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Georgian Bay Shoreline Concerns

FALL 2013 NEWSLETTER PRESIDENT'S LETTER

by Jeremy Gawen

It's hard to believe that another summer on the Bay is over; where did it go? It doesn't seem any time since many of us were worrying if we would be able to even get to our cottages after the record low water level in January. But then the record low was followed by near record rain fall and one of the fastest recoveries of lake levels in recorded history! However, there's no reason to get complacent; lakes Huron and Michigan are still about 20 inches below the long term average and there is a lot going on in both Canada and the US to get our politicians to deal with the situation (see later article by Bill Bialkowski and GBA UPDATE).

Locally, there are a couple of issues which we are working on. Earlier this year, a request was made for a bylaw amendment to allow a floating boathouse to be constructed in Fitzgerald Bay. Council had earlier enacted a bylaw to ban such boathouses and therefore refused this application. The applicant has now appealed this decision to the Ontario Municipal Board (OMB). West Carling Association supported Council in its refusal and we will support it again at the OMB. Our reasoning is that, prior to the preparation of the current Official Plan (OP), Council commissioned a detailed survey of all Carling ratepayers; one of the key findings was that residents wanted the waterfront preserved in as natural a state as reasonable. This became one of the key guiding principles of the OP and construction of boathouses was discouraged. We generally believe that boathouses, particularly large floating structures, unnecessarily clutter up the waterfront and that Council is correct in not allowing new ones to be built (those with boathouses already in place have nothing to worry about as they are, of course, grandfathered). This is why we will be opposing this appeal to the OMB.

Another issue that we have been working on is unacceptable levels of noise. This was occasioned last year by one of our members who had to put up with a loud radio played continuously at the end of her neighbour's dock, to the point that it was really spoiling her time at her cottage. When she contacted the Township, she was surprised to learn that the Carling Noise Bylaw does not prohibit such behavior during the day. Some



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I wish to thank Dave Turner and Phyllis Ortvad for their years of service, as both have stepped down from the Board. I also wish to thank John Rohr for accepted the position of Vice President to fill the vacancy left by Dave Turner.

checking with nearby municipalities, including Parry Sound, showed that most had updated their bylaws to prevent this type of behavior. We requested Carling to do the same and we hoped that the issue would be resolved. Council considered an updated noise bylaw last spring but concerns were raised that it would be a little too strict so the issue was deferred. Recently, representatives of several of the waterfront associations met and reviewed an excellent proposal by Deep Bay Association, made a few changes and expect to make a joint submission to Council shortly. A great deal of thought has gone into our proposal which has also benefitted from the experience of other municipalities. I should be quite clear that our proposal is designed to prevent unreasonable **nuisance** noise and in no way would prevent people enjoying themselves at a party or using a chain saw to cut down dead trees.

The other issue that we dealt with recently was that of renting out our cottages. We were approached by another association which wanted our support to have Council enact a bylaw which would ban renting out your cottage. We discussed this at the Board and decided that we could not support such a proposal because several members were aware that some people, for financial reasons, may **need** to rent their cottages. We also felt it would be too restrictive.

Your thoughts on any of these issues would be very welcome. Have a great winter and see you in the spring. P.S. Please don't forget to pay your **2013** dues if you haven't already – an awful lot seem to have forgotten! (It's \$60, of which \$45 is for GBA, in case you've forgotten).



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Editor's Note

by Bill Bialkowski

Contrary to policy there are three articles under my name in this issue. The AGM summary simply mentions the AGM high lights and off-loads the full text of AGM minutes to our website. The Avro Arrow Road story was written for the spring issue, but was then bumped by other articles from issue to issue. It seems interesting enough, so instead of throwing it away, here it is. While water levels are top of mind for all of us, I personally have been involved in water levels modeling for many years. After a brief mention at the AGM, and with room for one more article in this issue, I have filled the gap with this glimpse into the technical side of water levels, the many competing interests, and the current status of the drive towards raising our levels by a foot or two.

The West Carling Association Annual General Meeting July 28, 2013 – Carling Recreational Hall

A brief summary by Bill Bialkowski

Some 45 people attended the Annual General Meeting on July 28, at the Carling Recreational Hall. Carling Township Mayor Gord Harrison, and Councillors Mike Gordon, Susan Murphy, Sid Larsen, as well as guest speaker, Mary Muter were present.

Details of the AGM activities can be found in the AGM minutes which are posted on the website (<http://www.westcarling.com/>) and look at *Announcements*.

