

Tables

Table 3-1
Extreme Discharges at Little Falls

Recurrence Interval (years)	Discharge at Little Falls (cfs)
2	7,100
5	10,500
10	13,000
25	16,000
50	19,000
100	22,000
200	25,000
500	29,000

Note:
cfs: cubic feet per second

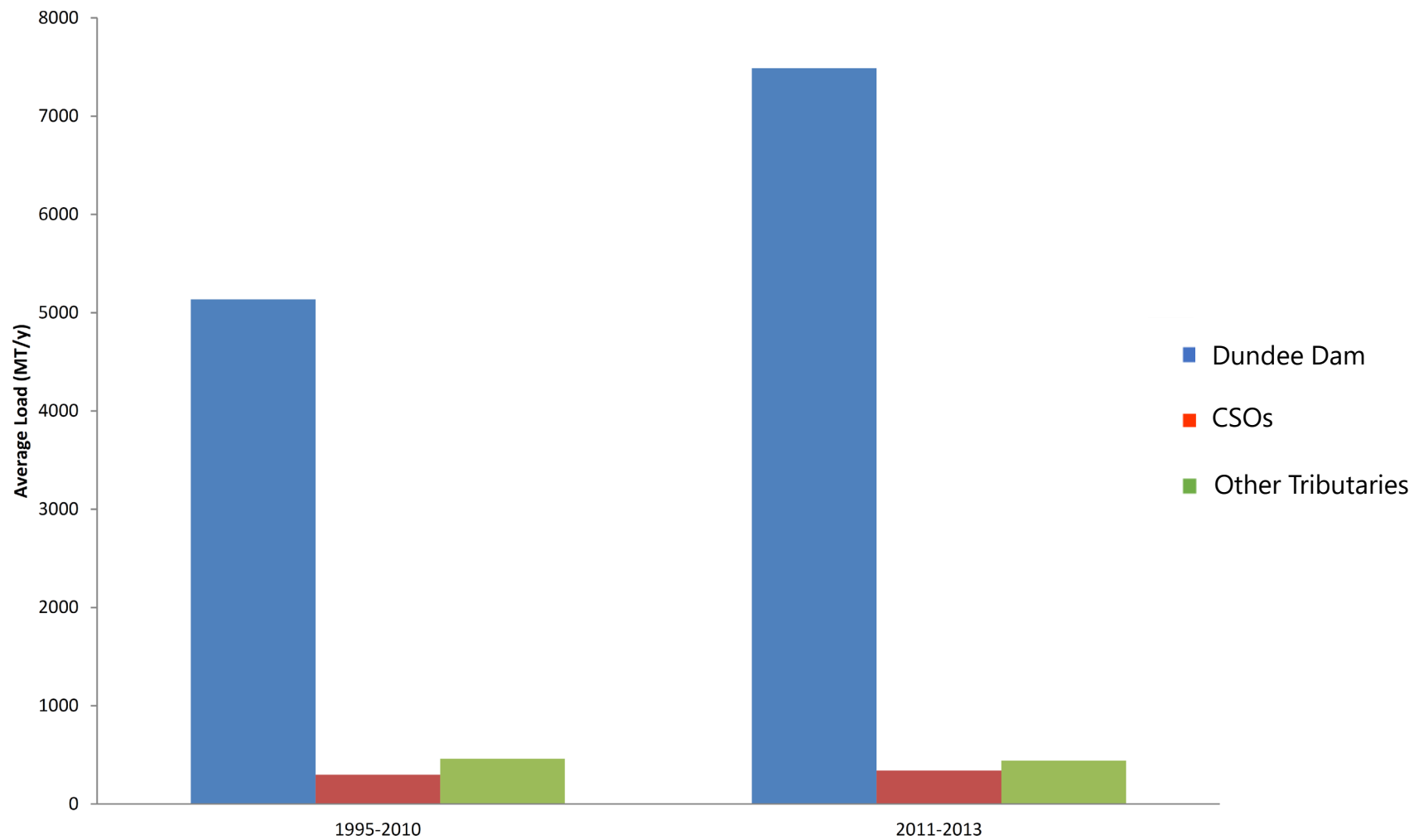
Table 3-2**Erosional Areas During March 2010 High Flows and Hurricane Irene**

RM Bin	Total Area (acres)		Percent Erosional		Area Erosional (acres)	
	2007–2010	2010–2011	2007–2010	2010–2011	2007–2010	2010–2011
0–2	127.0	121.6	19.4	12.8	24.6	15.5
2–4	93.9	90.6	7.8	41.1	7.4	37.3
4–6	77.0	74.4	8.0	22.5	6.2	16.7
6–8	71.0	69.5	9.8	19.9	6.9	13.8
8–10	54.7	53.9	13.1	13.0	7.2	7.0
10–12	53.2	52.1	10.2	16.3	5.4	8.5
12–14	49.0	48.0	9.9	8.7	4.9	4.2
Total	525.7	510.0			62.6	103.0

Note:

