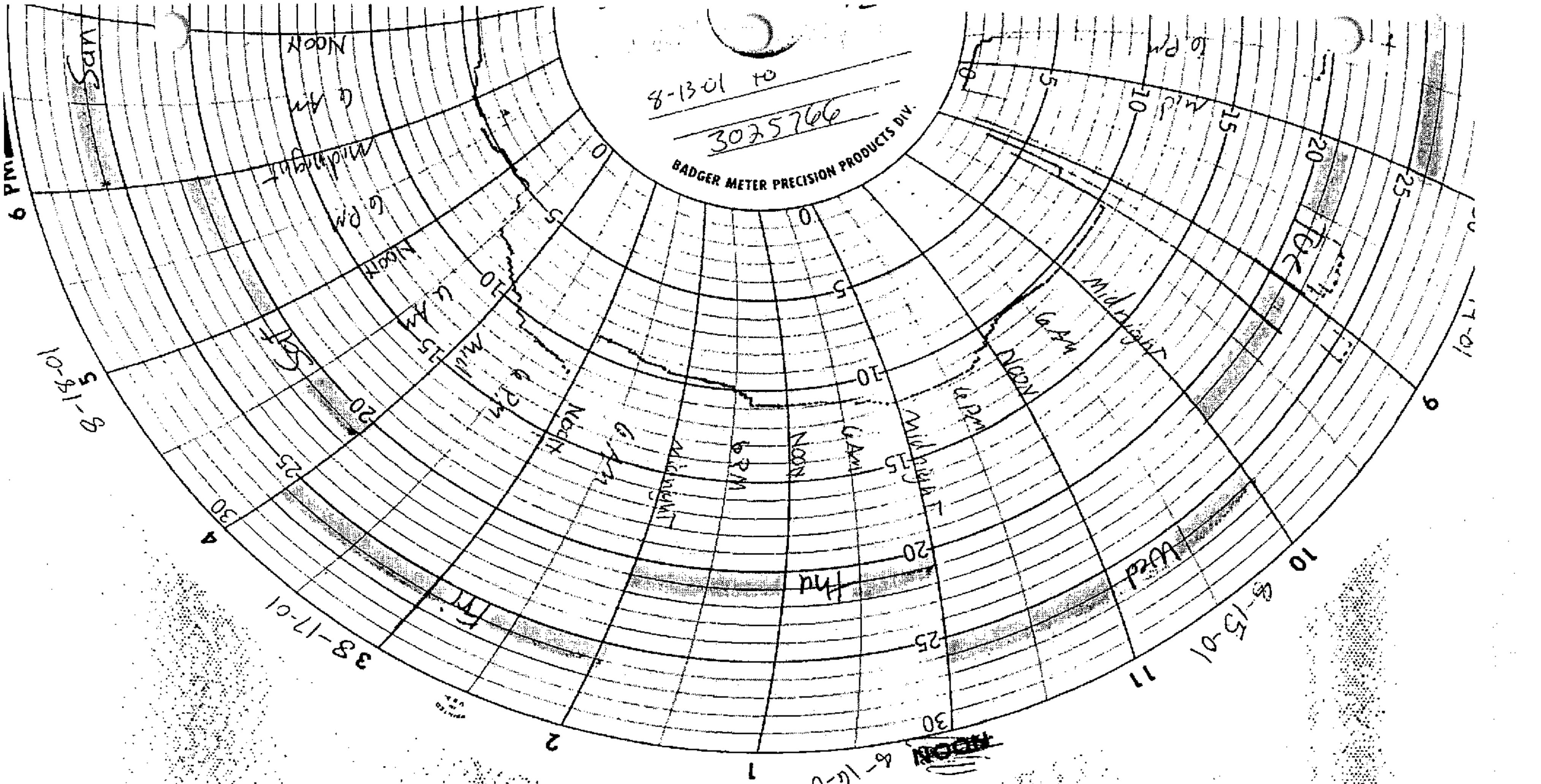
8-21-01 to 8-22-01 : 153500 Total Flow

8-22-01 to 8-23-01 : 172900 Total Flow

8-14-01 to 8-15-01 : 100900 Total Flow

8-15-01 to 8-16-01 : 117200 Total Flow





Swanzey Waste Water Treatment Plant

12 day Chart - EFF Flow X.100

2001 ASHUELOT RIVER TMDL SAMPLING TEAMS
August 29, 2001

Hydrolab Team :	Matt Jones (MJ) Kendall Perkins (KP)
ISCO Deployment :	Tom Croteau (TC)
Early Morning Sampling Team 1 :	Gregg Comstock (GC) George Carlson (GC)
Early Morning Sampling Team 2 :	George Berlandi (GB) Sharon Ducharme (SD)
Sampling Team 1 :	George Berlandi (GB) Sharon Ducharme (SD)
Sampling Team 2 :	Deb Soule (DS) Gregg Comstock (GC)
Sampling Team 3 :	Kendall Perkins (KP) Tom Croteau (TC)
Sampling Team 4 :	George Carlson (GC) Andrea Donlon (AD)
Flow Team 1 :	Ken Edwardson (KJE) Matt Jones (MJ)
Flow Team 2 :	Jeff Andrews (JA) Rod Owre (RO)

QC 5/15/02 ✓ 11/14/01

Early Morning Sampling Team (EMST) Field Worksheet

Date: 8/29/01 EMST #: 1 Names: G. Comstock G Carlson

Project: Ashuelot TMDL DO/Temp Meter Serial Number: 01C0218'AB

Station	Time (Military)	Bucket or Instream (B or I)	Location (ie, midchannel, X feet from bank).	Total Water Depth (feet)	Depth of Measurement	Temperature (degrees C)	Dissolved Oxygen (mg/L)	Comments
14-Ash	6:20	B	15' out	>5'	Surface	21.9	7.79	Duckweed - Both banks
15-Ash	Surface 6:35 25% 1.7'	B B	midchan	6'	Surface	21.3	7.88	" " "
		I 15	"		1.7'	21.5	7.93	+ degrade on surface
	50% 3	I 15	"		3'	21.5	7.93	
	Bottom+1 5'	B 15	"		5'	21.5	7.38	one ft > bottom
16-Ash	6:49	B	10-12'	>5'	Surface	19.8	6.39	Duckweed
2-Sha	7:10	B	Mid	~2'	Surface	18.3	7.91	Rooted Macrophytes / clear No duckweed
17-Ash	7:22	B	Mid	~3'	Surface	20.4	6.51	No duckweed - water looks hazy Some rooted macrophytes
0A-Bra	7:29	B	Mid	~2'	Surface	18.3	7.25	No duckweed Bottom pumpkin / clear foam upstream
