

ASSET MANAGEMENT

PubWorks Post-Session Notes

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SECTION I: INTRODUCTION

A. WHAT YOU WILL LEARN

1. In this session, we review what Asset Management is, discuss the importance of data entry and share tips on how to make it easier for any user. We also go through the PubWorks program, showing you its functions and the information you can get out of it.
2. By the end, you will have the knowledge and tools you need to create a great Asset Management plan for your office, allowing for effective cost accounting in your day to day operations.

SECTION II: ASSET MANAGEMENT

A. WHAT IS IT?

1. So, what is Asset Management? Wikipedia gives us the following definitions:

“Asset Management, broadly defined, refers to any system that monitors and maintains things of value to an entity or group. It may apply to both tangible assets (such as buildings) and to intangible assets (such as human capital, intellectual property, goodwill and/or financial assets).”

Asset Management is a systematic process of developing, operating, maintaining, upgrading, and disposing of assets cost-effectively.”

2. All assets are subject to natural aging, funding issues, and over use. Thus, we need to be prepared for the replacement of our assets. This means understanding how much to budget for capital items and when to replace them before they fail.
3. Asset Management entails scheduling Preventative Maintenance and understanding how assets relate to each other and how the life cycle of one asset can impact the maintenance of another.
4. The rate of deterioration varies between assets for different reasons. Asset Management allows you to determine whether or not certain assets are supposed to deteriorate at those rates and help you evaluate your current and future needs.

B. PURPOSE OF ASSET MANAGEMENT

1. The purpose of Asset Management is to create efficiencies/reduce cost of acquiring, operating, maintaining, and renewing assets.
2. It allows us to ask and answer questions such as:
 - Where are we spending our money?
 - Why are we spending our money?
 - Is there a problem in our Municipality?
 - Is this within budget?
 - Will this maintain acceptable service levels to ratepayers/customers?
 - Does this meet all regulations (e.g. financial, engineering, environmental, safety, etc.)?
3. The more we understand about Asset Management the more confident and better prepared we will be to make investment decisions that will positively impact the municipality.

C. ASSET MANAGEMENT SOFTWARE

1. At MuniSoft, we regularly receive pricing inquiries for new software or upgrading. We have costing information for new users and current users wishing to upgrade to full Asset Management.
2. Until recently, Asset Management was typically for big cities that could afford large scale Asset Management programs.
3. Over the years, MuniSoft has worked with organizations and developers to deliver a product that meets the needs of our clients and can be scaled to meet their changing needs. E.g.: Ontario good roads (1999), Worktek, etc.
4. Our goal was and is to deliver a productive and affordable product for municipalities. We continue to work with our clients to update the program to meet changing needs and regulations.

SECTION III: PUBWORKS

1. MuniSoft has had Asset Management software for years. The original version of PubWorks was for Asset Management, but when first introduced we realized that not everyone was ready for Asset Management yet, so 3150 was created.

2. **3150 is an Asset Registry that is PSAB 3150 compliant.** It documents and tracks your assets and allows you to run your full depreciation schedule.

3. **PubWorks Standard is an Asset Registry with Asset Management functionality.** It is not a new program, in fact it's part of the 3150 software. Upgrading to Standard is simply a matter of activating the extra Asset Management functionality.

Note: There are many settings in PubWork 3150 and Standard that can be used to customize your program. If there is something that isn't looking right, please reach out and we can take a look. Maybe it is as simple as changing one of these settings.

B. FEATURES

1. **TCA registry:** This is your **ASSET REGISTRY**. It should list all of the assets in your municipality. **Note:** Most municipalities should have a TCA registry regardless of whether or not they own Asset Management software.

2. **Notes/Documents:** This feature allows you to attach any form, work order, bill of sale, photo, etc., to any **ASSET RECORD**. You can store all of the additional information you need in the program for easy access.

3. **Depreciation Schedules:** You can set **DEPRECIATION SCHEDULES** for each of your assets and save the schedules as PDFs or export them to excel. These schedules will give you an idea of the returning (net book) value for all assets for a specific year.

4. **Tracking Life/Maintenance Cycles:** This is a big part of Asset Management. It is critical to know when to replace and when to fix an asset.

