Vancouver Lake Watershed Partnership

Summary Notes for Steering Group –Technical Group Working Session
Meeting Date: December 8, 2011

Steering Group Members Present:

Patty Boyden	Port of Vancouver
Kevin Gray	Clark County Environmental Services
Brian Carlson	City of Vancouver

Technical Group Members Present:
Harvey Claussen
Thom McConathy
Brett Raunig
Gretchen Rollwagen-Bollens
Jeff Schnabel
Dorie Sutton
Lisa Willis

Other Agency Members Present:

Katy Brooks	Port of Vancouver
Loretta Callahan	City of Vancouver
Rob Guttridge	Clark County Environmental Services
Ron Wierenga	Clark County Environmental Services

Project Management Team:

Phil Trask	PC Trask & Associates, Inc.
Eileen Stone	PC Trask & Associates, Inc.

Please note: as these notes capture a working session they are in a slightly different format than typical meeting summary notes.

Phil introduced the background, purpose, and plan for the work session to the group. In September, the Steering Group asked for a table so that the Steering Group and Partnership could look at potential management techniques. The resulting draft table was initially termed "Funding Considerations" and renamed "Comparison of Lake Management Focus Options." This table was introduced briefly to the full Partnership at the September 15th Partnership meeting with the note that discussion would follow at the December meeting. At the November 16th Steering Group meeting the Steering Group requested a means to better look at how various lake management techniques may effect the beneficial uses of Vancouver Lake. The concept behind this is that as the Partnership is in the research phase, examining techniques and the Partnership's desired outcome now will be a more efficient use of time than waiting to do so until after the USGS research is complete.

Today's working session was requested by the Steering Group with an invitation to Technical Group members. Jeff, Katy, Phil, and Eileen worked to develop a tool to examine management techniques relative to beneficial

uses. The resulting document, the matrix entitled “Techniques and Beneficial Uses”, is what the group is charged to work through today. Today’s session is to see how the process works, explore assumptions, find agreement, and clarify how the process will work for the full Partnership meeting on December 21st.

Jeff described the Techniques and Beneficial Uses matrix. The left hand column lists management techniques from the earlier table, which are based on the Techniques for Algal Control document. Across the top are beneficial uses of Vancouver Lake. Jeff, Phil, and Eileen started the scoring process for the group to discuss today. The scoring is set up as 1 for a positive effect on that use, 0 for a neutral effect, or -1 for a negative effect. These scores are a first cut and have a tremendous number of assumptions. This meeting is where we would like to begin clarifying the assumptions and interpretation of each and come to an initial scoring.

We must also note that there is lumping and splitting in the actions. For example, the category of dredging covers many possibilities: this could be dredging the entire lake to 16 feet, or dredging a smaller square for the sailing club, or dredging small pockets near cold water seeps to benefit salmonids.

Phil noted that in 2012 we need to be narrowing in on a subset of potential techniques. We will need science behind a decision, but we need to narrow in on what we might go forward with/what we want to see for the lake. The approach we are looking at today will allow us to make better progress in choosing a technique(s) once USGS information is available.

Thom commented that he wishes this went through the Technical Group. At the last Technical Group meeting Thom provided a bibliography of other techniques to the group. He is not sure why these other techniques are not included here, e.g., perching of lake and conversion of septic systems. There is shallow lake information from states that have done this work over many years and have evaluated what techniques were successful and what not, along with funding methods. We should look at this.

Phil agreed that the matrix is not all inclusive, but this is starting the process, and it is recognized that more techniques will come to light as we move forward. Some techniques are lumped into ones already in the matrix. For example, septic conversions would be part of BMPs.

Jeff explained that the techniques listed are based on those in the techniques document. There are other techniques that have not yet gone through the analysis of those in the techniques document. This is a first step to get an initial sense of how techniques will impact beneficial uses. This is a living document and other techniques can be added later.

Katy added that at this time we are proposing a process that prioritizes where we should feasibly focus. The process is a continuous loop. Another aspect we will look at later is funding, both the potential source of funds and the costs: this is part of a go/no go delta ranking. Later examination would also include filters such as implementation feasibility and desired outcome to determine how a management plan will look.

