



DRAFT FONVCA AGENDA

Wednesday September 16th 2015

Place: DNV Hall 355 W. Queens Rd V7N 2K6

Time: 7:00-9:00pm

Chair: Arlene King, Norgate C.A. 604-985-6830

Email: arleneking82@hotmail.com

1. Order/content of Agenda

- a. Chair Pro-Tem Suggests:

2. Adoption of Minutes of June 17th

- *a. <http://www.fonvca.org/agendas/sep2015/minutes-jun2015.pdf>

Note: (*) items include distributed support material

- b. Business arising from Minutes.

3. Roundtable on "Current Affairs"

A period of roughly 30 minutes for association members to exchange information of common concerns.

- a. EUCCA
b. Delbrook CA
c. Blueridge CA
d. Others

4. Old Business

- a) Update: OCPIC by Corrie Kost
*b) **Update on Community Workshop**
*c) Revision to FONVCA E-mail List – BCA
d) Oct 21st Presentation by NSMBA.
e) How DWV Handles Correspondence
<http://westvancouver.ca/sites/default/files/dwv/council-correspondence/2015/may/15may01.pdf>
Tabled from FONVCA June 2015 Meeting.

5. Correspondence Issues

- *a) Review of correspondence for this period
Distributed as non-posted addenda to the full package.

6. New Business

- *a) **Community Building Grant**
Previous called the "Healthy Neighbourhood Fund"
<http://www.dnv.org/sites/default/files/edocs/community-building-grant-form.pdf>

<http://www.fonvca.org/agendas/jan2011/Healthy%20Neighbourhoods%20Fund%20and%20CA%20Policy%20under%20review.pdf>

b) How not to rebuild a public web-site!

Discussion of new DNV web-site.

7. Any Other Business

***a) Spending Limits on Municipal Elections**

<http://www.leq.bc.ca/cmt/leel/>

***b) Sustainable Development?**

http://www.researchgate.net/post/What_is_the_best_definition_for_sustainable_development

"development which meets the needs of the present without compromising the ability of future generations to meet their own needs"

***c) Building Strong Communities**

***d) Rental Replacement Policies in BC**

http://housingjustice.ca/wp-content/uploads/2014/01/CITYDOCS-1252497-v1-Case_studies_-_rental_replacement.pdf

e) Section 12.1 of the DNV OCP

"To ensure the ongoing validity of this plan, an OCP review will occur every 5 years."

Thus the OCP review must occur in 2016

8. For Your Information Items

(a) Mostly NON-LEGAL Issues

i) News-Clips of the months Jul/Aug/Sep 2015

<http://www.fonvca.org/agendas/jul/2015/news-clips/>

<http://www.fonvca.org/agendas/aug2015/news-clips/>

<http://www.fonvca.org/agendas/sep2015/news-clips/>

Summary of titles:

* <http://www.fonvca.org/agendas/sep2015/news-clips/summary.doc>

Some annotated newspaper clips may be worth a read!

ii) The E-Bikes are coming!

<http://www.ebikes.ca/learn/intro-to-ebikes.html>

<http://www.skiisandbiikes.com/blog/e-bikes-can-change-your-life/>

iii) Worlds Oceans could rise more quickly

<http://www.commondreams.org/news/2015/07/21/worlds-oceans-could-rise-higher-sooner-faster-most-thought-possible>

(b) Mostly LEGAL Issues

i) Public Input suffers a set-back in CNV

<http://www.cnv.org/-/media/F5FE8DFCE8EE4884BC5C748D54621111.ashx>
Pages 20-30

***ii) Transfer of Air Space Parcels of "land"**

lidstone.info/wp-content/uploads/2012/05/LGMA-2012-Newsletter.pdf

*** iii) Ethical Conduct of Current and Former Council Members**

http://www.cscd.gov.bc.ca/lgd/gov_structure/community_charter/governance/ethical_conduct.htm
<http://www.fonvca.org/agendas/sep/2015/Ex-Council-Members.pdf>

9. Chair & Date of next meeting

7pm Wed Oct 21st 2015

FONVCA Received Correspondence/Subject

15 June 2014 → 13 September 2015

LINKED or NO-POST	SUBJECT

Past Chair Pro/Tem of FONVCA (Jan 2010→present)

	Arlene King	Norgate C.A.	Notetaker
Sep 2015	Eric Andersen	Blueridge C.A.	T.B.D.
Jun 2015	Val Moller	Woodcroft rep.	John Miller
May 2015	Adrian Chaster	Edgemont & Upper Capilano C.A.	Cathy Adams
Apr 2015	John Miller	Lower Capilano Community Residents Assoc.	John Miller
Mar 2015	Eric Andersen	Blueridge C.A.	Diana Belhouse
Feb 2015	Diana Belhouse	Delbrook CA & S.O.S.	John Miller
Jan 2015	Val Moller	Woodcroft rep.	Arlene King (Norgate)
Nov 2014	Brian Albinson	Edgemont & Upper Capilano C.A.	Eric Andersen
Oct 2014	John Miller	Lower Capilano Community Residents Assoc.	John Miller
Sep 2014	Diana Belhouse	Delbrook CA & S.O.S	Diana Belhouse
Jun 2014	Eric Andersen	Blueridge C.A.	Eric Andersen
May 2014	Val Moller	Woodcroft rep.	Dan Ellis
Apr 2014	Peter Thompson	Edgemont & Upper Capilano C.A.	John Miller
Mar 2014	John Miller	Lower Capilano Community Residents Assoc.	John Gilmour
Feb 2014	Dan Ellis	Lynn Valley C.A.	Diana Belhouse
Jan 2014	Diana Belhouse	Delbrook CA & S.O.S	John Miller
Nov 2013	Val Moller	Woodcroft rep.	Eric Andersen
Oct 2013	Eric Andersen	Blueridge C.A.	Sharlene Hertz
Sep 2013	Peter Thompson	Edgemont & Upper Capilano C.A.	John Gilmour
Jun 2013	John Miller	Lower Capilano Community Residents Assoc.	Cathy Adams
May 2013	Paul Tubb	Pemberton Heights C.A.	Dan Ellis
Apr 2013	Dan Ellis	Lynn Valley C.A.	Sharlene Hertz
Mar 2013	Diana Belhouse	Delbrook C.A. & SOS	Sharlene Hertz
Feb 2013	Val Moller	Woodcroft & LGCA	John Miller
Jan 2013	Eric Andersen	Blueridge C.A.	Sharlene Hertz
Nov 2012	Peter Thompson	Edgemont & Upper Capilano C.A.	Cathy Adams
Oct 2012	John Hunter	Seymour C.A.	Sharlene Hertz
Sep 2012	Paul Tubb	Pemberton Heights C.A.	Kim Belcher
Jun 2012	Diana Belhouse	Delbrook C.A. & SOS	Diana Belhouse
May 2012	Val Moller	Lions gate C.A.	John Miller
Apr 2012	Eric Andersen	Blueridge C.A.	Dan Ellis
Mar 2012	Dan Ellis	Lynn Valley C.A.	John Hunter
Feb 2012	Brian Platts	Edgemont & Upper Capilano C.A.	John Miller
Jan 2012	Paul Tubb	Pemberton Heights	Cathy Adams
Nov 2011	Diana Belhouse	Delbrook C.A. & SOS	Eric Andersen
Oct 2011	John Hunter	Seymour C.A.	Paul Tubb
Sep 2011	Cathy Adams	Lions Gate C.A.	Dan Ellis
Jul 2011	Eric Andersen	Blueridge C.A.	John Hunter
Jun 2011	Dan Ellis	Lynn Valley C.A.	Cathy Adams
May 2011	Brian Platts	Edgemont & Upper Capilano C.A.	Brian Platts/Corrie Kost
Apr 2011	Val Moller	Lions Gate C.A.	Diana Belhouse
Mar 2011	Paul Tubb	Pemberton Heights	Eric Andersen
Feb 2011	Diana Belhouse	S.O.S.	
Jan 2011	John Hunter	Seymour C.A.	Brenda Barrick
Dec 2010	Cathy Adams	Lions Gate C.A.	None
Nov 2010	Eric Andersen	Blueridge C.A.	John Hunter
Oct 2010	K'nud Hille	Norgate Park C.A.	Paul Tubb
Sep 2010	Dan Ellis	Lynn Valley C.A.	Eric Andersen
Jun 2010	Val Moller	Lions Gate C.A.	Cathy Adams
May 2010	Paul Tubb Pemberton	Heights	Cathy Adams
Apr 2010	Brian Platts	Edgemont C.A.	Dan Ellis
Mar 2010	Special		Diana Belhouse
Feb 2010	Dianna Belhouse	S.O.S	
Jan 2010			K'nud Hille

FONVCA

Draft Minutes of Regular Meeting Wednesday June 17th, 2015

Place: DNV Hall 355 W. Queens Rd, North Vancouver

Time: 7:00-9:00pm

Chair: Eric Andersen Blueridge C. A.

Attendees:

Eric Andersen (Chair pro-tem)	Blueridge C. A.
Corrie Kost	Edgemont & Upper Capilano C. A.
Diana Belhouse	Delbrook C. A. & Save Our Shores
John Miller (Notes)	Lower Capilano Com. Res. Assn.
Val Moller	Assoc. of Woodcroft Councils
Cathy Adams	Lions Gate

1. Order/content of Agenda

Added 7 f). Changing Demographics, Participation, etc.

2. Adoption of Minutes of May 21st

<http://www.fonvca.org/agendas/may2015/minutes-may2015.pdf>

Adopted as circulated. Business Arising: None.

3. Roundtable on “Current Affairs”

Edgemont & Upper Capilano:

Metro Van presentation shown on Capilano Road shutdown for water main project.

<http://fonvca.org/Edgemont/Jun3-2015/Capilano-Water-Main-Project.pdf>

Mayor Walton also attended June 3rd meeting where it was first presented and spoke on the District's efforts.

<http://fonvca.org/Edgemont/Jun3-2015/Mayor-Richard-Walton-Presentation.pdf>

Grosvenor Development (Super-Valu site re-development) goes to Public Hearing June23

http://www.dnv.org/upload/documents/Public_Hearings/150623PH_AdditionalInformation.pdf#page=1 ← warning: 150 Mbyte file!

Delbrook:

Post office missed some streets when distributing their newsletter. Some concern expressed over the naming of the new William Griffin community centre and what is to happen to the existing Delbrook community centre.

Save Our Shores:

Over 450 people attended and liked the boat ride back.

Blueridge:

Issued an 8 page newsletter. Held their Good Neighbour Day with an estimated **1800** people attending. Sharing Garden up and running with expected maintenance and hope for good crops. Held an Electronics Recycling Day put on by ERA. Good response.

Lower Capilano C.R.A:

Grouse Inn project is alleged not to be allowed to have 3 storeys of underground parking (not allowed by the Province) so wondering how or if the project will proceed as this would be a major change to the project as approved by the District Council. Held an Electronics Recycling Day put on by ERA (contact information: Kristi Gartner, Marketing and Communications Manager Email: kristi@era.ca **Electronic Recycling Association** (Office) 1- 403-262-4488 ext 104 | (toll free) 1 877 9 EWASTE)

Lions Gate:

Peripheral housing preliminary applications are being submitted to District Planning.

4. Old Business

4.a OCP Implementation Committee

Hiatus taken and will be back in Sept/Oct 2015. Potential bad news in their report.

4.b Update on Community Workshop

To be dealt with in the fall.

4.c Revision to FONVCA e-mail list

Bring forward to the Sept. mtg.

4.d North Shore Mountain Biking Association

To be invited to make a presentation at the Sept or October meeting.

4.e Healthy Neighbourhood Funds

Being renamed to Community Building Fund.

5. Correspondence Issues

5.a Review of correspondence for this period:

Distributed to attendees with full package – not yet posted on web-site, as per policy. 4 emails this period and all are to be posted.

6. New Business

6.a NSMBA see 4.d above.

7. Any Other Business

a) Community Association Presentations

Basics: <http://ctb.ku.edu/en/table-of-contents/assessment/getting-issues-on-the-public-agenda/community-presentations/main>

For information only...

b) NEWS-CLIPS Listing ~May18-Jun14/ 2015 - no comments

<http://www.fonvca.org/agendas/jun2015/news-clips/>

c) DWV Community Engagement Policy

http://westvancouver.ca/sites/default/files/dwv/assets/gov/docs/Committees-Groups/Committees/Community-Engagement/Documents/COMMUNITY_ENGAGEMENT_POLICY_5_0.PDF

No discussion – basically for information, to be compared to DNV Community Engagement Policy

d) How DWV Handles Correspondence

<http://westvancouver.ca/sites/default/files/dwv/council-correspondence/2015/may/15may01.pdf>

To be re-tabled at the Sept. meeting.

e) Ontario Auditor Shares P3 Findings

<http://cupe.ca/ontario-auditor-shares-p3-findings-municipal-leaders>

No discussion.

8. For Your Information Items: Items were outlined. No discussion.

Corrie to poll FONVCA members on possible informal social gathering
Wednesday 7pm August 19th at the
A) Northlands Golf Course Restaurant: 3400 Anne Macdonald Way
OR
B) Marina Grill - 1653 Columbia St, North Vancouver District

9. Chair & Date of next meeting:

September 16th, 2015. 7 p.m.

Arlene King, Norgate C.A. to chair. Tel: 604-985-6830

Meeting Adjourned. 8:58 p.m.

FONVCA AGENDA ITEM 4(b)

Extract from FONVCA minutes of March 2015

b) Update on Community Workshop

Workshop to take place at some future date.

Discussion took place towards end of this meeting on which attendees of this meeting would contact which associations re:

- obtaining up to date names of contact person and their email address
- determining if these associations are still active and INTERESTED in FONVCA's plans to hold a workshop at Canlan with lunch for all associations attending.

Date of such a workshop was to be determined at the April FONVCA meeting.

Members to report results of calls to Eric or Corrie

The assigned associations are:

- | | |
|-----------------|--|
| Eric Andersen: | Blueridge Community Association
Deep Cove Community Association
Inter-River Community Association
Lynn Valley Community Association
Panorama Drive Ratepayers Association
Strathcona Community Association
Seymour Community Association
Seymour Valley Community Association |
| John Miller: | Lower Capilano Community Residents Association
Capilano Gateway Association
Hillcrest Avenue Community Association
Pemberton Heights Community Association
Treelynn Residents Association |
| Diana Belhouse: | Delbrook Community Association
Save our Shore
Norwood Queens Community Association
Friends of Calder Forrest |
| Corrie Kost: | Edgemont and Upper Capilano Community Association
Grousewoods/Capilano Residents Association
Maplewood Community Association
Sunset Gardens Neighbourhood Association
Indian Arm Ratepayers Association
Woodlands Sunshine Cascade Ratepayers Association |
| Irene Davidson: | Norgate Park Community Association
Keith Lynn/Brooksbank Community Association
Lions Gate Neighbourhood Association |
| Vall Moller: | Association of Woodcroft Councils |



COMMUNITY BUILDING GRANT PROGRAM DISTRICT OF NORTH VANCOUVER

The District of North Vancouver has a critical role to play in facilitating community health, vibrancy, diversity and inclusivity. The goal of this grant program is to support residents to initiate activities in their communities for the benefit of local people and to strengthen their communities by getting their neighbours together. Specifically, the grant program will:

- ✓ Provide assistance to residents, community and/or neighbourhood groups to coordinate neighbourhood events and programs that increase community connection and the social well-being of North Vancouver District residents; and
- ✓ Support community and/or neighbourhood groups in building membership and keeping existing members informed.

Eligible activities for the Community Building Grant Program are:

- ✓ Activities which foster increased communication and engagement with residents (newsletters, online communication and community forums);
- ✓ Local physical improvements (boulevard and community gardens, wall murals, signage);
- ✓ Events or initiatives to address local issues (community education events or stream or shore clean ups);
- ✓ Events to develop and strengthen relationships within the community or neighbourhood (block parties); and/or
- ✓ District permits, such as highway use permits for block parties.

GRANT PROGRAM RULES:

- Projects should improve the neighbourhood socially, physically, environmentally, and/or culturally
- The project must occur in the District of North Vancouver
- **The two applicants must live in the same neighbourhood** but not at the same address
- Projects should reflect the diversity of the neighbourhood
- Projects must be socially acceptable to the majority of the neighbourhood
- Registered non-profit organizations are not eligible for funding. However, Community Associations are eligible
- The applicant cannot profit financially from the project
- Grants are typically range from \$50 to \$500. The grant review team may award less than the amount requested, at their discretion
- Project organizers must submit receipts and photos for their events once completed. The receipts must reflect the intent of the original application, at which time applicants will be reimbursed.

COMMUNITY BUILDING GRANT APPLICATION FORM

Interested applicants are required to complete a Community Building Fund application in advance of their proposed initiative. Staff will review the application and determine if eligibility requirements are met, as outlined in the policy.

DESCRIBE YOUR PROJECT *(please use as much space as you need)*

1. How will this project enhance your neighbourhood?
 2. How many people will help to organize this project?
 3. How many people will be involved, or directly benefit from, your project?
 4. Please show a budget of your project's expenses.
 5. Are you applying for any other money for this project? ___Yes___No
 6. If yes, what other money are you applying for?
-

PROJECT LEADER SIGNATURES *(please note at least 2 residents are required to be involved)*

Name_____

Name_____

Signature_____

Signature_____

Address_____

Address_____

Email_____

Email_____

Date_____

Date_____

SUBMIT YOUR COMPLETED GRANT APPLICATION ATTENTION TO:

Cristina Rucci, Social Planner

Mail/Drop Off:

355 West Queens Road

North Vancouver, BC

V7N 4N5

Fax: 604-984-8664 **or** Email: ruccic@dnv.org

Please call if you have any questions:

Phone: 604-990-2274

DEADLINE:

Ongoing until the grant funds are depleted annually.

