

Cost of Community Services study  
for Red Deer County

**Report on the  
“Cost of Community Services”  
Multi-Municipality  
Workshop**

June 9, 2005  
Red Deer County Offices



MIISTAKIS  
INSTITUTE

If you have any questions about this workshop or report, or about the “Cost of Community Services study for Red Deer County” project, please contact the principal researchers at the Miistakis Institute:

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## Introduction

In making land use decisions in a rural municipality, councils and staff must weigh numerous considerations regarding the desires and welfare of their community. One of the most significant factors to be considered is the fiscal implications of those land use decisions. However, because land use planning information and budgetary / expenditure information are collected in such different ways, it is difficult to make this connection.

The “Cost of Community Services” study was created to draw that connection. This case study approach determines a municipality’s public service costs versus revenues based on current land uses. The ultimate result is a series of ratios, showing how many dollars of expense are incurred for every dollar of revenue received for each of four major land use categories: working landscapes, residential, commercial, and industrial.

With the support of the Alberta Real Estate Foundation, the Miistakis Institute has been retained by Red Deer County to conduct a Cost of Community Services study on that municipality. This type of study has been conducted over 100 times since its development in the early 1980s in the United States, but this is the first time it has been conducted in Canada. A challenge facing the Miistakis Institute is ensuring the American methodology is adapted in such a way that it could apply to any Alberta municipality, not just Red Deer County.

On June 9, 2005, the Miistakis Institute and Red Deer County hosted a workshop for rural municipalities who might be interested in this sort of study. The goals of the workshop were: 1) to introduce the concept and details of the Cost of Community Services generally, and as it is being applied in Red Deer County; and 2) to understand the challenges of applying the current methodology more broadly to other rural municipalities in Alberta; and 3) to solicit feedback from participants on addressing a suite significant issues faced so far in conducting the study.

Our sincere appreciation goes to the representatives of the 10 municipalities who attended for the contribution of their time and thoughtful input.

The Miistakis Institute is happy to respond to any questions related to this report.

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## Cost of Community Services Studies – what are they?

### Summary of Questions and Answers

*(see Appendices for the presentation).*

#### **Do the Cost of Community Services studies only consider taxes without grants because the amount of grants can change from year to year?**

No, because the COCS study is a snap shot fiscal analysis tool, it considers all municipal revenues and expenditures for the study year. Although the exact grants may change over the years, generally these types of grants are part of the normal operations of the municipality and need to be considered. This means that both operational and capital grants need to be included. However, one piece of advice regarding conducting a COCS study is not to assess a year that is extraordinary because it will not provide an accurate reflection of the municipality's fiscal situation. Thus, if there is an extraordinary capital grant provided to the municipality it may skew the results compared to years both before and after.

#### **Are agricultural residences considered part of the working landscape or the residential land use category?**

All residences are considered residential. In the same way a person who works at a commercial outlet and goes home to their residence in the county has their house classified as residential so too does an agricultural worker's residence. In the case of agricultural residences, the three acre parcel assessed as residential is the amount of property classified as residential in the COCS study.

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## Red Deer County Cost of Community Services Study – a review of methods

### Summary of Questions and Answers

*(see Appendices for the presentation).*

#### **What will be done with the study results in Red Deer County?**

This is not known, and is intentionally not part of the study mandate. The researchers will compile the information and pass it off to the County without recommendations on how to use the results. The County will decide at the council and staff levels how to use this information in Red Deer County. However, this question will be a major focus of the Masters thesis work conducted by Stephanie Sanders at the University of Calgary.

#### **Based on the results from the United States, residential land use will likely not pay for itself. Is there anything else we can learn from the ratios?**

The ratios also show the relative differences between land use categories and the actual numbers will provide specific data about the relationship between categories.

#### **How do you allocate road services?**

This is a difficult issue, one that has been a challenge for all previous Cost of Community Services studies, and one of the things we want to hear from you about. The primary problem is that use on a

given stretch of road may not be dictated by the adjacent land use (e.g., residential commuters driving between agricultural fields). There are possible solutions based on using traffic counts and GIS data for Red Deer County, but difficulties exist with varied uses (commuters, tourists, etc.) and differences in impacts (residential vehicles vs. industrial vehicles). We are still working on this dilemma.

**Can the results be broken down by geography to include urban externalities?**

It is possible, but will not be attempted for the Red Deer County study.

**What do you do when intermunicipal agreements do not cover the cost of servicing?**

The study must look at the revenues and expenditures of the municipality during the year of inquiry, including shared services with expenditure-sharing agreements. If intermunicipal agreements are not fair, it is not part of the scope of this study to review the circumstances. In many places, intermunicipal agreements are frequently renegotiated based on use patterns and are expected to be an approximate cost for the services. To determine if this is true, a municipality should sample the population to determine who is using the services through things like smart cards or basic surveys. When there is a service provided by another authority, the Cost of Community Services researchers will attempt to gather information about who is demanding the services just as they would if Red Deer County was providing these services.

**Have any COCS studies been conducted specifically on 'urban' areas**

Although several COCS studies have included smaller urban municipalities in their assessments, to our knowledge none have been conducted strictly on urban municipalities. This tool was designed especially for use on rural municipalities.

**What should be done in years of disasters?**

In Red Deer County, the average has been one disaster a year. Thus, the train derailment of 2004 was not strictly an unusual expenditure. As well, municipalities often receive payment or assistance for disaster relief as Red Deer County did from CP Rail for the train disaster. Furthermore, ongoing disaster training needs to be included in the assessment.

**Can the land use definitions be divided into subcategories? For example, can residential be divided into high density and low density, or can linear properties be removed from the industrial land use category?**

No. The Cost of Community Services study methodology does not break down these categories because it would be too difficult to determine how much of each service is provided to one type of residential compared to another. Much of the information is gathered through existing data and staff knowledge and breaking down the categories would mean the accuracy of the information would be reduced. Furthermore, when looking at linear properties it is expected that they will contribute a significant portion of revenue to the industrial category in Red Deer County and not require a large portion of expenditures (although they are not without expense). Yet, it is important to recognize the role linear properties play in the municipality and their place is within the industrial category.

