



Northfield Mountain Station
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John S. Howard
Director- FERC Hydro Compliance

Via Electronic Filing

January 22, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Turners Falls Hydroelectric Project, FERC Project No. 1889
Northfield Mountain Pumped Storage Project, FERC Project No. 2485
Long Term Monitoring Transects in the Turners Falls Impoundment

Dear Secretary Bose:

The Federal Energy Regulatory Commission (FERC) requested FirstLight Hydro Generating Company (FirstLight) to provide information on long-term monitoring of cross-sections located within the Turners Falls (TF) Impoundment. There are 20+ cross-sections surveyed annually to document changes in cross-section morphology. Per FERC’s request, please find enclosed the following attachments:

- Aerial images of the cross-section locations (Sheet No. 1-6.pdf).
- Cross-section plots (different color for each year) looking in an upstream direction for the cross-sections listed in Table 1 (Connecticut River Sections 2013.pdf).

Table 1 summarizes the available data and lists the following information:

Sheet No. -	refers to the Sheet number where the cross-section is shown on an aerial image.
Cross-Section No. -	refers to the cross-section number as listed on the aerial image.
No. of Times Surveyed -	refers to the number of times the cross-section has been surveyed.
Year Range Surveyed -	refers to the range of years surveyed (typically surveyed once a year).

Table 1 is organized in a north to south direction, whereby Sheet 1 is near TransCanada’s Vernon Dam and Sheet No. 6 is near FirstLight’s TF Dam. Additionally, the cross-sections in Table 1 are listed in the same north to south direction.

Table 1: Cross-Sections Surveyed in the TF Impoundment

Sheet No.	Cross-Section No. (listed in upstream to downstream order)	No. of Times Surveyed	Year Range Surveyed
Sheet #1- Starts at Upper TF Impoundment	Cross-Section #1	14	1999-2012
	Cross-Section #11, Stebbins Island	7	2005-2012
	Cross-Section #2	14	1999-2012
Sheet #2	Cross-Section #3	15	1999-2012
	Cross-Section #4	15	1999-2012
Sheet #3	Cross-Section #5A, Bennett Meadow Bridge	15	1999-2012
	Cross-Section #5B, Bennett Meadow Bridge	15	1999-2012
	Cross-Section #5D, Bennett Meadow Bridge	15	1999-2012
	Cross-Section #5E, Bennett Meadow Bridge	15	1999-2012
	Cross-Section #5C, Bennett Meadow Bridge	15	1999-2012
Sheet #4	Cross-Section #10	15	1999-2012
	Cross-Section #6B	15	1999-2012
	Cross-Section #6A, Kidds Island	15	1999-2012
	Cross-Section #12, east of Kidds Island	6	2006-2012
	Cross-Section #7	15	1999-2012
	Cross-Section #8B	15	1999-2012
	Cross-Section #8A	15	1999-2012
Sheet #5	NONE		
Sheet #6- ends at TF Dam	Cross-Section #9	15	1999-2012
	Cross-Section #BC-1, Barton Cove	15	1999-2012
	Cross-Section #BC-5, Barton Cove	15	1999-2012
	Cross-Section #BC-2, Barton Cove	15	1999-2012
	Cross-Section #BC-3, Barton Cove	15	1999-2012

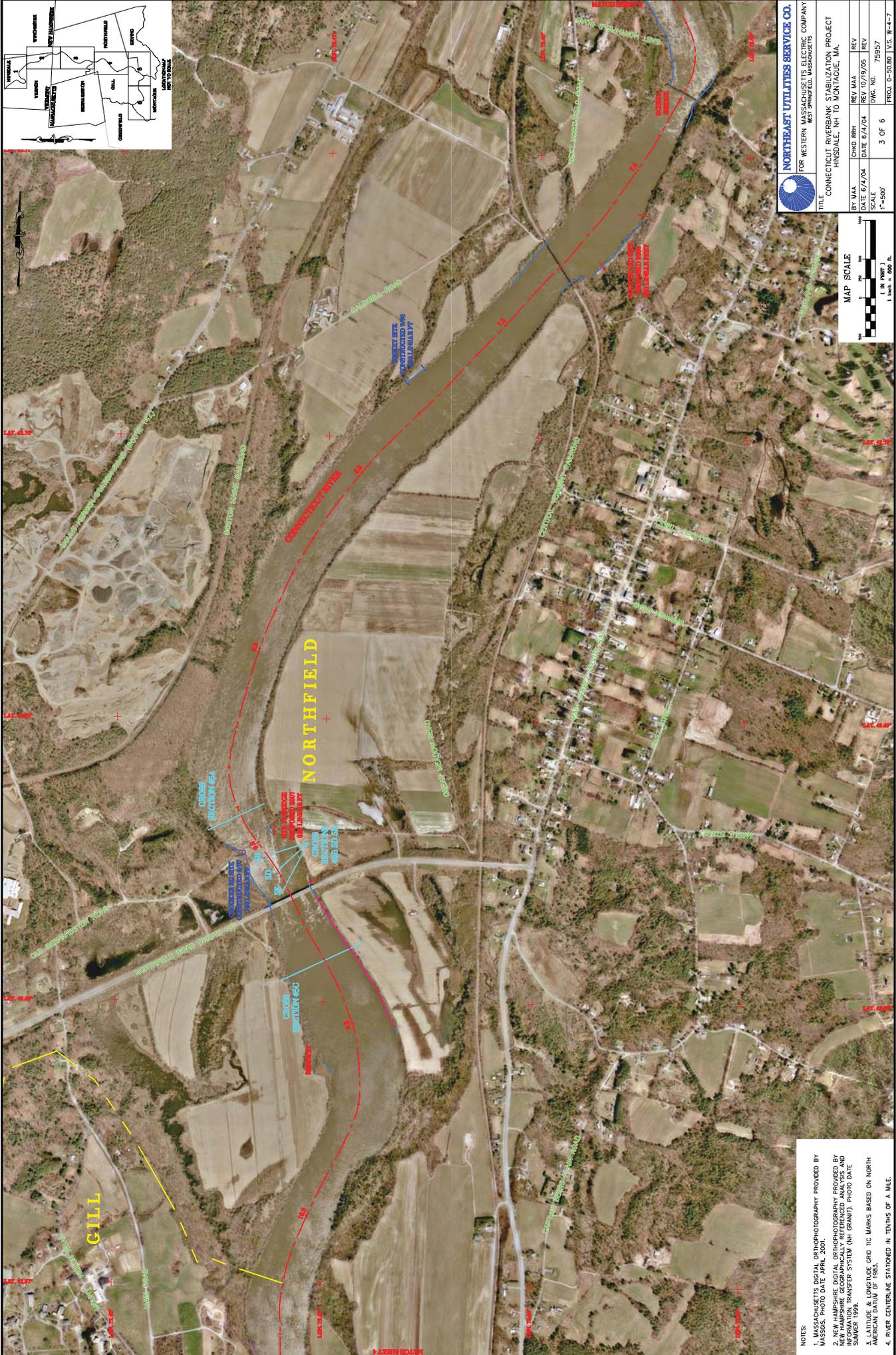
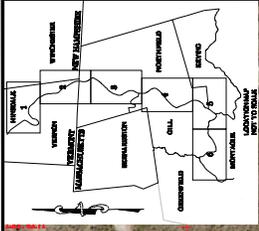
If you have any questions regarding the enclosed files, please feel free to contact me.

Sincerely,



John Howard
FERC- Director Hydro Compliance

Attachments: Sheet Nos 1-6.pdf, Connecticut River Sections 2013.pdf



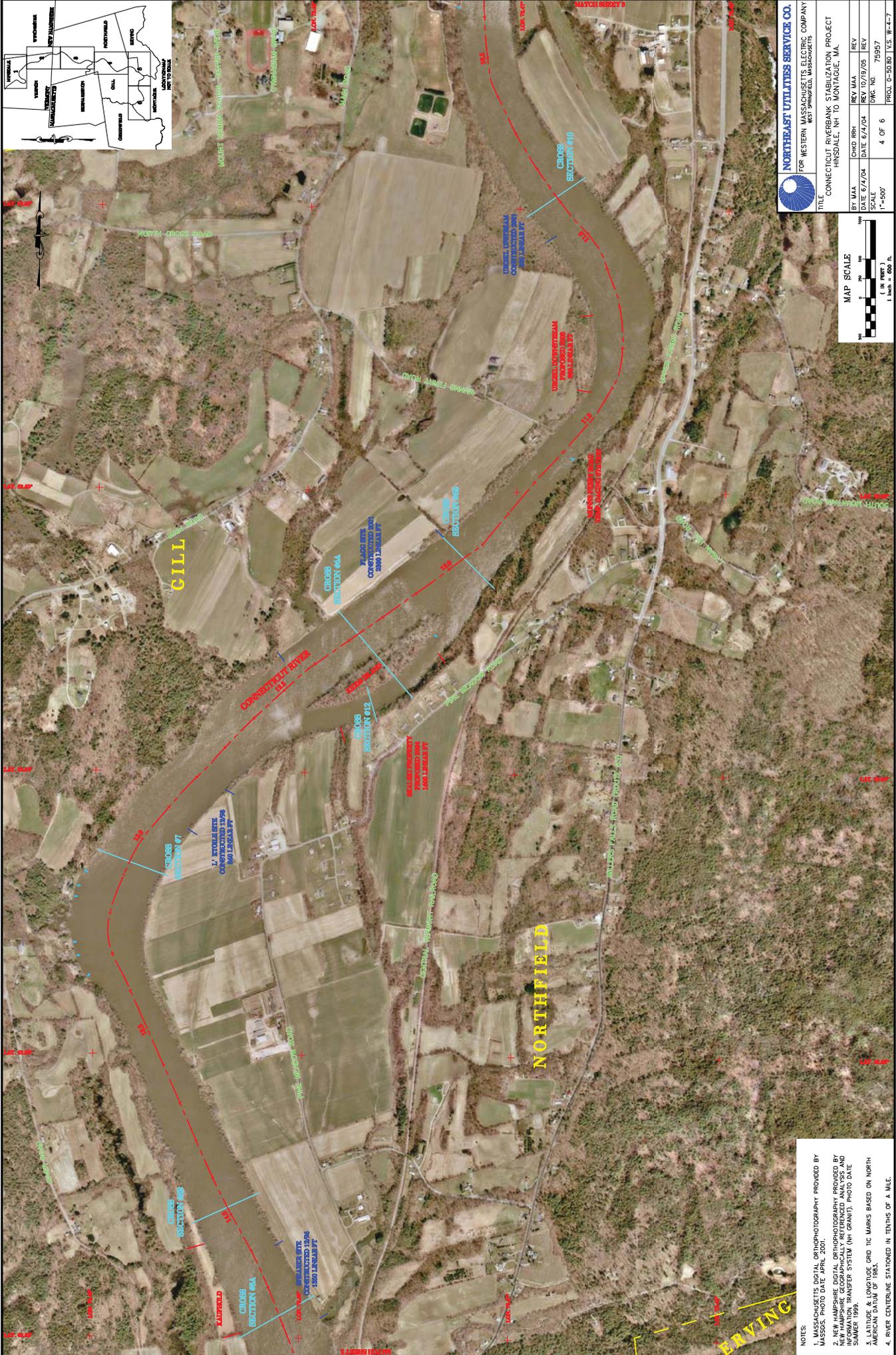
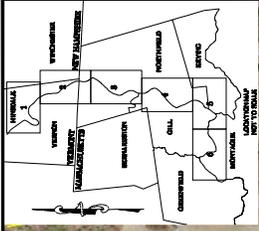
NORTHEAST UTILITIES SERVICE CO.
 FOR WESTERN MASSACHUSETTS ELECTRIC COMPANY
 WEST SPRINGFIELD, MASSACHUSETTS

TITLE
 CONNECTICUT RIVERBANK STABILIZATION PROJECT
 HINSDALE, NH TO MONTAGUE, MA.

