

# Fish Samples

| Grouping       | 1977-81   | 1983-87   | 1992-96   | Total     |
|----------------|-----------|-----------|-----------|-----------|
| Predators      | 586       | 1007      | 390       | 1983 (30) |
| Foragers       | 671       | 1865      | 413       | 2949 (45) |
| Bottom Feeders | 551       | 771       | 362       | 1684 (25) |
| Total          | 1808 (27) | 3643 (55) | 1165 (18) | 6616      |

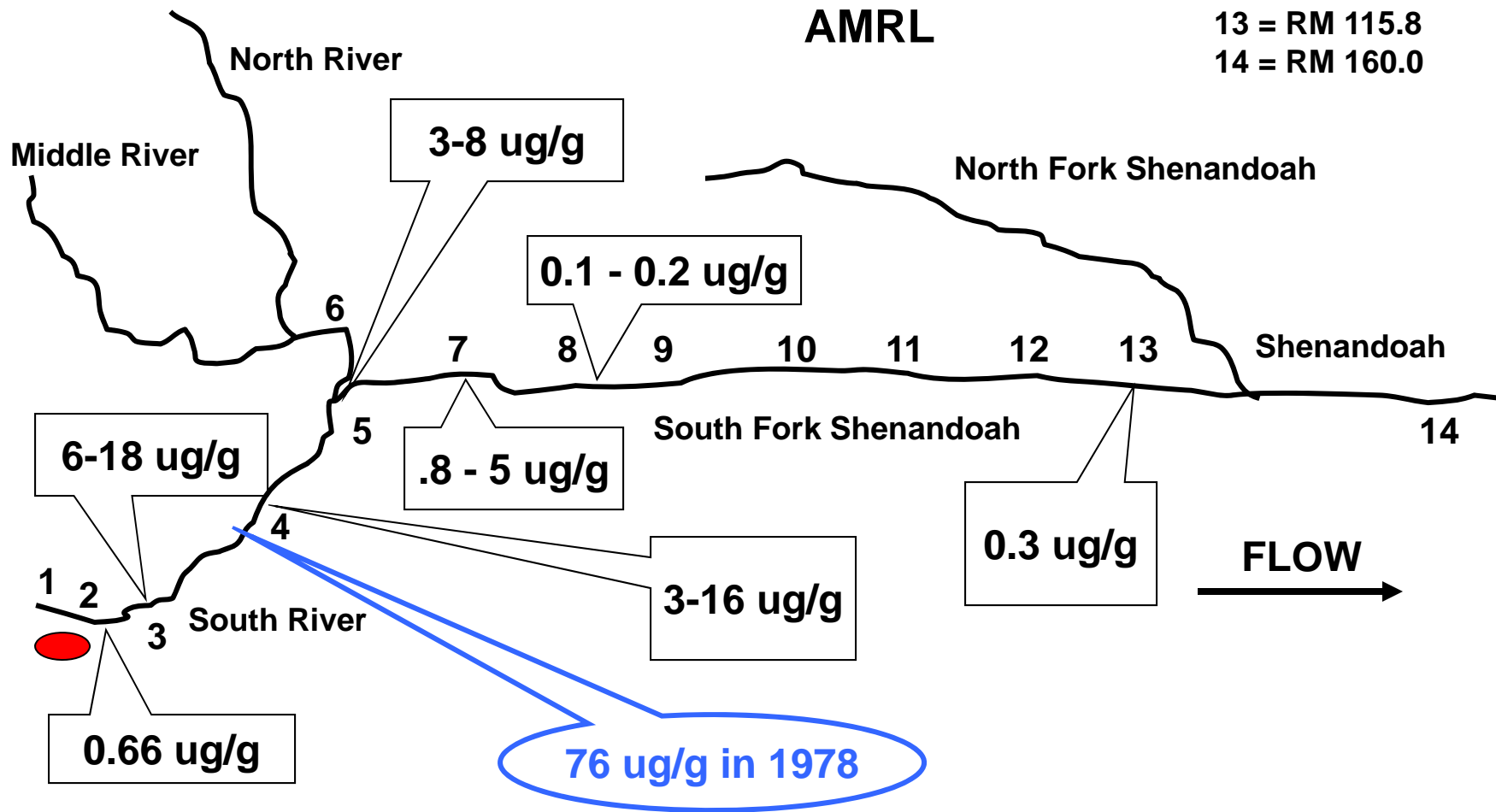
## Total Hg (ug/g) in Sediments - 1997

| <b>Time</b>      | <b>Min</b>                       | <b>Max</b>  | <b>Mean</b>  | <b>SD</b>   |