FONVCA AGENDA ITEM 6(b)

DNV Website Rewrite Observations and Recommendations

- O: Public had no idea that this was to be a complete rewrite!
- O: Public had no idea that much of the material would no longer be available for months, years, or maybe never!
- O: Search function provided links, but “Sorry” they no longer existed!
- O: Most prior bookmarks made by users for past many YEARS no longer worked – “Sorry”.
- **O: Response: “The old website was so outdated that we didn’t directly transfer over any content from the old site to the new. Every page in the new website was manually rewritten from scratch.” Which is likely to be error prone!!**
- O: Keyword searches (eg. a name) often goes to archive.dnv.org and results in “Network Timeout”
- R: Content is even more important than layout/structure. Content can migrate during rewrite/restructuring but should never be “lost”.
- R: Ask USERS what needs to be improved – by online/surveys/emails

Reference Web Sites:

<http://www.town.richmond-hill.on.ca/homepage.asp>

Executive Summary

In October 2014, the Legislative Assembly appointed an all-party Special Committee on Local Elections Expense Limits with a two-part mandate: first, to examine and make recommendations on principles for local election expense limits; and, second, to examine and make recommendations by June 26, 2015 on expense limit amounts for candidates and third party advertisers. The Committee issued its first report on December 15, 2014, recommending that the principles of fairness, neutrality, transparency and accountability inform the development of legislation on expense limits for candidates, elector organizations, and third party advertisers. The Committee also recommended that third party advertising be included in an expense limits framework, with an overarching, cumulative limit as exists in provincial elections. The Committee's report was presented to the Legislative Assembly on February 11, 2015.

The Committee was subsequently reappointed in February 2015 with new Terms of Reference focused on its examination of expense limit amounts for candidates and third party advertisers. The Committee began its work by establishing a public consultation process to secure input from British Columbians. Stakeholders and citizens were invited to provide their views through an oral presentation at a public hearing or a written submission. An online survey was developed by the Committee to facilitate participation. Invitations were sent to the Union of BC Municipalities, the BC School Trustees Association, the BC Chamber of Commerce, candidates in the 2014 local elections, public interest advocacy organizations, and individuals who are also third party advertisers.

The Committee examined how jurisdictions across Canada have approached local elections expense limits, and reviewed campaign spending during the 2014 BC local elections. Members noted that while jurisdictions across Canada have developed various approaches for local elections expense limits, their formulas allow for increased limits in more populous communities, and mayoral candidates receive a higher spending limit than council candidates. Members observed that the 2014 BC local elections data showed higher expenses for candidates in larger communities, and for leadership positions such as mayoral candidates.

Public hearings were held in Surrey, Kamloops, Vancouver, and Victoria. The Committee heard evidence from individuals, candidates, elector organizations, and other stakeholders. In total, there were 237 public hearing presentations, written submissions, and online survey responses. The public consultations provided evidence of broad support from individuals and organizations for electoral finance reform at the local level. They also provided an opportunity to engage with the public on expense limit amounts that would reflect the principles of fairness, neutrality, transparency and accountability. Overall, public input from British Columbians affirmed the need for local elections expense limits with greater levels for larger communities and for mayoral candidates.

In their presentations and submissions, stakeholders and citizens sometimes advocated other measures of campaign finance reform that were beyond the mandate of the Committee, including the need for contribution limits and changes to disclosure requirements.

Committee Members concluded their deliberations by noting that input from stakeholders and citizens was broadly consistent with the results of their review of other jurisdictions and the 2014 local elections spending data, in recognizing the need for an approach to expense limits which involved increased levels for more populous communities and higher amounts for mayoral candidates. Members agreed that the experience of other jurisdictions, the 2014 data, and public input provided evidence and support for reasonable local elections expense limits. Members affirmed that balanced and flexible expense limits would make a positive contribution to fair and accessible elections for local offices across the province.

The Committee determined that its objectives could be accomplished by an expense limits formula with flat rate amounts for mayoral candidates and candidates for all other locally elected offices in communities with a population less than 10,000, and with different per capita amounts for candidates in communities with larger populations. To this end, the Committee recommends that:

1. mayoral candidates have a higher expense limit than candidates for all other locally elected offices;
2. in jurisdictions with a population less than 10,000, mayoral candidates have an expense limit of \$10,000 and candidates for all other locally elected offices have an expense limit of \$5,000;
3. in jurisdictions with a population of 10,000 or more:
 - a) mayoral candidates have an expense limit of:
 - \$1 per capita for the first 15,000 population
 - \$0.55 per capita for 15,000 to 150,000 population
 - \$0.60 per capita for 150,000 to 250,000
 - \$0.15 per capita thereafter
 - b) candidates for all other locally elected offices have an expense limit of:
 - \$0.50 per capita for the first 15,000 population
 - \$0.28 per capita for 15,000 to 150,000 population
 - \$0.30 per capita for 150,000 to 250,000 population
 - \$0.08 per capita thereafter;
4. third party advertisers have an expense limit of 5 percent of the expense limit of a mayoral candidate in municipal elections or 5 percent of the expense limit of a candidate in those races where there is no mayoral candidate (e.g., for school trustee or regional electoral area director) and that \$150,000 be an overarching, cumulative limit;
5. local elections expense limits be adjusted for inflation consistent with the approach for provincial expense limits; and
6. local elections expense limits for candidates apply to all campaign spending from January 1 of the election year to election day.

FONVCA AGENDA ITEM 7(b)

Extract from http://www.researchgate.net/post/What_is_the_best_definition_for_sustainable_development



[Rajasekharan Pillai](#) · Manipal University

The best definition so far coined for sustainable development is the one given by World Commission on Environment and Development (Brundtland Commission) which runs as the "**development that meets the needs of the present without compromising the ability of future generations to meet their own needs.**" This definition ushers two essentialities. Firstly, overarching significance should be given to meeting the essential needs of the world's poor, who, usually, do not have access to have the fruits of development. Secondly, we have to be extremely cautious of resource depletion, which will deny the genuine needs of the future generations.

the commission was constituted by the UNO in 1984, under the chairmanship of Gro Harlem Brundtland, the former Prime Minister of Norway, with a mission is to address growing concern over the "accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development. The Brundtland Commission officially dissolved in December 1987 after releasing Our Common Future, also known as the Brundtland Report, in October 1987, a document which coined, and defined the meaning of the term "Sustainable Development". The Brundtland Report laid the groundwork for the convening of the Earth Summit in Rio de Janeiro five years later.

The Report strongly influenced the subsequent initiatives towards sustainable development across the world.

Want to create strong and resilient communities? Strong Towns USA may just have the answer

Strong Towns, a non-profit, offers a model of development that “makes productive use of all this stuff we’ve built”.

No 1429 Posted by fw, August 19, 2015

First comes the 3:00 minute video and then the words.

[Trailer – #1 in the Strong Towns Curbside Chat Video Series](#) September 15, 2014

The Curbside Chat was the first story we tried to tell at Strong Towns. It goes to the core of our message, an eye-opening presentation explaining why cities of all kinds are struggling financially and how we can work to change things for the better, one block at a time. This video is a trailer for our video series highlighting some of the key moments of the Curbside Chat.

Now come the words — [Strong Towns Mission Statement](#), excerpted from the website

The challenge of this next generation is not going to be growth. We’ve had decades of growth and it hasn’t given us prosperity. The challenge of the next generation is going to be, how do we go back and make really productive use of all this stuff that we’ve built.”—Chuck Marohn, President, Strong Towns

Following World War II, the United States embarked on a great social and financial experiment that we know as suburbanization. It created tremendous growth, opportunity and prosperity for a generation of Americans that had just lived through economic depression and war.

What we seemingly didn’t stop to consider at the time was that the way we were building our places – spread out across the landscape – would be extremely expensive to sustain, far greater than the relative wealth the approach would generate.

Local governments today are being crushed by their long term obligations. To solve today’s cash problems, they are being encouraged to take on even more liabilities. We desperately need to find a different approach.

A study of the traditional development pattern – the way humans built cities for thousands of years – reveals much hidden wisdom. Our ancestors knew how to build financially strong and resilient places. Their existence depended on it. This was a knowledge gained painfully through trial and error, understanding we should not casually disregard.

America's challenge is to update this wisdom for the 21st century. We are not going to abandon the automobile, but we must urgently begin the process of stitching our communities back together at a human scale.

The Strong Towns approach is a fundamental rethinking of how we work together to build lasting wealth and prosperity within our communities. A strong America is made of strong cities, towns and neighborhoods.

For the United States to be a prosperous country, it must have strong cities, towns and neighborhoods. Enduring prosperity for our communities cannot be artificially created from the outside but must be built from within, incrementally over time. An America in transition must focus on developing strong, local communities.

As advocates for a strong America, we know the following to be true.

- Strong cities, towns and neighborhoods cannot happen without strong citizens (people who care).
- Local government is a platform for strong citizens to collaboratively build a prosperous place.
- Financial solvency is a prerequisite for long term prosperity.
- Land is the base resource from which community prosperity is built and sustained. It must not be squandered.
- A transportation system is a means of creating prosperity in a community, not an end unto itself.
- Job creation and economic growth are the results of a healthy local economy, not substitutes for one.

We seek an America where our local communities are designed to grow stronger in the face of adversity, to be the solid foundation on which our shared prosperity is preserved.

There are no universal answers to the complex problems America's cities, towns and neighborhoods face. At Strong Towns, we seek to discover rational ways to respond to these challenges. A Strong Towns approach:

- Relies on small, incremental investments (little bets) instead of large, transformative projects,
- Emphasizes resiliency of result over efficiency of execution,
- Is designed to adapt to feedback,
- Is inspired by bottom/up action (chaotic but smart) and not top/down systems (orderly but dumb),
- Seeks to conduct as much of life as possible at a personal scale, and
- Is obsessive about accounting for its revenues, expenses, assets and long term liabilities (do the math).

For more information, visit the [Strong Towns website](#). Information is organized under these headings –

[Donate](#) | [Become A Member](#) | [Volunteer](#) | [Events](#) | [Contact Information Contributors](#) | [Board Of Directors](#) | [Staff](#) | [Member Resources](#) | [Blog Index](#) | [Discussion Forum](#) | [Member Blogroll](#)

For much, much more in the Curbside Video Chat series click on this link
<https://www.youtube.com/results?q=Strong+Towns+curbside+chat>

....ps — Did you see Vancouver, BC in the list of Strong Towns videos? It's there.

FAIR USE NOTICE – For details click [here](#)

Rent Replacement Policies and Practices Case studies of BC Municipalities

City of Coquitlam

Properties

528 Como Lake Road - - 30 units –supportive transition housing for single mothers

Land is City-owned. Leased to the province for \$1 for 60 years.

City desired to take advantage of funding available through Homelessness Partnership Initiative, and brought the land to the table as an in-kind contribution. (A number of sites were considered, including 7 owned by the City and 4 that were privately owned). Was an RFP call – YWCA was chosen. YWCA brought \$1 million in capital to the project, Province provided \$7.5m in Capital funding, and will cover operating costs. Estimated value of the property in 2006 was \$750,000.

3030 Gordon – Emergency shelter and transition Housing: 30 shelter beds, 30 transition units, and up to 30 cww mats

Land is City owned. City contributed off-site servicing to the site.

The Tri-Cities Homelessness Task Group identified homelessness as a priority in 2007 and identified the need for a shelter and transition housing in the Tri-Cities. In 2008, City Council agreed to contribute the .61 acre portion of a property they owned at 3030 Gordon Avenue. An MOU was negotiated with the Province. The property was zoned service commercial, and required an OCP amendment and rezoning. Province committed \$12 million in capital funding, and BC Housing funded the public consultation program. Open call for operators by BC Housing – Raincity Housing was chosen.

City of Richmond

Policies

- Had a moratorium on demolition of existing multi-family rental stock between July 2006 and July 2007, except where 1:1 replacement provided.
- OCP encourages 1:1 replacement of rental units
- Density bonus:
 - .2 FAR density bonus for SF and Townhouse to max .6 FAR
 - .6 FAR density bonus in Apartment zone to max 3.0 FAR
 - SF developer can get bonus for an “affordable” secondary suite or coach house (secured with a housing agreement)

- For <80 units: Cash contribution based on \$2-\$4 of buildable area¹, to go into Affordable Housing Reserve Fund,
 - For 80+ units, at least 5% and not less than 4 units must be “affordable”
- 70% of monies collected through density bonuses go into the Reserve Fund, while 30% go into an Affordable Housing Operating Reserve fund to cover City costs such as staff and consultant time, legal costs, management and administration costs.
- Monies collected in the Affordable Housing Reserve Fund “to be utilized first and primarily for subsidized housing”
 - Can be used to offset DCCs, infrastructure, development application and permit fees, as well as purchase of property and construction of affordable housing.
- City lands can be used for affordable subsidized rental housing and affordable low end market rental purposes.
- Non-profit rental housing can be exempted from DCCs on a case by case basis (3 year trial)

Case study

Replacement of older non-profit housing for seniors with a combination of social housing and market (condominium) apartments:

- Kiwanis owned a 5 acre site downtown, with 296 older seniors housing units in several buildings, not in good shape, renting for \$350 per month
- Kiwanis sold 3 acres to Polygon.
- Polygon will be building 338 market units in 3 towers and townhouse units
- Other 2 acres kept by Kiwanis to build 2 highrise towers with 144 units – Housing agreement says rent will not be more than \$850.
- Theoretically, 1:1 replacement of the units, but because woodframe units are being replaced with concrete constructed units (with longer lifespan), was not one-to-one. (296 units to 144)
- Financing of the 144 units: 90% of cost of Tower 1 covered by sale of 3 acres. City reduced parking requirements, and is looking at fee breaks on DCCs and building permit costs, and will also contribute from Affordable Housing Reserve Fund.
- New seniors units will be for independent living, new buildings will include amenity rooms and nurse’s room.

¹ \$2 for Townhouse or Single Family; \$4 for higher density apartment

City of Burnaby

Policies

- Provides density bonuses for affordable/rental housing in the Town Centre– “Community Benefit Bonus Policy”
- Lot is rezoned to Comprehensive Development District – conservation or provision of amenities must be equivalent in value to the increase in the value of the lot attributable to the increase in Floor Area Ratio.
- Cash in lieu is accepted if the benefit is less than \$800,000 in value, or at the wish of Council, and is split 80% to town centre amenities and 20% to City wide Housing Fund. City Council can increase the housing fund contribution on a case by case basis.
- Burnaby Legal team has taken the position that *as long as Council has a policy in place*, Council can require whatever they want in regard to rezoning (that is, there needs to be a policy that is applied across the board).

Examples

- Did not document loss of rental housing when SkyTrain was developed.
- Has been requiring developers to contribute 100% of the land lift when rezoning to higher densities (which covers both affordable/rental housing and other amenities). This has never been an issue with developers.
- Did purchase a 58 rental building that was being sold, and turned it into coop housing. This was unrelated to SkyTrain development.
- 2012: Achieved 1:1 replacement on a site with 8 rental units which was close to the Metrotown Station of the Expo SkyTrain Line. The developer received a 0.4 FAR bonus to bring total FAR to 1.5, and of the 44 new units, 8 are designated rental. Of these, 5 are studio units and 3 are one bedroom plus den. The rezoning report did not identify number of bedrooms in the demolished rental units.
- A developer voluntarily provided 6 months rent to tenants who were displaced by a redevelopment project.

Port Coquitlam

Policies

- Provides density bonuses for affordable housing.
- Bonus at .5 FAR bringing the RA1 Zone (MF Apartment Zone) from 1.5 FAR to 2.0.
- Cash contribution is based on 100% of value of the land lift (currently \$25 per square foot), which is split 50%/50% between affordable housing and other amenities (See Port Coquitlam Density Bonus Policy #5.01 dated 2009-11-12).
- Coriolis did consultant report recommending Port Coquitlam capture 100% of the value of the land lift resulting from rezoning.
- Do independent market appraisals of the properties.

Port Moody

Policies

- Will consider a 10% bonus density where proposed redevelopment in Multifamily residential zones provides significant community benefit such as affordable housing;
- Encourages the development of affordable housing through measures such as density bonusing up to 15% for innovative forms of housing such as laneway housing, assisted housing and co-housing
- Allows parking exemptions where benefits such as affordable housing are provided.
- Considering a Standards of Maintenance Bylaw

Case study

Inlet Centre Project – City Leased the land at below market value under long term lease (\$1 per year? To be confirmed)

- Managed by Greater Vancouver Housing Authority
- 96 units including 22 family units, 41 Assisted Living, 23 units geared to “homeless” and 10 hospice units.
- Started operation in October 2003.

City of New Westminster

Rental replacement policies currently under development

Case Study

The City of New Westminster is at a disadvantage in that there are fewer opportunities to request affordable and/or rental housing through the rezoning process (increased densities beyond existing zones are not contemplated).

However, a developer who was redeveloping on a site with existing rental units voluntarily provided relocation assistance (both financial assistance and help locating new rental units) to existing tenants, as well as a voluntary contribution to the Affordable Housing Fund.

District of North Vancouver

Policies

- OCP “encourages the retention of existing, and the development of new, rental units through development, zoning and other incentives,” and “facilitates rental replacement through redevelopment”.
- Lynn Valley Neighbourhood Plan encourages the replacement of rental units when rental buildings are being redeveloped

Case study

The Lynn Valley Neighbourhood Plan policy on rental replacement was sufficient to enable the District to negotiate with the developer for replacement of 36 of 54 rental units, and existing tenants were given right of first refusal to purchase/rent the new units. The new units were at market rents, so the tenants did not take advantage of this right, but received \$1000 each in moving assistance. The developers also contributed \$140,000 to the District’s Affordable Housing Fund.

