Coordination challenges and strategies in Canadian communities

Coordination is fundamental in land use planning. However, higher priority initiatives that produce more immediate results often take precedence over efforts to coordinate. Our research explores the barriers experienced and strategies used by practitioners to move towards better plan coordination in three Canadian cities. Professionals involved in plan coordination suggest that relationships, leadership, and workplace culture play important roles in the success of coordination. Formal processes are necessary to make informed planning decisions bringing people together who otherwise may not communicate. The greatest challenge for communities appears to be aligning myriad factors within organizational structures to achieve coordination. Organizations are now investing in building social capital to facilitate coordination.

Keywords: Canada, coordination, planning practice, silos, trust

INTRODUCTION

Community planning has been adopted as a function of local government in Canada because of its essential role in helping to focus priorities and coordinate decisions about the use of land in the context of competing interests, objectives, and strategies. In recent years, strained fiscal conditions for governments and the rise of professional discourses promoting sustainability and smart growth helped shape a consensus that integrating land use and transportation planning may improve urban efficiencies. Consequently, most municipal governments adopted plans and regulations to deal with the critical issues they face in managing community assets, improving urban livability, and facilitating growth with limited resources. They made coordinated land use planning a stated priority in their efforts to contain sprawl, optimize infrastructure investments, and enhance urban amenities. Despite cities' efforts to mandate coordination of multiple plans and policies, organizational structures may not facilitate knowledge sharing. Municipalities often overlook key factors that contribute to challenges to coordination.

LITERATURE REVIEW

Coordinating planning activities has become an increasing issue due to the specialization of departments and growing number of plans and policies. Interdepartmental rivalry and turf protection is a major obstacle to effective coordination. "Departmentalization" is a barrier to the sharing of knowledge, preventing one department from benefiting from the experiences of another (Argote et al. 2000). Sisk (2001, p. 140) defines collaboration as "the process by which the diverse interests that exist in a community are brought together in a structured process of joint decision making. Collaborative decision making is linked to efforts to prevent disputes, to involve everyone in decisions before conflicts arise, to manage ongoing differences, and to settle disputes that threaten the health and cohesion of a community."

The establishment of departments organized on a functional basis and headed by specialists in that particular discipline produces administrative structures that suffer from fragmentation. Departments may pursue their own policies oblivious to the consequences on other departments, the organization, or the community at large, interfering with policy coordination (Foy & Giguère 2010). Each department tends to be preoccupied with its own area of expertise, creating what has been increasingly referred to as a "silo" problem. The "silo-ed" or distributed nature of duties in local government can impede communication and cooperation in pursuing objectives, including land use planning (Mills et al. 2007).

Yukl and Lepsinger (2005) note that it is difficult to achieve coordination across different parts of an organization, especially when subunits have different functions and subcultures. Formal plans and objectives are helpful, but effective coordination is unlikely unless managers also have shared ideals and values. According to Yukl and Lepsinger, leaders at all levels of an organization must build support for the core ideology and ensure it is understood and used to guide daily actions. Willem and Buelens (2007) looked at characteristics that increase or limit interdepartmental knowledge sharing and determined that it is greatly influenced by power games and trust among members in an organization. Informal coordination results in more flexibility, especially in crossing the formal boundaries in the organization (Gargiulo and Benassi 2000; Hansen 1999).

Leadership is a major component of an organization's culture. Schein (1992 p. 713 in Yukl 2008) states, "The culture of an organization includes shared values and beliefs about its primary mission and purpose, the essential qualities of its products and services, and how members should be treated". Leaders can influence the culture by articulating a compelling vision and leading by example. Management programs and systems involving employee selection, socialization, training, performance appraisal, and rewards also influence organizational culture. When shared beliefs and values are consistent, a strong corporate culture can facilitate organizational performance (Yukl 2008).

Bate and Robert (2002) emphasized the need for voluntary, natural, and spontaneous personal networks with high levels of personal connectivity and social identity and low levels of management control to allow knowledge sharing. Other authors have emphasized the need for an open atmosphere, with a lack of control and high levels of sociability to allow spontaneous and voluntary knowledge sharing (Constant, Kiesler, and Sproull 1994). Constant, Kiesler, and Sproull (1994 p. 419) state, "People may want to share expertise naturally, and the best organizational policy may be simply to create occasions for people to talk and exchange knowledge, opinions, and advice". These authors found that experts are more likely to contribute to coworkers who need them, who will hear them, who will respect them, and who may even thank them, even when interdisciplinary and inter-organizational meetings and technology exist for information sharing. In such environments, trust is often present, a condition that encourages knowledge sharing.

Trust can lead to more effective and efficient cooperative behavior among individuals, groups, and organizations (Nilsson & Mattes 2013). Exchanging information and developing positive attitudes toward each other is one way trust develops (Jones & George 1998). Stable expectations of each other that routinize interactions allow trust to develop as people become predictable and reliable. Staff turnover can reduce the level of trust in organizations. The United States General Services Administration estimated that innovative workplaces can save an annual cost of US$432 million from the reduction of absenteeism (GSA 2006). Many organizations have sought to increase cooperation between people and groups by reengineering their structures into more team-based forms where everyone works on the same level.

Thompson's (1965) concern from more than four decades ago continues to resonate in many of the modern hierarchies and silos in public organizations, inhibiting collaboration and flexible working environments:

> The architecture and furnishings of today's bureaucratic organizations seem to be departing further and further from the needs of the innovative organization. The majestic, quiet halls and closed, windowless office doors are not designed to encourage communication (p. 18).

