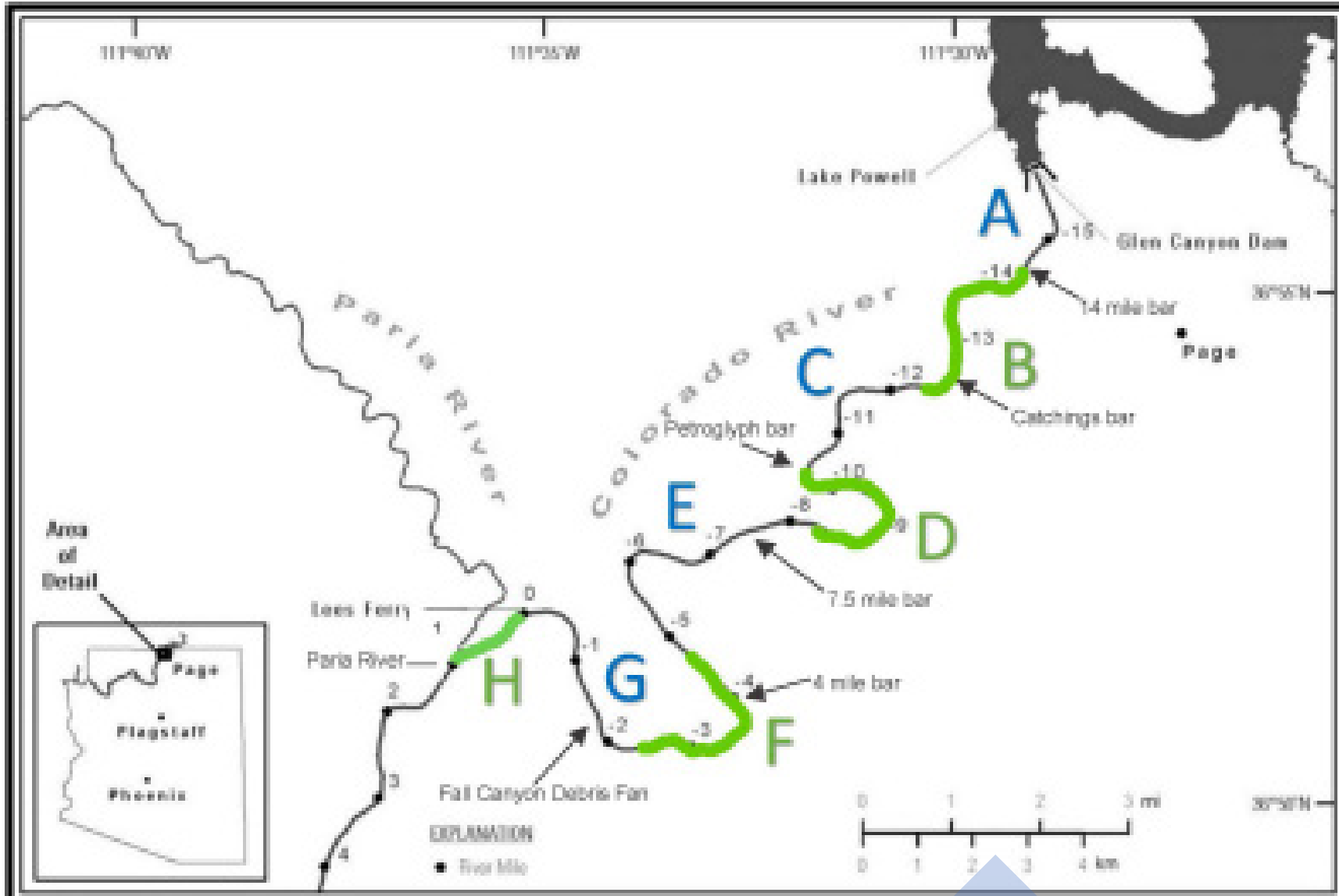


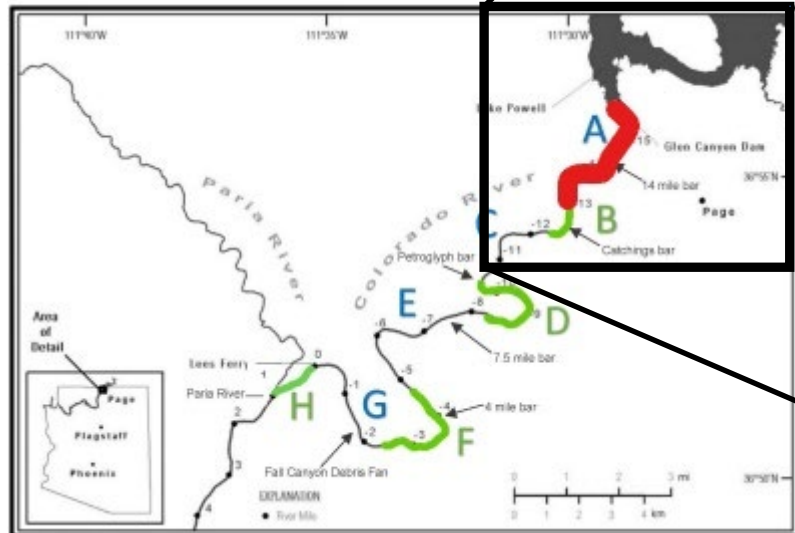
Glen Canyon National Recreation Area 2023 Monitoring and Rapid Response Plans



