

Cochrane Low Impact Development Conference – Summary of Breakout Sessions

1) Brian Bledsoe: Impacts of urbanization on our streams: Are these impacts real, and what can we do?

Question 1

Using the background and information from this presentation, and the findings for the Nose Creek and Pine Creek watersheds, do you believe additional research should be collected before we "adjust" our land use and stormwater management practices? If so, why should we conduct more research? And what kind of research is needed? And how long do you think research should be conducted before sufficient information has been obtained to make reasonable decisions?

- We have enough base-line research to start changing policies; specific and continuous research and monitoring is still required, especially assessing the effectiveness of current standard mitigation measures.
 - We need to start adjusting and implementing improved land use and stormwater management practices with continuous research by all parties.
 - Decisions that "try to do the right thing" need to be made when research results are too far behind.
 - Research needed on water quality, erosion, geological flow regimes, microclimates, evapotranspiration, pest and health issues, public concerns and expectations, increased lot costs, increased downstream issues such as destabilization, flood management.
 - Where are results of research on natural process mimicking and its effectiveness?
 - Improvements through additional research, build on past research.
 - Not familiar with current information and findings – can't tell if more research is needed.
 - How much research is sufficient to justify actions?
 - Putting the existing research into laymen's terms.
 - Can always use more research.
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- Focus on health of streams and rivers.
 - Need more monitoring of watersheds.
 - If a problem is obvious – make decisions as required with current knowledge.
 - Inaction can be a problem or part of the problem.
 - Adaptive management should be used as well as pilot projects.
 - Very different stream types means different stream needs – avoid one plan fits all approaches.
 - Flexibility in what type of information is required for decision making is needed; decision makers need to have options.
 - Decisions should be allowed to occur with available information and monitor the results.
 - Provincial incentives are needed, such as policy development or changes for grey-water use (e.g. plumbing codes).
 - Need for local experience, both successes and failures at the local level.
 - Apply policies and monitor positive and negative effects on landscape to identify trends.
 - Progress has been made over time must continue to follow this trend.
 - Keep record of impacts and trends on watersheds through regional partnerships.
 - More intermunicipal cooperation is needed.
 - Need to start adjusting our current policies and plans, incremental changes.
 - Education of the masses.

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Question 2

In Ontario, the width of the meander belt and associated setbacks is a function of the change in 1:2 year flow rates. Should a similar approach be considered in Alberta? If so, Why or Why not? What are some of the benefits or disadvantages of such an approach?

- We need to make changes that reflect different stream types – need to protect meanders as they are important to overall health of the watershed.
 - The width of belts is an important consideration in Alberta.
 - This approach offers a greater recognition of landscape capabilities.
 - Would require us to balance development value vs. social value vs. ecological value.
 - Don't know enough about this to formulate an opinion.
 - We like the concept, but is "1:2" a practical guide? How would this be applied in Alberta?
 - Offers range of set-backs for different stream types.
 - Minimum standard and overarching 6m is dated in the MGA.
 - Meander belts are important, but whether using 1:2year or other value needs more research.
 - Each stream has unique characteristics and should be researched case by case basis.
 - Classifying streams based on water balance capabilities may be beneficial.
 - We must remember that the area beyond the meander belt is also important. Integrity of banks, geomorphology, and hydrology – all of these parameters become a function of the meander belt.
 - Set back to what? Buildings? Clearings? Property line? Unclear language in planning policy makes this approach somewhat arbitrary.
 - Is this the same as riparian set back?
 - The approach should be applied differently in different areas, dependent on stream – place-based approach.
 - The approach would require community leadership, and a paradigm shift in planning policy.
 - Setbacks should accommodate for climate change and use bioengineering techniques.
 - Setback areas can be used for education and research purposes.
 - Is there an opportunity to create new land uses within these areas?
 - Continued research is necessary.
 - How has this concept been effective in Ontario?
 - An approach related to storm events makes more sense than arbitrary distances. But is 1:2 year planning enough? Would 1:5 or 1:10 be just as effective?
 - Alberta should also use the flood plain and flood fringe as basis for setback distances.
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- Benefits: It is better than current policy in MGA. There may be social benefits and ecological benefits that can be incurred. It is means to change to stagnant policies.
 - Benefits: The approach has the potential to reduce long term costs if done early on and properly.
 - Benefits: Approach might offer more open space and better liveability, increase public buy in, higher property values, but what rights do property owners have?
 - Avoid property damage due to flood events, stream blowouts, defensible, respects natural systems.
 - Economic value for 'green' assets.
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- Disadvantages: This approach would require time and effort to make changes to policies.
 - Disadvantages: difficulty in collecting scientific data, expensive and time consuming