RM: river mile

Figures

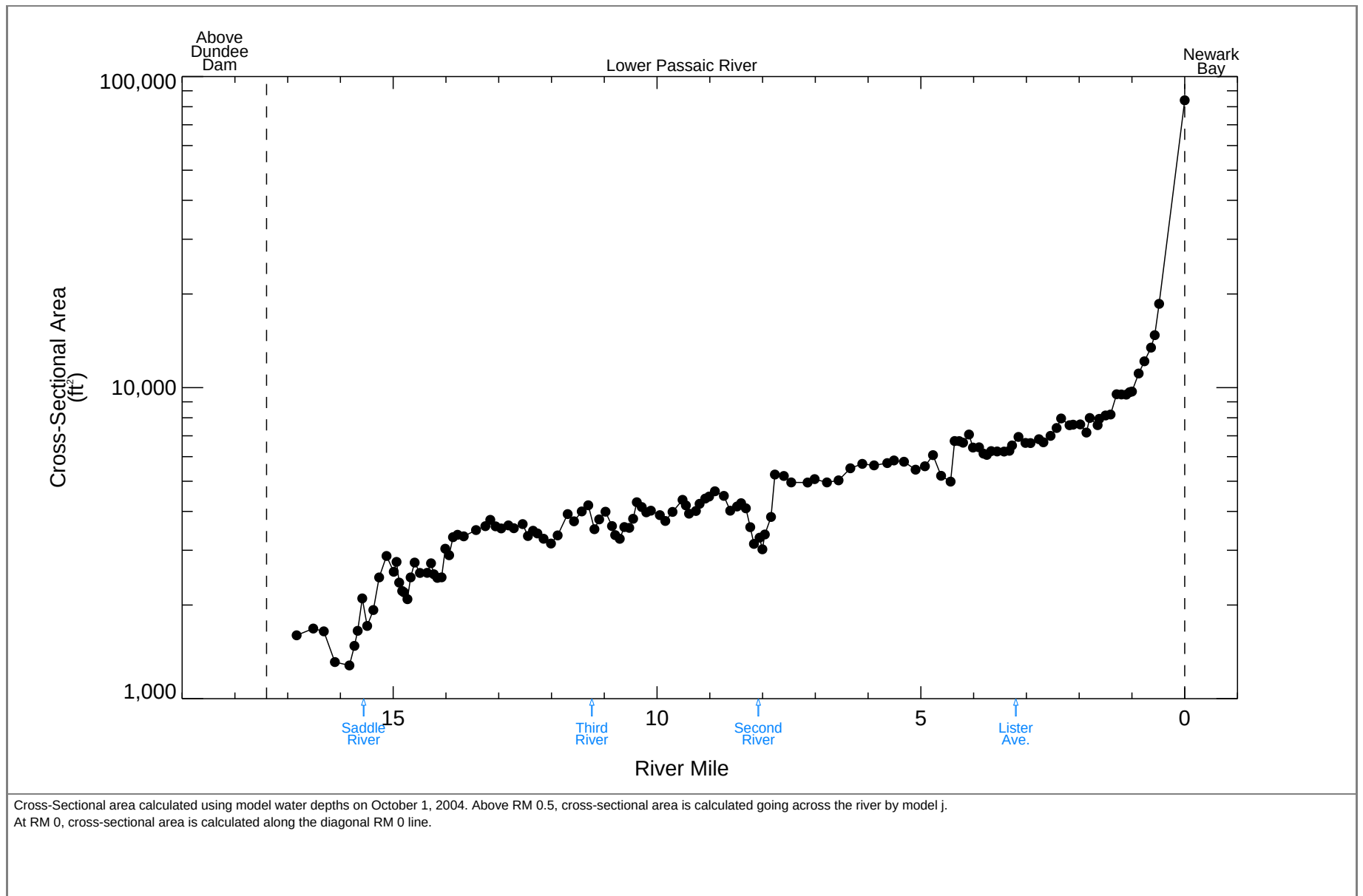


Source: Loadings from LBG (2014)

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Figure 3-1
Particulate Organic Carbon Loading into the LPR

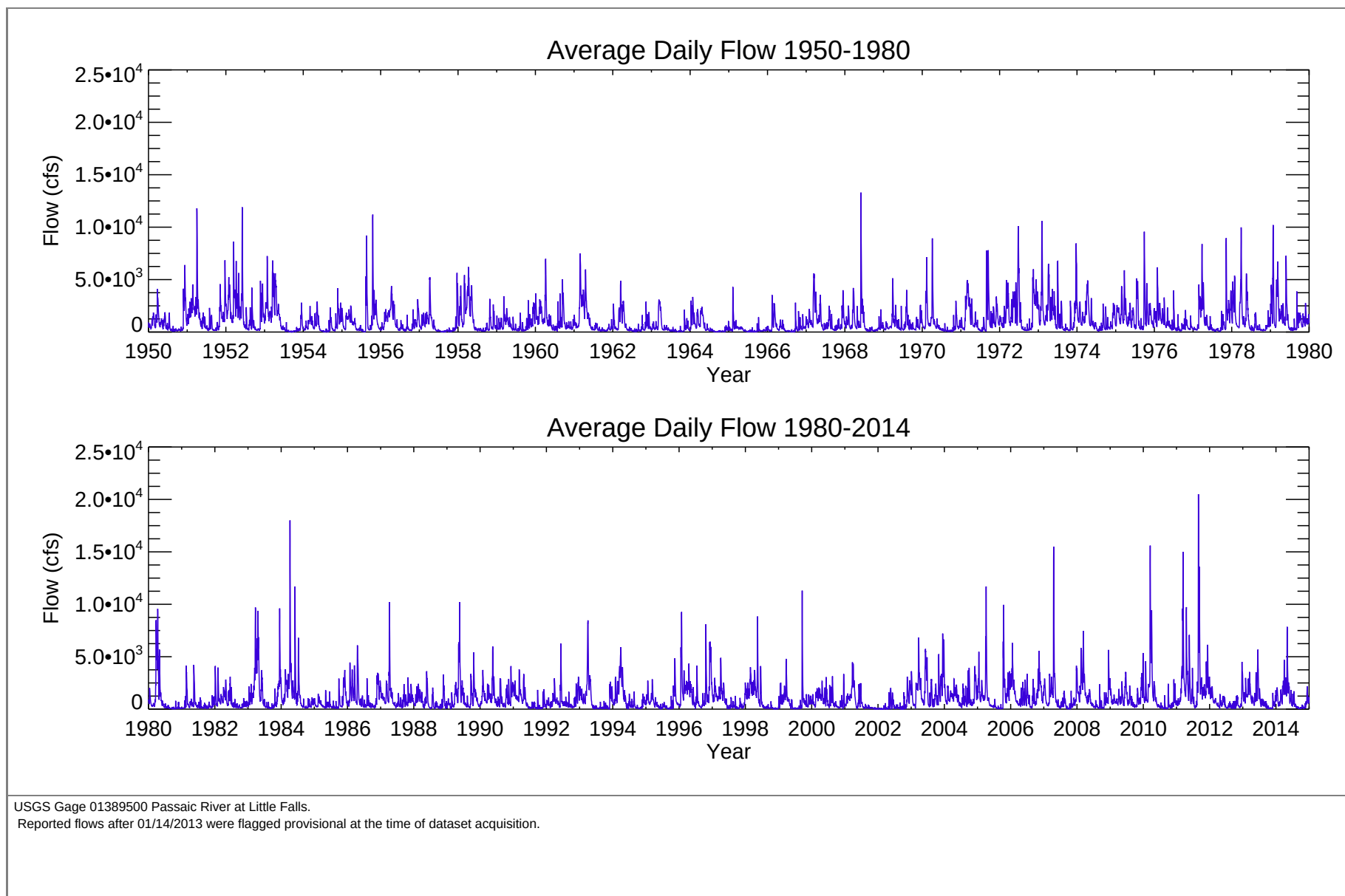
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Lower Passaic River Study Area Remedial Investigation/Feasibility Study