5. **Cost Accounting:** PubWorks Standard allows you to perform cost accounting, helping you to make the best decisions for your assets.

6. **Accurate Reporting:** When printing reports from PubWorks, there are plenty of reporting options to choose from. In fact, PubWorks contains about 600 Detailed or Summary Reports available for:

- Activities
- Contractors/vendors
- Employees
- Equipment
- Locations

- Materials
- Projects
- Tasks

TIP: Take a screenshot of the selection criteria for the reports you really like. This will make finding it again extremely easy.

C. DATA SETUP

1. PubWorks makes data entry easy. The program is designed so both office staff and Public Works crews can easily enter data into the system, the day the work is completed. This helps to ensure the accuracy of the data.
2. There are several guidelines to keep in mind when setting up your system, but there is also plenty of flexibility.

*TIP: When setting up your data, use a system that is easy to figure out. More importantly, be consistent with your **ASSET CODES** and **NAMES**. This allows others to help out and follow the same naming sequence.*

ASSETS:

3. Set up for assets is user defined. The **CODE** can be any combination of letters and/or numbers, **but make sure you are consistent**. If your office uses unit codes, or old naming sequences that are outdated or difficult to understand, you can modify them at any time.

LOCATION/EQUIPMENT:

4. When setting up **LOCATIONS** or **EQUIPMENT**, we recommend using an abbreviation for the equipment or location type, a number and then a description. For example, Grad001 for Betty Sue's grader.
5. As well, the **NAME** should clearly describe the asset so there is no confusion identifying the asset in the program or reports. This can be done for any type of asset. Examples:
 - Roads (RGE3120, TWP 130, 1stAveN, etc.)
 - Water/Sewer lines (WL1stAveNB1 - Waterline 1st Ave North block 1)
 - Buildings (WTP001, Water Treatment Plant NW)
 - Shops (PW Shop, Road Shop, etc.)

CATEGORY DATA:

6. Most of your **CLASSES** and **CATEGORIES** are already defined by PSAB, but sometimes there is a need to add additional types for **EQUIPMENT**, **LOCATIONS** or **FEATURES**. These can easily be created in **CATEGORY DATA**.

7. There is plenty of room to make additional changes to your asset groups, but its best practise to follow the guidelines.

8. For instance, when creating these groups, remember to keep the **ID** simple. Simple **IDs** are easier to find in situations that require quick information retrieval.

9. Furthermore, don't create too many specific **CATEGORIES**. It is better to keep them general. Your assets can be classified using multiple **CATEGORIES**.

10. For example, if you need to create a Water Plant as a new **LOCATION TYPE**, it can be classified under **ASSET TYPE** as a "Building" and **LOCATION TYPE** as a "Water Treatment Plant". While there are many parts to a Water Treatment Plant, creating a **LOCATION TYPE** for each component would be unnecessary. Those components would fall under a different **ASSET TYPE**. The **LOCATION TYPE** would still remain the same **LOCATION TYPE** (Water Treatment Plant).

STAFF:

11. Setting up staff can be tricky. You will want to add your municipal costs to their salary, and calculate as close as possible to the actual cost for each employee's work, including hourly rate, MEPP costs, benefits, vacation/sick days, and productive/non-productive time.

12. Information from the employee's T4's can be used as a guide. However, keep in mind, it may be slightly out of date. We recommend that you take their **T4 GROSS TOTAL** and divide it by 2080 (assuming you are paying 52 weeks/year, 40 hours/week). That should give you a close number or a great starting point.

13. Generally, you will want your **EMPLOYEE** data to be as accurate as possible, but that'll take time to research and calculate. Therefore, it is up to you to decide if the extra time and effort it takes to achieve 100% accuracy is worth it.

EQUIPMENT HOURLY/KM RATES:

14. **EQUIPMENT RATES** are not required if you are currently using PubWorks 3150. However, we encourage you to start adding in your rates now, because this information is critical for Asset Management. There are three **RATE** options:
 - **PRIMARY** is the most common default charge.

- **SECONDARY** allows for a second popular charge out rate.
- **OTHER** provides for a third charge.