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## Plenary Discussion

- € Strathcona County did a fiscal impact analysis recently, but want to know if the COCS will enable them to determine what the real cost of growth is in a rural area. In this way, they will understand if growth/development is paying the true cost through things like rural road levies.
- € What about the problems faced by municipalities being a problem of the funding process? Is this an more an issue of a funding structure where the province builds/funds a road artery which attracts development, and municipalities are left to provide services?
- € There seems to be some agreement between planners and some politicians that residential development does not pay for itself; however, this view is not shared by all citizens. Some also think that there is a difference between the revenue collected by high-end residential development versus low-end residential development.
- € A tool of this type will aid municipalities in making land use decisions based on information rather than emotion.
- € Everyone who comes to our municipality with a subdivision application tells us how good it will be for the municipality financially.
- € The concept that residential does not pay for itself is well known amongst planning professionals, but public and political audiences do not feel the same way.
- € This tool is designed to provide specific fiscal information about the client municipality. Regardless of which land use tends to pay for itself in other regions, this tool will provide the ratios for each land use in the municipality and enable the municipality to plan with some fiscal data in mind.
- € Road networks and allocation is the biggest challenge.
- € Is it worthwhile for a municipality considering this sort of study to spend the year collecting data in a format appropriate for the study? For the most part, no, it is not necessary. The exercise of walking staff through the process of allocating their time between the land use categories, for example, is interactive and designed to create proportions regardless of how staff track their time.
- € Some municipalities do not have the same types and amounts of data as Red Deer County.

### **Suggestions:**

- € This tool can be used as a basis for Municipal Development Plan review, strategic growth management plans and intermunicipal agreements.

- € Can be used to educate staff and citizens about that specific municipality's fiscal situation and then decisions can be made about what the community wants to see for the future.
- € This analysis should be updated regularly to provide a trend of the results
- € The results could be dangerous for Council to use directly without incorporating any other concerns such as cultural and environmental aspects of development. Therefore, planning should be responsible to ensure appropriate use of the COCS results.
- € The results should include the actual number value associated with each category as well as the ratios because this will provide information to the municipality on how it will be possible to cover the costs based on the percentage breakdown of all the categories.



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## Breakout Session

*(see Appendices for the Issue Summary Sheets)*

As part of the workshop component, participants were divided into breakout groups, and asked to explore an issue that has arisen as a challenge in conducting the Cost of Community Services study for Red Deer County.

Three groups were created, and each given one of the following issues:

- ∄ Issue #1 – Attributing road-related costs to the four land use categories
- ∄ Issue #2 – Intermunicipal Agreements and Arrangements
- ∄ Issue #3 – Land Use Definitions

“Issue Summary Sheets” were distributed, each describing the background to the issue, and asking breakout groups to report back on the following three questions:

1. What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?
2. How does this issue relate to your municipality?
3. What are your recommendations to address this issue?

### Issue #1 – Attributing road-related costs to the four land use categories

1. What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?

We answered the question more from the perspective of what we would like to have:

- ∄ Traffic counts including classifications of industrial and residential vehicles
- ∄ Traffic surveys including direction of flow and type of traffic
- ∄ Expert interviews (both internal and external)
- ∄ GPS units mounted on maintenance equipment such as graders
- ∄ Financial information
- ∄ Special purpose reports (e.g., municipal reports; reports supported by Municipal Affairs ~5 years ago)

2. How does this issue relate to your municipality?

- ∄ Large part of the annual budget, so there is no sense in excluding it, but need to recognize limitations
- ∄ Road levies or specific revenue (e.g., road haul levies) should be related to land use
- ∄ Difficult to allocate costs
- ∄ Mixed uses

### 3. What are your recommendations to address this issue?

- ∅ Look for external data (e.g., provincial or federal)
- ∅ Compile internal data
- ∅ Examine GIS data where in wide use
- ∅ Keep in mind cost/benefit and the intended use of the results
- ∅ Update data on an ongoing basis and look at results from other municipalities, to look for trends
- ∅ Sensitivity analysis would be helpful (e.g., if residential is a big cost, what portion of that is due to roads)

### Issue #2 – Intermunicipal Agreements and Arrangements

Current situation in municipalities represented in the breakout group:

#### Stettler

- ∅ Regional partnership looking at fire
- ∅ Shared service agreements
- ∅ Volatile relationship with the town
- ∅ Subsidize small villages

#### Sturgeon

- ∅ Good staff relations – political?
- ∅ Shared services and some revenue sharing
- ∅ Regional services for water and sewer

#### Rocky View

- ∅ Agreements with urbans for fire
- ∅ Recreation – joint agreement for fees except not with Cochrane
- ∅ Looking for better usage data through use of smart cards

1. What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?

- ∅ Rural municipalities need to demand more detailed data from service providers (i.e. urbans) especially looking at the cost-revenue usage.
- ∅ Look to internal expertise, tap into work done by other departments
- ∅ Primary data collection
- ∅ Look at grant applications, for which data has already been collected and presented
- ∅ Smart cards; readers at different facilities in neighbouring municipalities

## 2. How does this issue relate to your municipality?

- ∄ Universal need for information
- ∄ Data can provide rationale for balanced growth policies (e.g., one municipality builds the rec centre, another builds the pool)

## 3. What are your recommendations to address this issue?

- ∄ All municipalities need to communicate and obtain detailed use/cost data from service providers
- ∄ Transparency of information and communication; information sharing when feasible
- ∄ More municipal support for development of research programs and continual improvement of tools (need to be self-supported and self-motivated)

## Issue #3 – Land Use Definitions

### 1. What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?

#### Potential information sources (with analysis of utility):

- ∄ Assessment information (actual use)
  - too broad
  - too difficult to generate on GIS when there are multiple uses on one property
  - but is uniform
- ∄ Zoning information (intended use)
  - direct control can be any category
  - not uniform across municipalities because zoning can be unique
  - doesn't reflect actual use
- ∄ Development permits (approved use)
  - not all buildings need permits
  - permits are not always obtained by the owner
  - information is hard to organize and group (includes a lot of manual labor)
- ∄ Staff information (development officers, graders, assessors, agricultural fieldmen councillors, public works)
  - talk to everyone who might have information
  - staff turnover can lose information
  - politics and hearsay can influence because the records aren't kept

