

# PSAB Information Session

---

Department of Municipal Affairs



# PSAB Information Session Phase Two

---

Department of Municipal Affairs



# PART ONE

To Do:

Municipal Reporting Entity

Government Partnerships (GP)

Basic Principles of Consolidation

# Municipal Reporting Entity

## Attention Please...

A **REPORTING ENTITY** is an organization that is obliged to prepare **audited financial statements** for external reporting



# Municipal Reporting Entity

## MUNICIPAL REPORTING ENTITY

Describes which...

- Funds
- Agencies
- Boards
- Commissions
- Non-profit organizations

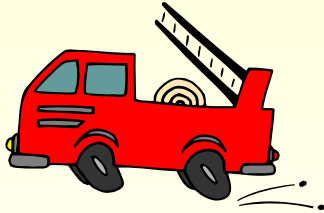
...are part of a municipality's  
summary financial statements  
and which are not.



# Municipal Reporting Entity

Some examples:

Fire Department



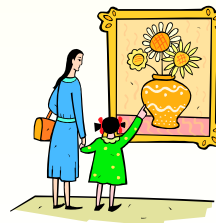
Ambulance Committee



Arena Management Board



Museum



# Municipal Reporting Entity

Why is defining the MRE so important?



Knowing what to include / exclude is critical, as it can have an enormous impact on your financial statements and the picture they provide about your municipality's finances.

# Municipal Reporting Entity

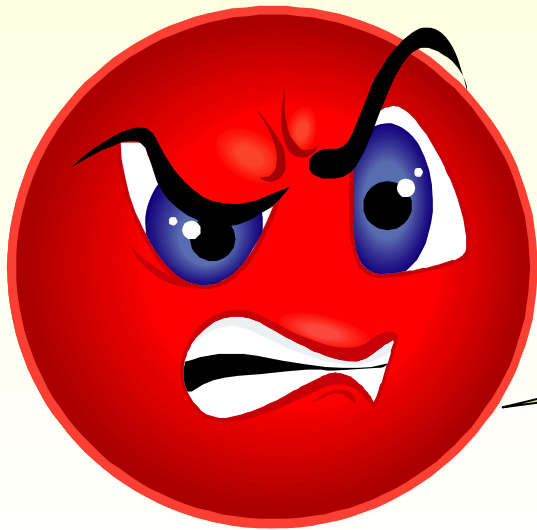
## Why is defining the MRE so important?

- ④ It helps to **draw a circle** around the activities a government should report in its summary financial statements
- ④ Clear boundaries for including or excluding organizations **help users better understand** the financial position, as well as revenues and expenditures of the municipality
- ④ Clear boundaries also **help elected officials understand** the extent of the financial resources and obligations for which they are responsible





# Municipal Reporting Entity



OK, so the MRE is important. But how exactly do we decide which organizations are part of our municipal government?

# Municipal Reporting Entity

How do we decide which organizations are part of our MRE?



The MRE comprises all organizations *controlled* by that municipality.

The challenge is to figure out what control means.

# Municipal Reporting Entity

PSAB uses a “principles”  
based approach

Each government organization is  
different, so you can't just list  
controlled entities.

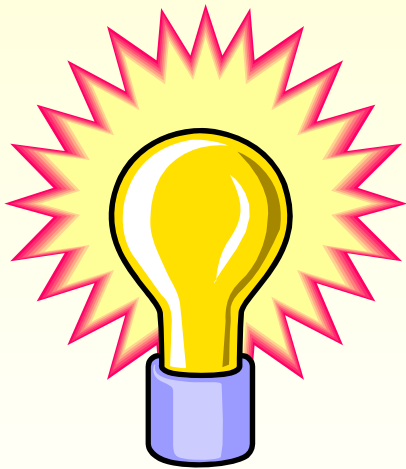


# Municipal Reporting Entity

This is **not** **BLACK** and **WHITE**

- In some cases, it's easy to determine if your municipality has control; in other cases, it's not so easy.
- Must use **PROFESSIONAL JUDGEMENT.**

# Municipal Reporting Entity



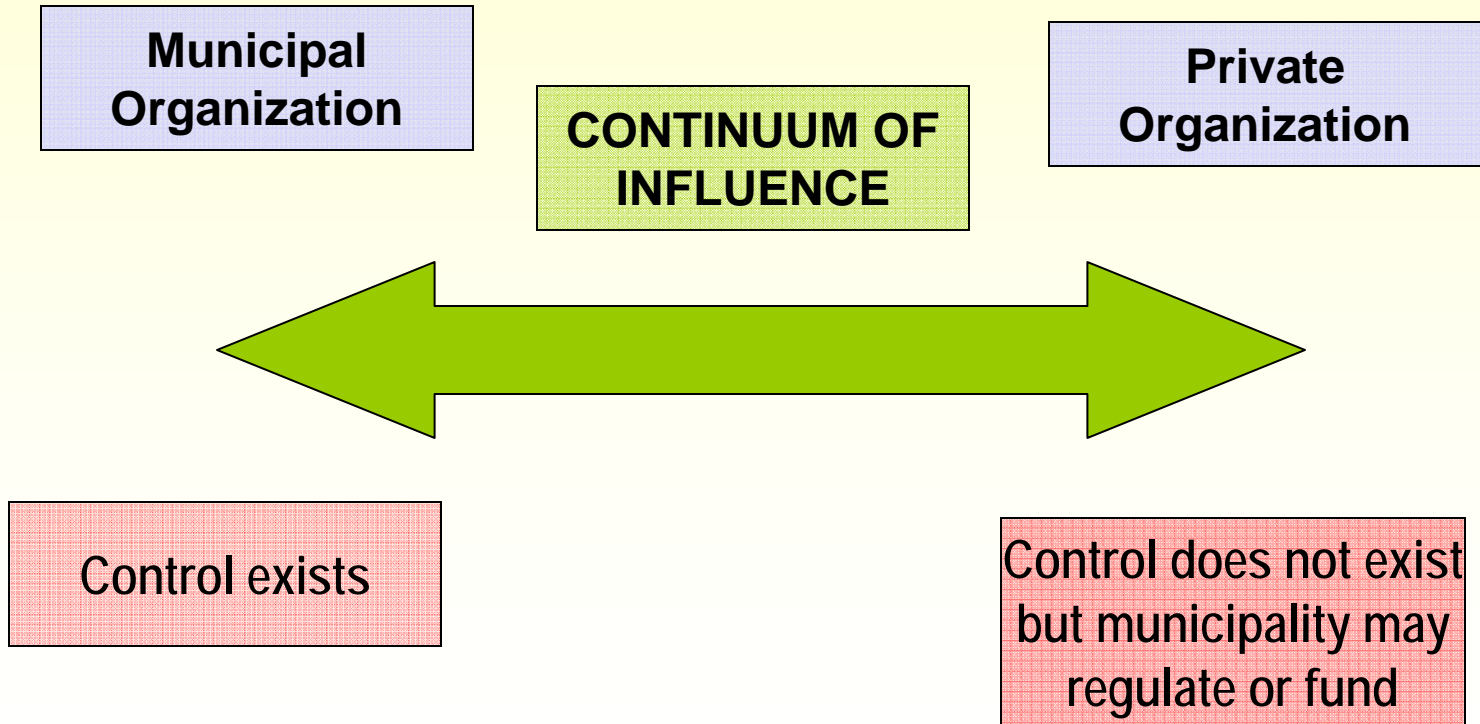
## REMEMBER:

Control is a 'principles' based concept.

Need to look at the nature and substance of the relationship between the municipal government and the organization, and **NOT** on the organization's legal form.

# MRE – What is CONTROL?

Remember, it's not a black/white issue...



# MRE – What is CONTROL?

## CONTROL is defined as:

1. The power to **govern the financial & operating policies** of another organization;

2. With the expectation of **benefiting** (or being exposed to the **risk of loss**) from that organization's activities.

# MRE – Main Elements of Control

## 1. Having the power to govern is sufficient

- Don't actually need to exercise control

## 2. Authority to determine financial & operating policies

- Does not necessarily mean day-to-day management

## 3. Expected benefits or risk of loss

- Benefits may be financial or non-financial
- Most benefits are service oriented
- Does risk of loss accrue to the government?



# MRE – What is CONTROL?

**How do you know whether government control exists?**

→ **DON'T FORGET!**

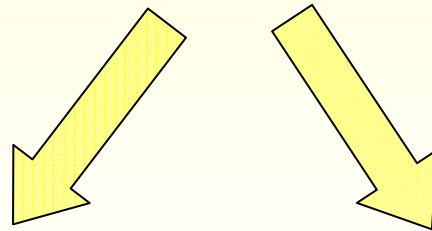
No one criterion provides sufficient evidence of control in all cases

Examine the relationship between the municipal govt. & the organization

**Talk to your auditor**

## MRE – What is CONTROL?

# CONTROL



Primary Indicators

Secondary Indicators

# MRE – What is CONTROL?

## PRIMARY indicators of control:

**1. Unilaterally appoint or remove a majority of the governing body**

- Ⓢ *Example:* Can appoint or remove a majority of the board members

**2. Ongoing access to the assets or responsibility for the debt and deficits**

- Ⓢ *Example:* If an organization dissolves, and assets revert back to municipality, and/or municipality is 'on the hook' for the liabilities

# MRE – What is CONTROL?

## PRIMARY indicators of control, cont'd:

### 3. Hold a majority of the voting shares

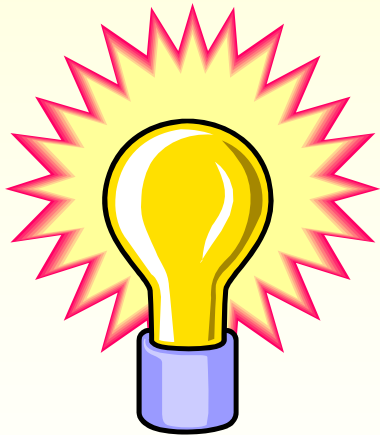
- Municipal governments don't often have voting shares

### 4. Unilateral power to dissolve the organization

- Access assets
- Become responsible for its obligations

# MRE – What is CONTROL?

## PRIMARY indicators of control:



If any **one** (1) of these indicators exists, the organization is likely **controlled** and should be consolidated.

## MRE – What is CONTROL?

### SECONDARY indicators of control:

In addition to the 4 **primary indicators of control**, there may be others.

These **secondary indicators** may provide evidence of control when considered **collectively**.



# MRE – What is CONTROL?

## SECONDARY indicators of control:

1. Significant input into the appointment of a governing body
2. Appoint or remove key personnel of the organization
3. Establish or amend an organization's mandate or mission

## MRE – What is CONTROL?

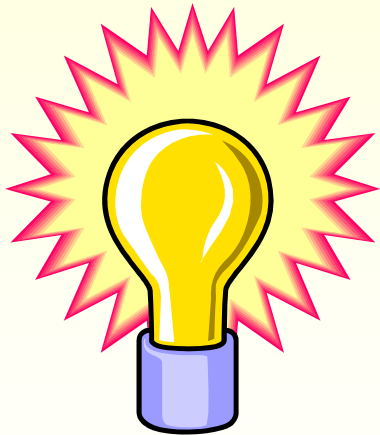
### SECONDARY indicators of control, cont'd:

4. Establish borrowing or investment limits
5. Restrict revenue generating capacity
6. Establish or amend organizational policies
7. Approve and make changes to the organization's budget



# MRE – What is CONTROL?

## SECONDARY indicators of control:

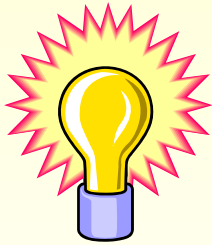


Remember to consider the indicators **collectively**.

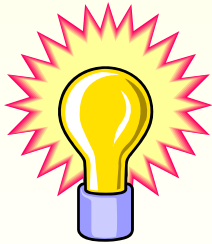
The more indicators that exist, the more likely control exists.

# MRE – What is CONTROL?

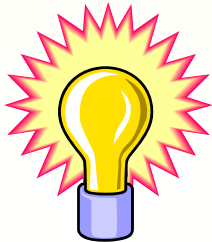
## Let's review the indicators of control:



Evaluate each organization against the four (4) primary indicators of control and seven (7) secondary indicators.



Evaluate each organization on an *individual basis*.



If determined control exists, the organization will be included in your municipality's *consolidated financial statements*.

## MRE – What is CONTROL?



- ✚ Still not sure?
- ✚ See the **Municipal (Consolidated) Reporting Entity Checklist** in the Reference Manual or online at the PSAB website.

## MRE – What is not CONTROL?



**Financial dependence** on the municipality, on it's own

*Organization still has choice to not accept funding and close its doors*



**Regulatory control** (e.g. building & fire inspections)

*Control only extends to the regulatory aspects of the operations*



**Temporary control**

- *Short term in nature*
- *Council intends to relinquish control*

# MRE – Restricted Organizations

@ Some assets of organizations are often restricted for specific purposes.

@ Inclusion in the MRE based on control and not ownership.

@ Restricted organizations should be included in MRE only if controlled.



# MRE – Restricted Organizations

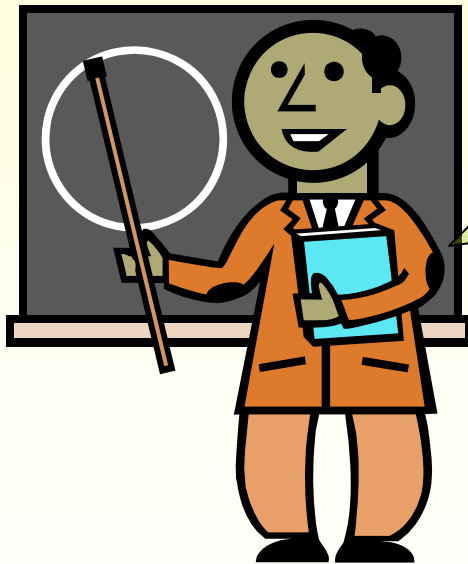
## @ Example: some fire departments

- ▶ Operates completely independent of town,
- ▶ Holds its own fundraisers,
- ▶ Makes loan payments on the fire truck,
- ▶ Has its own association that elects Chief and Deputy Chief.



- BUT, does not have ability to unilaterally sell or buy a new fire truck
- This has to go through town council
- Council does not control fire department itself, *but it does control major asset of fire department.*

# MRE – What is CONTROL?



Let's see what you've learned about the indicators of control...

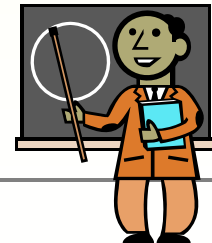
# What is Control – Examples?

1. Recreation board operates the hockey arena and curling rink. Both buildings are owned & were built by the municipality?

• Answer: \_\_\_\_\_

2. Council sets the operating hours for the hockey arena?

• Answer: \_\_\_\_\_





# Control Indicators

## Primary Indicators:

1. Appoint or remove a majority of the members
2. Ongoing access to the assets of the organization
3. Holds the majority of the voting
4. Power to dissolve the organization

## Secondary Indicators:

1. Significant input into the appointment of a governing body
2. Appoint or remove key personnel
3. Establish/amend organization's mission or mandate
4. Approve/change organization's budget
5. Establish borrowing/investment limits
6. Restrict revenue generating capacity
7. Establish/amend organizational policies

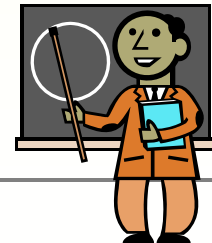
# What is Control - Examples?

1. Recreation board operates the hockey arena and curling rink. Both buildings are owned & were built by the municipality?