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Question 3

There are parts of certain watersheds that are considered to be self-contained for pre-development conditions, which means, they do not generate surface runoff that might make it into streams and other waterbodies. Depending on the local hydrogeological conditions, some precipitation may contribute to base-flow in adjacent streams; however, often the vast majority of precipitation evaporates. Evaporation needs surface area, especially in times that are very wet (such as June 2005). This raises questions about the need to set aside land areas sufficiently large to maintain natural evaporation processes, which could impact the amount of developable land within these self-contained areas. Is it possible to drain these self-contained areas to allow more development without impacting our water resources? What kind of impacts could one expect to see?

- Impacts: more point loaded pollution to water courses, increased stress on natural depressions, greater amounts of water and greater fluctuations, increased streambank deterioration, erosion, stream blow out, changes to stream, loss of fish species, decreased groundwater recharge.
 - This approach could transfer water resource problems from one part of the watershed to another.
 - Impacts could possibly lower sub-surface water table and result in overall degradation of ecosystem (loss or wildlife habitat, vegetation, etc).
 - Possibly, but it would require augmenting newly developed areas with drainage solutions (e.g. swales, off-site ponds).
 - We need to develop appropriate BMPs for our region and try to mimic as much as possible natural hydrologic regime in developed areas.
 - Others issues are important besides evaporation, especially during 1:100 year flood events. We need solutions for discharge too.
 - Are there other uses for this water besides evaporation?
 - Development should be allowed in these areas provided it is low impact and returns water to the original 'water balance'.
 - This needs to be looked at it in accordance with watershed area, and the water balance within the watershed.

 - Requires changing current mindset.
 - Challenges include costs, technology, education (community and staff), maintenance, safety, accessibility, policy and procedures, capacity (do we have the tools to achieve the goal?), planning and management, and control (municipality vs. developers).
 - Problem: the politician doesn't always know what they are asking for or approving by the developer.
 - How do we compensate landowners who are forced through legislation to set aside previously developable land?
 - How do you resolve less developable land in municipalities with density increases?
 - Increased density to offset land use impacts.
 - Emergency discharge options also need to be considered.
 - If development is allowed efforts should be made to try to use grey-water onsite.
 - Look at policies to accommodate use of grey-water
 - Development could happen but we need to find ways to minimize the loss of evaporation (i.e. rain barrels, green roofs).
 - Innovation for use and re-use of stormwater to allow for evapotranspiration in developed areas.
 - Waterfall/fountain features mandatory in stormwater ponds to increase evaporation.
 - In general, more research is needed to form appropriate legislation
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2) Judy Stewart: Municipal Land Use Bylaws and Policies

Question 1

What planning policies are missing that need to be included in the MDP to achieve the desired outcome?

- Education required to create social change
- Policy that would drive initial changes
- Creative policies and regulations
- The MDP take a watershed-level view of planning for all land uses
- Define the system of determining which resources will be protected (e.g. Rating system or trade-offs)
- Outline how the plan will apply to new areas vs. those renovated and retrofitted
- Require a separate monitoring plan
- Define intermunicipal boundaries and plans such as Intermunicipal Development Plans
- Address the reduction in pollutant exposure (e.g. Pesticides in runoff)
- Refine Strategy #7 to ensure it is not counter-productive to mitigate negative effects on the wetland
- Enhance Strategy #4 with guidelines on how to develop when adjacent to water courses
- Further define the term 'quality enhancement', give some definitive direction
- Add an additional Strategy to protect and regulate spring water and groundwater
- Add additional Strategies to deal with irrigation and drainage
- Address the challenges of grey water reuse and energy use

Question 2

What Land Use Bylaw provisions are missing that need to be included to enable you to achieve the desired outcome?