Kevin noted that Thom’s disagreement is understood, but we will go forward with this process right now so that we can have a meaningful conversation at the full Partnership meeting on the 21st.

Phil explained to the group how the work session is aimed at going through the matrix and testing our assumptions, and examining how each technique is likely to either detract, be neutral, or be beneficial to each use. While only some Technical Group members are here, we are hoping to get some level of input from both the Technical and Steering Group members. For those where we disagree, we would like to find out how others view potential effects of the techniques. He asked the Steering Group if the premise is to sort (or bin) some of the beneficial uses – actions that are more likely to get support to move forward.

Patty noted that there will be other filters/criteria, such as which methods are sustainable, or highly managed. For example, biomanipulation scores high, but has potential negative impacts not included in the matrix.

Brett commented that some beneficial uses are easier to address than others. A technique may easily address one use and not impair others so that they could still be addressed later. For example, canoe/kayak launching facilities would not impact other lake uses.

Brian remarked that the matrix will work, but as Patty mentioned criteria will need to be added. This matrix is part of prompting discussion. We have the Technical Foundation and Funding Strategy. The Partnership has been on a long journey, but it is still unclear as to where we are going: exactly what are we trying to fix, what will fix it, is it affordable/achievable: what is our desired end game? This process helps bring us from the unrestrained vision to narrowing down to what we are striving for. We are in the research stage, and then analysis stage, and with starting this process, we will prepare for implementation.

Phil asked the group to start working through the matrix starting from the first row. Jeff, as representative of the Technical Group, will lead this part of discussion.

Jeff: The first row describes the existing status quo option. This is what the City, County, and Port are already doing to reduce nutrient/pollutant level.

The second row describes a ramped up watershed approach. For this approach, actions would be implemented for over 30 years, and at end of that time benefits to lake would be seen. This differs from the rest of the options which are in-lake options, and are likely to see benefit up front, but to see continued benefit over 30 years, we may need to continue implementation over time.

The group reviewed assumption #1: Effect is scored based on whether a given technique *would be expected to* degrade (-1), have negligible effect on (0), or improve (1) each beneficial use compared to current conditions. Data analysis from USGS in combination with other technical studies will inform us to what extent a given technique *is likely to meet expectations* for Vancouver Lake.

Thom commented that the process could be better expressed through narrative than a spreadsheet and the use of ranking numbers in this way is arbitrary and misleading.

Row 1: Existing programs (status quo): This action ranked as zero across most uses, but -1 for sailing and salmonid use because of the current trend of lake shallowing (sedimentation). There is a temporal aspect: crew and kayaking would be impacted by sedimentation much later than sailing. The group discussed that this ranking may be changed to zero across the board as the sedimentation rate is quite slow.

Row 2: Increased watershed efforts: Over the long term we would see positive impacts for swimming, salmonid use and aesthetics with cleaner water. The remaining uses scored 0's on the rest: sailing will not get better: won't get worse.

Harvey commented that he would rank sailing similarly to swimming, as sailing lessons count on being in the water a lot.

The question was raised about aesthetics as a beneficial use: it is really sight and smell. Eileen will change description and remove term of "view shed."

The group commented that there would be a beneficial impact on water fowl as their food source would improve due to increased water quality. Change score to one.

Row 3: Artificial circulation: moving water around in lake to disturb algal reproduction, reducing amount of algae. This would benefit swimming, but due to numbers (approx 100 small circulators), negative for sailing, kayaking, and aesthetics. For crew, score would be zero: circulators would be anchored so not in the way for crew. They would not be a fish hazard.

Harvey noted that there may be other artificial circulation methods that would have different effects on the beneficial uses.

Row 4: Algaecide/algaestats: negative effect on aesthetics because either a lot of dead algae or a lot of barley straw (barley straw as algaestat – inhibits growth, but does not kill algae). The group noted that the negative effect would be temporary, and then the lake would look good. Therefore, effects to aesthetics to will be changed to zero, as all effects are to be considered for the long term, not initial implementation/construction.

This technique has potential negative impacts on fish and waterfowl.

Row 5: Alum: Alum is used to precipitate phosphorus from the lake in order to reduce algae blooms. Alum treatments can be effective for a period of many years depending on phosphorus inputs from the watershed. The only negative on this is there may be a -1 on biota, salmon: we need to look into those potential effects.