• Answer: \_\_\_\_\_

2. Council sets the operating hours for the hockey arena?

• Answer: \_\_\_\_\_



## What is Control – Examples?

3. Recreation board submits budget to council for funding. Council can request changes to the budget?

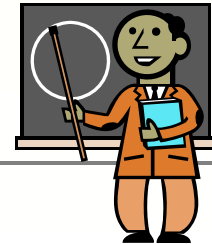
☀ Answer: \_\_\_\_\_

4. The “Procedures & Operating Policies Manual” for the local library was approved by council?

☀ Answer: \_\_\_\_\_

5. Golf course needs the approval of council for all major capital improvements and borrowings?

☀ Answer: \_\_\_\_\_



# Control Indicators

## Primary Indicators:

1. Appoint or remove a majority of the members
2. Ongoing access to the assets of the organization
3. Holds the majority of the voting
4. Power to dissolve the organization

## Secondary Indicators:

1. Significant input into the appointment of a governing body
2. Appoint or remove key personnel
3. Establish/amend organization's mission or mandate
4. Approve/change organization's budget
5. Establish borrowing/investment limits
6. Restrict revenue generating capacity
7. Establish/amend organizational policies

## What is Control – Examples?

3. Recreation board submits budget to council for funding. Council can request changes to the budget?

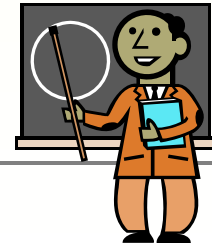
☀ Answer: \_\_\_\_\_

4. The “Procedures & Operating Policies Manual” for the local library was approved by council?

☀ Answer: \_\_\_\_\_

5. Golf course needs the approval of council for all major capital improvements and borrowings?

☀ Answer: \_\_\_\_\_



## What is Control – Examples?

6. Council passed the resolution creating the library board?

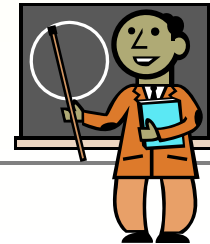
■ Answer: \_\_\_\_\_

7. 5 out of the 7 directors to the governing board of the town hall are appointed by council?

■ Answer: \_\_\_\_\_

8. The 'chief librarian' is appointed by the library board but must first be approved by council?

■ Answer: \_\_\_\_\_



# Control Indicators

## Primary Indicators:

1. Appoint or remove a majority of the members
2. Ongoing access to the assets of the organization
3. Holds the majority of the voting
4. Power to dissolve the organization

## Secondary Indicators:

1. Significant input into the appointment of a governing body
2. Appoint or remove key personnel
3. Establish/amend organization's mission or mandate
4. Approve/change organization's budget
5. Establish borrowing/investment limits
6. Restrict revenue generating capacity
7. Establish/amend organizational policies

## What is Control – Examples?

6. Council passed the resolution creating the library board?

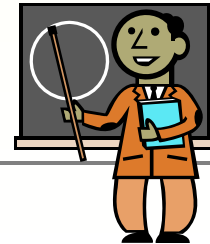
■ Answer: \_\_\_\_\_

7. 5 out of the 7 directors to the governing board of the town hall are appointed by council?

■ Answer: \_\_\_\_\_


8. The 'chief librarian' is appointed by the library board but must first be approved by council?

■ Answer: \_\_\_\_\_





## MRE – Disclosure Requirements



Municipalities should disclose a listing of the major organizations comprising the reporting entity.

# Government Partnerships (GP)

- ◆ A contractual relationship between a municipality and another party outside the MRE
- ◆ Other parties are normally other municipalities
- ◆ Other parties could be the Province, not-for-profit organizations, etc.
- ◆ A municipality's interest in a government partnership should be **proportionately consolidated** (*Exception: Government Business Partnerships*)



# Government Partnerships (GP)

- ◆ Contractual relationship can be in writing but it doesn't have to be:
  - By-law establishing the GP
  - Passed resolution of council
  - Contractual agreement

- ◆ Activities conducted with no formal agreement, but which meet the definition of a GP, is in substance a GP.



# Government Partnerships (GP)

## Characteristics of a GP:

### ◆ Partners:

- ◆ Have common goals for the activity
- ◆ Equitably share risks & benefits of the activities
- ◆ Make a financial investment
- ◆ Have shared control over decisions



# Government Partnerships (GP)



Let's look more closely at  
Financial Investment

Not limited to activities  
that generate a  
financial return

Extends to goods &  
services that provide a  
benefit to the  
community

Investments can be in the form of:

- Contribution of cash and other assets
- Assuming responsibility for ongoing operating costs
- Purchase of goods & services from the GP

# Government Partnerships (GP)

- Shared control over decisions is what distinguishes a GP from a supplier
- What's not included in GP:
  - ✘ Leases
  - ✘ Purchase/sale transactions
  - ✘ Shared cost agreements
  - ✘ Loans
  - ✘ Loan Guarantees



# Government Partnerships (GP)

*Let's look at an example:*

- A municipality has *outsourced garbage pickup* to a private contractor. Would that municipality be in a *partnership* with the contractor?



# Government Partnerships (GP)

The answer is...

**NO**



- It's a buyer/vendor relationship
- Municipality & contractor don't share *common goals*

- Municipality not responsible for any losses, and doesn't share any profits
- Purchase of this service would be accounted for as an expense



# Government Partnerships (GP)

@ Let's say that you've used the **Government Partnerships Checklist** (see Reference manual) and have determined that a particular arrangement is indeed a **Government Partnership**.

@ **Example:** Regional Waste Management Facility



- ✓ Common goals
- ✓ Financial investment
- ✓ Shared control
- ✓ Share risks & benefits

# Government Partnerships (GP)

A Government Business Partnership is a government partnership that has *all* of the following characteristics:

1. Separate legal entity with power to contract in its own name and that can sue and be sued.
2. Has been delegated financial and operational authority to carry on a business.
3. Sells goods & services to individuals and organizations other than the partners as its principal activity.
4. In normal course of operations, can maintain its operations and meet its liabilities from revenues received from sources other than the partners.

# Government Partnerships (GP)

- ✚ If the GP being evaluated **is** a Government Business Partnership...
  - ⦿ Each municipality would account for its investment using the modified equity basis of accounting.

- ✚ If the GP **is not** a Government Business Partnership...
  - ⦿ Each municipality would account for its investment using the proportionate consolidation method.

# GP – Disclosure Requirements

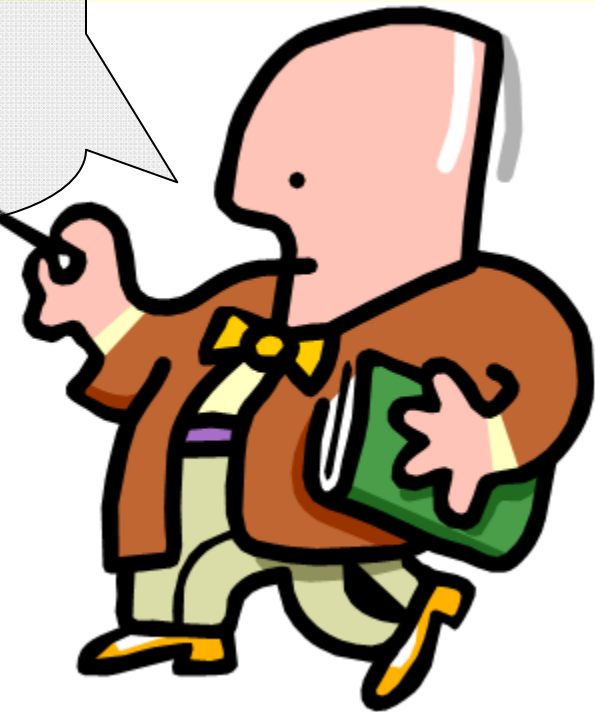
## @ Municipalities should disclose:

- Description of nature & purpose of GP
- List of GP, municipality's share, and how it is accounted for
- Condensed supplementary financial information
- Share of any commitments and contingencies



## Consolidations – what is it?

Consolidation **combines** the individual financial statements of the organizations that make up the **MRE** to present it as a **single economic unit.**



# Consolidations – why?



But WHY do we  
need  
consolidated  
financial  
statements?

# Consolidations – why?

Let me explain...

Current financial statements:

1. Present a partial view of the overall activities of a municipality.
2. Don't allow for comparability with other municipalities that provide the same service using a different delivery method.



# Consolidations – why?



On the other hand,

## Consolidated financial statements:

1. Provide a fuller picture of a municipality's activities.
2. Allow meaningful comparisons between municipalities.
3. Will help councillors understand the full extent of the financial resources and obligations for which they are responsible.



## Consolidations – why?



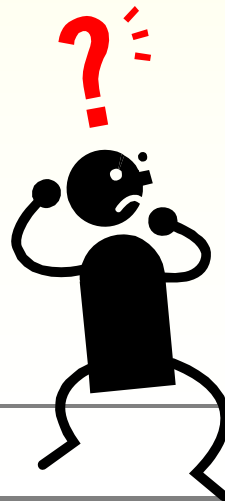
Summary financial statements recognize that, even though a municipal government and its organizations may be separate legal or organizational entities, they make up a single economic unit.

## Consolidations

# Full Consolidation

OR

# Proportional Consolidation



## Full Consolidation – Basic Steps

1. **Restatement**: Restate the F/S of the *controlled entity* with the accounting policies of the municipality (i.e. PSAB).
2. **Elimination**: Eliminate the controlled entity's balances & transactions with the municipality.
3. **Combination**: Combine the assets, liabilities, revenues, & expenses, on a line by line basis, with those of the municipality.

# Proportional Consolidations



Could somebody  
please tell me  
what this  
means!!!

# Proportional Consolidations

This is when you...



- Calculate your organization's ownership percentage of a partnership,
- ...and then include the same percentage of the assets, liabilities, revenues and expenses of that partnership in your organization's financial statements.

# Proportional Consolidations



- Let's say you have a 50% interest in a Regional Arena Management Board.

- So you'd include 50% of the board's assets, liabilities, revenues, and expenses in your organization's financial statements.
- The other partners(s) are responsible for the remaining 50%.

# Proportional Consolidations

F.Y.I.

- Basic steps are the same as with full consolidation, with one exception

## Proportional Consolidations- Basic Steps

1. **Restatement**: Restate the F/S of the *government partnership* with the accounting policies of the municipality (i.e. PSAB).
2. **Elimination**: Eliminate the government partnership's balances & transactions with the municipality.
3. **Combination**: Combine the municipality's **pro-rata share** of assets, liabilities, revenues, & expenses, on a line by line basis, with those of the municipality.



## Consolidations – Different F/S Dates?

- Controlled entities and GP often have year ends other than Dec. 31.

- This is not a reason to exclude from MRE.

- Should disclose entities with different dates.

- Significant events or transactions occurring during the intervening period should be disclosed or adjusted by the MRE.

## Consolidations – Different F/S Dates?

### + Significant impairment of an asset:

- Bad debt (adjust MRE financial statements)
- TCA (adjust MRE financial statements)

### + Capital Commitment

- Disclose in the notes to the financial statements of the MRE
- Example: recreation board is committed to building a new arena

# Proportional Consolidations

F.Y.I.

- For an example of consolidations involving a fire department, museum, & arena management board, see the **Reference Manual**.

## Being Prepared is the Key

*Important  
DATE!*

By December 1, 2008  
municipalities should  
determine which  
organizations should be  
included in their  
reporting entity.

## Being Prepared is the Key

To minimize audit fees and ensure your consolidated financial statements are completed by June 30, 2010:

1. Make sure that your list of controlled entities & GP is complete; and
2. Have audited F/S for your controlled entities and government partnerships ready for consolidation, or
3. Ensure that your controlled entities are ready to be audited at the same time as your municipality

# Being Prepared is the Key



→ DON'T  
FORGET!



Your municipality isn't  
ready until all significant  
controlled entities and  
government partnerships  
are ready!

# PART ONE



**DONE!**



**Municipal Reporting Entity**



**Government Partnerships (GP)**



**Basic Principles of Consolidation**



To DO:

## PART TWO

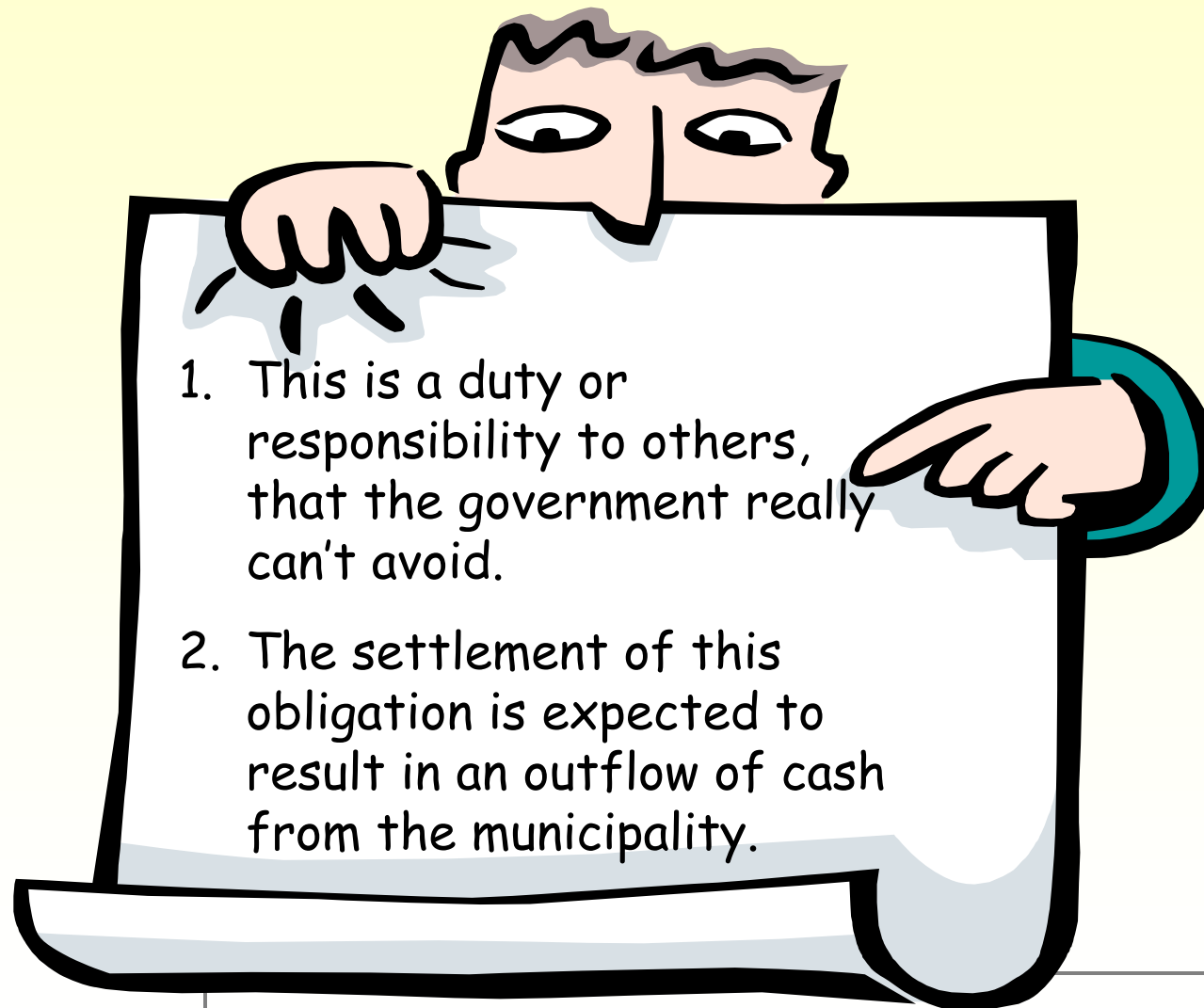
Obligations

Environmental Liabilities (EL)

Landfills



# Obligations – What is it?



# Obligations – Big Picture

## OBLIGATIONS

### Liabilities

- These are present obligations

### Contingent Liabilities

- These are possible obligations
- May become liabilities

### Contractual Obligations

- These will become liabilities in the future

# Obligations – Liabilities

## Liabilities

- These are *present obligations*

## Definition

1. Duty or responsibility to others and the government has no realistic alternative but to settle the obligation
2. Settlement of this obligation is expected to result in a future outflow of cash from the municipality
3. Goods or services from which obligation has arisen have already been received by municipality
  - E.g. delivery of gas
  - E.g. audit

An obligation is not a liability unless all 3 criteria are met.