16D-Ash	8:17	B	Mid-main	~7'	Surface	20.0	6.22	No duckweed Bottom Pumpkin
"	8:21	I	Mid-main	~7'	3' down	20.2	6.14	
16B-Ash	8:06	B	Mid	~2'	Surface	20.3	6.11	Duckweed downstream of WWTF

Calibrate to elevation 300 feet for the Cocheco River TMDL and 500 feet for the Ashuelot River TMDL

For impoundments, in addition to DO/Temp at the top 6 inches, record DO/Temp and depth at 25% depth, mid-depth and 1 foot from the bottom.

Early Morning Sampling Team (EMST) Field Worksheet

QC 5/15/02

Date: 8/29/01
EMST #: 2 Names: Sharon Duchamme & George Barbadi
Project: Ashuelot TMDL
DO/Temp Meter Serial Number: 01C 0218 ANI

Station	Time (Military)	Bucket or Instream (B or I)	Location (ie, midchannel, X feet from bank).	Total Water Depth (feet)	Depth of Measurement	Temperature (degrees C)	Dissolved Oxygen (mg/L)	Comments
								(Said duckweed mat at 12 Ash)
12-Ash	6:13 am	B	15 ft	3 ft	top foot	21.9	7.57	Lots of Duckweed & 50's shirt from bridge *going upstream - Stinky
14T-Ash	6:28 am	B	Mid	3±	top foot	20.9	7.60	Some duckweed in patches
15E-Ash	6:39 am	B	10-12 ft	> 5'	top foot	20.8	7.19	
Meter vs 16-Ash	6:49	B	10-12'	> 5'	top foot	20.1	6.58	Some duck weed along bank
					1'	19.9	6.38	
0A-Ash	7:16	B	Mid	6"	surface	15.0	7.62	
16M-Ash	7:20	B	Mid	18-24"	Surface	19.9	6.78	
9-Ash	7:40	B	Mid	6"	Surface	20.9	6.53	
9A Ash	7:48	B	Mid.	7'	Surface	21.3	5.80	
19A-Ash	7:52	I	Mid	7'	(1' off bottom) 6'	21.4	5.53	
19A Ash	7:57	I	↓	7'	3.5 mid	21.5	5.64	
	8:01	I	↓	7'	1.75' 25%	21.5	5.58	
20A-Ash	8:14	B	Mid	4'	3" Surface	19.7°	6.75	
21A-Ash	8:25	B	Mid	5'	top foot	20.6°	5.87	

Calibrate to elevation 300 feet for the Cocheco River TMDL and 500 feet for the Ashuelot River TMDL
For impoundments, in addition to DO/Temp at the top 6 inches, record DO/Temp and depth at 25% depth, mid-depth and 1 foot from the bottom.

