

# Contaminants of Concern in the District of Columbia

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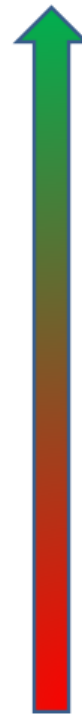
Presentation by Matt English  
STAC Workshop May 2019



# Fish Consumption Advisory











- PCBs frequently exceed EPA screening values
- DDT, Chlordane, Dieldrin, Heptachlor Epoxide occasionally exceed EPA screening values
- PAHs and metals do not exceed EPA screening values
- Contaminants appear to be trending downward

Most Safe



Least Safe

**2016 Fish Consumption Advisory  
For  
Waters of the District of Columbia**

| Fish  | Children<br><6 years<br>3oz portion | Women<br><50 years<br>6oz portion | General Population<br>8oz portion |
|---|-------------------------------------|-----------------------------------|-----------------------------------|
| <br>Sunfishes          | Up to 2 meals/month                 | Up to 7 meals/month               | Up to 4 meals/month               |
| <br>Blue Catfish       | Up to 2 meals/month                 | Up to 5 meals/month               | Up to 3 meals/month               |
| <br>Northern Snakehead | Up to 1 meal/month                  | Up to 4 meals/month               | Up to 3 meals/month               |
| <br>White Perch        | Up to 1 meal/month                  | Up to 4 meals/month               | Up to 3 meals/month               |
| <br>Largemouth Bass    | Up to 1 meal/month                  | Up to 3 meals/month               | Up to 2 meals/month               |
| <br>Brown Bullhead     | Up to 1 meal/month                  | Up to 2 meals/month               | Up to 1 meal/month                |
| <br>Channel Catfish    | Up to 1 meal/month                  | Up to 2 meals/month               | Up to 1 meal/month                |
| <br>Carp               | Do Not Eat                          | Up to 1 meal/month                | Do Not Eat                        |
| <br>Eel              | Do Not Eat                          | Do Not Eat                        | Do Not Eat                        |
| <br>Striped Bass     | Do Not Eat                          | Do Not Eat                        | Do Not Eat                        |

\*If species are mixed, once the lowest limit is met, eat no more DC caught fish for the month. Limit consumption of all other fish not listed.

# Fish Health Issues

## Brown Bullhead Catfish 1996-2016

- Large statistically significant decreases in liver (4-8X) and skin tumors (6-7X)
- Suspected link with PAH, PCBs, and DDT