Case Study – Seylynn Village

The project was initially rezoned as follows:

- 5.5 acre site (includes some existing municipal road and MOT lands)
- 690 dwelling units, 50,000 square feet for commercial space
- 70 affordable units to be transferred to the District, amenity contributions included park improvements, child-care, public art and accessible design features
- Housing agreement to secure rental apartments

In 2011, the property was sold and the new developer made a number of changes including:

- A reduction in the amount of commercial space
- Changes in the unit count and unit mix and changes in the building design 720 units (700 strata and 20 rental);
- Incorporation of the District’s Housing Parcel to allow for redevelopment of 70 affordable rental units
- RTC is expected to be forwarded to Council in the Fall 2012

City of North Vancouver

Policies:

- Provides up to 10% density bonus for affordable housing in higher density residential development
- Demolition moratorium between November 1989 and July 1990
- Demolition notification bylaw
- Requirement in large high density residential projects for 20% of units to be less than 750 square feet
- Leases land at below market (\$1 a year) for non-profit housing projects (e.g. Margaret Heights – 19 family townhouse units)
- Policy to allow for the creation and legalization of additional suites in existing multiple unit apartments
- Rental Premises Standards of Maintenance & Nuisances Bylaw
- DCCs for off site works such as crosswalks and traffic signal upgrades not required for market rental units.

Implementation:

Negotiate density bonuses on a case by case basis:

- Legion Towers (non-market rental and strata development) (1999)
- The Summerhill Residence (Waterford Gardens) (rental supportive housing) (1999)
- density bonus to create site for 27 unit seniors' non-profit housing project, "St. Andrews Place" (2006)
- Rezoning of Lonsdale School Site to include a 16 unit apartment building for young adults with disabilities (HYAD) (2009)
- "Kimpton Development": Inclusion of 6 affordable rental units in a 52 unit wood-frame strata development (2009). See case study below.
- "Chesterfield Holdings": 5-units for persons with disabilities secured in 28 unit rental building (2012 completion). See case study below.

Provision of Land:

- Purchased site for North Shore Adult Emergency Shelter & Transition Housing facility (2001)
- Lease of Lower Lonsdale site for 42 unit project for single and family households of various disabilities and income levels, "Quay View Apartments"

Other support:

- Existing 28-unit rental apartment building purchased by non-profit housing society with mortgage support from the City (2011)
- 40 unit rental building approved (2011)

Case Studies

Chesterfield Holdings:

- Heritage rental building with a restaurant at grade. Destroyed by fire.
- Rezoned to CD zone with 2.6 FAR to provide 28 rental units with commercial at grade (2010)

- 100 square feet excluded from the FSR calculations for 5 units adaptable design level 2 suites (3 one bedroom, 2 – 2 bedroom plus den). 19% of total units.

Kimpton Development:

- 24 unit rental building (1.31 FSR) rezoned to 1.6 FSR for a 4 storey building with 52 units. Later rezoning provided a density bonus of .856 FSR and an exclusion of .219 for a total bonus of 1.08 FSR, to provide:
 - 10 units with Level 2 Adaptable Design, including 6 affordable units to be deeded to the City.
- City Development Cost Charges for parks and roads were waived for the 6 affordable rental units, for \$5601 per unit, or a total of \$33,607.
- Metro Vancouver DCC's of \$807 per unit were also waived for the 6 units (a total of \$4842).
- 6 accessible rental units (the excluded .218 FSR) provided at no cost to the City.
- Units are valued at between \$300,000 to \$380,000 each.
- City currently soliciting proposals from non-profit organizations to manage the units.
- Original agreement for 8 non-market rental with 5 to be deeded to the City at no cost. Renegotiated to 6 non-market units to be deeded to the City as a result of changes to the real estate and financial markets.

Chesterfield House

- Partnership purchase of existing 28 unit rental apartment building with BC Housing and Marineview Housing Society for non-profit supportive rental housing for people with mental health issues (2006)
- Later Rezoning to permit 9 unit additional building on surface parking site

City of Vancouver

Policies

- Rate of Change Policy
 - Requires 1:1 replacement of rental units in certain areas of the City.
- Demolition controls – Council approval required for demolition of SROs. Conditions of approval can include:
 - 1:1 replacement
 - Fee of up to \$5000 per unit demolished
 - Tenant relocation assistance of up to 2 months rent
 - Right of first refusal for existing tenants.

- Had STIR Program (Short Term Incentives for Rental) – a 2.5 year pilot program to encourage the construction of market rental units that ended on December 15, 2011. Incentives included
 - Development cost levy waiver
 - Parking reductions
 - Additional density ranged from .3 to 4.1 FSR
 - Expedited processing through the concurrent processing.
 Developers were also encouraged to keep costs down through smaller units, limited amenities and basic finishes.
- STIR was replaced by the Secured market Rental Housing Policy on May 15, 2012, and includes the same incentives. Based on the City’s experience with STIR, these incentives will only apply to projects where all the residential units are designated as rental. (However, mixed tenure projects that require rezoning will still contribute to rental housing through negotiated Community Amenity Contributions). Rental units can be a minimum of 320 sq.ft. All projects are reviewed by the City Manager to ensure the affordability of units receiving incentives. The rental units are secured for 60 years or the life of the building, whichever is greater, through Housing agreements.

Case Study: STIR

During the 2.5 year pilot, STIR stimulated new market rental housing and will ultimately create up to 1,648 new rental units (699 are already approved and the remainder are under review). This represents a 270% increase over pre-STIR rental production. The 100% rental projects were deemed more effective, creating more rental units for less City money. The waiving of Development Cost Levies, at just under \$5,000 per unit, was deemed the most successful incentive. This was the primary financial incentive for the 100% rental buildings. In contrast, the combination of community amenity contributions through density bonuses plus waived DCLs for rental units in mixed tenure buildings cost approximately \$70,000 per unit. The higher cost primarily reflects the higher cost of building units in concrete towers. STIR was also effective in providing more affordable units: cost for two bedroom STIR rental units were 70% the cost of purchasing a unit, while studio units were 80% the cost of purchasing a unit.

More Homes, More Affordability Program

- City owns 4 sites in fee simple and has the option to purchase two more
- The City intends to grant a long term ground lease (60-99 years) for each site at a nominal rate to stimulate the development process and deepen the level of affordability. Other developer incentives include:
 - Development Cost Levy Waiver (DCL)
 - On-site Parking Relaxations
 - Fast-tracked process

Policies

- Focuses on sale to working families rather than rental
- Requests affordable housing whenever:

- Rezoning to higher densities (to capture increase in land value)
 - Variances required
- Target to families at 80% of median income
- Apartments – 10% of units need to be at 80% of market
- Townhouses – 5% of units need to be at 80% of market
- Housing Agreement requires them to be at 80% of market in perpetuity
- Single Family subdivisions – 25% of lots need to be small lots at market value
- Cash in lieu accepted if there are fewer than 10 apartments or 17 townhouses, or if they are “luxury” units – with cash in lieu calculated by the District.
- Incentives offered:
 - Waiver or reduction in fees
 - DCC reduction
 - Reduced parking requirements
 - Time limited property tax exemptions
 - Fast tracking of applications
- Exploring new density bonus zoning districts:
 - If project does not require rezoning, can apply to increase number of units, on the condition that a certain percentage of the units are reserved for low income households.

City of Kelowna

Policies

These policies were developed after consultation with local developers who are interested in building rental housing.

- Affordable Rental Housing Grants of \$5000 per unit (\$200,000 annually – up to 40 units)
 - September 30 deadline for application
 - Grants are applied at the building permit stage as a deduction from applicable costs
 - Must qualify as “affordable”: either
 - the income required to spend no more than 30% of total household income before tax on the average rents for Kelowna published annually by CMHC or,
 - purpose built rental buildings of 5 or more units, secured as rental by a housing agreement (market rental qualifies)
- Grants also available to offset DCCs, to cover part or all of the cost. (\$120,000 budgeted annually, unspent funds carried forward). DCCs are quite high in Kelowna so this can be a significant incentive, depending upon area and type of unit: in 2012 they range from \$10,230 to \$30,672 per unit, with most falling within the \$15,000 to \$20,000 range.
- Lower DCC rates for smaller units (units below 600 sf pay between \$200 and \$330 per unit) and supportive housing (which pay the lower institutional rate)
- Accessory suites (below 312 sf) do not pay DCCs
- Ten year exemption from property taxes for new purpose built rental
- Housing Agreements in place for a minimum of 10 years. After 10 years owner can ask for this to be removed, but if agreed, the owner would have to repay the grants, which would go back into the affordable housing fund.
- Expedited processing.
- Considering waiving public hearing requirement for applications that are consistent with OCP.

Examples:

Note: Although there are no examples of a private developer receiving incentives under this program to date, the City is currently under negotiation with several developers to provide designated rental units under this program, and indications are that these incentives are sufficient to encourage purpose built rental units.

Low cost lease:

In the following examples, land was leased for 60 years at no cost to the partners:

- [Cardington Apartments](#) has 36 supportive housing units for people who have faced homelessness
- [Tutt St. Place](#) provides 39 apartments with support services for single mothers on a City-owned former parking lot which was provided at no cost to BC Housing
- [Willowbridge](#) 40 housing units for people who have mental health issues and have faced homelessness, in partnership with BC Housing.
- [New Gate Apartments](#) 49 transitional, but longer term apartments with support services for singles, set to open in 2012. Partnership between BC Housing, John Howard Society and the City.
- [Central Green](#) Approximately 75 units of affordable housing in partnership with BC Housing with potential for another 75 affordable (purpose-built) rental units to be built on the same site on another property.

Donated Land:

- The [Pleasantvale Homes](#) site was City-owned and has been provided to BC Housing as a site for affordable housing redevelopment. It continues to provide fifty low cost senior citizens' apartments and the existing tenants will be provided for as part of the redevelopment. Several property acquisitions and the closure of the lane will be part of the City's recent contribution towards affordable housing at this site, aside from the fact that the existing complex was built on City-owned land that was donated for the complex at this location.

City owned projects:

- Eight shelter beds are in place for youth at the City-owned Glenn Ave. School on Richter St.
- White Buffalo Lodge, owned by the City, is a former motel that provides 39 temporary affordable apartments for youth, families, elders and people at risk of homelessness. It is managed as a partnership with several non-profit groups with the help of [BC Housing](#). This temporary agreement was established in 2010 and is intended to last from two to five years until the City needs the property to replace the bridge over Mission Creek at this location.

City of Kamloops

Policy:

- The City will direct \$50,000 per year to the Affordable Housing Reserve Fund
- Affordable Housing Reserve Fund for capital assistance
 - Can be private or non-profit, new construction or purchase of existing units, or upgrading
 - Must have contribution from senior levels of government
 - Affordability guaranteed through a Housing Agreement
 - Payable upon project completion
 - Contributions start at \$5000 per unit for first 15 units, \$3500 for units 16 to 25, and \$2000 per unit from 26 to 35 units.
 - An additional \$2000 is available per unit if they are accessible, up to a maximum of \$20,000 per project
 - Maximum of \$150,000 to any project.
 - Minimum \$150,000 to be retained in the fund.
 - Council approval for fund disbursement.
 - City reserves the right to not allocate any funds and may reduce funding levels should the City be partnering through other mechanisms (DCC waiver, tax exemptions etc)
- The City will encourage developers of projects over 20 units to provide an additional 5% of units as affordable or rent geared-to-income dwelling units through a density bonus. These units will be exempt from paying DCCs and subject to a housing agreement with the City of Kamloops.
- Housing projects greater than 50 units will not be encouraged by the City

Sicamous

- Require a mandatory min 10% of new developments to be small lots with small houses
- For project involving less than 10 lots, the developer will contribute to the Housing Reserve Fund an amount proportionate to the number of lots being created (5 lot subdivision, 5% of \$190,000= \$9,500
- The Affordable Housing Strategy sets a maximum sale price for affordable housing units (\$140,000 for the house \$50,000 for the unit) and a housing agreement registered against the title of the property would outline these conditions
- The S/D layout shall not have more than 2 adjoining affordable lots
- Provision of the affordable housing unit on a different site, other than the one being developed is permitted
- The district may consider allowing the Development to provide cash-in-lieu which will be directed to the Affordable Housing Reserve Fund
- The City requires a security deposit for the value of the house (\$140,000) which is released to the developer when the construction and occupancy permits for the housing units are finalized

- Qualified households includes those that own a business or are employed in a local business and whose taxable incomes are in the range of \$40,000 to \$60,000 which represents 30-40% of the household income
- Qualified persons are identified by the Social Housing and Planning Committee as eligible
- Regulated by a Housing Agreement registered on title. Sets min lot size to correspond to the R1A zone, sets maximum sale price which will remain constant with minor adjustments for inflation; number of adjoining affordable lots; requirement for adjoining driveways.
- Registration of the Affordable Housing Agreement required conditional on the final approval of the residential subdivision plan;
- Affordable Housing in multi-family projects. 75 to 100m² of floor area. Same criteria as those for single-family homes are set. City will accept cash-in-lieu

Town of Gibsons

- Contributions to the Affordable Housing Reserve Fund are used to purchase land or to partner with a developer on the development of affordable housing
- Residential rezonings that result in the creation of 10 or more residential lots or multi-family residential units will be required to provide at least 10% of the units for affordable housing on or offsite or contribute funds or in kind services in an equivalent amount towards an affordable housing reserve fund;
- The affordable housing is to be either transferred to a non-profit organization or a covenant or housing agreement registered on title

JULY 2015 NEWS-CLIPS

'Toaster' Griffin not forgotten.pdf
 Affordable housing - not!.pdf
 Affordable housing issue aired at public hearing.pdf
 Air quality advisory issued for Metro Vancouver and other parts of B.C.pdf
 All things old.pdf
 B.C. bike race.pdf
 Banning-use-of-garburators.pdf
 Building fewer houses won't drop prices.pdf
 Candidate expense limits recommended - 27 Jun 2015 - Page #1.pdf
 Canine canvass underway in District of North Vancouver.pdf
 Carelessly tossed cigarette butts are more than a fire risk.pdf
 Cats licensed, sterilized and indoors only.pdf
 Cities right to reject bad ideas from consultants -SUN- 4 Jul 2015 - Page #17.pdf
 City considers Cypress Gardens.pdf
 City of North Vancouver continues fight for bus depot.pdf
 City of North Vancouver ponders liquor retail restrictions.pdf
 City of North Vancouver upholds ban on gambling.pdf
 Clark's vote take-away_ TransLink, taxes anathema -SUN- 11 Jul 2015 - Page #18.pdf
 CNV Notice - Coach House Process Simplification.pdf
 Coquitlam Lake water purchase mulled.pdf
 Cougar shot in North Vancouver backyard.pdf
 Cycling helmets do not prevent injury or death - 30 Jun 2015 - Page #19.pdf
 Cyclist hit by car in North Vancouver.pdf
 Cyclists, it's time to grow up and learn the rules of the road.pdf
 District of North Vancouver votes against Kinder Morgan pipeline plan.pdf
 Districts on municipal auditor's agenda.pdf
 Dying B.C. forests emit co2.pdf
 Estate-Planning-from-NSNSUN20150628.pdf
 Every city could use a revamp -SUN- 27 Jun 2015 - Page #78.pdf
 Federal cash needed in housing solution.pdf
 Fire risk on North Shore rises from high to extreme.pdf
 Fund transit by taxing land speculators -SUN- 11 Jul 2015 - Page #75.pdf
 Getting a grip on pit bull dangers -SUN- 11 Jul 2015 - Page #75.pdf
 Griffin's contributions not so easily forgotten.pdf
 Grosvenor-Edgemont-Public-Hearing-Notice.pdf
 Highway 1 no longer making the cut-w-graphics.pdf
 Highway 1 no longer making the cut.pdf
 Holy smoke.pdf
 Hot summer stymies North Shore salmon return.pdf
 Judge rules North Vancouver homeowner must pay.pdf
 Keith-Road-Bridge-Project-Trail-Closures-Notice.pdf
 Locals priced out of real estate.pdf
 Looking at housing costs 25 years ago.pdf
 Lynn Valley towers plan moving ahead.pdf
 Maplewood moving ahead.pdf
 Mayors want more control over TransLink -SUN- 4 Jul 2015 - Page #7.pdf
 Metro still needs a plan for transit -SUN- 3 Jul 2015 - Page #1.pdf
 Metro Vancouver keeps an eye on water use.pdf
 Metro Vancouverites vote down tax hike to fund transit _ CTV Vancouver News.pdf
 Micro home showcase gets green light.pdf
 Missing the bus.pdf
 More affordable housing would help ease traffic woes.pdf
 More than half of young B.C. cyclists wear helmets.pdf
 Municipalities get dumped on.pdf
 Municipalities under auditor's microscope.pdf
 Neighbourhoods-Ambleside.pdf
 Neighbourhood-Deep-Cove-Profile.pdf
 Neighbourhood-Profile-Edgemont-NSNSUN20150628.pdf