BY MA	CHD BRH	REV MA	REV
DATE 6/7/04	DATE 6/7/04	REV 10/19/05	REV
SCALE	DATE	DWG. NO.	75957
1"=500'	3 OF 6	PROJECT	0-30.80 V.S. W-4-7



- NOTES:**
1. MASSACHUSETTS DIGITAL ORTHOPHOTOGRAPHY PROVIDED BY MASSGIS. PHOTO DATE: APRIL 2001.
 2. NEW HAMPSHIRE DIGITAL ORTHOPHOTOGRAPHY PROVIDED BY THE STATE OF NEW HAMPSHIRE. PHOTO DATE: SUMMER 1999. INFORMATION TRANSFER SYSTEM (NH GRANIT) PHOTO DATE: SUMMER 1999.
 3. LATITUDE & LONGITUDE GRID TIC MARKS BASED ON NORTH AMERICAN DATUM OF 1983.
 4. RIVER CENTERLINE STATIONED IN TENTHS OF A MILE.



NORTHEAST UTILITIES SERVICE CO.
 FOR WESTERN MASSACHUSETTS ELECTRIC COMPANY
 WEST SPRINGFIELD, MASSACHUSETTS

TITLE
 CONNECTICUT RIVERBANK STABILIZATION PROJECT
 HINSDALE, NH TO MONTAGUE, MA.

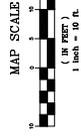
BY M/A	CHD BRH	REV MAA	REV
DATE 6/7/04	DATE 6/7/04	REV 10/19/05	REV
SCALE	1"=500'	DWG. NO.	75957
		4 OF 6	
		PROJ. 0-30-80	V.S. W-4-7



- NOTES:**
1. MASSACHUSETTS DIGITAL ORTHOPHOTOGRAPHY PROVIDED BY MASSGIS. PHOTO DATE: APRIL 2001.
 2. NEW HAMPSHIRE DIGITAL ORTHOPHOTOGRAPHY PROVIDED BY NHGIS. PHOTO DATE: SUMMER 1999. PHOTO DATE INFORMATION TRANSFER SYSTEM (NH GRANT) PHOTO DATE: SUMMER 1999.
 3. LATITUDE & LONGITUDE GRID TIC MARKS BASED ON NORTH AMERICAN DATUM OF 1983.
 4. RIVER CENTERLINE STATIONED IN TENTHS OF A MILE.

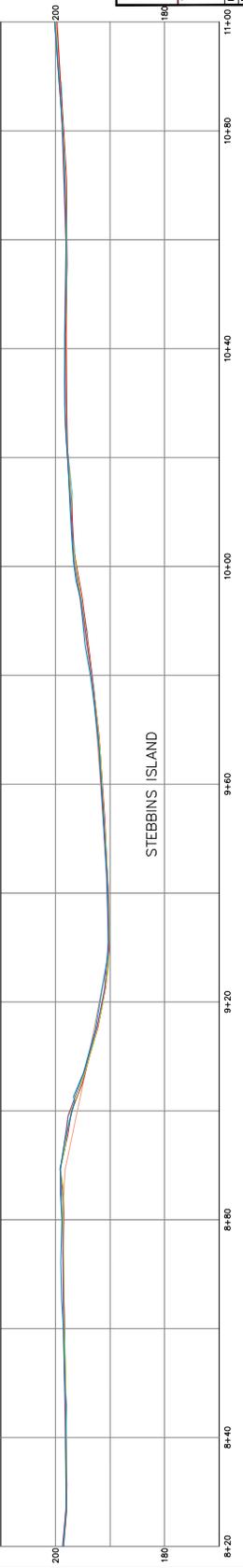
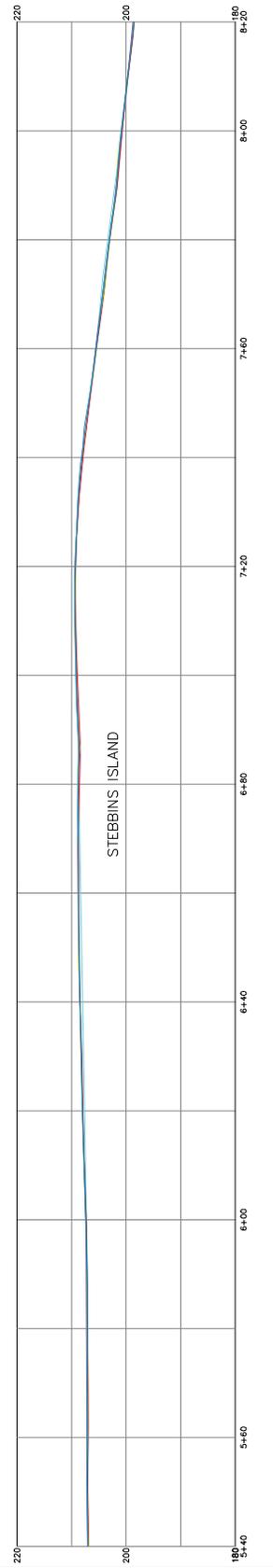
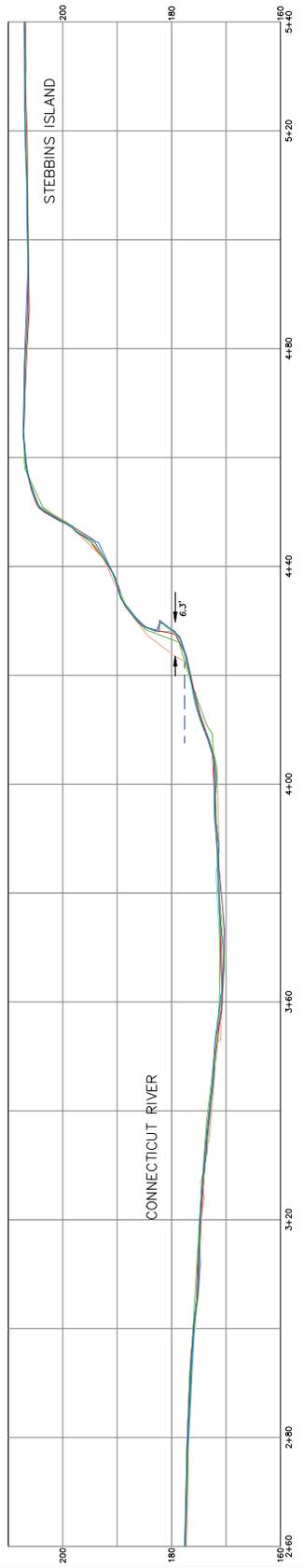
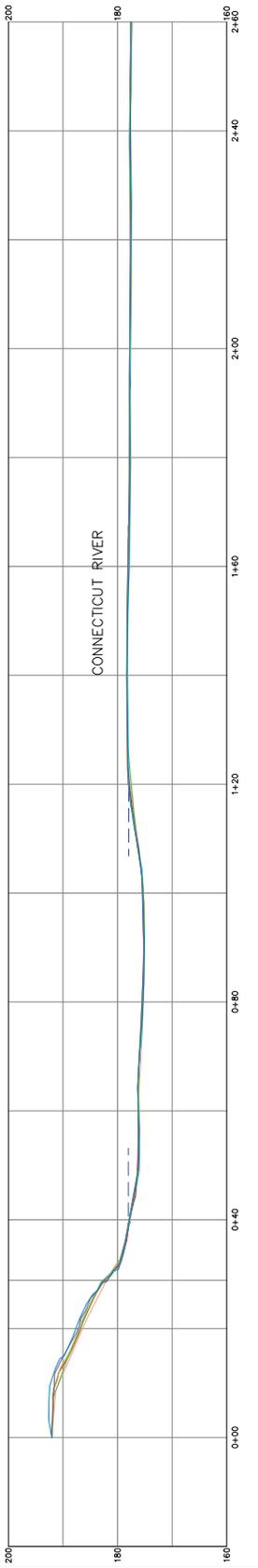
MAP NOTES:

1. OBSERVED EDGE OF WATER
2. VERTICAL DATUM IS NGVD 1929
3. SURVEY JOB # M05-24 FBK277/36-38
4. SEE SHEET 2 FOR BASELINE
5. SEE DRAWING 75957 SHEET 1 FOR MAP LOCATION



LEGEND

SERIES	DATE	SURVEY JOB NO.
1st	07/2005	2005-25
2nd	06/2006	2006-29
4th	07/2009	2009-198
5th	08/2010	2010-246
6th	07/2011	2011-246
7th	07/2012	2012-334



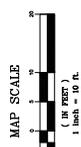
FOR
FirstLight
Renewable Energy

FirstLight Generation Co.

TITLE: CROSS-SECTION #11
STEBBINS ISLAND
VERNON, VERMONT

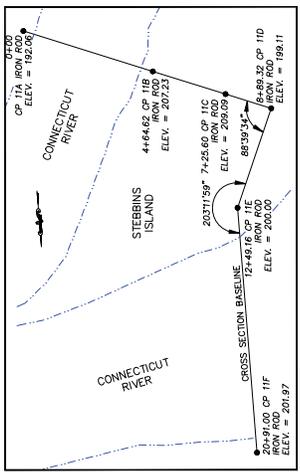
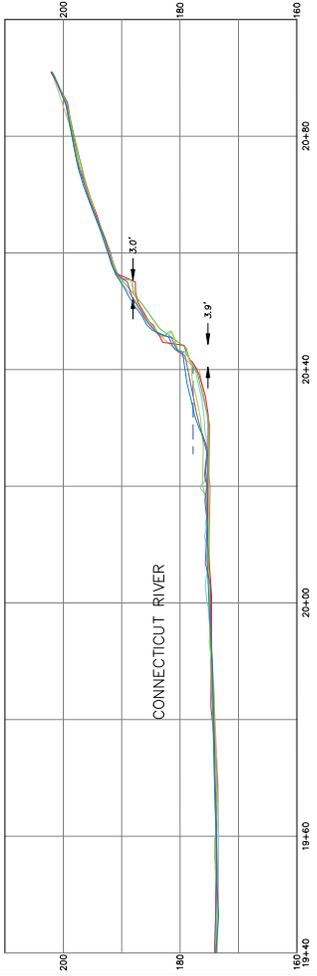
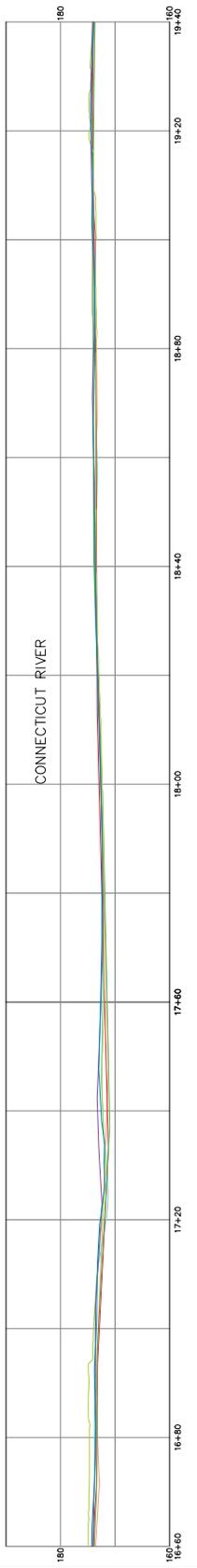
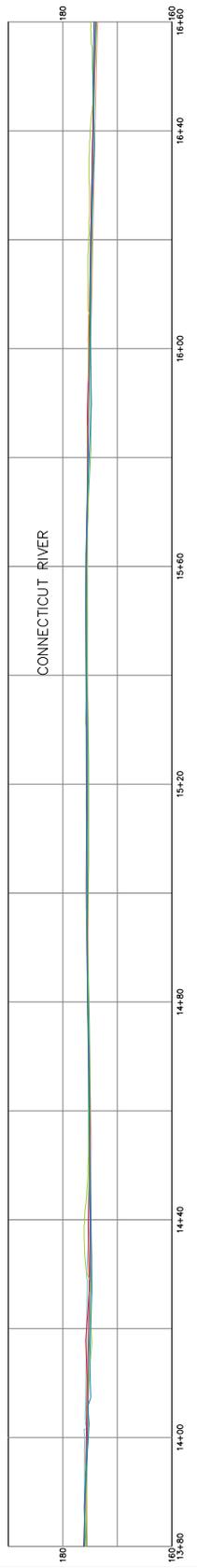
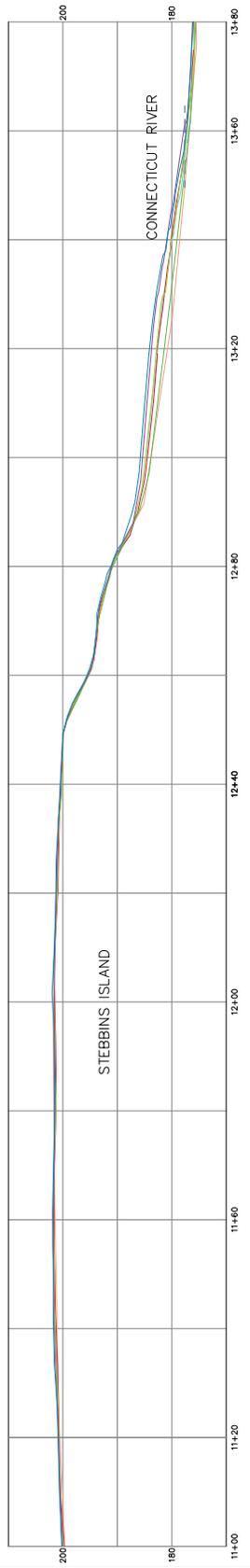
DATE 10/19/05	BY: MAA	CHKD: BRD	DATE 10/19/05	REV: RRI	DATE
SCALE: HORIZ. & VERT. 1" = 10'	SHEET 1 OF 2		DWG. NO. 75994	REV	
PROJECT: C-50-80			V.S. W-4-7		