15. You should review your current **RATES** and update PubWorks accordingly. Remember to regularly review and update them in the future. Having accurate, up-to-date data, will greatly improve your decision making.

D. PROJECTS

1. The **PROJECTS** functionality in PubWorks can be used to record data about your municipal projects, special events, disasters or ongoing maintenance activities your department is servicing. In fact, **PROJECTS** can be used for anything you want.
2. You can assign **ACTIVITIES** to the **PROJECT RECORD** as they occur (or after the fact), to accurately track progress and costs.
3. You can easily create a **PROJECT** now and add previous **ACTIVITIES** to it. This will update the **PROJECT** and give you current costs for it, which is useful for when a project request comes in later in the year.
4. Additionally, you can use this module to bill external entities for services rendered. If you are completing work for an outside party, you can generate costing reports that will show all of your crew, contractors, equipment and materials costs for the **PROJECT**, allowing you to bill the third party accurately.
5. Furthermore, because these **PROJECT** reports show who did the work, when they did it and what resources were used, it makes it very easy to submit a **DETAILED-ACTIVITIES** listing.
6. Using the **PROJECTS** functionality is an effective way to manage your funds and get a real understanding of how much money is being spent and where. This information is helpful for dealing with grant applications and claims for grant payouts, as well as for checking whether or not you are on budget.
7. **PROJECTS** gives you a real time snap shot of all your ongoing projects, which you can share with your council, ratepayers and interested third parties.

SECTION IV: REPORTING

1. We need to remember that PubWorks is tool to **help** with Asset Management, it does not **do** Asset Management for us.

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2. While the program gathers the information and groups it into items that are related, it is how we use the information that really matters. The next section discusses how you can use the information from the PubWorks reports to practice Asset Management.

B. NET ASSET DETAIL

1. Before you can practice Asset Management, you need to know what assets are in your care and how much value they retain.
2. The **NET ASSET DETAIL** report is a combination of an **ASSET REGISTRY** and a single year's **DEPRECIATION SCHEDULE**.
3. This report will show you every active asset, grouped by Asset Class, with the selected year's Depreciation Totals listed next to it. The report will also include the Original Cost, Opening Value, this year's Depreciation Amount, and the Year End Closing Value.
4. Furthermore, any **ADDITIONS**, **BETTERMENTS**, **WRITE-DOWNS** and **DISPOSALS** that have been processed for the selected year will be shown.
5. The real value of this report is in a year to year comparison of the totals indicating long term trends.
6. If your municipality is experiencing growth, then the total value of assets should be growing as well. The need for expanding services will drive up the value of your TCA registry.
7. The reverse is also true. With shrinking resources, it is unrealistic to expect that the number of services or even the service standards will go unchanged. When overall year values are in decline, it is important to identify and focus on core assets.
8. Whether you are growing or shrinking, large changes in year to year totals values should be used as a trigger to review policy and audit your Asset Management plans.

C. REPLACEMENT COSTING

1. Nothing lasts forever and being prepared both financially and logistically is important.
2. The **REPLACEMENT COSTING** reports are a great resource for planning and budgeting upcoming capital expenses.
3. These reports typically show the original purchase costs, the expected year of replacement and an estimated replacement cost at the year of replacement.

4. To calculate the **ESTIMATED REPLACEMENT COST**, PubWorks takes the **ORIGINAL VALUE** and multiplies it by an **ESTIMATED INFLATION RATE** for the number of years until planned replacement. The program works with the idea that you cannot know the future value of a replacement. However, you can make an educated guess and be fairly close.
5. When looking at a **REPLACEMENT FUNDING** report, we can learn how long an asset has been in service, what the expected replacement cost should be, what the expected service life was planned to be and how much to save in order to afford the replacement.
6. From this information, you can compare age to service life. For example, if assets of a specific type, such as roads, typically exceed their service life, then maybe there needs to be a change in policy to increase the useful life for them.
7. Another important matter to consider is how assets relate to one another. This requires proper setup of a **LOCATIONS, SEGMENTS, and FEATURES** hierarchy, but the potential costs savings can be large.
8. For instance, consider a road with a culvert. If the road is scheduled to be re-done this year and the culvert next year, it would likely be more cost-effective to re-do them both at the same time, rather than tearing apart the road in two separate years. Remember the goal of Asset Management is to spend money in better ways.