Neighbourhood-Profile-Horsehoe-Bay-NSNSUN20150614.pdf
 Neighbourhood-Profile-Norgate-Lower Capilano-NSNSUN20150621.pdf
 North Shore voters reject TransLink tax.pdf
 North Shore voters reject TransLink vote.pdf
 North Van Claims Centre to close- from NSNSUN20150621.pdf
 Perfect storm housing problem.pdf
 PIM-Seaspan-New-Office.pdf
 PM PITCHES 'SECURITY OVER RISK' - SUN- 6 Jul 2015 - Page #9.pdf
 Prepare for service cuts -SUN- 4 Jul 2015 - Page #3.pdf
 Property Tax Bill Confusing.pdf
 Property Values keep sizzling -SUN - 4 Jul 2015 - Page #5.pdf
 Putting a fair price on free speech.pdf
 Real estate data _ the provincial government is, um, studying it.pdf
 Real estate speculation pushing prices out of reach.pdf
 Route 246 an epic transit misadventure.pdf
 Salty-Solutions.pdf
 Shrinking Cities.pdf
 Special Committee on Local Elections Expense Limits _ Legislative Assembly of British Columbia.pdf
 Stressed commuters face 'tipping point' on traffic -SUN- 7 Jul 2015 - Page #6.pdf
 Study Details Canada's 'Perfect Storm' Housing Problem.pdf
 The race is on to bring driverless cars to market -SUN- 11 Jul 2015 - Page #73-text.pdf
 The race is on to bring driverless cars to market -SUN- 11 Jul 2015 - Page #73.pdf
 Three lessons from the transit plebiscite fiasco-SUN- 7 Jul 2015 - Page #21.pdf
 Time to give people a real voice.pdf
 Too many rentals leaving Lynn Valley.pdf
 Toronto amalgamation a poor comparison.pdf
 Toronto takes step to craft taxi law amid Uber uproar -SUN- 7 Jul 2015 - Page #12.pdf
 Transit fare zone system not family friendly.pdf
 Transit funding debated -SUN- 7 Jul 2015 - Page #17.pdf
 TransLink needs reform.pdf
 TransLink warns of reduced services -SUN- 27 Jun 2015 - Page #17.pdf
 Translink-Vote-3 Jul 2015 - Page #1.pdf
 Translink-Vote-results - 3 Jul 2015 - Page #8.pdf
 True value of parent participation preschool is community.pdf
 UBC students tackle issue of 'Blaming the Mainlander' - 25 Jun 2015 - Page #6.pdf
 Vancouver Coastal Health wants festivals to pay for medical costs - News1130.pdf
 Vancouver mulls fines for chronic false alarms - 3 Jul 2015 - Page #6.pdf
 WATER RESTRICTIONS IN PLACE -SUN- 4 Jul 2015 - Page #3.pdf
 We can't afford to pay for it later -SUN- 4 Jul 2015 - Page #104.pdf
 We can't afford to pay for it later.pdf
 West Vancouver least friendly city to open a small business, report finds.pdf
 WSRP_At_a_Glance_2015_TableOnly.pdf
 'Blue space' important to seniors' well-being.pdf

AUGUST 2015 NEWS-CLIPS

10 reasons for a No vote in transit referendum-b.pdf
 10 reasons for a No vote in transit referendum.pdf
 35 cents a day a bargain for better transit, and health.pdf
 A cost to the life we say we want.pdf
 A house of healing for young aboriginal women closes.pdf
 Accountability is lacking.pdf
 Affordability often a matter of strategy -SUN- 26 Mar 2015 - Page #11.pdf
 Area transit plan is so last century.pdf
 Average house prices of \$2M foreseen - SUN -25 Mar 2015 - Page #3.pdf
 B.C. Transport Minister rules out Translink reform.pdf
 B.C.'s refusal to reform Translink raises mayor's ire.pdf
 Back-door tax increase stings in pricey Lower Mainland.pdf

Barbara Yaffe_ Tight Vancouver rental market drives high demand from buyers of apartment blocks.pdf
Builders urged to cut down on noise.pdf
Burnaby MP wins long fight for electronic petitions.pdf
Canvassing for Yes side - from Toronto.pdf
City must deal with many housing challenges.docx
City must deal with many housing challenges.pdf
City of North Vancouver deprioritizes Harry Jerome recreation centre.pdf
Council OK's 35 units on Draycott.pdf
Creeping feeling.pdf
Debate over tax plebiscite continues - SUN 23 Mar 2015 - Page #11.pdf
Delays in oil spill response don't inspire confidence.pdf
Dense logic.pdf
Derided as paranoid, Saanich mayor vindicated - SUN 31 Mar 2015 - Page #1.pdf
DNV-Upcoming-Meetings-ad-NSNFRI20150403.pdf
Downsizing shouldn't wait until you're forced to move - SUN 11 Mar 2015 - Page #16.pdf
Earthquake Threat Apathy.pdf
Exploiting fear - extract from page A9 NSNWED20150318.pdf
Family of North Vancouver cyclist killed on Stanley Park causeway files suit.pdf
Feds grant cash for West Vancouver sustainability study.pdf
Fighting climate change where the rubber meets the road.pdf
Find transit money somewhere else.pdf
Five facts (and a few ironies) about the abandoned Interurban system.pdf
FREE RIDES ADD UP FOR TRANSLINK - SUN 23 Mar 2015 - Page #7.pdf
Fromme trail conflicts overblown.pdf
Greenest building A recycled one -SUN- 28 Mar 2015 - Page #4.pdf
Head injury prompts regret and advice for skateboarder.pdf
Hey there, millennials - vote Yes, obvi.pdf
Housing policy - grants and taxes alike - needs a rethink (with video).pdf
Housing, property tax reform needed.pdf
How not to conduct a transit plebiscite.pdf
In my opinion - SUN 11 Mar 2015 - Page #21.pdf
Inaction is unacceptable.pdf
Is it really a million in 10.pdf
Is TransLink finally getting its bearings with Compass Card.pdf
It's politics as usual for Yes coalition.pdf
Jordan Bateman's lone voice has most people listening.pdf
Lawyer weighs in on common conflicts.pdf
Letter-writer got it right.pdf
Let's plan for people, not profit.pdf
Local Election Expense Limits - public input.pdf
Mayor calls for major changes to TransLink governance.pdf
Mayors_ take transit.pdf
Mayor's call not wanted.pdf
Needlessly complicated transit system one of its problems.pdf
New plan is really just an update.pdf
No way around congestion tax on new vehicles for Metro Vancouver residents.pdf
North Shore light-rail transit on the table.pdf
North Van at Ground Zero of Rental Crunch.pdf
Notice of Road Closure ans sale - 100 Block West Queens Road.pdf
Oil spill could tarnish Vancouver's 'green' brand.pdf
Park causeway to get \$7M bike lanes.pdf
Park Royal towers back up for debate.pdf
PIIS1470204515701348.pdf
Plebiscite lacks integrity-Province-24mar2015.pdf
Plebiscite lacks integrity.pdf
Plebiscite voting slow in early going -SUN- 9 Apr 2015 - Page #4.pdf
Plebiscite-Notification-requirements.pdf
Politics gets in way of finishing seismic upgrade work - SUN 11 Mar 2015 - Page #18.pdf

Popular weed killer deemed a probable carcinogen by UN cancer agency, major producer objects.pdf
Premier pledges reform for municipal audit office -SUN- 26 Mar 2015 - Page #11.pdf
Province pledges \$25B-x.pdf
Province pledges \$25B.pdf
Province proposes trail turnstiles.pdf
Public meeting on Capilano Water Main - 31mar2015.pdf
Public to have say before Monteray school demolished for housing.pdf
QUIETLY TAXING - SUN 24 Mar 2015 - Page #1.pdf
Rationality lost in TransLink debate -SUN- 28 Mar 2015 - Page #5.pdf
Recovery house welcome on my street.pdf
Reducing household 'foodprints'.pdf
Residents fight traffic circle.pdf
Richmond joins movement against 'monster homes' - SUN 24 Mar 2015 - Page #2.pdf
SeaBus bomb scare scuttles evening transit adventure.pdf
Seismic upgrades need cooperation.pdf
Seismically safe schools are priority No. 1.pdf
Self-interest of few drove OCP.pdf
Skyscraper to keep sun shining on streets below.pdf
South of Haida Gwaii likely location of future quake_ experts.pdf
Spirit Trail Quick Facts - 22mar2015 NSNEWS .pdf
Spot zoning can leave legacy of regrets.pdf
Stanley Park-Causeway improvements.pdf
Tax debate all smoke and mirrors -SUN- 26 Mar 2015 - Page #10.pdf
The beautiful perils of child's play.pdf
The case for the mayors' transit plan -- 10 reasons to vote Yes.pdf
The climate change genie is out of the bottle and a failure to act could clearly cost us our prosperity.pdf
The Miracle of Minneapolis - The Atlantic.pdf
THE PERILS OF PLAYING WITH TAX.pdf
THE 'NO' SIDE HAS THE MASSES.pdf
Threat to privacy greater than terrorism, professor says -SUN- 26 Mar 2015 - Page #20.pdf
Time now to talk about looming water scarcity.pdf
TIME TO DECIDE.pdf
TINKERING DOOMED WATCHDOG IDEA.pdf
Tips from new book on how to improve the planning effectiveness of grassroots groups.pdf
Transit issues debated behind closed doors.pdf
Transit project inequities apparent.pdf
Transit referendum ballots are rolling in.pdf
Transit tax won't ease congestion.pdf
TransLink ballot_ mark it Yes or No - what's a voter to do.pdf
TransLink governance needs change.pdf
TransLink interim CEO defends Compass Card delays.pdf
TransLink needs a lesson in Economics 101.pdf
TransLink often leaves one lost in transportation.pdf
TransLink Plebiscite - YES vs No - NSNEWS 20Mar2015-pageA5.pdf
TransLink plebiscite lacks integrity -The Province 23mar2015.pdf
TransLink plebiscite_ Why you should vote No.pdf
TransLink plebiscite_ Why you should vote Yes.pdf
TransLink to fix up fleet in newly bought \$14M site.pdf
Translink-Biggest-Hater-The-Tyee.pdf
Translink-Los Angeles- SUN 11 Mar 2015 - Page #21.pdf
Tree cutting a travesty.pdf
Tree cutting case settled - SUN-4 Apr 2015 - Page #17.pdf
Trust not tax is behind voter push-back.pdf
Two-tier real estate market the solution.pdf
Victoria aims to put limits on civic campaign financing.pdf

Vote Yes Anyway.pdf
Vote Yes for 'greater good' - Sun 23 Mar 2015 - Page #11.pdf
Vote Yes for 'greater good'.pdf
Voters deserve clarity on No vote.pdf
Voting No sends a clear message - SUN -24 Mar 2015 - Page #21.pdf
Wannabe easy riders disturb the peace.pdf
We don't need more single-family homes in North Vancouver.pdf
West Vancouver delays Park Royal towers decision.pdf
What Vancouver can teach Toronto about leading on transit.pdf
Who's buying the expensive homes -Sun - 8 Apr 2015 - Page #21.pdf
Who's buying the expensive homes in Vancouver.pdf
Why I voted Yes on transit.pdf
With the transit tax on stage, road pricing waits in the wings.pdf
Yes vote will help Metro's most vulnerable citizens - SUN-25 Mar 2015 - Page #22.pdf
'Anti-tax' accusation based on silly and simplistic arguments.pdf
'Anti-tax' accusation based on silly, simplistic arguments.pdf

SEPTEMBER 2015 NEWS-CLIPS

'Elitists' make all cyclists look bad.pdf
'Greening up' your home can save on bills.pdf
Are you prepared.pdf
Backgrounder-District-of-North-Vancouver.pdf
Bridge the gap.pdf
Bump in the road.pdf
Car free.pdf
Crappy deal.pdf
Cyclists crashing West Vancouver's Ambleside Farmers Market.pdf
Deep Cove parking issue settled the civilized way.pdf
Democracy Cafe aims to get out the vote.pdf
District of North Vancouver audit gets glowing review.pdf
DNV-Upcoming-meetings page 9 NSNFRI20150904.pdf
Edgemont curb bump-outs ill-timed with Cap roadwork.pdf
Extreme weather may be the new normal.pdf
files.txt
Gas pump stickers a futile exercise.pdf
Gridlock leaves time to ponder.pdf
Heavy rains fill North Shore water reservoirs.pdf
Intro To Ebikes - Learn.pdf
Ironworkers bridge sidewalk project complete.pdf
Lions Gate Bridge bump gone (for now).pdf
Lions Gate bump spreads traffic misery.pdf
Make it easier for drivers to butt out.pdf
Metro Vancouver reservoirs get boost from weekend storm.pdf
Micro grants aim to connect community.pdf
Neighbourhood-Dundarave.pdf
Neighbourhoods-Lynn Valley.pdf
North Vancouver City mayor's uplifting Norwegian visit catches media attention.pdf
North Vancouver's ticking tax bomb.pdf
Now-infamous bump rattles the teacups.pdf
NR-Audit-Topic-3-Report-4-District-of-North-Vancouver.pdf
Province seeks comment on water regulations.pdf
Residents band together.pdf
Restrict parking to ease gridlock.docx
Restrict parking to ease gridlock.pdf
Retire political elephant TransLink.pdf
Sitting in dark sheds light on a few things.pdf
Star light, star bright - not on my block.pdf
Storm deals damage, knocks out power for thousands on North Shore.pdf
The Cut rivals infamous M25.pdf

Third crossing not a regional transportation priority.pdf
Traffic congestion in Canada's cities a key measurement.pdf
Types of care defined.pdf
Vancouver housing growing more unaffordable_ report - 1 Sep 2015 - Page #17.pdf
Vancouver strata councils tackle short-term rentals head-on.pdf
Vancouver Sun ePaper- Windstorm shakes foundation of BC Hydro weather analytics - 1 Sep 2015 - Page #1.pdf
Windstorm shakes the foundation of BC Hydro's weather prediction system.pdf

Air Space Strata Plans

June 30, 2015

<http://23on.com/air-space-strata-plans/>

At Common Law a landowner has the right to control the air space above the land he owns subject to statutory restrictions for zoning, aviation and the like. As such, landowners may create one or more air space parcels above their land. Once this is done, the title to each air space parcel may then be dealt with separately from the other titles. Since an air space parcel is treated as land, it may be subdivided into strata lots with common property.

The vertical division of real property is based on the legal conception of land as a volume of space with boundless height and depth. As the density of building in urban areas increases, fewer sites are available for new construction and land values escalate. This trend has produced a growing interest in developing air rights. The concept of land as a three-dimensional entity underlies the land title scheme pretty much everywhere in North America, which allows air space parcels to be created, transferred, mortgaged, leased and subdivided.

Since air space parcels still have a physical relationship to the land because air space rights are part of the land and the ownership of land, the Land Title Act (in British Columbia) as well as other statutes allow landowners to treat their air space as if it were land by depositing a survey of the air space above their land at the Land Title Office. Such survey is called an 'Air Space Plan'. If the landowner keeps the underlying land but allows someone else to occupy the air space parcel, he becomes what it is commonly known as a 'remainderman'.

Developers have used the air space parcel concept to construct mixed-use strata projects. This method is typically used where the same structure contains different uses. In effect developers create different air space parcels to contain single-use strata developments. By this means, the same complex may contain one or more separate strata plans, each having a different use. For example, one strata development may be residential while another is commercial. Although they share the same complex, each strata corporation controls a separate portion of the structure.

Virtually every air space development involves construction of a strata building over top of land or buildings owned by the developer as remainderman. It is very important to ensure that there are appropriate arrangements to compel the remainderman to maintain the necessary physical support and related services to the air space parcel, even if the remainderman's property suffers damages.

The major concern is that the creation and unregulated sale of such vacant airspace strata lots will, at some future date, through fraud or financial difficulties of a developer, result in the purchasers of such lots being left with vacant airspace strata lots which have little value, as the contracted building will not be built or not completed.

In each air space strata development, furthermore, there should be one or more written agreements between the strata corporation as the occupier of the air space and the remainderman, who is likely the developer. These agreements deal with obligations of support, access, provision of utilities, insurance and other important matters. Finally, the owner of an air space strata lot must be familiar with the relevant agreements between the strata corporation and the remainderman. Since these agreements are usually complex, an owner should obtain legal advice when reviewing such agreements.

Luigi Frascati

Source by [Luigi Frascati](#)

The New *Limitation Act* (continued from page 4)

Local Government Act will still remain in force to provide special protections to local governments.

Marisa Cruickshank

INCREASING USE OF AIR SPACE PARCELS (TO INFINITY AND BEYOND)

What are Air Space Parcels and how are they created?

Ownership of land includes not only the physical surface but also the space above and below the surface as necessary for the ordinary use and enjoyment of the land. That space above or below the surface may be subdivided to create an air space parcel. An air space parcel is a 3-dimensional space that exists above or below ground. It is defined in section 138 of the *Land Title Act* as “a volumetric parcel, whether or not occupied in whole or in part by a building or other structure, shown as such in an air space plan.” The air space plan subdivides the air space above or below a parcel of land to create one or more air space parcels.

Air space parcels are created by the registration of the air space plan in the Land Title Office in accordance with Part 9 of the *Land Title Act*. The air space plan “shows on it one or more air space parcels consisting of or including air space”²³ and must comply with the requirements of section 144 of the *Land Title Act (B.C.)*. Under section 144, the air space plan must be prepared by a B.C. Land Surveyor and it is usually prepared once a building structure has been substantially completed within the air space to be subdivided. The filing of the air space plan creates titles to one or more three-dimensionally defined air space parcels as well as a separate title for the portion of the original lands not included in the air space parcel(s) which is

identified as the “remainder” parcel. Each air space parcel is an autonomous and separate legal entity that is registered in the Land Title Office and can be bought, sold, mortgaged, subdivided or subject to any number of charges or land use controls permitted for ordinary parcels of land. Air space parcels may be further subdivided in accordance with the *Strata Property Act*.

The importance of agreements for support and services for Air Space Parcels

Air space constitutes land under section 139 of the *Land Title Act* and lies in grant; however, a grant of an air space parcel does not transfer to the grantee an easement of any kind whatsoever nor does it imply a covenant restrictive of use or a covenant to convey another portion of the grantor's land. Unless expressly granted, the title to the air space above the upper limits and below the lower limits of an air space parcel remains in the grantor. Almost all developments that include an air space subdivision involve construction of a strata building on top of land or buildings owned by the owner of the remainder parcel, typically, the developer. In an air space subdivision, it is therefore essential that appropriate arrangements are made with the owner of the remainder parcel and owners of the other strata parcels to maintain the necessary physical support and related services to the air space parcel.

