# AGENDA ADDENDUM

COUNCIL WORKSHOP

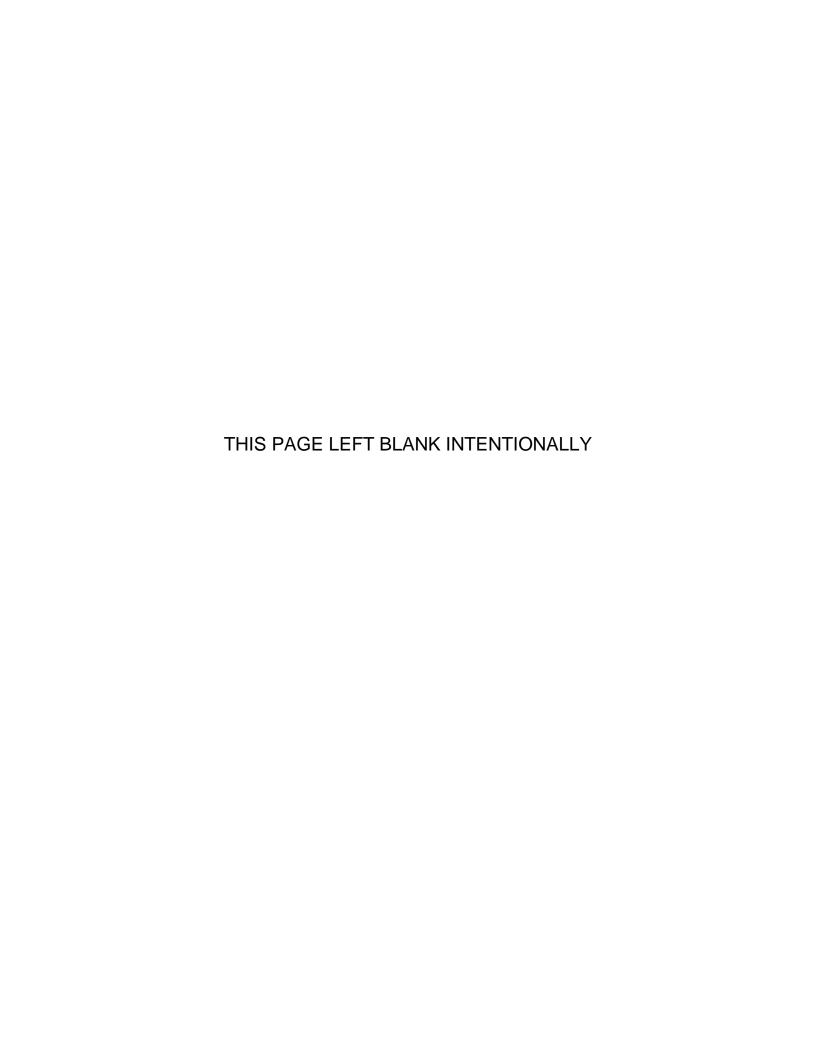
Monday, March 1, 2021 7:00 p.m. To be held virtually but streamed at dnv.org/council-live

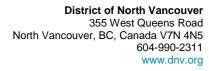
#### **Council Members:**

Mayor Mike Little
Councillor Jordan Back
Councillor Mathew Bond
Councillor Megan Curren
Councillor Betty Forbes
Councillor Jim Hanson
Councillor Lisa Muri



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## **COUNCIL WORKHSOP**

7:00 p.m.
Monday, March 1, 2021
To be held virtually but streamed at dnv.org/council-live

### **AGENDA ADDENDUM**

#### THE FOLLOWING LATE ITEMS ARE ADDED TO THE PUBLISHED AGENDA

### 3. REPORTS FROM COUNCIL OR STAFF

### 3.1. Financial Plan – Public Input

File No. Financial Plan Process/2021

Report: Manager - Business Planning and Decision Support, February 26, 2021

Attachment A: Financial Plan Deliberations Presentation

Attachment B: Financial Plan Input Summary Attachment C: Input from Peter Teevan

Attachment D: Input from Corrie Kost

### Recommendation:

THAT the February 26, 2021 report of the Manager – Business Planning and Decision Support entitled Financial Plan – Public Input is received for information.

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COUNCIL AGENDA/INFORMATION								
In Camera	Date:		Item #				3	
Regular	Date:		Item #	Name of the state				1 XX
Agenda Addendum	Date:	31.00	Item#	600000	]  _	Dept.	Director	CAO
Info Package	N <del>aces</del>				_   м	anager	Director	Colo
Council Workshop	DM#	Date:		Mailbox:			1	

# The District of North Vancouver REPORT TO COUNCIL

February 26, 2021

File: Financial Plan Process/2021

AUTHOR: Rick Danyluk, Manager Business Planning and Decision Support

SUBJECT: Financial Plan – Public Input

#### RECOMMENDATION:

THAT this report be received for information.

#### REASON FOR REPORT:

To provide Council a summary of public input received on the 2021 – 2025 Financial Plan prior to the deliberations meeting on March 1.

#### SUMMARY:

Following a series of public workshops on the financial plan starting last October, the draft financial plan workbook was introduced to Council and the public on February 8. Since that time staff received questions from the public between February 9 and February 22, met with the community associations on February 17 and an opportunity for direct input to Council was provided February 22. Staff prepared a summary of responses to questions received during this public input process which are attached for Council's consideration during their deliberations meeting March 1.