|------------------|----------------------------------|---|--------------|-------------|
| <b>May 1997</b>  | <b>0.72</b><br><b>RM 2</b>       | <b>147</b><br><b>RM 3</b>                         | <b>11.83</b> | <b>25.5</b> |
| <b>July 1997</b> | <b>&lt;0.018</b><br><b>RM 70</b> | <b>18.30</b><br><b>Center</b><br><b>Mill Race</b> | <b>3.58</b>  | <b>5.6</b>  |

# Sediment 6/97 & 1978

- 1 = RM -0.7
- 2 = RM 0.0
- 3 = RM 5.4
- 4 = RM 10.5
- 5 = RM 20.7
- 7 = RM 27.9
- 8 = RM 49.7
- 12 = RM 108.7
- 13 = RM 115.8
- 14 = RM 160.0

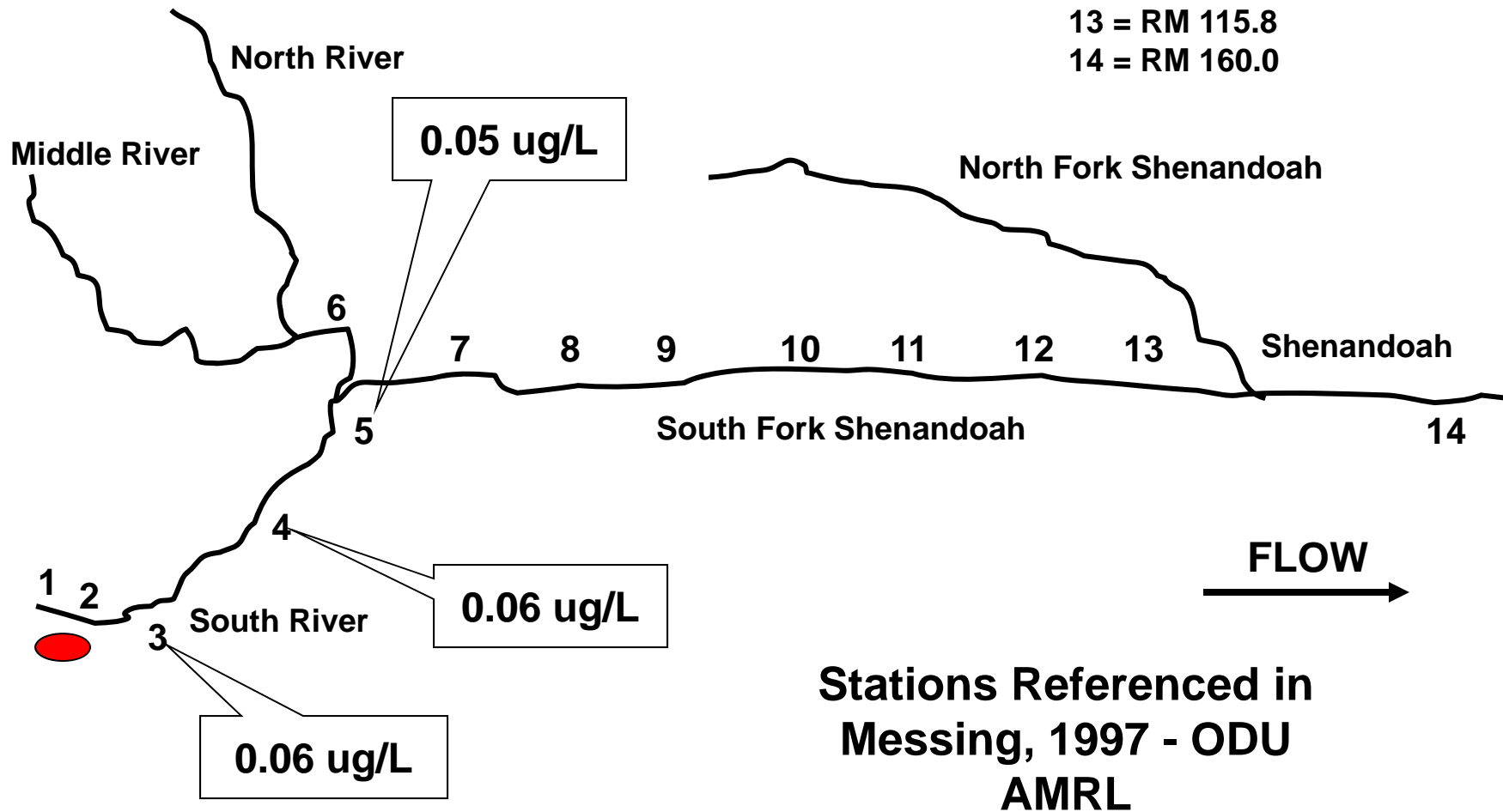
Stations Referenced in  
Messing, 1997 - ODU  
AMRL