## 2. How does this issue relate to your municipality?

- ∄ Consistency and detail varies between municipalities and within each municipality
- ∄ Resources may not be available
- ∄ Staff knowledge leaves with people when they retire.
- ∄ Areas outside of municipal control that impact us:
  - First Nations Reserve

- Provincial and federal parks
- Airport
- Hutterite land

3. What are your recommendations to address this issue?

- ≠ Broad use categories give general idea of cost
- ≠ Need more specific categories to be more useful to municipalities
  - Single use, multi-lot residential (but then what is multi? 3, 5, 10?)
  - Serviced vs. unserviced
  - Density
- ≠ Commercial and industrial is hard to separate
- ≠ Resource extraction – where does this fit in; should it be a separate category?
- ≠ Four categories good for provincial standards then each municipality can add subcategories to match the needs
- ≠ The report should be public

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## Debriefing

### Miistakis Institute Summary

- € In terms of developing the methodology for a Canadian version of Cost of Community Services, this workshop and participant input has been very helpful.
- € In general, we found you raising issues in this discussion very similar to the issues that have been arising as we conduct the study, which provides us good validation that these are areas to address.
- € You have indicated (as expected) a great variation in the types, formats and amounts of data you collect internally that would relate to a study of this type.
- € Issues around intermunicipal agreements and service provision arose as an issue (as anticipated), but at a greater level of importance than we had initially expected.
- € We sensed a general feeling that municipalities believe they can do a better job of deriving information from data currently collected, or better identify easily collected data.

### Participant feedback

- € It is interesting that some of the same rural frustrations are being expressed here that have been a problem for over 25 years.
- € Some participants think the COCS methodology is a good tool and would like the report. One municipality would like to use it to prepare a Cost of Community Services study internally as a background to the Municipal Development Plan review.
- € Another benefit to the Cost of Community Services study is that it is getting people talking and sharing information between municipalities.
- € One question arose: What is the difference between the portion of municipal budgets spent on roads in rural and urban municipalities? Generally rurals spend 50-75% of the budget on roads while urbans spend 25-40%. However, the rural budget is subsidized by provincial grants. (Estimate provided by Municipal Affairs participant)
- € One participant noted that municipalities are managers and what gets measured, gets managed.
- € How many people knew about the Cost of Community Services methodology before hearing about the Red Deer County study? One person
- € There weren't many assessors involved in the workshop day and their knowledge could assist the process greatly.
- € Breaking down the land use categories could make the study less significant. It may be important to look at zoning definitions in urban areas.

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## Appendices

- € Cost of Community Services Studies – what are they? (PowerPoint presentation)
- € Red Deer County Cost of Community Services Study – a review of methods (PowerPoint presentation)
- € Breakout session backgrounders
  - Issue #1 – Attributing road-related costs to the four land use categories
  - Issue #2 – Intermunicipal Agreements and Arrangements
  - Issue #3 – Land Use Definitions
- € Agenda
- € Participant List

## Cost of Community Services Studies – what are they?

☞ *Backgrounder*

☞ *PowerPoint presentation*



## COST OF COMMUNITY SERVICES WORKSHOP - BACKGROUNDER

### **'Cost of Community Services' Studies – An Overview**

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#### **The role of a Cost of Community Services study**

In rural municipalities, expenditure decisions are based primarily on the need for, and ability to provide, services for citizens (waste management, utilities, community services, policing, fire). Land use planning, however, is based more on the spatial character and abilities of the landscape (agriculture, country residential, light industrial, highway commercial). Some, but very few of your revenue/expenditure categories relate directly to particular land uses categories.

This makes it **very difficult for municipal councils and staff to fully understand the *fiscal* impacts of their *land use* decisions**. For example, there is a continent-wide debate currently taking place on whether rural municipal planning which encourages residential development is cost effective. Some perceive that residential development will lower overall municipal service costs by increasing the tax base. However, because revenues and expenditures are not normally tracked based on land use, this debate tends to take place in the absence of actual data.

Especially in recent years, Alberta municipalities have been experiencing (and will continue to experience) significant changes in their fiscal circumstances. Likewise, the physical landscape is experiencing pressure for changes, some viewed as desirable and some not.

The complexity of your decision-making in that environment is increased by this land use / fiscal implications 'disconnect.'

#### **What is a *Cost of Community Services* Study?**

A *Cost of Community Services* (COCS) study is designed to help connect those fiscal and land use components of municipal decision-making in a straightforward and cost-effective way. COCS studies determine a municipality's public service costs versus revenues based on current land uses.



These studies have been conducted in over 100 rural counties throughout the United States over the past 20 years. They have been referenced repeatedly in Canada, but never conducted here in this form.

COCS studies break a municipality's land base down into four categories:

- € working landscapes land use;
- € residential land use;
- € commercial land use; and
- € industrial land use.

Every dollar of revenue and every dollar of expenditure is then allocated to one of those categories. The study requires analyzing budgets, annual reports, department financials, tax assessments, provincial transfers, and other relevant documents and databases to tease out all revenues and expenditures. Working closely with staff, these are then divided into the three land use categories.

It is important to note that expenditures are allocated based on a given land use category's *demand for services*, not its *benefit to society*. For example, agricultural services may promote significant benefits for the entire municipality, but only the working landscape land use demands those services. Likewise, education is a benefit to an entire community, but only residents (rather than oil wells, cows or clothing) demand that service.

After the numbers are collected and categorized, ratios are calculated for each land use, comparing their public service costs with their associated revenues. Those ratios will say, for each dollar of revenue associated with a given land use, how many dollars in public service costs is the municipality incurring.

COCS studies are a sub-set of the broader field of fiscal impact analysis. In this field, more far-reaching, complex, expensive and detailed analyses are available, which examine past trends, interlinked benefits, and can therefore make comprehensive forecasts. COCS studies do not inherently provide a basis for predicting what would or should happen in the future. Rather, they are designed to be financially accessible tools that give a snapshot in time (one fiscal year), and illustrate the connection between finances and land use decisions for that period.