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Figure 3-2
Cross-Sectional Area of the LPR

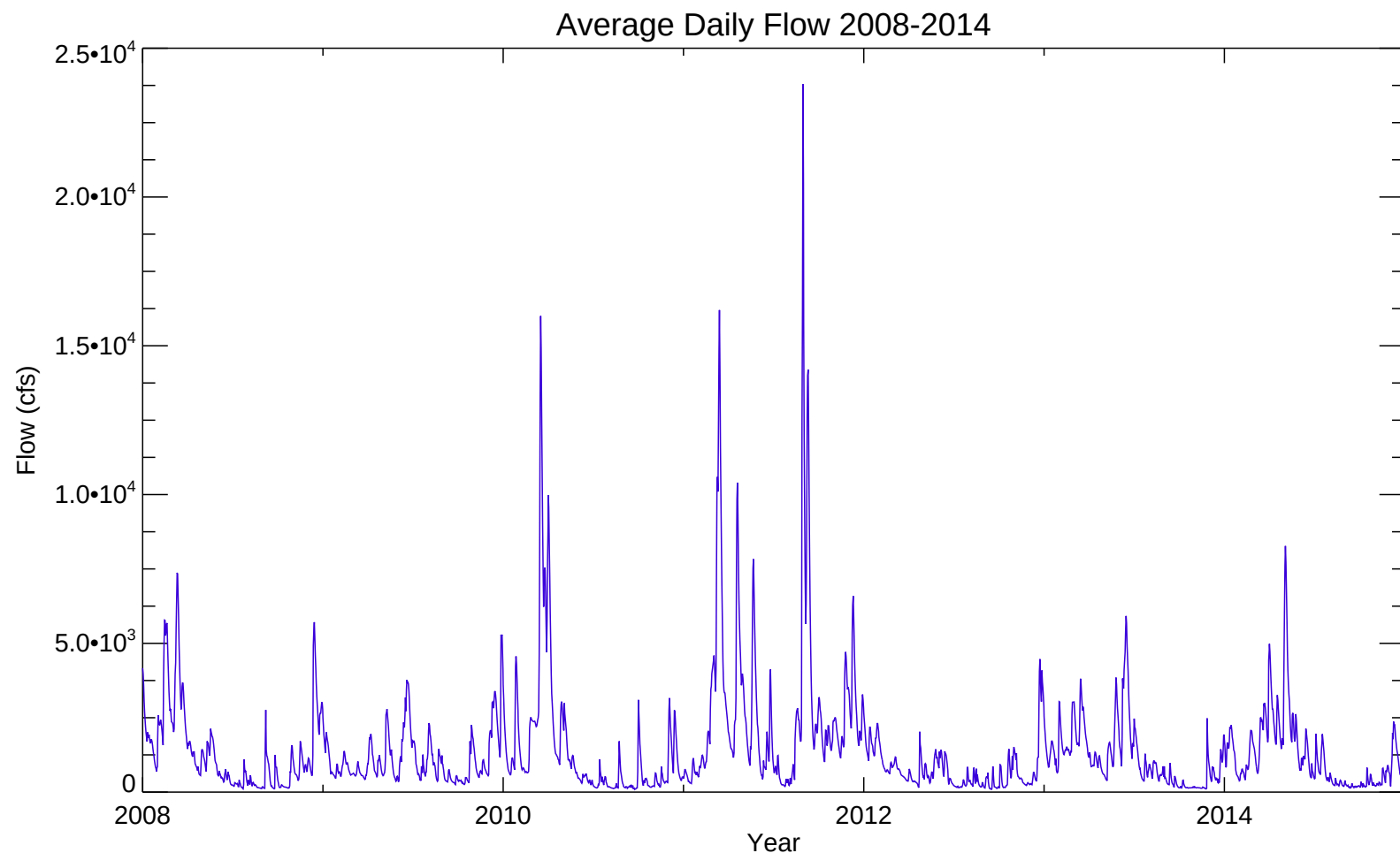
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Figure 3-3a
Historical Flow Record at Little Falls, NJ, for the Period January 1, 1950 - December 31, 2014

Remedial Investigation Report
Lower Passaic River Study Area Remedial Investigation/Feasibility Study