Agreements to maintain the necessary physical support and related services take the form of multi-party easement agreements and statutory rights of way to deal with obligations of support, access, parking, provision of utilities, insurance and other important matters. The easement agreements will provide for reciprocal easements between the owners with respect to vehicle and pedestrian access, service connections, fire safety and emergency systems, structural support, future construction, maintenance, repair and the use of other common building services, such as sewer, garbage, water and electrical services. It is also the

²³ *Land Title Act (B.C.)*, s. 138.

To infinity and beyond (continued from page 5)

norm for the owner developer to include in such agreements reciprocal or joint insurance obligations, cost sharing arrangements for common costs, and provisions to ensure compliance with such obligations in the form of indemnities and equitable charges. Without these arrangements, an owner of an air space parcel may be left with vacant airspace strata lots which have little value as the air space cannot exist without support or these arrangements for services. Local governments will usually be closely involved in this process to ensure municipal interests are adequately addressed.

Air Space Subdivision and managing autonomy and interdependence

In mixed-use developments involving air space parcels, a typical concern is how the commercial space can keep its autonomy from the residential portion of the building, while matters of mutual concern can still be addressed. The air space multi-easement agreements referred to above are one answer. Another solution for managing autonomy and interdependence is by applying the provisions of the *Strata Property Act* which provides two main methods by which developers may organize a mixed use building to provide for separation between its residential and commercial components.

The first method is by use of air space subdivision under the provisions of the *Strata Property Act*. The residential portion of the building is subdivided to create a strata corporation and strata units for the residential component of the building. The commercial portion is not similarly subdivided but becomes a neighbour of the residential portion of the building and is not subject to the residential strata corporation's bylaws, rules and resolutions. This is attractive to the owners and occupiers of the commercial portion of the building who do not want to be

subject to the control and associated costs of the residential portion of the building. Multi-party easements and other agreements between the residential and commercial components of the building ensure that matters of common concern are adequately addressed.

Another method for managing autonomy and interdependence in air space developments is by subdividing the entire building under the provisions of the *Strata Property Act* and creating separate sections for the development within a single strata corporation. Under Part 11 of the *Strata Property Act*, the owner-developer may create separate sections in the strata corporation's bylaws to create separate sections for each of the commercial and residential portions of the building. After the sections are created, the strata corporation retains the powers necessary for matters of common interest to all owners. At the same time, each section has its own council, bylaws and regulations to govern matters relating exclusively to that section. This enables the residential section and commercial section to each be autonomous and self-governing with respect of matters that relate only to that section. For matters of common concern that relate to all owners in the strata corporation, the sections may have representation on the strata council.

Uses and benefits of Air Space Parcels

The provincial government and municipalities may apply to register air space plans in respect of highways under section 142 of the *Land Title Act*. Under subsection 142(1), for highways that are vested solely in the province, the minister charged with administration of the *Transportation Act (B.C.)* may register an air space plan to create air space parcels in respect of the highway. For highways in which a municipality has a statutory right of possession, under subsection 142(2), the provincial cabinet, on recommendation of the minister charged with administration of the

To infinity and beyond (continued from page 6)

Transportation Act (B.C.), may authorize the municipality that has the statutory right of possession to a highway to create air space parcels in respect of the highway. If title to all or part of a highway is vested solely in a municipality, then under subsection 142(3), the municipal council may, by bylaw, authorize an application to be made for the registration of an air space plan in respect of the highway. Air space parcels created under section 142 of the *Land Title Act* may be used for any number of purposes to create buildings and structures over and under highways.

For developers, the primary benefits of air space subdivisions are that they can be used to create two or more separate legal parcels and uses within the same building. As a result, air space parcels are most often used for projects involving mixed uses involving residential and commercial components. In this way, different parties can own the residential and commercial components of the building. Typically, the developer subdivides the air space parcel(s) designated for residential use under the provisions of the *Strata Property Act*. These residential units are then sold and a strata corporation is created to govern the internal affairs of the residential units. The owner usually retains control of the air space parcel(s) designated for commercial use and can then operate the commercial space autonomously without involving the strata corporation in its decision-making. The owner developer retains the flexibility to keep the commercial portion of a building for a period of time, or file a strata plan with respect to the commercial units, and then sell the commercial strata lots individually.

Creating mixed-use developments by air space subdivision enhances the developer's flexibility for long-term investment opportunities and use. Having separate titles for the residential and commercial portions of a development leads to a number of other practical benefits. Although they

share the same complex, each parcel controls a separate portion of the structure. The separation of the residential and commercial components often makes it easier to apportion costs for those building expenses that are not shared. As well, the owners of the commercial and residential portions of the development are free to occupy, manage and maintain their parcels to the exclusion of each other.

These features and benefits of air space subdivisions can be used by developers and local governments in a wide variety of contexts including the creation or preservation of affordable housing, the achievement of smart growth objectives by increasing density and use of space and the conservation or restoration of heritage property. For example, in most municipalities, there are typically neighbourhoods with a mixture of buildings of varying ages, conditions and uses. When vacancy rates are low and housing costs are rising, market pressures encourage the maximization of land use and increasing the supply of residential housing. In these situations, it is often older structures that provide more affordable housing that are identified for demolition and redevelopment. This often results in a loss of affordable housing and the disappearance of unique buildings that provide character to neighbourhoods and communities. To avoid this, air space subdivisions can be used to preserve or restore the older buildings while enabling a developer to build a new development on top of the existing the building. Typically, a section 219 covenant is registered against title to the air space property to ensure preservation of the older portion of the building and existing uses.

Air space subdivisions may also be used in conjunction with the transfer of air rights to achieve similar objectives. The transfer of air rights is a concept that is used in many North American cities. The concept allows the owner of

To infinity and beyond (continued from page 7)

an undersized building to sell the unused space above the building to the maximum height allowed by the local government to a developer which then allows the developer to add additional space to the new building. For example, a builder developing a project may wish to increase the size of its development beyond the allowable limits imposed by the zoning bylaw. In cooperation with the local government, the developer could identify an opportunity to acquire air rights from a neighbouring building to enable the project to proceed by adding more floors and increasing density. The transaction thereby provides the owner of the older building with financial resources to maintain and restore the older building while also achieving development and densification objectives for the municipality.²⁴

Air space parcels can provide many benefits if monitored carefully by municipal planning departments and properly supported by section 219 covenants, statutory rights of way and agreements that address municipal concerns.

Lindsay Parcels***Brown fields redevelopment***

There are more than 30,000 brown fields sites in Canada. These include industrial and commercial lands formerly used for tanning, gasoline retailing, oil refining, warehousing, dry cleaning, or port or rail services. Some contain toxic substances above ground in tanks or other storage facilities or below ground in the form of contaminated soil or storage.

Local governments often become owners or occupiers of brown fields sites. There are a number of economic benefits to redeveloping brown fields, including creation and retention of

employment opportunities, increased competitiveness for communities, and an increased tax base.

Despite potential economic benefits, there are significant legal issues in regard to redeveloping brown fields. In British Columbia, the *Environmental Management Act* and the *Contaminated Sites Regulation* apply to future development of brown fields with a view to remediation (and thereby elimination of risks to human health and the environment).

Environmental Management Act and Contaminated Sites Regulation

The *Environmental Management Act* of British Columbia contains Part 4 “Contaminated Site Regulation”. The statute sets out a five stage process for dealing with contaminated sites. The stages are screening, investigation and decision, planning, remediation, and evaluation and monitoring. Although this article deals with local government property, these rules also apply to private owners.

In regard to screening, many local governments have site profile schemes in place. If a site profile scheme is in place, the profile is required when the owner or occupier applies for zoning, subdivision, development, demolition or removal of prescribed soils. As well, a site profile can be ordered by the Director of Waste Management.

In regard to site investigation and the making of a determination, there are a number of approaches if the local government is the owner. These include communications with prior owners or occupiers, a search of the provincial Site Registry, initial investigations on site, a search of archival records and historical activities, and detailed on-site investigations with sampling and chemical analysis. Under the regulation, remediation is required when substances are contaminated in accordance with a scheme of numerical standards

²⁴ *Air Space Parcel Primer* (James Mitchell, February, 2008).

Ethical Conduct

Extract from http://www.cscd.gov.bc.ca/lgd/gov_structure/community_charter/governance/ethical_conduct.htm

The broad powers given to municipalities in the *Community Charter* are balanced, in part, by the enhanced ethical standards for elected officials in [Part 4 Division 6](#). They were designed in consultation with the Union of British Columbia Municipalities (UBCM) and are in keeping with the provisions of the provincial [Members Conflict of Interest Act](#).

These standards apply to all municipal and regional district elected officials. This includes elected officials from the City of Vancouver and the Islands Trust.

What is required

The legislation addresses conflict of interest; inside influence; outside influence; exceptions from conflict restrictions; gifts; contracts; and use of insider information.

Conflict of Interest

[Section 100](#) (disclosure of conflict) of the *Community Charter* requires a council member to declare a conflict of interest if he or she has a direct or indirect pecuniary interest in a matter under consideration. A member must also declare a conflict if he or she has some other, non-pecuniary type of interest that places the person in a conflict position (e.g., bias). This could include any benefit obtained by relations, close friends, or associates of a member who is in conflict. Examples may include a rezoning application by a relative or close personal friend or a business license decision involving a competitor business to one operated by a close friend. The facts of each situation will be unique and will need to be considered when determining if a member is in a non-pecuniary conflict of interest situation.

[Section 101](#) (restrictions on participation if in conflict) sets out the basic rules that, if a council member has a direct or indirect pecuniary interest in a matter, the member must not:

- remain or attend any part of a meeting during which the matter is under consideration;
- participate in any discussion of the matter; or
- vote on the matter or attempt in any way to influence the voting of the matter, whether before, during or after a meeting.

These rules apply at all times, not just when a person makes a declaration of conflict under section 100.

Once a declaration has been made, the member of council must not do any of the things referred to in section 101 (e.g., remain or attend any part of the meeting during which the matter is under consideration, participate in any discussions of the matter, vote on the matter or attempt in any way to influence the voting of the matter whether before, during or after a meeting). These rules are in effect for council members in relation to meetings of councils, boards, committees and any other body created by the municipality or established pursuant to legislation.

A member of council who determines, after declaring a conflict of interest, that he or she is, in fact, not in a conflict position, may withdraw the original declaration and participate in subsequent discussions and vote on the matter being considered. The member must, however, obtain legal advice on the question of conflict before withdrawing the declaration.

Inside Influence

[Section 102](#) (restrictions on inside influence) prohibits a member of council from using his or her office to attempt to influence a decision of the municipality. For example, a council member would

likely be in contravention of the inside influence restriction if he or she as a council member, lobbied the municipal approving officer regarding an application to subdivide land owned by the council member. The restriction states that a member of council who has a direct or indirect pecuniary interest in a matter must not use his or her office to attempt to influence a decision, recommendation or action to be made or taken on the matter:

- at a board, council, committee or other meeting of another body of the local government;
- by officers and/or an employee of the local government; and
- by a person to whom the local government has delegated authority.

Outside Influence

[Section 103](#) (restrictions on outside influence) prohibits a member of council from using his or her office to attempt to influence a decision of any other person or body. The restriction states that a member who has a direct or indirect pecuniary interest in a matter must not use his or her office to attempt to influence a decision, recommendation or other action to be made or taken on the matter by any other person or body. For example, a council member would likely be in contravention of the outside influence restriction if he or she lobbied a provincial regulator on behalf of a business partner using the municipality's letterhead in correspondence with the regulator.

Exceptions from conflict restrictions

[Section 104](#) (exceptions from conflict restrictions) provides for some exceptions to the conflict and inside/outside influence restrictions which include:

- the council member's pecuniary interest is an interest in common with the electors of the municipality;
- the council member's pecuniary interest, related to a local service, is in common with other persons who are or would be liable for the local service tax;
- the matter under consideration relates to the remuneration, expenses or benefits payable to local government officials in their capacity as members of council of the municipality;
- the pecuniary interest is so remote or insignificant that it cannot reasonably be viewed as likely to influence the member; and
- the council member has a legal right to be heard in respect of a matter or to make representations to council, in which case, the member may appoint a representative to exercise that right.

Gifts

[Section 105](#) (restrictions on accepting gifts) prohibits a member of council from directly or indirectly accepting a gift, fee or personal benefit that is connected in some way to his or her performance as an elected official, unless it is:

- a gift or benefit that is received as an incident of the protocol or social obligations that normally accompany the responsibilities of office;
- compensation authorized by law; or
- a lawful campaign contribution.

[Section 106](#) (disclosure of gifts) requires members of council to disclose any gift or benefit, which they are permitted to receive, that is worth more than \$250. This does not include gifts which are personal and not connected to the member's performance as an elected official. If the combined value of lesser gifts from one source over any 12-month period exceeds \$250, those gifts must also be disclosed. Disclosure must be by filing with the corporate officer as soon as reasonably practicable the following information: a description of the gift; when it was received; the

circumstances under which it was given and received and the name of the giver.

Contracts

[Section 107](#) (disclosure of contracts) requires public disclosure of any contract in which an existing council member, or a person who was a council member during the previous six months, has a direct or indirect pecuniary interest. This requirement applies to contracts between the municipality and the specific member or former member, as well as to contracts between the municipality and persons or companies with whom the member or former member is connected. This includes contracts with a company in which the member is a director, officer, significant shareholder or senior employee. It could also include contracts where the member's spouse or partner or other close relative is the party that contracts with the municipality.

The council member or former council member is required to advise the corporate officer as soon as reasonably practicable of any such contracts.

Use of Insider Information

[Section 108](#) (restrictions on use of insider information) restricts existing or former council members from using information that was obtained during the member's time in office, which is not available to the general public, for gaining or furthering a direct or indirect pecuniary interest of the member or former member. It is significant to note that the legislation does not specify a time limit for this restriction. As such, the restriction applies indefinitely – or until the information is available to the general public.

What to consider

When reviewing the rules on ethical behaviour, council members should consider the following areas.

Declaration of Conflict of Interest

Under section 100, a council member is able to withdraw a declaration of conflict of interest, if he or she has obtained legal advice on the question of conflict. The legislation is silent on the issue of who should pay for the council member's required legal advice.

There is no requirement for a member of council to obtain legal advice on the question of conflict prior to making a declaration. However, where the question of conflict is not clear, a policy to encourage and enable council members to seek legal advice may be in the public interest.

Below are some considerations in establishing a policy:

- At what point should a member of council seek legal advice?
- How can council assist members (e.g., directory of solicitors)?
- Will the opinion obtained by a member be disclosed to the rest of council prior to making a decision about whether to declare a conflict of interest?
- Should council consider paying for the legal advice? If so, what criteria should be used to determine if the municipality should pay for it?

- If council pays for legal advice, should there a maximum budget for legal advice for each member of council over a set time period? Per request? Per member?

Conflicts of interest can be very challenging to identify. Non-pecuniary conflicts that, by definition, do not involve the potential for financial benefit, can be just as damaging to the sense of public trust as conflicts that involve financial gain.

In broad terms, a council member has a non-pecuniary conflict of interest if:

- the member's interest in the matter is immediate and distinct from the public interest;
- it can be reasonably determined that the member's private interest in the matter will influence his or her vote on the matter;
- the member, or one of his or her relations or associates, stands to realize a personal benefit from a favourable decision on the matter; and
- the potential benefit to the member is not financial in nature.

The key consideration for members is whether a reasonable person would conclude that the decision-making could be influenced or affected by the connection, such that a private interest could conflict with a member's public duties. When in doubt it is advised that members err on the side of caution and declare any real or perceived non-pecuniary conflict of interest.

The concept of pecuniary and non-pecuniary conflict of interest is constantly evolving in common law. When faced with uncertainty, municipalities and council members are encouraged to seek legal advice.

Court Order to Achieve Quorum

There will be instances when more than one council member is required to declare a pecuniary or non-pecuniary conflict of interest. The removal of several council members may result in a loss of quorum and the inability to make decisions. In such cases, the municipality may wish to consider applying to the Supreme Court for an order. Using the authority granted in section 129 (quorum for conducting business), the Supreme Court may order that all or specified council members may discuss and vote on the matter, despite the concerns of conflict, and set any conditions it deems appropriate on the participation of council members.

Gift Disclosure Policies

The challenge for members of council will be to distinguish between items which are a strictly prohibited as a gift or benefit and those which might be considered as a gift or benefit that has been received as an incident of the protocol of office or social obligations that normally accompany the responsibilities of office.

Members of council may want to consider the following questions in determining if a gift or benefit might be considered as an incident of the protocol of office or a social obligation that normally accompanies the responsibilities of office:

- Is the item a gift or benefit to the councillor personally either directly or indirectly (e.g., will the councillor or a member of his or her family take personal possession of the gift or is it a gift over which the municipality will take control and custody)?

- Is the gift or benefit being given with any expectation whatsoever that the councillor will either currently or at some point in the future take some action (e.g., vote on a matter, intervene with municipal officials on the gift giver's behalf, etc.) that will benefit the giver of the gift?
- Is the value of the gift or benefit likely to influence any decision or action of the councillor?

If the answer to all three questions is yes, then the member should not accept the gift or benefit. If, however, the answer to the first question is yes, but the answer to the others is no, then the gift might be considered to be incidental to the duties of office. What precisely those are differs for each community. In recognition of the need for sensitivity, councils may want to adopt policies regarding receiving gifts and benefits. In particular, councils may want to set out the criteria for what constitutes, for that community, the type of gift or benefit that can be considered as an incident of the protocol or social obligation that normally accompanies the responsibilities of office.