QC 5/13/02

Sampling Field Worksheet

Project: Ashuelot River TMDL — Date: 8/29/01

Name of Samplers: Sharon Duchame & George Berlandi

Waterbody Name: Ashuelot River — Station ID: 14-Ash

Weather: Warm, Sunny, Clear

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min: Bucket sample collected	Military Time – Hours:Min: Field measurements taken	Temperature (degrees C) see note below for Calibration Elevation and measuring DO in impoundments.	DO (mg/L). see note below for Calibration Elevation and measuring DO in impoundments.	Conductivity (uS/cm)	pH pH slope (SLP):	
B	top foot	~~20~~ 25'	10-12'	10:25	10:30	23.1	Meter died	236.3	7.13	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): — Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:25	20-25	10-12'
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	↓	↓	↓
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 0-5%
Phytoplankton (free floating): 10-15% Duckweed
Periphyton (attached algae): 0-5%
Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mostly Open

Other Comments / Observations
Color (clear, tea-colored, etc): light decaf tea-weak
Substrate (ie, sandy, cobbles, muck, etc.): Muck
Odor: Slight odor- muck

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: S Duchesne / G Berlandi

Waterbody Name: Ashuelot River | Station ID: 15E-Ash

Weather: Warm / Sunny

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	top foot	10-12'	10-12'	11:05	11:12	22.6 (and probe)	Meter dead	229.2	6.94	
					11:25	22.1	7.37 - TZ meter			
Is DUPLICATE to be run? No (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	11:05	10-12	10-12'
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1			
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2			

Aquatic Plant Growth: (% Coverage)

Macrophytes (rooted plants): 0-5 %

Phytoplankton (free floating): 5-10% - Duck weed – no much on bottom

Periphyton (attached algae): 5-10% all over decaying wood in water

Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mostly open

Other Comments / Observations

Color (clear, tea-colored, etc): Clear

Substrate (ie, sandy, cobbles, muck, etc.): Muck – decaying branches/trees

Odor: None

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

QC 5/02

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: SLD / GCB

Waterbody Name: Ashuelot River | Station ID: 16M-Ash

Weather: Sunny, Warm, Clear

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	top foot	Mid	25ft	12:21	12:26	20.7	7.38 – TB Probe	259.3	6.37	
							KLP/JJC			
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Min	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	12:21	Mid	25 ft
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓		

Aquatic Plant Growth: % Coverage

Macrophytes (rooted plants): 20-40% No duckweed

Phytoplankton (free floating): 0-5%

Periphyton (attached algae): 0-5

Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mostly Open

Other Comments / Observations

Color (clear, tea-colored, etc): very weak decaf tea

Substrate (ie, sandy, cobbles, muck, etc.): Sand / muck

Odor: Stinky in muck water – no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

WC 5/13/03

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/02

Name of Samplers: SLD / GCB

Waterbody Name: Ash Swamp Brook | Station ID: 04-Ash

Weather: Warm / Sunny / Clear

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	Surface	Mid	3-4'	12:31	12:38	20.8	8.58 using T3 DO Probe	333.1	6.79	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	12:31	Mid	3-4'
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	↓	↓	↓
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	↓	↓	↓
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓	↓	↓

Aquatic Plant Growth: (% Coverage)

Macrophytes (rooted plants): 0-5%

Phytoplankton (free floating): 0-5%

Periphyton (attached algae): 0-5%

Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mostly Shaded

Other Comments / Observations

Collected sample next to battery under bridge

Color (clear, tea-colored, etc): Clear

Substrate (ie, sandy, cobbles, muck, etc.): Sandy

Odor: None

Some brown foam floating under bridge. Burned up on muffler & discarded

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

4C 7/17/02

Sampling Field Worksheet

Project: Ashuelot River TMDL **Date:** 8/29/01

Name of Samplers: G. Carlson + A. Donlon

Waterbody Name: Ashuelot River **Station ID:** 21-ASH

Weather: Sunny, puffy clouds, nice

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
						22.5	7.11	71.4	6.80	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Min	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1			
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1			
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2			