Geographical proximity plays an important but often overlooked role in the process of trust creation (Nilsson and Mattes 2013). Kim (2014) notes that improved collaboration and communication can result from open-plan workspaces and a variety of meeting spaces. Office planning can either facilitate or discourage social interactions (Drane et al. 2012). For example, Drane et al. (2012) found that interaction occurs everywhere and at all times in workspaces where the private and public zones are not clearly demarcated. In workspaces where there is a more distinct boundary between public and private spaces, interactions tend to be more individualized conversations. Roelofsen (2012) documented that investing in a higher quality working environment may be a more effective strategy of improving performance than investing in human resource management.

Face-to-face communication is seen as a more efficient way for creating trust than technology-mediated forms (Nilsson and Mattes 2013). Face-to-face interaction thus enables resilient trust to develop more rapidly, primarily because the amount of social information exchanged is greater than in non-face-to-face situations (Nilsson and Mattes 2013).

Jacobs (1969) advanced the idea that cities enjoy an advantage because of their economic and social diversity. When packed into limited space, diversity can facilitate openness of networks. Florida (2002 p. 352 cited in Storper & Venables 2004) argues that diversity found in cosmopolitan cities facilitates creativity because of the "openness of their networks, the liberating force of anonymity and hence resistance to hide-bound tradition". The same is true for workspaces. When experts from multiple professions come together and share their knowledge, innovation and creativity are likely to flourish given the greater diversity of ideas. Innes (1996) states that shared benefits through joint action can result from coordination.

METHOD

How do planners perceive coordination in Canadian cities?

The principal research question of the broad study was: How are Canadian communities coordinating their land use planning activities in the context of rapidly proliferating plans and policies? This paper draws on interview data from three of the study cities: Vancouver, Edmonton, and Halifax.

The criteria for selection included coordination efforts presented in plans and municipalities' different organizational structures. The Vancouver region consists of 24 local authorities governed by a regional board (Metro Vancouver; Figure 1); Edmonton acts as a single jurisdiction with 12 wards (Figure 2); Halifax is an amalgamated municipality with 18 community planning areas and a legacy of multiple plans inherited from previous jurisdictions (Figure 3). Analyzing coordination strategies across diverse institutional structures provides a platform for comparison.