The highlights of the meeting included an update on Carling Council activities by Mayor Gord Harrison and Councillor Mike Gordon who together outlined council action on: low water levels, dock congestion, Franklin Island, Carling finances and lighthouses.

After the regular AGM business, President Jeremy Gawen introduced keynote speaker, Mary Muter of Sierra Club Ontario, and Restore Our Water International, who spoke on water levels, and significant recent developments, which provide at least a little optimism for a solution to the low water level problem. Mary's talk was illustrated by simulation model graphs by Bill Bialkowski, who has been very active in this area.

The Lady of the Lake Bares Her Fangs, Snug Island

By Bruce Davidson, Snug Island

As most of us are only too well aware, the popularity of venturing out on the Bay in small unpowered craft such as kayaks, canoes and even stand-up boards has exploded in recent years. I only wish that today's adventuresome youth would pay more attention to the weather when setting out for some of the more exotic locales offshore. Experience, of course, is a great teacher, but the learning curve is a rocky one fraught with serious consequences.

Over the years we have certainly seen some interesting contraptions come asunder with predictable results when the Georgian Bay that we love decides to give us a little reminder of why there are dozens of shipwrecks around the coastline. Several years ago my wife and I watched with huge concern what seemed to be a capsized craft in the waters well out from Snug lighthouse in the freezing waters of early May. Just as we were about to make a run to the cottage for our boat to effect a rescue, good old Glen Parr, on his homeward leg from the fishing grounds abruptly turned around the massive Andarlin fishing boat and plucked the lucky couple and two young kids from their watery fate. Sometime later that afternoon we went to the harbour and found to our amazement that it was the same couple and kids that came asunder on our shoreline in a squall the previous fall. I was furious at their idiocy, as you can well imagine. The father

had rigged up a canoe with a couple of homemade pontoons, a little unwieldy and difficult to paddle, but not necessarily dangerous in itself. But, in an act of sheer lunacy he had built a canopy six feet high to which he had lashed all his heavy camping gear and supplies, including a cast iron table! As Homer Simpson would remark “Well, duh!!”

Early this August I happened across an old salt who had been travelling up and down the Bay since 1965, all the time mooring on outlying islands to pursue his photography passion. Now here was a guy who now gives the Bay the respect it deserves. But, of course, he also had to learn the hard way. He told me of an instance where he decided that an ominously black cloud bearing down on Big Snake Island provided a photo moment that was simply irresistible. So he took his tripods and associated camera gear to the totally exposed north end of the island for maximum viewing pleasure, so to speak. Well, he certainly got that – in spades. The front line of the squall hit him with such force that it knocked him off his feet as it swept his costly gear into the water. His dinghy, carefully secured by two strong nylon ropes was torn free of its mooring and sent skipping across the foamy waters leaving him no choice but to later swim to his trawler. The next day, while motoring around, he found his dinghy complete with smashed motor in a thicket of cedars on Little Snake Island.

And speaking of Glen Parr, by the way, when I asked him about his best storm story a few years ago, he thought for a few moments before recounting the time when he had to stay much longer than he wanted in difficult conditions retrieving his nets in the teeth of an advancing storm. When he finally was able to get his nets aboard and make his run for safety, the storm caught him and gave him his first taste of surfing. Imagine the mighty Andarlin, a seaworthy beast if there ever was one, literally surfing on the huge swells, screws frantically clawing the air, as he watched foamy breakers racing by at eye level in his second storey wheelhouse!

Yup, sure do wish those folks venturing out on the sunny Friday afternoons in canoes laden down to the gunnels, would have a better appreciation for what can happen when the Lady of the Lake bares her fangs.

ARNOLD DAVIS OF SAND BAY

Bill Davis, Sand Bay

My Dad was orphaned at the age of five; otherwise my name would be Bill Maki. He was adopted by a Mr. Davis in Woodstock. Mr. Davis owned a blacksmith shop. Blacksmith shops became garages when a change in technology created horseless carriages. So my dad became a mechanic. During the war Dad was an aircraft mechanic at Hagersville (RCAF Flying Training School, south of Hamilton). As the war was coming to an end, in 1944, my Dad and some fellow air force mechanic buddies got the idea that they would buy a tourist resort near Parry Sound.