- MAP NOTES:
1. OBSERVED EDGE OF WATER
 2. VERTICAL DATUM IS NGVD 1929
 3. SURVEY JOB # M05-24 F0277/30-38
 4. SEE SHEET 2 FOR BASELINE
 5. SEE DRAWING 75957 SHEET 1 FOR MAP LOCATION



LEGEND

SERIES	WATER	DATE	SURVEY JOB NO.
1st	185.0	07/2005	2005-25
2nd	178.4	06/2006	2006-29
3rd	186.6	07/2009	2009-108
4th	179.5	08/2010	2010-246
5th	176.2	07/2012	2012-334

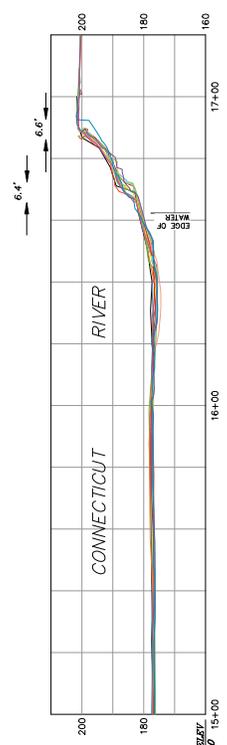
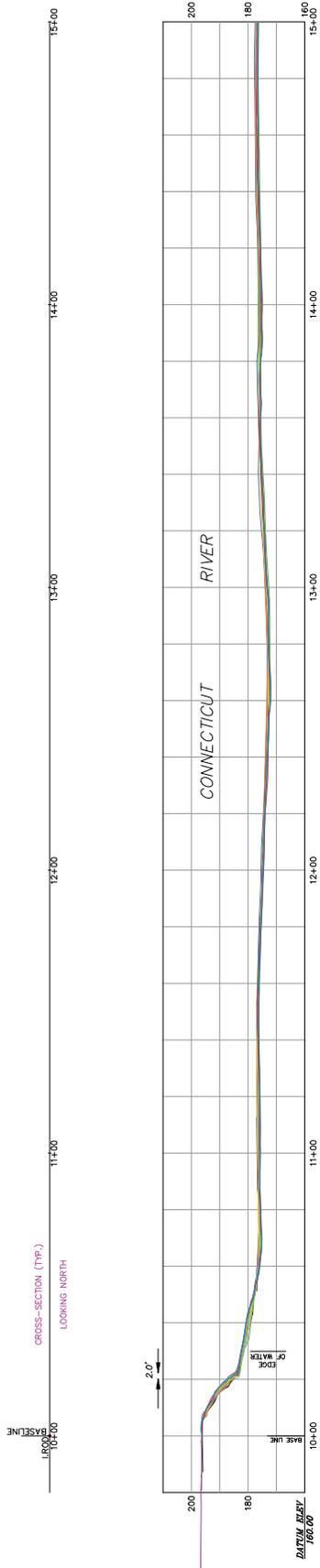


BASELINE LOCATION
1"=200'

FOR
FirstLight
Renewable Construction

FirstLight Generation Co.

TITLE			
CROSS-SECTION #11			
STEBBINS ISLAND			
VERNON, VERMONT			
BY: MAA	CHKD: BRD	REV: RRI	REV:
DATE: 10/19/05	DATE: 10/19/05	DATE: 1/6/13	DATE:
SCALE: & NEXT	SHEET 2 OF 2	DWG. NO. 75994	
PROJECT: 1"=10'	TRCCL: C-50.80	V.S.: W-1-7	



SECTION 2
(LOOKING UPSTREAM)

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18h	182.4	11/09/99	247 PG 73
19h	181.7	06/20/00	250 PG 63
20h	181.7	10/24/00	254 PG 56
21h	180.1	07/31/01	260 PG 35
22h	181.5	07/14/02	268 PG 30
23h	182.1	07/14/03	268 PG 30, DATA COLLECTOR
24h	182.1	06/12/04	274 PG 13, DATA COLLECTOR
25h	182.0	7/05	277 PG 9, DATA COLLECTOR
26h	185.9	7/06	277 PG 65, DATA COLLECTOR
28h	186.3	7/08	7 PG 5, DATA COLLECTOR
29h	182.7	7/09	8 PG 70, DATA COLLECTOR
30h	182.9	7/20/10	11 PG 2, DATA COLLECTOR
31h	181.7	8/19/2011	11 PG 13, DATA COLLECTOR
32h	183.9	7/2/2012	11 PG 18, DATA COLLECTOR

NOTES:
 1. ELEVATIONS ARE BASED UPON NGVD 1929
 2. REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

FOR FIRSTLIGHT HYDRO GENERATING CO.

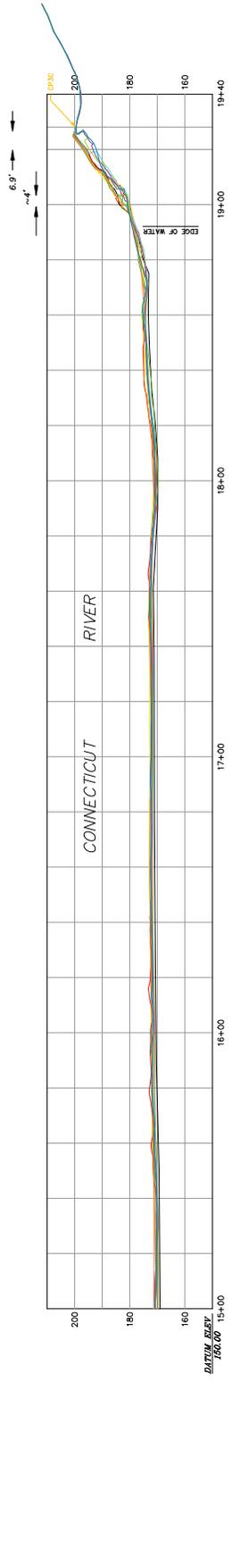
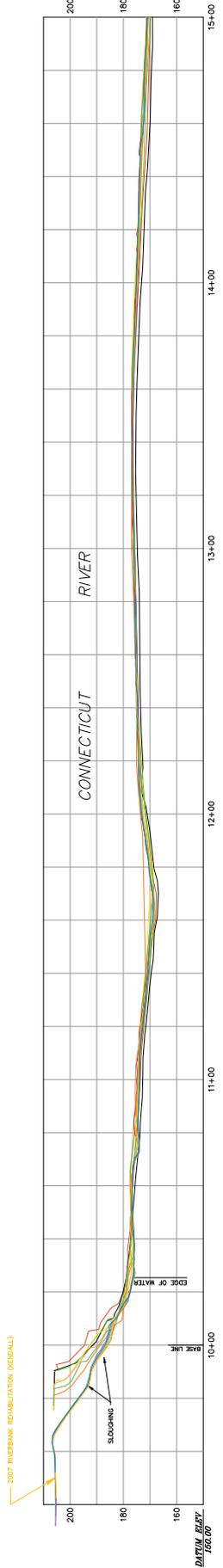
FirstLight
 Power Resources

CONNECTICUT RIVER EROSION MONITORING
 CROSS SECTION #2
 ASHUELOT RIVER, HINSDALE, VT

BY: JAW/K	REV: RSH	APP:
DATE: 03/13/08	DATE: 07/06/2013	DATE:
MICROSOFT DATE	MICROSOFT DATE	DWG. NO. 75816B-2
SCALE: HORIZ. & VERT. 1"=20'		PROJ. # 0-5080 U.S. M-F-3-A



CROSS-SECTION (TOP.)
 LOOKING NORTH
 107+00 117+00 127+00 137+00 147+00 157+00



SECTION 3
 (LOOKING UPSTREAM)

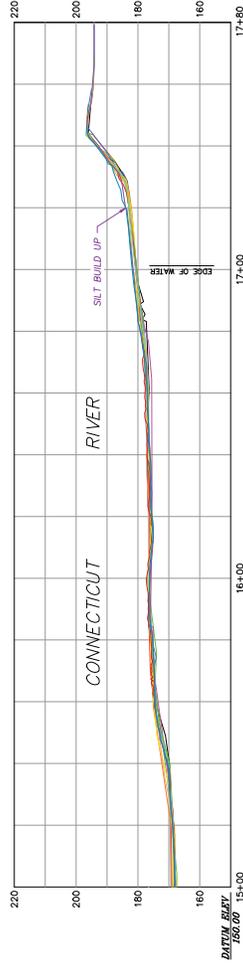
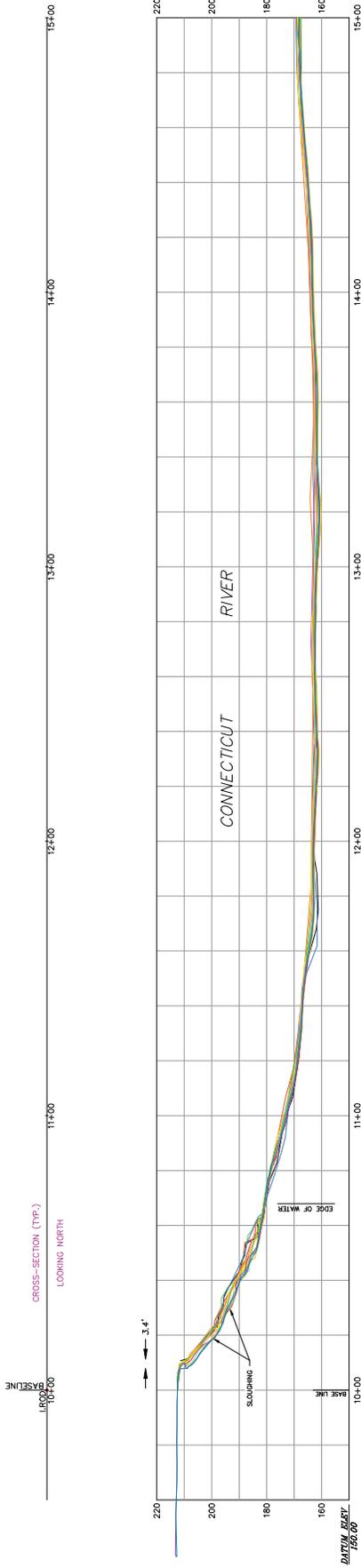
SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	178.7	11/09/99	247 PG 76
19th	178.8	06/20/00	250 PG 65
20th	178.8	10/24/00	254 PG 58
21th	177.2	08/01/01	260 PG 37
22nd	177.8	07/10/02	268 PG 10
23rd	178.7	07/14/03	269 PG 30, DATA COLLECTOR
24th	178.6	06/09/04	274 PG 13, DATA COLLECTOR
25th	180.4	7/05	277 PG 9, DATA COLLECTOR
26th	178.8	7/05	278 PG 10, DATA COLLECTOR
27th	178.3	10/07	4 PG 73, DATA COLLECTOR
28th	186.3	7/08	7 PG 7, DATA COLLECTOR
29th	181.2	7/09	8 PG 70, DATA COLLECTOR
30th	182.1	7/20/10	11 PG 3, DATA COLLECTOR
31th	178.8	6/20/2011	11 PG 10, DATA COLLECTOR
32nd	180.2	7/3/2012	11 PG 18, DATA COLLECTOR



