

Our Choice: The Future of the Shawnigan Basin

Business as Usual

We have choices to make. We could agree to continue developing the Shawnigan Watershed in ways that have become conventional. We could increase the number of subdivisions with tract homes and miles of pavement. We can continue to clearcut private forests, scatter the landscape with gravel mines and compress nature into a system of small parks, themselves developed into commercial enterprises. We could build settlements everywhere that private enterprise might desire, with their infrastructure of roads, sewers, hydro lines, transit, parking lots, commercial amenities, recreation facilities and concrete buildings. We could continue to import our food from elsewhere, dependent on fossil fuels to get it here. We can let our lake slowly transform into a swamp of weeds, invasive species and human wastes, stirred by the exhausts of an unending parade of ever-larger motorcraft. We could build a chemical laden artificial pool to replace the swimming beaches of the lake and the pools of a wild river, allowing such natural assets to become only memories and not the reality of tomorrow's children. We could decide that Shawnigan should become a haven for escape development, absorbing the overflows from an already congested Capital Region. We could go for quantity and perpetual growth, becoming urban in the process, with tax rates to match.

A Future Oasis

We could also choose to do things differently. We could decide that the human occupation of the watershed should be carefully limited, that industrial activity must be compatible with ecological security. Water could be seen as the most important product so that our basin is maintained in healthy condition for this most critical resource. Our streams could run clear of mud and absent of pollutants from industrial activities. Our new settlements could be hamlets in scale, each with small scale businesses and industries that allow people to live and work in the same place, allowing natural forest surroundings to remain the dominant feature of the landscape. We could conduct forestry on a sustainable basis, harvesting in perpetuity and maintaining local woods employment by taking smaller amounts with extreme care for the soil, streams, wildlife habitat and visual integrity of our community. We could identify and take pains to maintain our small stock of food growing land, whether in farms or individual gardens. Our markets could be full of purely local products, marketed with pride by our immediate neighbours. Our parks could be connected by trails that network our community with physically healthy modes of transport. Our primary village could be a walkable gathering place for local celebrations. Our lake could be recovered by voluntarily limiting our uses and taking responsibility for our household wastes. We could be an oasis, known as a rural paradise, where growth is in quality of life and not quantity of consumable things.

Of course these two alternatives are just extreme set pieces, but they bookend the potential futures we could face. Better that we achieve the right balance by our conscious choice rather than having it arise from the accidents of inattention.

Today's Choice

The current proposal for a contaminated soil treatment and storage facility in the Shawnigan headwaters that lies before the residents of Shawnigan is just one of many challenges to the future of our basin. The two contrasting visions suggested here are just snapshots to illustrate how alternative visions of the future can shape individual choices we make each day. Such choices accumulate to create our future. It matters enormously what vision we choose to adopt as a community because so much of what we can do to our landscape will prove to be irreversible in our and our children's lifetime. That is the context in which we need to evaluate the facility proposed by South Island Aggregates.

The Case for and Against the SIA Proposal

The Case For

The SIA argument for the use of contaminated fill for the reclamation of the Stebbings Road Quarry is that a properly engineered, licensed and managed facility would replace the many informal soil dumps that are now scattered and unmonitored across the region. The quarry site is said to be ideal for the purpose because of the bedrock base and extremely limited percolation into the Shawnigan aquifer as demonstrated by test wells drilled by the engineering consultants. Baseline studies have been done and the site would be independently and continuously monitored to demonstrate that the system functions as planned to prevent contamination of the streams and aquifer. If problems occur, the progressive infill model and the leachate treatment system would allow for repair as the quarry continues to be mined and backfilled. It is further supported by the reduced overall costs to society of having a facility located within economic reach of most of the contaminated soil sources on Vancouver Island including many within the Shawnigan basin. This would facilitate the remediation of brownfield sites, particularly in the Capital Region, that would otherwise not be available for more economic uses.

For the proponent it is clear that there is a significant competitive commercial opportunity if government approves the reclamation application because the nearest major competing receiving sites are on Koksilah Road, also in a community watershed, or in Cumberland at greater hauling distance. For the Capital Region it is clear that there are development opportunities. For government, public revenue will be enhanced and jobs will be created. Tipping fees could provide the Regional District, the Malahat First Nation and the Shawnigan community with a flow of funds that could be used to support local infrastructure maintenance and enhancements in a time of limited public funds from taxation.

Continued growth would be supported in Shawnigan by accommodating the needs of the Capital Region to transfer to us their accumulated wastes. Besides the obvious benefits there are also risks to be considered.