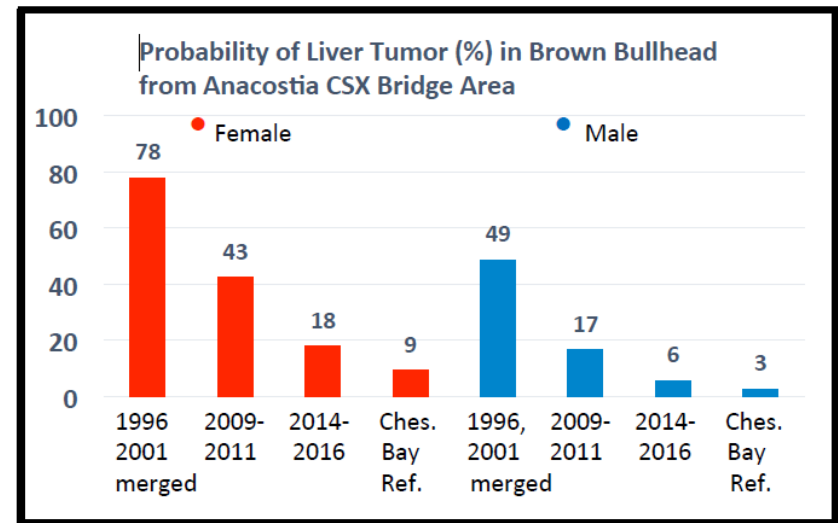


## Freshwater Mussels

- Impacts to growth
- Identify hotspots

## Mummichogs and Killifish

- Pre-clean up baseline
- Identify hotspots



USFWS Pinkney et al

# Approaches to Mitigate Toxics

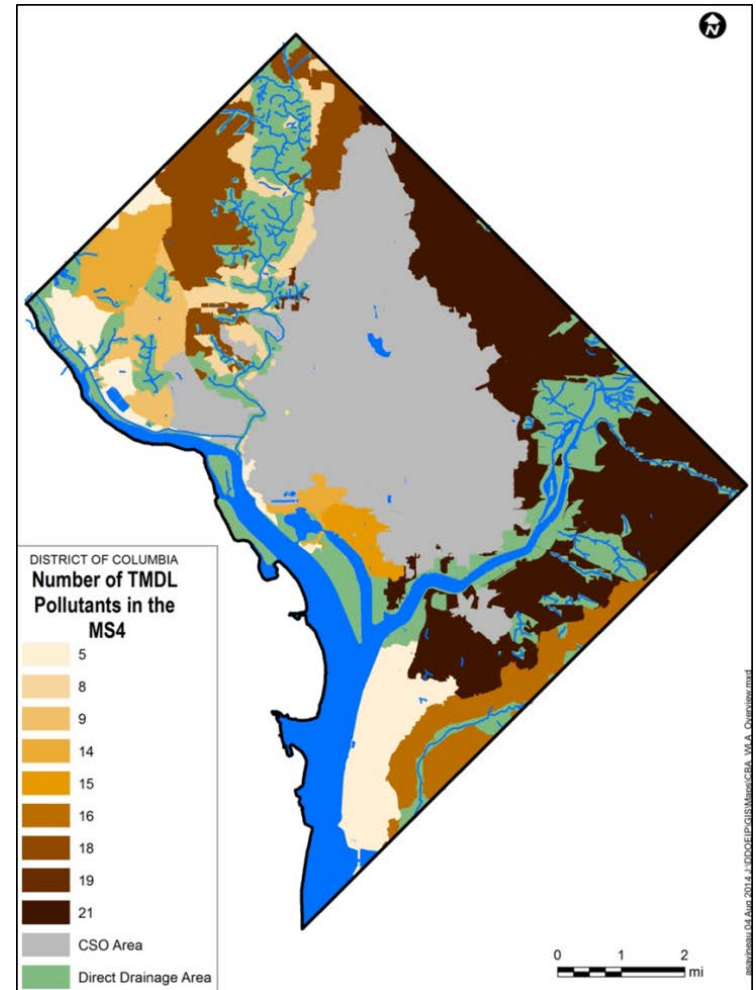
- TMDLs for Toxics
- Coal Tar/High PAH Sealant Ban
- Street Sweeping
- Implementation of MS4 Permit /Green Infrastructure
  - Regulated
  - Voluntary
- Anacostia Sediment Study

| Parameter          | Number of Waterbodies with TMDL |
|--------------------|---------------------------------|
| Chlordane          | 26                              |
| Dieldrin           | 25                              |
| DDD                | 24                              |
| DDE                | 24                              |
| DDT                | 25                              |
| Heptachlor Epoxide | 25                              |
| PCBs               | 26                              |
| PAH 1              | 25                              |
| PAH 2              | 25                              |
| PAH 3              | 25                              |
| Arsenic            | 14                              |
| Copper             | 16                              |
| Lead               | 16                              |
| Mercury            | 2                               |
| Zinc               | 16                              |

# Using Bay TMDL to Mitigate Toxics

## Consolidated TMDL Implementation Plan

- Required by MS4 permit
- Estimates reductions using BMP efficiency through relation to TSS



# Looking Forward

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- New research on green infrastructure/BMP efficiency for removal of toxics
- PAH Sealant study and list produced by CBP GIT released 2020
- New research and discussions on microplastics

# Questions?

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