- Defined development scenario that includes location, area, and form
- Requirements for Environmental Reserve and Municipal Reserve
- Protection of wetlands through mitigation of runoff
- Information on LID design components and features
- Information about density requirements
- Information on resource inventory
- Requirements for information on post-development management (soil contamination from Recreational Vehicles, etc)
- The need for a transfer station
- Incentives to promote Stormwater Management Best Management Practices to protect water resources from development
- Provision of public access to and along riparian areas (e.g. Municipal reserve)
- Define Construction Management Plan and what it includes (e.g. Erosion and sedimentation controls, etc)
- Requirements for a Monitoring Plan after development, containing strong follow-up commitments
- Define Monitoring Plan and what it includes
- Ensure that there are tools to allow for compliance monitoring and enforcement of regulations (elsewhere in Land Use Bylaw)
- Refine the definition of 'pollution' to also include point sources
- Clarify Section 1.1.3.2 to regulate development within the riparian area (one section seems to allow for it, another seems to not allow for it)
- Include the fundamental idea of 'avoiding impact if possible, or not, to mitigate then replace' wetland and riparian features

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Question 3

What provincial and federal laws are relevant and provide senior policy or legal considerations that must be addressed on this parcel of land to achieve the desired outcome?

Federal laws

- Migratory Birds Act
- Fisheries Act
- Environment Act
- Navigable Water Act
- Species at Risk Act
- North America Waterfowl Protection Act (International)

Provincial laws

- Environmental Protection and Enhancement Act
- Water Act
- Municipal Government Act
- Soil Conservation Act
- Public Lands Act
- Safety Codes Act
- Transportation Act
- Occupational Health and Safety Act
- Interpretation Act (Group of Acts)
- Public Health Act
- Agricultural Operations Practices Act
- ? Pesticide Use related to water bodies?

Question 4

How would you plan the development to enable the developer to achieve a minimum density of 60 plus residential units on the parcel of land which he needs to justify the costs of subdivision and development?

Note: Many illustrations were used to discuss this question. Some aspects of the drawings include:

Development form:

- 120-200 units, clustered development in corridors between wetlands, if feasible
- on-site stormwater treatment
- underground parking
- mixed density (maximum of a 4 story walk-up); mix of smaller and larger units
- larger units are on the higher ground, along the ridge
- attempt to maintain existing grades
- use on-site small-scale stormwater LID controls such as ditches

Missing information:

- Geotechnical analysis to identify building pockets and water quality
- ASP level policy to guide compatibility with adjacent lands
- Influence of adjacent lands on water flows
- Surface Drainage patterns of the site
- Construction Management Plan to protect wetlands
- Identify intermittent wetlands in addition to the permanent wetlands

3) Chris Manderson: Wetland and Escarpment Protection

Question 1

Given the current legislative framework for protection of natural areas, how can Alberta municipalities effectively protect natural areas? What are some of the key gaps and constraints that exist and how can they be overcome?

- Identify the areas by making an inventory: 1) Make note of anything unique; 2) Identify unique species to be protected; 3) Identify threats and history of the area
- Need stricter legislation / Enhanced legislative authority and funding
- Legislation needs to define different kinds of parks / natural areas, and different kinds / levels of protection
- Municipality could create protection policy
- More regional consideration
- Connectivity of drainage habitat is essential
- Early designation of wetland habitat is important

- The gaps are: 1) Funding; 2) Time and manpower; 3) Development is occurring faster than we can inventory; 4) Political will.
- Gap → no comprehensive wetland policy
- Gap → each 'group' has differing perspectives
- No legal framework

