



THE CORPORATION OF THE DISTRICT OF OAK BAY

Council Meeting, December 14, 2009
Uplands Sewer Separation Project

Opening Remarks, William E. Cochrane, Chief Administrative Officer:

The Uplands sewer system was constructed by the Uplands developer rather than the Municipality. It was originally privately owned, as was the entire road system. The roads and the infrastructure were inherited by the Municipality.

There are actually two systems, simply because it was not technically possible to have the entire area draining by gravity to one discharge point. So the north part was tributary to an outfall at the foot of Humber Road, and the south part drained to the foot of Rutland Road.

Both systems include flows from plumbing fixtures such as toilets, showers, sinks and dishwashers – basically everything connected in to the main plumbing stack in the house – along with rainwater from roofs, roads and other surfaces.

All of this discharged more or less continuously through the two outfalls.

These were not Oak Bay's only sewage outfalls. There was a much higher volume pipe discharging at McMicking Point on Oak Bay's southern shore line. Whereas the two Uplands outfalls were quite long, the McMicking outfall barely extended below the low water mark, so when I started work here 30 years ago, that was our highest priority from a marine water quality point of view.

In the early 1980s, then, that McMicking outfall was eliminated and replaced by one that extended half way out to Trial Island. The Uplands was never tributary to this outfall. The Humber and Rutland outfalls remained in place and continued to discharge into Cadboro Bay. Interestingly, the reports at the time did not identify these Uplands outfalls as a priority from a water quality point of view -- not that Cadboro Bay was a great environment for swimming, but the main problem was with the septic tanks in the Ten Mile Point area. These have since been eliminated.

The new outfall heading out towards Trial Island did not work well in terms of making beaches like McNeill Bay safe for swimming. Another outfall, at Finnerty Cove in Saanich near the Queen Alexandra Solarium, was also a source of shoreline pollution.

So in the early 1990s, an entirely new pipe was installed that took not only the McMicking Point flows but also those from Finnerty in Saanich all the way west to Clover Point. Even at that time, sewage treatment at Macaulay Point was seen as a likelihood, so it was regarded as a productive exercise to take these Oak Bay and Saanich flows at least part way there. In the interim, the outfall at Clover Point was long enough that there was no risk of shoreline pollution at that location even with the extra flow.

This new pipe, installed by the Capital Regional District, was called the East Coast Interceptor. Since it had to pick up the flow from Saanich, it ran more or less down Beach Drive to McNeill Avenue where it headed west to Victoria. On the way down Beach Drive, of course, it passed the two Uplands outfalls, so it was able to pick up the Uplands flows as well. The result: no more continuous discharge into Cadboro Bay.

The Uplands flows continued to drain by gravity down to the shoreline, where at the foot of both Humber and Rutland, large pumps were installed to pump the sewage back up to Beach Drive and inject it into the East Coast Interceptor.

What has to be remembered, though, is that the Uplands flows contain a huge volume of water when it rains heavily. The pumps can't handle all of it, and even if higher capacity ones were installed by the CRD, the East Coast Interceptor would not be big enough to take all that flow. So, the two outfalls were left in place, so that they could function as safety valves for overflows during heavy rain. And they do overflow, on average about 6 or 7 times per year at each location. This was a great improvement over the previous situation, and there was no apparent shoreline pollution. Whether the Uplands overflows have any adverse impact on the marine environment, though – as has been said by some to be the case at Clover Point, for instance – we just don't know. It has never been studied.

The Provincial Government is ultimately responsible for environmental regulation. In 1992, when the East Coast Interceptor was installed, these few highly diluted winter overflows at Humber and Rutland were not an issue for the Province. At the end of the decade, though, the Province brought in a new regulation that said, in essence, if you have a combined sewer as we do in the Uplands, you had better make sure that it doesn't overflow except in a type of storm so severe that on average it only occurs once every five years.

With a stroke of the pen, then, the Humber and Rutland pumping capacity was now too small, as was the East Coast Interceptor pipe itself. Replacing or twinning the East Coast Interceptor has not been an option as far as the CRD is concerned. Just too expensive, and they don't really want all of the Uplands rainwater going into their treatment plant in any event.

So the issue created by the new provincial regulation became Oak Bay's problem, and the Minister of Environment, through the CRD, actually issued a directive that read like this:

On or before March 31, 2008, complete cost/benefit studies and an implementation schedule directed at the elimination of combined sewers in Oak Bay to be consistent with the Municipal Sewage Regulation.

As you can imagine, this directive triggered a lot of study of various alternatives. The pressure system concept that has been described to Uplands residents is the most recent. All of these alternatives have been discussed in public at Council and Committee of the Whole meetings over the last four years. In addition to the pressure system, another one that got as far as a senior government grant application involved the construction of two very large storage chambers underground on Humber and Rutland between Beach Drive and the shore line. In conjunction with this work, new gravity storm drains would have been installed throughout much of the Uplands, so that a considerable portion of the system would have been separated as well, and owners of homes in that part of the system would have been required to connect to the new storm drain. It would not have been deep enough that everyone could have connected by gravity from their houses out to the new line in the street. Some would have had to pump.

According to our calculations, this plan would have met the five year overflow requirement, but it was not approved for funding. It was apparent that the Ministry of Environment was not prepared to endorse any plan that depended heavily on the use of any kind of storage facilities.