Row 6: Dilution/flushing: This could be a small or large level of implementation. Harvey asked to change effect on sailing to 1 like swimming.

Thom requested addition of another technique: perching the lake: put a tide gate across at Lake River like on the flushing channel, so that water can enter the lake but not exit. The higher level of water could provide dilution of the lake.

Jeff noted that this method can be added later with other methods.

Row 7: Water level drawdown: the idea is to change "flip" the lake from algal dominated to a plant dominated lake in conjunction with recruiting plants – negative for boating because plants would interfere with boating path. Effect on swimming: would be positive because of clearer water. However, a barrier on the lake bottom in

the swimming area would be necessary to prevent plant growth in that area. This would need to be maintained on a regular basis.

The group was reminded that the ranking is for the long term effects of the technique, not the short term effects of while the water level is drawn down. Also, as we know more, costs will become more clear. Current cost estimates also have a note about the confidence in the cost estimates within the Management Focus Options table.

Row 8: Biomanipulation for algal control: This includes a suite of options: phages, fish, and plankton that could change food web. The excellent research from WSU allows us to better understand some aspects of how biomanipulation might work.

Row 9: Carp: negative effect on salmonid use is because barriers that may be implemented could impair salmonid use. It was requested that barriers be teased out as negative to salmon because just fishing for carp a positive for salmon. It was pointed out however that carp removal is rarely successful without barriers. Thom mentioned that a commercial fishery and privately operated fish traps could assist in carp management.

Row 10: Rooted plants: this is usually in conjunction with water level drawdown. The plants would help clarify the lake due to their use of nutrients from the water column. It could be tried separately, but plant recruitment is often not as successful. Plants throughout the lake would have a negative impact on sailing and crew.

Row 11: Swimming enclosure with treatments. The group agreed that all effects should be the same as those under the status quo (row 1) except for swimming. This is with the assumption that status quo would be zero across the board.

Row 12: Sediment removal for Sailing Club: Ron requested that effect on warm water fish be made zero, not a 1.

Row 13: Canoe/kayak launch facilities: This would only increase accessibility, not water quality. This would also benefit crew so crew would be changed to a 1 along with canoe/kayak. For everything else effect would be the same as the status quo.

Row 14: Sediment removal for fish: benefit to warm water fish and salmonid use. For everything else effect would be the same as the status quo.

Row 15: Wetland restoration: would benefit the lake by the plants' use of nutrients from the water column. Technical information will inform us as to how large a wetland(s) will be enough to manifest a change. Everyone agreed to the scores.

Row 16: Fish habitat: shows a beneficial effect on both fish types and kayaking for a more interesting kayaking experience.

Row 17: Biomanipulation/stocking: for warm water fishery: positive only for warm water fish, negative for salmonid use.

With completion of review of rows and effects on beneficial uses, the discussion was opened to other questions/comments on the matrix.

It was asked that the funding column headings be clarified so that the titles of local or federal/state/other are clear that they are potential sources, not that the funds are available from that source.

Phil explained that the next evolution of this matrix will have an additional column for the likelihood that if a techniques were implemented that our desired result would be achieved.

Phil asked if the group felt the beneficial uses could be binned according to the Partnership's values. If so, it could lead to maybe three tiers and lead us to what techniques would be used to provide for those uses. If we knew something of general values of beneficial uses, we could start narrowing our focus. If we knew as a group that for example, the first three uses are the highest priority, then we know which actions are worth more exploration.

Harvey said he could see going through the beneficial uses and using sailing as an example, look at which actions benefit sailing, which detract, which are a wash.

Rob noted that we could look from a different angle in terms of the row totals to see which techniques would most benefit the lake.

Katy commented that maybe we need to look at which beneficial uses we want, and see how we can support as many of these as possible.

Kevin stated that he would like to have the greatest use of the Partnership time. We aren't ready to bin out the beneficial uses, but to look at them from a comprehensive level, including what additional columns or techniques should be added, and get everyone's ideas. We need to look at how we will run the upcoming meeting.

Brian asked if there some other rows (techniques) that are obvious that should be added.