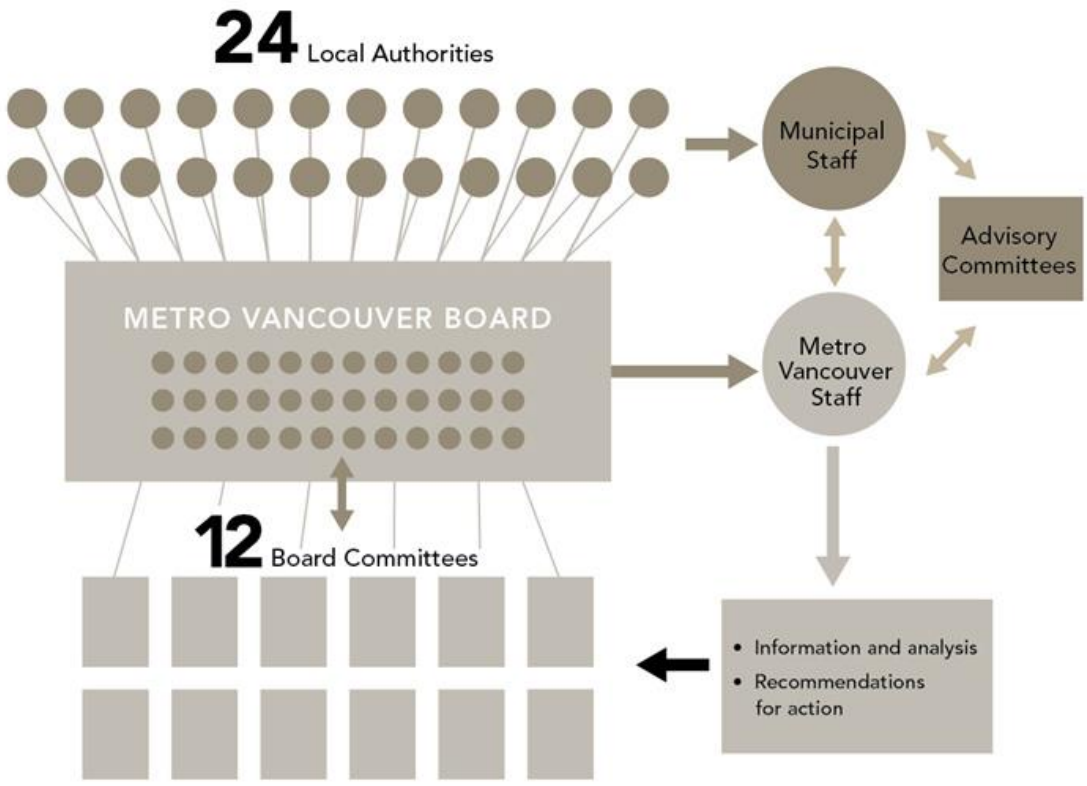

Figure 1. Metro Vancouver Governance Structure

[available at https://sfuurban.wordpress.com/2012/11/09/questions-of-governance/

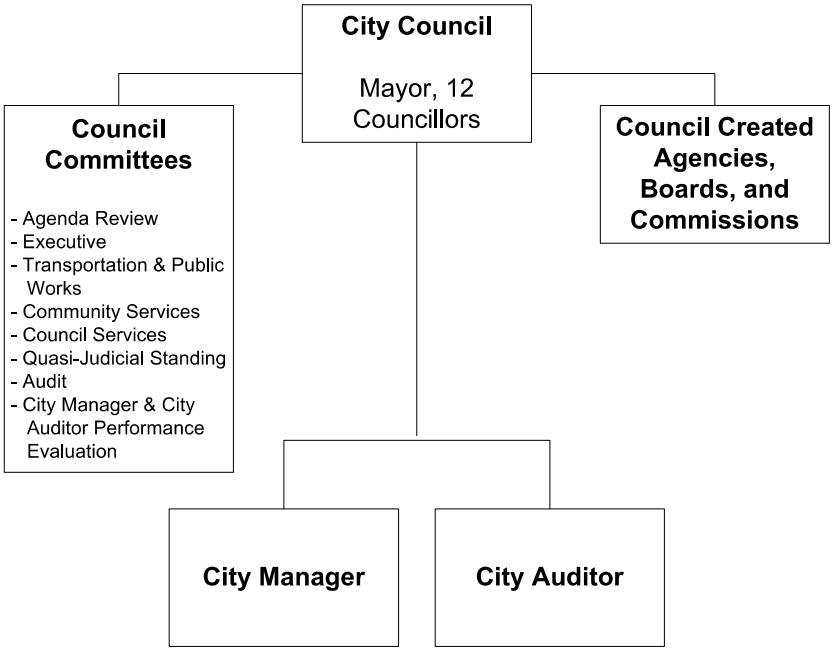

Figure 2. City of Edmonton Governance Structure

Source: Edmonton, City of (2007)

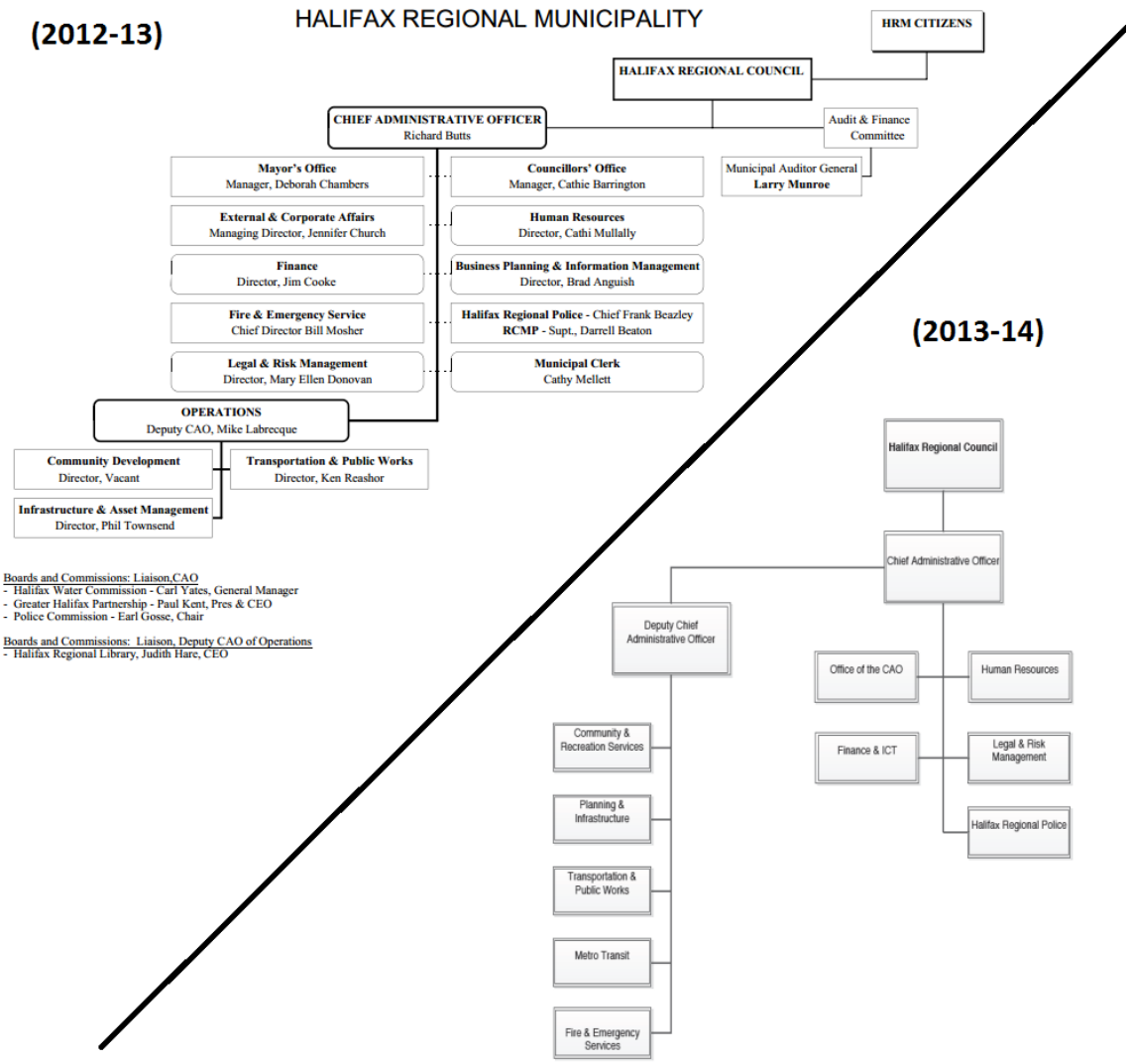

Figure 3. Halifax http://halifaxbloggers.ca/halifaxlovehate/

The study employed mixed methods. We conducted document analysis, completed a web-based survey, and interviewed planners and others involved in plan creation and coordination in three cities in different provinces. Although findings are limited by the scope of the study, the interview sample is sufficiently large to reflect a reasonable range of opinions and issues. Interview excerpts are identified by city (first letter of Vancouver, Edmonton, Halifax); gender of respondent (male (m) or female (f)); and sequential number of interview in each city. The main data set reported here derives from qualitative

data gathered through in-person, semi-structured interviews conducted in the summer of 2014.