Contracts

Council members and members who have held office in the previous six months may want to consider the following in determining whether to disclose any contract(s) with the municipality:

- Is there an understanding or arrangement (written or not) that a good or service will be provided to the municipality?
- Is there regularity to the provision of the good or service?
- Is the provision of the good or service so remote or insignificant as to be unlikely to influence the actions of the member?
- Is there a public perception that a good or service is being provided, regardless of whether this is really the case?

The contract provision in the *Community Charter* is intended to deal with situations where there is materiality to a contract (i.e., the intent is that it does not apply where a contract is so remote or insignificant that it cannot reasonably be regarded as likely to influence the member in relation to the matter). Along with materiality, members of council will need to be aware of public perception about any business relationship between themselves and the municipality. Members and former members are advised to apply a practical approach to disclosing contracts - when in doubt, err on the side of disclosure.

Penalties

A person who contravenes the ethical standards provisions in the *Community Charter* may be disqualified from holding public office unless the contravention was done inadvertently or because of an error in judgement made in good faith. [Section 110](#) (circumstances in which a person is disqualified from office) sets out that a person who is disqualified cannot run until the next general local election if the Supreme Court finds that he or she is found to be in contravention of the rules related to the:

- restrictions on participation if in conflict;
- exercise of inside influence;
- exercise of outside influence;
- acceptance of gifts;
- disclosure of gifts over \$250 in value;
- disclosure of contracts; and
- use of insider information.

[Section 111](#) (application to court for declaration of disqualification) sets out the procedure for making application to the Supreme Court to have a member declared disqualified. A municipality, by a 2/3 vote of council, or 10 or more electors of the municipality may make the application to the Supreme Court to have a person disqualified.

In addition, under [section 109](#) (court order for person to give up financial gain), the legislation introduces the ability of the municipality or an elector to apply to the Supreme Court for an order requiring a member, or former member, to pay to the municipality all or part of the member's financial gain that was obtained as a result of contravening the rules governing ethical conduct.

Please direct questions or comments to [Advisory Services Branch](#).

The following is an extract from the Community Charter

Restrictions on Use of Insider Information (108)

(1) A council member or former council member must not use information or a record that

(a) was obtained in the performance of the member's office, and

(b) is not available to the general public,

for the purpose of gaining or furthering a direct or indirect pecuniary interest of the council member or former council member.

(2) A person who contravenes this section is disqualified from holding local government office for the period established by section 110 (2), unless the contravention was done inadvertently or because of an error in judgment made in good faith.

Financial Gain (109)

(1) If a council member or former council member has

(a) contravened this Division, and

(b) realized financial gain in relation to that contravention,

the municipality or an elector may apply to the Supreme Court for an order under this section.

(2) Within 7 days after the petition commencing an application under this section is filed, it must be served on

(a) the council member or former council member, and

(b) in the case of an application brought by an elector, the municipality.

(3) On an application under this section, the Supreme Court may order the council member or former council member to pay to the municipality an amount equal to all or part of the person's financial gain as specified by the court.

(4) In the case of an application made by an elector, if the court makes an order under subsection (3), the municipality must promptly pay the elector's costs within the meaning of the Rules of Court.

(5) The court may order that costs to be paid under subsection (4) may be recovered by the municipality from any other person as directed by the court in the same manner as a judgment of the Supreme Court.

(6) Except as provided in subsection (4), the costs of an application are in the discretion of the court.

The following is an extract from

http://www.cscd.gov.bc.ca/lqd/gov_structure/community_charter/governance/ethical_conduct.htm

Use of Insider Information

[Section 108](#) (restrictions on use of insider information) restricts existing or former council members from using information that was obtained during the member's time in office, which is not available to the general public, for gaining or furthering a direct or indirect pecuniary interest of the member or former member. It is significant to note that the legislation does not specify a time limit for this restriction. As such, the restriction applies indefinitely – or until the information is available to the general public.

Misc material on Water/Lawns for FONVCA Sep 16/2015

Low snowpack no worry for water reserves

Maria Spitale-Leisk / North Shore News

May 20, 2015 12:00 AM



The snow-capped Lions viewed from Cleveland Dam in March. Photo Cindy Goodman

While this year's smaller-than-normal snowpack is not expected to impact the North Shore's water supply this summer, Metro Vancouver has put some water reserves in its back pocket in case of a drought.

Snowpack measurements conducted in the Seymour and Capilano watersheds by Metro staff in early April suggest the spring run-off is expected to be well below normal, but there is no cause for alarm, according to North Vancouver City Mayor Darrell Mussatto, Metro's utilities committee chair.

"The reality is, the snowpack is not as big an issue as people think it is," said Mussatto.

In fact, rainfall is what the reservoirs rely on to stay stocked with fresh drinking water throughout the summer. Metro also has water reserves in three alpine lakes that it can tap into, and the ability to secure extra H2O from the Coquitlam reservoir, which is managed by BC Hydro.

In April, the water level reading at the Capilano reservoir was 99 per cent of summer storage capacity, while Seymour Lake was at 87 per cent capacity. As of last week, both lakes are in good shape at 99 per cent capacity, thanks to some late April snowfall.

Still, Metro is not taking any chances and has taken steps to ensure they are well stocked with water for the summer. "We are able to purchase extra water should we need it in dry spells, and this year we've secured a bit more than we normally would," said Mussatto.

Purchase cost about 1cent/1000litres. Cost to residential consumer about \$1/1000litres -cjk

Each year the regional district asks BC Hydro to set aside a specific amount of water. In 2014, Metro paid Hydro \$630,000 for 50,000 million litres, while this year it's asking for an extra 18,200 million litres for a total cost of \$862,000.

Metro is also working on a long-term plan to revise its licence agreements with BC Hydro to secure more drinking water for the future, and to increase the capacity of the North Shore reservoirs.

Just last week a new tunnel connecting the Capilano reservoir with the new Seymour-Capilano Filtration Plant came online. Under the new filtration system, up to 1.8-billion litres of pure drinking water is pumped out per day.

In an effort to preserve this precious commodity, Metro has mounted a campaign that aims to educate people on how to

It is not, and never should be, treated as a commodity! - cjk

not waste a drop of the mountain fresh water.

Since 2009, when the region experienced a severe water shortage, Metro has implemented stringent summer lawn-sprinkling restrictions; watering is now limited to mornings before 9 a.m.

The regional district also established a target for reducing per capita water use during peak periods by five per cent by 2015. A recent Metro staff report revealed regional water consumption has dropped by 2 per cent per capita each year since 2010 on days of peak water use, but an increase in population means the overall use is still up.

Mussatto said a move towards installing low-flush toilets in homes and workplaces is helping with water conservation efforts, but there is a more immediate action residents can take: give up their green lawns.

"The other thing we ask people to do is, if you don't mind looking at brown grass," said Mussatto. "Grass doesn't die, it just goes dormant in the dry seasons."

Dead grass, unlike green grass, does not provide food for habitat, nor absorb CO2. Dead grass is thus bad for environment. - cjk

© 2015 North Shore News

[Sign up for the North Shore News FREE digital newsletter to receive top headlines from each issue in your Inbox. \(http://www.nsnews.com/newsletter/subscribe\)](http://www.nsnews.com/newsletter/subscribe)

“CASH FOR GRASS” - A COST EFFECTIVE METHOD TO CONSERVE LANDSCAPE WATER?

By: Sylvan Addink, PhD.

Certified Professional Agronomist

Water districts, municipalities, and states are increasingly confronted with the challenge of finding enough water to sustain their growing and thirsty populations. In the midst of a drought, the importance of allocating and saving water is of even greater importance. In the search for methods to achieve this goal, a variety of alternatives have been pursued, some more successfully than others.

This paper will not take a comprehensive look at all the options but rather address one question in particular: Whether offering rebates for the conversion of turf to xeriscape is a cost effective and environmentally friendly method to achieve water savings? In pursuit of an answer, we will first look at the effectiveness of several “Cash for Grass” programs.

North Marin Water District

One of the earliest conversion of turf to xeriscape studies was a pilot study by the North Marin Water District (NMWD) in 1989.¹ The rebate offered was \$0.50 per square foot of turf removed and replaced with water conserving plant materials with a cap of \$310.00 per single family residence. This study also involved the requirement that the participants modify their irrigation system to reduce the water applied to the newly established xeriscape plantings. “The bulk of the applicants opting for drip or drips spitter systems.”¹ Participants had to agree to not make any significant changes from xeriscape as long as they owned the property.¹

There were 73 applications for participation in the study and of these, 46 actually participated in the study and removed turf. Of the 46 participants, half indicated that they were planning on removing turf anyway and that the District’s offer was a pleasant coincidence. Individuals that would have removed the turf, even if they had not received the rebate, are termed “free riders”.²

The annual calculated water savings was 33 gallons per square foot of turf removed. The water savings was partly due to the replacement of the turf, with xeriscape plants, but also due to the installation of a more efficient irrigation system. Properly installed drip-irrigation systems use approximately 20% less water than in-ground sprinkler systems.³

realistically - watering 1" /week for at most 24 weeks gives 2 cubic feet per square-foot of lawn, or about 60 litres of water saved annually per sq-ft. In Metro Vancouver users pay about 50 cents per 1000 litres. So annual saving per sq-ft is about 3 cents.

Albuquerque, New Mexico

Albuquerque, New Mexico has had a conversion of turf to xeriscape program in effect since 1996.⁴ The initial rebate was \$0.20 per square foot and by 2004 had increased to \$0.40 per square foot of bluegrass turf removed and replaced by xeriscape plants. As with the North Marin program, the Albuquerque participants were also required to replace their sprinkler irrigation systems with more efficient irrigation methods. The xeriscape plants could be watered by hand watering, drip, soaker or bubbler irrigation systems.⁵

It was found that there was an average water savings of 19 gallons per square foot of bluegrass turf converted to xeriscape landscaping. However, “17 percent of the participants in the xeriscaping study found they used more water after putting in drought-tolerant plants.”⁶

Southern Nevada Water Authority

A conversion of turf to xeriscape study in Las Vegas offered an initial rebate of \$0.45 per square foot of turf converted. The rebate was later increased to \$1.00 per square foot of turf converted to xeriscape landscaping. As with the above two studies, the participants were required to install a more efficient irrigation system than the one they were using to irrigate their turf. Most of the turf removed was tall fescue and annual water savings were calculated at 62 gallons per square foot of turf removed.⁷

Vancouver it would be only 15 gallons per sq-ft !

Participants had to agree that their “xeriscape conversion will remain in place for a period of not less than five (5) years from receipt of the incentive.”⁸ In each of the above conversion of turf to xeriscape studies, if the participant did replace their xeriscape landscapes, with turf, prior to the end of the agreed upon period of time, then they had to return the rebate.

El Paso, Texas

In 2004, El Paso offered a rebate of \$1.00 per square foot of turf converted to xeriscape plantings⁹. “The El Paso Water Utility asserts that this rebate program has involved 385 participants that removed about 29 acres of turfgrass, resulting in a water savings of approximately 23 million gallons.”¹⁰ This is equivalent to approximately 18 gallons of water saved per square foot of turf removed, which is not as high as the other studies.

Cost Analysis of Cash For Grass Programs

The best measuring stick in judging whether Cash for Grass programs are an efficient method of decreasing water use is the cost per acre foot saved. Table 1 calculates this cost for the four studies mentioned above (see assumptions in Exhibit 1). The North Marin and Southern Nevada programs have an estimated cost per acre foot of water saved of \$512 and \$532, respectively. It is estimated that the Albuquerque program cost \$718 per acre foot of water saved while the El Paso study was the most costly at an estimated \$1,834 per acre foot of water saved.

A key element missing from the El Paso study was the requirement that the participants be required to install a more efficient irrigation system. Lacking an emphasis on good landscape water management, the cost of the program was 312% higher than the average of the other three studies. Although further study is needed, this would indicate that an emphasis on efficient irrigation systems yielded approximately two thirds of the water savings from the programs, while converting from turf to xeriscape yielded only one third of the results.

Further proof that the majority of savings came from emphasis on proper irrigation rather than conversion of turf to xeriscape is seen in the Las Vegas study. Based on water application rates on tall fescue plantings, a water savings of 28% could have been achieved by applying only the

amount of water required by the tall fescue plants (see Exhibit 3). The Southern Nevada Water authority, in their summer 2004 Waterwise publication, stated that, “On average, residents use 40 percent more water on their grass than most turf requires.”¹¹

When comparing a rebate for an ET Controller with a rebate for the removal of grass the cost per acre foot of water saved is significantly less with the ET Controller studies. As seen in Table 1, the average of the four grass removal studies had an estimated cost per acre foot of water saved of \$899. In comparison, the six ET Controller studies, shown in Table 2, had an estimated cost per acre foot of water saved of \$350.

Good Landscape Water Management is More Important Than Plant Material Change

As indicated above, a majority of the water savings in the Albuquerque, Las Vegas, and North Marin studies may be attributed to more efficient irrigation practices. Dr. Welsh, past president of the National Xeriscape Council, stated that, “The type of plant materials or irrigation system in the landscape has much less effect on water consumption than the human factor of good landscape water management.”¹² Dr. Welsh et. al. also stated that, “By simply using efficient irrigation, you can instantly save 30 to 50 percent on your water bill.”¹³

In a water conservation program, established by the Irvine Ranch Water District (IRWD) there was a 50% reduction in water use on non-residential landscapes and “most of the reductions in water use were attributable to improvements in irrigation technology and management, rather than changes in landscape composition.”¹⁴

Dr. Martin stated in Landscape Water Use In a Desert Metropolis that, “factors such as plant spacing, vegetation coverage, plant size, and growth rate can be more important determinants of water use than plant selection.”¹⁵ Vickie Driver, a water resources specialist at the San Diego County Water Authority, was quoted as saying, “The behavioral component is the secret to all the landscape stuff. It ultimately is dependent on the human being managing the site.”¹⁶

Acceptance of Cash For Grass Programs

In a cost/benefit analysis of various outdoor water conservation programs, an incentive program for conversion of turf to xeriscape the “customer acceptance rate is assumed to be an average of 5% for existing construction.”¹⁷ Of the outdoor water conservation programs listed in the Water Plan the conversion to xeriscape program had one of the lowest assumed customer acceptance percentages.¹⁷

In a survey of 1800 residential homeowners **in Phoenix**, “70% of homeowners preferred a landscape dominated by the color green that had at least some lawn area. This finding underscores the importance **in Phoenix of turfgrass lawns as an important element of residential landscapes.**”¹⁵

In Utah, “citizens have a passion for green lawns with gardening as the number one hobby in the state.”¹⁸ If a water district only has a conversion of turf to xeriscape program for outdoor water

conservation, there still is no incentive for the majority of the water users to conserve water outdoors.

Contributing Factors to the High Cost of Cash For Grass Programs

There are some contributing factors, which should be discussed in order to understand why Cash For Grass is a high cost method of saving water. High cost can be in terms of cost per acre foot saved or in terms of cost to the quality of life experienced in metropolitan areas.

1 - Xeriscape landscapes often use more water than “advertised”

An Arizona State University study found that “xeriscapes in Phoenix and Tempe, on average, received at least 10% more water than traditional landscapes consisting of turf and other so-called ‘high water-use’ plants.”¹⁹ As mentioned above in the Albuquerque study, “17 percent of the participants in the xeriscaping study found they used more water after putting in drought-tolerant plants.”⁶

Researchers in Phoenix found that “Xeric-landscape plants lose as much or more water than mesic plants when they are not allowed to go dormant in the summer.”²⁰ They comment that “in drip-irrigated landscapes, water-loss rates by ‘so-called’ low-water plants such as Chilean mesquite and blue palo verde are similar to or even higher than the loss rates of ‘so-called’ high water-use plants such as the mulberry tree.”²⁰

To “create a full landscape appearance, residents often prune fine-textured and open-canopied, desert-adapted plants into dense arrangements, negating their water-conserving potential”.¹⁵ This was indicated in a study by Dr. Martin, where, “Frequent shearing of two common landscape shrubs reduced plant water use efficiency by as much as 59% relative to unpruned controls.”¹⁵

During the transition from moist to dry conditions, xeriphytic species often shed their leaves to reduce moisture loss and enter dormancy. Drought tolerant species can tolerate drought...but they grow slowly under droughty conditions and often are less aesthetically pleasing. What this means in terms of water management is that xeriphytic landscapes can induce residents to use more water than they would with traditional landscapes.²¹

2 - Drip irrigation systems have low uniformity

Generally, a properly installed drip-irrigation system will use approximately 20% less water than in-ground sprinkler systems.³ However, after several years of use, drip irrigation systems may lose some of their efficiency advantage over sprinkler irrigation systems. Dr. Waller stated that, “Our evaluation of 38 landscape drip irrigation systems revealed an average uniformity of less than 20%.”²² Many traditional landscape irrigation systems operate at around 65- to 70-percent water-use efficiency.²³ Low distribution uniformity for the drip irrigation systems resulted from “degradation of emitters and lack of adjustment of number of emitters as plants grew resulted in low uniformity.”²²

3 - Negative environmental impacts from the removal of turf

By removing turf, we will be negating the benefits that the turf provides, including the following:

- Turf protects groundwater quality and improves recharge.
- The turf-soil ecosystem entraps and biodegrades polluting organic chemicals.
- “Turf dissipates heat, reducing energy required to cool nearby homes and commercial buildings.”²⁴ (In an Arizona study, it was determined that soil temperatures, at a xeriscape site were generally 8°C higher than soil temperatures under turf.²⁵ The higher soil temperatures would very likely translate into higher air temperatures).
- Turf abates noise and reduces glare.
- Well-maintained turf and landscaping increase property values.
- Turf is a low-cost, durable, smooth surface for play and relaxation during outdoor leisure activities.
- Natural turf decreases injuries to sports participants.
- “Well-maintained turf and natural scenery have positive therapeutic effects, as measured by heart rate and blood pressure.”²⁴
- Testing has shown that nitrogen leaching losses are significantly greater on a mixed-species landscape than on turfgrass.²⁶

To summarize the benefits of turf, Wynn Anderson, curator of the Chihuahuan Desert Garden at UTEP’s Centennial Museum stated, in reference to the conversion of turf to xeriscape program in El Paso that, “We fear that people will be tearing out all of their grass and letting their trees die. We don’t want people to stop gardening. More yards with crushed rock could mean a rise in temperature. You’re going to have a heat island effect . . . it’ll be miserable. That’s a big price to pay.”²⁷

Where Do We Go From Here?