The Case Against

The essential fact in the SIA proposal to use contaminated soils for the reclamation fill at their Stebbings Road Quarry is that they cannot guarantee zero leakage of contaminants from their engineered containment system. The effectiveness of their design ultimately depends on leachate treatment facilities that are dependent on long term maintenance and security of pumps that require electricity in an area that can experience extended outages. Increased intensity of storms as climate change proceeds, major seismic events or simple human error can intervene in the best laid plans. Because there will always be a finite risk of leakage as the system ages, the Shawnigan Community stands to bear the long term risk of degradation of its irreplaceable domestic water supply. While the facility may well work effectively at the beginning, given the 50-60 year duration of the active operation and the virtually permanent location of the contaminated soil in the headwaters once the quarry is closed, the risks are also permanent. No current compensation for such a circumstance is possible to ensure diligent management so long into the future through environmental disasters, changes of ownership and the vagaries of provincial government regulation.

While the engineering proposal for the quarry is well thought out, with advances in design that are leading in the technology of today, placement of the facility directly in the headwaters of a community watershed takes risks with a domestic water supply. The understandable public judgment is that this facility is in the wrong place. Siting of a contaminated soil treatment and storage facility should be based upon minimizing risk to the environment in the case of failure. In the current application, the site is based upon using an existing quarry that did not pose such contamination risks when licensed as a quarry or if reclaimed using clean fill as originally proposed.

Conversion to a contaminated soil facility is a matter of commercial opportunity not one of selection based upon minimization of associated risks to a critical public water supply. The site selection process is reversed, putting incidental opportunity before suitability. It is not fair for us to question the motives or sincerity of the owners of South Island Aggregates and their engineering consultants who have invested heavily to prepare what they believe to be a proper facility supported by due diligence. They have gone through the "legal front door" with their application, unlike most of the informal private land waste dumps that are being used by others. It is fair, however, for the Shawnigan community to come to the conclusion that the potential benefits do not outweigh the risks. The correct precautionary conclusion is NO, not in our domestic watershed. This was very clearly expressed by the majority in attendance at the July 12th, 2012 public meeting held by the CVRD .

Of course, if we make that judgment for South Island Aggregates, we should also be prepared to deal with the threats to the integrity of our water supply that each of us is already contributing to the streams and our lake. Clear-cut logging, land development, failed septic fields, motorized watercraft exhaust, impervious roads, cosmetic pesticides and agricultural fertilizer runoff are just some of the issues that cannot be wished away while we target one particular operation.

Plan B

South Island Aggregates will need to fulfill their obligation to reclaim their quarry regardless of whether or not they are permitted to use contaminated fill. The alternative may be to use what is termed “residential quality” fill that poses no threat of leakage of contaminants into the watershed. This alternative has not been designed or its costs estimated so its commercial viability is not known.

It is also not known at this time what class of material is stored in the large fill pile that is already accumulated on the site adjacent to the quarry or if that could be used. Without a “plan B” that could be assessed for benefits and risks, Shawnigan residents and water users have no option but to oppose the current reclamation proposal.

Role of the CVRD

The CVRD has committed itself to manage all waste streams arising from within its borders, expressing a “zero waste” objective for the long term. We have domestic garbage, liquid wastes, organic wastes and contaminated materials of our own that need properly treatment and disposed. For these purposes, sites for landfills, treatment facilities, composting sites, or recycling depots must be chosen to augment those we have now. There are many areas where such facilities will be inappropriate for environmental, economic and social reasons. The job of finding suitable sites has up to now been either historically convenient in a time of smaller population demand on our land base or left to the private sector to propose based on what land happened to be available. The widespread and uncontrolled dumping of soil and other wastes on private land parcels in the Shawnigan watershed is creating unacceptable risks to our water supply. That is why the CVRD has entered into the collaborative arrangement with the Ministry of Environment to try to achieve effective controls where provincial and local government jurisdictions clash.

Facility siting, along with the necessary land use zoning, is now complex and controversial. A region-wide thorough process of waste site identification that engages the public and takes into consideration the social, environmental and economic risks and benefits needs to be conducted. This should be a deliberate and open public process, with clearly identified options to consider, not the series of surprises that can arise from the accidents of commercial opportunity or occasionally available real estate. The CVRD should conduct this process, with the best interests of the public forefront among the considerations, and with particular concern for the aquifers and waterways that are crucial for our future.