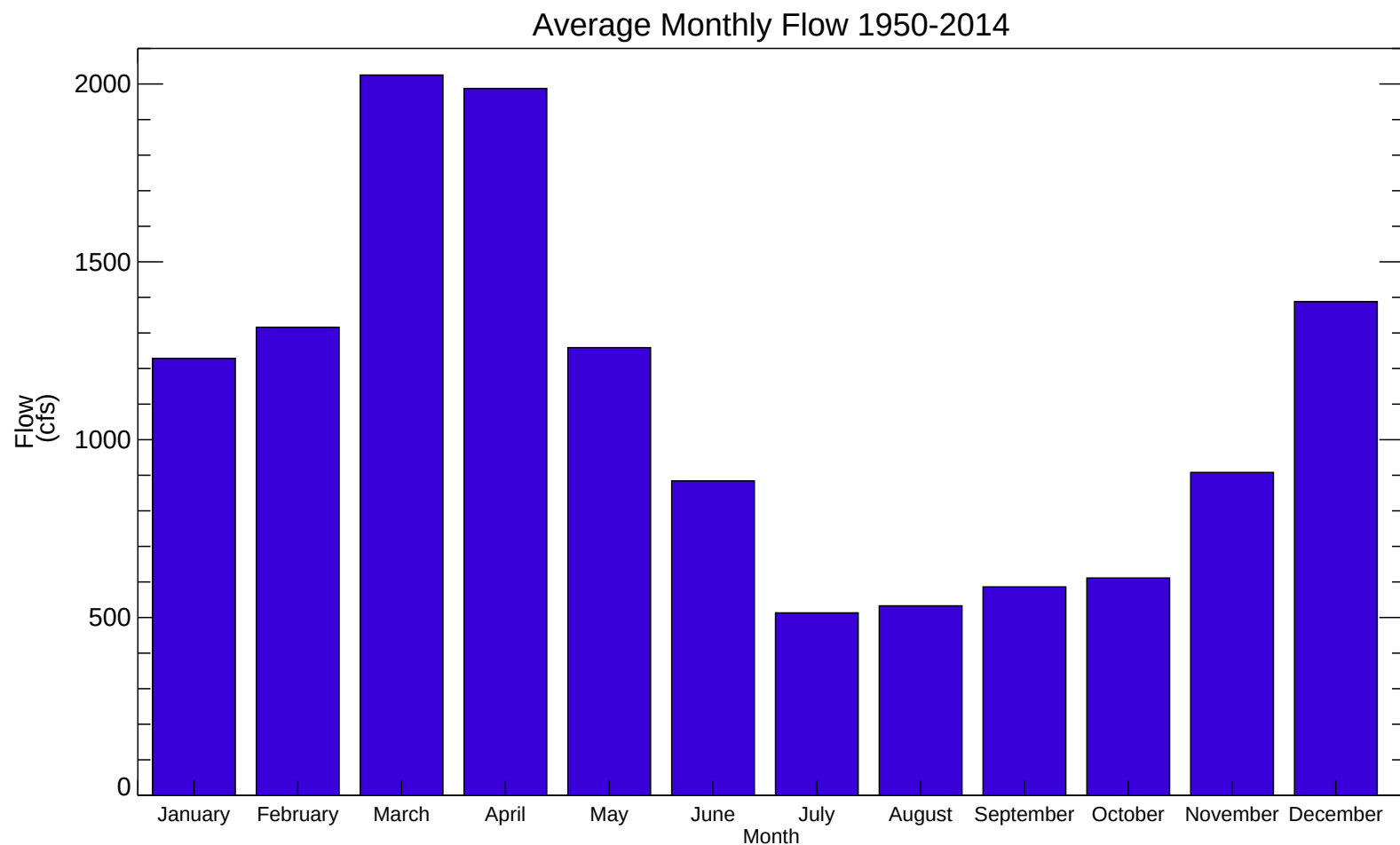
USGS Gage 01389890 Passaic River at Dundee Dam.
Reported flows after 10/11/2012 were flagged provisional at the time of dataset acquisition.
Data missing 5/21/13-5/23/13 and 7/18/2013-7/20/2013.