- Constraint → non-compliance by government
- Make the penalty (\$) significant enough to deter / Make compensation for wetland elimination very expensive
- Adequate compensation based upon removed wetland
- Mitigation measures should be best possible / ideal compensation, as opposed to minimal
- When provincial and municipal rules differ, who enforces?
- Need incentives for preservation of developable lands
- Legislator (e.g. Alberta Environment) should have internal expertise to support legislation
- LUB is changing how ER is applied
- Wetland protection in MGA
- People who write policy may not know the impacts of it
- People who develop policies do not really know what would be the outcome of the policies
- Policy does NOT equal a bylaw
- There is a lack of knowledge and baseline data
- In order to overcome: 1) Partner with industry; 2) Partner with individuals and organizations in those communities.
- Holistic approach → need communication and cooperation between governments and NGOs
- Work with developers to over-dedicate
- Existing framework is not helping
- Change framework by education and cooperation between municipalities / developers / owners / public
- Cooperation / a collaborative approach between stakeholders → generate buy-in by addressing each group's views
- Each group is coming from a different perspective, regarding money, 'sustainability', for example
- Education about the importance of wetlands is a driving force to ensuring protection
- Re-define ER

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Question 2

Sustainable development is built upon the premise that ecological, social and economic considerations are balanced in such a way that the provision of these services is not compromised for future generations. Do we provide such a balance? And is there a relevant example to support your answer?

- No → The scale tips to the social and economic sides
 - Ecological component is not considered enough
 - BUT, The costs of ignoring ecology will be huge down the road
- No → River licenses for draw on watershed – if they were utilized, it would drain the river dry
- No → Resistance to develop vertically is eating up viable agricultural land
- No → e.g. LRT usage: City encourages use of the LRT, but limits space
- No → e.g. Water use and recycling programs
- No → The ecological is not emphasized, for example:
 - People want riverfront lots
 - Building on flood plains
 - Small water courses ignored

- There is a lack of connection to the land – both knowledge and education
- “Sustainability” in urban environments is something to strive for, but likely not achievable
- Limit the boundaries of municipalities to the capacity of resources
- Legislation for natural areas and current / contemporary thought is needed
- We don't have the legislative framework to protect the environment (although it would be nice if we didn't have to make it a rule)
- Need to get a regional ecological support system → it won't be complete in the city, but if urban areas can help the region, instead of hindering, it would be a good start

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Question 3

Protection of natural areas in municipal development is often used as an example of protecting the ecological services in a community. Is this in fact true? And how do we know that we have chosen the right levels of protection? And how do we know that we have set aside adequate amounts of land that provide the ecological services for current and future community development issues etc.?

- Probably not → Key indicator is what species are maintained, which are lost
 - Natural areas are not 'protected' areas → once an area is protected, it has to change, and it will not be the same natural community (e.g. when you let people in, the ecological functioning changes)
 - "Protection" is probably not the right word – maybe "intervention"? Or "integration"? (Integration of social amenity, ecological functioning, economic / infrastructure value?)
 - Go out in the rain!
 - Depends on definitions
 - We probably haven't chosen the right levels – and how do we know if we have?
 - Make your best educated guess, based on current science

 - Green space is used for human services (e.g. walking trails)
 - Should determine green space first, then look at hard infrastructure
 - Try to connect the parklands with greenbelts
 - Try to achieve a balance
 - Epidemiological consequences → Aswan Dam, one species of fish lost impacted human resistance to disease
 - Depends on how well-informed the public is
 - Need political and private will
 - More research NOW!
 - Post-construction monitoring is necessary
 - Overall land inventories are necessary
 - Biodiversity study based on area – science-based, continue research, living documents
 - Future generations may feel we did too much or too little
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4) Johan van der Bank: Innovations in Red Deer County: Lessons from Timber Rocklake Development

Question 1a

Should a traditional rural municipality that enjoys the advantages offered by a highway corridor location undertake urban style development or be relegated to being a land bank for an adjacent city? Why? How?

- Urban centres should be able to pick and choose what uses are/aren't acceptable in adjacent rural areas – rural municipalities have rights!
- Intermunicipal development agreements and joint planning areas in rural-urban interfaces areas would allow for input from rural and urban viewpoints
- Urban municipalities must be provided an opportunity and the flexibility to gain open space as they grow and densify
- Land use constraints must be encouraged if we can't have physical constraints
- Must recognize the importance and value of traditional land uses in rural areas made provisions for urban growth as landscapes evolve
- Include a viable commercial operation compatible with local needs

Question 1b

Is there a legal position (either way) on this issue?

