Cape Fear River Basin - Socio Economic Action Plan 2016

Goal 3: Engage new stakeholders and increase interest in improving fish passages and habitat conditions for migratory fish through communication of socioeconomic economic values associated with such improvements

Action	Target	Timeframe : Lead : Status	Notes
Action 18: Identify, describe, and estimate the potential economic benefits to accrue to commercial and recreational fisheries from increasing and improving migratory fish passage and habitat.			
Action 18.1 Determine which fisheries most critical to value	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNF : In progress	Examined shad but not resident freshwater species, recent action progress: Collected data on shad fishery in the Cape Fear. Problems identified: Issues were found with how the data were input into the database, delaying final analysis and report.
Action 18.2 Review current state of knowledge about selected fisheries (scientific papers, grey literature, data, status of fishery, etc.)	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNF : In progress	Extensive literature review conducted on anadromous species but not comprehensive of all major species present in the river system. Literature review conducted by Susanne Brander and Andrew Goff at UNCW on some anadromous species. Not focused specifically on fisheries
Action 18.3 Review current state of knowledge about forage fish for commercial and recreational fisheries	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNF : In progress	Examined shad but not other species, Collected data on shad fishery in the Cape Fear, Not focused on forage component
Action 18.4 Identify major audiences/players in *commercial and recreational* fisheries both for purposes of data collection but also results dissemination	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Long/Ongoing : NCDMF/TNC : Complete	Completed by TNC intern for outreach component of grant but ongoing as outreach opportunities present themselves (such as Striperfest)

Action	Target	Timeframe : Lead : Status	Notes
Action 18: Identify, describe, and estimate the potential economic benefits to accrue to commercial and recreational fisheries from increasing and improving migratory fish passage and habitat.			
Action 18.5 Determine potential increase in fish stocks for *commercial fisheries* from improving habitat and passage as well as from improvements to forage fisheries & translate increase into a value	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Medium : NCDMF/TNF : IN progress	Baseline assessment of current fisheries has been performed. Future phases are expected to examine benefits from potential improvements in Cape Fear basin
Action 18.6 Develop possible methodologies for estimation of benefits to *recreational fisheries*	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNF : Complete	Developing methodology is part of TNC/NCDMF study, Methodology has been developed in Part 1 of TNC/NCDMF project
Action 18.7 Determine and estimate all other related values associated with increasing *commercial and recreational fisheries* including, for example, spillover benefits to related businesses using input/out model – for example, IMPLAN.	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNC : Complete	Calculating economic impacts is part of TNC/NCDMF study. Analysis in progress. Problems noticed: Issues were found with how the data were input into the database, delaying final analysis and report

Action	Target	Timeframe : Lead : Status	Notes
Action 19: Identify, describe, and estimate the potential recreation and tourism benefits that could accrue from increasing and improving migratory fish passage and habitat.			
Action 19.1 Describe the major recreational and tourism uses besides fishing in the Cape Fear (e.g. water skiing, swimming, kayaking, hunting, power boating, sailing, etc.)	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Outside of discussion, no work has been completed. Need to find interested party
Action 19.2 Assess current status and trends associated with recreation & tourism	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Outside of discussion, no work has been completed. Need to find interested party
Action 19.3 Identify ecosystem characteristics that increase or decrease the value of these recreation & tourism uses	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Outside of discussion, no work has been completed. Need to find interested party
Action 19.4 Evaluate the ability of actions steps in the Partnership to affect these characteristics to determine how and if actions might affect recreation and tourism values	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Outside of discussion, no work has been completed. Need to find interested party
Action 19.5 Develop possible methodologies to estimate the potential benefits to *tourism & recreation* from actions taken by the Partnership	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Outside of discussion, no work has been completed. Need to find interested party
Action 19.6 Undertake an analysis using input/output model – for example IMPLAN - to determine economic impact on jobs and other multiplier effects.	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Outside of discussion, no work has been completed. Need to find interested party

Action	Target	Timeframe : Lead : Status	Notes
Action 20: Identify, describe, and estimate the potential benefits to water users from improving migratory fish passage and habitat.			
Action 20.1 Research and analyze current status of water quality and quantity (including pattern of water flows) in the Cape Fear	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNC : Complete	Literature review conducted by Susanne Brander and Andrew Goff at UNCW on gathering scientific and grey literature on impacts of nutrient pollution and anthropogenic pollutants on fish health
Action 20.2 Determine types and scales of threats to water quality and quantity in the Basin identifying which threats actions taken by the Partnership might abate	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Medium : NCDMF/TNF : IN progress	Literature review and INVEST model identified threats but have not been specifically tied to partnership actions. See above as well as INVEST model run that indenified threats to water quality in the Cape Fear basin. Not tied specifically to partnership actions.
Action 20.3 Determine all potential water-related benefits likely to accrue from Partnership actions	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Medium : NCDMF/TNF : IN progress	Drinking water and fisheries benefits have been partially quantified but not comprehensive of all water-related benefits
Action 20.4 Identify all the potential beneficiaries/key stakeholders from identified hydrologic benefits	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Medium : NCDMF/TNF : IN progress	Stakeholders have been identified via drinking water and fisheries but not comprehensive of all water-related stakeholders. Economic analysis completed by Env. Finance Center at UNC-CH focusing on drinking water. Not comprehensive of all stakeholders.
Action 20.5 Create a framework that includes stakeholders and possible beneficiaries from water improvements	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Medium : NCDMF/TNF : IN progress	Stakeholders have been identified via drinking water and fisheries but not comprehensive of all water-related stakeholders. Economic analysis completed by Env. Finance Center at UNC-CH focusing on drinking water. Not comprehensive of all stakeholders. Not comprehensive to all stakeholders or benefits.

Action	Target	Timeframe : Lead : Status	Notes
Action 20: Identify, describe, and estimate the potential benefits to water users from improving migratory fish passage and habitat.			
Action 20.6 Using framework, articulate key benefits to people (e.g. avoided costs for cleaning drinking water, lowering risk of interruptions in water supply, avoided high peak floods, etc.) to be estimated via valuation/quantification	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Medium : NCDMF/TNF : IN progress	Drinking water and fisheries benefits have been partially quantified but not comprehensive of all water-related benefits. Economic analysis completed by Env. Finance Center at UNC-CH focusing on drinking water. Not comprehensive of all benefits
Action 20.7 Develop possible methodologies to quantify benefits to *water storage/availability* from Partnership actions	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNC : Complete	Benefits to water utilities completed as part of TNC/NCDMF study. Economic analysis completed by Env. Finance Center at UNC-CH focusing on drinking water. Not comprehensive of all benefits
Action 20.8 Develop possible methodologies to quantify benefits to *water quality* from Partnership actions	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : NCDMF/TNF : In progress	Drinking water and fisheries benefits have been partially quantified but not comprehensive of all water-related benefits. Economic analysis completed by Env. Finance Center at UNC-CH focusing on drinking water. Not comprehensive of all benefits
Action 20.9 Undertake an analysis using input/output model – for example IMPLAN - to determine economic impact on jobs and other multiplier effects.	Estimate socioeconomic values associated with increasing and improving passage and habitat conditions for migratory fish.	Short : N/A : Action needed	Economic analysis examined value not impact. Need to find interested party.