NOTES:
 1. ELEVATIONS ARE BASED UPON NGVD 1929
 2. REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

FOR
FirstLight
 Power Resources
 CONNECTICUT RIVER EROSION MONITORING
 CROSS SECTION #3
 ROUTE 63, HINSDALE, VT

BY: JMK	REV: RSH	APP:
DATE: 03/10/08	DATE: 01/06/2013	DATE:
SCALE: HORIZ. & VERT. 1"=50'	PROJECT NO.: 75816B-3	PROJECT: 75816B-3
	PROJ. # 05-90	VS. W-3-A



SECTION 4
(LOOKING UPSTREAM)

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	181.3	11/09/99	252 PG 1
19th	180.5	06/19/00	250 PG 59
20th	181.0	10/20/00	254 PG 41
21th	178.9	08/01/01	260 PG 39
22nd	178.8	07/10/02	268 PG 9
23rd	181.2	07/14/03	269 PG 30, DATA COLLECTOR
24th	181.4	07/14/03	274 PG 17, DATA COLLECTOR
25th	181.5	07/06/03	275 PG 18, DATA COLLECTOR
26th	184.6	7/06	277 PG 65, DATA COLLECTOR
27th	182.4	10/07	4 PG 73, DATA COLLECTOR
28th	183.4	7/08	7 PG 8, DATA COLLECTOR
29th	183.5	7/09	7 PG 70, DATA COLLECTOR
30th	183.4	7/2010	11 PG 2, DATA COLLECTOR
31th	181.2	8/19/2011	11 PG 13, DATA COLLECTOR
32nd	183.0	7/3/2012	11 PG 19, DATA COLLECTOR



NOTES:
ELEVATIONS ARE BASED UPON NGVD 1929
REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

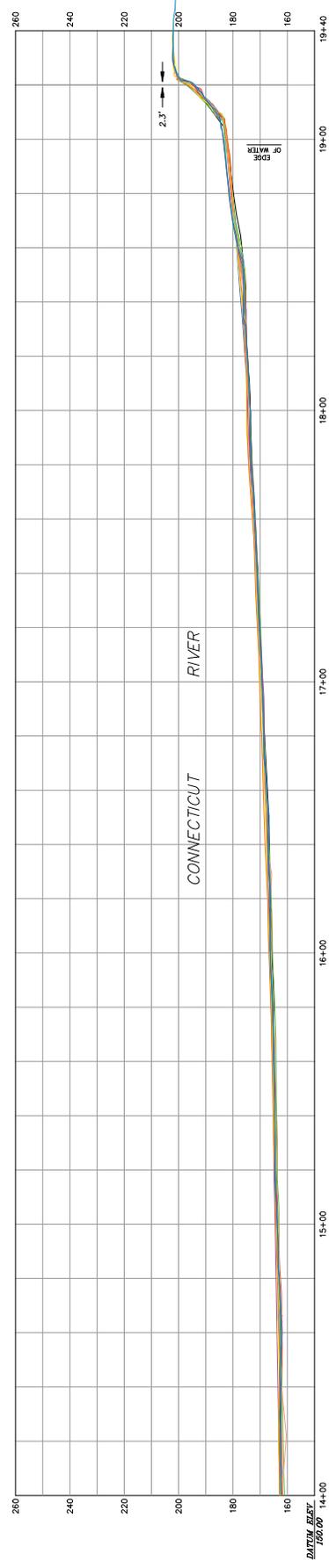
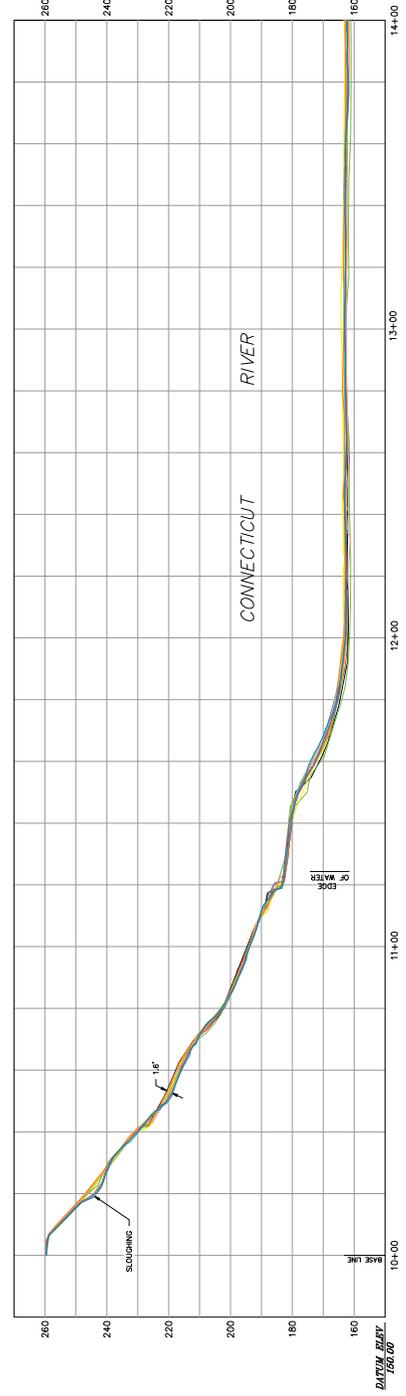
FOR FIRSTLIGHT HYDRO GENERATING Co.

FirstLight
Power Resources

CONNECTICUT RIVER EROSION MONITORING
CROSS SECTION #4
NORTHFIELD BOAT LAUNCH, NORTHFIELD, MA

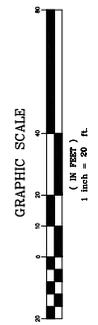
BY: JMK	REV: RSH	APP: JPP
DATE: 09/10/99	DATE: 01/06/2013	DATE:
SCALE: HORIZ. & VERT. 1"=50'	PROJECT NO: 75816B-4	PROJECT: VS. W-3-A

CROSS-SECTION (TYP.)
 LOOKING NORTH
 10+00 11+00 12+00 13+00 14+00



SECTION 5A
 (LOOKING UPSTREAM)

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	182.5	11/18/99	252 PG 13
19th	182.2	06/08/00	250 PG 55
20th	181.6	10/23/00	254 PG 50
21th	179.0	08/01/01	260 PG 43
22nd	178.7	07/10/02	268 PG 9
23rd	181.6	07/14/03	269 PG 26, DATA COLLECTOR
24th	180.9	06/09/04	274 PG 13, DATA COLLECTOR
25th	183.4	7/05	277 PG 9, DATA COLLECTOR
26th	184.6	7/05	277 PG 65, DATA COLLECTOR
27th	182.1	10/07	4 PG 73, DATA COLLECTOR (GROUND SHOTS ONLY)
28th	183.4	7/08	7 PG 5, DATA COLLECTOR
29th	184.1	7/08	9 PG 70, DATA COLLECTOR
30th	184.0	7/08	11 PG 10, DATA COLLECTOR
31th	182.5	8/18/2011	11 PG 12, DATA COLLECTOR
32nd	182.1	7/5/2012	11 PG 18, DATA COLLECTOR



NOTES:
 1. ALL ELEVATIONS ARE BASED UPON NGVD 1929
 2. SEE OTHER DRAWINGS FOR CROSS SECTIONS
 REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

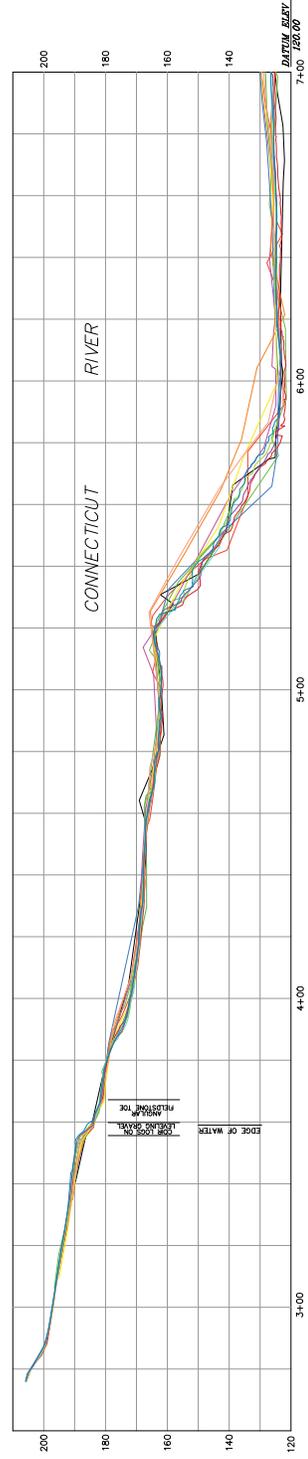
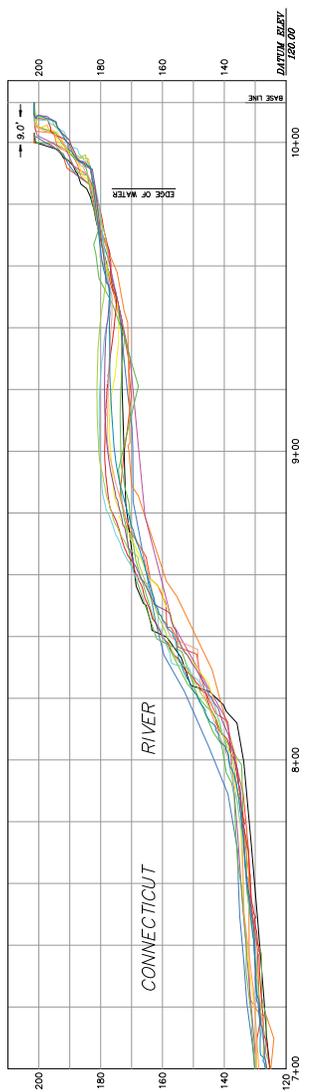
FirstLight
 Power Resources
 CONSULTING ENGINEERS

FOR
 FIRSTLIGHT HYDRO GENERATING CO.

TITLE
 CONNECTICUT RIVER EROSION MONITORING
 CROSS SECTION #5A
 BENNETT MEADOW BRIDGE, NORTHFIELD, MA

BY: JAW/K	REV: RSH	APP:
DATE: 09/10/08	DATE: 01/06/2013	DATE:
SCALE:	MODIFIED DATE:	DWG. NO.: 75816B-5A
HORIZ. & VERT. SCALE:		PROJ. #P-0580
1"=20'		U.S. M-S-A