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 5%
Phytoplankton (free floating): —
Periphyton (attached algae): —
Canopy (Well Shaded, Moderately Shaded, Mostly Open): mod-shade

Other Comments / Observations
Color (clear, tea-colored, etc): clear – milky
Substrate (ie, sandy, cobbles, muck, etc.): coarse sand
Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

QC 5/15/02

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: G. Carlson + A. Donlon

Waterbody Name: Ashuelot River | Station ID: 20A-Ash

Weather: Sunny, nice

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				12:45	12:50	21.3	7.35	~~[illegible]~~	6.85	
								96.6	~~[illegible]~~	
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.)		yes		12:55		Dup 21.7	Dup 7.43	Dup 96.8	Dup 6.75	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	Yes	2	12:45	12:55	
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	Dup1	Dup2	
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		2			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		2			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	4	↓	↓	

Aquatic Plant Growth: (% Coverage)

Macrophytes (rooted plants): 10%

Phytoplankton (free floating): –

Periphyton (attached algae): 15%

Canopy (Well Shaded, Moderately Shaded, Mostly Open): mod. shade

Other Comments / Observations

Color (clear, tea-colored, etc): clear

Substrate (ie, sandy, cobbles, muck, etc.): coarse sand

Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

DUP1 DUP2

QC 9/15/04

Sampling Field Worksheet

Project: Ashuelot River TMDL — Date: 8/25/01

Name of Samplers: Birthday boy + Andrea Donlon

Waterbody Name: S. Branch Ashuelot River — Station ID: 2-56a

Weather: Sunny + Warm

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				10:55	11:00	19.7	7.98	106.2	6.91	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): — Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:55		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	10:55		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	10:55		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	10:55		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2	10:55		

Aquatic Plant Growth: — % Coverage

Macrophytes (rooted plants): 5%

Phytoplankton (free floating): —

Periphyton (attached algae): 20%

Canopy (Well Shaded, Moderately Shaded, Mostly Open): mostly open

Other Comments / Observations

Color (clear, tea-colored, etc): light brown

Substrate (ie, sandy, cobbles, muck, etc.): sandy

Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

QL 5/15/02

Sampling Field Worksheet

Project: Ashuelot River TMDL — Date: 8/29/01

Name of Samplers: George Carlson + Andrea Donlon

Waterbody Name: Ashuelot River — Station ID: 147-Ash

Weather: Sunny, Warm

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				10:30	10:35	22.2	8.57	233.7	6.66	
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.)			No			Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): — Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:30		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	10:30		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	10:30		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	10:30		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	10:30		

Aquatic Plant Growth: — % Coverage

Macrophytes (rooted plants): 40%

Phytoplankton (free floating): 20% duckweed

Periphyton (attached algae): –

Canopy (Well Shaded, Moderately Shaded, Mostly Open): mostly open

Other Comments / Observations

Color (clear, tea-colored, etc): clear - green

Substrate (ie, sandy, cobbles, muck, etc.): Cobbles

Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and – 1 foot from the bottom.

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: G Carlson + A. Doulon

Waterbody Name: Ashuelot River | Station ID: 17-Ash

Weather: Sunny, warm

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
						21.4	7.02	232.0	6.58	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	No	1			
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	|	1			
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	|	1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	|	1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	V	2	1 vial spiked - meals preservation	extra acid Marked Dup	

Aquatic Plant Growth: % Coverage

Macrophytes (rooted plants): 2%

Phytoplankton (free floating): —

Periphyton (attached algae): 90%

Canopy (Well Shaded, Moderately Shaded, Mostly Open): Mod. shaded

Other Comments / Observations

Color (clear, tea-colored, etc): milky brown

Substrate (ie, sandy, cobbles, muck, etc.): rocks, pipes, sand

Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

* DO meter cut off after 1st bucket reading

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8/29/01
Name of Samplers: Deb Soule / Katie Callahan	
Waterbody Name: Ashuelot River	Station ID: 19A-ASH
Weather: sunny / partly cloudy - windy	(Impoundments)

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min: Bucket sample collected	Military Time – Hours:Min: Field measurements taken	Temperature (degrees C) see note below for Calibration Elevation and measuring DO in impoundments.	DO (mg/L) see note below for Calibration Elevation and measuring DO in impoundments.	Conductivity (uS/cm)	pH pH slope (SLP):
	Surface 10.7 (I)	0' - in mid channel	40'	13:52	13:55	24.2 (B)	7.34 (B) 13.90	134.4	6.95
	25% 12.2 (I)			14:08	14:12	22.9	6.90	134.5	6.97
	50% 13.7 (I)					21.8	6.15		
	1' from bottom 15.7 (I)					21.5	6.13		
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.)			Yes on surface sample			Dup 23.4	Dup 7.59	Dup 134.5	Dup 6.97 6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet):

Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	Yes	2	Dup1 13:55	Dup2 14:12	
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2			
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		2			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		2			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		4			

DO Bucket Dup 8.0 23.5'

DO Bucket Dup

Aquatic Plant Growth:	% Coverage
Macrophytes (rooted plants):	10%
Phytoplankton (free floating):	0%
Periphyton (attached algae):	75%
Canopy (Well Shaded, Moderately Shaded, Mostly Open):	

Other Comments / Observations
Color (clear, tea-colored, etc): clear
Substrate (ie, sandy, cobbles, muck, etc.): sandy
Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~1 foot from the bottom.

DUP1 DUP2

QC 5/15/02

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8/29/01
Name of Samplers: Deb Soule / Katie Callahan	
Waterbody Name: Ashuelot River	Station ID: 12-Ash
Weather: Sunny / partly cloudy	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments – see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
Bucket	0.5'	5' [illegible]	35'	10:39	10:43	21.7	7.06	220.0	6.80	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:~~30~~ 30		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	10:30		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	10:30		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	10:30		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	10:30		

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 10% → duckweed
Phytoplankton (free floating): 10%
Periphyton (attached algae): 80% up against downed material
Canopy (Well Shaded, Moderately Shaded, Mostly Open): Well Shaded

Other Comments / Observations
Color (clear, tea-colored, etc): clear
Substrate (ie, sandy, cobbles, muck, etc.): rocks
Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

CK 5/17/01

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: Deb Soule / Katie Callahan

Waterbody Name: Ashuelot River | Station ID: 16-Ash

Weather: Sunny / Partly cloudy

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments – see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	0.75	50'	12'	11:05	11:09	20.7	7.01	239.0	6.85	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	11:10		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1			
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1			
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1			
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2			

Aquatic Plant Growth: (% Coverage)
Macrophytes (rooted plants): 10%
Phytoplankton (free floating): 20% along banks - duckweed
Periphyton (attached algae): 50%
Canopy (Well Shaded, Moderately Shaded, Mostly Open): mostly open

Other Comments / Observations
Color (clear, tea-colored, etc):
Substrate (ie, sandy, cobbles, muck, etc.): Sand w/ some rocks
Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and – 1 foot from the bottom.

QC 5/2/02

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 6/29/01
Name of Samplers: Deb Soule / Katie Callahan	
Waterbody Name: The Branch River	Station ID: OA-Bra
Weather: Sunny / few clouds	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments - see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time - Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
B	0.5'	C- (mid channel)	15'	12:20	12:23	20.0	8.24	229.0	7.00	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	12:24		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	↓		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	↓		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓		

Aquatic Plant Growth: % Coverage
Macrophytes (rooted plants): <1%
Phytoplankton (free floating): 0%
Periphyton (attached algae): 50%
Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations
Color (clear, tea-colored, etc): clear
Substrate (ie, sandy, cobbles, muck, etc.): sandy
Odor: slight sewage odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

AL 7/15/01

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8/29/01
Name of Samplers: Deb Soule / Katie Callahan	
Waterbody Name: Ashuelot River	Station ID: 19-A54
Weather: sunny / few clouds	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
Bucket	0.5	0' mid-channel	25'	13:07	13:12	23.1	7.15	132.8	6.78	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet):

Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time- Hours:Mim	~distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	13:12		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	1	↓		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.	↓	1	↓		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.	↓	1	↓		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	↓	2	↓		

Aquatic Plant Growth: % Coverage

Macrophytes (rooted plants): 50%

Phytoplankton (free floating): 0%

Periphyton (attached algae): 70%

Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations

Color (clear, tea-colored, etc): clear

Substrate (ie, sandy, cobbles, muck, etc.): rocks

Odor: none

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

GK 5/15/02

Sampling Field Worksheet

Project: Ashuelot River TMDL	Date: 8/29/01
Name of Samplers: KLP/JC	
Waterbody Name: Ashuelot River	Station ID: 16B-Ash
Weather: Dry / Partly Cloudy	

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L).	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				1139		23.0	6.98	376.8	6.60	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	1'.26		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	"		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	"		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	"		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2	"		

Aquatic Plant Growth: % Coverage
Macrophytes (rooted plants): _____
Phytoplankton (free floating): _____
Periphyton (attached algae): _____
Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations
Color (clear, tea-colored, etc):
Substrate (ie, sandy, cobbles, muck, etc.):
Odor:

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and ~ 1 foot from the bottom.