# Surface Water 6/97

LOD 0.04 ug/L

- 1 = RM -0.7
- 2 = RM 0.0
- 3 = RM 5.4
- 4 = RM 10.5
- 5 = RM 20.7
- 7 = RM 27.9
- 8 = RM 49.7
- 12 = RM 108.7
- 13 = RM 115.8
- 14 = RM 160.0



# MeHg in Fish Tissues - 1999

| Fish Type | N  | Location            | % >0.22 ppm | % >0.66 ppm | % > 1 ppm |
|-----------|----|---------------------|-------------|-------------|-----------|
| SM bass   | 8  | Upstream            | 25          | 0           | 0         |
| SM bass   | 10 | DP footbridge       | 100         | 30          | 0         |
| Rockbass  | 10 | DP footbridge       | 100         | 60          | 10        |
| Sm bass   | 10 | SF-S @ Newport      | 100         | 100         | 50        |
| Catfish   | 9  | SF-S@ Port Republic | 90          | 60          | 33        |
| Catfish   | 8  | SF-S@ Shenandoah    | 100         | 25          | 15        |
| Catfish   | 10 | SF-S@ Whitehouse    | 100         | 20          | 10        |

# Trends in the National Agenda

- **USEPA Great Lakes Initiative.**
- **USEPA Mercury Study Report(s) to Congress.**
- **USEPA Strategy for PBTs.**
- **USEPA Fish Advisory Risk Assessment Guidance.**
- **NAS Report on Methylmercury and Confirmation of the USEPA's RfD.**
- **USEPA / States – TMDL Development.**
- **USEPA Decision on the Hudson River.**
- **USEPA OSWER Contaminated Sediment Guidance.**

# Science Team Charter

- Composed of DEQ, VDH, DGIF, Citizen's Groups, Academia
- Mission – serve as a focal point for technical and scientific issues in support of steering committee
- Objectives – review data, trends, gaps; fate and transport issues, remediation, communications, ID and prioritize additional study areas; exposure issues; refine and develop conceptual models, develop plan to fill data gaps; explore watershed management options; fishery management options; monitor developments at other Hg sites; information transfer – expert lectures.

# Statistical Comparisons

- Length or weight of fish sampled over time, by station
- Hg tissue concentration by station, by year, by species (limit on species ?)