# ***“Cost of Community Services” Study for Red Deer County***

Guy Greenaway and Stephanie Sanders  
Miistakis Institute, University of Calgary



# ***“Cost of Community Services” studies:***

## **What are they?**

Guy Greenaway  
Miistakis Institute, University of Calgary



## Outline

- **Why this tool is needed**
- **What is a *Cost of Community Services (COCS)* study**
- **Conducting a COCS study**
- **The American experience**



**Why this tool is needed**



## Municipal financial categories

<b>Revenues</b>	
• Property taxes	• User fees and sale of goods
• Provincial grants	• Business taxes
• Other grants	• Other
<b>Expenditures</b>	
• General government	• Health and social care
• Protective services	• Planning and development
• Transportation and utilities	• Recreation and culture
• Environmental use and protection	• Other



## Land use decisions in a rural municipality

**WORKING LANDSCAPES**

**RESIDENTIAL**

**COMMERICAL**

**INDUSTRIAL**



## Land use decisions in a rural municipality



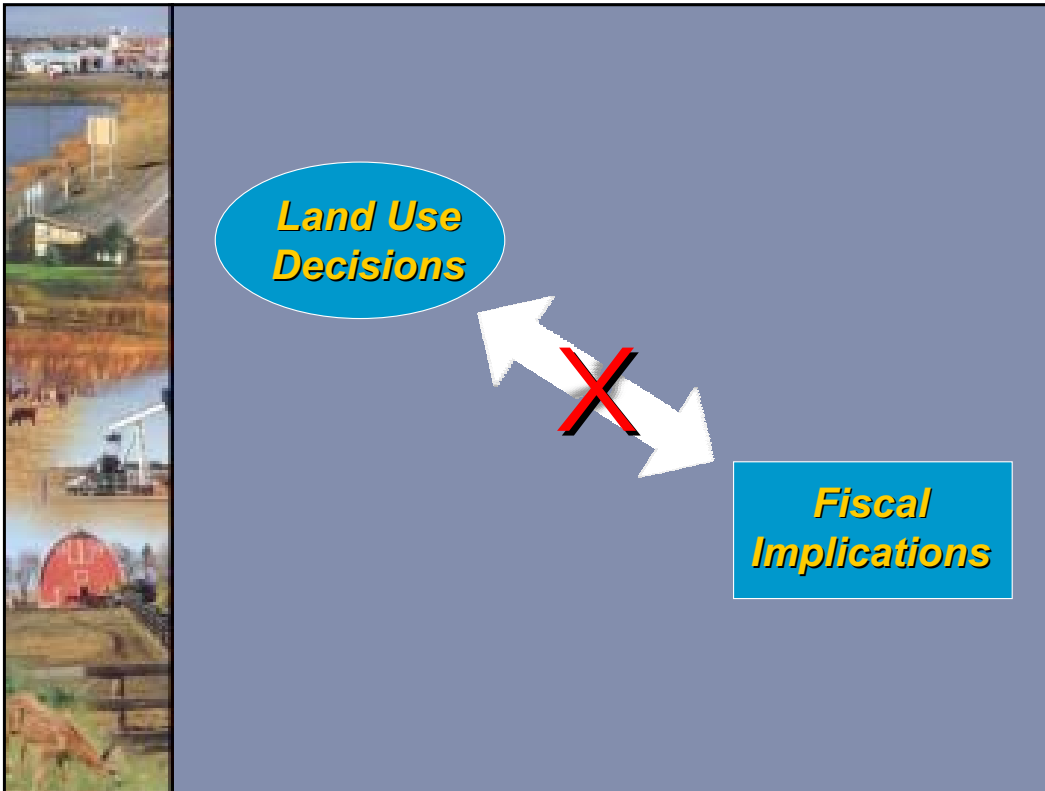
## Land use planning

## Expenditures

- Country residential
- Agriculture
- Light industrial
- Highway commercial



- Waste management
- Utilities
- Community services
- Patrol
- Fire



- 
- ### The debates rage ..!
- “Increasing the residential tax base will lower overall municipal service costs ...”
  - “Differential assessment for agriculture is inherently unfair ...”
  - “County governments pander to commercial interests at the expense of private residents ...”



## The debates rage ..!

- “Increasing the residential tax base will lower overall municipal service costs ...”
- “Different treatment for agriculture is inherently unfair ...”
- Many governments pander to commercial interests at the expense of private residents ...

**NO DATA !**



## What is a Cost of Community Services (COCS) study



## What is a *Cost of Community Services* study?

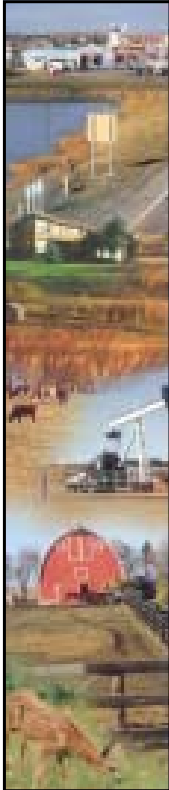
- Case study approach to determine a municipality's public service costs versus revenues based on current land uses
- Unlike full-scale fiscal impact analyses, does not predict future costs/revenues, nor impacts of future growth
- Snapshot of costs vs. revenues for each broad land use type



## Revenue/Expenditure Ratios

	<u>Revenues</u>	<u>Expenditures</u>
AGRICULTURAL	\$1	?
RESIDENTIAL	\$1	?
COMMERICAL	\$1	?
INDUSTRIAL	\$1	?





## Conducting a COCS study



## Reviewing the data

**BUDGETS /  
ACTUALS**

**DEPARTMENTAL  
REPORTS**

**ADMINISTRATIVE  
STRUCTURE**

**STAFF  
INTERVIEWS**



## “Demand for Services”

vs.