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Figure 3-3b

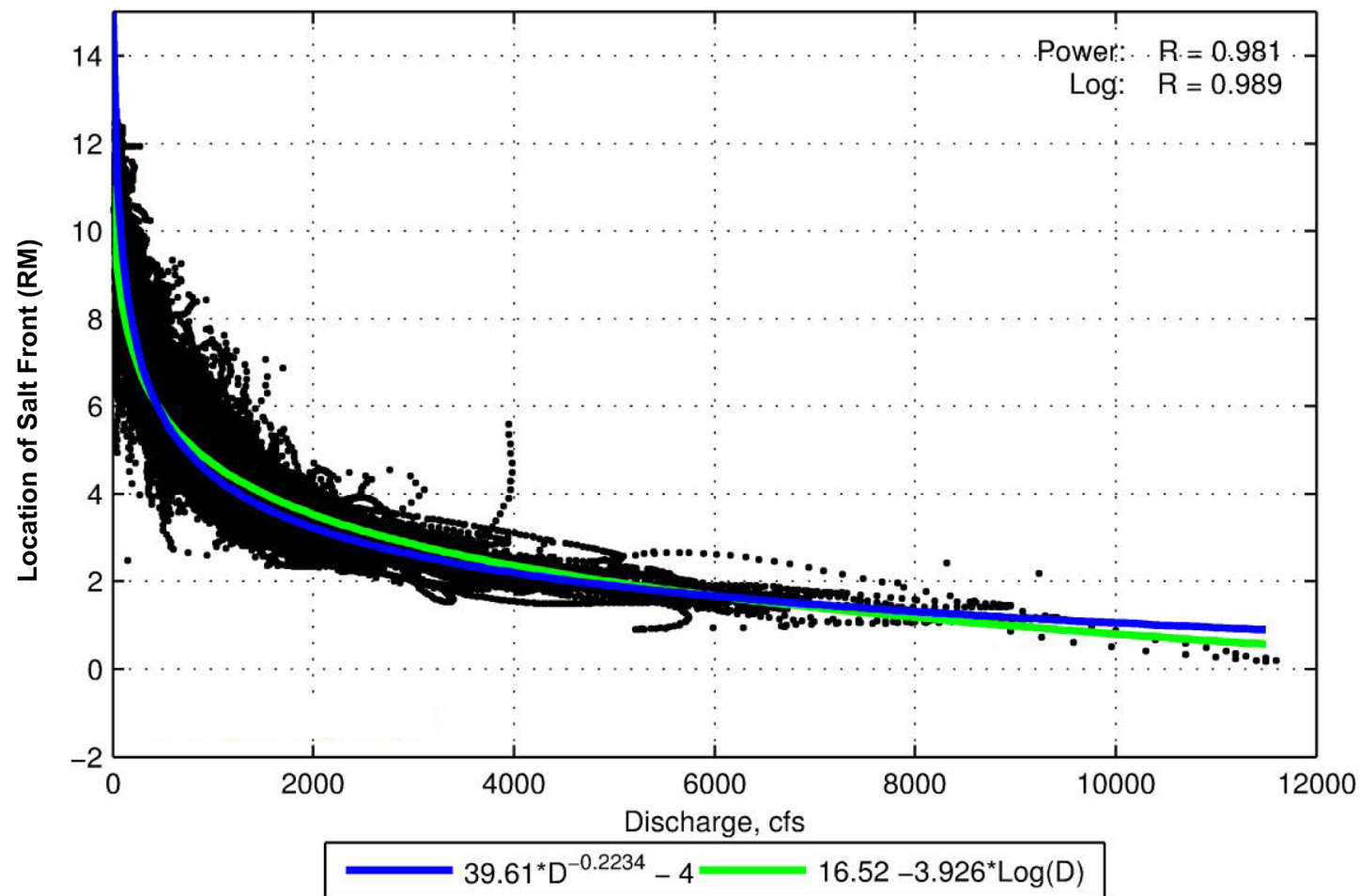
Historical Flow Record at Dundee Dam, NJ, for the Period January 1, 2008 - December 31, 2014

Remedial Investigation Report
Lower Passaic River Study Area Remedial Investigation/Feasibility Study



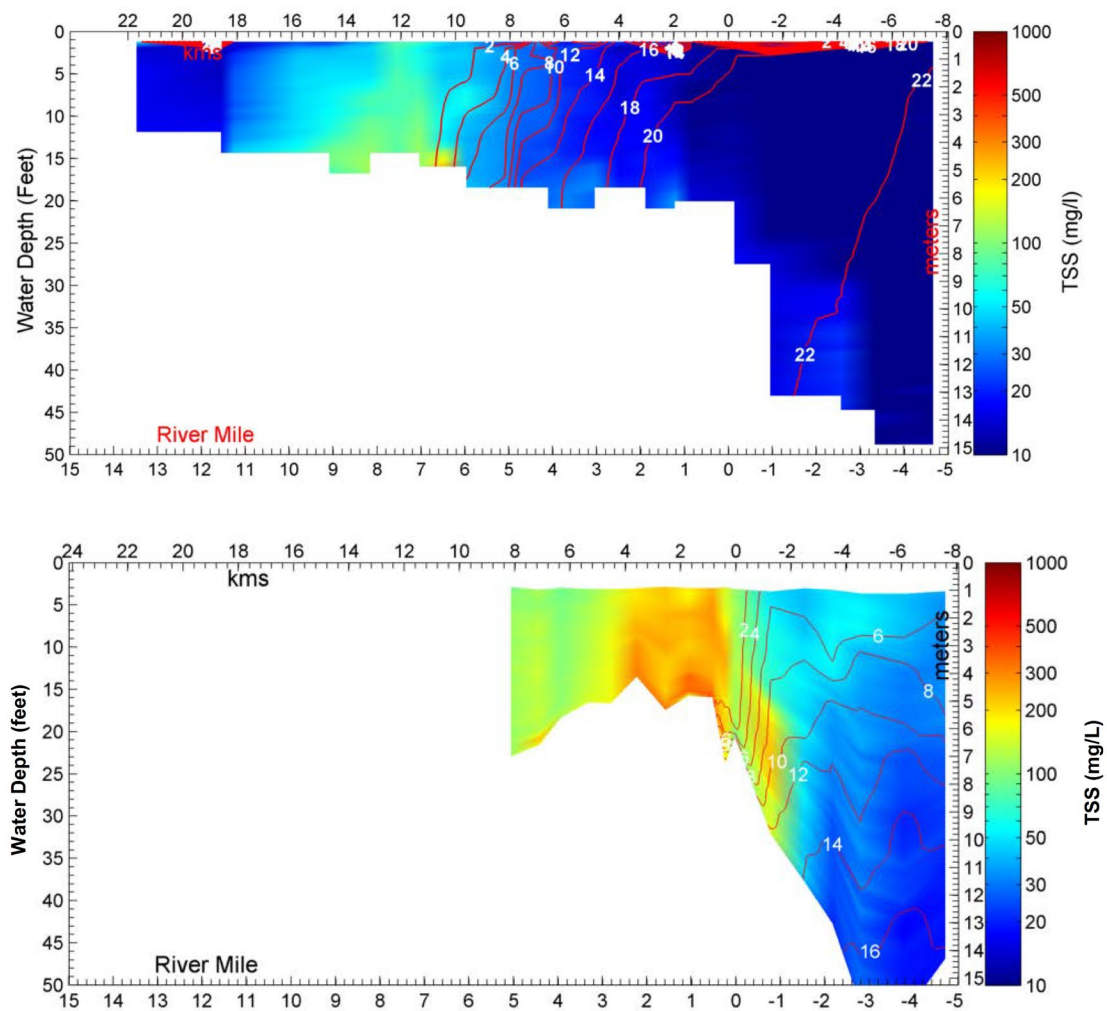
USGS Gage 01389500 Passaic River at Little Falls.
Reported flows after 01/14/2013 were flagged provisional at the time of dataset acquisition.