D. PREVENTATIVE MAINTENANCE

1. When talking about life cycle costs, one of the most important factors is the maintenance of an asset. In many cases the maintenance cost can be as much, or more, than the original purchase price.
2. Everyone practices Preventative Maintenance in their personal lives. For instance, people change the oil in their car instead of replacing the engine.
3. Preventative Maintenance is almost always less costly than On-demand Maintenance. It is important to be aware of the cost and frequency of maintenance items. Having a Preventative Maintenance Schedule and following it will maximize the infrastructure investments you have already made.
4. The **PREVENTATIVE MAINTENANCE** report shows upcoming maintenance items. You will want to run this report regularly as this data is helpful for creating your schedule and maintaining productivity, since looking at a consolidated list allows for better planning.

5. For instance, if you notice several similar tasks in a similar area, you can schedule that work to be done at the same time to efficiently use all of your resources — including employees — and save some time and costs.
6. There are saving opportunities for every municipality no matter how large or small. The important part is to be able to find these savings in a timely matter. There is no savings if it takes one staff member two hours to find one hour of time saving.
7. One of the principle resources that people tend to miss planning for is their Operating Capacity. People are only able to do so much work in a given time period. Being able to predict needed maintenance is crucial for the proper scheduling of human resources. Running these **PREVENTATIVE MAINTENANCE** reports will allow you to keep operating near or at your capacity, while maximising work hours.

E. QUALITY ASSESSMENT

1. Quality Assessment — which is the current condition of assets — is a very important aspect of Asset Management. Knowing which assets are operating above, at, or below their service standard is very important in deciding where to spend money.
2. **QUALITY ASSESSMENT** reports contain not only the current Quality Assessment, but also the Maintenance Cost for that asset. This information is very useful for comparing similar assets.
3. For example, if two roads were constructed at the same time, but have two very different Quality Assessment values, that might prompt an investigation into why one road is so different from the other. Identifying these differences will ensure your Asset Management plan will be as complete as possible.
4. You can run these **QUALITY ASSESSMENT** reports based on selection criteria. For example, you can generate a report that shows a listing of all roads below your service standards. **Note:** Quality Assessment can be setup for any range of values, but defaults to a 1 - 10 scale, where 10 is perfect and 1 is terrible.
5. There are two methods PubWorks can use to determine a quality rating:
WEIGHT AVERAGE METHOD:
6. This method assumes you will be assessing the entirety of an asset, the good and the bad. It will take an average of all the assessments for a single asset and calculate one final rating.

7. When using this method, it is best if the total weight of assessments equals 100% in order for the result to be useful.
8. This method of Quality Assessment works best when getting a third party to report on your assets, such as an engineering firm.

DEDUCTION ASSESSMENT METHOD:

9. This method has every asset starting at a perfect condition (10 out of 10) and then deducts any wear or flaws from that value.
10. This method works best if there is a predefined list of potential deductions categorized by type and severity. That way an assessor only needs to count the number of assessable qualities.
11. This method tends to be more quantitative or measured in nature, making it easier to get the same results every time. If you are self-assessing assets, we would recommend this method, because it can remove opinions and bias from the process.

F. ACTIVITIES

1. One of the challenges of practicing Asset Management is attempting to remove feelings from the process and the easiest way to do that is by looking at real facts and learning where the time, effort and resources are really being spent.
2. **ACTIVITY** reports can help you separate beliefs from facts. They will show where the time, materials, equipment cost and even contractor costs are being spent.
3. To get the most out of these reports, you will need to be specific with the criteria. Choose an appropriate date range, and don't print all assets at once, but rather similar ones. This will give you a clearer picture of which assets are consuming the most resources.

SECTION V: CONCLUSION

A. WHAT ARE YOUR NEXT STEPS?

1. Now that you know what Asset Management is and how PubWorks can help you with your Asset Management plan, what do you do now?
2. We recommend starting with a review of your current Asset Management plan, followed by an evaluation of your existing software tools and a cleanup of your existing data.
3. For more details, please read the "Asset Management Prep" checklist available on our website.