CROSS-SECTION (TYP.)
LOOKING NORTH



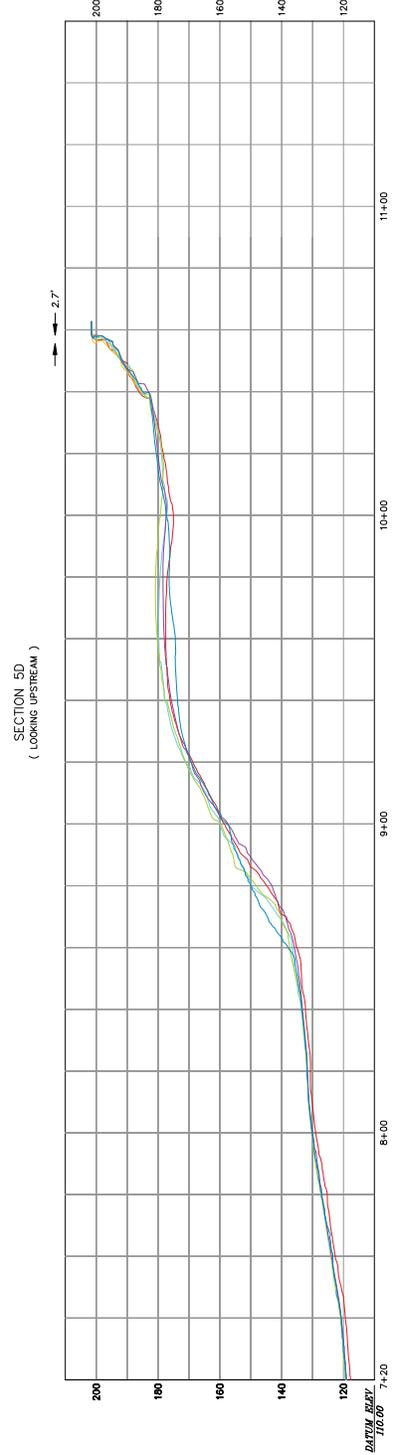
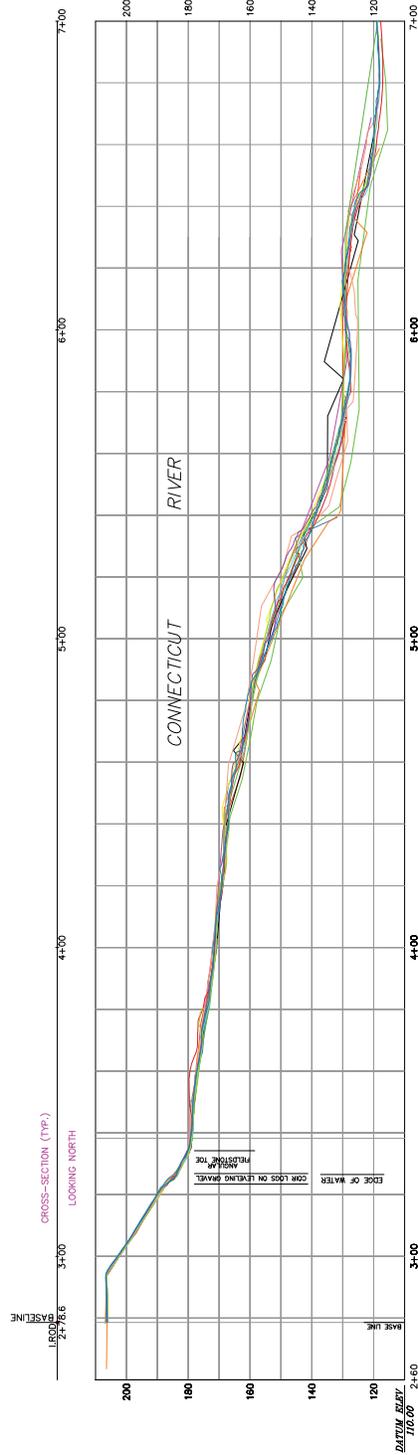
SECTION 5B
(LOOKING UPSTREAM)

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	181.4	11/16/99	252 PG 4
19th	184.5	06/02/00	252 PG 49
20th	184.5	10/02/00	252 PG 39
21th	181.7	07/02/01	260 PG 21
22nd	186.0	07/08/02	268 PG 7
23rd	182.3	07/14/03	269 PG 26, DATA COLLECTOR
24th	180.1	06/08/04	274 PG 13, DATA COLLECTOR
25th	181.9	7/05	277 PG 9, DATA COLLECTOR
26th	184.6	7/06	277 PG 65, DATA COLLECTOR
27th	182.1	10/07	4 PG 73, DATA COLLECTOR (GROUND SHOTS ONLY)
28th	183.4	7/08	7 PG 9, DATA COLLECTOR
29th	182.3	9/09	9 PG 12, DATA COLLECTOR
30th	183.7	7/2010	11 PG 2, DATA COLLECTOR
31th	182.1	6/18/2011	11 PG 12, DATA COLLECTOR
32nd	180.9	7/6/2012	11 PG 19, DATA COLLECTOR



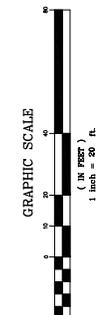
NOTES:
ELEVATIONS ARE BASED UPON NGVD 1929
REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

	FOR	FIRSTLIGHT HYDRO GENERATING Co. CONNECTICUT RIVER EROSION MONITORING CROSS SECTION #5B BENNETT MEADOW BRIDGE, NORTHFIELD, MA
	BY: JMK DATE: 01/12/08 SCALE: HORIZ. & VERT. 1"=50' PROJECT: 05-080	REV: RSH DATE: 01/06/2013 MODIFIED DATE: 7/5816B-5B APP: DATE:



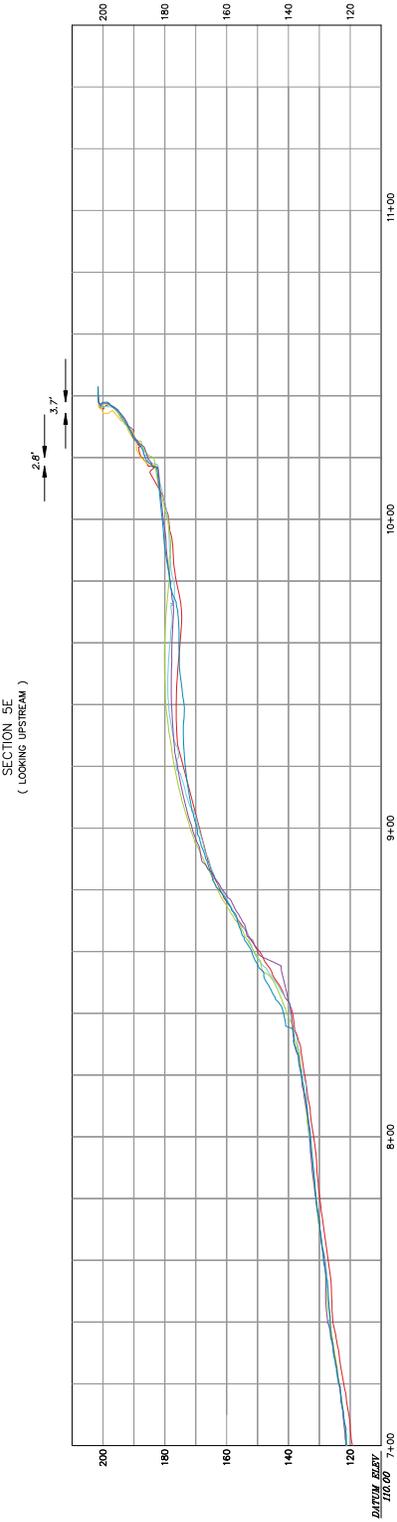
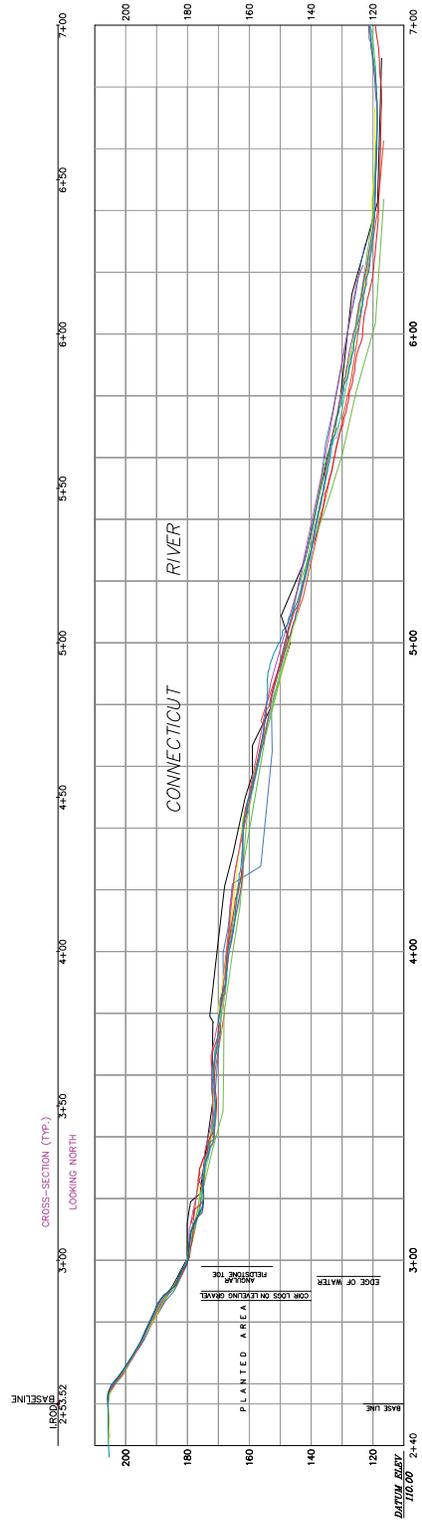
LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
11th	183.4	11/17/99	252 PG 7
12th	184.4	06/07/00	250 PG 51
13th	181.9	10/23/00	254 PG 52
14th	182.4	07/02/01	260 PG 22
15th	183.0	07/09/01	268 PG 7
16th	182.8	07/14/03	269 PG 26, DATA COLLECTOR
17th	180.5	06/09/04	274 PG 13, DATA COLLECTOR
18th	182.6	7/05	277 PG 9, DATA COLLECTOR
19th	184.6	7/06	277 PG 65, DATA COLLECTOR
20th	182.0	10/07	4 PG 73, DATA COLLECTOR (GROUND SHOTS ONLY)
21st	183.2	7/08	7 PG 9, DATA COLLECTOR
22nd	182.4	7/09	9 PG 12, DATA COLLECTOR
23rd	182.6	7/10	10 PG 11, DATA COLLECTOR
24th	182.1	8/18/2011	11 PG 12, DATA COLLECTOR
25th	181.1	7/6/2012	11 PG 18, DATA COLLECTOR



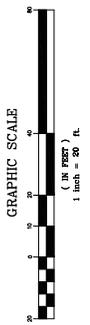
NOTES:
 1. ALL DIMENSIONS ARE BASED UPON NAD 1929
 2. SEE DRAWINGS FOR ALL DIMENSIONS
 3. REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

	FOR		FIRSTLIGHT HYDRO GENERATING CO.	
	CONNECTICUT RIVER EROSION MONITORING CROSS SECTION #5D			
BY: JMK	REV: RSH	APP: JMK	DATE: 01/13/08	DATE: 01/06/2013
DATE: 01/13/08	DATE: 01/06/2013	DATE: 01/06/2013	DATE: 01/06/2013	DATE: 01/06/2013
SCALE: 1" = 50'			DWG. NO.: 75816B-5D	
HORZ. & VERT. 1" = 50'			PROJ. #P-5080	
			V.S. M-3-A	



LEGEND

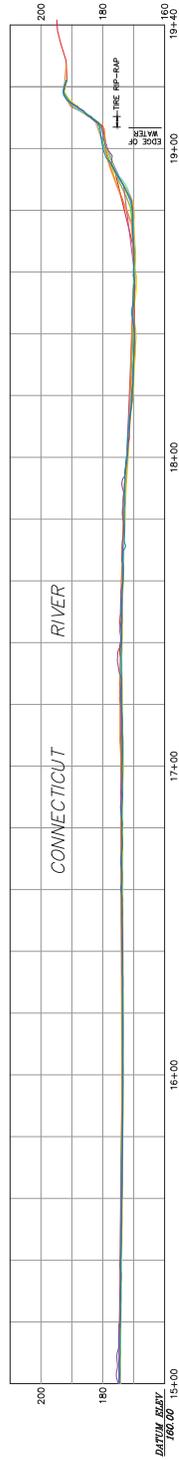
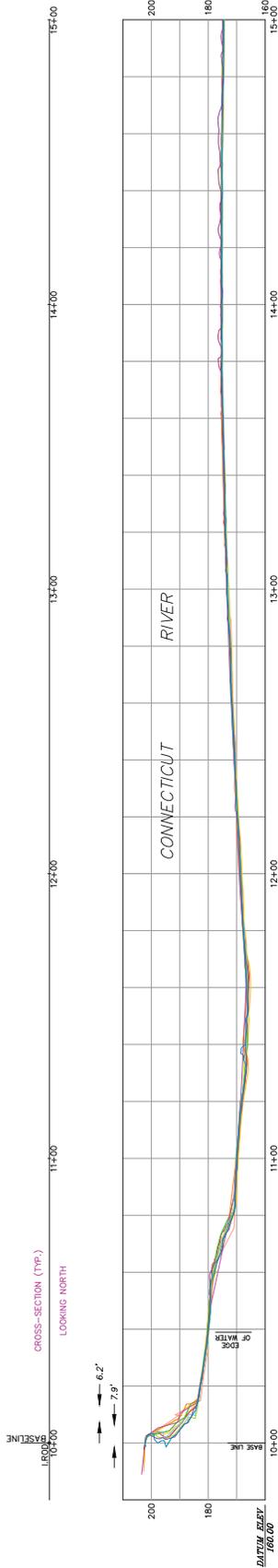
SERIES	WATER ELEVATION	DATE	FIELD BOOK
11th	183.3	11/17/99	252 PG 8
12th	184.6	06/07/00	250 PG 52
13th	182.0	10/23/00	254 PG 53
14th	182.7	07/02/01	260 PG 23
15th	182.0	07/09/02	268 PG 7
16th	180.7	07/14/03	269 PG 30, DATA COLLECTOR
17th	180.6	06/09/04	274 PG 13, DATA COLLECTOR
18th	182.6	7/05	277 PG 9, DATA COLLECTOR
19th	184.6	7/06	277 PG 65, DATA COLLECTOR
20th	182.0	10/07	4 PG 73, DATA COLLECTOR (GROUND SHOTS ONLY)
21th	183.3	7/08	7 PG 9, DATA COLLECTOR
22nd	182.4	7/09	9 PG 12, DATA COLLECTOR
23th	182.9	7/09	10 PG 11, DATA COLLECTOR
24th	180.1	8/18/2011	11 PG 12, DATA COLLECTOR
25th	180.7	7/6/2012	11 PG 18, DATA COLLECTOR