# Obligations – Liabilities

## Recognition Criteria



Liabilities should be recognized in the financial statements when:

1. There is an appropriate basis of measurement;
2. A reasonable estimate can be made of the amount involved.

# Obligations – Liabilities

## Examples:

<u>Characteristics</u>	<u>Delivery of Culverts</u>	<u>Holidays Payable</u>
Goods or services have already been received by municipality	Delivery of culverts	Employee has worked the required # of hrs to earn holidays.
Future outflow of cash is expected	Payment by cheque or cash within 30 days of the receipt of invoice.	Pay out when the employee takes holidays or finishes employment with municipality.
Little or no discretion to avoid	Supplier will repossess the culverts & in the future will only accept C.O.D.	Labour codes require employers to pay for holidays.

# Obligations – Liabilities

## Other Common Liabilities

### Retirement benefits (PS3250)

- Pension plans (defined benefit, defined contribution & RRSP plan examples included in Ref Manual Appendix 1)

### Post-employment benefits (PS3255)

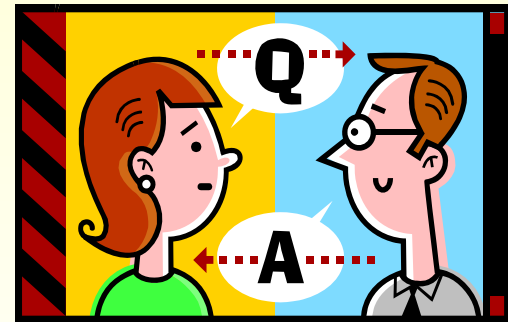
- Post employment health and dental example in Ref Manual Appendix 1.
- Long- and short-term disability benefits

# Obligations – Liabilities

## Why are these NOT liabilities?

1. Payable to a reserve?

*Answer.* \_\_\_\_\_



2. Open purchase commitments?

*Answer.* \_\_\_\_\_

# Obligations – Liabilities

## Liability Exist?

1. A duty or responsibility to others leaving the municipality little or no choice to avoid ;
2. Settlement of this duty is expected to decrease the available assets of the government on the occurrence of a specified event;
3. The transaction or event obligating the municipality has already occurred

## Record or Disclose?

1. There is an appropriate basis of measurement;
2. A reasonable estimate can be made of the amount involved

## Payable to a reserve

1. **NO** – not a requirement to pay into reserve

Not a liability therefore do not proceed

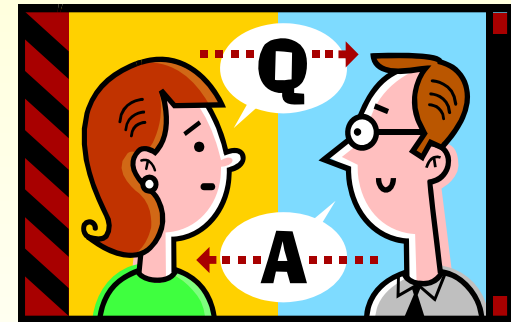


# Obligations – Liabilities

## Why are these NOT liabilities?

1. Payable to a reserve?

*Answer.* \_\_\_\_\_



2. Open purchase commitments?

*Answer.* \_\_\_\_\_

# Obligations – Liabilities

## Liability Exist?

1. A duty or responsibility to others leaving the municipality little or no choice to avoid ;
2. Settlement of this duty is expected to decrease the available assets of the government on the occurrence of a specified event;
3. The transaction or event obligating the municipality has already occurred

## Record or Disclose?

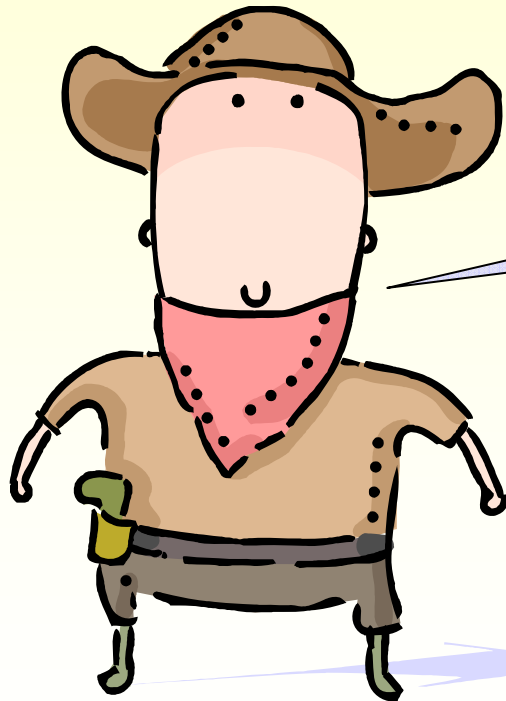
1. There is an appropriate basis of measurement;
2. A reasonable estimate can be made of the amount involved

## Open purchase commitment

1. **NO** – municipality still has the option to not purchase

Not a liability therefore do not proceed

# Obligations – Contingent Liabilities



So what's the difference  
between a liability and a  
contingent liability?

# Obligations – Contingent Liabilities

With a **contingent liability**, there is a degree of uncertainty as to whether a present obligation exists.

With a **liability**, it isn't up for debate - a present obligation does exist.



# Obligations – Contingent Liabilities

- These are *possible* obligations.
- They *may* become liabilities.
- **Distinct characteristics:**
  - There must be an **existing condition or situation**; and
  - An **expected future event that will resolve the uncertainty**

- **To determine if a liability exists at financial statement date, ask:**
  - What is the probability that this expected future event **will occur**?
  - What is the probability that this expected future event **will not occur**?

# Obligations – Contingent Liabilities

## Consider this example:

- ✚ Your municipality is involved in an ongoing lawsuit.
  - This is an existing condition/event
- ✚ It is only the awarding of a judgment (future event) that will confirm whether a liability exists.



# Obligations – Contingent Liabilities

## Levels of Uncertainty

### 1. Likely (probability is high)

- ✚ Legal counsel advises that you should settle with a litigant because they have a strong case

### 2. Unlikely (probability is slight)

- ✚ Legal counsel views a lawsuit to be frivolous and has no basis in law

### 3. Not Determinable

- ✚ Legal counsel views a lawsuit as possibly being settled in favour of either party



# Obligations – Contingent Liabilities



How do we determine the likelihood that an event will or will not occur?



# Obligations – Contingent Liabilities



It's a matter of judgment. Before completing your financial statements, consider all available information.

# Obligations – Contingent Liabilities

**A contingent liability should be accrued in the financial statements when:**

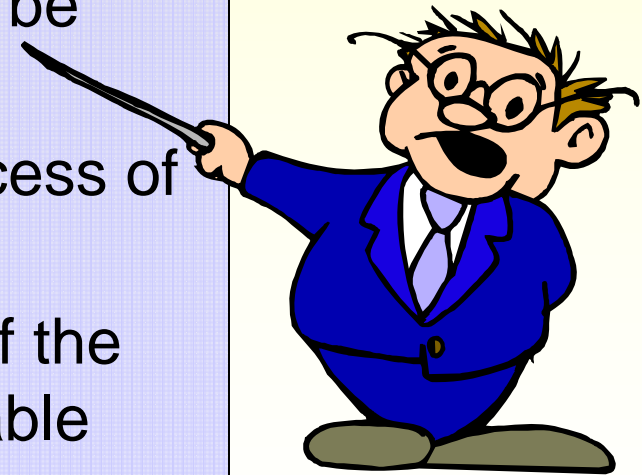
1. It is likely that the future event will confirm the existence of a liability; and
2. The amount can be reasonably estimated (i.e. recognition criteria).



# Obligations – Contingent Liabilities

**Contingent Liabilities should be disclosed in the notes to the financial statements when:**

1. Occurrence of confirming event is likely but the amount cannot be reasonably estimated;
2. There exists exposure in excess of the accrued amounts; or
3. The occurrence (outcome) of the future event is not determinable



# Obligations – Contingent Liabilities

Let's take a closer look at these disclosures....

- 1. Occurrence of confirming event is likely but the amount cannot be reasonably estimated;**
  - ⊗ *For example:* legal counsel is expecting an unfavourable ruling from the judge, however the amount to be awarded can't be determined.



# Obligations – Contingent Liabilities

Let's take a closer look at these disclosures....

## 2. There exists exposure in excess of the accrued amounts;

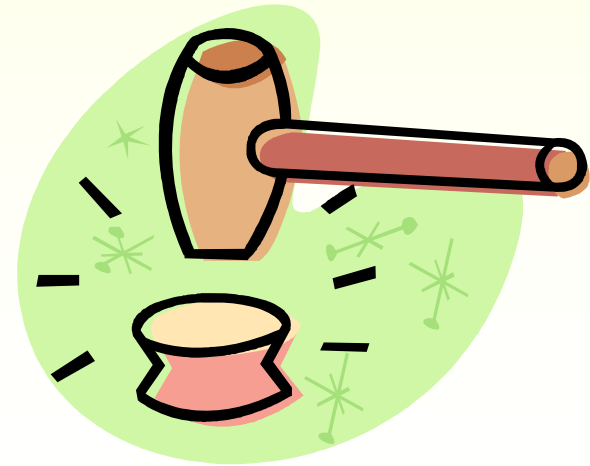
- ✚ *For example:* you know that your municipality is going to lose the lawsuit and you believe that the amount of this loss will be around \$50,000;
- ✚ Therefore, you record \$50,000 in your financial statements.
- ✚ However, the plaintiff is suing for \$200,000, so there is an *excess exposure* of \$150,000 that has not been recorded in the financial statements.
- ✚ This excess would then be disclosed in the notes to the financial statements.

# Obligations – Contingent Liabilities

Let's take a closer look at these disclosures....

## 3. The occurrence (outcome) of the future event is not determinable

- ⊗ *For example:* legal counsel believes that the judge could rule in favour of either party



# Obligations – Contingent Liabilities

## More on disclosures...

F.Y.I.

- In current financial statements, some municipalities have disclosed employee **holidays' payable** as a *contingent liability*.
- Can't do this under PSAB



# Obligations – Contingent Liabilities

**Holidays' payable should be accrued as a liability because:**

- Occurrence of confirming future event is likely.
  - Everyone takes holidays eventually
  - Even if they don't, holiday balances have to be paid out when employee leaves or retires
- Amount can be reasonably estimated





# Obligations – Contingent Liabilities

Probability of the Confirming Future Event	Amount of the Liability Can Be Reasonably Estimated	Amount of the Liability Cannot Be Reasonably Estimated
Likely	Accrue in the F/S	Disclose the situation in the notes
Not Determinable	Disclose the situation & amount in the notes	Disclose the situation in the notes
Unlikely	No action required	No action required

# Obligations – Contingent Liabilities

## Loan Guarantees

⊙ This is a promise to pay all or part of the principal and/or interest on a debt obligation in the event that the borrower defaults.

- *Loan Guarantees checklist available on the PSAB website.*



# Obligations – Contingent Liabilities

## Loan Guarantees, cont'd

- Ⓜ This is a contingent liability of the municipality.
- Ⓜ Provision for losses should be accrued when it is determined that a loss is likely.



- Ⓜ Provision should include principal and interest outstanding.
- Ⓜ Only loan guarantees to organizations outside the MRE need to be disclosed in consolidated financial statements.

# Obligations – Contingent Liabilities

## Guaranteed Loans to be Repaid Through Future Assistance

- ✚ Municipality guarantees loan and provides a funding commitment for repayment.
- ✚ Used in the past to keep debt off the Balance Sheet.
- ✚ Record the entire loan as an expense & liability of the municipality, unless borrower can repay from its own existing revenues.

Dr. Grant Expense – 3 <sup>rd</sup> Party Loan	XXX
Cr. Liability – Future Funding Commitment	XXX

# Obligations – Contingent Liabilities

## Guaranteed Loans to be Repaid Through Future Assistance

- ✦ In 2009 a town council guarantee a loan of \$150,000 for a Tennis Club.
- ✦ In addition, the council elected to commit funding of \$15,000 a year over 10 years to the Tennis Club to repay the loan.
- ✦ Under PSAB, the town would now be liable for the loan once the funding was committed.

# Obligations – Contractual Obligations

- Also known as **commitments**.

- Commitments are obligations that **will become liabilities** in the future, when the terms of the contracts and agreements are met.

- Distinct from contingent liabilities – **no uncertainty** about the existence of the obligation

- Does not include a municipality's obligation to provide services such as waste collection, fire protection, etc.



## Obligations – Contractual Obligations



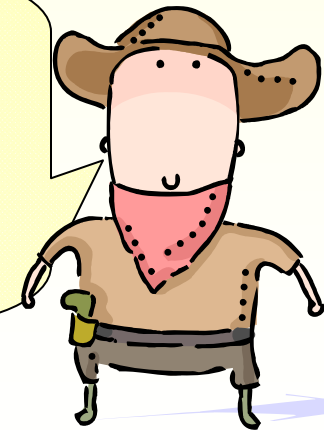
Significant commitments should be disclosed in the notes to the financial statements.

# Obligations – Contractual Obligations

How do we know what represents a significant commitment?

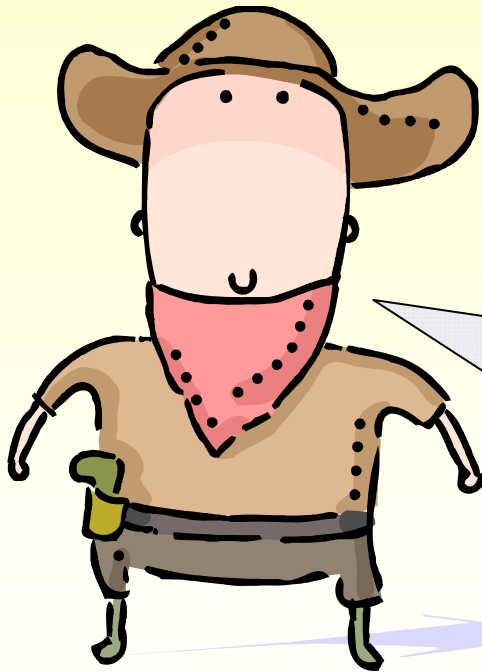


It's a matter of judgment. What you consider to be significant may be insignificant to somebody else.





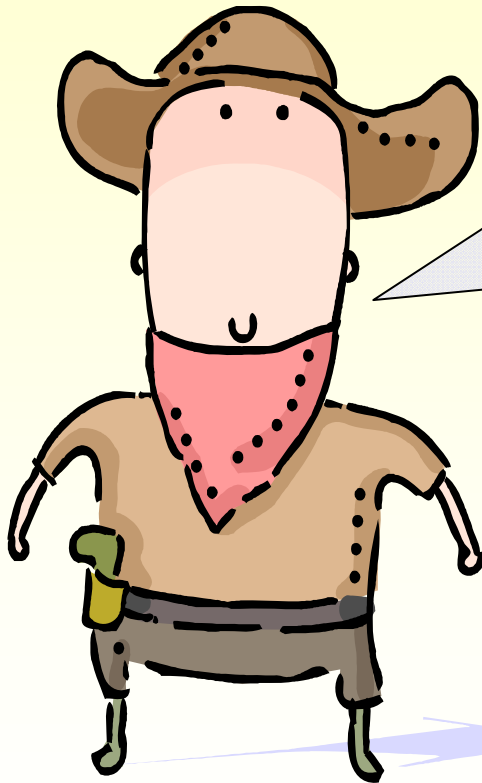
# Obligations – Contractual Obligations



## Consider 2 key factors:

1. Is the level of expenditures significant when compared to the overall operations of your municipality?
2. How long is the commitment?

# Obligations – Contractual Obligations



## For example,

1. The leasing of office space for the next 10 years would probably be a significant commitment for most municipalities.
2. The leasing of a photocopier for 3 years may not...

