STEWART

TO:	City of Raleigh Parks and Recreation Department Falls Whitewater Steering Committee
FROM:	Garry P. Walston, RLA, ASLA, LEED
DATE:	10/5/2010
REFERENCE:	Falls Whitewater Steering Committee Meeting #8 October 4, 2010
STEWART PROJECT NUMBER:	C09047

Meeting Attendees:

Shari Bryant, NCWRC
Bennett Wynne, NCWRC
Dana Matics, USACE Falls Lake
Sarah King, Paddler
Elizabeth Gardner, Paddler
Jade Wei, Paddler
Bob High, Paddler
Mark Antonik, Paddler
Kathy Capps, City of Raleigh
Vic Lebsock, City of Raleigh
Seth Yearount, City of Raleigh
Tom Freeman, USACE Falls Lake

Design Team:

Garry Walston, RLA – Stewart
Dave Boyette, PE – Stewart
John Anderson – McLaughlin Whitewater
Risa Shimida – McLaughlin Whitewater (via telephone)
Aaron Asquith, McLaughlin Whitewater (via telephone)

Meeting Agenda:

1. Complete Discussion of Fish Passage
2. Discuss final Water Based Issues – John Anderson
3. Discuss final Land Based Issues – Garry Walston
4. Final Vote of Design Approval– Vic Lebsock

Shari recapped the report on fish passage that was provided at the previous Steering Committee meeting. She and Bennett led a discussion that touched on the following items:

- The conclusion of the NCWRC is that the project has the potential to impact future fish spawning habitat in the event that the Milburnie Dam is removed in the future.

- The entire discussion is only applicable if the dam is removed. Shad and Striped Bass are sometimes found upstream of the dam during flood events.
- The rocky bottom between the end of the proposed whitewater course and the dam outlet are prime spawning areas.
- There was much discussion about how fish would get into Falls Lake from the river. Three possible options were discussed, including fish ladders, fish lifts, and fish transport.
- If transporting of fish into Falls Lake is so important, why isn't it being done at present?
- Is there a target date for removal of the Milburnie Dam? It is currently under government review, but public opinion has turned against it. No date has been set for removal.
- Are there any similar fish passage projects in the area that have been studied and the results quantified? Not locally.
- After a lengthy discussion on whether or not there is enough data to support either side of the debate, John Anderson recommended that we move forward with the project as designed, with the understanding the issue could be revisited in the future if and when more data is provided.
- Vic asked whether USFWC could provide any data to indicate whether or not it would matter if the Milburnie Dam was removed, since the Falls Dam was built decades after the Milburnie Dam, and the river between the two has significantly changed in the intervening years. There is no finite answer to the question.
- Sarah asked if the introduction of a diverter control were introduced into the project, would it help the USFWC feel better about supporting the project. Shari indicated that it would.
- Vic expressed concern on the part of the City of Raleigh with long term maintenance and cost of such devices.
- Sarah reiterated that if fish passage is ever reintroduced in the area, that passage all the way to the dam is crucial.

Vic stated that the diverter issue could not be resolved without more discussion among the City staff, so he will ask the Steering Committee members to vote for or against a mechanical diverter in the coming weeks via email.

John Anderson then led a discussion of the outstanding water based issues from the emails generated by the Steering Committee after the previous meeting.

1. Diverter Island/Diversion Weir – The City staff will discuss the cost/benefit of such a device and ask the Steering Committee to vote on it.
2. Targeted Flow Volumes – John provided a chart and cross-sections to demonstrate impact on flow in the north channel.
3. Put-in Locations: (size, number and location) – the put in will be moved to just east of the stream feature that intersects the river in the pool area.
4. Confirm that features will "run" during normal flow levels – John confirmed this.
5. At what level will features "wash out" – The lower level will continue to flow at 4000 cfs.
6. Could a "user friendly" bottom be incorporated into the design? – Yes, the bottom will be natural granite.
7. Impact to shoreline beyond end of course? – Armoring will begin and end approximately as shown on the current plans.
8. Armoring on north shore? - The City will discuss shoreline stabilization with the River Mill homeowners and ask them to put the issue to a vote among the homeowners. The City will provide this service if the residents of River Mill want it.

Garry Walston led a discussion of the outstanding land based issues from the emails generated by the Steering Committee after the previous meeting.

1. Bank Stabilization – it was decided that armoring would be used with a 2:1 slope to just above the high water line, and 3:1 slopes and re-vegetation would be used above that point.

