Overall, there are very few areas of disagreement. Given that the document Mr. Knust referenced was not the document that is being presented, there remains items for clarification. His comments are provided in the left-hand column and the response from Practical Proposal Team is on the right.

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| **Mr. Knust’s comments regarding the PRELIMINARY PRACTICAL PROPROSAL** | **Reaction in context to the OFFICIAL PRACTICAL PROPOSAL.** |
| Comment [aek1]: The preliminary study has been done (at least from my perspective...) what I recommend as a next step is development of construction plans. If WFCA were to engage BRCJ in this, we would include the permitting, design for relocation of any conflicting utilities, and construction management in our fee. | According to page 13 of the Conceptual Design the following preliminary studies are to be completed. The PP simply quoted the *Conceptual Design*. Team members called appropriate professionals to obtain estimates:  *“It is recommended that the WFCA continue to engage with an engineer to develop a timeline for implementation of the*  *selected design scenario.*  *A suggested sequence for project implementation would include the following steps:*  *• Project Scoping and Scheduling*  *• Topographic Survey*  *• Bathymetric Survey*  *• Evaluation of Property Acquisition & Easements*  *• Pump Systems Evaluation*  *• Design Consultation with City, County, State, & Federal Authorities*  *• Construction Document Design*  *• Permitting and Approvals*  *• Bidding*  *• Construction*  *• Monitoring and Maintenance”* |
| Comment [aek2]: The estimate included in the report for Pond 3-4 stream restoration does include roughly $100k for Site Restoration (i.e. landscaping). Not knowing the full scope of the previous rain garden estimates, I cannot directly compare them to the estimate included in the report. However: I feel that $400k total would be at the high end of the potential total cost for the stream channel through Ponds 3-4. | Though at the “high end”, Mr. Knust indicates that “$400,000 is not outside of a reasonable estimate.” Not having details as to the exact amounts that were dedicated to landscaping costs in the Conceptual Design, the PP team would be willing lower this estimate, but feel that given inflation, etc. that it may be best to estimate high and then be pleased to have costs come in lower than estimates. |
| Comment [aek3]: If the stream channel is constructed, and Pond 5 is engineered to be a sediment forebay as recommended, the need for dredging should be reduced at Pond 6 & 7 and eliminated at Ponds 3 & 4. Also consider the years of deferred maintenance that would be needed to maintain the existing pond system at a desirable and aesthetically pleasing condition. The aeration and recirculation systems will also require electricity and maintenance. | Given that the Pond Renewal Option has a forebay installed in Pond #3 and a large amount of the sediment actually enters the system at Pond #3 this argument seems questionable. Wouldn’t a sediment forebay in Pond #3 serve a better purpose as one in Pond #5? Pond #6 receives a large influx of sediment at the inlet next to Moss Creek Drive, a forebay in Pond #5 will do nothing to limit the sediment accumulation from that source. How can the conversion of only Pond #3 serve to reduce significant costs? Pond #4, though not technically a pond will still have standing water or become a wetland area which will be a perfect area in which sediment will accumulate. Will that require more maintenance/attention? |
| Comment [aek4]: There will always be sediment entering the pond system. If you impound water below the elevation at which it can drain out, sediment will settle in the bottom of the pond. I have no experience with Clean-Flo or their muck enzyme treatment, but daresay it is impossible to completely eliminate the need for dredging. | The Official Practical Proposal does not use this statement but rather acknowledges that long-term maintenance may be reduced with the use of alternative methods. Readers are encouraged to explore the Clean-Flo website for information. |
| Comment [aek5]: I agree with this statement. | From the PP: “Deeper water with less muck, less phosphorus from lawn fertilizers, and recirculating water would generate significantly fewer issues with algae. This would reduce maintenance costs for water treatments.” |
| Comment [aek6]: See comment aek4 above... | No comment needed |
| Comment [aek7]: Yes, my calculations are rough estimates, but are based on years of experience with local earth moving contractors and their costs. | From PP: “We know now that future dredging can be done in a more efficient way by professionals who specialize in pond dredging and erosion control. Nonetheless, we do have some data, and we believe it is a better starting point for estimating than are the rough calculations in the Knust report.” Having stated the above The OFFICIAL PRACTICAL PROPOSAL still uses figures from the Knust Conceptual Design. Ted Boardman continues to obtain estimates for comparison purposes. |
| Comment [aek8]: Note that the volume of material needing to be removed is a much more valuable point of comparison than the surface area. | No disagreement. But given that all the waterbodies are part of the same system there would seem to be a loose correlation to the size of the body to the amount of work that will need to be completed, such as the size of a liner to be installed or the amount of shoreline that will need to be addressed. |