## Obligations – Contractual Obligations



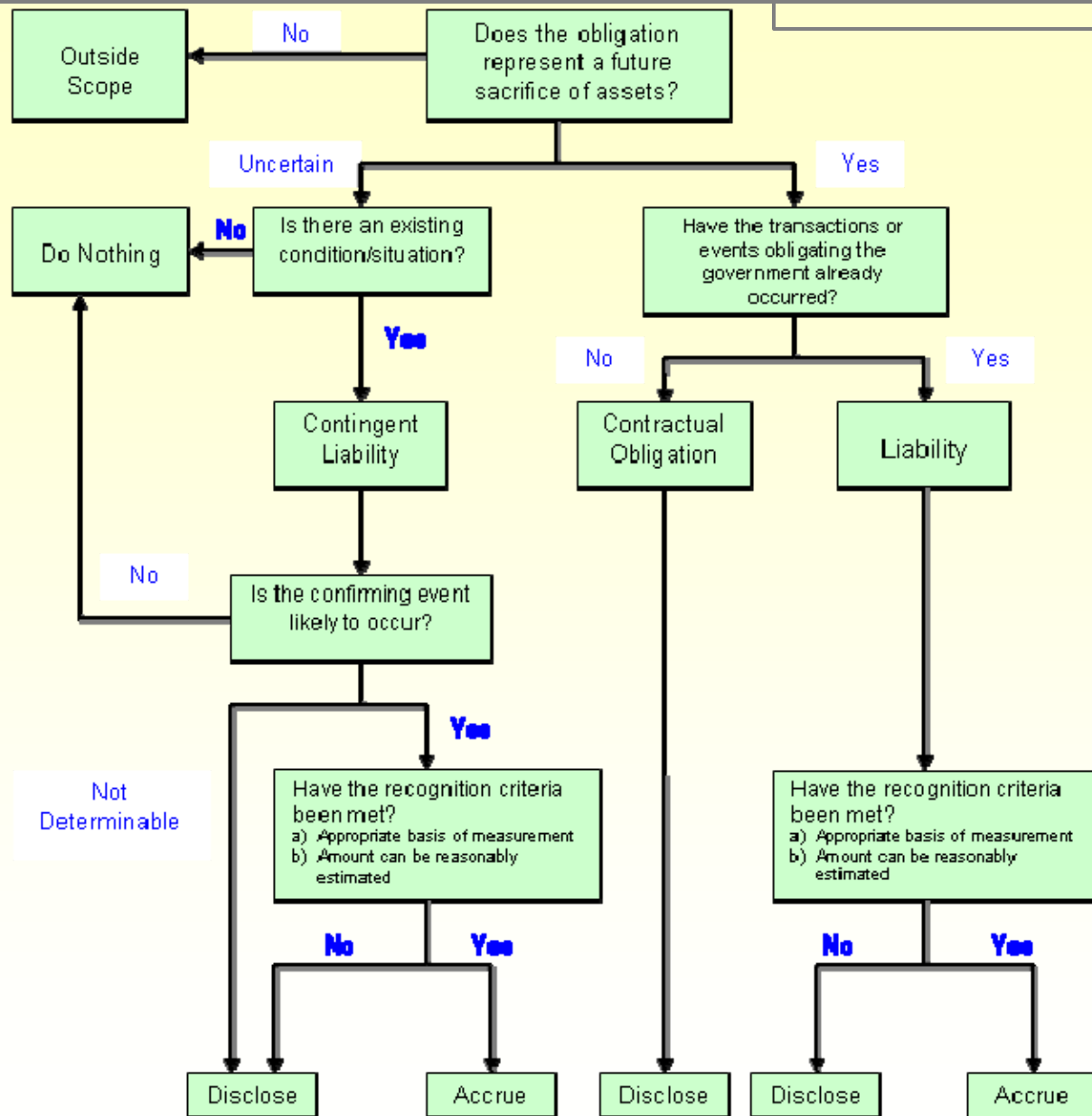
*You should disclose commitments that are significant to the current financial position or future operations.*

1. High degree of speculative risk (i.e. forward contracts)
2. Large expenditure levels (i.e. capital projects)
3. Long time frames (i.e. office leases)

# Obligations

F.Y.I.

- Check the PSAB website for checklists on Liabilities & Contingent Liabilities.



# Environmental Liabilities (EL)



F.Y.I.

- Municipalities are required to report EL in accordance with PSAB's recommendations on
  - Liabilities
  - Contingent Liabilities

- The accounting for EL is independent from the decisions surrounding the funding of these liabilities.

# EL - Background

- ✚ The Department of Environment and Conservation is responsible for the regulations covered under the:
  - Environmental Protection Act (EPA)
  - Water Resources Act (WRA)

- ✚ In 2005, Dept. of Environment and Conservation updated the contaminated site cleanup criteria in a document called *The Guidance Document for the Management of Impacted Sites*.
- ✚ See page 12 of Part 2 of the Reference Manual for Guiding Principles.

# EL - Background

## *Guidance Document for the Management of Impacted Sites:*

- Upon identification of a contaminated site, the following process is followed:
  - Initial Actions
  - Site Assessment
  - Remedial Action Planning; and
  - Remediation and Closure.





## EL - Background

### ***Guidance Document for the Management of Impacted Sites:***

- Ⓜ Principle of '*polluter pays*' – ensures, where possible, that the party responsible for the contamination bears the cost of site remediation.
- Ⓜ In cases where the 'polluter' cannot be located, or has no financial resources, the site becomes an *orphaned and abandoned (O&A)* site.

# Environmental Liabilities (EL)

Important  
DATE!

- Potential Environmental Liabilities should be identified by December 31, 2008.

# Environmental Liabilities (EL)

There is a logical thought process that all municipalities need to follow in order to evaluate if they have an environmental liability.



# Environmental Liabilities (EL)



1. Do we have potential contaminated sites?
2. Is remediation required?
3. Is the municipality obligated to accept responsibility for the remediation costs?
4. Can the liability be reasonably estimated?

## EL – Obligating Event

- There must be an obligating event before a municipality is deemed to be responsible for remediation of the environment.
- Date of the obligating event is important because it determines **in which accounting period** the remediation costs should be accrued.
- If municipality caused the contamination, then it is **responsible** for remediation cost.

## EL - Obligating Event

- ✚ The obligating event is **not** when the pollution occurs.
- ✚ Obligating event occurs when municipality accepts responsibility for remediation costs.
- ✚ The municipality would accrue remediation cost in the period it accepts responsibility.



## EL – Obligating Event

- So, if a site had been contaminated for 20 years prior to its discovery, the municipality is not obligated for remediation cost until it has accepted responsibility.



## EL - Obligating Event

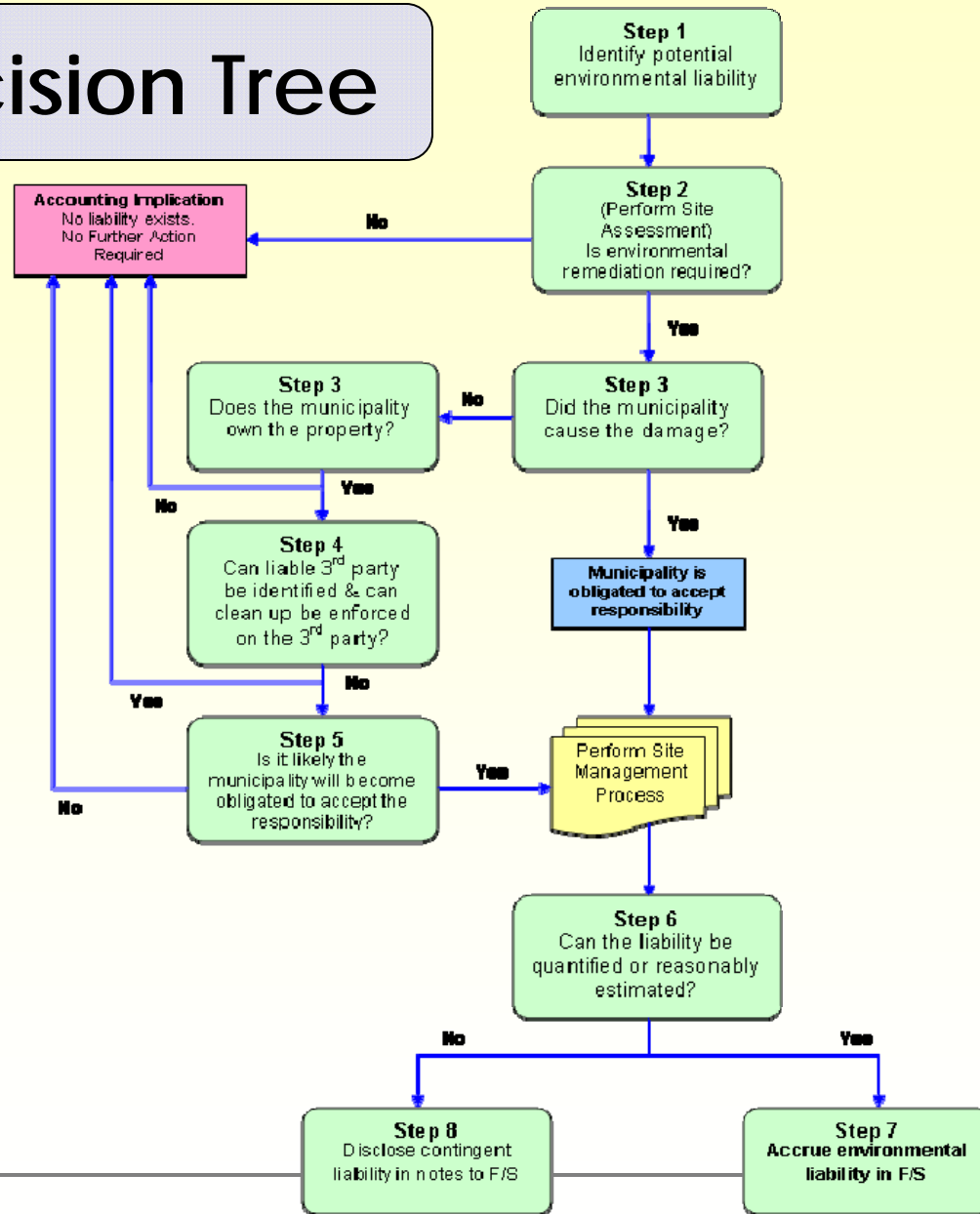


What about existing contaminated sites at Dec. 31/08 which have not been accrued?

- ▶ Preferable to accrue existing EL at Dec. 31/08 as opposed to Jan. 1/09 or later.
- ▶ Record to **Accumulated Surplus** for 2008 fiscal year or earlier.
- ▶ Record to **Operations** after Dec. 31/08.



# EL – Decision Tree

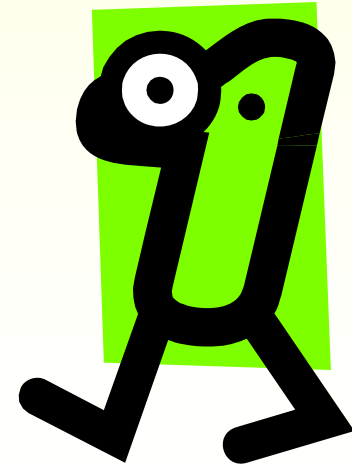


# EL – Decision Tree

## Step 1

### Identify Potential Environmental Liability

- ✚ Petroleum storage facilities
- ✚ Buildings (mold, asbestos, etc)
- ✚ Landfills



# EL – Decision Tree

## Step 1, cont'd

### *Example: Asbestos*

- Not a threat to human health if left undisturbed.
- Demolition or major renovation – asbestos has to be properly disposed.
- Must accrue liability for asbestos disposal:
  - Council has approved decision for demolition or renovation of building (i.e. obligating event).
  - Cost of asbestos removal can be reasonably estimated at the financial statements date.



# EL – Decision Tree

## Step 2

### Is Environmental Remediation Required?

- Once the Department of Environment and Conservation is notified of the contaminated site, an EPO will gather site information to assess the **type and extent of contamination** and the **receptors at possible risk**.

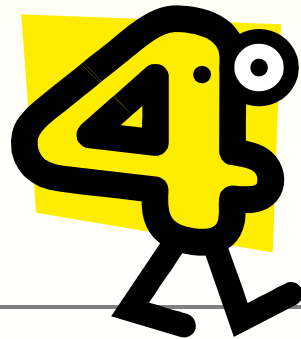


# EL – Decision Tree

## Steps 3-5

### Is the Municipality Obligated to Accept Responsibility?

- @ The 'polluter' is responsible for site remediation
- @ Municipality is not necessarily obligated because it owns or occupies contaminated site – polluter may be previous owner



# EL – Decision Tree

## Step 6

Can the liability be Reasonably Estimated?

### Remedial Action Plan

- ④ Remediation involves development and application of a planned approach (*Remedial Action Plan - RAP*)
- ④ For more info, see Department of Environment and Conservation website.

[http://www.env.gov.ni.ca/env/Env/pollprev/contaminated\\_sites.asp](http://www.env.gov.ni.ca/env/Env/pollprev/contaminated_sites.asp)



# EL – Decision Tree

## Step 6, cont'd

### Calculation of Remediation Costs

- ✚ Costs should be consistent with your RAP and defined on a site by site basis
- ✚ Include all incremental direct operating costs associated with remediation.
  - Legal fees
  - Site assessment costs, etc.
- ✚ Don't include capital expenditures
- ✚ If more than one remediation strategy is being considered, a range of costs should be provided.



# EL – Decision Tree

## Step 6, cont'd



### Time Value of Money

- ◆ Many RAP could take several years to start or complete.
- ◆ If timing & future amounts of remediation payments can be estimated, the measurement of the liability should be discounted for the time value of money.
- ◆ If EL is recorded at NPV, the accrued amount should be revalued annually; record any changes in the value of the liability as a current period cost.



# EL – Decision Tree

## Step 6, cont'd

### Recoveries From 3<sup>rd</sup> Parties



- ◆ Remediation costs should be reduced by any recoveries from identified 3<sup>rd</sup> parties as long as they agree to accept responsibility for the obligation and have the resources available.
- ◆ Can also be reduced by any partial or complete recoveries from insurance.
- ◆ However, recoveries cannot be netted against the obligation in F/S; both the receivable and payable must be shown at the gross amount.

## EL – Decision Tree

### Step 7

Accrue environmental liability in financial statements.



### Step 8

Disclose contingent liability in financial statements.

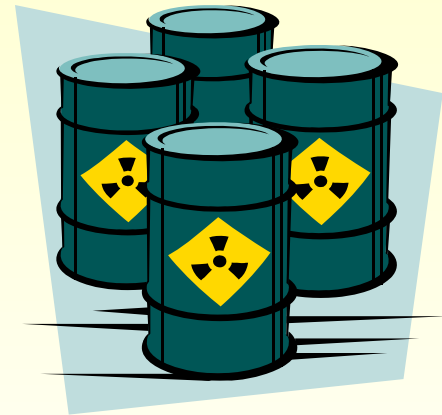


*See Environmental Liability/Accounting Matrix in Reference Manual.*

# EL - Accounting Examples

## Example #1

- ✚ Contaminated site identified Dec. 31/08
- ✚ Remediation is required
- ✚ Cost estimated to be \$100,000



Entry at Jan. 1/09:

Dr. Opening Accm Surplus	\$100,000	
Cr. Environmental Liability		\$100,000

# EL - Accounting Examples

## Example #2

- + Contaminated site first discovered Sept. 30/09
- + Remediation is required
- + Cost estimated to be \$100,000



Entry at Dec. 31, 2009:

Dr. Environmental Health	\$100,000
Cr. Environmental Liability	\$100,000

# EL – Accounting Examples

## Example #3

- + Contaminated site identified Dec. 31/08
- + Insufficient information to determine if remediation is required
- + Cost estimated to be \$100,000



- No entry to record in 2009.
- Disclose contingent liability of \$100,000 in notes.

# EL – Accounting Examples

## Example #3, cont'd

- October 2010 – Consultant determines that remediation is required.



## Entry at Dec. 31, 2010:

Dr. Environ. Health Sciences	\$100,000
Cr. Environmental Liability	\$100,000

# Landfills



- PSAB's recommendation on landfills apply to all:
1. Operating landfills; and
  2. Closed landfills.

# Landfills



Recommendations apply equally to:

1. Municipal landfills; and
2. Regional landfills. (i.e. gov't partnerships)




# Landfills

Recommendations do not apply to:

1. Development & construction cost of opening a new landfill site (i.e. TCA)
  - Access Road
  - Fence and gate
  - Scales
2. End use transformation or conversion costs
  - Transfer station
3. Unforeseen & catastrophic events (i.e. environmental liabilities)
  - Leachate contamination



## Landfills – Closure Costs

 Includes all activities related to closing a landfill:

1. Final cover & vegetation
2. Completion of facilities for:
  - Drainage control features,
  - Leachate monitoring,
  - Water quality monitoring, and
  - Monitoring & recovery of gas.