Pre- and Post- HFE Electrofishing

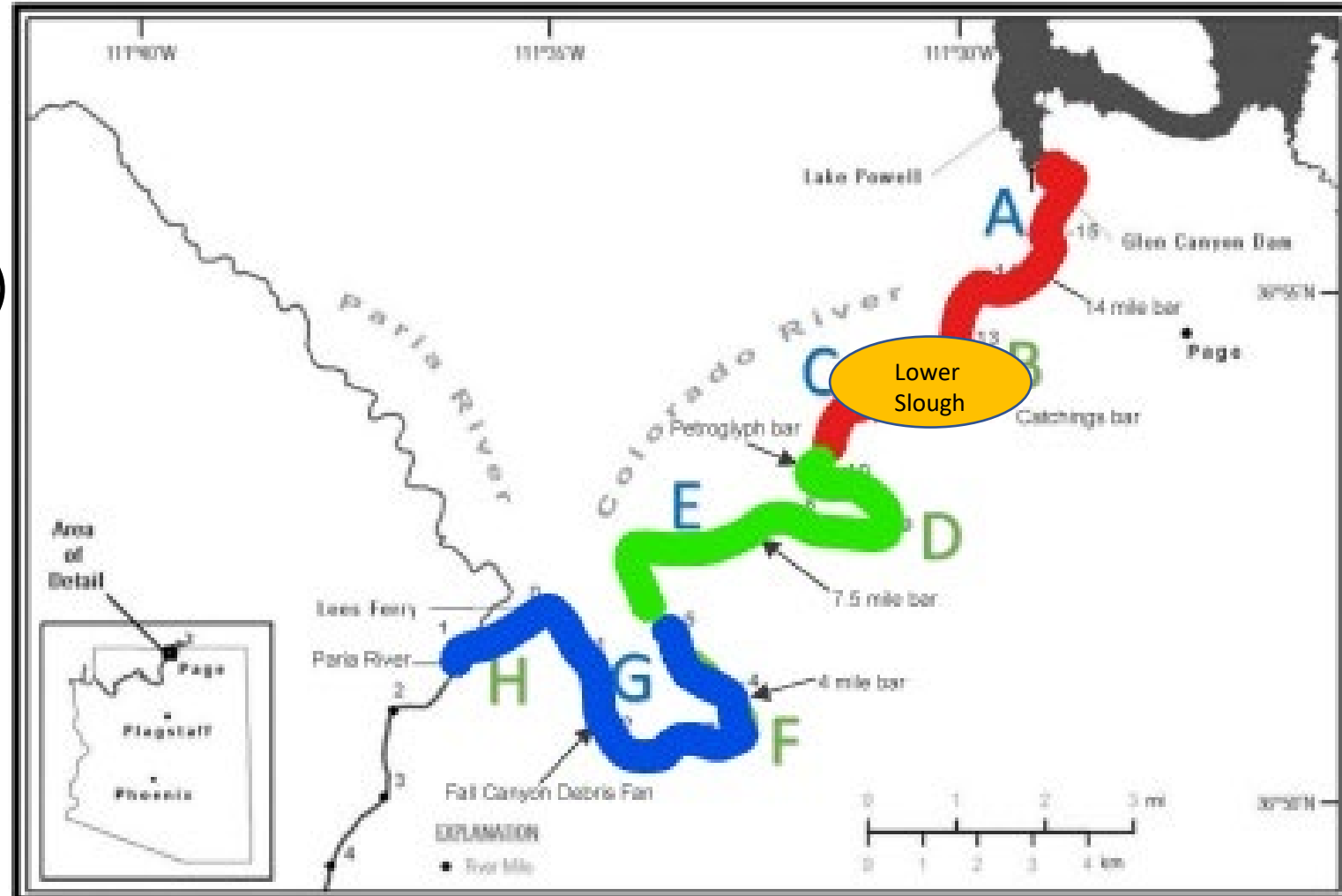
Objective - to determine current distribution and densities of SMB and GSF in upper reaches of Glen Canyon before and after an HFE.

