Our Pavement Management System is also linked to GIS where it displays the current pavement condition of our road segments. Our GIS inventory includes a variety of assets from water mains and roads to garbage cans and coal mines, sewer condition and urban trees. If it is something that we maintain, we need to identify it, track it, maintain it, and eventually replace it. The more we know about an asset the better we can budget to maintain it properly and replace it when its life is complete (and not before).

Organizations are moving towards Corporate Asset Management Systems (CAMS) for work orders and work history, during that process it is vital to have assets captured in GIS as the CAMS are generally GIS based platforms. Data can export directly from GIS into our asset management plan for inventory, condition assessments and replacement plans to ensure we budget accordingly for their replacement. Many municipalities are growing, and the added cost of increasing assets is not reflected in our operations and maintenance budgets. Council and Senior Management can get a better visual of the condition and cost of an organization's assets from a simple download. From there, we can identify the consequences of a shortfall in funding and it may be necessary to adjust our service levels.

The APWA has prepared an Asset Management Roadmap to help guide the public works sector on their asset management journey.

www.apwa.net/MyApwa/Apwa_Public/Tech_Cmtes/Asset_Mgmt/Asset_Management_Roadmap

World's Colliding: An Operator's View on Operations and Maintenance, and Asset Management

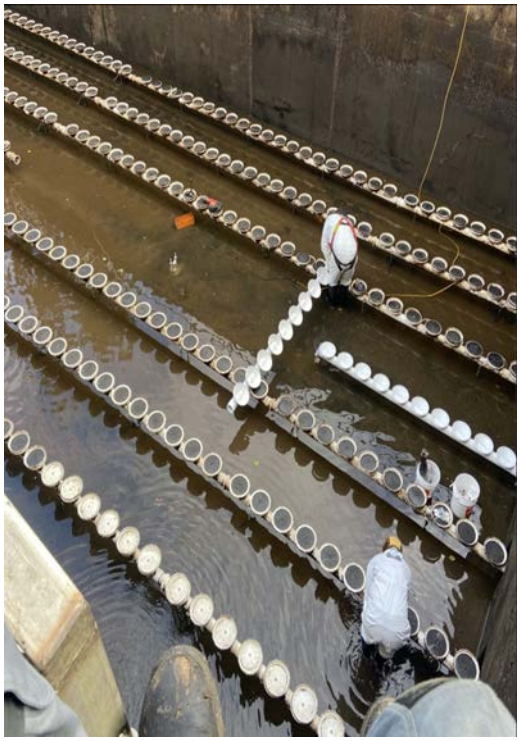
Anna Agnew, Level 4 Operator, Water and Wastewater Operations, Town of Gibsons

"Asset management reduces my risk and gives me confidence so I can focus on optimization, performance and efficiency at the Wastewater Treatment Plant."

Bringing operations on board for asset management has been a topic of conversation for years in the industry. The Town of Gibson's level 4 lead operator for water and wastewater operations, Anna Agnew, shares about her asset management journey and the impact it's had on her work.

I know it's Important, but Who's Got the Time?

Imagine yourself as the lead water and wastewater operator at your organization. At the front lines of it all managing or preventing failures, one after the other. You know the system inside and out and have grown a professional pride and ownership over the system. However, potential mechanical failure or permit violation is always on your mind. You know you need a better system in place than you have. But when can you find the time?



Servicing the sequence batch reactor diffusers at the wastewater treatment plant is a big job with all hands-on deck. It's a preventative maintenance item we need to know months in advance to properly plan and execute.

Day after day you manage hundreds of pieces of equipment and infrastructure worth millions of dollars. You spend most of your time trying to keep your head above water and the service running. Mental schedules fly

around in real time in your head as your try to find a way to triage all that needs to be done. This week you have the lab tests, a report to write, a routine clean of the building, oil changes on some of the equipment, a consultant to schedule, a consultant to meet, a belt to replace, and a 3-person job scheduled for Wednesday.

Having the right people on board makes all the difference when building a preventative maintenance program, the ground up!

You see the pile ahead of documentation, data requirements, approvals, parts, and safety requirements that you know you'll need during the next planned or unplanned failure. You hope for a gasp for air to fit in the critical coordination, planning, inventory, or warranty management underway.

Then a SCADA alarm goes off. Your consultant arrives. An operator calls in sick. The newest project starts. Your focus has been shifted again. And again. And again. While focusing on today's emergency, you think about the overworked and tired pieces of equipment and wonder if it might hang in for another day.

Some days there's no time to create the to-do list, never mind complete it.

In the midst of this day in and day out, asset management felt overwhelming despite knowing. And I knew the value. I knew that a proactive maintenance program would extend the life of our infrastructure. I knew that a well set up software could create a more reliable system than my memory and sticky notes. All of this was to help me plan and communicate better, including communicating important business cases to management, not to mention spare parts inventory, corporate policies, and safety procedures.