## Landfills – Post-Closure Costs

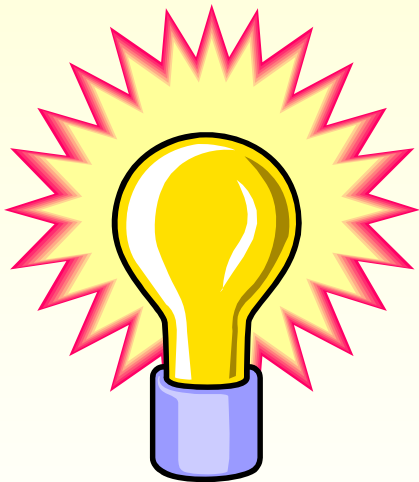


Includes all monitoring activities after the landfill no longer accepts waste:

1. Monitoring of ground and surface water
2. Ongoing maintenance of control & monitoring systems and final cover
3. Acquisition of land for buffer
4. Treating & monitoring of leachate



## Landfills – Closure & Post Closure Costs



- The previous lists are not exhaustive and may not apply in all circumstances.
- Activities vary from landfill to landfill
- Legislative and regulatory requirements should determine which activities to include in closure and post closure costs.

# Landfills – Regulations

- ✚ The Government Services Centre classifies landfills by the risk level of the site (See Appendix 5)

Class A Sites	Waste disposal sites which are considered <b>high</b> risk.
Class B Sites	Waste disposal sites which are considered <b>moderate</b> risk.
Class C Sites	Waste disposal sites which are considered <b>low</b> risk.

- ✚ *See Reference Manual for closure & post closure requirements for each landfill class.*

# Landfills – Provincial Strategy

## Provincial Solid Waste Management Strategy

- \$200 million multi-year Strategy to ensure effective & efficient management of solid waste in NL

- Three full service regional waste management facilities on island portion of province, and programs for zones in Labrador

- Number of dump sites in NL should decrease to 40

- Reduce amount of waste going into landfills by 50%

## Landfills – Funding of Closure Costs



- The accounting for landfill closure and post closure costs is independent from the decisions surrounding the funding of these liabilities.
- Under PSAB, you must record all liabilities regardless of whether you have funded/budgeted for those liabilities.

## Landfills – Funding of Closure Costs



- For information on funding, please contact the **Waste Management Division** of the Department of Municipal Affairs.



# Landfill Costs are Liabilities!

Landfill liabilities are **present obligations**.

- Improper to disclose landfill liabilities as a contingency
  - Existence of the liability is known with certainty.
- Improper to disclose landfill liabilities as a contractual obligation or commitment.
  - Municipality is obligated as soon as landfill starts accepting waste.



# Landfill Costs are Liabilities!

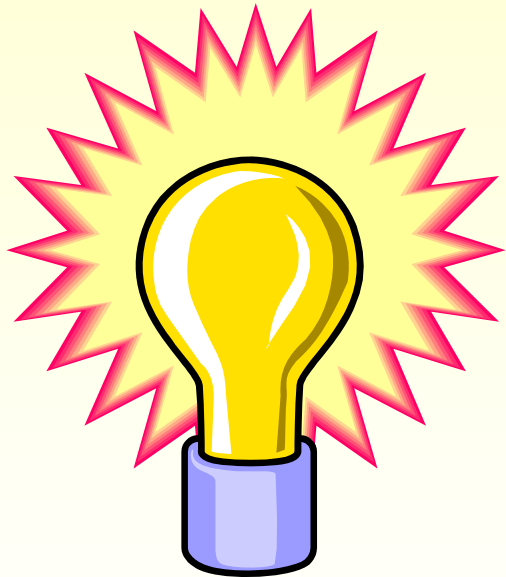
Characteristics of a Liability	Landfills
Obligating event has already occurred	Municipality is obligated for closure & post closure costs once the site starts accepting waste.
Future cash outflow on the part of the municipality	Municipality will incur the expenditures once the landfill is closed.
Little or no discretion to avoid	Environmental Protection Act requires operators to properly close and monitor landfills.

# Landfill Costs - Recognition



- Liabilities should be recognized in the financial statements when:
  - a) There is an appropriate basis of measurement; and
  - b) A reasonable estimate can be made of the amount involved.

## Landfill Costs - Disclosure



- ▶ The majority of municipalities throughout NL will be required to disclose in the notes to their financial statements solid waste landfill closure and post-closure costs for December 31, 2009 due to a reasonable estimate not being available.

# Landfill Costs - Disclosure

1. Closure & post-closure costs may be reasonably estimated sooner than one would expect, due to the timelines of the Provincial Solid Waste Management Strategy.

2. Once a closure has been identified, a closure plan will have to be established and post-closure costs identified.

3. At this point, a municipality can reasonably estimate the costs, and thus accrue them as a liability.

## Landfill Costs - Disclosure

Waste Management Zone	Disclose Closure and Post-Closure Costs	Accrue Closure and Post-Closure Costs
Avalon Region	Before Dec. 31, 2010	After Dec. 31, 2010
Central Region	Before Dec. 31, 2011	After Dec. 31, 2011
Western Region	Before Dec. 31, 2016	After Dec. 31, 2016
All non-host waste management zones excluding isolated communities	Before Dec. 31, 2020	After Dec. 31, 2020
Isolated Communities	Dates will vary based on condition of landfill	Dates will vary based on condition of landfill

Note: this is a guide only – dates will vary

# Landfill Liabilities - Measurement

- @ Recognition of a liability for closure and post-closure care as the landfill site's capacity is used.
- @ Usage should be measured based on volume (e.g. cubic meters)
- @ If it is impossible to measure in volume, measure in years.



## Landfill Liabilities - Measurement



Your liability for operating landfills increases every year for 2 reasons:

1. Discount period is getting shorter; and
2. Remaining landfill capacity is decreasing.



## Landfill Liabilities - Measurement

- Recognize opening liability based on current capacity used.
- The change in the landfill liability due to usage would be calculated as follows:

$$\text{Total Costs (NPV)} \times \frac{\text{Total Capacity Used}}{\text{Total Capacity}} - \text{Costs Previously Recorded}$$

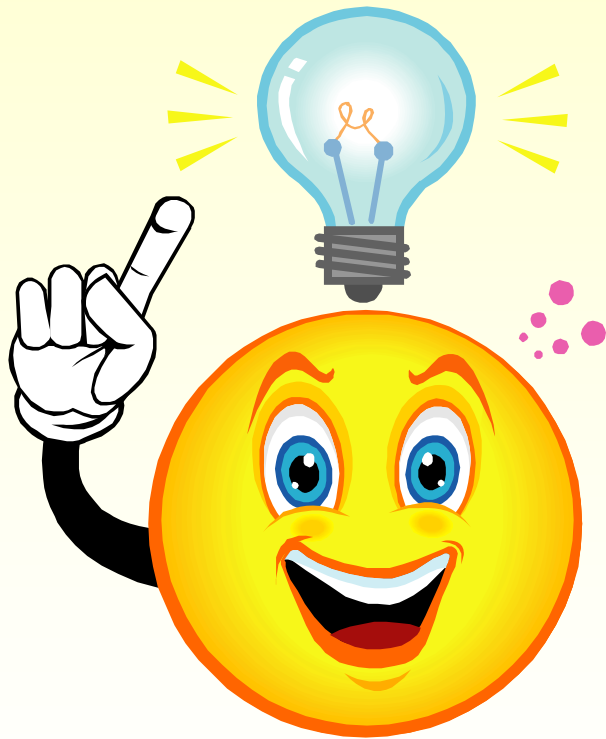
- The Net Present Value (NPV) of total costs is the total closure and post closure costs at the date of closing, discounted to the current date.

# Landfill Liabilities - Measurement

- ✚ Landfill liabilities are discounted to their Net Present Value (NPV).

- ✚ Use municipality's long term average borrowing rate as the discount rate.

# Landfill Liabilities - Measurement



- Use your auditor if you are uncomfortable with NPV.
- Your auditor will need:
  - Total costs
  - Total capacity
  - Current usage
  - Borrowing rate

# Landfills – Disclosure Requirements

## ④ Notes to financial statements should include:

- Closure & post-closure care requirements
- Discount rate
- Total estimated expenditures & liability recognized to date
- Remaining capacity & estimated landfill life in years
- Amount of designated assets
- Length of time for post closure care





**DONE!**

## PART TWO



**Obligations**



**Environmental Liabilities (EL)**



**Landfills**

# PSAB Information Session TCA Valuation Examples

---

Department of Municipal Affairs





# Discounted Replacement Cost, Valuation, & Amortization



# Residential Road Example

- In 1999, a developer contributed a two-lane residential road to the municipality of Warwick.
- It is now 2008 and Betty, the town clerk of Warwick, has to value the road without any invoices.
- Betty will have to value the road using the discounted replacement cost method.



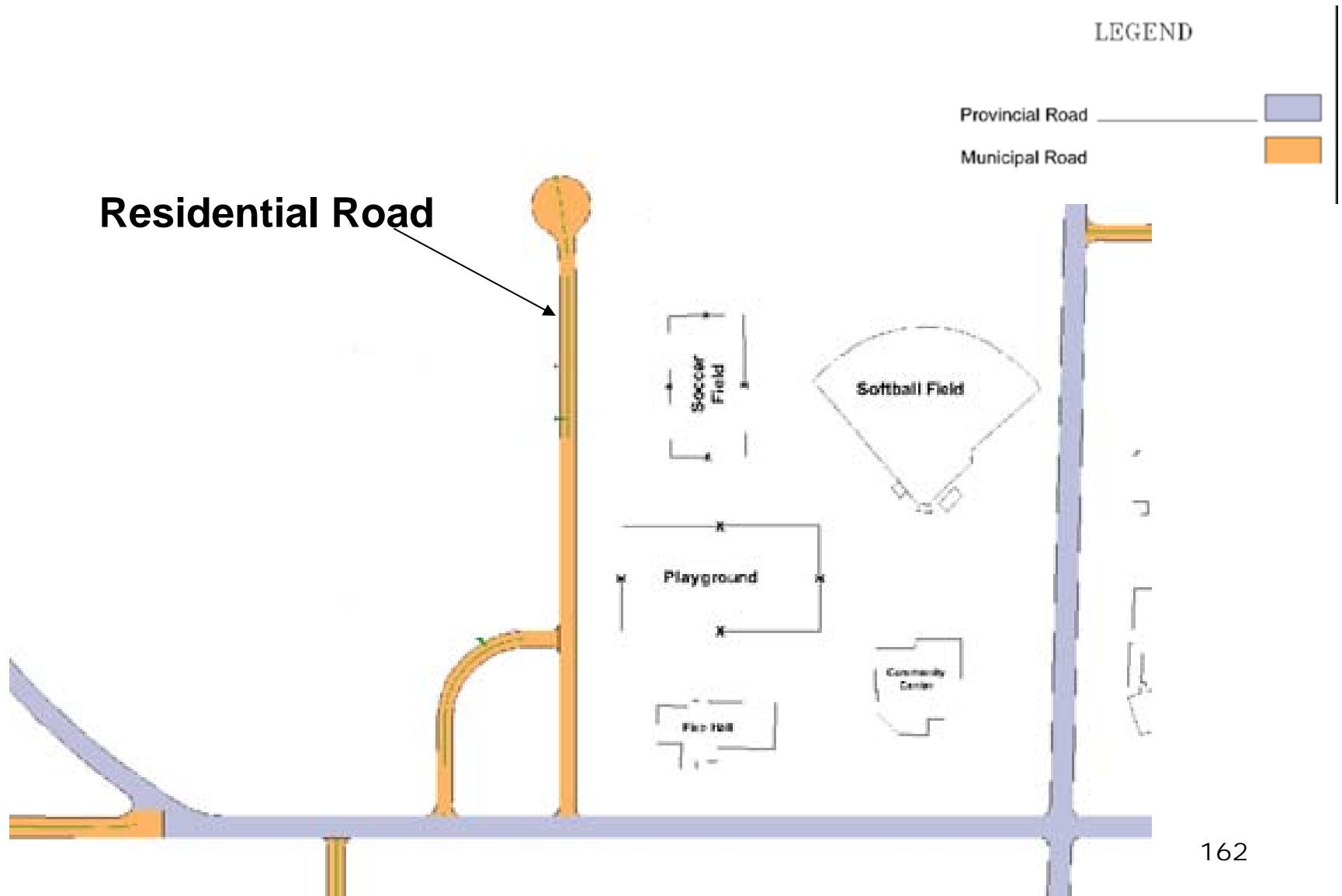


# Process

## Follow these steps:

1. Determine measurements
2. Determine 2007 replacement cost
3. Determine 1999 estimated cost
4. Add applicable taxes
5. Calculate annual amortization
6. Calculate accumulated amortization
7. Calculate net book value

# Above Ground Infrastructure Map





# Step 1 – Determine Measurements

- Calculate surface area of the road in m<sup>2</sup>
  - a) Measure the length of the road (l)
  - b) Measure the width at various points (w)
    - Average the various width points  
 $((w_1 + w_2 + w_3) / 3 = \text{AvgW})$
  - c) Multiply the length of the road by the average width  $(l \times \text{AvgW}) = \text{m}^2$

*This process does not have to be exact*



# Step 1

- Betty's measurements:

- a)  $l = 2.5\text{km}$

- b)  $w_1 = 8.1\text{m}$

- $w_2 = 7.9\text{m}$

- $w_3 = 7.8\text{m}$

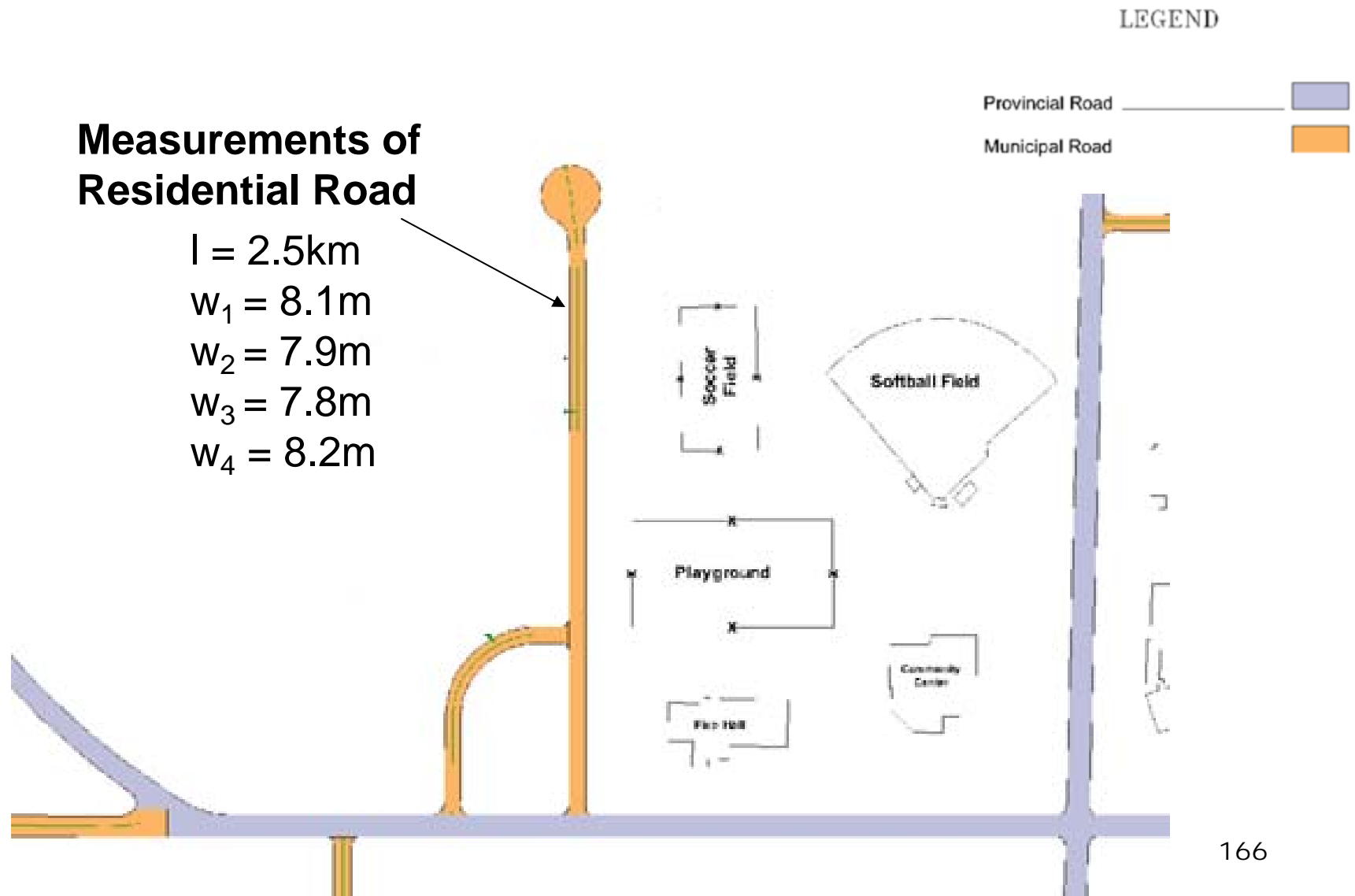
- $w_4 = 8.2\text{m}$

# Step 1



What is the  
Surface Area ( $m^2$ )  
of the road?

