

Agenda

- Problem identification
- Navigating through the re-design of your maintenance management system
- Recognizing the “resource black-holes”
- Recommendations
- Questions



Effective Business Processes



LONDON

- Single Tier
- 352,295 (2006 census)
 - 1.1% of Canada & 2.9% of Ontario
- In the middle of Southwestern Ontario
- 5 Waste-activated & 1 membrane plant
- 36 Sewage Pumping Stations
- 1 Fluidized bed sludge incinerator
- Mechanical, electrical, instrumentation & SCADA maintenance for Water distribution also.

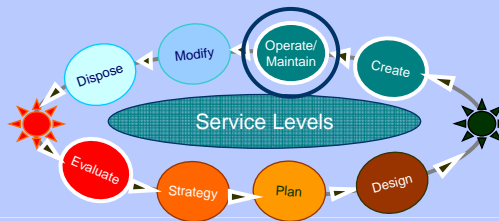


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What are we trying to do?

- Keep all the equipment operating as effectively and efficiently as possible
 - Minimize downtime
 - Minimize repair costs
 - Minimize amount of redundancy



Effective Business Processes



Getting it done!!!

- There must be a plan or methodology by which you can navigate from your current situation to the end goal.
- You must clearly identify where your gaps in your current system are as the first step.



Effective Business Processes



The First Problem

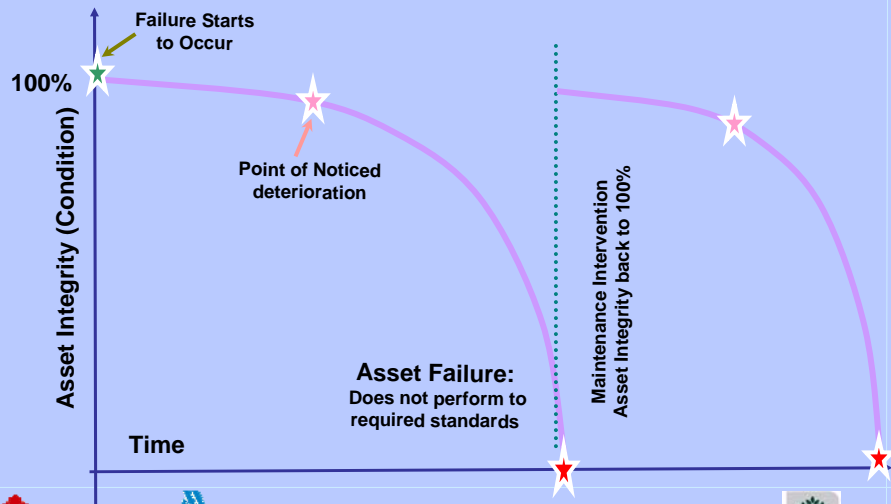
- Breakdown Maintenance is not a maintenance program...it's just fixing stuff.
- We need to do Preventative Maintenance.