## “Benefits to the community”

- Allocations based on ‘demand’ not ‘benefit’
- E.g., Agricultural services promote significant benefits for municipality, but only working landscapes demand those services
- E.g., education is a benefit to an entire community, but only residents demand that service



## Fall-back percentages

- For some expenditures / revenues it may be impossible or inappropriate to divide between the land uses
- ‘Fall-back percentages’ are used, derived from municipality or department-wide ratios
- Fall-back percentages ‘wash out’ data, so are avoided



## Challenges

- **Categorizing land uses**
- **Lack of recorded data**
- **Allocating road expenditures**
- **Incorporating revenues from out of county**
- **Allocating multi-jurisdictional services (fire, health, etc.)**
- **Education revenues / expenditures**



**The American experience**



## 102 studies in 22 states

Colorado	Connecticut	Georgia
Idaho	Kentucky	Maine
Maryland	Massachusetts	Michigan
Minnesota	Montana	New Hampshire
New Jersey	New York	Ohio
Pennsylvania	Rhode Island	Texas
Utah	Virginia	Washington
Wisconsin		

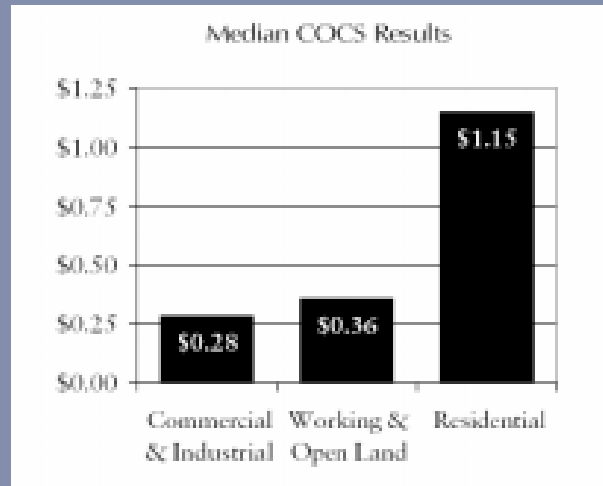


## 102 studies in 22 states

Colo		
Idah		
Mary		
Minn		shire
New		
Pen		
Utah		n
Wis		



## Median results



## Guy Greenaway and Stephanie Sanders



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Research generously  
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## Red Deer County Cost of Community Services Study – a review of methods

☞ *Backgrounder*

☞ *PowerPoint presentation*



## COST OF COMMUNITY SERVICES WORKSHOP - BACKGROUNDER

### Red Deer County Cost of Community Services Study: A review of methods

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#### RED DEER COUNTY

- Ø Population of ~18,000 (110,000 within its boundaries); population change 1996 to 2001: 8.9%
- Ø Covers area of 4042 sq km (~1 million ac)
- Ø 60 residential subdivisions; 8 industrial/commercial subdivisions; 1 city, 4 towns, 2 villages, 2 summer villages, 7 hamlets
- Ø Middle of Edmonton-Calgary corridor; one of the fastest growing regions in the country
- Ø Historically rich agricultural area, strong oil and petrochemical industries, as well as value-added agricultural sector
- Ø Approved in excess of \$39 million in development permits in 2003

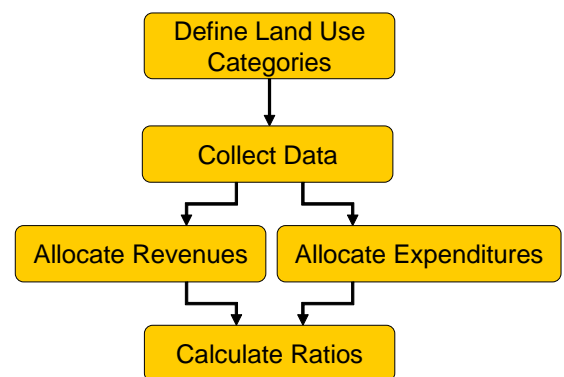
#### COCS STUDY FOR RED DEER COUNTY

- Ø RDC approached Miistakis Institute about COCS study in early 2004
- Ø RDC seeking tools to inform land use planning decisions
- Ø Miistakis secured funding from the Alberta Real Estate Foundation to import methodology, begin study
- Ø Began conducting COCS study late fall; anticipate completion by June
- Ø Begun collecting financial data, interviewing staff regarding resource allocation

#### METHODOLOGY TRANSFER

##### € 5 Simple Steps!?

1. Define land use categories;
2. Collect and organize data;
3. Allocate revenues by land use category;
4. Allocate expenditures by land use category;
5. Analyze data and calculate the ratios for each land use category  
(e.g., 1:1.15 means that for every dollar raised in revenue, \$1.15 are required in expenditures to service that land use category)



##### € Overall Methodology

- Ø Creation of methodology from US
- Ø Literature review of American COCS studies
- Ø Review of US State legislation
- Ø Review of Albertan legislation ex. MGA, Tax Assessment
- Ø ID differences between US and Can
- Ø Conceptual methodology created

- € Communications
  - Ø Meetings with Council and staff are very important
  - Ø Ensure all participants understand that the study is concerned with direct demand from land uses

## **LAND USE DEFINITIONS**

- Ø Based on the MGA and tax assessment regulations
- Ø Might be different for other municipalities b/c flexibility in tax assessment
- Ø Discussed definitions with Council and staff members

## **COLLECTION OF DATA**

- € Preparation for Data Collection
  - Ø Collect and read all documents pertaining to the municipality's organization
  - Ø Obtain all possible revenue and expenditure data to get a sense of the questions that may arise
  
- € Data Collection Methods
  - Ø Qualitative Research despite being quantitative results
  - Ø Talking to the managers in group meetings
  - Ø Explain their programs, all roles and responsibilities
  - Ø Breakdown duties (by time) by land use category using proxies if necessary ex. number of utility payers by land use category
  - Ø Support departments may divide time based on the individual breakdowns of the departments they support
  - Ø Group setting allows discussion, learning and testing of answers.
  - Ø Always asking for examples of why the resources are allotted in such a way
  - Ø Always questioning if there are other ways to do it.
  
- € Data Review
  - Ø Providing meeting notes and percentage breakdowns for each department meeting that was held for managers to review and comment
  - Ø Integrate info between departments
  - Ø Ensure departmental managers sign off on the final percentages and notes

## **ALLOCATE NUMBERS**

- € Data Formats
  - Ø Financial data by line item vs. program summaries
  - Ø Using salaries and finalized percentages to make decisions about materials and miscellaneous expenditures
  - Ø RDC has GIS and digital information (especially for roads, traffic counts, assessment data) where other municipalities may only have paper records or no data at all.
  