# Above Ground Infrastructure Map



# Solution

## Step 1

### Average Width

$$\begin{aligned}\text{AvgW} &= (8.1\text{m}+7.9\text{m}+7.8\text{m}+8.2\text{m}) / 4 \\ &= (32\text{m} / 4) \\ &= \mathbf{8\text{m}}\end{aligned}$$

### Surface Area

$$\begin{aligned}\text{m}^2 &= (2.5\text{km} \times 1000\text{m}) \times 8\text{m} \\ &= 2,500\text{m} \times 8\text{m} \\ &= \mathbf{20,000\text{m}^2}\end{aligned}$$



## Step 2 – Determine 2007 Replacement Cost

- **Use the length & surface area (m<sup>2</sup>) calculated in Step 1 to determine the cost of the residential road.**
  - a) Determine components of road. (e.g. paving, road bed, or land underneath bed)
  - b) Determine unit price per component  
(*See Appendix B of Valuation Manual*)
  - c) Multiply unit price per component by the appropriate measurement to arrive at the 2007 replacement cost of the road.

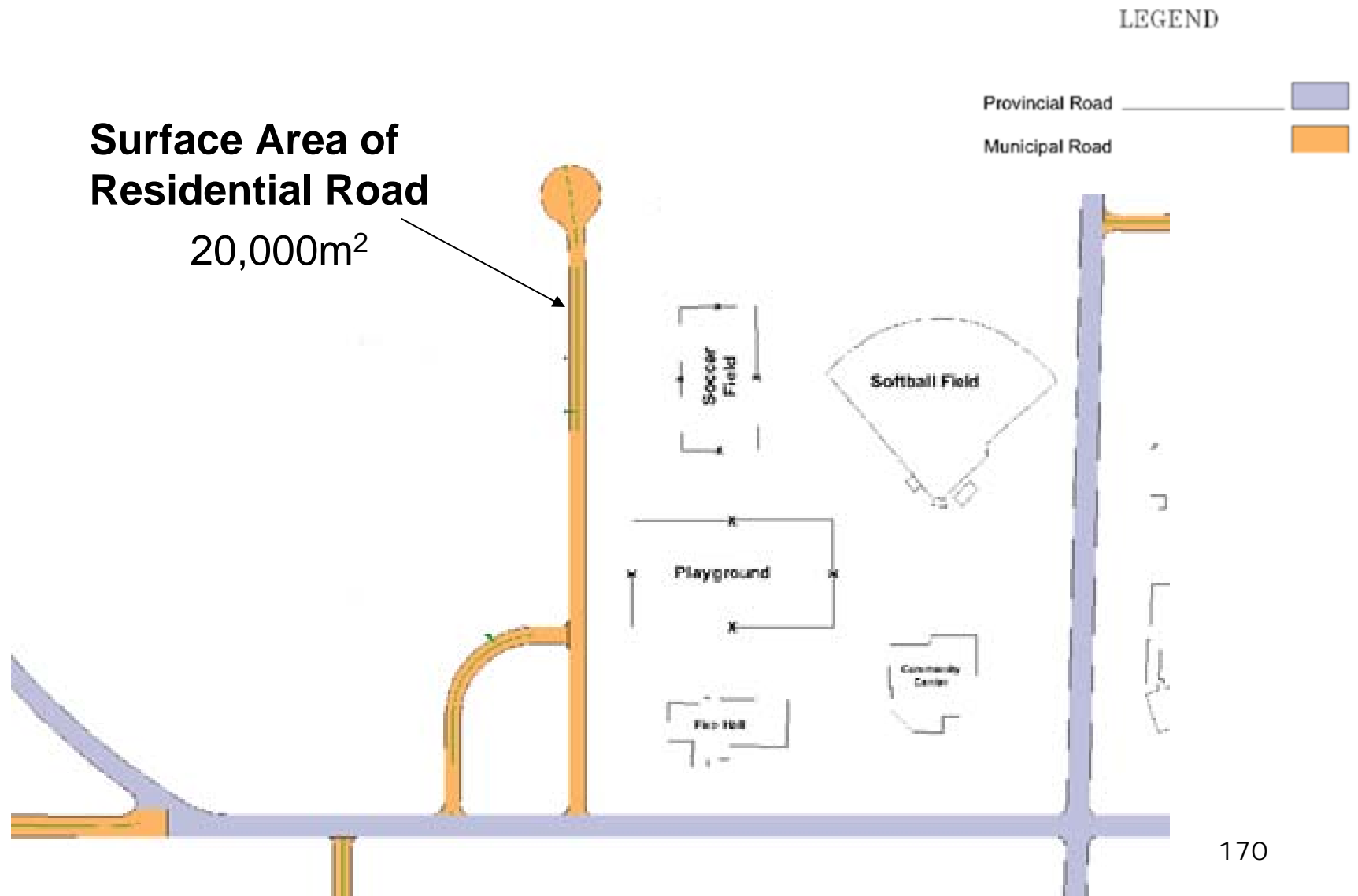


## Step 2



What is Betty's  
2007 Replacement  
cost for the road  
surface component  
of the road?

# Above Ground Infrastructure Map






# Solution

## Step 2

- Unit Price per m<sup>2</sup>  
= \$37/m<sup>2</sup> (*Per Valuation Manual*)
- Surface Area  
m<sup>2</sup> = 20,000m<sup>2</sup>
- 2007 Replacement Cost of Paving  
= 20,000m<sup>2</sup> x \$37/m<sup>2</sup>  
**= \$740,000**



## Step 3 – Determine 1999 Estimated Cost

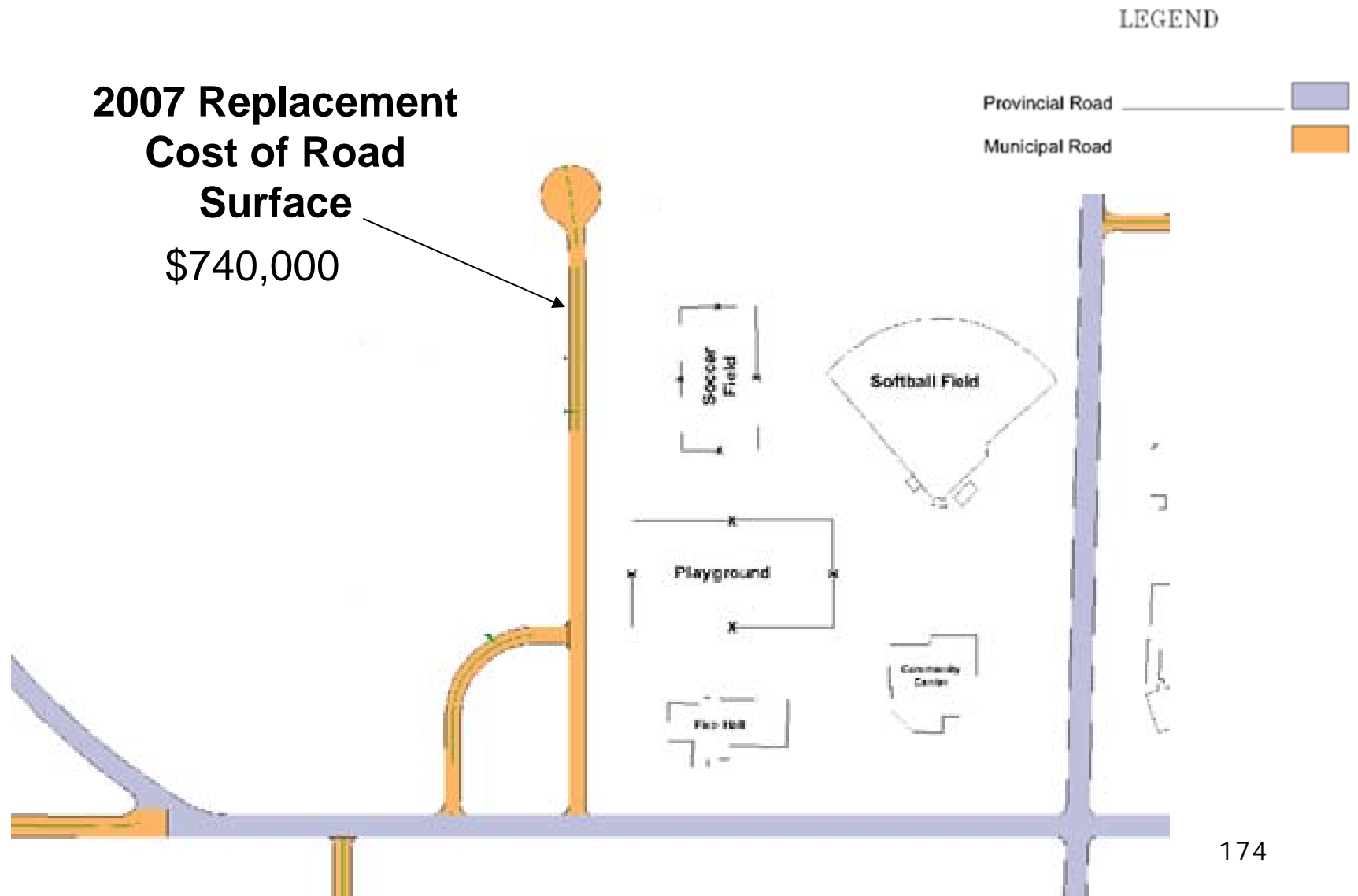
- Betty needs the estimated cost of the road in 1999, not 2007.
- To calculate the 1999 estimated cost she will have to use a discount rate, such as the *Consumer Price Index (CPI)*, to discount the 2007 cost back to 1999.
- CPI rates are available in Appendix A of the Valuation Manual.

## Step 3

What is the estimated cost of the road surface in 1999?



# Above Ground Infrastructure Map





# Solution

## Step 3

- 1999 CPI Rate
  - = 83.32% (*Per Valuation Manual*)
- 2007 Replacement Cost
  - = \$740,000
- 1999 Cost
  - = \$740,000 x 83.32%
  - = **\$616,568**



## Step 4 – Add Applicable Taxes

- Determine applicable sales taxes to add to discounted replacement cost .
- Tax rates are available in *Appendix H* of the Valuation Manual.
- Tax rates vary based on the year.
- 1999
  - HST 15%
  - Municipal Rebate 4%





# Solution

## Step 4

- 1999 Estimated Cost = \$616,568
- Estimated HST paid (15%) = \$92,485
- GST rebate received (4%) = (\$24,663)

Total 1999 Estimated Cost = **\$684,390**



## Step 5 – Calculate Annual Amortization

- The estimated cost now has to be amortized up to 2008.
- But what is amortization?
- Amortization is simply the reduction in value of a TCA due to:
  - usage
  - passage of time
  - wear and tear
  - technological outdating or other such factors



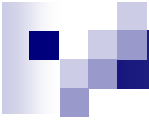
## Step 5

- Determine the estimated useful life and residual value of the residential road by using Appendix 2 of the TCA Reference Manual.
- Annual Amortization =  
$$\frac{\text{(Estimated Cost – Residual Value)}}{\text{Estimated Useful Life}}$$

# Step 5



What is the  
annual  
amortization for  
the road surface?

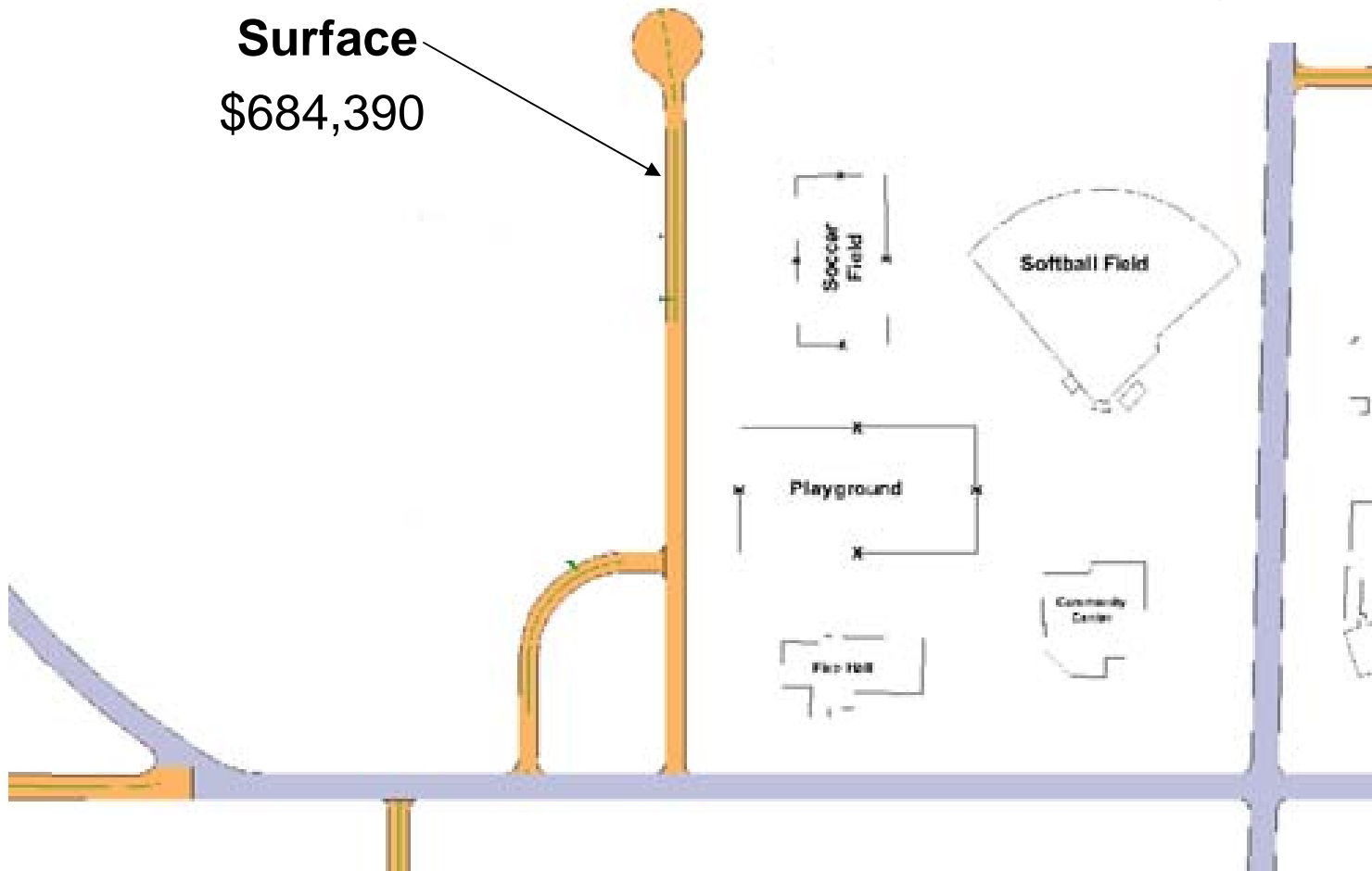


# Above Ground Infrastructure Map

**1999 Estimated  
Cost of Road  
Surface**  
\$684,390

## LEGEND

- Provincial Road 
- Municipal Road 





# Solution

## Step 5

- 1999 Estimated Cost (incl. HST)  
= \$684,390
- Residual Value  
= None (*Per TCA Reference Manual*)
- Estimated useful life  
= 20 years (*Per TCA Reference Manual*)
- Annual Amortization  
= \$684,390 / 20 years  
= **\$34,220**



