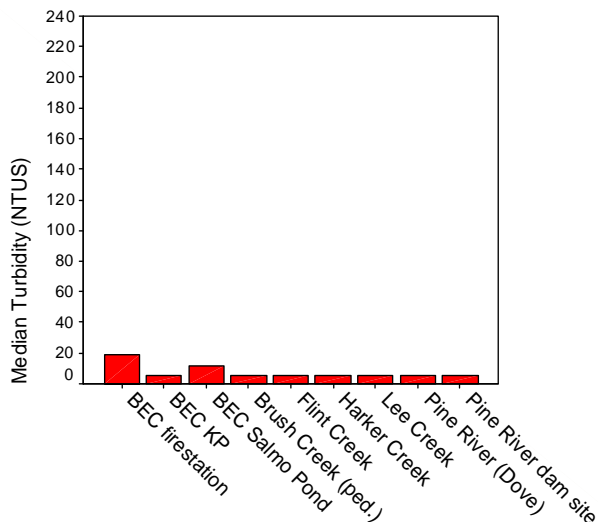


until late summer when the score dropped by over 10 points. Scores have steadily continued to rise since then, but have not reached previous levels. The Pine River (Dove) showed very high habitat scores.

Turbidity

Turbidity was measured monthly at most sites, sporadically at others. In the chart below, data were compiled to show median turbidity values at each site over the 4 year sampling period. Sites are on the horizontal axis while median turbidity (NTUs) is plotted on the vertical axis. Of 118 observations, more than 80% found that turbidity was <10 NTUs (plotted as 5 NTUs for graphical purposes), which indicates those sites had good water clarity, with no negative effects on aquatic life. Storm events were reported on 12 of the 19 days when turbidity exceeded <10 NTUs. The highest level it was recorded to be was 35 NTUs, save one storm event

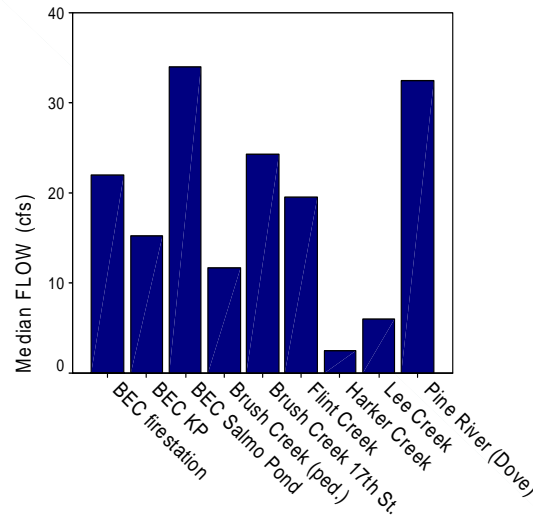


Stream Flow

Median stream flow (cfs) values are shown in the graph to the right. These were determined when it was not raining, except for Lee and BEC KP where one storm event is included calculations.

These flows

initiate data collection regarding how much water is in the stream at that location at baseflow. We can also determine such information as percent contribution to a watershed by a stream. For example, Harker Creek contributes less volume of water to Flint Creek than does Lee Creek. More specific flow charts can be viewed at: <http://clean-water.uwex.edu/wav/monitoring/resources/results.htm>.



recorded at Brush Creek (ped), during which it rained about 0.65 inches and the turbidity rose to 185 NTUs, then dropped to 90 and later 40 NTUs before returning to <10 NTUs (interestingly, the turbidity peaked before the storm was finished).

Fish begin to show signs of stress when turbidity is greater than 10 NTUs and up to 100 NTUs when such levels persist for a number of hours.

The fact that it was raining when the highest turbidity values were recorded suggests that streamflow and erosion were affecting turbidity, though only mildly at these sites. A human-caused disturbance might have been acting at Brush Creek (ped) during the summer of 2001, as slightly elevated values (10-15 NTUs) were found consistently each month that year.