QC 5/12/02

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: LP/AC

Waterbody Name: Ashuelot River | Station ID: AR-Ash (Impoundment)

Weather: Dry / Partly Cloudy

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments - see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface (feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time - Hours:Min: Bucket sample collected	Military Time - Hours:Min: Field measurements taken	Temperature (degrees C) (see note below for Calibration Elevation and measuring DO in impoundments)	DO (mg/L) (see note below for Calibration Elevation and measuring DO in impoundments)	Conductivity (uS/cm)	pH: pH slope (SLP)	pH
	Surface			10:23		21.7	5.81			
	25% D			10:24		21.7	6.07			
	50% D			10:25		21.4	6.07			
	1' from bottom			10:26		21.4	6.37			7.26 @ 22 °C
Is DUPLICATE to be run? (If yes, record duplicate of last set of field measurements in this row.)				10:32 (Bucket collected)	→ Sample measurements taken	Dup	Dup	Dup 240.2	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet):

Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	10:35		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	11		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	11		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	11		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.	√	2	11		

Aquatic Plant Growth: (% Coverage)

Macrophytes (rooted plants): — Duckweed Common/Abundant up stream of Bridge

Phytoplankton (free floating): —

Periphyton (attached algae): — See other

Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations

Color (clear, tea-colored, etc): Pale straw color to water

Substrate (ie, sandy, cobbles, muck, etc.): I dunno

Odor: no odor

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and – 1 foot from the bottom.

DL 9/10/01

Sampling Field Worksheet

Project: Ashuelot River TMDL | Date: 8/29/01

Name of Samplers: KLP/DL

Waterbody Name: Ashuelot River | Station ID: 16D-Ash

Weather: Dry / Partly Cloudy

Field Measurements (Most are bucket samples taken within the top 6 inches of water except at impoundments –see note below)

Bucket (B) or Instream (I)	Depth of Sample from surface(feet)	~ distance from mid-channel (ft)	~ distance from bank (ft)	Military Time – Hours:Min		Temperature (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	
				Bucket sample collected	Field measurements taken	see note below for Calibration Elevation and measuring DO in impoundments.			pH slope (SLP):	
				1:32		24.1	7.29	255.5	~~6~~ 6.83	
Is DUPLICATE to be run? NO (If yes, record duplicate of last set of field measurements in this row.)						Dup	Dup	Dup	Dup	6.0 std.

Lab Samples (All lab samples are bucket samples taken within the top 6 inches of water)

Approximate Average Depth of River (feet): | Approximate width of river (feet):

Parameters	Bottle Type	Preservation	Duplicates?	Total # of bottles to fill.	Military Time-Hours:Mim	~ distance from mid-channel (ft)	~ distance from bank (ft)
~~BOD5 and/or~~ BOD20, TSS, NO2+NO3-N,	1.6 L (1/2 gal) white, polyethylene	Chilled on ice to 4 deg C.	NO	1	1:32		
TKN, NH3-N, TP	250 mL, brown polyethylene	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		1	4		
Ortho-P	50 mL clear polyethylene	Field filtered through 0.45 um filter; chilled on ice to 4 deg C.		1	4		
Chlor A	1L brown polyethylene	Chilled on ice to 4 deg C.		1	4		
TOC	2-40 mL glass vials	(pre-acidified), 0.5 mL of 9N H_2SO_4 to pH <2, chilled on ice to 4 deg C.		2	4		

Aquatic Plant Growth: % Coverage
Macrophytes (rooted plants): _____
Phytoplankton (free floating): _____
Periphyton (attached algae): _____
Canopy (Well Shaded, Moderately Shaded, Mostly Open):

Other Comments / Observations
Color (clear, tea-colored, etc):
Substrate (ie, sandy, cobbles, muck, etc.):
Odor:

Notes: Label sample bottles with black permanent marker before they get wet. Each bottle label must include the following: Waterbody name, station ID, sample date, sample time, initials of samplers, and the parameters to be analyzed. If duplicates are taken, designate one bottle as "D1" and the other as "D2". Do not take duplicates from the same bucket of water. For calibration of the DO meter, use an elevation of 300 ft for the Cocheco River and 500 ft for the Ashuelot River. Most field measurements are taken of the top 6 inches by bucket. At certain impoundments, however, DO/Temp and depth measurements will also be taken in-stream, at 25% depth from surface, at mid-depth and – 1 foot from the bottom.