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2. Utilize Native Plants – Yes.
3. Location of Trail Access Points – Trail access points will remain as decided at the previous meeting.
4. Trail to Parking Lot – A more direct connection will be added from the take-out area to the parking lot. This will require a significant amount of stairs.
5. Signage – Type and location will be determined during construction document preparation.
6. 911 Call Station – The City will explore options for emergency notification. The current system is subject to vandalism and false alarms.

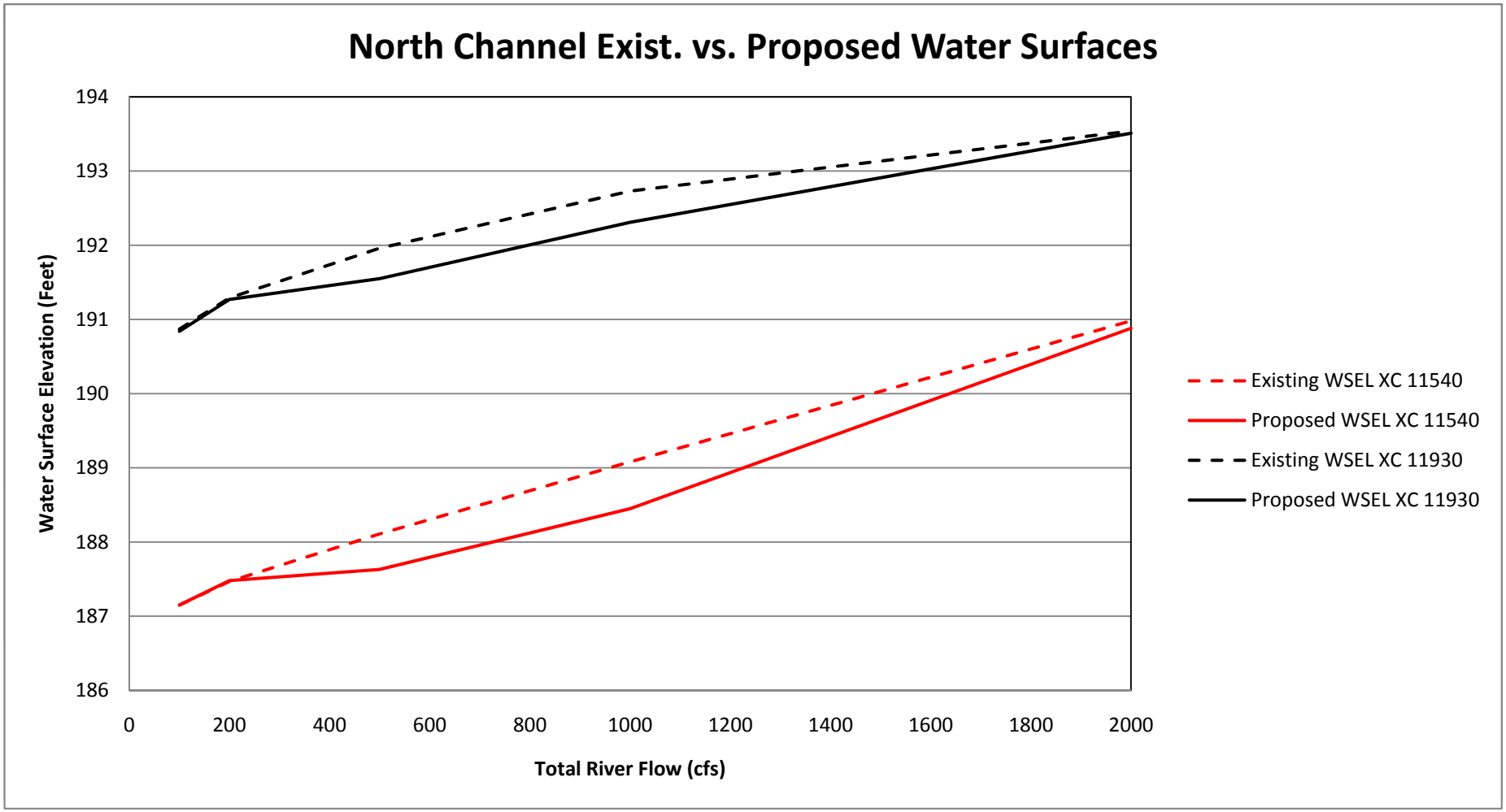
Seth asked if an outdoor shower could be incorporated into the future bathroom/ changing room design. This element will be included in the future design.