To engage respondents in discussions about coordination, we asked planners and others involved in plan creation and coordination a range of questions, such as: To what extent is policy and plan coordination a priority in your city? What factors explain the number of plans that Canadian communities are producing? What do you see as some of the challenges to coordinating multiple plans and policies? What strategies do you use to identify conflicting policies or approaches in plans? What factors influence interdepartmental policy/plan coordination? Our interviews typically lasted between forty and sixty minutes and were recorded and transcribed for thematic analysis.

In the next sections, we discuss respondents' views of the challenges and strategies of coordination in land use planning activities. Participants' responses are influenced by the different organizational structures and political contexts of their communities. Vancouver's political leadership committed to principled, policy-based decision-making giving staff the authority to act. Electing municipal council members at large instead of on a ward basis gave political leaders the ability to take citywide rather than territorial perspectives (Grant 2009). The City of Edmonton consists of 12 wards and operates with one or two councillors elected from a specific territory within the city. One problem with the ward system is that ward-based politicians may be interested only in advancing the interests of their own area at the expense of the broader community (Edmonton Governance Review 2007). A mayor elected at large, and a sixteen person Regional Council elected by geographic district, govern Halifax. The 1996 amalgamation continues to have implications on current planning in Halifax. Since municipal organizations are largely driven by political will, elected officials likely play a significant role in coordination.

FINDINGS

The following insights illustrate the complex nature of coordination. Respondents identify the reasons why coordination is becoming increasingly difficult in a field that depends on it. A respondent from Halifax reflected on the role of planners and the challenges faced in the workplace when coordinating with other professions:

> *Interdepartmental coordination in my opinion is the single most important issue facing us as planners, partly because we are inherently interdisciplinary in our work. I often say half-jokingly that our job is to be a constructive nuisance in everybody else's job because we're generalists and they're specialists. We're always annoying the engineers and the architects and the landscape architects and the finance people. Where their thinking is logical and linear, our thinking is lateral and interdisciplinary. Both are important. But you often get clashes not just between priorities but even between ways of thinking. An organization needs both.* (H11m)

Planners operate in a unique environment balancing myriad priorities of multiple

professions. Investing time to monitor possible overlapping and conflicting plans is often an afterthought given resource constraints experienced in many municipalities. A planner in Halifax illustrated a common situation for municipal staff:

> *[Planners] are very busy because they've got cases and they're under-staffed. Their cases are all urgent because time is money and the developers are breathing down their necks. And their performance is judged on the number of cases that they're able to process. Which is very much a quantity of work-based evaluation system for them. When our requests come for their comments on a complicated long community plan, it's the last thing that they're looking for.* (H11m)

Visions help guide planning processes and decisions. A "one-city" approach allows a common set of objectives to permeate through the organizational hierarchy. When staff in an organization operate under a common vision, decisions are more likely to align with that vision. A planner from Vancouver (V13m) said that the very best coordination comes from wide acceptance of a vision or a set of ideas. An Edmonton respondent echoed the Vancouver planner's insight regarding visions functioning as a coordination mechanism:

> *You've got people that buy into the culture of what a great city is. And that's really a strong theme within the City of Edmonton. Our city manager has started a process of translating a vision and building a culture where the people that work for the corporation believe in the value of being a great city. So this implementation plan is a way to communicate that to our own staff.* (E09m)

The City of Edmonton has invested resources into creating a corporate culture that supports the delivery of the Way Ahead strategic plan, receiving national acclaim for their efforts. The Culture Ambassador Program includes 400 City of Edmonton staff. Ambassadors respond to colleagues' ideas or suggestions on how to work better together. The City's recognition as a national leader in public sector leadership was based on several measurement criteria: vision and leadership; recruitment and hiring for fit; cultural alignment and measurement; retention, rewards and recognition; organizational performance; and, corporate social responsibility. Components that make up the City of Edmonton's great corporate culture include: the award-winning Citizen Dashboard, the grassroots Culture Ambassador Program, internationally-recognized social media recruitment initiatives, designation as a top Canadian diversity employer, the City's focus on developing leadership capacity, community outreach programs, the Way Ahead strategic plan and the high level of employee engagement (Edmonton, City of 2015).

Wide acceptance of a vision allows coordination to occur on a less formal basis, as noted by a Vancouver respondent:

> *The most important thing is a good clear idea or vision of something that everyone develops together, that everyone believes in, and that everyone will implement and protect. And once that happens, all kinds of contradictions get managed in a very dispersed way because everyone knows it is either good for or not good for the vision.* (V13m)

Leadership and a team-oriented attitude demonstrated by those in senior positions are critical to facilitate and support coordination according to many respondents. A set of priorities reinforced by those in senior positions is essential in ensuring everyone in the organization works towards common goals. Important champions mentioned by respondents were elected officials. When council demonstrates clarity on objectives, aligning city policies and goals is achievable. The following comments echo the need for clarity and direction as factors influencing the success of interdepartmental coordination:

> *A clear corporate direction that's facilitated by a council that has a consistent direction. And if you know that "this is the direction of the city, this is what's important, and we're all going to row together on it", that really helps. Without that, you're left with kind of goodwill. And saying we are one city, we have one objective. It's not about different departments scraping for their piece of the pie or getting their oar in the water.* (V07m)