Figure 3-4
Historical Flow Record at Little Falls, NJ, for the Period January 1950 - December 2014



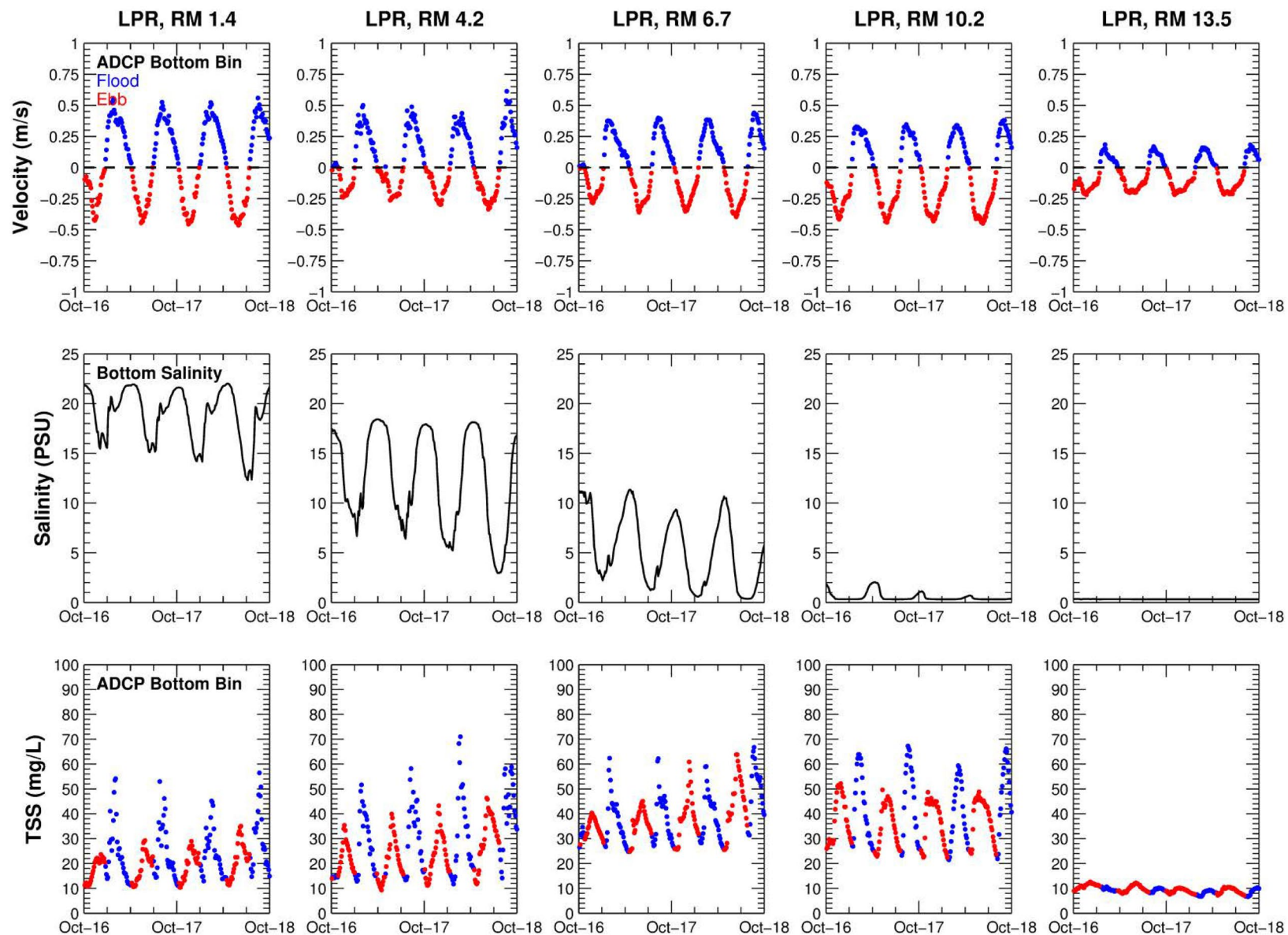
Note: Salt front defined as the point location of 2 parts per thousand (ppth) salinity at the bottom of the water column. The river discharge is simulated from USEPA's hydrodynamic model (HQI 2006) for the water years 1995 to 2004. The time-series of predicted salt front locations was low-pass filtered in order to extract only the response to discharge events (i.e., the daily tidal variability of the results is removed).

Figure 3-5
Salt Front Location as a Function of Discharge at Dundee Dam



Note: Upper panel represents low flow condition (250 cfs on June 23, 2005) and lower panel represents high flow condition (16,000 cfs on March 16, 2010). Salinity (in units of ppt) is represented by the red contours labeled with white text.