Flow by Velocity Meter Field Worksheet

Project: [illegible]
Waterbody Name: [illegible] River
Station ID: 14T-[illegible]
Station Description: (Draw sketch in field book) [illegible] of Bridge; 1/2 way Between Bridges
By (Staff Names): JEA, RC
Meter Serial #: 2803081
Total River Width (ft-in): 32.2

Date: 8/24/01
Time begin (Military): 1040
Time end (Military): 1130
1/2 DAM UPSTREAM

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
Tape (ft)	Bank (ft)		FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
			V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
5.3		0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Overhead
6		0.14	0.38			Patient.
6.75		0.17	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	- Veg
7.5		0.21	0.71			Conspicuous
8.25		0.17	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	In Rough Areas.
9		0.21	0.08			- Other
9.75		0.29	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Macrophytes
10.5		0.6	0.96			As usual (Channel
11.25		0.52	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run wild)
12		0.[illegible]	1.49			
12.75		0.54	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13.5		0.40	1.81			
14.25		0.48	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
15		0.42	1.55			
15.75		0.68	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16.5		0.53	1.28			
17.25		0.28	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
18		0.44	1.85			
18.75		0.44	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19.5		0.61	2.10			Twice. once
20.25		0.72	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
19.5		0.60	2.02			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: [illegible]
Waterbody Name: [illegible]
Station ID: [illegible]
Station Description: (Draw sketch in field book) [illegible]
By (Staff Names): [illegible]

Date: [illegible]
Time begin (Military): [illegible]
Time end (Military): [illegible]

Total River Width (ft-in): 32.2

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20.25		0.63	[illegible]			
21		0.61	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
21.75		[illegible]	1.70			
22.5		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23.25		0.81	[illegible]			
24		0.72	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
24.75		0.73	[illegible]			
25.5		0.70	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26.25		0.76	[illegible]			
27		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
27.75		0.8	1.42			
28.5		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
29.25		1.03	[illegible]			
30		1.04	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
30.75		1.04	1.45			
31.5		[illegible]	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
32.25		[illegible]	1.28			
33		0.82	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
[illegible]		0.76	[illegible]			
[illegible]		0.12	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
[illegible]		0.71	0.77			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: [illegible]
Date: 2-21-[illegible]
Waterbody Name: [illegible] River
Time begin (Military):
Station ID: [illegible]
Time end (Military): 1130
Station Description: (Draw sketch in field book) [illegible]
By (Staff Names): [illegible]

Total River Width (ft-in): 32.2

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
35.25		0.34	0.22			
36		0.43	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
36.75		0.45	0.29			
37.5		0.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

37.5
5.3
32.2

Page 3 of 3

Flow by Velocity Meter Field Worksheet

Project: _____ Date: 8/23/01

Waterbody Name: _____ Time begin (Military): 14:55

Station ID: Cobb St Time end (Military): _____

Station Description: (Draw sketch in field book) _____

By (Staff Names): _____

Total River Width (ft-in): _____

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
Tape (ft)	Bank (ft)		FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
			V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	Culvert 14.5 4 sl. in 50 sec.
10	0		>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10.6	.6	.15	.23			
11	1	.3	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11.6	1.6	.1	.13			
12	2	.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
12.6	2.6	.4	.24			
13	3	.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13.6	3.6	.45	.26			
14	4	.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14.6	4.6	.6	.48			
15	5	.6	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
15.6	5.6	.65	.46			
16	6	.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16.6	6.6	.7	.63			
17	7	.65	>>>>>>>>>	>>>>>>>>>		Done QC'd
17.6	7.6	.7	.71			
18	8	.65	>>>>>>>>>	>>>>>>>>>		
18.6	8.6	.65	.76			
19	9	.6	>>>>>>>>>	>>>>>>>>>		
19.6	9.6	.65	.71			
20	10	.5	>>>>>>>>>	>>>>>>>>>		
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
19.6	9.6	.65	.69			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: _____ Date: _____
Waterbody Name: _____ Time begin (Military): _____
Station ID: Cobb St. Time end (Military): _____
Station Description: (Draw sketch in field book) _____
By (Staff Names): _____