Their original target was on Blackstone Lake. They arrived very early in the morning, before the real estate office was open, so they visited other prospects listed in the office window. When the office opened they let the real estate agent show them around. One of

the prospects was Crogan's Cottages on Sand Bay. After a look around it, they moved away from the agent into a little circle. Someone said "Buy it". The other members of the group gradually got factory jobs that they couldn't leave. My Dad was self-employed, and had the flexibility to spend the summer at the now renamed Sand Bay Camp, so he ended up the sole owner of both Sand Bay, and Silver Birch Beach, just to the north. Somewhere along the line Sand Bay Camp became Sand Bay Resort. I guess I should mention that from our arrival here in 1944, until sometime in the early 1950's, there was no electricity. Keep that in mind next time your power is off for a couple of hours and you feel so hard done by. Yes, it was ice boxes, Coleman stoves, and kerosene lamps, and outhouses.

At that time, various local resorts in the area became shore bases for any water-access-only properties, and in those days there were at least as many such properties on the mainland as on islands. The real story is that my Dad was far from being only a mechanic. He seemed to be able to do anything that needed doing around here. In fact auto repair probably rarely made the list.

Dad repaired outboards, inboards, built cottages, and then provided any needed services. Dad's trademark cottage was BC cedar, board and batten with a cottage roof, and very simple in design. There are still a few around, but many have been replaced with something far more ostentatious. Among the services available at Sand Bay was gas and oil for outboards, and a small store. I can still vividly remember pumping gas by hand up into the glass cylinder that was marked off in gallons. Dad had a series of inboard boats that he built, including the conversions of car engines to marine use. With those he took out fishing charters and provided water taxi. Dad's fishing charters, were for pike or lake trout. His reputation as a guide eventually got him an invitation to provide that service to the Belvedere Hotel in town. He declined; because it was his guiding service that helped attract business for his own resort.

Eventually I did water taxi - one dollar per running mile - actually fifty cents a mile, given I had to come back home. We provided a wide range of services and among the islands that I remember where we had customers included: The Twins, Morlock, Jack, Edgar, Blairgowrie, Jamiesons, Loafers Paradise, Sleepy Hollow, Rocco, Amulet, Harrison's, and Connemara. There were probably more, but I wasn't very close to the resort business after I started University and working for Sea Lamprey Control.

Over time, Dad enlarged and renovated the cottages at Sand Bay. And he added several, plus a shop, boathouse, etc. He also built new rental boats. Some were cedar-strip, built from scratch; some were molded plywood hulls from Mahone Bay, N.S. that needed the transoms, decks, seats, gunwales, etc. Eventually wood gave way to fiberglass.

Dad often built various pieces of equipment that he needed. A couple of the larger examples were a compact 4 wheel drive dump truck, and a front end loader that hinged in the middle for steering. Dad died because of an accident in 1965. We now think that an undiagnosed medical condition resulted in his loader leaving the road and pinning him underneath. At his funeral, attended by most of his shore based clients, I heard them express great concern, "What will we do now?" They drifted away from Sand Bay to another resort that could provide the services they needed, part of which became Dillon Cove Marina.

My Mom quickly decided that operating the resorts without Dad wasn't any fun, so she first sold Silver Birch, and when I learned that she wished to sell Sand Bay, I decided that I really did not want to lose my foothold on the Bay. I engaged a partner and we purchased Sand Bay. However, with Sand Bay pulling at me, it did not take much to get me away from Lamprey Control. Although I was running my own crew, with a lot of freedom, I eventually got a boss I did not like. I bought out my partner, and, with my family, moved here in 1975. We were the first year-round residents on Sand Bay Road.

“Avro Arrow Road, Exit 236”

By Bill Bialkowski, Snug Harbour

As you drive to the cottage up Highway 400, have you ever wondered why Exit 236, to Nobel is called “Avro Arrow Road”? Wasn't the Arrow an old fighter-plane that John Diefenbaker cancelled? What has that do to with Nobel anyway?

