



## LONG-TERM MAINTENANCE:

It is important to focus on the issue of long-term maintenance costs. Obviously, the stream-channel scenario entails much greater upfront expenditures, but the argument has been made that it would bring worthwhile long-term savings by reducing the need for pond dredging. On examination, this argument can be challenged.

Regular maintenance costs to periodically clean sediment from the ponds run into the tens of thousands, depending upon the type of removal and the size of the pond. The chief argument in favor of the stream-channel idea is supported by the belief that by eliminating the need to remove sediment in the ponds that long term savings can be achieved. It has been assumed that the cost to maintain the stream channel banks, even with more frequent maintenance, would be less than the pond cleaning.

This may have been true if six of the ponds (Pond #7 is required by the city as a retention pond) were converted to a stream channel. Given that only ponds #3 and #4 are converted, the savings are minimal, at best.

- Since almost \$100,000 have been spent to renovate Ponds #1 and #2 it has long been acknowledged that it is not advisable to convert them.
- Additionally, the Knust report identified that ponds #4, #5, #6 and essentially #7 exist on the same topographical plane, making it more difficult, if not impossible, to cost-effectively create the necessary change in grade to force adequate water flow in a continuous stream channel. Therefore, they should not be converted.

Moreover, the stream-channel scenario would entail far greater landscape maintenance than would be the case in just maintaining the bank vegetation of the existing ponds. Sediment will collect requiring maintenance even in the stream channel. The other five would still need to be dredged. Hardly a big saving.

Of note, Ted Boardman has researched alternative methods to keep the ponds clear that are less expensive than the current chemicals and could delay the need for future dredging. The committee during 2019 experimented using enzymes rather than chemicals to clear ponds #1 and #2. A review should be undertaken to determine if the enzymes were introduced in 2020 and are currently being utilized, while examining the results for effectiveness. Additionally, Sandy Martin during the city workshop, was made aware of a species of fish that the city recommends for keeping algae at bay. These and other alternatives need to be explored.

Both Scenarios require the installation of a sediment forebay that will require regular clean out. There is no saving or extra cost to either scenario due to this fact. Option B would have a forebay in pond #3. Scenario #2 (stream channel) would have a forebay in pond #5. Mr. Knust estimates that it would cost \$10,000 to vacuum each forebay. The long-term cost of periodically clearing each forebay would be the same in both scenarios. Hence, no saving in the stream-channel plan.