- The regional planning commissions should be revived in Alberta to be an arbitrator in discussions between municipal governments
- Get public input for future densification areas

Question 2a

Is the concept of Transferable Development Rights (TDR) feasible in Alberta?

- Yes, and it needs to be a provincial initiative, framework and goals must be consistent and clear
- Yes, and public input on the matter is essential
- Yes, and it will require the customization of US models, rather than direct application of US models, so that the needs of Albertans are met
- Yes, with the correct governance (e.g. regional planning commissions)

Question 2b

What are some of the challenges to implementing this concept as a low impact development tool?

- Notion that TDR takes away private landowners opportunity to develop
- Belief that it is a top down restriction on landowners
- Building a TDR system that is fair for all stakeholders
- Method for determining land value and transferring that value into credit-based system
- Integrating TDR with current MDPs and other statutory plans
- Legal implications of changing current development processes to achieve TDR goals
- Determining how, where and when credits can be spent
- Buy in from local landowners – a method that has been applied in the USA is holding a popular election for the public to purchase open spaces. This approach tests what the public wants
- Must remember that TDR is only one tool among many others (e.g. conservation easements, tax credits, woodlot retention, and incentives)
- TDR should be used where appropriate and not depended upon as “the” tool for LID

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Question 3

How can growth nodes be designed successfully without taking away adjacent landowner's right to develop the land?

- Consider corridor development radiating from the nodes
 - Identify valuable resources for protection within potential development areas and encourage creative and innovative development solutions that minimize negative impacts and protect landowner rights
 - Make agriculture a more valued component of society and pay farmers their worth (e.g. disband the Wheat Board)
 - Redefine land value to reflect the worth of the products coming off of it
 - Encourage alternative options for higher density and innovative low impact styles of development. Infuse these options into long term planning for a large site
 - Implement a system to equalize financial gain. Develop a profit sharing option for regional landowners regardless of land use
 - Offer incentives (e.g. tax grants) for adjacent landowners to maintain buffer areas and open spaces, which are a valuable amenity for developers
 - Balance intermunicipal development agendas with individual landowner rights
 - Reestablish mandatory intermunicipal planning agencies to balance competitive individual interests
 - Redefine planning boundaries to reflect watershed boundaries and establish boundary evolution protocols in order to avoid politically charged annexation processes
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5) Jiri Marsalek: Implementation of LID practices in urban drainages: Can we do it?

Question 1

LID technical guidance: is there enough information/guidance available for the technical aspects of LID? If not, what types of information/documents are needed to encourage successful applications of LID?)

Challenges

- There are few proven technical cold climate solutions
- There is little cooperation between experts
- There is no quantitative data describing effectiveness
- There is little information available for Canadian solutions
- There needs to be more evaluation conducted
- There is little information available in municipalities
- There is little information on what types of LID are appropriate where
- There is little information assessing the impacts of LID (e.g. Road salt)

Information Needed

- Baseline data that is technical in nature
- Operating and local experience in our climate and physiography
- Need integrated local policies and regulations
- Database of existing LID applications
- A comprehensive compilation of information
- Various LID scenarios with implementation tools
- Identification of constraints to successful structures
- Local examples to provide visual examples, pilot projects
- Education of public, councilors, and decision makers
- Technical tours
- Local involvement and volunteers (e.g. CEAC)
- A Basic Practice Manual or database of information that is based on local environmental factors, should be technical in nature
- Identification of impaired waterways and enforcement of repairing situation
- Geotechnical information and site specific soil information
- More weather station data (more stations)
- Templates that guide how to proceed, especially in small communities
- There is a lot of information out there, but it's specific to climates different than here
- Information regarding risk and cost-sharing
- Municipalities ability to include LID
- Educational sessions with those who have local experience and can discuss challenges
- Refined regulations (i.e. Provincial land use planning and building codes)
- Public information and marketing/engagement materials
- More research information

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Question 2

Institutional/regulatory arrangements: do existing arrangements support LID implementation, or represent barriers (this will depend on the jurisdiction)? What changes are needed? Do we have the right stormwater bylaws and other regulations in place?