- € Sampling
  - Ø In many cases, there is too much data (esp. in paper format)
  - Ø Using random sampling methods with a confidence interval of 95%



## **CALCULATE RATIOS**

- Ø Using an excel spreadsheet linked to the working documents, enter all info and percentages
- Ø Use formulas to get final numbers for revenue and expenditures
- Ø Create a ratio

## **LINK TO PLANNING MASTERS DEGREE PROJECT**

The Red Deer County Cost of Community Services Study will not be the only result from this project. In conjunction with the Miistakis project, a Masters Degree Project will be forthcoming. This project will describe and evaluate the COCS methodology in terms of its potential use for professional planning practice.

The COCS tool is a key component in determining a community's sustainability because it measures the financial relationships between different land uses within a specific timeframe. Thus, the COCS model provides critical information which communities require for planning balanced development and offers evidence for the benefits of working landscapes. In light of these findings, the goal of this project is to develop a COCS methodology for Canadian communities thus providing access to this valuable information in an efficient and inexpensive format. The value of this project to overall research is that it will contribute an international perspective to the current American COCS results.

### **Purpose**

The goal of this project is to develop a Canadian COCS methodology that is relevant and realistic for implementation in Canadian communities. The research will demonstrate how this tool can be used to develop balanced community development by incorporating it into professional planning practices.

### **Objectives**

There are four main objectives for this research:

1. Develop an appropriate Canadian COCS methodology.
2. Explore opportunities for including valuation measures for mixed land uses and ecological services within the COCS methodology.
3. Assess the COCS methodology in a case study on Red Deer County.
4. Develop recommendations for use of the Canadian COCS methodology within professional planning practice and how it can be used to plan for sustainable land use.

### **Methodology**

The project methodology will include:

- € literature review
- € review and evaluation of the Red Deer County COCS study
- € key informant interviews



## **“Cost of Community Services” Study for Red Deer County**

**Guy Greenaway and Stephanie Sanders  
Miistakis Institute, University of Calgary**



**Cost of Community Services workshop,  
Red Deer County, June 9, 2005**



## **Red Deer County Cost of Community Services Study: a review of methods**

**Stephanie Sanders  
Miistakis Institute, University of Calgary**



## Outline

- Red Deer County Case Study
- General Methodology Development
- Define Land Use Definitions
- Collect Data
- Allocate Revenues and Expenditures
- Calculate Ratios
- Issues
- Link to Masters Degree Project



## Red Deer County





# Red Deer County

- Population: 18,639; area: 4041 sq km
- 60 residential subdivisions
- 8 industrial/commercial subdivisions
- 1 city, 4 towns, 2 villages, 2 summer villages, 7 hamlets
- Middle of Edmonton-Calgary corridor
- Historically rich agricultural area (90% of County land base)
- Strong oil and petrochemical industries, value-added agriculture
- Approved >\$39million in development permits in 2003



# Red Deer County

## *Residential Development ...*

- Goal: To allow for opportunities for people to live in a rural setting and enjoy a rural lifestyle while ensuring rural residential development occurs in an orderly and environmentally safe manner in suitable locations.





# Red Deer County

## *Agriculture ...*

- Goal: To ensure agriculture remains a sustainable and diversified economic activity and lifestyle in the County



# Red Deer County

## *Industrial / Commercial Development ...*

- Goal: Ensure there is a good supply of properly located industrial and commercial land within the County to meet the needs of the marketplace.





# Red Deer County

*Industrial / Commercial Development ...*

- Goal: Ensure proper land use the majority of commercial needs of the municipality

**Development must meet all goals**



# Project Initiation

- RDC approached Miistakis Institute about COCS study in early 2004
- RDC seeking tools to inform land use planning decisions
- Began conducting COCS study late fall; anticipate completion by June

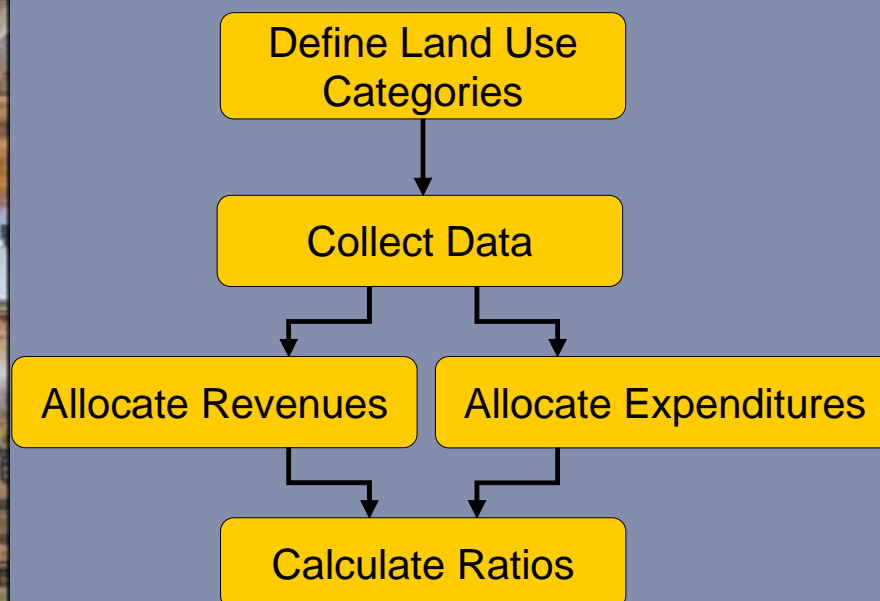




How is the US methodology transferred to Canada?



## 5 Simple Steps!???





## Overall Methodology

- Literature review
- Fundamental differences between Canada and US
- US legislation
- Alberta legislation
- Red Deer County policies



## Communications

- Key to data collection
- Meetings held with Council and staff respectively
- Council and staff are the experts
- Guide discussions towards “direct demand”







**What are appropriate land use categories in Alberta?**



## **Land Use Definitions**

- **Developed based on MGA and taxation regulations**
- **Use 'assessment' rather than 'zoning' codes**
- **Note: a farm residence is a 'residential' land use**



# Land Use Definitions

## Residential:

- Property used for dwellings, including farm houses, employee housing and rental units.