- 4-5 nights
- 2 electrofishing boats (2 boatmen, two netters)
- upper 3-miles of the river



Netting

- 4 mainstem regions (approximately 5.2 miles each)
 - 250 m sections
 - Each region sampled every 2 weeks (**4 large fyke nets; 4 small fyke nets; 10 baited hoop nets, limited gill nets?**)
- 1 backwater region
 - (Lower Slough @ -12 mile)
 - Sampled every 2 week (4 large fyke nets; 4 small fyke)



Snorkel Surveys

Conduct snorkel surveys in areas of suitable SMB spawning habitat using maps provided by USGS. Snorkel surveys will begin when river water temperatures increase to 14°C and above. Slough temperatures will be downloaded weekly

Lees Ferry SMB 11-19k CFS hydropeaking

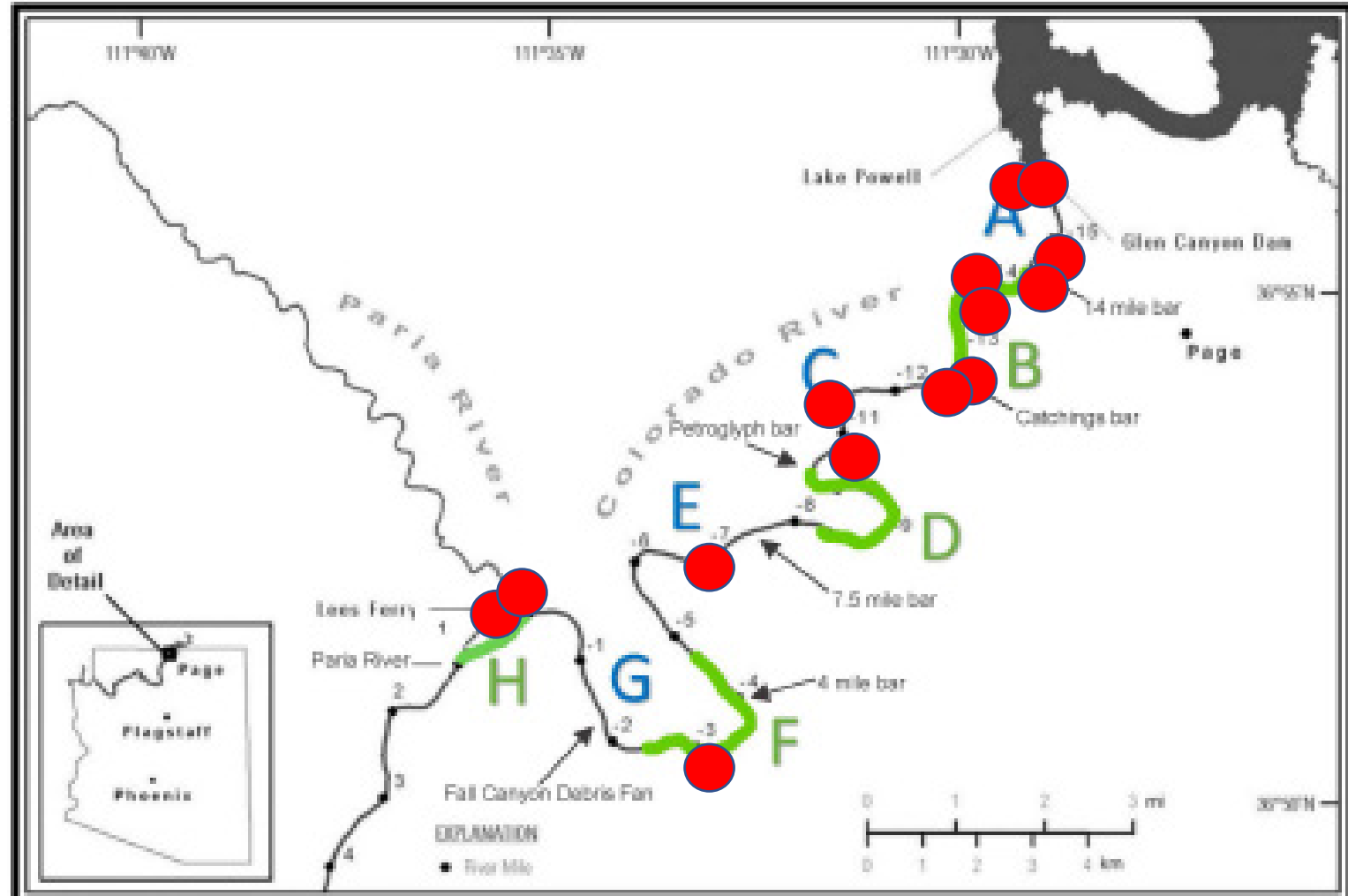
Spawning Habitat = 16.4575 ha



Map provided by USGS
Drew Eppheimer

Electrofishing

- Boat electrofishing
 - nonnative fish **hotspots** (Once every two week, ~ 14 sites)
 - Lower slough once each week
 - high SMB density areas as identified last fall by our rapid response efforts.
 - increase sampling with warmer water temperatures



Rapid Response

Electrofishing - GLCA and GRCA is working on a Task Agreement/Contract for boatmen (and possibly field assistance) to assist with a 8-16 week electrofishing Rapid Response (September/October)

- Will look at a boat electrofishing Rapid Response effort of entire Glen Canyon Reach

• **Chemical Treatment**- Purchase of Supplies

- Targeted backwater areas
For example – Lower and Upper Slough