Effective Business Processes



Asset Deterioration Curve - Replace

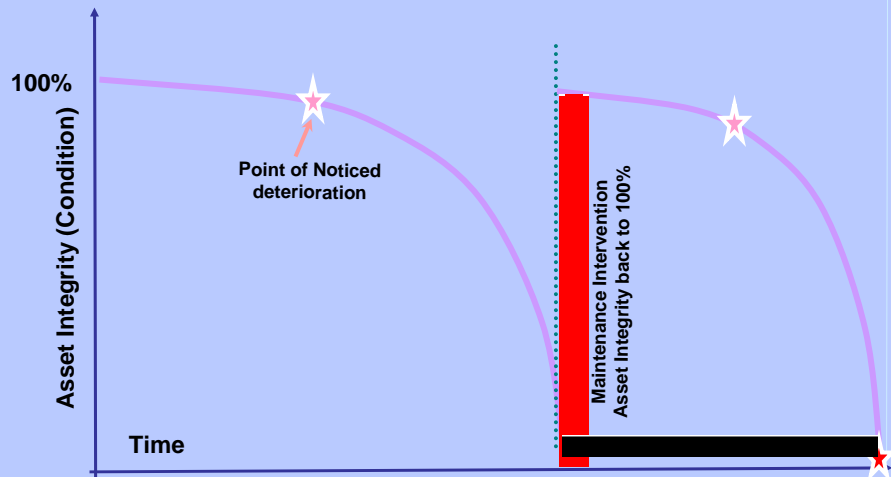


Effective Business Processes



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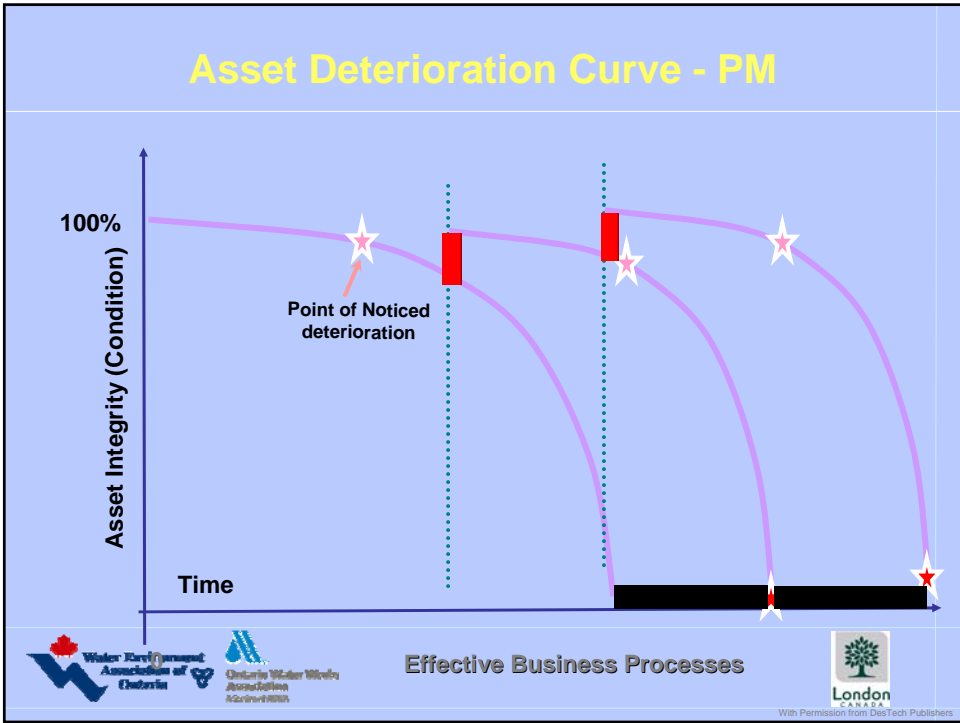
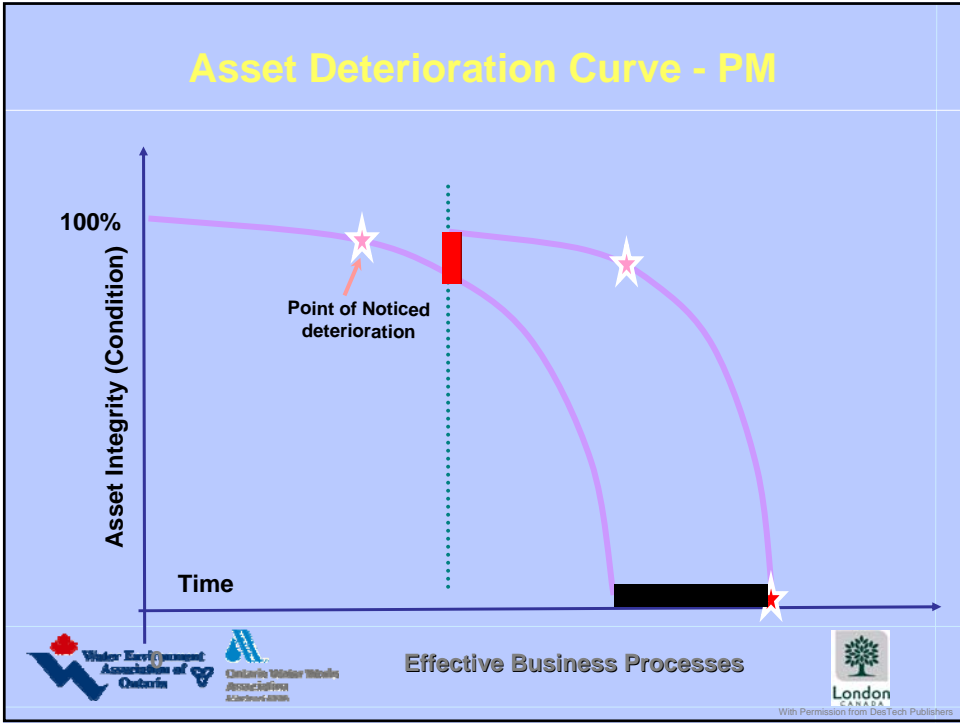
Asset Deterioration Curve - Replace