After dynamite manufacture started in 1914, the village of Ambo changed its name to Nobel, for Alfred Nobel, the inventor of dynamite and posthumously the author of the Nobel Peace Prizes. It was a munition manufacturing site during WW I and WW II, but abandoned after the war. Meanwhile during the war, Avro Lancaster bombers were built in Malton, now the site of Toronto's Pearson Airport. After the war, this factory became Avro Canada. Avro made the CF-100 jet fighter that countered the Soviet bombers coming over the pole to drop nuclear weapons on North America. By the mid 1950's, the CF-100 was too slow for the job and a new supersonic more advanced plane was needed, with much more powerful engines. The resulting Avro CF-105 Arrow was to be 50% faster than the speed of sound, or 'Mach 1.5'. Avro's engine division, Orenda Engines, designed a new powerful engine called the “Iroquois”, which needed 5,000 running hours under test before it was allowed to fly. How could a huge jet engine scream for 5,000 hours in built-up Malton? The abandoned buildings in 'out-of-the-way' Nobel were the answer. If you take Exit 236 and turn right on Nobel Road (Old Highway 69) and drive 700 metres north, you will come to an old rusty gate on the right beyond the new reptile fence. If you hop the fence and go through the gate you will find four concrete pads from old demolished buildings 200 metres off the highway. There is not much to see. The Parry Sound Museum on Tower Hill features the: “Avro Arrow: a dream denied” exhibit, which includes artifacts from the Arrow and Iroquois engine. The exhibit travels, so phone before you visit. That is the short story of Exit 236. But what of the “dream denied”?

The Avro Arrow prototype RL-201 first flew in March, 1958, at the hands of test pilot Janusz Zurakowski, known as Jan or 'Zura' for short. The first five Arrows were powered by a pair of proven Pratt and Whitney jet engines. With these, the Arrow was capable of a speed of Mach 1.98 – almost twice the speed of sound. In September 1958, Jan pushed RL 202 to Mach 1.86. Arrow RL 206 was the first to be fitted with the new Iroquois engines which were 60% more powerful than the Pratt & Whitney's. The Arrow and Iroquois combination was expected to reach Mach 2.3. Today's CF 18's can

do Mach 1.8; while the speed of the F-35 is thought to be Mach 2+. Arguably this Arrow was the highest performance fighter aircraft in the world, then, and perhaps even now. Yet it never flew! On February 20, 1959, the day known as “Black Friday”, Prime Minister John Diefenbaker cancelled the Arrow program and put 14,000 people out of work. Most of the engineers fled to the US, where some helped get a man to the moon. Worse still, the government ordered all aircraft cut up for scrap, and all drawings and designs destroyed. Only a few pieces of RL 206 escaped the cutting torch and are preserved at the Canada Aviation and Space Museum in Ottawa, along with an Orenda engine. The Arrow cancellation has left a deep scar on the Canadian psyche which has hatched numerous books, films, and stories. By contrast Sweden, a smaller country, kept its fighter development program active, and today their SAAB Gripen is on the short list to replace Canada's CF-18's along with the F-35

On a personal note, I am a proud Canadian today only because my father was hired by Avro Canada to work on the Avro Arrow design. Jan Zurakowski settled in the little Ottawa Valley town of Barry's Bay, where he and his wife operated a summer lodge. He became our summer neighbour and good family friend. In 2003 I flew my Cessna floatplane from Snug Harbour to partake in the flypast marking the start of the Zurakowski Park inauguration ceremony in Barry's Bay. If you ever drive to Ottawa from Parry Sound, go via Huntsville and Highways 60 and 17. About an hour after Huntsville you will come to a screeching halt as a quarter scale Avro Arrow replica looms up on your left hand side, as it steaks towards the sky on flaming red afterburners. Take a while to absorb what there is to be seen in Zurakowski Park. .

The 'true story' of the Snug Harbour Sunken Boat

By David Hume, Walton Islands

Once upon a time, many years ago on the far reaches of Eastern Georgian Bay in an area known by the locals as Chapman's Channel, to the north of Snug Harbour, a just-retired school teacher anchored his home-made 26 foot sailboat for the night in this tiny sheltered channel, after a blustery maiden voyage on Georgian Bay.

The lone sailor, obviously enjoying the tranquillity of his newly found anchorage and being recently retired, decided to stay for just one more night. This grew to a few more nights in the perfectly quiet waters tucked neatly in the narrow little channel with its high steep rock face to the east and the shelter from the Chapman's Island on the west. It wasn't long before cabin fever set in. The eastern side of Chapman Island with its inviting flat rocky shoreline and clear warm water became too much to ignore. So he jumped ship and set up a campsite on the flat rock to stay for a while. After all, who was going to mind? There is clearly enough flat shoreline for everyone. Even the senior Mrs. Chapman seemingly turned a blind eye and opened her heart to the squatter. And so he stayed. The years passed until one day the

matriarch of Chapman Island thought it high time the squatter should start paying a small “dockage fee” for the use of her island for all these years. To the skipper, the insult was delivered and in a fit of defiance he laboriously loaded his little boat with rock upon rock as she lay at anchor. Finally he added one more rock and down she went in the tiny channel.