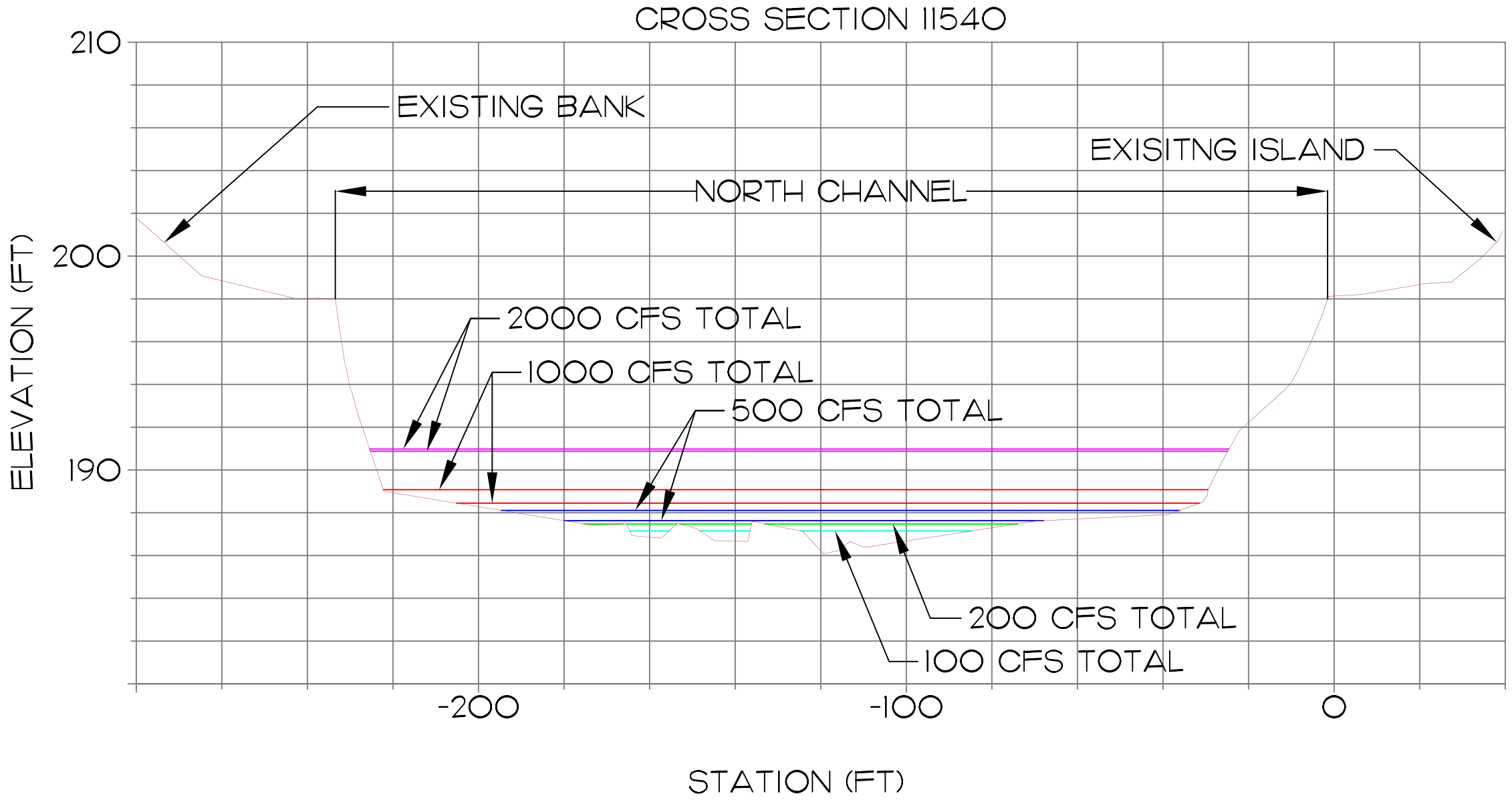
Vic asked for a consensus vote on the project with the discussed revisions. The vote was 9-0 in favor of the project, with the exception of the north channel stabilization, which will be added if desired by the River Mill residents.

