Manitoba Planners Conference Feb 23-25, 2012
"Beyond Surviving: Planning To Thrive"

Title of presentation: Municipal Planning for Climate Change
Presented by: Randall Shymco / Katy Walsh
Date: February 23rd, 2012

What happened

The presentation on climate change adaptation was headed by Randall Shymco of Manitoba Conservation and Katie Walsh of Manitoba Local Government. They also invited three community representatives to speak about their specific experiences.

Randall discussed the general impacts of climate change, and the history of climate change adaptation on the prairies. He also discussed the current project that brought them to the conference -, the Prairies Regional Adaptation Collaborative (P-RAC). The P-RAC is one of 5 regional collaboratives and 300+ different climate adaptation projects.

Katie discussed the P-RAC itself, and Manitoba's efforts in the program. These efforts included drought / excessive moisture planning, creating and testing the Municipal Adaptation Planning process, and interacting with the conservation districts and testing the applicability of a planning tool called the Land and Infrastructure Resiliency Assessment (LIRA). The LIRA program assesses community assets and the cost of protecting those assets, enabling the planners to allocate resources more efficiently. She also stated one of her 'beneficial practices' was not to focus on the causes of / reality of climate change but rather to focus on the benefits of the changes you make in the community.

The community representatives spoke about their communities' specific results and experiences with the P-RAC and LIRA and the extreme weather condition experienced recently. Of major concern was the fact that the federal and provincial governments seem to be poorly co-ordinated between departments or agencies and as a result seem unwilling to help with the economic impacts of extreme weather. Also the physical damage done by extreme weather was a serious issue as the cost of that damage is currently falling to the Municipalities and communities.

What I thought about it

I thought that the LIRA program sounds fascinating, however I am concerned about the way the value of an asset is calculated and how this could create favouritism toward the rich; I need to do more digging to be sure. Other than that, I thought the crowd received the speakers' comments

well, and were engaged and interested. The speakers were knowledgeable and approachable. All in all, it was a good session.

Presentation

Randall Shymco, Climate Change Adaptation Analyst, Manitoba Conservation

- Impacts of climate change:
    - Increased scarcity of water
    - Unequal distribution of water resources
    - Potential for drought and extreme rainfall (flooding)
- Adaptation is not new, prairies are prone to variability and to planning for adaptation.
    - Some plans include:
        - Integrated Waste Management Plan
        - Development Plans
        - Sustainability Plans
        - Assiniboine Community College – Westman Sustainability Plan
        - Flood mitigation plans, dams,
        - Beneficial management practices from MAFRI
    - Adaptation plans are best when integrated into existing plans / operations
        - Challenge is how to do this effectively with limited resources
- What is climate adaptation?
    - Planning to reduce climate impacts by understanding the risks and vulnerabilities and taking steps to reduce those vulnerabilities now and in the future.
    - Terminology
        - Mitigation - stopping it from happening
        - Adaptation - working with the changes
        - Vulnerability – the potential damage / cost of an event happening
        - Risk – the likelihood of an event happening
- Prairies Regional Adaptation Collaborative (P-RAC)
    - Overseen by Natural Resources Canada as part of Canada's national adaptation plan and partners Environment and Climate ministries of the three prairie provinces and other local partners
    - There are 5 other regional adaptation collaborative: BC, ON, QU, Atlantic Canada
    - Collectively 300+ different projects across Canada
        - The results and reports will be collected on the website
    - P-RAC issues
        - Water res manage issue
            - Supply / demand studies
            - Drought / excess moisture projects / studies
        - Terrestrial forestry issues

        - Range land vulnerability and risk assessments
- When thinking about climate adaptation options think about:
    - No regret options - you were going to do it anyway
    - No / low cost options - were not going to do, but does not have a high economic risk

Katie Walsh, Planning Policy and Programs, Manitoba Local Government

- Speaking to Manitoba's efforts in the P-RAC
    - Drought / excessive moisture planning focus with municipalities
    - Created the Municipal Adaptation Planning (MAP)
        - Goal: increase capacity to incorporate climate change adaptation planning into local municipal planning policies
        - MAP Process
            - Step 1 - set context (via survey of: risks, vulnerabilities, needs of the communities, impacts of climate change)
            - Step 2 - Analysis of survey, take to stakeholders workshop, participants verify results and expand
            - Step 3 – Estimate and evaluate identified risks
            - Step 4 – Create methods of adaption for those risks
            - Step 5 – Influencing and monitoring
- MAPS Steps 1 & 2 completed, results are:
    - Vulnerabilities
        - aging infrastructure
        - flooding
        - less predictable weather
    - Risks
        - Flooding
        - Drought
    - How to deal with them
        - Provincial support
        - Local staff training in local climate change adaptation
- In Manitoba they are primarily interacting with conservation district level, watershed management
    - Scoping study of the applicability of the Land and Infrastructure Resiliency Assessment (LIRA)
    - LIRA-cost benefit support response program assessment
    - Assesses the economic impact of extreme weather events on the infrastructure to better determine where to invest in mitigation efforts
    - Economic impact assessment component, what could be damaged, how can you spend 10 to protect something worth 100?

