

## NEXT TIME YOU FLUSH, THINK ABOUT WHERE IT GOES

By Julia O'Malley, Anchorage Daily News, Jan. 17, 2010

The other day, I was driving through Johnson Pass when I saw a guy pulled over along the side of the road. He was staring off into the mountains. At the other end of a long leash, his lab was leaving a deposit in the snow. I knew what the guy was up to. He wasn't going to clean it up. He was going to get in his car and drive away, as if nothing happened.

But before we judge him for thoughtlessly soiling a pristine landscape, I want to make a comparison. I want you to think about your toilet and what goes in it.

As adults, most of us do not like to get caught up in fantasy. We don't put lost teeth under our pillows and we know who leaves the presents under the tree. But there is a little pretend story we tell ourselves every time we put something nasty down the drain.

It just disappears, right? I mean, of course, some government someone somewhere --the EPA or the DEC or the FBI or whoever-- must be keeping an eye on things to make sure nothing bad happens. But in general, for most of us, it's out of sight, out of mind. Not too different from the guy with dog.



That's the way of thinking that keeps us from coming up with a better long-term plan to deal with the tons of pollution we dump in Cook Inlet every day. Think doo in the snow is gross? Try this: salty, oily run-off from city streets, runway de-icer and tons of filtered and chlorinated sewer discharge. Now imagine it marinating your halibut steaks.

This is our approach to waste water here. It has not changed much in 30 years.

Let us take a little trip down the drain. What you flush travels through a series of pipes until it reaches the waste water treatment plant at Point Woronzof. When it gets there, it goes through what is called "primary treatment." A big screen filters larger solids. Then

the water goes to big basins, where floating material is skimmed off, and sludge is removed from the bottom. All that stuff gets incinerated. Heavy grit and incineration ash goes to the landfill. As one of the guys at the plant explained it to me, you got your "floaties," your "sinkies" and your "lurkers."

What lurks once you get rid of all that floats and sinks? Water soluble pollutants like detergents and chemicals, particles of decomposing human waste and bacteria. That "effluent," as it is called, gets chlorinated and heads out into the inlet. The liquid is relatively clear, but it has more decomposing material in it than what is being discharged almost everywhere else in America. Piping it into Cook Inlet is legal thanks to a waiver from the Environmental Protection Agency we've been getting renewed for the last three decades. We're in another renewal process right now.



**Treatment plant::** Gravity sludge thickeners, foreground, and larger primary clarifiers are used in the wastewater treatment process. (ERIK HILL / Anchorage Daily News)

It used to be a lot of places got waivers like ours to pipe minimally treated sewer water into the ocean. That's not true any more. The number of waivers has gone from many to a handful. Now there are only a few places like us left (including a number of communities in Southeast Alaska). Many are smaller than Anchorage. Some big ones, like Honolulu and San Diego, may be forced to change because either the EPA or the locals aren't comfortable with what they're doing anymore. Sewage treatment upgrades cost hundreds of millions of dollars. These communities have been left to fight the EPA or scramble for a plan.

Some people say not to worry about the shrinking number of waivers. The inlet is uniquely suited for wastewater discharge, at least when it comes to the standards measured by the feds. It's silty, so murky effluent doesn't mess it up too much; it's

churning, so pollution and chemicals disburse quickly; and it's super oxygenated, so there's enough oxygen for the metabolic processes of decomposing waste as well as the fish. The sewer utility tests methodically for heavy metals, industrial and agricultural pollutants. And in all these years, it hasn't found much that causes alarm. But then, there are many things it doesn't test for, including an emerging group of pollutants whose effects have not been widely studied. Take, for example, all of the anti-depressants swallowed and excreted by the people of our city, or the birth control pills, or the steroids or the antibiotics or the vitamins or the Benadryl tablets. And then there is all that laundry detergent, and the anti-microbial cleanser and the musk-scented body wash.

What does all that do? We don't know. Studies in other places have shown that pharmaceuticals and personal care products persist in the environment and do weird things to fish and mollusks, messing with reproduction. The EPA is studying these pollutants now, looking at what needs to be regulated. For the first time, the EPA will consider these as it goes through the process of considering renewal of our waiver. There is very little sewer technology anywhere to deal with emerging pollutants.

Complicating matters even more is the fact that Cook Inlet beluga whales have been recently listed as an endangered species, and federal regulators want more protection for the inlet. The EPA will consider all of that in the permit process, too. Whale populations declined, some experts say, because of subsistence hunting that wasn't well managed. That stopped, but the population didn't recover. No one knows why. No study has linked their problems to pollution from the sewer or anywhere else. But then, there haven't been that many studies. And as far as I can tell, there's also little known about how pollution from Anchorage affects other animals, including the fish and shellfish we eat.

We're banking on getting federal waivers forever, even though they are becoming rare in the U.S. There is growing concern about the environmental impact of a new group of pollutants in our waste discharge that we have no idea how to deal with. And we have an endangered whale population swimming where we are doing our dumping. Why not be pragmatic and face our waste? Why not start talking about our wastewater disposal and how we might pay, eventually, to improve it?

And while we're facing ugly water facts, maybe we should be thinking about storm water, too. It contains oils and road salts as well as lots of pet waste. It goes right into our urban creeks, untreated. Guess where they end up? And there's the airport, where

propylene and ethylene glycol, as well as urea and potassium acetate (both known to kill fish in certain concentrations) are used to melt ice. Though there are efforts to curb it, some of that is making its way into the inlet, too. Some days at levels above what regulators consider kosher.

When I asked people about what our wastewater and run-off might be doing in the inlet, the main answer was that it hasn't been studied enough. That might be a place to start. If we know what's causing harm, we can address it. Right now, there are far more questions than answers.

In the meantime, try this: next time you flush or buy scented fabric softener or let your dog go on the trail, think about where it all ends up.

Do you really think we can keep doing this forever?