Citizen Stream Monitoring Data Summary



Lower Wisconsin Basin:

**Otter Creek
Brush Creek
Black Earth Creek, and
Pine River
Watersheds**

2000-2003

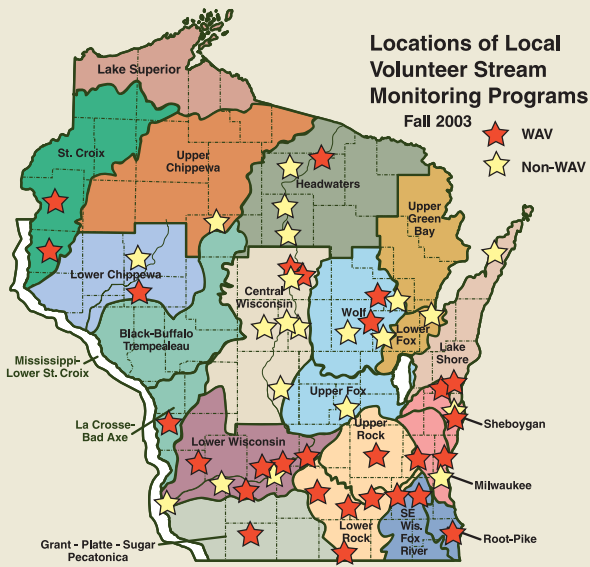
Compiled as part of the University of Wisconsin-Extension's and the Wisconsin Department of Natural Resources' Water Action Volunteers' Stream Monitoring Program

Water Action Volunteers



UW Extension

For more information about the monitoring and data described in this brochure contact the WAV coordinator at 608-265-3887 or visit the WAV website at: <http://clean-water.uwex.edu/wav> to find the Local Program Coordinator's contact information.



Extent of Volunteer Stream Monitoring in Wisconsin

Across Wisconsin citizens are monitoring water quality in wadable streams using Water Action Volunteers' (WAV) methods.

By Nov. 2003, over 250 sites were registered in the statewide database. The map shows locations of local programs, including WAV and non-WAV efforts. WAV volunteers monitor in 26 counties and have collected data on nearly 2000 days.

The volunteers are led by local coordinators who organize training and educational events, enter data, and interact regularly with volunteers. In southwestern WI several programs are active. Peggy Compton and Dave Fritz head up the Nohr Network of Monitors; Claudia Berres leads the Pine River Study and Information Network; Jim Korb monitors with his Jefferson School students on Brush Creek; and Black Earth Creek is monitored by Dane County volunteers, led by Pete Jopke.

Otter, Brush, and Black Earth Creeks, and Pine River Watersheds' Sites

In these watersheds of the Lower Wisconsin Basin, ten sites were monitored between 2000 and 2003.



Black Earth Creek (3):

1. behind fire station
2. downstream from Cty KP
3. at Salmo Pond Park

Brush Creek (2):

4. UW-Richland ped. bridge
 5. 17th drive at Kampf's
 6. Flint Creek below Harker/Lee confluence
 7. Harker Creek up from Lee Creek
 8. Lee Creek up from Harker Creek
- Pine River (2):
9. at old Richland Center dam site
 10. at jcn Cty Hwy C & Dove Lane

Biotic Index

Biotic Index scores are based on macro-invertebrates' tolerance to varied oxygen levels in the water. The scores range from 1 to 3.6 or greater, and a stream is assigned a water quality health rating based on its score. Ratings range from poor to excellent (see box at right).

The map to the right shows sampling sites (pink) monitored in the Black Earth (BEC) & Otter Creeks and the Pine River Watersheds between 2000 and 2003. B.I. water quality ratings are marked in green or yellow ovals.

Over the 4 year sampling period, scores ranged from 1.8 (BEC Salmo Pond 5/2003) to 3.3 (Brush Cr. 11/2000). About half of the B.I. scores indicated good water quality, while the others indicated fair water quality in these streams. Only in two instances (both at BEC

sites) was a poor water quality rating found. There was some fluctuation in the data, with strong 'good' ratings obtained at Brush Creek in fall 2000 and early spring 2001 (3.0-3.3), and fair to good ratings there otherwise. Harker and Flint Creeks had consistently good scores, and quality was usually fair at BEC and Pine River sites.

Habitat

Habitat assessment scores are marked on the map below in black rectangles. Scores ranged from 34 to 48. Habitat scores can range between 13 and 52. Because watershed specific characteristics (e.g., land slope, soils) can affect the score, it's best to compare scores year to year within a watershed. Habitat scores were very consistent at Brush Cr. (ped) in 2000 and 2001

Biotic Index Score Definitions

3.6 and up:	Excellent
2.6-3.5:	Good
2.1-2.5:	Fair
1.0-2.0:	Poor