I felt defeated thinking there was more I could be doing to proactively manage the potential failures.

Overcoming the Obstacles

Luckily, we weren't starting from zero. The inventory data collection was underway, we had a software that was capable of preventative maintenance program building, we had a supportive manager who wanted a formalized program, and most importantly we had a lot of players inside and out that understood the end goal. At the same time, the work was only just beginning, and it was hard to fit in the time for the next steps.

We had the right combination of the people on the team, the right support and tools at the right time, a clear road map we set up, leadership's support, and a stubbornness and commitment to the end goal. We started small by taking a close look at our existing and informal proactive processes before defining our roles and clear targets to meet throughout the process.

We also took all the help available to us. Our consultant acted as a positive external influence to help us articulate our goals, created and customized scheduling tools and templates, kept us on track, and highlighted our successes along the way to keep us motivated. Getting coached through the process by someone who understood and could bridge the gap between operations and asset management was integral. At some of our weekly meetings, we acknowledged we are still fighting fires and worked together to find a way to not put the project progress on the backburner. She also brought us candy.

Afternoon asset management meetings are always more bearable with candy and coffee.

Despite juggling the crew's summer schedules and mental blocks around the size of the task, within 3 short summer months we proudly produced our first documents and tools:

- Preventative maintenance program set up in the software including procedure notes, manual references, linked assets, and recommended.
- Custom Excel sheet for scheduling and coordinating with operators, management, other departments, and contractors.
- List of required lock out and confined space entry procedures and template for tracking quality and updates.
- A list of recommended spare parts to check and update inventory.
- A week-by-week visualization of routine tasks with duration, frequency, and roles which gives a visualization for hours required and a proactive look at potential volume of upcoming deferred maintenance.

I already see the benefits of the proactive program just a few short weeks after the wastewater treatment plant's program is set up and running. It makes a difference to have identified and labelled equipment, automated work orders, and a system to track all the work we do.

And of course, the process isn't over. We are still collecting the information to set up the water system with a preventative maintenance program. We have templates to populate and keep updated. We are still building skills and fine-tuning our tools with our consultant. And when all of that is done, we will never be finished improving the information and processes.

The team agrees that it's about the people and having a little bit of fun with it all.

Anna gives the project an A!

If you have questions about the Town of Gibsons asset management progress, reach out to Anna at aagnew@gibsons.ca

or Gracelyn at gracelyn@persephoneconsulting.ca

What's in a word!!

An issue we have in communicating our message often seems to relate to the use and interpretation or misinterpretation of words or phrases. Too often we use technical terms within our own skill sets not appreciating that others may not know what we are really saying. I was given an example of a public meeting in a major urban area where the consultant talked about 'biodiversity ponds". People had blank faces not understanding what he was talking about until someone in the audience said 'he means managing water with rain garden'…a sigh of relief.

Too often, in asset management and other areas, we use language different from what common language is that everyone understands, or specific disciplines understand a word or phrase differently. I recall a meeting in Montreal of the National Asset Management Working Group where finance people were talking about 'deferred maintenance' shortly after PSAB 3150 came into effect. After some discussion, we discovered that the technical people in the room had a very different perspective of the term 'deferred maintenance'. The next hour was taken up learning to understand each other and come to a common ground.

Asset Management, itself, is an intimidating term. For decades we have managed assets. We took two words and turned them around to "Asset Management" and confused everyone. The process of asset management or 'managing assets, is not new. The process, as defined today just leads to better decisions across the entire organization for priority setting with limited budgets.

When PSAB 3150, accounting for your assets on the balance sheet evolved, the result was most local governments recorded what then was called an 'infrastructure deficit'. Our finance professionals quickly pointed out to the non-finance community our misuse of the word "deficit" as that word is a real number representing the difference between actual revenue and actual expenses when expenses exceed revenue. The 'infrastructure deficit' is an estimated number and does not meet these criteria. Today we, see the term "infrastructure gap' used to address any backlog as it is an estimated number, a much better and correct term.

See the article below from Water Sustainability addressing a deficit.

Do you have ideas or 'WORDS' to add to this column? Send them to W. Wells at info@assetmannagementbc.ca

Operationalizing EAP, the Ecological Accounting Process, within an Asset Management Plan

By Kim Stephens and Tim Pringle, Partnership for Water Sustainability in BC. Kim is the Executive Director and Tim Pringle is a Founding Director and Chair, Ecological Accounting Process (EAP) Initiative.

The EAP program is the culmination of a 25-year journey that began with publication of seminal research by Chris May and Rich Horner in 1996. They correlated land use changes with impacts on stream condition. They also ranked the four limiting factors that provide a road map for science-based action. Their findings are embedded in "Stormwater Planning: A Guidebook for British Columbia"