Thom stated that we need to note sustainability of the various techniques and what the long term (30 year) cost will be when things need to be done repeatedly.

Brett commented that some of these techniques have higher funding feasibility than others in that they are more likely to get funding (more attractive to funders).

Katy agreed that funding feasibility is a filter, and an eventual go/no go decision. However, at this time we don't want to lose good ideas that may cost a lot more money than we have today, but have great overall benefit. Funding shouldn't be stopping us from looking at doing the right thing, but it is a reality. Likelihood of success and sustainability are also two significant considerations. It was noted that the cost of any single technique could be less when done along with other techniques.

Phil stated that at this time we need to plan what we will be working on with the entire Partnership on the 21st: Today we were testing the matrix we have in front of us. There are two routes we can take with the full

Partnership: 1. Take a revised matrix and go through it the same way with the entire Partnership; or 2. Take the results from today and simply discuss the synthesis with the Partnership.

Katy recommended bringing the work we have done and go through the process in same way with the whole Partnership. We will have to explain why we are doing this; this is a departure from what we've been doing. We have a year to get a work plan together: have everyone in the room be part of developing it. This matrix is a dynamic document, will be influenced by research and new ideas, but this allows for new ideas to be plugged in and evaluated compared to others. The meeting will need to include a lot of background on how we got here. The matrix should have the additional columns that we talked about. We should also explain how the writing of the work plan will use this matrix and process.

Dorie asked if we need to prioritize uses with the Partnership.

Phil observed that if we look at the total score at the end without some weighting of different uses, we may get pushed to one technique (higher score) without thinking of what uses the Partnership desires as outcomes.

Brian suggested that this matrix allows for a good discussion on how things interrelate, how things are weighted, and what columns are needed. Gives some order to the chaos.

Harvey commented that it is tough to put weight to the columns.

Loretta pointed out that when the unrestrained vision was developed it was understood at the time that the vision was unrestrained in order to keep everything in the discussion until science/funding/knowledge would naturally restrain the vision. Loretta isn't sure if that understanding still exists today, but the group knew initially that everything in the vision wouldn't be feasible.

Thom remarked that we should bring more considerations into the discussion. When we seek permitting we will need to show that many things are being considered, including recreation, a no change alternative, and a preferred alternative. Then if we indicate that the Partnership favors recreation, the preferred alternative will be some compromise. Only if we are looking at this equitably (keep everything now) will we get through the permit or NEPA process. This is really the start of a working document.

Brett commented that the results of working through this matrix could help drive where more research is needed. If something looks good but confidence is low, we can look at what research is needed to increase confidence in the technique.

Patty stated that for the meeting on the 21st, we want to do what we did today (based on revised version) with all disclaimers that we discussed earlier. Also add the other criteria we have been talking about: add likelihood column before the meeting. Another question is how can we get this done? Will we be able to do this with quarterly meetings or do we need to meet more frequently?

Kevin would like to see the Partnership meeting include an introduction, roadmap of process, explanation of how this will help us get to where we need to be, discuss the disclaimers and conduct the exercise. Explain that this will be a shift from the way we were doing business, but explain why. Use professional facilitation (Katy) to keep us on track.

Thom stated that he is upset that he has not been able to add potential management actions to the list. He feels that while the process is purported to be open it is not.

Patty commented that this is strategic planning for where we want to go while the USGS research is underway. Phil explained that staff was asked to make a tool for this analysis for today's meeting, with the purpose of this meeting being to discuss and refine with Steering Group and Technical Group members. The changes discussed here will be incorporated and more columns and rows will be added.

Meeting outline for 21st:

1. Introduction, show timeline slide, have revised version of this table with extra columns for: likelihood, sustainability, possible lumping and splitting of techniques, and be ready with blank rows to add at Partnership meeting.

2. Work through the matrix as a group. Explain how we got here, how this process will help us move forward.

3. Next steps: use Technical Group and Steering Group meetings to prepare for full Partnership work sessions. It would be nice to develop this beyond just the matrix: show how we can incorporate this into the work plan, and where it fits temporally as well. This process will help us see what techniques we should examine more, and what areas don't need more energy at this time.

The work session was concluded at 4:35.