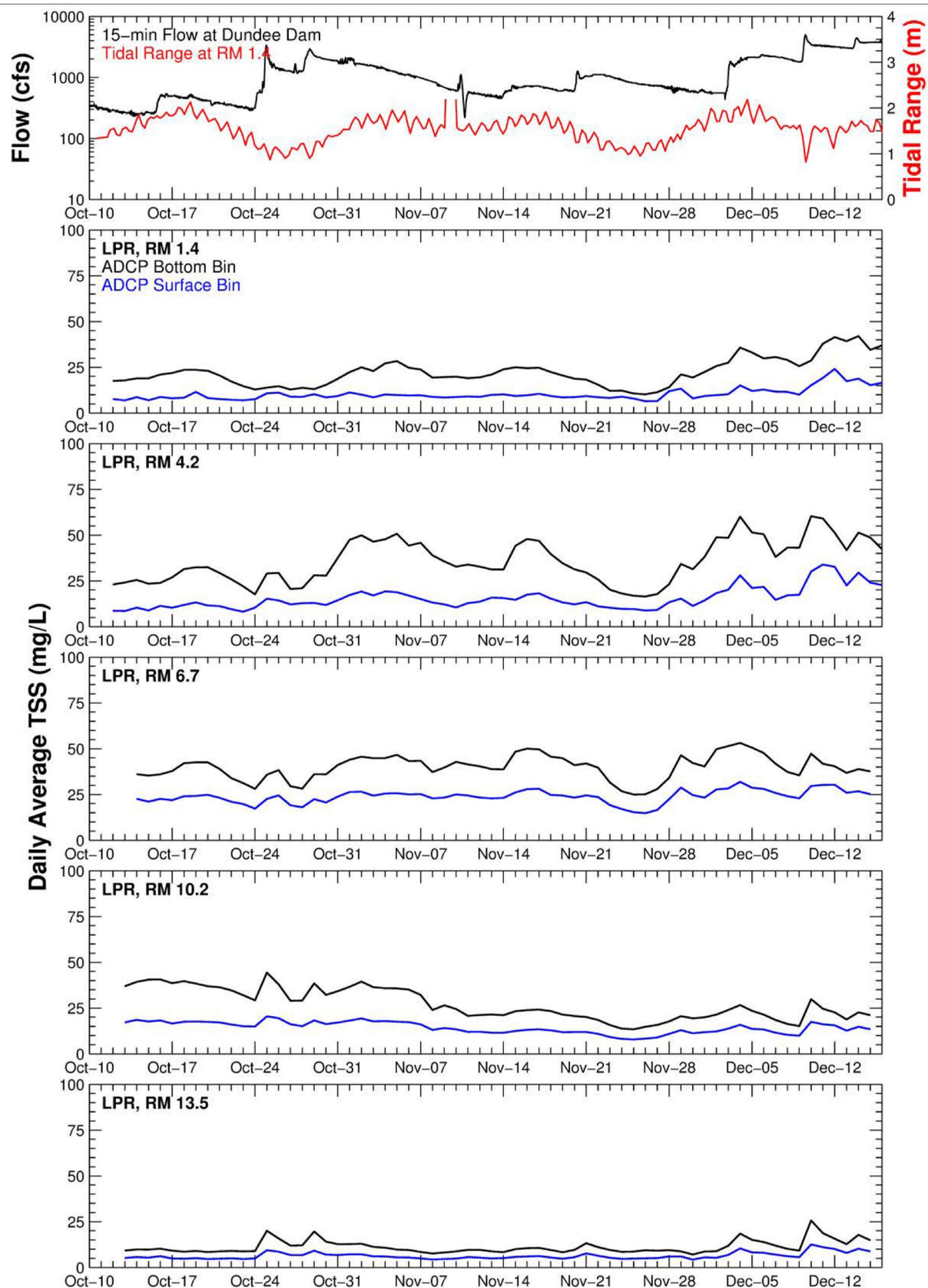
Figure 3-6
Longitudinal Transects of Salinity and Suspended Sediment Concentrations



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Figure 3-7
Near-Bottom Velocity, Salinity, and Total Suspended Solids Concentration During Fall PWCM

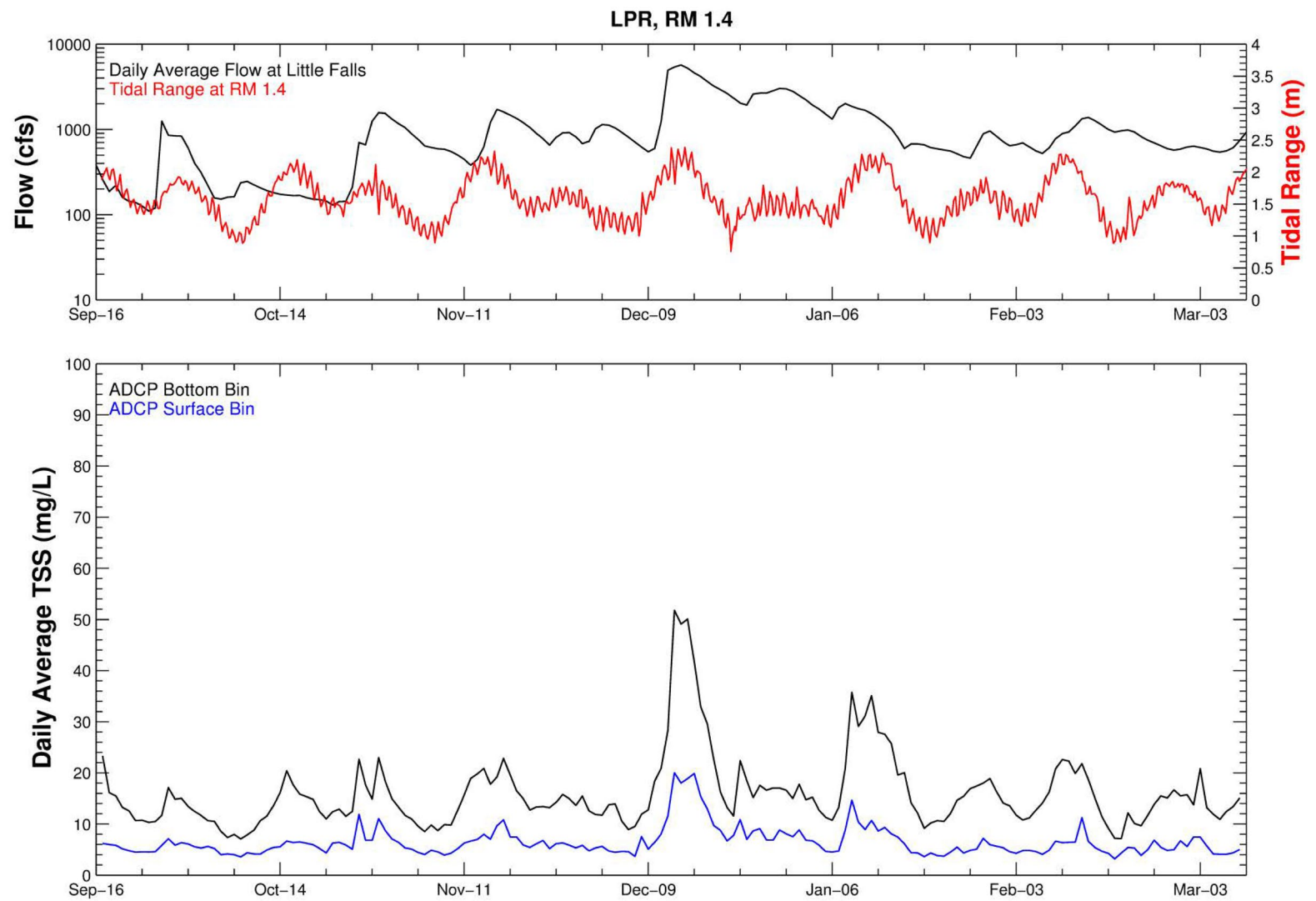
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Figure 3-8
Inter-tidal Variability in Suspended Sediment Concentration (Fall 2009 PWCM)