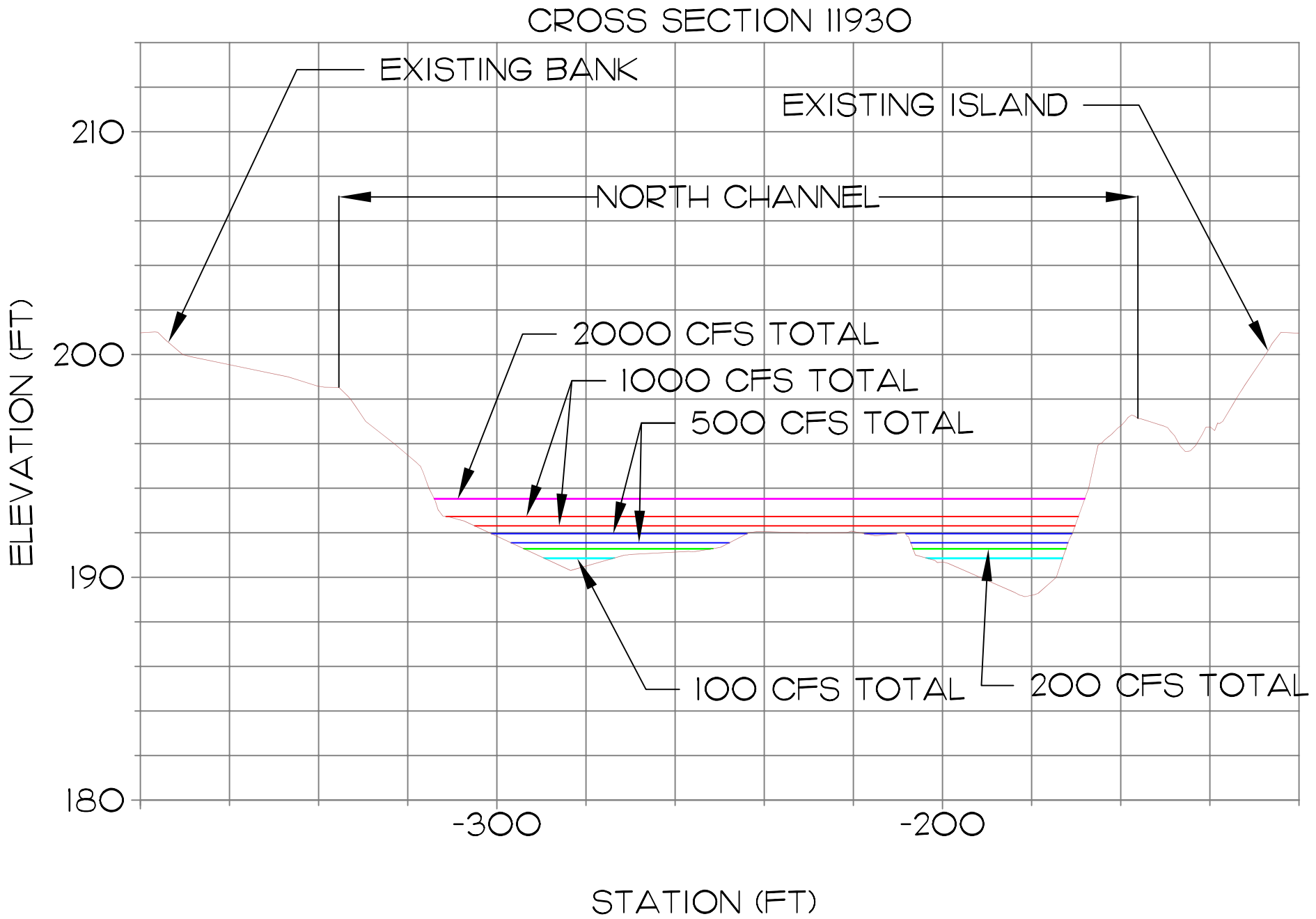
Meeting Wrap-up and Schedule:

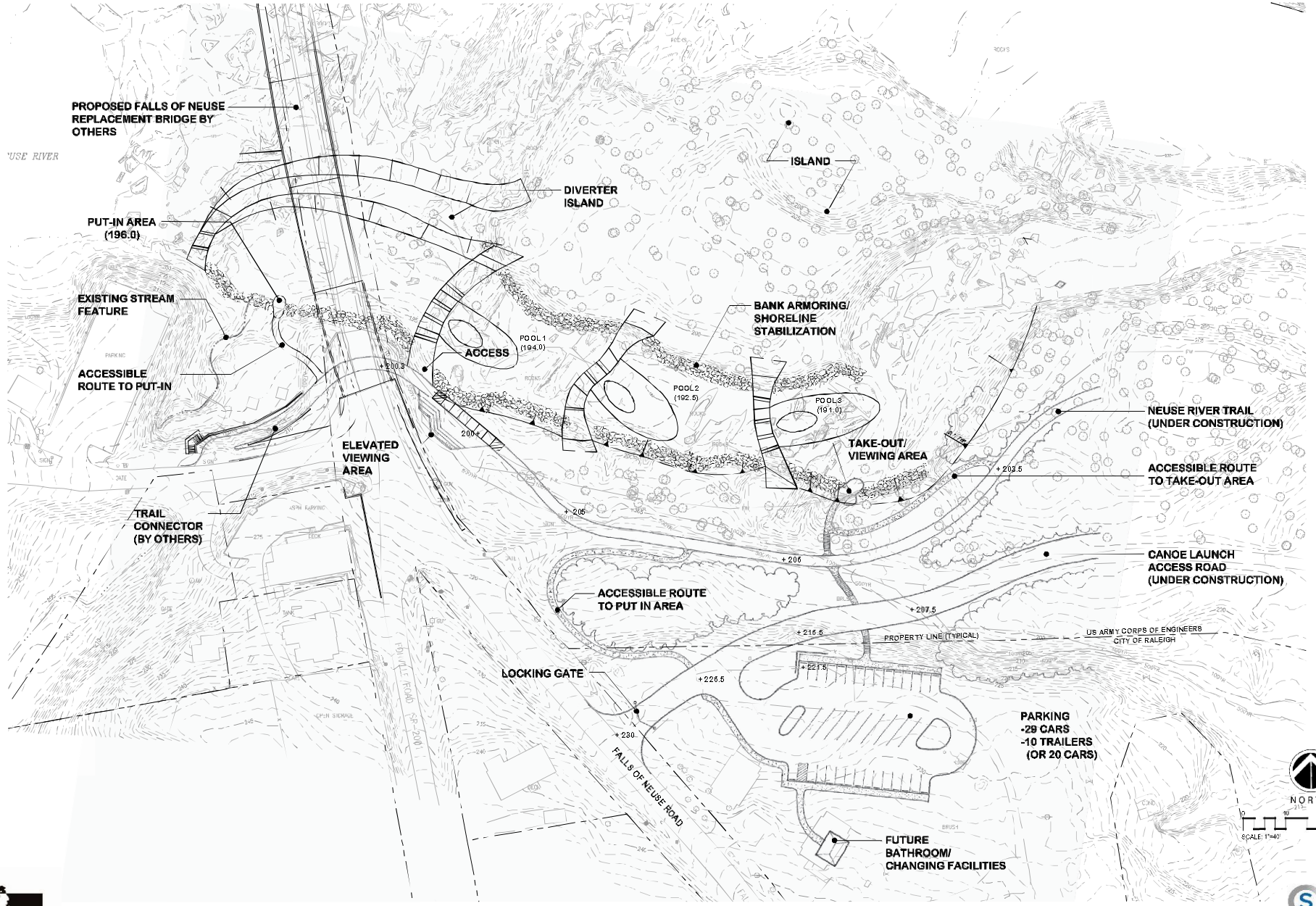
This was the final Steering Committee meeting. The next scheduled meeting is the Community Meeting on November 3, 2010. Vic asked that Steering Committee members attend in show of support of the project. Tentatively, the project will be presented to Park Planning on October 27, 2010 at 1:00, prior to presentation to the PRGAB.

Attachments: Chart and sections from McLaughlin
Site Plan from Stewart


North Channel Exist. vs. Proposed Water Surfaces
Water Surface Elevation (Feet)
194
193
192
191
190
189
188
187
186
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Total River Flow (cfs)
Existing WSEL XC 11540
Proposed WSEL XC 11540
Existing WSEL XC 11930
Proposed WSEL XC 11930


CROSS SECTION 11540
210
200
190
ELEVATION (FT)
EXISTING BANK
EXISITNG ISLAND
NORTH CHANNEL
2000 CFS TOTAL
1000 CFS TOTAL
500 CFS TOTAL
200 CFS TOTAL
100 CFS TOTAL
-200
-100
0
STATION (FT)


CROSS SECTION 11930
EXISTING BANK
EXISTING ISLAND
NORTH CHANNEL
2000 CFS TOTAL
1000 CFS TOTAL
500 CFS TOTAL
100 CFS TOTAL
200 CFS TOTAL
210
200
190
180
-300
-200
ELEVATION (FT)
STATION (FT)



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FALLS WHITEWATER PARK

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McLaughlin Whitewater