The information above casts doubt on the cost effectiveness and desirability of Cash for Grass programs. Yet, it is important to have a “multi-dimensional conservation program in any particular water district.”¹⁰ A brief analysis of other water saving programs is included below:

Option 1 - Information Campaigns

Most water districts are quite active in providing public information to water users on landscape design, plant selection, soil preparation, landscape maintenance and irrigation. “Education programs are by far the most common demand-side water use efficiency measure in the Southwest . . . Two primary reasons are that public education and awareness are the fundamental building blocks to all goals of water use efficiency and public education programs tend to be relatively affordable. Although education and awareness provide a solid foundation for all other demand reduction programs, policies, and regulations, in most cases education alone will not effectively address demand-side water use efficiency.”¹⁰

Option 2 - Water Audits

Due to the time and cost involved in conducting a water audit, there will likely not be a significant impact on total water use in a water district from water audits done on residential landscapes. However, water audits done on large industrial, commercial and public properties may result in significant water savings by a water district, as indicated by the following examples.

“In 1995, SCVWD [Santa Clara Valley Water District] initiated the Irrigation Technical Assistance Program (ITAP) with the goal of helping managers of large landscapes improve their irrigation efficiency.”¹⁴ They did an audit and provided recommendations to the landscape managers and the “recommendations were all based on management improvements, such as irrigation scheduling and system maintenance, rather than equipment retrofit or landscape changes, and therefore minimal cost was incurred by customers in adopting these recommendations.”¹⁴ At one site, where the SCVWD provided their assistance, the water use declined by “55 percent from the previous year’s water use.”¹⁴

In Utah, “The year following a site evaluation, participants were able to reduce their water use by 20-60 percent.”¹⁶ Additionally, Marin Municipal Water District has realized substantial water savings by targeting their audit program at the “inefficient water use among the highest water users in each customer class.”²⁸

Option 3 - Tiered Rate Structures

Today, water districts are starting to implement conservation pricing or tiered rate structures to try reduce the excessive use of water by water users. In some water districts this has been quite successful. “In June of 1991, in response to the drought, IRWD (Irvine Ranch Water District) developed a five-tiered, steep inclining block rate structure . . . The combination of incentive pricing, water budgets, rebate and loan programs, and educational outreach has proven to be very effective...[with] a reduction of 50 percent”in non-residential water use over an eight year period.¹⁴

IRWD found that, “Five key elements of the rate structure worked to ensure its success: adequate customer information and analysis; structure design; equity and customer acceptance; revenue stability, and coordination with other conservation programs.”²⁹ “IRWD attributes much of the savings in the first five years of the program primarily to improved irrigation practices (better scheduling, less over watering, etc.) and not changes in types of landscaping.”²⁹

Some water districts, such as Las Vegas, have implemented a four-tiered rate structure, along with other conservation programs, but have not achieved the water savings goals they had set. “The upward conservation trend of the 1990’s has not continued, peaking in 1999 at about 17% and declining to a four-year low of 13.5% in 2001.”¹⁰ Sometimes, the difference in the success or failure of the tiered rate structure is in the penalty that is assigned to each tier. “...[I]n many cases, the block price increases are not steep enough to get the attention of water users.”³⁰

Boulder and El Paso “instead of using fixed consumption volumes as thresholds for each block rate, the blocks are determined by the Average Winter Consumption (AWC) of each individual account. This type of price structure serves two objectives. First, as with standard block rate structures, efficient and/or low-use customers pay a low unit rate, while inefficient and/or high-use customers pay a high unit rate. Second, the user of AWC baselines builds an additional incentive into the water pricing.”³¹ “...[I]t is very likely that the distinct aggressiveness of the rate structures in Tucson, El Paso, and Boulder contribute to the relatively low SFR (single family residence) consumption rates in these water service areas.”³¹

With the tier rate structures mentioned above, the water user is allocated a certain amount of water for outdoor use and, if they exceed the base amount they are allocated, they will have to pay a higher rate. An important aspect of this type of program is that the water user makes the decision on what conservation methods they will use rather than having a water conservation method dictated to them by a water district or municipality.

Option 4 - Rebates for Efficient Use of Water

Santa Rosa, California has an irrigation efficiency rebate program that applies to commercial landscapes.³² “Eligible customers can earn \$500 for each acre-foot (325,851 gallons) of water savings below your Efficient Irrigation Goal each year (approximately \$1.53 per 1,000 gallons of water saved).”³² The efficient irrigation goal is based on landscape and weather data. Although Santa Rosa’s irrigation efficiency study only applies to commercial water customers, it could be applied to residential customers also and would be a program that would apply equitably to all landscape water users.

The most important aspect of a program such as the one in Santa Rosa is that it would apply to everyone who conserves water outdoors including the 70% of homeowners who prefer turf instead of xeriscape plants. If the homeowners, who have traditional landscapes, would reduce their water usage by better management, installing ET controllers, rain sensors, etc., then they would receive a rebate once their water use is below the ‘Efficient Irrigation Goal’ for their landscape. This program would motivate all landscape owners to conserve water and should be a very cost effective water conservation program.

The method used to set the “Efficient Irrigation Goal” is extremely important. If the goal is based on a water budget, all outdoor water users would be treated fairly, since the water use goal is based on the landscape area. However, if it is based on a water diet or percent reduction based on historical water usage outdoors, then some water users, even with a reduction in water use, will still be found to use excessive water.

Option 5 - Rebates for the Installation of ET Controllers™ and/or Rain Sensors

During 2001, residential landscape irrigation studies using Aqua Conserve ET Controllers™ were established with Denver Water and two adjacent water districts in Northern California, the City of Sonoma, Valley of the Moon Water District. The data collected from these studies indicated that participants had a total outdoor water savings of 21%, 23% and 28%, respectively.³³ A similar study in Irvine, California involving conversion from conventional irrigation clocks to “smart” irrigation controllers yielded total outdoor water savings of 16%.³⁴ See Table 2 for further detail and cost per acre foot of water saved.

Additionally, for a relatively low price, the installation of a rain sensor, with an automatic irrigation controller can provide significant water savings. The water savings will vary based on the average rainfall that occurs at the location site of the irrigation controller. One irrigation consultant has found, based on his own experience, “using rain sensors alone will save about 12 percent of the water that would have been used without a rain sensor.”²³

The combination of the installation of an ET Controller™ and a rain sensor will have an additive effect on the water savings that can be achieved. In a study in Seattle, Washington, conversion to ET Controllers™ with a rain sensor provided outdoor water savings of approximately 45%.³⁵

Option 6 – Where Appropriate, Plant More Warm-Season Turf

In southern regions of the United States water could be saved if more warm-season turf was planted rather than cool-season turf. In a study in New Mexico, “the cool season grasses required about 30 percent more water than the warm season grasses to maintain an acceptable appearance.”³⁶ Warm season turf species varieties include bermudagrass, St. Augustinegrass, zoysiagrass, and buffalograss. Cool season turf varieties include tall fescue, Kentucky bluegrass, and perennial ryegrass.

Exhibit 1 – Explanation of Assumptions in Table 1

Rebates - The listed rebates in Table 1 are not necessarily the rebates that were used in the studies but are instead the rebates that are presently offered to participants in each of the water districts or municipalities where the studies on conversion of turf to xeriscape occurred.

Administrative and Site Inspection Costs – In the NMWD study, John Nelson figured the administrative and site inspection cost to be \$15.00 per participant.¹ This figured out to be approximately \$0.015 per square foot of turf removed with one site inspection. Therefore, in Table 1, the administrative and site inspection costs were set at \$0.02 per square foot of turf converted to xeriscape plants for all studies. Likely, the cost today would be higher than the cost John Nelson figured for administrative costs and inspection costs in 1991.

‘Freerider’ Costs - Based upon the North Marin study, 50% of the participants in the study were going to remove turf anyhow, even without the rebate.¹ These participants are termed ‘freeriders’.² John Nelson accounted for this in the North Marin study since “agencies do not get incremental conservation benefits from serving freeriders because the conservation would have happened irrespective of the program; scarce water conservation program budgets would be more productively spent in other ways.”² Based on the North Marin data, a conservative figure of 30% was used for ‘freeriders’ in the calculations in Table 1.

In the Las Vegas study, one superintendent removed 14.1 acres of irrigated rough to qualify for the maximum \$300,000 rebate. He stated, “When I see a possible \$500,000 surcharge for water costs, that motivates me to look at options”.³⁷ This is another example of the “freerider” effect.

Water Savings Erosion Costs – Several factors contribute to erosion of water savings. First, “if homeowners blindly reduce turfgrass and replace that area with trees and shrubs, the reality is that no savings would be realized in the long run – and, in fact, greater water use would most likely occur.”³⁸ Second, as the xeriscape plants grow, degradation of drip emitters will likely occur,²² which results in a reduction of water savings. Third, to “create a full landscape appearance, residents often prune fine-textured and open-canopied, desert-adapted plants into dense arrangements, negating their water-conserving potential.”¹⁵

In the Southern Nevada Water Authority Study, over a three year period, there was an increase in water use in the converted xeriscape landscapes. Even though “the authors dismiss concerns over serious savings erosion...,”⁷ the erosion in water savings is almost certain to occur. In Table 1 the cost per acre foot of water saved was based on 25% erosion.

Life of the Water Savings – A homeowner may not very quickly replace a toilet, clothes washer or other conserving appliance that they have installed in their home. Thus, a 25 year life for indoor conversions may be reasonable.⁴ However, seventy percent of homeowners surveyed in Phoenix indicated they preferred a landscape dominated by green color, with some lawn area¹⁵ and Americans move an average of once every 5 years.³⁹ Therefore, in Table 1 a 15 year lifetime for water savings was used for a conversion of turf to a xeriscape planting.

Exhibit 2 – Explanation of Assumptions in Table 2

Rebate Cost Per Controller

The Denver Water, Sonoma, and Valley of the Moon studies were conducted with Aqua Conserve ET Controllers. Retail price is approximately \$200 for a six to nine station controller. Therefore, this amount was used to compensate for the full cost of a controller.

Administration and Freerider Cost Per Controller

Set at approximately the same percentage as the cash for grass programs.

Exhibit 3 – Estimate of Water Savings from Applying the Proper Amount of Water to the Plant Material – Las Vegas Study

Prior to conversion to xeriscape, the calculated water applied to tall fescue turf was 79.2 gallons per square foot per year,⁷ which is equivalent to 127 inches per year. With cool season grasses, a standard recommendation is to apply 0.8 of Reference Evapotranspiration (ET_o) for the location. The ET_o for Las Vegas is approximately 74 inches per year⁴⁰ so tall fescue would require approximately 59 inches per year with 100% distribution uniformity of the irrigation system (DU). With a reasonable DU of 65%, 91 inches of water would need to be applied. Thus, a water savings of 28% could have been achieved, with the applying of the proper amount of water to the tall fescue lawns.

1. Nelson J. O. (1991). "Report on Results of One Year Pilot Project Conversion of Turf to Xeriscape."
2. Whitcomb, PhD., J.B. (2002, December). Freeriders in ULFT Programs.
3. Chapter II Water Use and Conservation: Perception vs. Reality. *Water Right-Conserving Our Water Preserving Our Environment*. 7-10.
4. Friedman, M. S. (2003). Technical and Physical Feasibility Fact Sheet Alternative 22: Conservation Incentives. Retrieved December 12, 2003, from <http://www.waterassembly.org/pdfs2/A38.pdf>.
5. City of Albuquerque Public Works- Water Conservation Office (2003). Xeriscape. Retrieved December 12, 2003, from <http://www.cabq.gov/waterconservation/xericrebate.html>.
6. (2000, March 29). City calls xeriscaping a success. *Amarillo Globe-News*. Retrieved amarillonet.com/stories/032900/usn_calls.shtml.
7. Sovocool, K. A. and J. L. Rosales (2001). A Five-Year Investigation Into The Potential Water And Monetary Savings Of Residential Xeriscape In the Mojave Desert.
8. (2003). Water Smart Landscapes-Residential Rebate Conditions. Retrieved December 12, 2003, from http://www.snwa.com/html/ws_landscape_conditions.html.
9. Driver, B. (2002, July). Water Use Efficiency Improvements: A Solution to Colorado's Urban Water Supply Problems. Retrieved January 2, 2004, from www.lawfund.org/media/pdf/efficiency%20White%20Paper.pdf.
10. Western Resource Advocates (2003, December). Chapter 2 Water Use Efficiency: State-of-the-Art. *Smart Water a Comparative Study of Urban Water Use Efficiency Across the Southwest*. 25-54.
11. Waterwise Summer 04. *A Publication of the Southern Nevada Water Authority*.
12. Welsh, D. (1990). Practical Turf Areas: The Controversial Xeriscape Guideline. *Position Paper from National Xeriscape Council, Inc.*
13. Welsh, D. F. et. al. Landscape Water conservation...Xeriscape™. *Texas Agricultural Extension Service*. Retrieved December 12, 2003, from <http://aggie-horticulture.tamu.edu/extension/xeriscape/xeriscape.html>.
14. Haasz, D. (1999). Chapter 4 Reducing Water Use in Residential, Industrial, and Municipal Landscapes. *Sustainable Use of Water California Success Stories*. 49-67.
15. Martin, C. A. (2003, April). Landscape Water Use In a Desert Metropolis. *Consortium for the Study of Rapidly Urbanizing Regions, Research Vignette No. 1*. Retrieved December 12, 2003, from <http://ces.asu.edu/csrur/research%20vignette%201.pdf>.
16. Boxall, B. (2003, September 6). Water Conservationists Step on the Grass. *L. A. Times*. Retrieved December 12, 2003, from <http://groups.yahoo.com/group/urban-ecology/message/6069>.
17. Xeriscaping Residential (1989, October) *WaterPlan*.
18. Jackson, E. K. (2003). Saving Utah Water in the Fifth Year of Drought. *Proceedings, National Irrigation Association*.
19. Chapter V Educational Needs and Opportunities for Water Conservation. *Water Right-Conserving Our Water Preserving Our Environment*. 18-20.

20. Martin, C. A. et. al. Urban Plant Ecology: a Horticultural Perspective. Initial results From a Long Term Ecological Research (LTER) Site. Retrieved December 12, 2003, from <http://www.ces.ncsu.edu/fletcher/studys/nursery/metria.metrial2/martinetal/index.html>.
21. Chalker-Scott, L. The Myth of Xeriscaping. *Center for Urban Horticulture Ecosystem Sciences College of Forest Resources., University of Washington*. Retrieved December 12, 2003, from <http://www.cfr.washington.edu/research.mulch/myths/xeriscape.pdf>.
22. Waller, P. (November-December, 1999). To Drip or Not to Drip, That Is the Question. *Arizona Water Resource*. Volume 8, Number 3.
23. Haveruk, L. (June 1, 2002). To the Last Drop. *Grounds Maintenance*.
24. December (2002). Better Turf Thru Agronomics. *UCRTRAC Newsletter*. Retrieved December 12, 2003, from <http://UCRTRAC/BTTA/BTTA%20December%202002.pdf>.
25. Celestian, S. B. and C. A. Martin (2002). Urban Land Use and Surface Cover: Effects on Soil Temperatures. Retrieved December 12, 2003, from <http://caplter.asu.edu/Symposia/Symp2003/CelestianMartin.pdf>.
26. Erickson, J. E. et. al. Comparing Nitrogen Runoff and Leaching between Newly Established St. Augustinegrass Turf and An Alternative Residential landscape. *Crop Science 41:1889-1895 (2001)*.
27. Gonzalez, M. C. (2003, March 17) Homeowners turn to xeriscaping as water shortage nears. *El Paso Times*. Retrieved December 12, 2003, from <http://www.borderlandnews.com/water2003/20030317-88617.shtml>.
28. Owens-Viani, L. (1999). Chapter 1 Marin Municipal Water District's Innovative Integrated Resource Management Program. *Sustainable Use of Water California Success Stories*. 11-26.
29. Wong, A. K. (1999). Chapter 2 Promoting Conservation with Irvine Ranch Water District's Ascending Block Rate Structure. *Sustainable Use of Water California Success Stories*. 27-36.
30. Western Resource Advocates (2003, December). Chapter 5 Recommendations. *Smart Water a Comparative Study of Urban Water Use Efficiency Across the Southwest*. 105-114.
31. Western Resource Advocates (2003, December). Chapter 3 Comparative Analysis of Water Providers in the Southwest: Water Use and Demand-Side Efficiency. *Smart Water a Comparative Study of Urban Water Use Efficiency Across the Southwest*. 55-92.
32. Irrigation Efficiency Rebate Study. *City of Santa Rosa Water Conservation Study*. Retrieved December 12, 2003, from <http://ci.santa-rosa.ca.us/wc/pdf%20files/irrig%20Effic%20Brochure.pdf>
33. Reed, J. (2002). Conservation Specialist, Denver Water, Tom Rodda (2001), City of Sonoma Program Coordinator, and Robert Freeland (2001), Valley of the Moon Water District Program Coordinator, Personal Communications.
34. Hunt, H. et. al. (2001) Residential Weather-Based Irrigation Scheduling: Evidence from the Irvine "ET Controller" Study.
35. Smith, J. and T. Brown (2003) Water Efficient Irrigation Study Final Report. *Seattle Public Utilities, Resource Conservation*.
36. Smeal, D. (Fall 2000). Study Compares Turf Water Needs. *Conservation Current-A Newsletter Published by the New Mexico Water Conservation Alliance*. Retrieved December 12, 2003, from <http://wrri.nmsu.edu/wrdis/nmwca/current/fall2000.pdf>.