- Preliminary findings from LIRA
    - Participants found a lot of value in it
    - Pilot test / study done in Corman Park, SK
        - Zoning was used to protect against risk of loss, and can be very cost effective
- MAP and LIRA are just a few of the planning models applicable
- Keep communication between econ dev, watershed management, etc, as a way to keep moving forward positively
- Do not focus on the causes of / reality of climate change; focus on the benefits of the changes you make in the community

Wendy Davidson, Community representative, Reeve RM of Archie

- Speaking to the Trans Canada West planning process
    - The last years high water impacted local economy and municipal budgets
    - Historically it has been reactive vs proactive development
- Extreme weather
    - The oil and farming community were unhappy with the inability of the municipality to react to the recent extreme weather events
    - Can / will negatively impact
        - human health
        - infrastructure
        - emergency services
        - local economy
        - municipal budgets
- Climate change has been integrated into the new district plan,
    - Should ensure infrastructure is built to a standard that can handle extreme weather
    - Should clean / manage the drains / infrastructure maintenance
    - Should manage water with coordination with the province(s) (MB and SK)
    - Saskatchewan has a tough time enforcing their regulations, so not too sure how it will play out here
    - With local input the planners have incorporated infrastructure / service into current plan
- Incorporating climate change planning into the general plan will help in the long term to provide better services to the rate-payers
- Province does not seem to be well coordinated between the different departments

Adam Baggis, Community representative, RM of Wallis council

- The first thing we need to recognize is that we should understand what we can / cannot change , work accordingly
- Excess / lack of moisture is the real problem

- Infrastructure maintenance is important
- RM Wallis is
    - Cleaning all culverts
    - Rip-rapping the culverts
    - putting in control structures into the dams
    - Working with conservation district to create a land use agreement to put a percentage of the farm land into conservation
        - The farmers need to be able to farm / manage
        - Proposing that farmers be able to drain land while storing it at the edges (to be used later for economic value)
- We need to figure out a solution to old dams (Ducks Unlimited)
    - Municipality is left to maintain the Ducks Unlimited dams
    - Silt buildup in the spillways is a problem
- Challenge: educating the rate payers as to what can happen and how to deal with it
- 90% of the water in the RM do not originate here, so having control over it is hard

Ed Brethor, Economic Development Manager for Virden

- Excessive water caused damage to
    - lift stations
        - They had two redundancies, one pump failed
        - It takes 6-8 weeks to get the pumps
    - Gravity sewers can be destroyed by flooding
    - Waste water treatment system
    - Highway has been closed more often and for longer periods
- During droughts there is a need to have more water available
- Prairie fires are an issue, there is potential harm to RM housing
- They are currently
    - ordering 3-4 backup pumps
    - Putting in permanent dykes to protect the wells
    - Creating more backups and having standardization of backups (for interchangeability when needed)
    - Starting work on Catastrophe planning- what do you do when all your backups fail?
- They need:
    - an engineer on site for drains / culverts (they are currently too small)
    - There needs to be more coordination between departments, knowledge / technology sharing
    - Access to increased borrowing support / capacity

Question and answer period

Question: What are the provincial / federal strategies of looking at water retention vs. water drainage: are they looking at retention vs drainage?

- It is a big issue, and out of the scope of these projects (maintenance of drainage / more drainage has been the comment from the communities)
- It has been identified as a need for future research
- If we used retention would we be better able to balance the water needs (flood / drought)

Question: In certain areas people cannot have septic fields and in these areas people also cannot use grey water systems, why?

- It is either under discussion, but not yet conclusive; there is not yet enough research to determine the safety of grey water

Question: From the people who were impacted in 2011, discussion between departments / more funding. Any solutions?

- The solutions are cross-agency, so the solutions require the collective to get together
- Because we had to open the roads to the community, we are not getting disaster assistance (RM Wallis) the money oil / gas take out of the community does not come back and the government does not seem to understand this

Question: How does the LIRA impact / assess road applications?

- LIRA has a manual for how to assess roads etc

Summarized by:

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