> *It's important to have a strong person who has a vision in that role because they can make it clear to the politicians. They can bring it to life. They can make it seem real to politicians and see how what they're proposing really does have some validity to it.* (H12m)

Power structures within government affect the influence planners can exert. Institutional arrangements and decision processes shape plan development and implementation, and in turn how they influence planners' expectations and actions. One respondent commented on the nature of hierarchical structures in government:

> *Every project needs a champion within the organization. And that champion has to be someone at a higher level than the planners themselves. I tried to champion my projects and wasn't able to within the organization. I had to get my boss to champion it for me.* (H11m)

Conversely, front-line planners may not share the same connection to the vision that policy planners encounter. Processing development applications and other transactional duties may not allow time to reflect on broader goals of the municipality. One respondent concluded that people in different positions across the organizational hierarchy may react differently to the vision depending on the nature of their work.

> *I think one of our problems is we've got folks that work in different areas of the corporation, and they might be involved in really operational stuff, really transactional, and they look around and they maybe don't have a connection up to the vision.* (E09m)

Sharing information between departments can be discouraged because senior management may view time taken away from their own department's priorities as uneconomical. A respondent from Halifax (09m) said this is because "we need to report success and accomplishment on our department's objectives". Other comments from Halifax reflected similar insights:

> *...there hasn't been a lot of horizontal trust and sharing. It's very siloed. That's starting to change. There are a lot of good, smart people working on changing the culture. …HRM needs to let go of the command and control mentality, like militaristic, top down, vertically aligned reporting structure, and foster horizontal sharing of information and resources. Because that's where innovation and creativity flourishes, when people are sharing with trust.* (H09m)

A Vancouver planner (V02m) said they go where they have a trusting relationship when information is needed. Relying on certain relationships and waiting for key people to align to produce specific policies and outcomes is risky and can undermine the long-term effectiveness of planning. While less formal processes enable easier communication, formal processes are necessary to bring people together who otherwise may not communicate.

Vancouver's Major Projects Steering Committee is an example of a multidisciplinary approach to coordination bringing together staff in transportation, engineering, and planning departments. This matrix management approach started in the 1970s in Vancouver and has remained a part of the organizational culture since. A respondent from Vancouver described the process:

> *Once we developed the protocols and the experience to work collaboratively, everyone noticed that it just made our lives easier. People were inclined to do it on everything. But that matrix, the Major Projects Steering Committee, is probably the one that broke through the glass ceiling of cooperation and just establish that was the new way of doing business. We also set up some protocols. For example, no department head made a unilateral decision without consulting his or her other department heads... Once you established those protocols, it makes it a lot easier.* (V13m)

Many respondents mentioned the success of the Major Projects Steering Committee in bringing together departments with senior staff, managers, and the city manager. At these meetings managers provide high-level direction to projects that are reviewed by all members. A respondent noted the success of formal groups to facilitate coordination:

> *The Regional Districts Coordinating Committee was always very effective. Certainly bringing issues forward, getting them debated, not necessarily concluding on something but… once we understand one another, to try to be cooperative. The Planning Directors' Review Committee was very important within the planning department to coordinate the work of various planners within the city. Because all that work was multidisciplinary, it meant that it coordinated the work of whoever was doing planning in the city.* (V13m)

Developing plans with other departments allows buy-in and reduces the need for amendments. Many Edmonton respondents referred to the Ways plans as a success story. The Way We Grow (Municipal Development Plan) and the Way We Move (Transportation Plan) were developed together, a factor in their success. The same is true for other The Ways plans. An Edmonton planner (E05f) said the city ensures the Way We

Move aligns with the Way We Grow, the Way We Live (Social Plan), and the Way We Green (Environmental Strategic Plan) because transportation plays into all of them. The naming of the plans indicates coordination efforts. All plans employ the same naming style beginning with "the Way We...", followed by a verb reflecting the plan type.

Many respondents mentioned involving all stakeholders early in the process as a strategy to reduce policy conflict:

> *I think in terms of interdepartmental coordination, one thing we would like to do in the future is when we start a plan review to get all the players in the same room from the different departments that are likely to be implicated in that planning exercise… Start with a fairly large internal committee that would support the plan review, and then trim that committee down as the plan comes into focus.* (H11m)

Respondents discussed the organic nature of the planning process. Involving all actors in the process may seem excessive; however, early involvement may reduce conflicting policies later on. One respondent noted that when senior management sets up working groups with staff from the appropriate departments, there can be oversight:

> *I've had lots of times where I've put a team together on a plan and suddenly issues around social sustainability or social planning and housing arise. It's like, oh, yeah, we really need to get somebody from that department to join the plan team. So it's a bit fluid.* (V07m)

Having a regional planning process embedded within municipal government is how Vancouver coordinates planning activities. A Vancouver respondent discussed the significance of having a regional planning process in Metro Vancouver, emphasizing strong governance:

> *At the regional level, I think we've got pretty good structures in place to make sure that as each of the municipalities and agencies do their planning work, there is a way of ensuring at least loose coordination. It doesn't mean it's always perfect. Sometimes Delta might grumble at what Surrey does. But there is a way of ensuring that where those plans impact another municipality, there is a forum at Metro Vancouver for working out those conflicts.* (V07m)

A major coordinating mechanism in Metro Vancouver is the Regional Context Statement (RCS). All municipalities in Metro Vancouver are required to submit a RCS within two years of the adoption of the Regional Growth Strategy (RGS). The RCS demonstrates how the City's existing plans and policies support the goals, strategies and actions identified in the RGS.