With that unsuccessful proposal behind us, the Municipality retained Kerr Wood Leidal Associates to look at other options. And in February of 2008 at a public Committee of the Whole meeting, the Director of Engineering presented their recommendations, which involved the separation of the Uplands system through the installation of a new gravity storm drain. This work was proposed to take place over a very long time – 50 years, to be precise – with incremental improvements in terms of both overflows and the amount of water in the CRD pipe being realized each year.

Council endorsed this plan as Oak Bay's official response to the Minister's directive.

Again, not everyone could have connected by gravity to the new storm drain. Many, depending on basement depth, would have had to install a pump on their own property even though the public system itself would have been a gravity system.

Before we spent too much money on the design of this new gravity storm drain, however, Council wanted us to investigate something. Council knew by that point that there was likely to be a treatment plant in Saanich, perhaps at Haro Woods, which might result in less flow going down the East Coast Interceptor. More capacity for Uplands flows, in other words. Maybe larger pumps could be installed at Humber and Rutland to take advantage of this freed up capacity, resulting in fewer overflows and bringing us closer to complying with the provincial standards.

That was investigated, but the finding was that even with those Saanich flows removed, there would remain capacity problems downstream in the East Coast Interceptor. The Director of Engineering reported those findings to Committee of the Whole at a public meeting in July 2008. At the same time, he asked for authority to start spending money on the detailed design work for the new gravity storm drain.

The Committee was not, however, prepared to give that authority just yet. It asked for one more meeting with the CRD to confirm that this amount of system separation was indeed required.

That meeting was set up as a special session, held in public on September 3, 2008. In addition to the CRD, representatives from Kerr Wood Leidal also attended this meeting. It was at this meeting that the low pressure *sewer* system concept was introduced as an option that had not yet been given serious consideration. It was raised by Kerr Wood Leidal, and it had some initial appeal to Council given the relatively simple construction process along with the virtually infiltration-proof pipe.

At this September 3 2008 meeting, then, Council further delayed the commencement of work on the gravity *storm drain* system that it had endorsed previously, asking Kerr Wood Leidal to do some more work on the pressure system concept, and to provide a more detailed report comparing it to the other alternatives already examined.

This report came back at a public meeting held in February 2009. After reviewing the report and asking questions, Council felt that the low pressure system seemed to offer many advantages. The consultants further advised that there was a deadline coming up very quickly for grant applications under the so-called "second intake" of the Building Canada Fund program. Council asked that an application for funding under that program be prepared.

The application was prepared in an accelerated time frame, and its submission was authorized by Council on March 12, 2009, again at a special meeting held in public.

At the time the application went in, the Building Canada Fund grant program materials were conveying the information that projects had to be complete by March 2016, which was a comfortable time frame for us.

Nothing further was heard until late September of this year, when it was announced that the Uplands Low Pressure Sewer System project was on the list of Building Canada Fund-approved grants. This amounted to two-thirds funding: \$5 million of a \$7 1/2 million dollar project.

But, for this particular round of grants, it turned out that at least one of the granting bodies, the federal government, was attaching a much higher priority to short term economic stimulus than to infrastructure renewal per se. So a condition of the grant was that the project be completed by March 31, 2011. It was clear on the face of our application that we were not considering a deadline anywhere near that tight.

In fact, just a couple of weeks before the grant was announced, we received a letter from the Province saying, in effect, "We see you have applied for a grant under the Building Canada Program. There is another program out there that you might also want to apply under. It's called the Infrastructure Stimulus Fund. And by the way, the deadline is 4 days from now. And don't bother applying unless you can finish your project by March 31, 2011." We didn't submit this second application because we felt we could not meet that completion deadline. That instruction, though, suggested that this March 31, 2011 deadline was something special – that it differed somehow from the deadline for the Building Canada Fund under which we had applied. So even in mid-September of this year, we were still under the impression that the deadline was 2016.

Our grant was announced on September 24, and it took about 3 weeks after that to confirm that the deadline was going to be 2011.

Many inquiries were made, but there was no flexibility in that date.

Our consultants advised that they felt it was possible to meet the new deadline if there were no unforeseen delays. Here's what they said on the question of fast-tracking:

On the issue of schedule we want to make sure that we are not misleading you with regard to schedule risks. Although we are not pleased that the grant reduces the construction contingency by six months (or more) and whereas it is true that this increases the risks in the project we do not consider that these risks are excessive. As you will appreciate there is always risk in construction and these need to be managed. The current 18 month schedule is very tight however we do not consider it to be unacceptable.

Early in October 2009, very shortly after the grant announcement, I recommended that we undertake formal communication with Uplands residents as soon as possible. I drafted a letter and backgrounder for Council approval and it went out on November 12. Council also authorized asking only Kerr Wood Leidal for a formal proposal to undertake the rest of the design work, because the time frame did not allow for the usual competitive process.

For the better part of a month there was virtually no feedback from residents. Recently, however, a number of letters expressing concern about both the concept of having pumps on private property and the process leading up to the selection of this option have been received and circulated to Council members.

We received the formal proposal from Kerr Wood Leidal on December 4, which brings us right up to date, as it is that proposal which is before Council tonight.