HEC questions for future research--- As of 22 Jan 2013

1. Fish Community Objectives (FCO) Fisheries Habitats Information and Research Needs General

Sturgeon are the top fish today in restoration efforts.

Emergent larval sturgeon are at the mercy of the currents for at least the first 2 weeks after entering the water column. According to recent research, the sturgeon spawning on the Blue Water Reef are Lake Huron stock separate from those spawning in Algonac.

a. What habitat are they utilizing until they can grow large enough to swim u/s to reach Lake Huron?

b. How long (years) does it take the juveniles/sub adults to get there?

- c. What habitat are they using in Lake Huron when they get to Lake Huron?
- d. What habitat are they utilizing in the HEC until they can reach Lake Huron?
- e. Where are the Algonac larval sturgeon drifting to and what habitat are they using?
- 2. FCO

Fisheries Habitats Information and Research Needs General

Do the USACE open water disposal sites that were previously used have more fish on/over them than the remaining open lake waters near the open water disposal sites. Look at 2 or 3 harbors that had the most recent Open Water Disposal.

3. FCO

Fisheries Habitats

Information and Research Needs

Spawning and nursery habitat (wetlands)

Where are the critical spawning areas in the HEC for the phytophylic game fish, perch, northern pike and muskie?

4. FCO

Fisheries Habitats Information and Research Needs Spawning and nursery habitat (tribs)

Which rivers have dams that with suitable fish passage would open up the most habitat for u/s migration to improve YOY into the Great Lakes. (Geared towards Section 206 projects).

5. FCO

Fisheries Habitats

Information and Research Needs

Spawning and nursery habitat (reefs)

MI Seagrant is putting together proposals for spawning reefs in both the St. Clair and Detroit Rivers.

- a. Is there any baseline data of existing habitat usage for the areas proposed?
- b. What type of habitat is being replaced by spawning beds?

6. FCO

Fisheries Habitats Information and Research Needs Spawning and nursery habitat (reefs)

Do we have evidence that walleye use the reefs (natural and artificial) for spawning and if so, what is the impact on YOY production from gobies. Same question for sturgeon or is the water too deep and the currents too strong for gobies in the St. Clair and Detroit River.

7. FCO

B. Environmental Objectives. Fisheries Habitat Protections

Alternative energy proposals for hydrokinetic development and offshore wind come to mind. Hydrokinetic and offshore wind development:

- a. Are there specific areas in the HEC that should be avoided?
- b. For what reasons?
- c. Where are they?
- d. Are there areas that can be utilized for this development?
- e. Where are they?
- f. Can development occur if supported by mitigation?
- g. What type of mitigation would be appropriate for these activities?

On the horizon--- lower Great Lakes water levels-- impacts --.