37. Ritter, J. (2003, May 29). Vegas drought may wither growth. *USA Today*. Retrieved December 12, 2003, from http://www.usatoday.com/weather/news/2003-05-29-vegas-drought_x.htm.
38. (1998, June 19). Our Readers Respond. *Las Vegas Review-Journal, Donrey Newspapers*. Retrieved December 12, 2003, from http://www.reviewjournal.com/lvrj_home/1998/Jun-19-Fri-1998/opinion/7684139.html.
39. Moving and Welcoming. *Exodus Network*. Retrieved December 12, 2003, from <http://www.exodus.ibelieve.com>.
40. Devitt, D. A. (2003). Center for Urban Water Conservation. Las Vegas, Nevada. Personal Communication.

Other Related Reading Information:

- Devitt D. A. et. al. (1995). Comparative Water Use of Turfgrass and Ornamental Trees in an Arid Environment. *Journal of Turfgrass Management*, Vol 1(2), 47-63.
- Cooper, R. M. and M. K. Owens (2002). How Much Water Do Xeriscape Plants Really Need? *Texas A&M Agricultural Research & Extension Center at Uvalde*. Retrieved December 12, 2003, from <http://uvalde.tamu.edu/pdf/2002/024-xeriscape.pdf>
- Duble, R. D. Water Management on Turf grasses. *Texas Agricultural Extension Services*. Retrieved December 12, 2003, from <http://aggie-horticulture.tamu.edu/plantanswers/turf/publications/water.html>
- Brown, P. W. (2001, December) Turfgrass consumptive Use Values for the Phoenix Area. *Turf Irrigation Management Series V*.
- Western Resource Advocates (2003, December). Appendix B El Paso. *Smart Water a Comparative Study of Urban Water Use Efficiency Across the Southwest*. 122-178.
- Mecham, B. (2003, March). Conservation Strategies for Lawn Watering During Drought or Water Shortages. *24th Annual International Irrigation Show*.

Table 1. “Cash for Grass” Studies and Cost Per Acre Foot Saved

Study Location	Rebate Cost Per S.F.	Admin Cost Per S.F.	Freerider Cost Per S.F.	Total Cost Per S.F.	Gal. Saved Per S.F.	S.F Needed to Save One Acre Ft./Yr.	Cost Per Acre Foot Water Saved	15 Yr. Cost Per Acre Ft. with 25% Erosion
North Marin	\$0.50	\$0.02	\$0.16	\$0.68	33 Gal.	9,874	\$6,714	\$512
Albuquerque	\$0.40	\$0.02	\$0.13	\$0.55	19 Gal.	17,150	\$9,433	\$718
Southern NV	\$1.00	\$0.02	\$0.31	\$1.33	62 Gal. *	5,256	\$6,990	\$532
El Paso	\$1.00	\$0.02	\$0.31	\$1.33	18 Gal.	18,103	\$24,077	\$1,834

* The Southern Nevada Water Authority, in their summer 2004 Waterwise publication, stated that, “On average, residents use 40 percent more water on their grass than most turf requires.”¹¹

Table 2 ET Controller Studies and Cost Per Acre Foot Saved

Study Location	Rebate Per Controller	Admin Cost Per Controller	Freerider Cost Per Controller	Total Cost Per Controller	Gal. Saved Per Controller	Controllers Needed to Save One Acre Ft./Yr.	Cost Per Acre Foot Water Saved	15 Yr. Cost Per Acre Ft.
Denver, CO	\$200.00	\$30.00	\$69.00	\$299.00	38,486 Gal.	8.5	\$2,542	\$169
Sonoma, CA	\$200.00	\$30.00	\$69.00	\$299.00	23,963 Gal.	13.6	\$4,066	\$271
Valley of the Moon, CA	\$200.00	\$30.00	\$69.00	\$299.00	41,900 Gal.	7.8	\$2,332	\$155
Irvine, CA	\$200.00	\$30.00	\$69.00	\$299.00	13,651 Gal.	23.9	\$7146	\$476
Seattle, WA Controller Only	\$200.00	\$30.00	\$69.00	\$299.00	10,071 Gal.	32.4	\$9,688	\$646
With Rain Sensor	\$250.00	\$30.00	\$84.00	\$364.00	20,735 Gal.	15.7	\$5,714	\$381



<http://vtrural.org/sites/default/files/content/DigitalEconomy/municipal-website-toolkit.pdf>

Creating and Managing a Municipal Website

One of the services that provided great opportunity for enhanced communication within towns, and greater community resilience was the creation of municipal websites. Through the Vermont Digital Economy Project and its partner organization, the Snelling Center for Government, we created or updated 26 municipal websites for towns across Vermont. Although our project is concluded, we wanted to share the process that we used to create these municipal websites with anyone who is interested. They are below.

A good starting point for this learning is our other article, called [5 Tips for Creating a Successful Municipal Website](#).

Contents

The Value of Municipal Websites	2
Communication	2
Participation	2
Access	2
Economic Development	2
1. Where Does Your Website Currently Stand?	2
Usage	2
Content	2
Updates	2
2. Soliciting feedback from the community	3
3. Mapping out content.....	3
4. Designing and Building the Website.....	3
Choosing a Content Management System (CMS)	3
Building for Web and Mobile Devices	4
Basic Usability and User Experience.....	5
Other Considerations	5
5. Creating a process for continued updates	5
Planning: Criteria For Success.....	5
Internal Management.....	6
Additional Resources.....	6



The Value of Municipal Websites

Municipal websites are valuable for a number of reasons:

Communication: To begin with, these sites are a powerful tool for towns to communicate with their citizens, and they allow site visitors to get quick answers to easy questions.

Participation: In addition, these websites expand opportunities for citizens to participate in and be informed by local government. In many smaller towns, town offices are only open at certain times of day, which may be inconvenient for many of those towns' residents. By offering more information online, a town is offering an opportunity for more of its residents to be well informed, and to participate in the process of keeping the community running smoothly.

Access: As more and more people become accustomed to finding the information they need online, municipal website can enable towns to communicate with visitors and residents in a way they are accustomed to.

Economic Development: Finally, these websites offer towns the opportunity to showcase their communities. A well-constructed municipal website is often the first result on a search engine when somebody searches for the name of that town, so if that site has information for residents and visitors alike, it can be a true driver of economic development.

1. Where Does Your Website Currently Stand?

When a town decides it is time to either update or create a new website, the most important first step is to look at what it already has, and to understand what it needs. A town needs to understand who is using its current site, why, and what information users are expecting to find on the site. If a town has no site, then it needs to understand what questions its citizens ask the most frequently.

Usage

If there is already a website, look at the data that it has been collecting. The best scenario is if the site is already using Google Analytics, which can be used to look at a variety of important data, such as where visitors come from, what they're looking at, and how long they stay. Most web hosting services do provide some data on web usage, though, and it is important to look at whatever data is available, to determine who the site's visitors are, and why they are visiting.

Content

Whether there is already a site in use or not, it is possible to gain some understanding of what types of content users are most interested in. You can find this information by looking at what pages are visited the most, or looking at the history of searches that users have done through the site's search-bar, if it has one. If there is no site, think about what forms are requested most frequently from the town offices, or what questions are brought up by people in conversation, or on social media platforms like Front Porch Forum.

Updates

Finally, to analyze a site, you must also ask yourself how it is currently being run. Is this process of keeping up the site done in-house, and if so, by whom? A mark of a successful municipal website is one that can be managed internally, without resorting to (or paying) somebody outside of the town itself. It is also helpful, when looking at a current site, to think about structure, age, and aesthetics. What impression does the site currently



give to people looking up the town to perhaps visit it? Can community members find information easily? How frequently is it updated? Answering these questions will help give a better sense of what will be needed in the future to maintain a new, well-managed, usable, and up-to-date site.

2. Soliciting feedback from the community

A town's municipal government is there to serve the best interest of the town, and thus of its community members. In order to do so, it is important to solicit feedback from a town's citizens, when putting together a new site.

The Snelling Center for Government conducted a Community Discussion around the website in many of the towns they served. Through this process they invited residents to come participate in a facilitated discussion about their community. They made sure to keep the focus positive, to celebrate what was working, and asked what folks thought would be useful on the sites. This was important for a couple of reasons:

1. Municipal websites should exist to inform and serve citizens. If sites do not have relevant or useful information to the site's visitors, they won't be adopted by the community. Adoption matters, especially in emergency settings.
2. Conversation can derive information that can be used in the development of the websites. In the towns where the Snelling Center conducted these meetings, residents shared information that wouldn't have been gained from talking with one person in town. Thus, this meeting prevents site development work from being done in silo, and allows the sites to truly reflect the communities they are representing.

Read examples of how the community helped to give great insight into the municipal website in [Mendon](#) and [Wilmington](#).

3. Mapping out content

Based on analytics data and feedback, work to create a site-map and to prioritize content. This content should be organized under heading and sub-headings, which will then become the menus and navigational structure of the website. [Click here for an article on the approach one library took to organize its content.](#)

4. Designing and Building the Website

Choosing a Content Management System (CMS)

A Content Management System is the platform that enables a website administrator to add new content and to update the website when appropriate. While it is always helpful to know basic HTML and CSS to make the site function, many CMSs do not require that skill, and instead offer easy-to-use, What You See is What You Get (WYSIWYG) editors for adding content.

Here is a good definition of a content management system, from <http://www.joomla.org/about-joomla.html>:

"A content management system is software that keeps track of every piece of content on your Web site, much like your local public library keeps track of books and stores them. Content can be simple text, photos, music, video, documents, or just about anything you can think of."

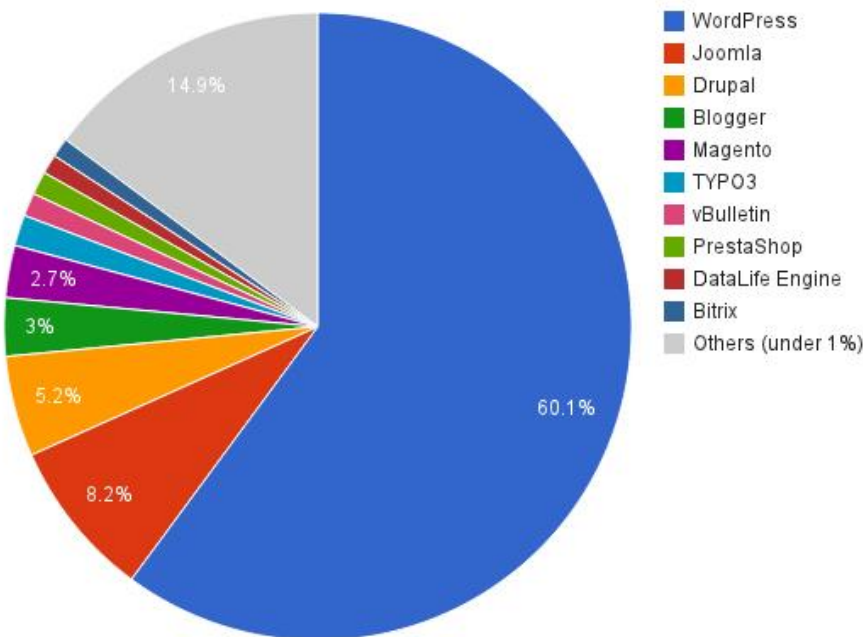


While many CMSs are proprietary, some of the most popular systems are open-source, meaning they are free to use, and develop. Usually, this means there is also a vibrant community dedicated to building and improving that system, of whom you can ask questions. Proprietary CMSs, on the other hand, often cost an annual fee, and are frequently less flexible. However, they do have the advantage of usually coming with a help line to call and receive answers.

Below is a chart of the Content Management Systems being used across the internet as of 2014. We strongly suggest using a CMS that has a large user base, because it means there are a large number of people invested in keeping it updated, free of bugs, and running smoothly. It also means there is a larger community of people who have probably run into whatever questions you might have already, and how know how to solve them.

For the websites we built, therefore, we used WordPress.

Market Share Trends Web Content Management Systems



Data collected by W3Tech.com / Last update: July 1, 2014

Building for Web and Mobile Devices

A site should be built with more than just computers in mind. The current web browsing landscape is rapidly changing: **By 2015, more Americans will access the Internet via mobile devices than desktop PCs.** (Source: <http://www.whitehouse.gov/sites/default/files/omb/egov/digital-government/digital-government.html>), and in 2011, global smartphone shipments exceeded personal computer shipments for the first time in history. (Source: <http://www.whitehouse.gov/sites/default/files/omb/egov/digital-government/digital-government.html>). A successful website, therefore, must look good on a desktop, laptop, tablet, and smart phone, across a variety of different web browsers. In other words, new sites should be designed to be responsive.



Basic Usability and User Experience

No matter what the content on a website, if a user cannot find the information he or she needs in a manner that is simple, clear, and easily navigable, then the website is not successful. This is what usability refers to: ensuring that the information a user is looking for is easy to access and that the site is simple to use.

Usability also refers to ADA compliance. As a municipal website, it is doubly important that the site be easy to navigate and ADA compliant. You can find a list of compliance standards for the state of Vermont here:

<http://www.vermont.gov/portal/policies/accessibility.php>

User experience, on the other hand, focuses on the overall experience the user had on the website. Perhaps it was easy for her to find the information she wanted, but she came away feeling unhappy about the experience. Think about walking into a dim, dirty store. You may be able to find the toothpaste you were looking for, but the experience could have been better. A website should have both good usability and a good User Experience.

Here is a helpful article explaining these two terms: <http://www.uie.com/brainsparks/2007/03/16/the-difference-between-usability-and-user-experience/>

You can find some great information on usability and User Experience, particularly as it relates to government sites, here: <https://www.digitalgov.gov/2014/11/07/welcome-to-user-experience-month/>

There is also a usability starter kit, with great resources, here: <http://www.digitalgov.gov/resources/digitalgov-user-experience-program/digitalgov-user-experience-program-usability-starter-kit/>

Other Considerations

- **Community Television / Public Access Station Partnerships:** Some towns have created partnerships with their Community Access station to video meetings, a link to which is then posted on the website. This expands opportunities for citizens to participate in government, and promotes transparency. For example, the [Town of St. Albans](#) posts a link on their website's front page to their [selectboard videos](#) in addition to [the minutes](#).
- **Information for non-residents:** While residents do access municipal websites for information, the majority of the site traffic we found when we looked at municipal website's analytics was coming from other geographic locations. For example, in Halifax, the town's top 7 visitor locations were as follows: 1. Halifax (7.5%) 2. Burlington 3. Brattleboro 4. Montpelier 5. Manchester 6. Amherst 7. New York (1.7%). There is therefore an enormous opportunity to improve visitor engagement on these sites even without becoming a tourism site. For example, you may consider offering information about what it's like to live in a town, adding links to area Chambers, making sure there are photos of the area, and listing or linking to local events.

5. Creating a process for continued updates

Planning: Criteria For Success

In order to keep the site up to date and successful after its launch, it is important to have a plan in place before the site is launched. **A town should be able to answer the following points before the site is built and before any requests are made to have a volunteer/vendor create a website:**

1. **Who has final decision making authority the website and budget?**



2. Who will manage the site once it has launched?
3. List each person's Roles/Responsibilities
4. Have a privacy and linking policy in place on the website.

Internal Management

Below is a very basic example from a Digital Economy Project Town of a clear document whose purpose is to clearly identify Roles & Responsibilities of each website user. When creating your own document for your site, make sure the selectboard, Town Clerk and other officials understand who does what for continuity of operations, especially in an emergency and for standard business:

Administrators: Jane Doe and John Smith

Task: Upload Agendas (SB, PC, DRB). Upload Minutes (SB, PC, DRB)

- **Who:** Jane Doe
- **When:** Minutes will be uploaded within five days of the meeting. Agendas will be posted 48 prior to a regularly scheduled meeting, and special meetings will be posted 24 hours in advance.

Task: Emergency Information

- **Who:** Jane Doe
- **When:** In and emergency!

Task: Keep News and Announcements Current and Update Announcements Box

- **Who:** John Smith
- **When:** News and Announcements will be updated weekly, on Tuesdays.

Additional Resources

- [Stories about Municipal Websites](#): read about the experiences that towns had with the process we described.
- [5 Tips for Creating a Successful Municipal Website](#): five suggestions to ensure that your town's new municipal website is dynamic, usable, and up-to-date.
- [GovLoop](#): A website for staying in touch with a community of government workers, with articles that address topics from one's online presence to office management.
- [DigitalGov](#): A great resource on effectively bringing government online.
- [vermontbroadband.org](#): The Vermont Digital Economy Project's Predecessor, e-Vermont, also worked with the Snelling Center for Government on Municipal websites, and created a [website](#) with a repository of information for officials and citizens who want to build a web presence for their town or make improvements to existing online information. The resources below were created in 2012 and have not been updated, but the majority of the information is still relevant and helpful:



- Check out the [Plans and Policies](#) section for examples of strategic plans, website policies and web manager job descriptions and written by municipal officers, along with a sample RFP for website work and questions to ask before hiring a vendor to do Web-related work.
- Search the [Resource Library](#) for links to topics related to website and online application management.
- Look through a [town website template](#) filled with examples of useful content that encourages transparency and openness in local government.
- Read the [e-Gov Blog](#) section for tips on optimizing search for town websites, municipal records retention on the Web and registering a town website for a .vt.gov domain name.