| Comment [aek9]: This means that much more material will need to be removed from Pond 3, than P1 or P2, taking more trucks and more time. | PP: “While this cannot be used to precisely forecast the amount it would cost to finish dredging and renewing Pond 3, it is a data point based on our experience. There is good reason to expect the cost to finish dredging, relining, and bank repair of Pond 3 would be less than this amount for the following reasons:  1. The dredging method would not require exposing and inspecting the liner. Rather it would be to remove a certain amount of earth from Pond 3, dig it 2-3 feet deeper, and emplace a new liner.  2. Vacuum dredging took a lot of hours by several workers for many days. Mechanical excavation would be faster and more cost-efficient.  3. The expense of a badger truck would not be needed; material can be pushed onto a flatbed truck.  4. Using a company that specializes in pond dredging and erosion control would be more efficient, and the results would be predictable, backed by prior work and testimonials.  5. Some material has already been dredged from Pond 3 in the last two years.” |
| Comment [aek10]: Yes but considering the difficulty in accessing parts of Pond 3, some additional time will be needed. |
| Comment [aek11]: Pond 3 has much more flow (and therefore sediment) entering it than Ponds 1 and 2. It is likely that whatever was previously dredged out of Pond 3 has already filled in and will need to be dredged out again. |
| Comment [aek12]: Note that Pond 3 has much larger drainage area and will require larger pumps to keep it dry. | These comments were made to the PRELIMINARY PRACTICAL PROPOSAL. The OFFICIAL DOCUMENT uses the figures of previous work as an addendum for reference to answer questions as to what has been spent previously. |
| Comment [aek13]: greater volume of removed material will lead to greater disposal cost. | The need for removal of material in Pond #3 will occur with both options. In truth, the need for new “healthy” topsoil will be greater with the Stream Channel. |
| Comment [aek14]: The Pond 3 outlet weir requires attention, cost for this should be considered. | The weir was calked within the last couple of years. The reference to the need for repair is not known. But the PP does raise the question as to the cost to remove/alter the weir for the Stream Channel. More importantly it raises concerns as to the integrity of the “retaining walls” that appear to be supported by the weir. If they are to be removed what will be the cost to replace them and is the cost included in the estimates? |
| Comment [aek15]: I promise I did not intend to steer anyone toward Scenario #2 based merely on the bottom-line cost. My objective is to provide realistic cost data on which to base your decisions. | Realistically, many WFCA residents are most concerned as to what the bottom-line costs will be. Acknowledging this critical issue, the PP team has looked for an option that will reflect the most cost-effective alternative for installation, maintenance, and aesthetics. |
| Comment [aek16]: Uses hydraulic vacuum. Does not dig deeper than current liner, | The different approaches are acknowledged. But historically ponds #6 and 7 seem to have faired bettered over time and the need to dig deeper is questioned if significant costs can be saved. However, it is questionable as to why the two costs are so different and should the two ponds be able to deepened and new liners installed for a reasonable amount more than it would be recommended to do so. |
| Comment [aek17]: Uses hydraulic vacuum. Does not dig deeper than current liner, require the removal of riprap, or estimate the cost of electrical line (same as scenario #2 |
| Comment [aek18]: Through use of sediment forebays, I would expect the need for dredging in the remaining ponds to be significantly decreased, while the frequency of maintenance at the forebay would increase... but by locating the forebay at an accessible location, overall dredging costs should be lower. | See response to comment #3. |
| Comment [aek19]: Yes, this is true, and cost for landscape maintenance has not been included in my report. | Given the WFCA historical lack of attention to overall landscaping needs, this is an extremely serious issue. It took several years to convince the management team to address the muddy weedy mess in the north end of Pond #3. The PP team remains concerned that unsightly erosion and weeds will take over the more extensive landscaping designs required in the Stream Channel Option. It is proven to be questionable as to the ability of WFCA to maintain attractive shorelines around the existing ponds, let alone the more complicated needs of maintaining an attractive rain garden and stream channel banks. |
| Comment [aek20]: Through use of sediment forebays, I would expect the need for dredging in the remaining ponds to be significantly decreased, perhaps on a 10-20 year interval, while the frequency of maintenance at the forebay would increase... but by locating the forebay at an accessible location, overall dredging costs should be lower. | No argument. But a reminder that a forebay is included in the design of renewing pond #3 and an access point has already been created. (However, it has NOT been maintained satisfactorily and has become a significant eye sore.) |