## Step 6 – Calculate Accumulated Amortization

- With the annual amortization known, Betty can now determine the accumulated amortization up to December 31, 2007.
- Accumulated Amortization =  
Annual Amortization x Years in Use

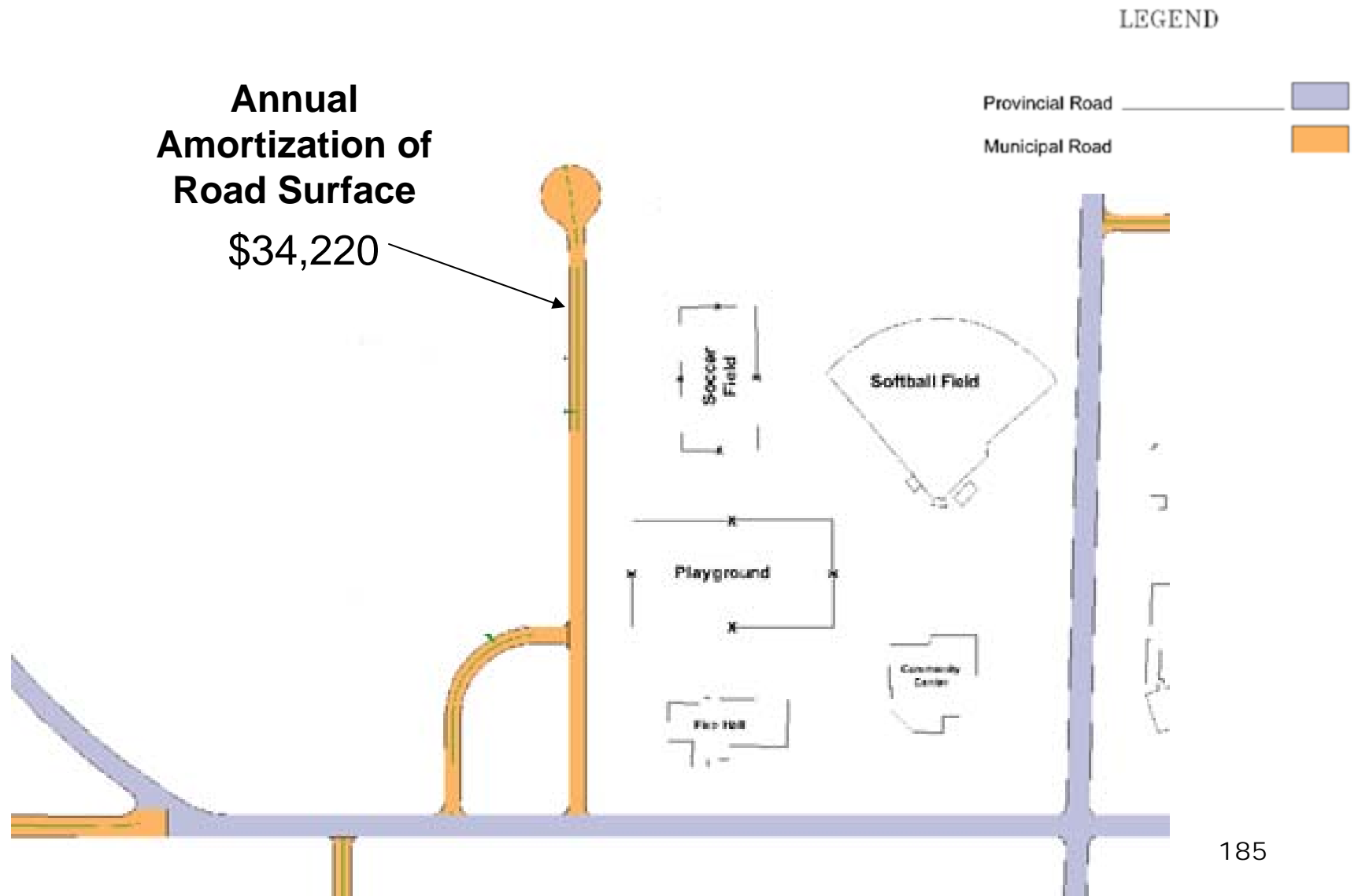
# Step 6



What is the accumulated amortization for the road surface?



# Above Ground Infrastructure Map




# Solution

## Step 6

- Annual Amortization = \$34,220
- Years in Use  
*The road was constructed in 1999 so, as of Dec. 31, 2007, it has been in use for 9 years*
- If exact date TCA entered into service not known only use ½ of the annual amortization in the year of acquisition
- Accumulated Amortization:

1999 (1/2 year)	\$ 17,110
2000 - 2007 (8 years)	
(8 years x \$34,220/yr)	<u>\$273,760</u>
	<u><b>\$290,870</b></u>



## Step 7 – Calculate Net Book Value

- Net Book Value =  
Estimated Cost – Accumulated Amortization  
= \$684,390 - \$290,870  
= **\$393,520**



# Journal Entries

## ■ December 31, 2007

Dr. Road Surface                      684,390

Cr. Accumulated Surplus                      684,390

*To record road surface contributed to Warwick in 1999.*

Dr. Accumulated Surplus                      290,870

Cr. Accumulated Amortization                      290,870

*To record accumulated amortization on road surface from 1999 to 2007.*



# Journal Entries

- December 31, 2008

Dr. Amortization Expense	34,220	
Cr. Accumulated Amortization		34,220

*To record annual amortization on road surface.*



# Financial Statement Presentation

## ■ December 31, 2007

	Cost	Accumulated Amortization	Net Book Value
Road Surface	\$ 684,390	\$290,870	\$393,520

## ■ December 31, 2008 (Additional year of amortization \$34,220)

	Cost	Accumulated Amortization	Net Book Value
Road Surface	\$ 684,390	\$325,090	\$359,300

# Walk-thru of EXCEL

## Residential Road

### Step 1 – Determine Surface Area of Road

Length:	2.5 km	2500 m
Width:	8.1 m	8.1 m
	7.9 m	7.9 m
	7.8 m	7.8 m
	8.2 m	8.2 m
Average Width:	8 m	
Surface Area:	20,000 m <sup>2</sup>	

### Step 2 – Determine 2007 Replacement Cost

Unit Prices:	
Paving	37 m <sup>2</sup>
Road Bed	100 lane m
2007 Paving Cost:	\$ 740,000
2007 Road Bed Cost:	\$ 500,000
Total 2007 Cost:	<b>\$ 1,240,000</b>

### Step 3 – Determine 1999 Estimated Cost

Discount Rate:	83.32%
1999 Estimated Cost:	<b>\$ 1,033,168</b>

### Step 4 – Add Applicable Taxes

HST:	\$ 154,975	15%
Rebate:	\$ (41,327)	4%
	<b>\$ 1,146,816</b>	

### Step 5 – Calculate Annual Amortization

Useful Life:	20 years
Residual Value:	\$ -
Annual Amortization:	<b>\$ 57,341</b>

### Step 6 – Calculate Accumulate Amortization

Month of Acquisition:	Unknown
Year of Acquisition:	1999
Current Year:	2007
Years in Use:	<b>7</b> years
Accumulated Amortization:	<b>\$ 430,056</b>

### Step 7 – Calculate Net Book Value

NBV:	<b>\$ 716,760</b>
------	-------------------



# Water Distribution System Example

- In 1999, a water distribution system was also contributed to the municipality of Warwick.
- It is 2008 and now that Betty, the town clerk of Warwick, has valued her roads, she must value the water distribution systems.
- Betty, once again, has no invoice and will have to value the road using the discounted replacement cost method.





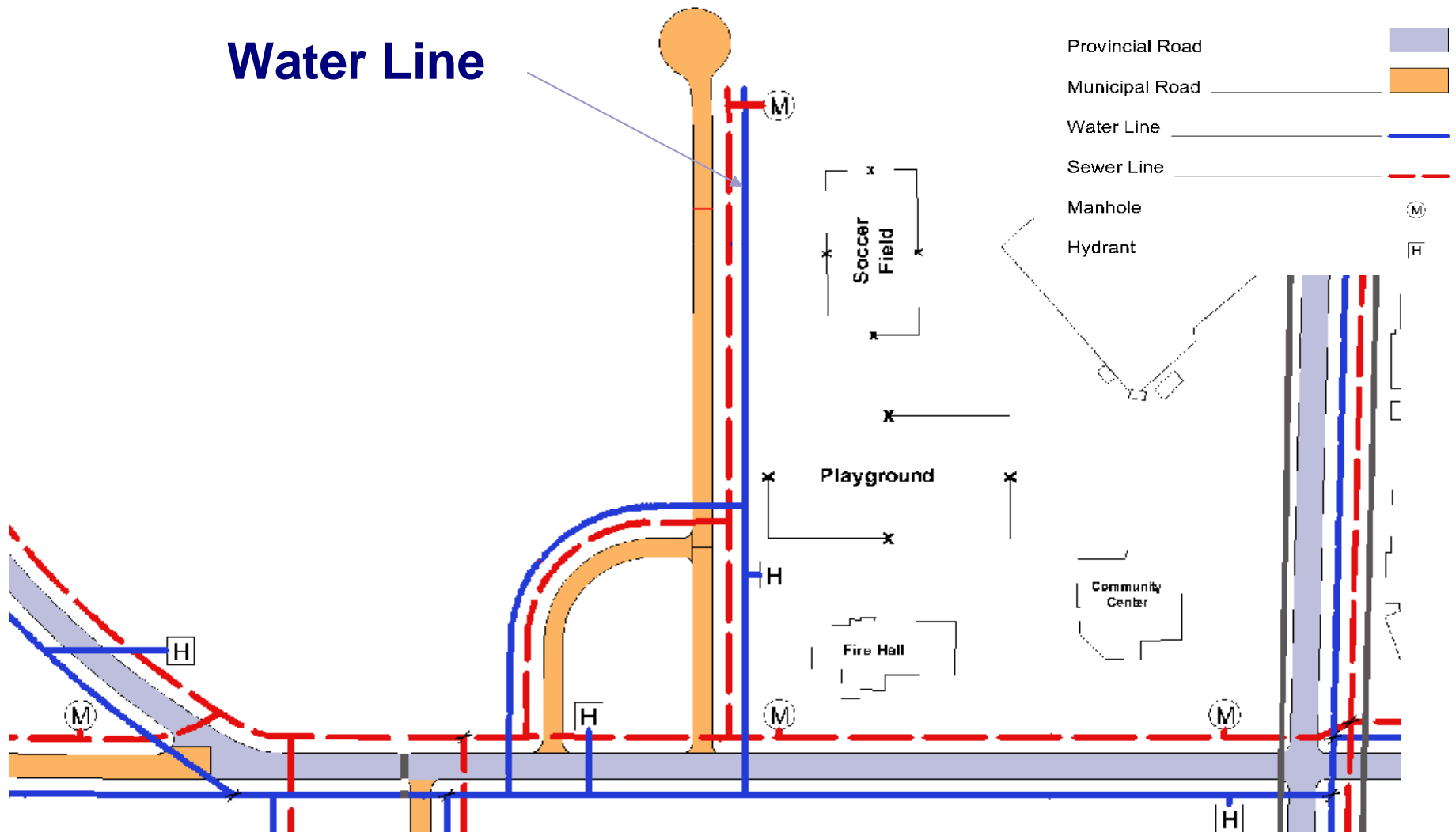
# Process

## Follow these steps:

1. Determine measurements
2. Determine 2007 replacement cost
3. Determine 1999 estimated cost
4. Add applicable taxes
5. Calculate annual amortization
6. Calculate accumulated amortization
7. Calculate net book value

# Below Ground Infrastructure Map

## LEGEND





# Step 1 – Determine Measurements

- Determine length of water line in meters.
- Betty did not have engineering drawings available.
- To determine length, she had to estimate using the fire hydrants.
- Betty's estimated measurement:  
L = 2.25km  
L = (2.25km x 1000m) = **2,250m**

*This process does not have to be exact*



## Step 2 – Determine 2007 Replacement Cost

- Determine type of pipe in order to establish unit price.
  - Bob had repaired a leak in 2005.
  - Bob, the Maintenance Manager, tells Betty that the water line consisted of 200mm plastic pipe.
  
- Determine unit price by using *Appendix B* of Valuation Manual.
  
- Multiply unit price by the length to arrive at the 2007 replacement cost.

*Note: Unit price per Valuation Manual includes flow valves, fire hydrants, laterals and installation.*

*In the future, when Warwick replaces its water distribution system, the town is encouraged to separately account for each of these components*

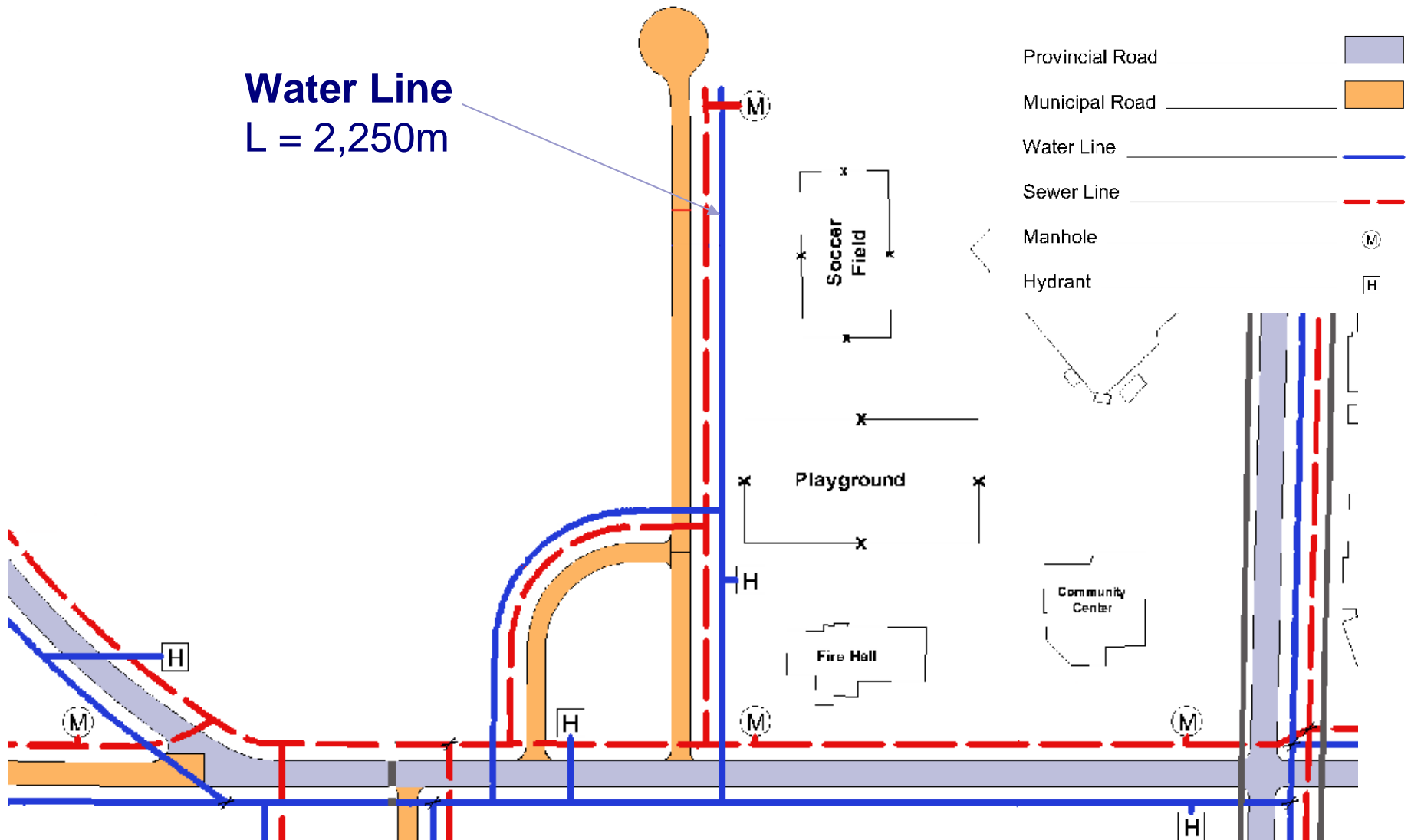
## Step 2



What is Betty's  
2007 Replacement  
Cost of the water  
line?