Total River Width (ft-in): _____

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
Tape (ft)	Bank (ft)		FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
			V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20.6	10.6	.75	.58			
21	11	.7	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
21.6	11.6	.75	.51			
22	12	.65	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22.6	12.6	.65	.43			
23	13	.6	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23.6	13.6	.6	.51			
24	14	.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
24.6	14.6	.5	.34			
25	15	.55	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
25.6	15.6	.55	.22			
26	16	.6	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26.6	16.6	.5	.30			
27	17	.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
27.6	17.6	.4	.26			
28	18	.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28.6	18.6	.45	.17			
29	19	.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
29.6	19.6	.35	.16			
30	20	.15	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
23.6	19.6	.35	.19			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: _____ Date: _____
Waterbody Name: _____ Time begin (Military): _____
Station ID: Cobb St. Time end (Military): _____
Station Description: (Draw sketch in field book) _____
By (Staff Names): _____

Total River Width (ft-in): _____

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
Tape (ft)	Bank (ft)		FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
			V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
30.5	30.5	0				
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

QL 7/17/01

Flow by Velocity Meter Field Worksheet

Project: _____
Waterbody Name: _____
Station ID: 02-534
Station Description: (Draw sketch in field book) _____
By (Staff Names): _____

Date: 8/29/01
Time begin (Military): 13:15
Time end (Military): 13:35

Total River Width (ft-in): _____

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
5	0	0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
5.9	.9	.3	.00			
6.6	1.6	.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7.3		.6	.10			
8		.8	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
8.9		1	.11			
9.6		1.1	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10.3		1.2	.12			
11		1.3	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
11.9		1.4	.09			
12.6		1.6	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13.3		1.7	.12			
14		1.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
14.9		1.85	.09			
15.6		1.8	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16.3		1.75	.14			
17		1.7	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
17.9		1.65	.13			
18.6		1.6	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19.3		1.55	.17			
20		1.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
19.3		1.55	.18			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: _____ Date: 8/29/01

Waterbody Name: _____ Time begin (Military): _____

Station ID: 02-SGA Time end (Military): _____

Station Description: (Draw sketch in field book) _____

By (Staff Names): _____

Total River Width (ft-in): _____

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
—	—	—	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
20.9		1.5	.19			
21.6		1.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
22.3		1.45	.17			
23		1.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
23.9		1.45	.20			
24.6		1.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
25.3		1.45	.27			
26		1.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
26.9		1.4	.27			
27.6		1.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
28.3		1.4	.18			
29		1.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
29.9		1.3	.19			
30.6		1.35	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
31.3		1.4	.19			
32		1.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
32.9		1.35	.10			
33.6		1.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
34.3		1.45	.02			
35		1.45	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
34.3		1.4	.04			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project:

Waterbody Name:

Station ID: 02-564

Station Description: (Draw sketch in field book)

By (Staff Names):

Date: 5/25/01

Time begin (Military):

Time end (Military):

Total River Width (ft-in):

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	
—	—	—	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
35.5		1	0			
36.6		0	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	

Flow by Velocity Meter Field Worksheet

Project: _____ Date: 3/8/05

Waterbody Name: _____ Time begin (Military): 15 36

Station ID: 21-ASH Time end (Military): _____

Station Description: (Draw sketch in field book) _____

By (Staff Names): _____

Total River Width (ft-in): _____

Distance Readings		Depth (ft)	Velocity (V) Readings (ft/sec)			Comments
			FOR DEPTHS ≤ 2 FT	FOR DEPTHS > 2 FT		
Tape (ft)	Bank (ft)		V @ 60% depth from surface	V @ 20% depth from surface	V@ 80% depth from surface	TONS OF MUSSELS
7	0		>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
7.9	.9	.1	0.00			
8.6	1.6	.15	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
9.3	2.3	.2	.03			
10	3	.3	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
10.9	3.9	.35	.01			
11.6	4.6	.4	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
12.3	5.3	.5	.03			
13	6	.6	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
13.9	6.9	.65	.05			
14.6	7.6	.75	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
15.3	8.3	.8	.03			
16	9	.85	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
16.9	9.9	.95	.05			
17.6	10.6	1	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
18.3	11.3	1.05	.09			
19	12	1.1	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
19.9		1.1	.06			
20.6		1.25	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
21.3		1.25	.08			
22		1.5	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	
>>>>>>>	>>>>>>>	>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>>>>
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	Run 1 duplicate reading for each set of 10 readings (duplicate the last set of readings recorded on this page)
20.6		1.25	.07			
			>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	