> *It's the governance piece which is quite good in BC. The regional context statements legislation requiring the municipalities or the OCPs [official community plans] to be consistent with the regional growth strategy, I think pretty strongly as far as that goes.* (V04m2)

Even though the RCSs are intended to act as a coordination mechanism, not all

respondents viewed them as playing a major role in aligning with the goals and policies of the RGS.

> *Interviewer: How do you see the regional context statements playing into coordination?*
>
> *Planner: Not very much. That's my take. It would be interesting to say all municipalities think quite differently, and somehow there was this regional vision, and they all had to get in line, and the context statements made that happen. I just don't think that's the truth. I think the municipalities are thinking relatively similarly. They all bought in years ago to the original regional plan.* (V13m)

Even though formal structures are necessary for coordination, respondents frequently referred to informal factors, such as relationships, influencing the success of coordination:

> *There's structural things that can help with coordination but they're not a guarantee… [Relationships] may have as much of an impact on the level of coordination as the actual structure.* (V04m1)
>
> *To have really good coordination, you want all of those things lining up: good administrative procedures in place, the governance that requires the coordination, and then you also have the relationships – the actual human to human thing.* (V04m2)
>
> *Even if governance was locked up and perfect... people still need to talk to each other… There's departments and divisions that operate in silos – that's just human nature… You don't necessarily always look up and see where you need to coordinate with other people".* (V04m2)

Respondents in Vancouver, Edmonton, and Halifax talked about social events providing a platform for relationship building. A Halifax (H14m) respondent said staff sometimes go for drinks together after work hours: "I imagine that has some weight in the way things are done and communicated". Relationship building outside the workplace can produce benefits where people from different departments connect; however, if decisions are made on projects or if alliances form, this may leave out key players from the decision-making process.

A major factor in coordination identified by many respondents is the physical location and proximity of people in an organization. Informally collaborating with others is more likely when people are in close proximity. A Vancouver planner shared views on the effect of location on informal coordination:

> *But there's an informal collegial environment. And that can be enabled literally by physical space. So having a coffee shop or a place where staff can just plunk themselves and you kind of do things informally.* (V10m)

In Edmonton, a respondent discussed the challenges of formally coordinating with

colleagues:

> *If we were closer together it would make it easier to be more spontaneous with talking to our counterparts. Right now you pretty much have to program into your day a meeting and invite the players, and then pick a location where everyone will gather. And that makes it that much more difficult just logistically to get together.* (E05f)

In Edmonton, the planning and development sections are located in several buildings scattered throughout the downtown. The city administration is consolidating into a new building in the next few years. One Edmonton respondent commented on the restructuring:

> *I have high hopes for what that will deliver in terms of having us all together. I think a lot gets done informally when you bump into each other. Physically getting all those people together is quite difficult. I would say it impacts our ability to communicate because it makes that an extra hurdle to be able to speak to colleagues.* (E02f)

Many respondents mentioned the size of the organization being a determinant of whether coordination is successful or not. A respondent commented on the sheer number of people in city organizations:

> *…working for a small rural municipality I could just go down the hallway and speak to the manager of Operations in order to understand the engineering perspective… Whereas we have 10,000 city employees at the City of Edmonton. Just the size and the number of people we have working makes it harder to communicate.* (E04f)

Similar challenges of geographic proximity are experienced in Halifax, specifically in relation to land use and transportation planning:

> *…the departments still tend to be in silos. For example, Metro Transit is way out in Burnside Industrial Park and that physical isolation is a problem. It's difficult to get there and so you tend to just not go. I coordinate with them when I can by email, but I almost feel like I'm on the outside looking in… We're not always aware of who does what in the organization, and who is available to provide expertise. If we knew who to call, it would be easier. Sometimes it's easier just to give a quick phone call without going through a lot of protocol.* (H11m)

The concepts of Smart Growth and Transit Oriented Development encourage integration of land use and transportation planning to provide direction for developing and redeveloping property based on the transit service provided. This ensures that higher density developments are located where it is convenient for people to use transit. For example, a low density community might promote single-occupancy vehicle use because access to reliable public transit is limited. Efficient transit may be made more available in higher density areas due to demand, decreasing the need for vehicle use.

Land use and transportation planning are a top priority for coordination in all three cities; however, respondents frequently stated how challenging coordination is. The challenge is largely due to the geographic separation of departments. In Edmonton the transportation department is located in a separate building from the planning sections; in Vancouver, a different political body governs transportation; in Halifax, departments are dispersed in several locations. When asked about the challenges of coordinating land use and transportation planning in Metro Vancouver, a planner offered the following insight:

> *In our region, the fact that the land use and transportation planning elements are conducted by two separate agencies can be a real challenge… we have different governance and different drivers which is a challenge. From a legislative perspective, I think that there is some kind of lack of clarity on the role of the region when it comes to regional planning as laid out in the legislation. Another challenge is that federal and provincial agencies aren't bound by the same planning framework that we are. We can do a really great land use and transportation plan, and then the province can come and decide to put $3 billion into replacing the George Massey Tunnel. It's just a challenge to integrate that decision-making into what we're all agreeing to on the ground as priorities.* (V03f)

Excerpts from the three cities' plans regarding integrated land use and transportation planning:

Edmonton – The Way We Move:

> *An integrated approach to planning and developing the transportation system and land uses supports the creation of an efficient, sustainable, compact and vibrant city that maximizes the effectiveness of its investment in transportation infrastructure.* (Edmonton, City of 2013 pg. 1)

Vancouver – Regional Growth Strategy:

> *Strategy 5.1: Coordinate land use and transportation to encourage transit, multiple-occupancy vehicles, cycling, and walking.*
>
> *Strategy 5.2 Coordinate land use and transportation to support the safe and efficient movement of vehicles for passengers, goods, and services.* (Vancouver, City of 2013 p. 52)

Halifax – Municipal Planning Strategy:

> *Integrate land use planning with transportation planning in such a way that alternatives to driving become an easy choice.* (Halifax, City of 2014 pg. 78)
>
> The siloed nature of municipalities and organizational structure creates issues for coordination. In Halifax, development approvals are separate from planning and infrastructure. One Halifax respondent (04f) said, "Having these two things set apart creates an inherent conflict in communication". According to another respondent (H08m), writing plans in one business unit and implementing them in another can

create conflicts, especially for plan amendments. Halifax respondents commented on the separated planning and implementation functions:

> *Most of those challenges are not necessarily between the plans, but between the departments. There was a departmental reorganization that happened 3 years ago that separated the development officers and the applications planners from the long range planners.* (H11m)

> *There's a disjoint in the Planning Department because you have the application folks separated from the regional planning folks… it can be complicated because the application folks have a direct impact on the regional planning folks, and vice versa*. (H04f)

When asked about the challenges of coordinating plans and policies, one Halifax respondent stated:

> *I think communication is really important between departments. It's not always easy to do in a formal way. We have developed a silo mentality where it's not always seen favourably to be communicating across departments. I think the management prefer that be done through them rather than on a staff basis. I guess they want to avoid sort of the tail wagging the dog scenario as much as possible. They want decisions to come from the top down as much as possible. Preferably from regional council right down through the administration or from the CAO. And using horizontal communication creates a culture where we begin to take the initiative.* (H14m)

Technology has enabled knowledge flows to become more fluid and abundant within organizations. Physical and temporal separation of employees has implications for control and sharing of knowledge. Physical presence helps establish social and psychological boundaries between an organization and the individual's rights to knowledge and information assets. Not only are organizational structures not conducive to facilitate coordination, but the increasing number of ways to communicate can impede effective communication:

> *We're faced with an increasingly complex world – communication, email, and Twitter. Now you're answering 30 different things a day, whereas before you just had a telephone. Life was simpler. But these different things enable us to coordinate and network.* (H08m)

One respondent commented on the sheer number of factors to consider in decision-making:

> *One of the challenges of working in this complex environment, is these plans and policies and approaches are all integrated and you're constantly having to think about 15 things for any given decision.* (V01m)

Planners find it challenging to manage the large number of plans and policies in place. As a result, municipalities may create all-encompassing plans to address multiple interests. To avoid conflicts a Vancouver respondent noted:

> *I think a lot of times we handle coordination or the lack of a consistent approach to coordination by making our broader plans very general and very inclusive of ideas so that more specific plans are not inherently coordinated with them.* (V13m)

Note: The Metro Vancouver Regional District comprises 24 local authorities as members: 22 municipalities, one electoral area, and one treaty First Nation (Metro Vancouver 2014).

Metro Vancouver's RGS is one plan among a suite of interconnected management plans developed around Metro Vancouver's Sustainability Framework. The RGS focuses on land use policies to guide the future development of the region and support the efficient provision of transportation, regional infrastructure and community services. The RGS, in combination with other management plans, is intended to meet the region's priorities and mandates to support the long-term commitment to sustainability. One respondent referenced the RGS when asked about success stories in Metro Vancouver:

> *The RGS really is unique. It is a vision for growth in the region that has been signed onto by 21 [sic] municipalities, adjacent regional districts, TransLink, and our board of directors. And that's no small feat – to say this is where we want to go in the future of this region. It's a huge success in terms of integrating that many agencies and local governments together in one common vision... It facilitates a whole pile of future integration because once you've got that common vision, it becomes the springboard for a collective vision around transportation. It becomes the springboard for much more detailed plans.* (V03f)

Another respondent echoed comments about the success of the RGS:

> *The RGS is an example of an amazing level of achievement to get 22 local governments [sic] together to do a regional plan with a threshold of having to reach 100% agreement in order for the thing to pass. That's an example that would stand up anywhere in the world of a very high level of coordination required and commitments required to be able to get a regional plan that isn't just like majority approval but every municipality has to agree to it in order for it to go. It's the highest threshold that I'm aware of for regional cooperation and coordination.* (V10m)

Conversely, several Vancouver respondents indicated that even though formal coordination mechanisms are in place, due to the 24 local authorities having different geographies and priorities, disagreements are common:

> *Our biggest challenge is that we have 22 different municipalities [sic]. So this very diverse array of municipalities, and they have different aspirations, different geographies, different realities, and planning drivers on the ground. So from a governance perspective, you know, you have the City of Vancouver which is primarily developed, looking at infill. A totally different universe than the Township of Langley out on the fringe of our region where they're really feeling the pressure to convert agricultural land, industrial land, and so on. So it's a different set of pressures. So bringing all of those things together and having all of those different*

> *municipalities at the table makes it a challenge to collectively agree on a set of planning policies.* (V03f)

Another respondent described the challenge of having a voluntary governance framework:

> *It's a courtesy for each municipality to align their plans with the plans of Metro. And that's where you get a lot of squabbling, is over those kinds of things where one or another group feels that they don't need to coordinate their plans. They might do it as a courtesy but they're not actually required to do that. And that sometimes causes a problem.* (V07m)

Municipalities have their respective goals and priorities, which may not always align with neighbouring jurisdictions. A respondent from Vancouver reflected on the political nature of the planning process:

> *I do have to say though, there is an inclination by both politicians and planners to feel responsible for the area within they are officially designated to have responsibility. So municipal politicians and planners might feel a strong need to coordinate within their municipality but not across municipalities. And they might not feel much of an inclination to coordinate with the regional government.* (V13m)

History, politics, and geography all contribute to how municipalities coordinate. Combined, these factors make coordination a complex task. Halifax is known for a lack of coordination largely as a result of the 1996 amalgamation. Amalgamations are made to improve government efficiency and coordination; however, according to many Halifax respondents, the 1996 amalgamation resulted in coordination challenges:

> *There has been little to no coordination between the plans since amalgamation. The 2006 regional plan did provide an overarching municipal plan. But it was from above. It wasn't targeted at specific plan areas. It was general requirements. But it applied equally across the board. The plans themselves which have their own characteristics by community have not been made consistent. They all have their own idiosyncrasies. And those idiosyncrasies remain.* (H13m)

> *When we merged, we had a large number of documents and we haven't consolidated them. So that's been a problem. And prior to amalgamation, we had more resources. For example, the City of Halifax had a plan and two bylaws. Right now, we probably dedicate to Halifax maybe 4 or 5 planning resources. Where prior to amalgamation, they probably had 10 or 12 resources dedicated. When amalgamation happened, they cut back on their staff. [Saving on resources] was supposed to be one of the advantages of amalgamation. So they cut down the resources without realizing that they still had the same number of documents to keep up-to-date. …We do have some issues because a lot of the plans are dated back prior to amalgamation in 1996.* (H02m)

> *The real challenge has been there simply hasn't been the staff at the city to fulfill the mandate of the regional plan. So this new generation of policies that the regional*

> *plan said should happen, it happened in bits. So very few communities have been updated. There's all those new plans being created as well (city's green plan, the sustainability plan, the urban forest master plan, and HRM by Design)… creating more policy not necessarily harmonized with the existing policy. So what we have is an extremely confusing hodge-podge of plans that only a few people at the city have a clear understanding of how they interrelate. It's sort of in the institutional memory of people at the city – the collective mind. And that hasn't been put down in a clear way and on paper that the next generation of planners is going to be able to pick up and understand. So a lot of those connections will probably vanish with retirements. So that's a serious challenge.* (H09m)

LESSONS FOR THEORY AND PRACTICE

What does this investigation suggest about the nature of organizational structures? The study illustrates that different frameworks matter and that current structures make coordination difficult. Respondents in all three communities had similar insights regarding factors that impede and influence coordination, despite the different organizational structures and efforts to coordinate in each city. This suggests organizations need to build social capital regardless of organizational structure.

Respondents' insights illustrate the innovative changes occurring to increase the function of land use planning. Visions are a way to compensate for being locked in an organizational framework not conducive to the interdisciplinary nature of planning field. Even though coordination is strong between plans and policies in Edmonton, respondents indicated the importance of having a vision and strong work place culture. In Vancouver, many respondents commented on the success of interdepartmental committees, but addressed the need for relationships and trust. Halifax respondents spoke of a lack of coordination as a result of amalgamation, identifying the need for building social capital to increase collaboration.

Many municipalities often overlook key factors that contribute to successful coordination. While aligning plans and policies is a good first step, the people supporting the process of implementing the plans can be ignored. Respondents reported that trust is fundamental to sharing knowledge and creating a work place culture where a common vision can permeate through all levels of an organization (Figure 4). Many respondents indicated that once protocols are developed to work collaboratively, coordination becomes more efficient as it becomes the norm.

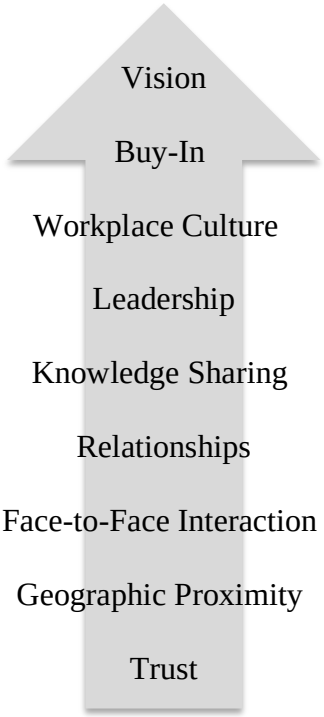

Figure 4. Hierarchy of factors that enable coordination

Formal mechanisms provide a comfortable, consistent, and inclusive method of coordination; however, they can often be too structured. Informal interactions allow a less top-down approach of exchanging information; however, informal mechanisms are vulnerable and can be inconsistent and exclusionary. Respondents' insights illustrate how diverse these mechanisms are: they work in parallel, sometimes exclusive of one another, and sometimes overlapping.

The evidence suggests the topic is a major issue in Canadian planning. Identifying barriers and successes of coordination can help municipalities better plan their communities. What may work for one municipality may not work for another. Geography, politics, organizational frameworks and other factors all impact what will work. Land use planning affects the spaces where Canadians live, play, and work: finding innovative ways to make it more effective in achieving the aims of sustainability can make an important contribution to Canadian society.

This research serves as a preliminary step towards understanding the ways municipalities can better coordinate their planning efforts. Interviews with practitioners present richly textured and nuanced understandings of the relationship between structure and process that further the development of planning theory. Although many researchers have studied the technological and organizational conditions for communication and information sharing in organizations, investigators have not addressed this in relation to municipal planning efforts. This study provides information for all professions involved in land use planning and adds to theories of communication and information sharing from a planning perspective.

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