# Below Ground Infrastructure Map

## LEGEND






# Solution

## Step 2

### Water Line

- Unit Price per m  
= \$195/m (*Per Valuation Manual*)
- Length  
m = 2,250m
- 2007 Replacement Cost of Water Line  
= 2,250m x \$195/m  
**= \$438,750**



## Step 3 – Determine 1999 Estimated Cost

- Betty needs the estimated cost of the water line in 1999, not 2007.
- To calculate the 1999 estimated cost, she will have to use a discount rate (CPI), to discount the 2007 cost back to 1999.
- CPI Rates are available in *Appendix A* of the Valuation Manual.



## Step 3

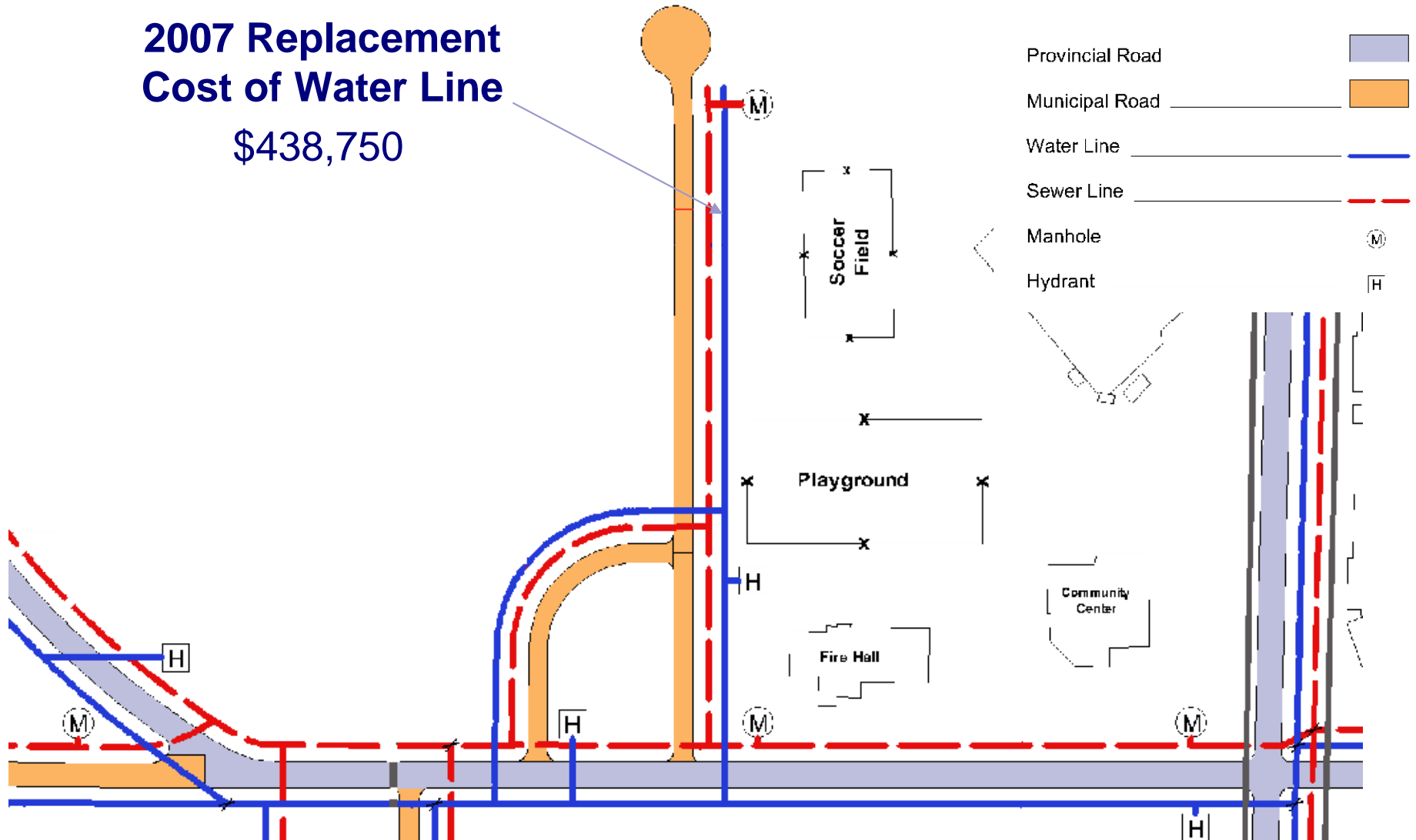


What is the estimated cost of the water line in 1999?

# Below Ground Infrastructure Map

**2007 Replacement  
Cost of Water Line  
\$438,750**

## LEGEND





# Solution

## Step 3

- 1999 CPI Rate
  - = 83.32% (*Per Valuation Manual*)
- 2007 Replacement Cost
  - = \$438,750
- 1999 Cost
  - = \$438,750 x 83.32%
  - = **\$365,567**



## Step 4 – Add Applicable Taxes

- Determine applicable sales taxes to add to discounted replacement cost.
- Tax rates are available in *Appendix H* of the Valuation Manual.
- Tax rates vary based on the year.
- 1999
  - HST 15%
  - Municipal Rebate 4%



# Solution

## Step 4

- 1999 Estimated Cost = \$365,567
- Estimated HST paid (15%) = \$54,835
- GST rebate received (4%) = (\$14,623)

Total 1999 Estimated Cost = **\$405,799**



## Step 5 – Calculate Annual Amortization

- The estimated cost now has to be amortized up to 2008.
- Determine the estimated useful life and residual value of the water line by using *Appendix 2* of the TCA Reference Manual.
- Annual Amortization =  
$$\frac{\text{(Estimated Cost – Residual Value)}}{\text{Estimated Useful Life}}$$

# Step 5

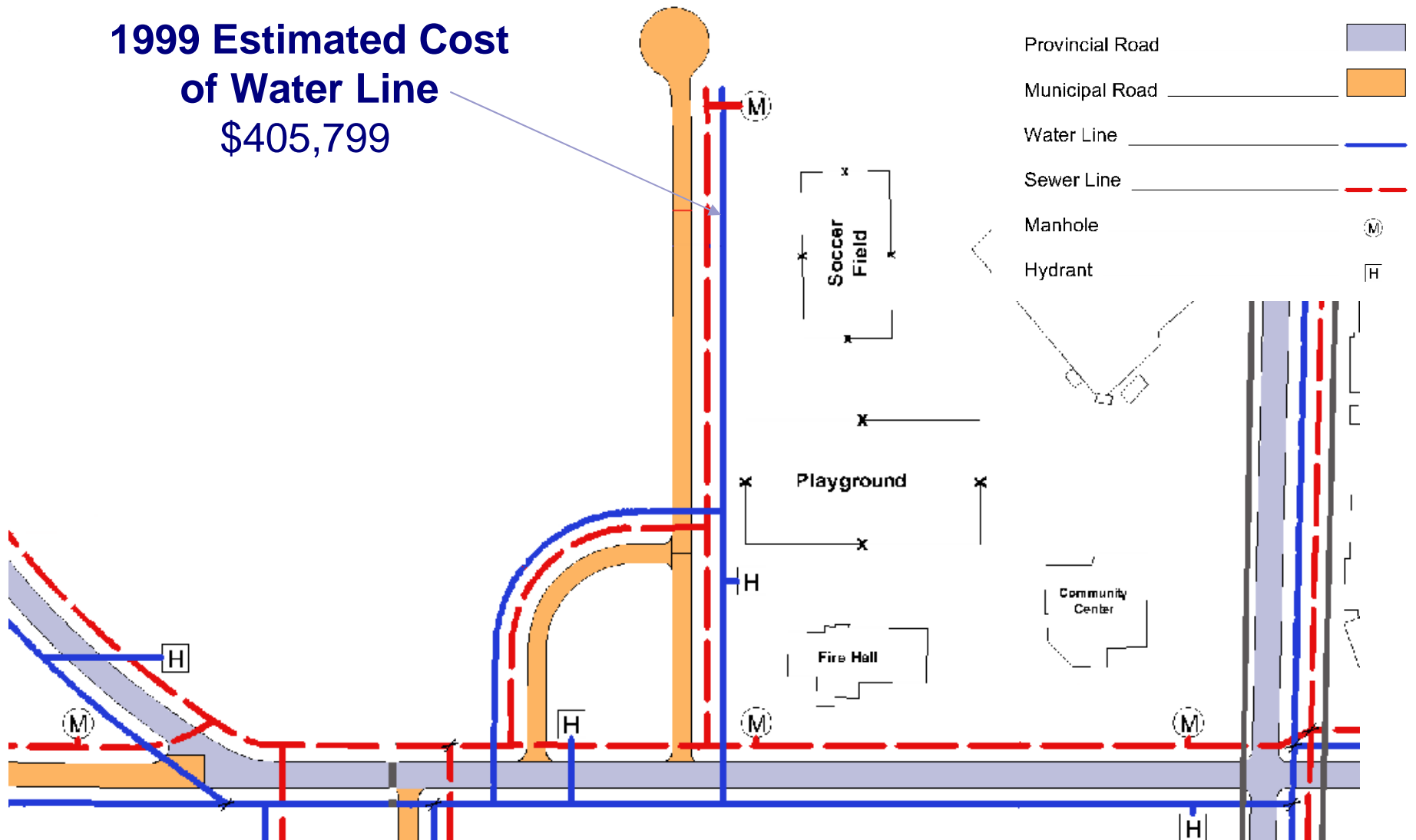


What is annual amortization of the water line?

# Below Ground Infrastructure Map

## LEGEND

**1999 Estimated Cost  
of Water Line  
\$405,799**







# Solution

## Step 5

- 1999 Estimated Cost (incl. HST)  
= \$405,799
- Residual Value  
= None (*Per TCA Reference Manual*)
- Estimated useful life  
= 25 years (*Per TCA Reference Manual*)
- Annual Amortization  
= \$405,799 / 25 years  
= **\$16,232**



## Step 6 – Calculate Accumulated Amortization

- With the annual amortization known, Betty can now determine the accumulated amortization up to December 31, 2007.
- Accumulated Amortization =  
Annual Amortization x Years in Use

## Step 6

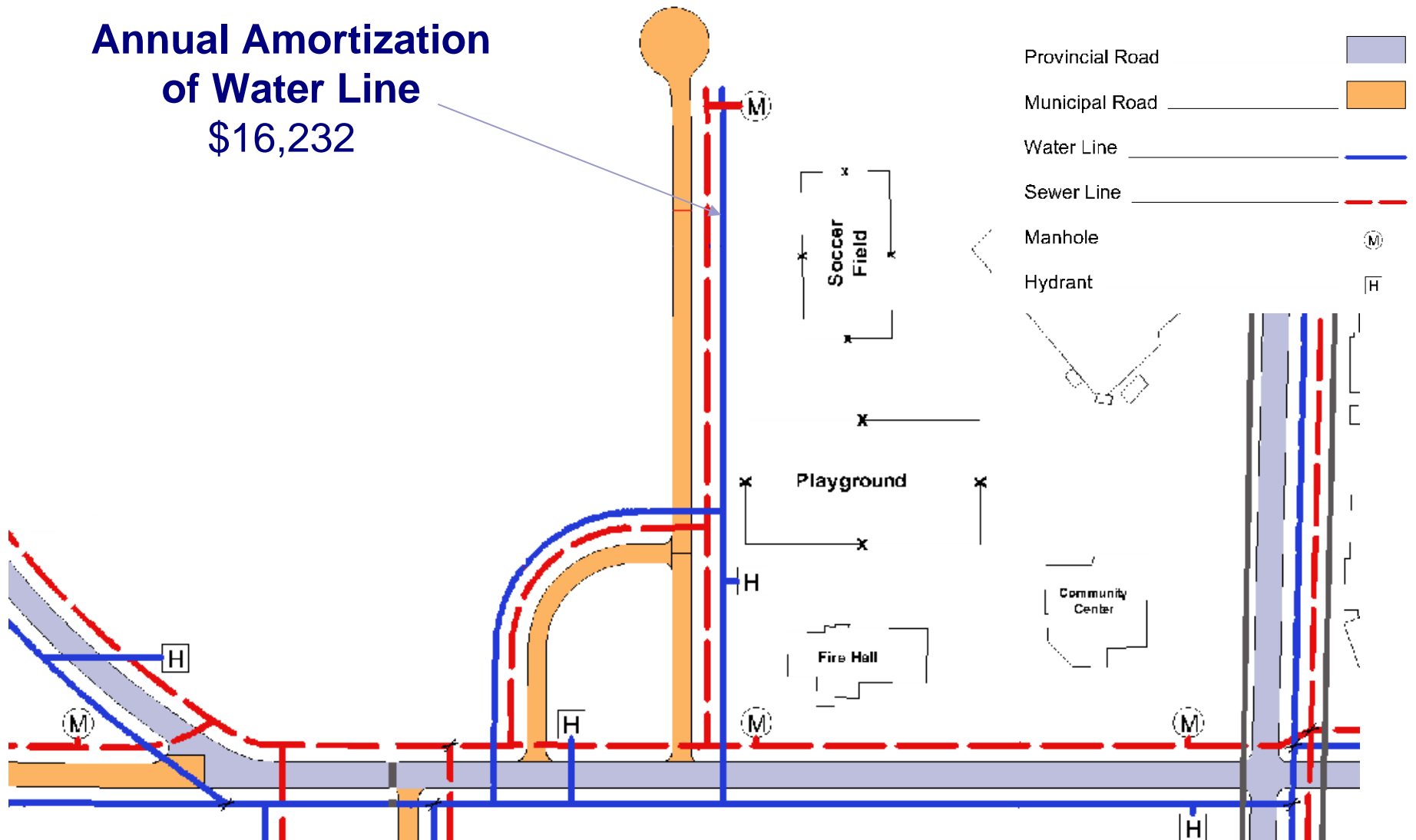


What is accumulated amortization of the water line?

# Below Ground Infrastructure Map

**Annual Amortization  
of Water Line  
\$16,232**

## LEGEND




# Solution

## Step 6

- Annual Amortization = \$16,232
- Years in Use  
*The water line was constructed in 1999 so it has 9 years in use up to December 31, 2007.*
- If exact date TCA entered into service not known, only use ½ of the annual amortization in the year of acquisition
- Accumulated Amortization:

1999 (1/2 year)	\$ 8,116
2000 - 2007 (8 years)	
(8 years x \$16,232/yr)	<u>\$129,856</u>
	<u><b>\$137,972</b></u>



# Step 7 – Calculate Net Book Value

- Net Book Value =  
Estimated Cost – Accumulated Amortization  
= \$405,799 - \$137,972  
= **\$267,827**



# Journal Entries

## ■ December 31, 2007

Dr. Water Systems                      405,799

Cr. Accumulated Surplus              405,799

*To record water distribution system contributed to Warwick in 1999.*

Dr. Accumulated Surplus    137,972

Cr. Accumulated Amortization              137,972

*To record accumulated amortization on water distribution system from 1999 to 2007.*



# Journal Entries

## ■ December 31, 2008

Dr. Amortization Expense	16,232
Cr. Accumulated Amortization	16,232

*To record annual amortization on water distribution system.*





# Financial Statement Presentation

## ■ December 31, 2007

	Cost	Accumulated Amortization	Net Book Value
Water System	\$ 405,799	\$137,972	\$267,827

## ■ December 31, 2008 (Additional year of amortization \$16,232)

	Cost	Accumulated Amortization	Net Book Value
Water System	\$ 405,799	\$154,204	\$251,595