NOTES:
 1. ALL ELEVATIONS ARE BASED UPON NGVD 1929
 2. SEE DRAWINGS FOR CROSS SECTION LOCATIONS
 3. REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

FOR
FirstLight
 Power Resources
 CONNECTICUT RIVER EROSION MONITORING
 CROSS SECTION #5E
 BENNETT MEADOW BRIDGE, NORTHFIELD, MA

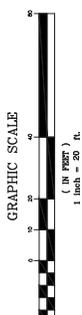
BY: JMK	REV: RSH	APP: JMK
DATE: 01/10/98	DATE: 01/06/2013	DATE: 01/06/2013
SCALE: HORIZ. & VERT. 1"=50'	DWG. NO. 75816B-5E	PROJ. # 05-98
		U.S. M-S-A



SECTION 5C
(LOOKING UPSTREAM)

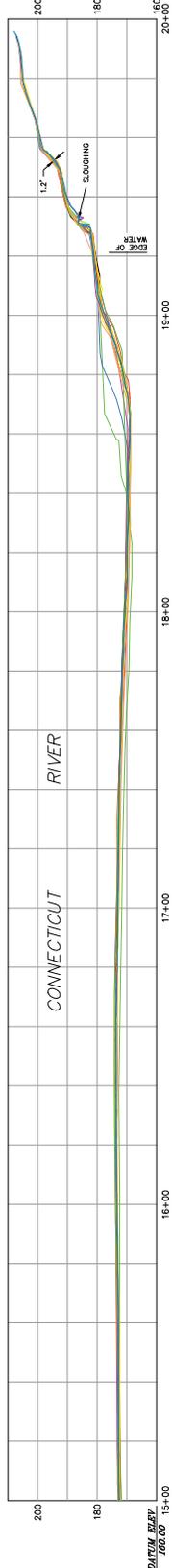
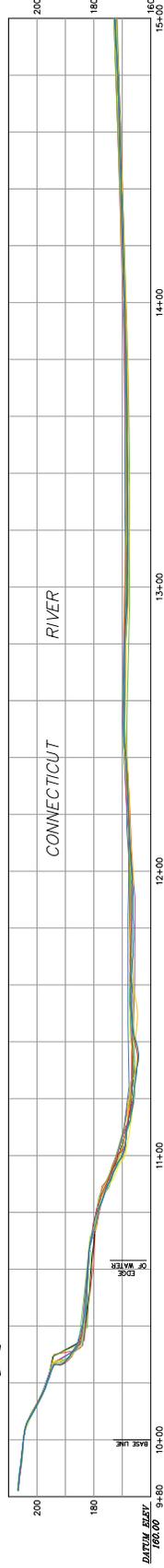
LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18h	183.2	11/17/99	252 PG 9
19h	182.2	06/08/00	250 PG 53
20h	181.0	10/15/00	254 PG 37
21h	181.1	07/02/01	260 PG 19
22nd	181.3	07/08/02	268 PG 7
23rd	181.6	07/14/03	269 PG 26, DATA COLLECTOR
24h	182.7	06/04/04	274 PG 12, DATA COLLECTOR
25h	184.6	7/05	277 PG 9, DATA COLLECTOR
26h	183.3	7/06	277 PG 65, DATA COLLECTOR
27h	182.9	10/07	4 PG 73, DATA COLLECTOR
28h	184.4	7/08	7 PG 9, DATA COLLECTOR
29h	182.4	7/09	8 PG 71, DATA COLLECTOR
30h	183.6	7/10	9 PG 67, DATA COLLECTOR
31h	183.1	8/19/2011	11 PG 12, DATA COLLECTOR
32nd	180.8	7/6/2012	11 PG 19, DATA COLLECTOR



NOTES:
 1. ALL DATA POINTS ARE BASED UPON NGVD 1929
 2. REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

		FOR FIRSTLIGHT HYDRO GENERATING Co.	
CONNECTICUT RIVER EROSION MONITORING CROSS SECTION 5C			
BY:	MJK	REV:	001
DATE:	09/15/1998	DATE:	01/08/2013
SCALE:	HORIZ. & VERT. 1"=20'	DWG. NO.:	75816B-5C
		PROJ. NO.:	00-50-00
		V.S.:	W-5-E-A



SECTION 6B
(LOOKING UPSTREAM)

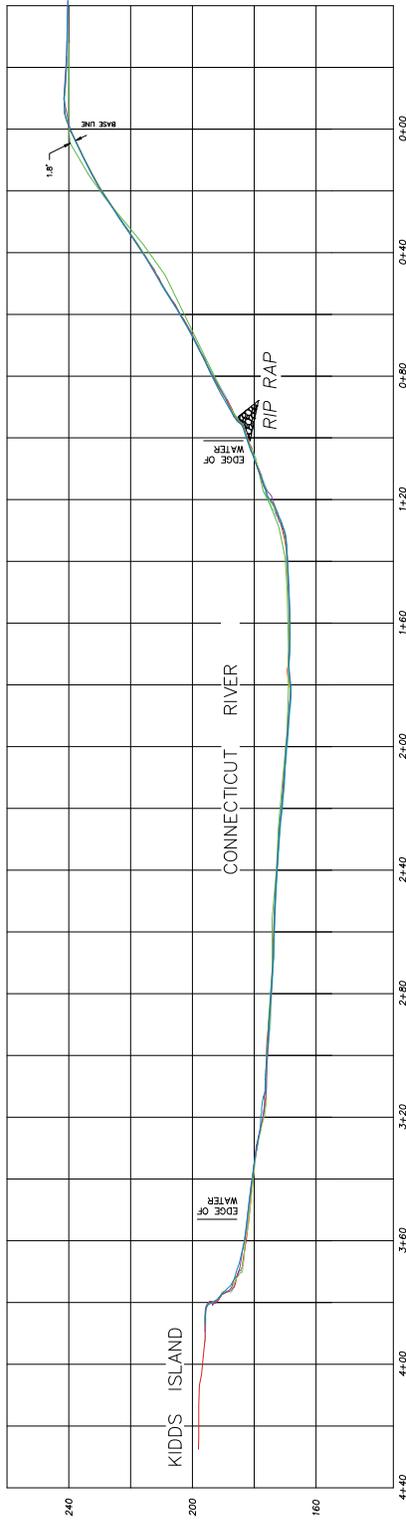
LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	182.2	11/30/99	252 PG 33
19th	180.7	06/21/00	250 PG 69
20th	181.3	10/10/00	254 PG 18
21th	180.9	08/07/01	260 PG 52
22nd	178.8	07/08/02	268 PG 7
23rd	181.3	07/14/03	269 PG 31, DATA COLLECTOR
24th	180.9	06/07/04	274 PG 13, DATA COLLECTOR
25th	185.6	7/05	277 PG 8, DATA COLLECTOR
26th	182.1	7/06	277 PG 65, DATA COLLECTOR
27th	180.9	10/07	4 PG 73, DATA COLLECTOR
28th	182.8	7/08	7 PG 9, DATA COLLECTOR
29th	179.4	8/09	9 PG 12, DATA COLLECTOR
30th	181.9	8/10	10 PG 1, DATA COLLECTOR
31th	181.7	7/5/2011	11 PG 11, DATA COLLECTOR
32nd	182.4	6/26/2012	11 PG 17, DATA COLLECTOR



NOTES:
 1. ALL ELEVATIONS ARE BASED UPON NGVD 1929
 2. ALL HORIZONTAL DIMENSIONS ARE BASED UPON THE CENTERLINE
 3. REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

FOR		FIRSTLIGHT HYDRO GENERATING CO.	
BY: JMK		DATE: 01/13/08	APP: [Signature]
CHECKED: [Signature]		DATE: 01/06/2013	APP: [Signature]
SCALE: HORIZ. & VERT. 1"=20'		DWG. NO. 75816B-6B	PROJ. # 05-080
PROJECT: CONNECTICUT RIVER EROSION MONITORING CROSS SECTION #6B		MUNNS FERRY ROAD, NORTHFIELD & GILL, MA	



SECTION 12
(LOOKING UPSTREAM)

LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
1st	183.2	7/2006	277 PG 65, DATA COLLECTOR
2nd	184.0	06/14/2008	PG 9, DATA COLLECTOR
3rd	184.0	8/2008	PG 9, DATA COLLECTOR
4th	183.2	8/2010	11 PG 9, DATA COLLECTOR
5th	183.0	7/21/2011	12 PG 77, DATA COLLECTOR
6th	181.8	6/29/2012	11 PG 17, DATA COLLECTOR

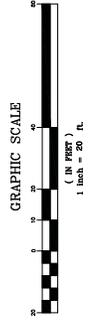
NOTES:
ELEVATIONS ARE BASED UPON NGVD 1929
REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

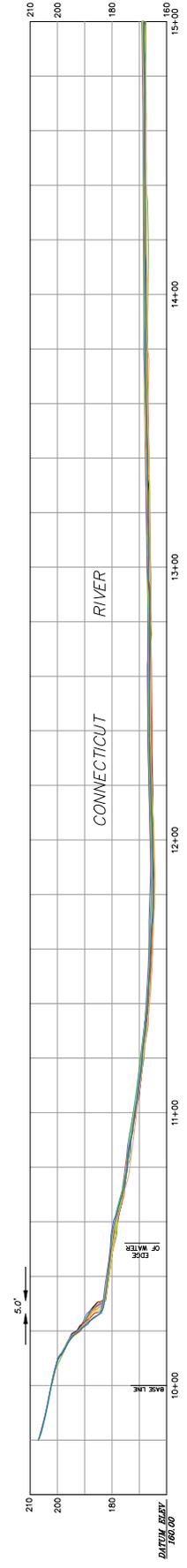
FOR FIRSTLIGHT HYDRO GENERATING Co.