Effective Business Processes



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What are we missing?

- Prioritize what needs to be worked on.
 - Operations identifies “Top Ten” equipment
 - Develop a PM plan for Top Ten to start.
- Always waiting for parts.
 - Set up a stores for PM parts and other critical parts
- We need \$\$\$.
 - Set up a funding program that identifies annually a level of work to be done that can be achieved.
- “Operations keeps breaking the equipment”
 - Set up training Ops & Mtce (get them talking)



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Challenges

- Manually creating W/O's
- Manually tracking costs
- No details on specific assets
 - All lumped together
 - No quick costs
- Are resources being assigned properly?



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Typical Staff Meeting

- *We need a CMMS!*
- Which one?
- *Doesn't matter, it will just work!*
- How do we do it now?
- *Manually.*
- How does that work?
- Well it doesn't work very well.
- So why computerize an inefficient system that doesn't work?



Effective Business Processes



Work Flow

- **“What is”** our current process?
- Determine all the steps it takes from initiation to sign-off of a W/O.
- Draw a flow chart. “Map it out.”
- Answer the question: Is it really necessary that it takes so many steps from start to finish?
- Design on paper a more stream-line **“to be”** system with your team. “Talk about it.”



Effective Business Processes



Fine Tune The New System

- Get the manual system working.
- Get the bugs out of it.
- Look for more “non-value-added” steps that you can remove.
- Look for enhancements that serve all groups—operators, supervisors and maintenance staff.



Effective Business Processes



Where is my CMMS?

- Once the manual system is working, you can develop a plan to automate it.
- Find the answers to:
 - Is there a corporate product in place that has a CMMS module?
 - Yes: Can it be turned on? Is there a Corp. person that can assist?
 - No: Can we get a module added or should we stand-alone?



Effective Business Processes



TIPS

- You will want to track costs. It is best to use a system that is integrated into your financial management system.
 - Eliminates double entry
 - Technical and financial Corporate support systems are in place.
- Create a broad team and lock them into a room to focus without day-to-day distractions for blocks of time.



Effective Business Processes



Next Steps

- **Metrics**
- Develop a set of measures.
- Determine what should be measured.
- Determine how to track costs at various levels of detail for the various end users:
 - W/O costs
 - Asset Life costs
 - Project costs
 - Program costs



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Recommendations

- Do a gap analysis.
- Develop a step by step plan.
- Develop an efficient manual system that minimizes the number of steps.
- Do not jump to the last step.
- Pick a team that will use the system.
- Pick champions that will drive it.
- Look for allies to assist you.



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Questions?



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