I never did hear whether or not the captain went down with his ship but rumours still abound. The little boat sank gently to the bottom and came to rest almost perfectly upright in about 20 feet of water and has remained that way for about 30 years. The ice has had its way with her in recent years and moved her some thirty feet to the north. Yet she is still completely intact and now sleeps with the slow undulating caress of the weed bed she lies in. It is normal for Snug Harbour residents to include a boat tour while showing off their cottage surroundings to visitors. The highlight of the tour includes a visit to the 'sunken boat', and it is always of great interest to those under fifteen!

A couple of summers ago while snorkelling in and around the craft, my grandsons found a skeleton in her bow cabin and surfaced in total excitement to blurt out the news. Finally, I reckoned the rumours of the captain going down with the ship were answered. Or, was it possible that a Snug Harbour resident unknown, with sense of humour placed the plastic Halloween skeleton in her cabin? No one knows! The rumours of the skipper's demise (or not) are much alive.

As far as we know this is an almost 'true story'.



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A Unique Perspective on Water Levels

By Bill Bialkowski, Snug Harbour

At the AGM in July, I had a brief opportunity to present a few water levels simulation graphs as part of Mary Muter's presentation on water levels. Here is a bit more detail.

I retired in 2003 having sold my engineering consulting company, which optimized industrial plant performance using high-fidelity hydraulic models. Yet a decade later, my computers are still humming with simulation models. After 50 years of simulation, I must surely hold some kind of a record?

To celebrate retirement, I bought a floatplane, to which my wife, Judy, said – well if you get a floatplane, I want a cottage. And so we bought our cottage at Snug Harbour. The next day Mary Muter, the Georgian Bay Association (GBA) Environmental Chair called saying that she understood I had expertise in levels, and modeling. Would I please join her Water Levels Committee (WLC) to help shed light on why water levels on Georgian Bay were so low and wetlands were drying up. That was 2003 – it's now 2013!

Over these ten years, the WLC has had some significant accomplishments. We triggered the Baird Report on the St. Clair River (SCR) in 2004, which in turn triggered the SCR part of the Upper Great Lakes Study in 2007. There was a host of other smaller events. The best news of all however came this year, when the International Joint Commission (IJC), finally reversed itself and advised our governments, that they should study restoring the level of Lake Michigan-Huron (MH) by installing structures in the St. Clair River. That one accomplishment took a decade! Now in 2013, Restore Our Water International (ROWI) was formed to keep the pressure on government agencies, and see this goal through to the end. Over that decade the WLC migrated from GBA, to GBF, to Sierra Club Ontario and finally to ROWI.

Here are the key elements of the SCR story. A total of 39 million cubic yards of material were removed from the river bottom – roughly twelve Egyptian Pyramids worth, as dredging projects produced ever deeper channels for ever bigger ships. The river depth sank from 18, to 20, to 22, to 25, and finally to 27 feet as a result of these. The last project for the 27 foot channel was part of the St. Lawrence Seaway. It was approved in 1956, and construction took from 1958 to 1962. That approval included an agreement to install 'compensating works' to restore the conveyance capacity of both the Detroit River (DR) and SCR to prevent both lakes St. Clair (SC) and MH from being lowered. The DR works were installed, but the SCR compensating structures, a series of underwater sills, or speed bumps, were designed but never built. When the sill design was complete in 1977; water levels were on the rise due to a wetter climate, and by 1986, levels hit an all-time record high, and SCR compensation was forgotten. This single act of omission has caused all this grief.

For me, the most active modeling period started in 2009, when the Upper Great Lakes Study held public meetings to discuss their SCR report. This study agreed

with the Baird Report that the SCR had eroded after the last dredging project in 1962, but disagreed with Baird's claim that the river capacity had expanded by 10% due to this erosion – they claimed a much more modest 5.8%. For this and other reasons, they recommended that **NOTHING BE DONE IN THE ST. CLAIR RIVER**. I put up my hand and said that I had trouble accepting this conclusion, and would the study board be good enough to send me their level and flow data, along with the hydraulic equations for the three rivers, so I could run my own models, and verify the numbers. “Not a problem” they said. I received the data in July. The hydraulic equations for the rivers were delivered to me by David Fay, who then was the foremost hydraulics expert with the so called Great Lakes Coordinating Committee (Environment Canada, US Army Corps of Engineers, and NOAA). The data allowed a simulation study, which concluded that 10% was the more accurate estimate. But there was a problem with the data. The flow data were all missing after 1986. A note from the study board explained that they planned to revise their estimates to account for the known increase in SCR conveyance; hence, they did not send this data. Finally, in 2011, the revised numbers came out. This allowed me to map the SCR conveyance as it expanded year-by-year.