Necessary Initiatives

- The conceptual stage doesn't contain the technical details; need to use an outline plan and make a commitment to the design; need commitment from municipality in early collaborative stages of project, commitment that they will follow through
- Need pilot projects, design charettes, and incorporation of concepts at initial stages
- Need to integrate various groups
- Need to consider the urban environment holistically, and involve people who care about it
- Sometimes leaders encourage implementation, but the experts still need convincing
- Creating change is very difficult
- Creating behaviour and social change requires more development and trial information
- Longer approval times through jurisdictional agencies increases developer costs and hinders LID practices
- Need stream-lined approval process
- Need collaboration between technicians and department heads
- Jurisdictional evaluation of projects is timely because of heavy staff workloads
- More education and awareness is required
- Need to see more experimental projects and partnerships
- Implementation prevented by a lack of expertise and conservative attitudes
- The delay in LID implementation is discouraging

Necessary Information

- Need education of the benefits and challenges to implementation, and some judgment of the best scenario
- A cost/benefit analysis to outline the costs, but how do you measure the performance? What are the fiscal impacts of a design?
- Need information on liability issues and long-term uncertainty; if it fails, who is responsible?
- A 'model' bylaw would be useful
- A document source or database
- Inform corporate entities and they may take advantage of positive publicity
- Need information on health factors related to grey water reuse
- Need to better integrate land use and water

Policies/Legislation

- Regulations need to be flexible enough to allow for trials and pilot projects, and evaluate their success
- Bylaws are not ready; they need to encourage LID principles
- Need municipal rules to allow for innovation and flexibility, while allowing technicians to review and approve LID systems
- Utilize different levels of legislation to support LID implementation (bylaws, MDP)
- Currently implementation is voluntary; need it to be a requirement
- The requirements need to be detailed in nature
- Need consideration for what other things may be impacted by LID implementation (e.g. Pedestrian network)
- It is easier to meet existing standards
- Need incentives to incorporating LID
- An Environmental Easement Reserve may offer a legal tool to protect land (caveats are not enforceable by agency, but ERE can add value to land)
- Building codes also need to change

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- Nose Creek Watershed Management has some requirements of infiltration; developers are to follow those requirements
- Need better guidelines and installation instructions for rainbarrels
- Need financial incentives to save water and reuse that from rainbarrels, as well as other LID principles
- There is resistance to changing currently accepted standards for piped drainage
- Guidelines offer some flexibility; Standards are not flexible
- Confusion over compaction; CMHC says compact, LID says don't compact
- Create room for change in legislation, and incentives to do it
- Review the 10% Municipal Reserve requirement

Question 3

How do we encourage stakeholder collaboration? What role, if any, do you see for the Alberta Low Impact Development Partnership? If you see a role for the Partnership, what kind of role do you see for yourself and what kind of support would you be able to provide?

Achieving Collaboration

- Create regional planning and partnerships between jurisdictions
- Encourage collaborative work within municipalities
- Integrate landscape and stormwater design
- Continue the professional workshop
- Continue to share information about LID
- Remove proprietorship for LID techniques
- Provide education programs for design and construction personnel
- Continue to have more conferences like this one
- Financial support from municipalities and Urban Development Institute
- Foster the sense of community by creating environments of ownership and maintenance over LID facilities
- Increase the membership in ALIDP to increase help and funding
- Begin education at a young age (e.g. Present the model to high school students, and educate elementary age kids)

Role of the Alberta Low Impact Development Partnership (ALIDP)

