KERR 216 Study
Downstream Flow Based Recreation Study Group
December 2, 2003, Meeting 1
Meeting Notes

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Introductions & Clarifications

Jim M. introduced subject and immediate goal to develop plan of study to guide work in phase 2.

This study group has a downstream geographic boundary.

Q: How doe you integrate water flow issues downstream vs upstream? (Jeff Horton) Concern for overlap from Kerr fishing to downstream economic.
A: A separate group is set up to do that. Team leader's meetings and project managers overseeing addressing duplicate work.

Jim M. said riparian / lower river ecosystem group looking at roads affected by high water / flood control for forestry and farmland access. Flooded roads also take a period of time to dry out before they are usable. That group probably adding GIS layer for all roads in floodplain including refuge and other private and recreation type roads for access. Group agreed this data collection task could stay in riparian study group, but this team will use the GIS layer that is developed. Jeff mentioned later that the land cover layer in the Nature Conservancy's flood model may need updating to make it more useful. **Kent suggested, and all agreed, that boat ramps should be included in the road network mapping task**.

Brainstorm of common / known recreational uses

- Swimming
- Water-skiing
- Fishing }
  - Competitive (tournaments) }
  - Individuals (recreational) }
  - Commercial }
- Hunting } ALL VARY BY TARGET SPECIES
  - Private Hunt Clubs }
  - Guided Hunts (commercial) }
  - Individuals (public & private lands) }

- Nature Observation
  - Wildlife Observation
  - Bird watching
  - Photography
  - Aesthetics
  - Eco-tourism (Hunting camp / bread and breakfast, commercial)
  - Geo-exploring ("geo-caching")
  - Hiking
- Boating
  - Motorized
  - Non-motorized
  - White water (5 miles below RR dam) (data gathered in relicensing)
  - Guided (commercial)
- All Uses – spatial component
  - Temporal component, seasonality, frequency, duration
- Camping
  - Platform
  - Land-based
  - Hunting-related (public) (determined by other recreational uses)
- Environmental education

Economic effects of flow based recreation

Possibly have a task added for determining what economic impact study has been done in lower river related to eco-tourism or even recreational tourism (bass tournaments, guides, rentals, etc. Could possibly be related to flow levels). RR Partners doing trail economic impact study in 2004. Kent mentioned a survey conducted by Schuman of striped bass fisherman. This cost $12,000 for the analysis only. NCWRC distributed the mail-in questionnaires as part of their regular fisheries survey at boat ramps. WNCRC annual spring survey for 2004 starts in mid-March and there would be an opportunity to piggyback on that again for survey purposes.

Certainly need to apply some sort of economic valuation for flow based recreation. (Roll up to team leaders meeting to find out how to incorporate in study.) Also consider levels of use and trends i.e., is this a growing trend?

Jean R. and Jeff stated that they think a functional system would likely be a more natural system, and a more natural system would support activities listed above. Kent said this is more tied into task of downstream ecosystem, but has direct effect on this group's focus.

Survey Concepts

The group thought that a survey was a good approach to collect data on what riverine conditions recreational users prefer for specific recreational activities. The group discussed what our focus should be and if we should key on more prevalent existing recreational uses of the river or uses that may be more sensitive to changes in flows. How do the different activities respond to fluctuations in water levels? Are there some uses that are sensitive to mid-range changes in water levels?

Jeff pointed out that it was important to survey those who did not participate in recreational activities as a result of water levels or other factors.

Surveys – When?- seasonal variability in use by activity.
Where? – longitudinal variability in use by activity.
How affected by flow/water level?
$ - willingness to pay, expenditure data

Will need academia help in designing and applying methodology
Need to survey different experts and/or users. Study team brings diversity of resources.

General User Survey – fishermen, hunters, platform users. Covers larger number of people and range of experience.
Expert Interview Survey – guides for hunting, fishing, ecotourism. Takes advantage of expertise. Easier logistics and less $.

Hunting (names and address) database exists at RRWR. Might be used to query why hunters do or do not come to refuge. Also could ask how much do you spend when you hunt?
Hunt clubs, determine which river discharge rates were good /not good for hunters.
Hunting access roads possible layer in GIS, but may want to survey hunt clubs to denote which roads are important to them. **New Task for Phase II: Consult Hunt Clubs and NCWRC officers on this**.

The team agreed that to be most efficient a single survey for all 3 user types (fishermen, hunters, platform users) should be developed. Precede the development of the survey with expert interviews to help in identifying issues and survey questions. Nature Observer flow concerns might best be addressed by expert interviews only.

Combining and Rating

Jim M. suggested we group activities that were primarily land related vs. water related. The activities were rated for their value as indicators of the relationship between recreational use and flows. (Ratings in red. Those rated "1" were thought to be the best indicators of overall effect of operations on downstream recreation.) The number and ease of contacting a group of participants in a recreational activity was also considered. For example, it will be easier to survey groups participating in hunting and fishing than nature observers.

Water-related recreation

- Swimming (**3**) - considered a low priority because it is an infrequent activity.
- Water skiing (**3**) - considered a low priority because it is an infrequent activity.
- Fishing (**1**) – very flow related, identifiable users who can be surveyed at ramps or through guides, some existing data
- Hunting – access by boat required for certain areas. This was decided to be primarily a land-related activity and while water levels in the floodplain affected hunting opportunities on land, changes in water levels in the river itself didn't directly affect the ability of hunters to access the land.
- Nature Observation – less affected by water level, have a different experience depending on flow, but not necessarily better or worse. Hard to identify and contact, except for ecotour guides.
- Boating (captured by hunting, fishing, platform)
- Camping (**1**)– platform (paddle trail), primarily water- related, identifiable through registration

Note: West of Williamston camping experience becomes more land-based opportunistic.
Note: What a person does, nature of activity changes as water level changes, often time without Precluding the intent of the activity.

Land-related recreation

- Hunting (**1**) – identifiable (permits, clubs, guides) fairly clear-cut relationship to flow, experience component, use GIS road layer. NCWRC officers.
- Nature observation (**1.5**) Difficulty of contacting and surveying this group was identified as a possible problem, could use knowledge base of outfitters and wildlife refuge staff. Nature observation has no season (likely need same conditions as hunters, but maybe at different times)
- Environmental education (combine with nature observation?)
- Camping (**3**) Informal campers are difficult to contact.

Note: /WQ and downstream ecosystem results also applicable to recreation experience

Jeff and Cindy discussed the paddle trail system that will extend from Roanoke Rapids/Weldon to Albemarle Sound. It was pointed out that nature observation and other non-consumptive uses (eco-tourism) of the lower river will become more important over time.

Frank said that recreational use has historically been a low priority on hydropower/flood control projects because USACE views their mission on a national level. The displacement of hunters, for example, on the lower river by floodwater releases into the floodplain is not viewed as a "loss" because they have other areas in or out-of-state that they can hunt in. The USACE considers economic impacts in terms of the National Economic Development (NED) account.

Action Items

(all) Develop list of experts who contractors / surveyors might contact to collect data
(all) Develop list of questions might be included in survey
(Jim Mead) Draft Plan of Study
(Jeff) Distribute Roanoke River Partners graph for flow vs possible uses to all team members.
(Jim M.) Discuss the importance of obtaining economic benefit data on recreational activities in the lower river with other team leaders.

Next Meeting

Tentatively at Roanoke Rapids Power Station Friday January 23 9:30 AM.