FirstLight
POWER RESOURCES

TITLE: CONNECTICUT RIVER EROSION MONITORING
CROSS SECTION #12 - EAST OF KIDDS ISLAND
NORTHFIELD, MA

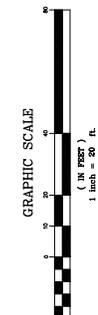
BY: RRH	REV: _____	APP: _____
DATE: 03/07/2010	DATE: _____	DATE: _____
SCALE: HORIZ. V. VERT. 1"=20'	DWG. NO.: 75816B-12	PROJ. #: 0-0280
		VS. 10-11-11





SECTION 7
(LOOKING UPSTREAM)

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	182.3	12/01/99	252 PG 35
19th	179.2	06/14/00	250 PG 57
20th	180.2	10/15/00	254 PG 34
21th	180.1	07/02/01	260 PG 17
22nd	181.6	07/08/02	268 PG 7
23rd	180.1	07/14/03	269 PG 31, DATA COLLECTOR
24th	182.9	06/03/04	274 PG 12, DATA COLLECTOR
25th	185.8	7/05	277 PG 8, DATA COLLECTOR
26th	182.6	7/06	277 PG 65, DATA COLLECTOR
27th	180.8	10/07	4 PG 73, DATA COLLECTOR
28th	182.3	7/08	7 PG 9, DATA COLLECTOR
29th	182.2	8/09	8 PG 29, DATA COLLECTOR
30th	180.0	8/10	9 PG 10, DATA COLLECTOR
31th	180.8	6/14/2011	11 PG 11, DATA COLLECTOR
32nd	181.3	6/28/2012	11 PG 17, DATA COLLECTOR



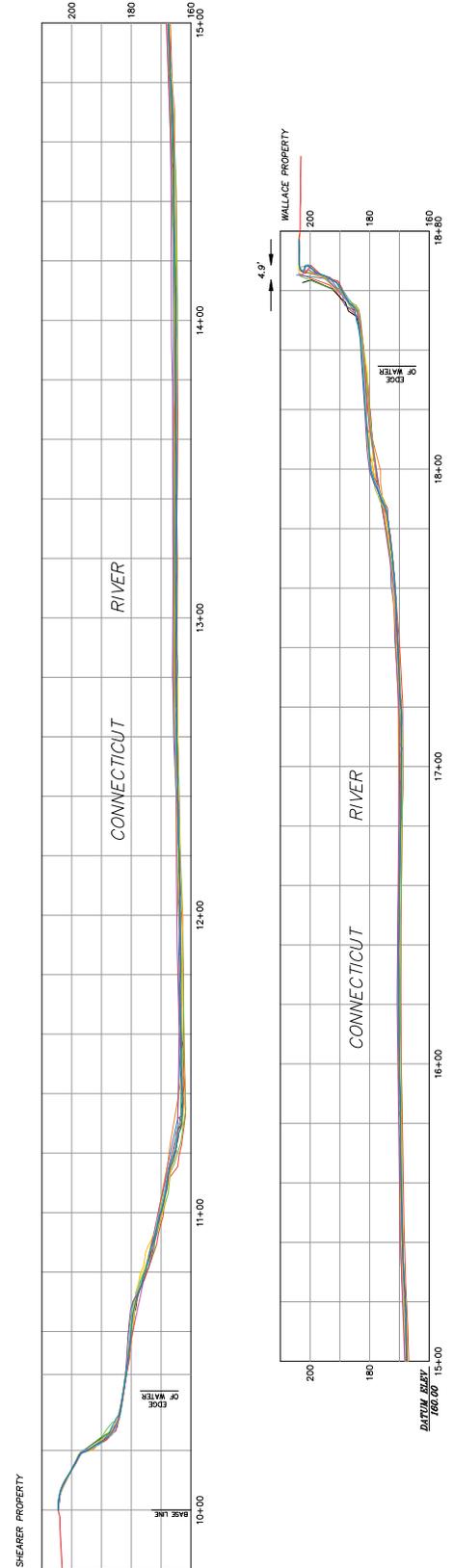
NOTES:
ELEVATIONS ARE BASED UPON NGVD 1929
REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

FirstLight
Power Resources

FOR FIRSTLIGHT HYDRO GENERATING CO.

CONNECTICUT RIVER, EROSION MONITORING
CROSS SECTION #7
PINE MEADOW ROAD, NORTHFIELD & GILL, MA

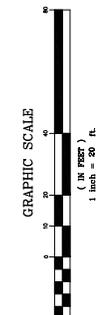
BY: JAW/K	REV: RSH	APP:
DATE: 09/10/08	DATE: 01/06/2013	DATE:
SCALE: HORIZ. & VERT. 1"=20'	DWG. NO. 75816B-7	PROJ. # 05-080



SECTION 88
(LOOKING DOWNSTREAM)

LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	182.2	12/02/99	252 PG 39
19th	181.9	06/02/00	250 PG 35
20th	180.5	10/23/00	254 PG 43
21st	179.6	08/02/01	260 PG 45
22nd	182.6	07/09/02	268 PG 7
23rd	180.7	07/14/03	269 PG 31, DATA COLLECTOR
24th	182.1	06/04/04	274 PG 12, DATA COLLECTOR
25th	180.3	7/05	277 PG 9, DATA COLLECTOR
26th	183.1	7/06	277 PG 65, DATA COLLECTOR
27th	182.9	10/07	4 PG 73, DATA COLLECTOR
28th	182.3	8/08	7 PG 5, DATA COLLECTOR
29th	181.4	8/09/0	9 PG 26, DATA COLLECTOR
30th	181.4	8/09/0	11 PG 10, DATA COLLECTOR
31th	181.3	7/5/2011	11 PG 11, DATA COLLECTOR
32nd	180.8	6/26/2012	11 PG 17, DATA COLLECTOR



NOTES:
ELEVATIONS ARE BASED UPON NGVD 1929
REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

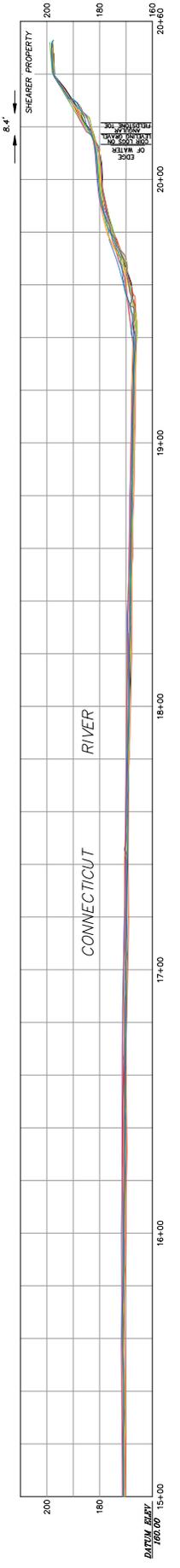
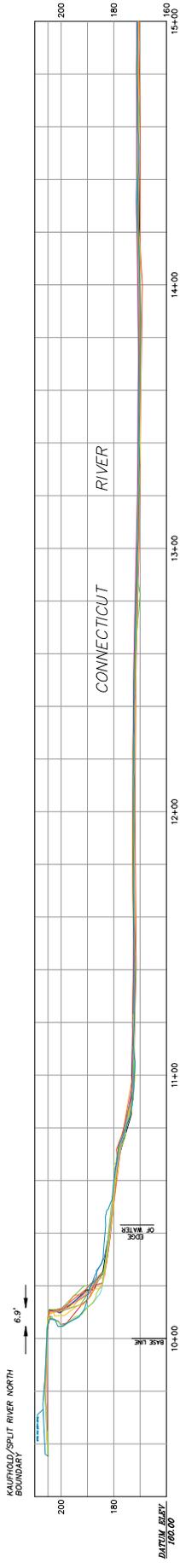
FOR
FIRSTLIGHT HYDRO GENERATING CO.

CONNECTICUT RIVER EROSION MONITORING
CROSS SECTION #88
PINE MEADOW ROAD, NORTHFIELD & GILL, MA

BY: JMK	REV: RSH	APP: JMK
DATE: 03/13/98	DATE: 01/06/2013	DATE:
MICROSOFT DATE	DWG. NO. 75816B-88	PROJ. # 0-5080
SCALE: HORIZ. & VERT. 1"=20'		VS. W-3-A

LR00+00 114+00 124+00 134+00 144+00 154+00

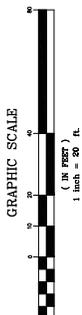
GROSS-SECTION (TYP.)
LOOKING NORTH



SECTION 8A
(LOOKING UPSTREAM)

LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	182.1	12/02/99	252 PG 37
19th	181.6	06/01/00	250 PG 33
20th	181.7	10/10/00	254 PG 20
21th	179.6	07/02/01	260 PG 15
22nd	181.2	07/08/02	268 PG 6
23rd	181.3	07/14/03	269 PG 31, DATA COLLECTOR
24th	182.8	06/03/04	274 PG 12, DATA COLLECTOR
25th	184.7	7/05	277 PG 8, DATA COLLECTOR
26th	182.0	7/06	277 PG 65, DATA COLLECTOR
27th	181.3	10/07	4 PG 73, DATA COLLECTOR
28th	181.3	8/08	7 PG 5, DATA COLLECTOR
29th	181.7	8/08	8 PG 26, DATA COLLECTOR
30th	182.0	8/08	11 PG 10, DATA COLLECTOR
31th	182.6	6/14/2011	11 PG 11, DATA COLLECTOR
32nd	182.1	6/25/2012	11 PG 16, DATA COLLECTOR



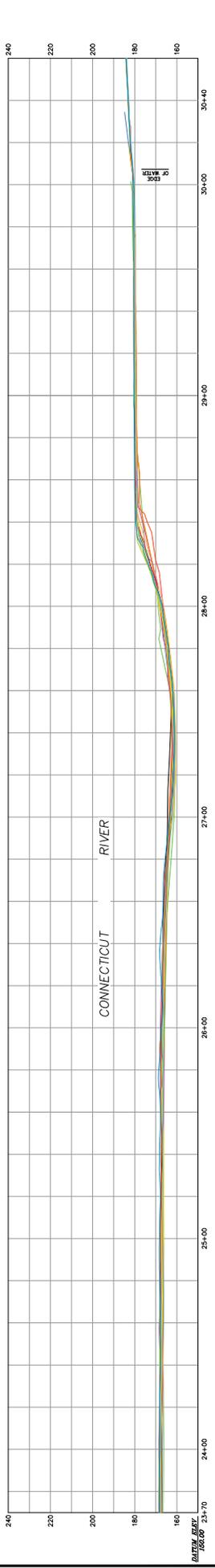
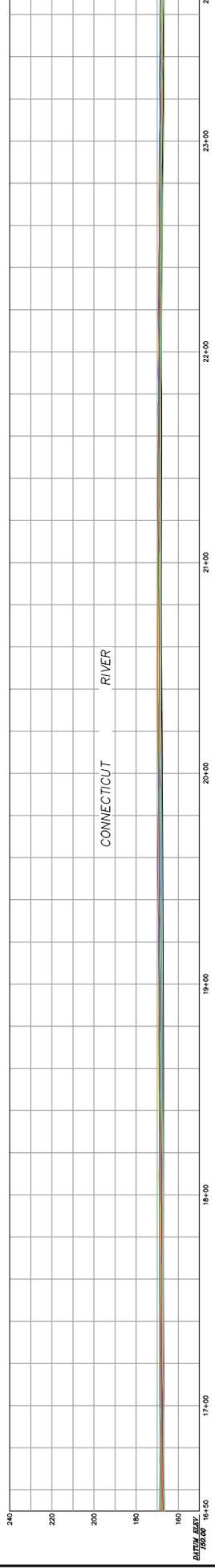
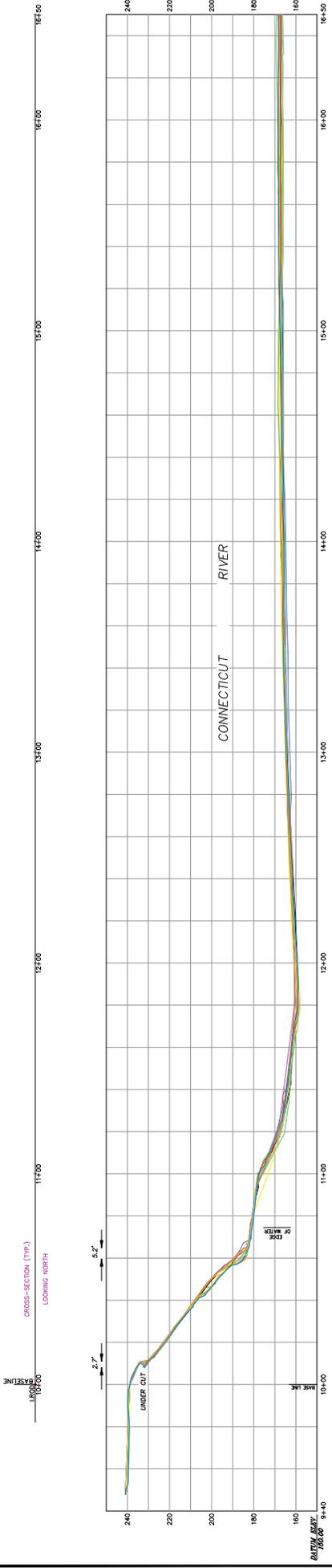
NOTES:
ELEVATIONS ARE BASED UPON NGVD 1929
REFERENCE DRAWINGS: 75735, 75738-1, 75739, 75816, 75816A

FOR FIRSTLIGHT HYDRO GENERATING CO.