# Land Use Definitions

## Commercial:

- Property actively used for business purposes other than industrial, agricultural or forestry.





# Land Use Definitions

## Industrial:

- Property actively used for wholesale production and utilities, usually goods-producing.
- Includes machinery and equipment, linear property, food processing



# Land Use Definitions

## Working Landscapes:

- Property used or designated as open space, forest, agricultural or recreational land.
- Includes feedlots and production of animals based on the Regulations of Assessment and the Livestock Act.

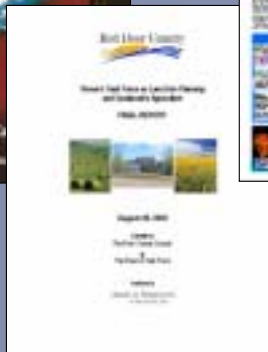




How do we collect this information by land use categories?



Preparation for Data Collection



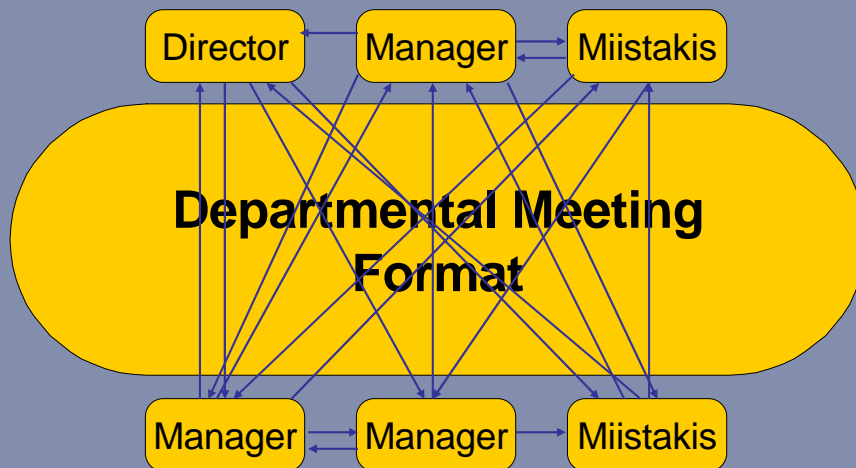


# Data Collection Methods

- Qualitative research = quantitative results
- Group meetings enable:
  - Discussion
  - Learning
  - Testing of results



# Data Collection Methods





## Data Collection Methods

- Breakdown departmental time by land use categories
- Use proxies if necessary ex. # of utility payers
- Support departments might breakdown based on other department %s
- ALWAYS QUESTION



## Data Review

- Provide detailed meeting notes and percentages
- Integrate departmental info
- Managers sign off on final percentages



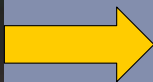


How do we get the information we collected into financial numbers?



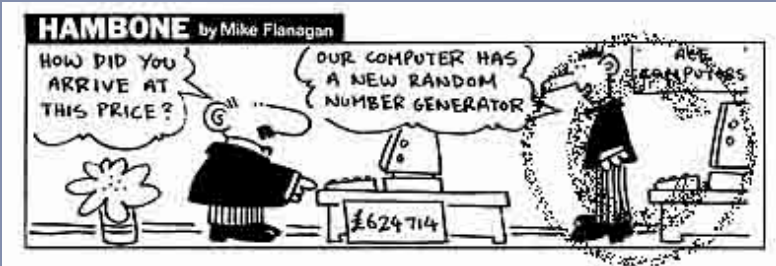
## Data Formats

- Line item vs. program summary
- GIS and digital vs. paper
  - Traffic counts, permits, assessment, fees and fines



# Sampling

- Too much data and too time consuming
- Random sampling methods
- Ex. fees and fines



How do we calculate the ratios from all these numbers?





## Calculate Ratios

- Fall-back percentages
- Excel spreadsheet linked to working files
- **ALLOW EXCEL TO DO THE DIRTY WORK!!!**



## Calculate Ratios

- Fall-back percentages
- Excel spreadsheet linked to working files
- **A Revenue to Expenditure Ratio = 1:1.15**
- **THANK YOU!!!**



# What are the difficult issues for Red Deer County?

## Areas of Concern

- Roads
- Policing
- Fire
- Education
- Ambulance
- Recreation
- Tourism

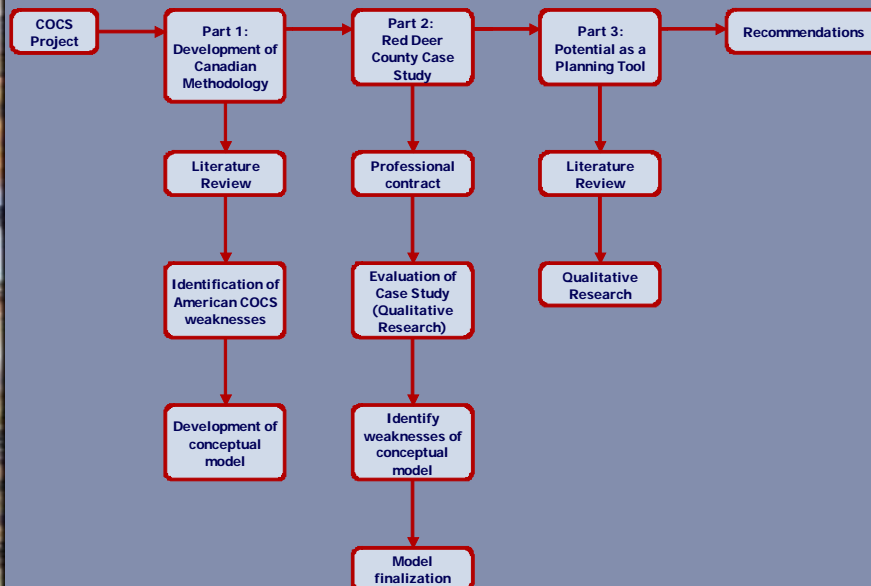




# What is the link to planning?



# Masters Degree Project Work Plan





# Masters Degree Project

- **Methods:**
  - literature review
  - review and evaluation of the Red Deer County COCS study
  - key informant interviews



Guy Greenaway and Stephanie Sanders



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Research generously supported by



## Breakout session backgrounders

- € Issue #1 – Attributing road-related costs to the four land use categories
- € Issue #2 – Intermunicipal Agreements and Arrangements
- € Issue #3 – Land Use Definitions



## ISSUE FOR DISCUSSION – # 1

### **Attributing road-related costs to the four land use categories**

The building and maintenance of roads and associated structures such as bridges and culverts typically make up a large proportion of a municipality's annual budget. These expenditures are therefore very important to include.