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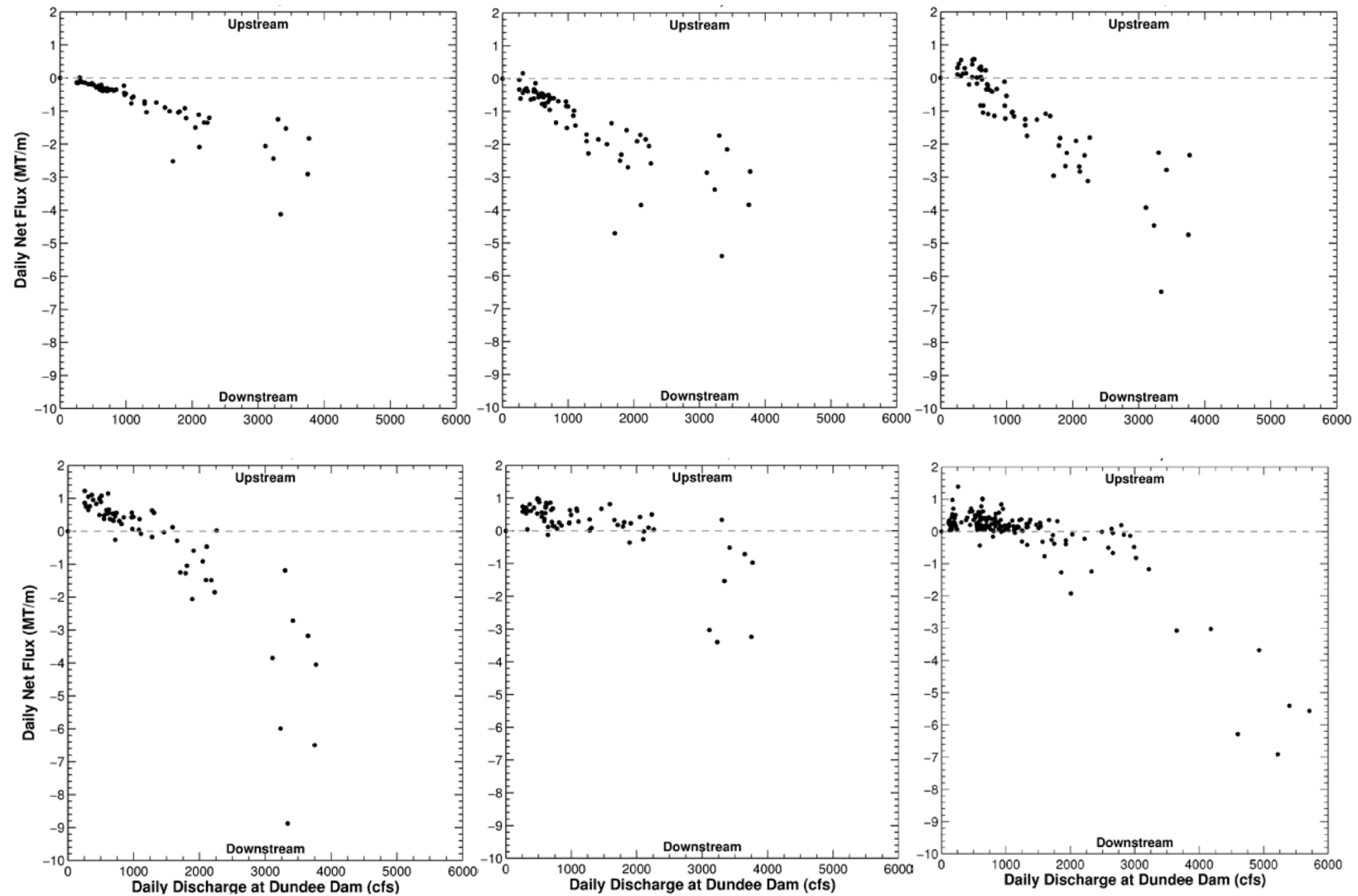


Source: Sommerfield and Chant (2010)

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Figure 3-9
Inter-Tidal Variability in Suspended Sediment Concentration

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Note: Upper panels from left to right: RM 13.5, 10.2, and 6.7 from Fall 2009 PWCM. Lower panels from left to right: RM 4.2 and 1.4 from Fall 2009 PWCM, and RM 1.4 from Sommerfield and Chant (2010).
MT/m: metric ton per meter

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Figure 3-10
Net Solids Flux Versus Discharge

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