Having this SCR conveyance history, and the hydraulic equations, allows an almost perfect match to be made between model results and water level history. Figure 1 below shows model results in red, and historical monthly Lake MH levels data in blue. The few splashes of red visible before 2013 are the only places where the red differs from the blue, and so is not hidden by it. This graphically illustrates model accuracy. After the history data ends in 2013, the now exposed red model output shows the MH level response to installing enough sills, or speed bumps, in the SCR in 2015 to raise Lake MH level by 50 cm.

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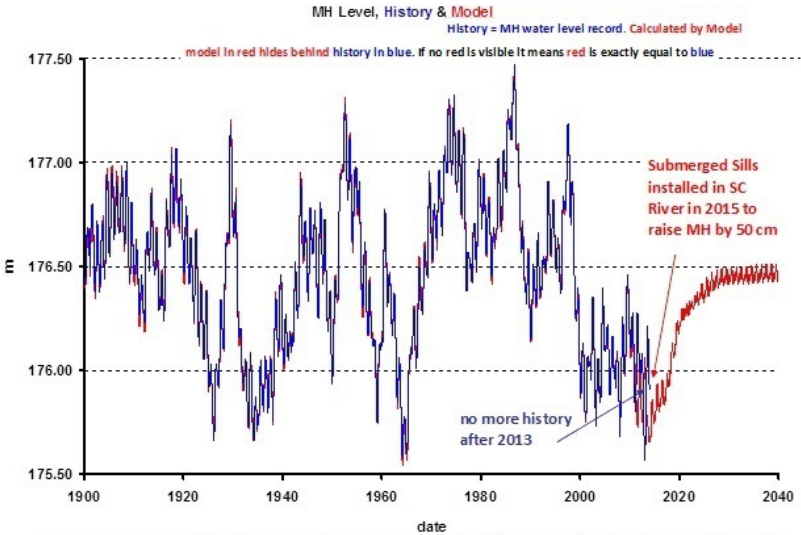


Figure 1: shows monthly Lake MH model output in red and level history in blue. Hardly any red is visible before 2013, as almost everywhere the two are equal and the blue has covered the red—a pretty accurate model. After the history ends in 2013, the now exposed red model is shown to respond to the installation of enough submerged sills or speed bumps, in the SCR to raise Lake MH by 50 cm (20 inches)

Many potential restoration scenarios have now been simulated for ROWI. The most promising involves installing enough submerged sills and other structures to reduce the SCR conveyance capacity by the 16% needed raise MH level by 50 cm, at an estimated cost of between \$200 and \$300 million. The main feature of the response is that MH rises by 50 cm over some ten to fifteen years, as shown in the figure above. During this 'fill time', the SCR flow dips and causes lakes SC & ER to dip as well. These downstream dips will likely be unwelcomed by the communities around lakes SC & ER, and an important feature of the simulations is to figure out how these dips can be reduced or eliminated. Two ways have been found and simulated. The first is to reduce the SCR conveyance gradually over several years. The second is to sink temporary structures, such as barges, in both the Detroit and Niagara Rivers in order to hold the lakes SC & ER dips to one inch or less. This idea is based on the incident in which a barge accidentally became wedged against the Peace Bridge abutments and sunk in the Niagara River. This caused the level of Lake ER to rise 4 inches over a several months.

In summary, we believe that there is a relatively low cost (\$200 – 300 million) environmentally sound solution to the current low water levels in Lakes Michigan and Huron which will not cause significant problems in the downstream lakes. We should add that a proposal being strongly advocated by one Georgian Bay organisation is to place a large gated structure in the Niagara River instead submerged sills in the St Clair. This proposal is fundamentally flawed. While simulations show that raising Lake Erie does raise Lakes Huron and Michigan, it requires Erie to be raised a great deal to get any significant raising of MH. This threatens serious flooding on Lake Erie. Finally, the gated structure is estimated to cost about \$2 billion and has been rejected by the IJC many times.