- Act as a champion for LID and help to create buy-in from the development industry
 - Spearhead Initiatives such as creating an information database/resource for others
 - Act as an information resource
 - Facilitators and Advocates
 - Educators (public, agencies, politicians, children, and those involved in development)
 - Create marketing materials to outline LID benefits
 - Host other partners from outside Alberta to share ideas and experiences
 - Create a journal or code of conduct, and a working manual (like that used by Puget Sound)
 - Coordinators between agency departments (parks, transportation, engineering, etc)
 - Help define where LID is appropriate and lessons learned where it has been implemented
 - Provide examples in site design using pilot projects
 - Host free information events like forums using support from River Valleys Committee and Bow River Basin Council
 - Work with Alberta Environment to try change regulations
 - Work with municipalities to identify barriers and work to overcome them
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6) **Thomas Mueller: LEED for Neighborhood Development: From Green Buildings to Sustainable Communities**

Question 1

What mechanism / leverage do municipalities have to encourage more sustainable community development? (e.g. ODPs, development permits, rezoning, building code, incentives, setting reasonable targets)

- Fiscal incentive → Municipal bonusing for development / redevelopment
- Fiscal incentive → Municipal agencies must be prepared to share liability
- Fiscal incentive → Access to procurement / supply information (municipal database)
- Statutory plans (MDP / ASP)
- Creativity
- Use a faster development approval as incentive
- Can create an even playing field for developers
- In-house capacity for assessment / enforcement / inspection
- Political will to educate / enforce / write into LUB
- Municipal land bank – ability to wait for development
- Long-term benefits accrue if municipality controls
- Cash refunds for green development
- New conditions on development permits – e.g. sustainability plan, value-added, landscaping, covenants on title, recycled materials
- Integrated team approach at the onset of a sustainable project → e.g. have an assigned project leader from the municipality – a sustainability champion, an incentive to developers by providing assistance for approvals
- LUB should reflect what the municipality wants
- MDP needs to be strengthened to identify their goals (also ASP / IDP)
- Flexible subdivision design standards and guidelines
- Municipality needs to have strong working relationship with development industry
- Assessments can reflect incentives
- Recognize additional MR (ER?)
- Rethink strict standards for safety (e.g. fire code) and utilities (e.g. garbage removal) and look for innovative solutions
- Incentives for better performance / achieving a higher standard

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Question 2

What voluntary models of cooperation / collaboration could be developed between municipalities and the development community to move forward rather than the typical regulatory approach?

- Separate approval system for green projects (with pre-screening)
- Two-tiered development regulations – one for base level, and one for enhanced level of development achievement with incentives as offset
- Developer sets a higher bar
- Builders have an even playing field
- Education / awareness of market desires
- Ongoing consultations between municipality and developer (e.g. the Natural Step)
- Education / awareness of council, developers, public, administration
- Flexibility to adjust standards
- Culture to embrace change
- Engagement strategy to fit community
- Joint provision of info for the public about developments
- Performance incentives
- Cooperation and partnerships to fast-track approvals
- Get all agencies (regulatory / municipal) on the same page and the with same mind-set, so that approval process is not a fight
- Better lines of communication / more input between developers / municipalities / provincial government at the beginning of projects
- Share the risk for new ideas → both incentive and recognition
- The Natural Step / Built Green / Go Green / LEED
- Education that big isn't better
- Design downtown to discourage automobile traffic and to encourage transit
- Need government leadership → e.g. demonstration projects
- Statutory plans
- Development agreements attached to development permits and subdivision approvals
- Public opinion
- Intermunicipal development plan

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Question 3

How can we balance the need for better, environmentally responsible development with market realities? What role can NGOs play in advancing sustainable community developments?

- Build environmental project pro forma into planning review process
- Win / win models
- Share knowledge and participate in learning together
- Develop trusting relationships
- Raise awareness of value of environmental projects
- Think outside the box – not based on precedents
- Uniform treatment for developers
- Community awareness
- Advocacy of BMPs, etc.
- NGOs need credibility and legitimacy / recognition in the process
- Make environmental responsibility attractive to the public – show the benefits
- Illustrate why a long-term view is better
- NGOs could be good for pilot projects
- NGOs could be useful as partners / educators / lobbyists
- Educate youth → indoctrinate LID principles into popular culture / Get kids to regulate their parents