One of the major challenges facing those conducting *Cost of Community Services* studies is how to allocate these road-related costs to the four land use categories. Each of the categories has a traffic flow associated with it, but dividing the impacts and fiscal requirements for each traffic type has several problems.

Simply associating a given stretch of road (and the associated cost to the municipality) with the adjacent land use can be very misleading. For example, if a road connecting a 'bedroom community' with a major employment centre runs for miles between two agricultural properties, we intuitively know it would be inaccurate to associate that road's maintenance costs with the adjacent agricultural land use. How could researchers allocate those expenditures to the appropriate land use?

Similarly, not all traffic is created equal in terms of the toll it takes on a given road. The movement of heavy equipment used by the farming ('Working Landscapes' land use category) or oil & gas ('Industrial' land use category) causes more degradation of a road per trip than does a commuter's car ('Residential' land use category). Attributing costs evenly per vehicle movement would be misleading, but how could researchers account for the differing demands of different traffic types associated with the land use categories?

In past studies, researchers have worked with municipal staff to categorize roads and characterize use on each type (e.g., "use on roads of type 'X' are typically 50% residential, 35% agricultural, and 15% industrial"). Costs are then distributed on that basis. Some studies have concluded there is not enough data to make the divisions, and have simply excluded roads from the analysis. Some have allocated road costs evenly across the land uses.

Some things to consider

- do you have traffic counts, and if so, how could they be used
- do you have consultant reports that contain information
- how could you use the considerable, but unrecorded, staff knowledge
- can information used to determine maintenance schedules (e.g., at what point a road needs to be upgraded) to characterize use on various roads

#### Questions to report on

- 1) What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?
- 2) How does this issue relate to your municipality.
- 3) What are your recommendations to address this issue?



## ISSUE FOR DISCUSSION – # 2

### **Intermunicipal Agreements and Arrangements**

In many municipalities there are arrangements to provide services in cooperation with surrounding municipalities or special districts. In these cases, determining the breakdown between the four land use categories can be difficult because of the lack of overall authority and differences in municipal resources. Although the services are provided across the region seamlessly, the accounting for these services needs to be considered across multiple jurisdictions each with their own data formats and protocols.

One example from Red Deer County is that fire service is shared throughout the region. Red Deer County contracts many of the nearby municipalities to provide fire service to their surrounding rural regions. Despite the fact that Red Deer County is not directly servicing these land uses, the contracted fees must be accounted for and applied to the overall revenue provided to the County by these land uses. In the case of fire service, many of these nearby municipalities' fire service are completely volunteer-based and may not have the personnel resources to make thorough records of each fire call in a year. As well, they may have less time available to work with the Cost of Community Services researchers to create a breakdown.

Currently, we are developing the best approach to gain this information. Similar experiences may exist for things like ambulance, police, community recreation, social services and waste management.

Some things to consider

- Do your contractors provide an annual or monthly report of occurrences?
- Do you pay your contractors a flat rate, a per capita fee or by any other standard?
- Do you share costs/profits with other municipalities?

#### Questions to report on

- 1) What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?
- 2) How does this issue relate to your municipality.
- 3) What are your recommendations to address this issue?



## ISSUE FOR DISCUSSION – # 3

### Land Use Definitions

*(please refer to the Land Use Definitions sheet in your folder for detailed definitions of the Red Deer County categories)*

One of the key elements of the Cost of Community Services study methodology is the definition of land use categories. Generally, there are four land use categories:

1. Residential
2. Industrial
3. Commercial
4. Working Landscapes (otherwise known as Agriculture, Forest and Open Land)

However, in the United States, the exact definition of these categories is created based on State legislation. In the development of a Canadian methodology, the Municipal Government Act and the Regulations on Taxation and Assessment were reviewed. In Alberta, the Regulations on Taxation and Assessment are relatively general and allow each municipality to concretely define their own assessment codes.

This leads to some questions about whether the Red Deer County land use definitions will be appropriate for other municipalities throughout Alberta.

One of the major variations of the Red Deer County study from the United States studies is the inclusion of vacant land within each of the residential, commercial and industrial land use categories' definitions. In most other studies, vacant land is included in the agriculture, forest and open land category. Using the commercial category as an example, in Red Deer County vacant land is not assessed as "vacant commercial" until it is serviced and so that land use is demanding commercial services; thus, it is included in the commercial category and not the working landscapes category.

Other questions arise as to whether or not different Alberta municipalities provide different sized residential parcels on agricultural properties in the tax assessment. The different sizes of parcels will affect the basic division of land and therefore services demanded and revenues provided.

Some things to consider

- Are your municipality's assessment codes or zoning categories specific enough to define these categories?
- Are there any other major land uses that may require a fifth category?

#### Questions to report on

- 1) What information (collected data, expert opinion, etc.) do you have access to in your municipality that would help address this issue? How can that information be acquired?
- 2) How does this issue relate to your municipality.
- 3) What are your recommendations to address this issue?



## Agenda



**MIISTAKIS  
INSTITUTE**



## **Cost of Community Services Workshop**

Red Deer County Offices  
June 9, 2005

### **AGENDA**

9:00 am	Welcome	Harry Harker, Red Deer County
9:10 am	Introduction	Guy Greenaway, Miistakis Institute
9:15 am	Cost of Community Services studies – what are they?	Guy Greenaway, Miistakis Institute
10:00 am	Break	
10:15 am	A Cost of Community Services study for Red Deer County – a review of methods	Stephanie Sanders, Miistakis Institute
11:00 am	Plenary discussion / Q&A Introduction of breakout exercise	
12:00 pm	Lunch	
1:00 pm	Breakout group discussion	
2:00 pm	Breakout group reports	
2:45 pm	Wrap up	
3:00 pm	Adjourn	

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