FirstLight
Power Resources

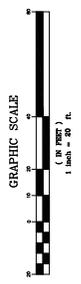
CONNECTICUT RIVER EROSION MONITORING
CROSS SECTION #8A
PINE MEADOW ROAD, NORTHFIELD & GILL, MA

BY: JMK	REV: RSH	APP: JMK
DATE: 09/13/98	DATE: 01/06/2013	DATE:
MICROSOFT DATE	DATE:	DATE:
SCALE: HORIZ. & VERT. 1"=50'	DWG. NO. 75816B-8A	PROJ. # 05-98
		U.S. M-S-A



SECTION 9
(LOOKING UPSTREAM)

SERIES	WATER ELEVATION	DATE	FIELD BOOK
18th	180.6	05/19/99	200 PG 03
19th	181.1	06/06/00	250 PG 47
20th	182.2	10/16/00	254 PG 31
21th	181.4	07/20/01	260 PG 31
22th	179.8	07/09/02	268 PG 11
23th	181.1	06/01/04	274 PG 11, DATA COLLECTOR
24th	181.1	06/01/04	274 PG 11, DATA COLLECTOR
25th	181.2	7/05	277 PG 6, DATA COLLECTOR
26th	180.8	7/05	277 PG 6, DATA COLLECTOR
27th	183.3	10/07	4 PG 23, DATA COLLECTOR
28th	183.3	10/24/08	4 PG 23, DATA COLLECTOR
29th	180.6	8/09	9 PG 10, DATA COLLECTOR
30th	183.4	7/20/10	11 PG 3, DATA COLLECTOR
31th	182.7	7/14/2011	11 PG 11, DATA COLLECTOR
32nd	180.8	6/01/2012	11 PG 15, DATA COLLECTOR



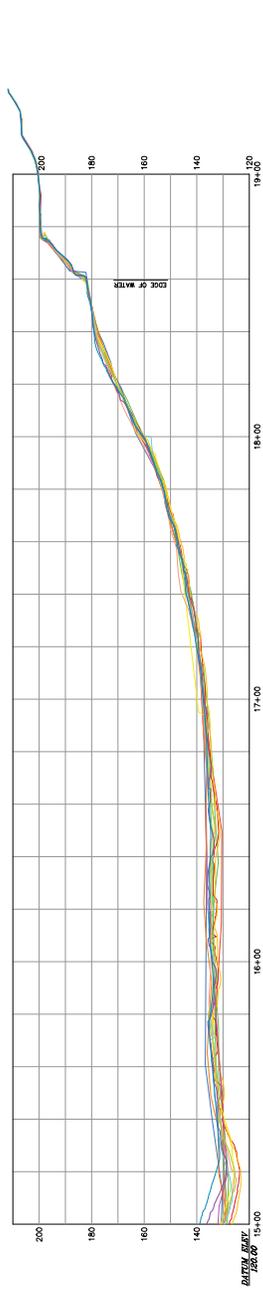
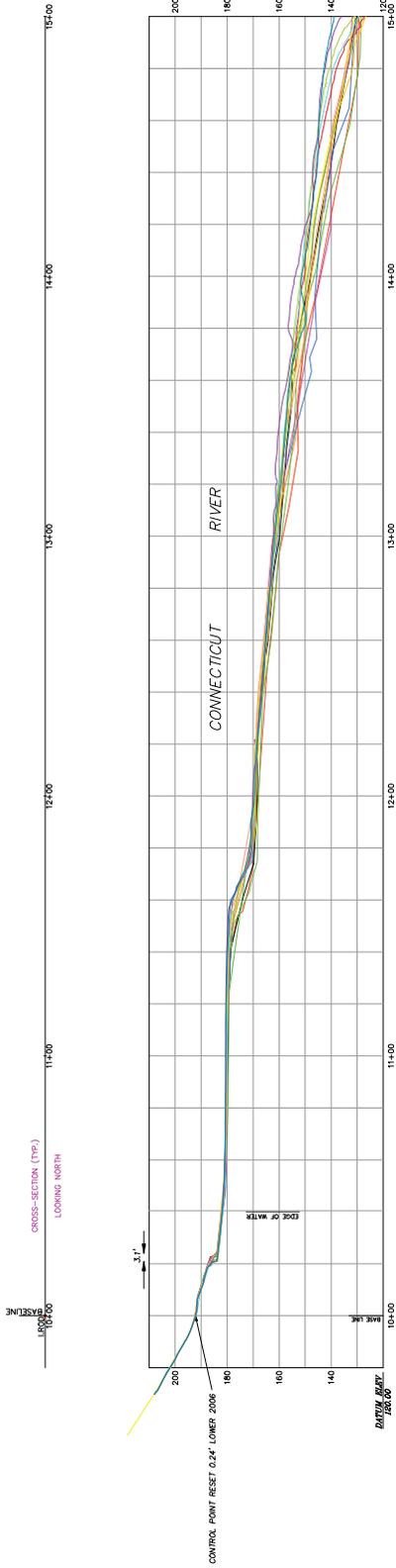
NOTES: DRAWINGS ARE BASED UPON NHD, NOV. 1979.
REFERENCE DRAWINGS: 75232, 75238-1, 75238, 75481, 75486A

FOR: **FirstLight** HYDROLOGIC CONSULTANTS
FIRSTLIGHT HYDRO GENERATING CO.

CONNECTICUT RIVER EROSION MONITORING
DEEP HOLE CORE MONITORING
CROSS SECTION #9

BY: A/JK	REV: 001	APP: 1
DATE: 09/10/08	DATE: 02/08/2013	DATE: 08/01/13
PROJECT: 75816B-9	PROJECT: 75816B-9	PROJECT: 75816B-9
SCALE: 1"=30'	SCALE: 1"=30'	SCALE: 1"=30'

PROJ. # 75816B-9 L.S. # 3-A



LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
6th	179.8	12/16/99	252 PG 62
7th	180.7	07/06/00	253 PG 26
8th	180.7	10/11/00	254 PG 26
9th	180.8	07/30/01	260 PG 29
10th	186.9	07/06/02	268 PG 11
11th	180.6	07/14/03	269 PG 50, DATA COLLECTOR
12th	182.2	06/02/04	274 PG 12, DATA COLLECTOR
13th	180.3	07/06/04	275 PG 12, DATA COLLECTOR
14th	180.3	7/06	277 PG 85, DATA COLLECTOR
15th	182.8	10/07	4 PG 73, DATA COLLECTOR
16th	180.8	08/19/08	7 PG 9, DATA COLLECTOR
17th	181.3	7/09	8 PG 71, DATA COLLECTOR
18th	181.3	07/09	9 PG 71, DATA COLLECTOR
19th	182.5	6/28/2011	11 PG 11, DATA COLLECTOR
20th	182.2	6/14/2012	11 PG 15, DATA COLLECTOR



NOTES: DRAWINGS ARE BASED UPON NAD 83
 REFERENCE DRAWINGS: 75234, 75234B-1, 75238, 75481, 75481A

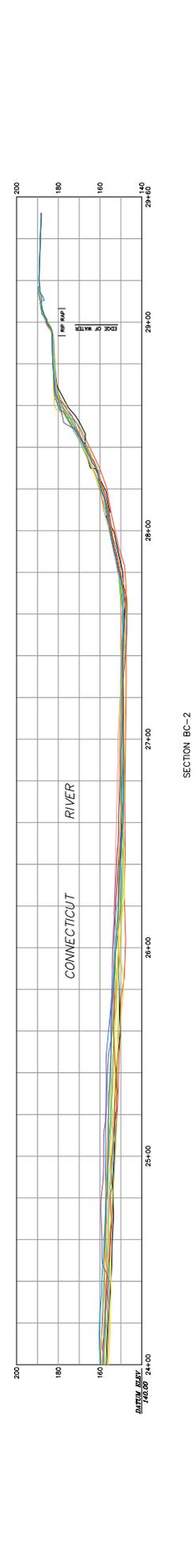
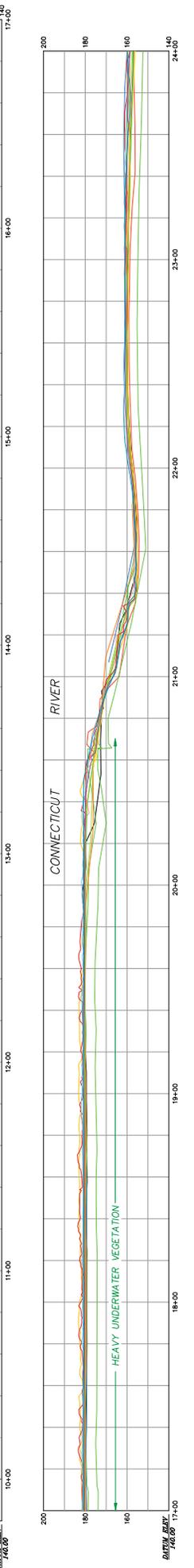
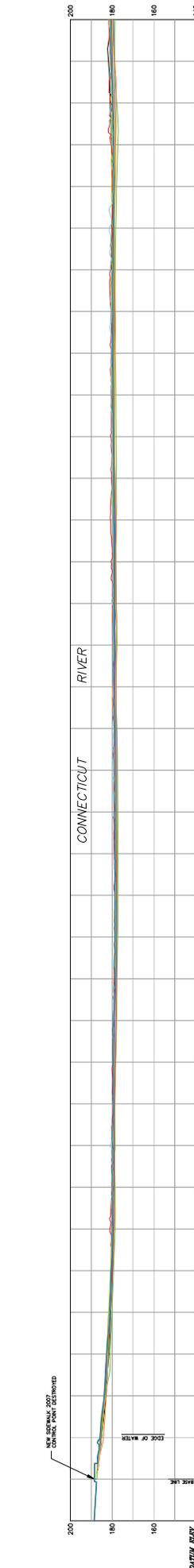
FirstLight
 CONSULTING ENGINEERS

FOR
 FIRSTLIGHT HYDRO GENERATING CO.

CONNECTICUT RIVER EROSION MONITORING
 FIELDSIDE ARCADE, TORRENS FALLS, MA

BY: JMK	REV: 001	APP: JMK
DATE: 09/10/08	DATE: 02/08/2013	DATE:
PROJECT: 75234, 75234B-1, 75238, 75481, 75481A	DRAWING NO.: 75816B-BC1	SCALE: 1" = 20'

CROSS-SECTION (TYP.)
LOOKING NORTH



SECTION BC-2
(LOOKING UPSTREAM)

LEGEND

SERIES	WATER ELEVATION	DATE	FIELD BOOK
6th	181.9	12/15/99	252 PG 55
7th	182.4	07/07/01	253 PG 24
8th	185.4	10/11/00	254 PG 24
9th	184.7	08/07/01	260 PG 50
10th	183.2	07/08/02	268 PG 11
11th	184.4	06/07/03	274 PG 11, DATA COLLECTOR
12th	184.4	06/07/04	274 PG 11, DATA COLLECTOR
13th	184.5	7/05	277 PG 8, DATA COLLECTOR
14th	185.6	7/06	277 PG 85, DATA COLLECTOR
15th	185.3	10/23/07	7 PG 73, DATA COLLECTOR
16th	185.3	07/07/09	7 PG 73, DATA COLLECTOR
17th	184.1	7/09	8 PG 78, DATA COLLECTOR
18th	186.7	7/2010	11 PG 4, DATA COLLECTOR
19th	183.8	6/29/2011	11 PG 10, DATA COLLECTOR
20th	185.3	5/29/2012	11 PG 15, DATA COLLECTOR



NOTES: DIMENSIONS ARE BASED UPON NAD 83
 REFERENCE DRAWINGS: 75235, 75236-1, 75238, 75481, 75486A

FOR
FirstLight
 CONSTRUCTION

FOR
 FIRSTLIGHT HYDRO GENERATING CO.
 CONNECTICUT RIVER EROSION MONITORING
 CROSS SECTION #BC2
 COLE NEW LINE, TORRENS FALLS, MA

BY: JMK	REV: BRH	APP:
DATE: 09/10/09	DATE: 02/08/2013	DATE:
PROJECT: TORRENS FALLS	PROJECT: TORRENS FALLS	PROJECT: TORRENS FALLS
SCALE: 1"=20'	SCALE: 1"=20'	SCALE: 1"=20'
PROJECT: 75816B-BC2	PROJECT: 75816B-BC2	PROJECT: 75816B-BC2
PROJECT: 75816B-BC2	PROJECT: 75816B-BC2	PROJECT: 75816B-BC2