The District's stable and competitive approach to property taxes continues to compare well, reflecting Council's priorities and a proposed increase amongst the lowest in region for 2021. Staff also continue to pursue municipal finance reforms to reduce inequalities and better support business and industry. While provincial legislation limits the ways municipalities can respond to the economic impacts of the pandemic, options to support the local economy will be presented at Council's Property Tax Distribution workshop on April 19 following adoption of the financial plan bylaws.

There will be new opportunities for public input as we aim to bring long-term plans strategies and finances into balance through a series of workshops over this year and continue to build on the District's legacy as a leader in sustainable financial planning.

The financial plan bylaws are scheduled for first three readings March 29 followed by adoption no later than April 12. The plan can be amended anytime, and is typically amended each spring and fall based on new information and Council direction received during the course of the year.

Respectfully,

Rick Danflux

Rick Danyluk, Manager Business Planning and Decision Support

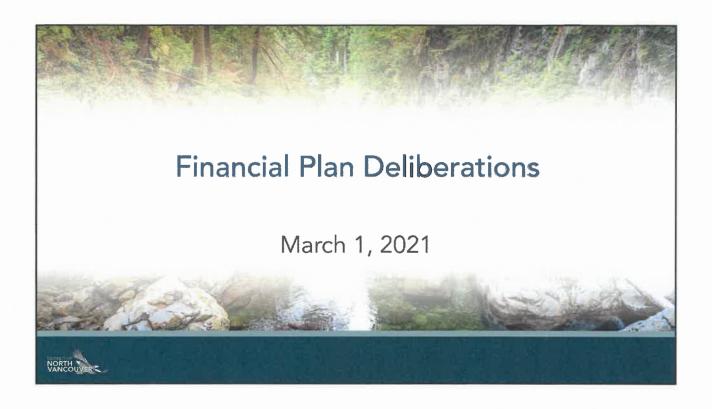
Attachments: A: Financial Plan Deliberations Presentation

B: Financial Plan Input Summary

C: Input from Peter Teevan

D: Input from Corrie Kost

REVIEWED WITH:	REVIEWED WITH:	REVIEWED WITH:	REVIEWED WITH:
☐ Sustainable Community	☐ Clerk's Office	External Agencies:	<b>Advisory Committees:</b>
Development	□ Corporate Services	☐ Library Board	
☐ Development Services	□ Communications	■ NS Health	
☐ Utilities	☐ Finance	□ RCMP	
☐ Engineering Operations	☐ Fire Services	□ Recreation Commission	
☐ Parks & Environment	☐ Human resources	☐ Other:	
☐ Economic Development	□ ITS	<del></del>	_
	□ Solicitor		
	☐ GIS		



# Agenda

- Budget highlights
- Public input
- Next steps

NORTH VANCOUVER \$ FINANCIAL PLAN 2021-2025

# Highlights



- Walking and cycling connections
- Road safety and capacity improvements
- · Attracting investment to the North Shore



- Social and supportive housing projects, provisions for future
- Child care spaces in Lynn Creek Community Recreation Centre, provisions for future spaces



FINANCIAL PLAN 2021-2025

# **Highlights**



- Provisions to support the local economy within legislative restrictions
- Advocating for provincial assessment review and tax reform



- Climate Action, Natural Systems and Biodiversity department
- Project teams supporting Community Energy and Emissions Plan, Climate Adaptation Strategy, and opportunities for environmental leadership and innovation



FINANCIAL PLAN 2021-2025

# **Public Input**

- · Affordability and housing
- Active transportation
- Climate emergency
- Community centres / hubs
- Sustainable financial planning
- Improve community engagement and opportunities for input



FINANCIAL PLAN 2021-2025

# Next steps

- Plan adoption March 29
- Tax distribution workshop April 19
- Financial plan amendments in spring and fall
- Annual report June
- Workshops / Long-term Financial Plan #2

NORTH VANCOUVER FINANCIAL PLAN 2021-2025

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## **Council input** – prior to Financial Plan deliberations

То	pic	Question	Response
1.	200 12 520 100 100	How can we improve public engagement and input into the financial planning process?	The District follows Governance Finance officers Association (GFOA) best practices in financial planning and is always looking to improve public engagement in the annual planning process.  The GFOA has a new series called <a href="Financial Foundations for Thriving Communities">Financial Foundations for Thriving Communities</a> which emphasizes the importance of a compelling vision in improving engagement and input. The targeted OCP review takes a fresh look at the service vision and Council's "2030 story". This review will help shape the conversation as we identify strategies to bring the District's long-term plans and finances into balance through a series of workshops over this year. There will be many more opportunities for public input this year and staff are exploring new ways to share the service vision and information on the District's ongoing services.
2.	Mountain Biking (Councillor Forbes, February 21, 2021 10:44 PM)	Have we signed/received a new contract with NSMBA since their contract has expired or has this become core funded?  Does the draft budget include the above funding and \$100,000 for Seymour trails study? If so, under what heading and what page?	The trail maintenance service agreement will be temporarily extended while it's under review. The draft financial plan includes \$100,000 to maintain and upgrade the trails and an additional \$100,000 to complete the Seymour Trails Study. See page 24 of the financial plan workbook.

# **Community Associations Meeting** – Wednesday, February 17, 2021 (Virtual Attendance)

Topic	General Questions	Meeting summary
1. Climate	Impacts from the topics on the budget and	Finance staff attended a meeting with the Community
Emergency	ratepayers, changes in homelessness levels,	Associations (NVCAN) on February 17, 2021 between 7 pm
2. Long-term	extending the public input period (too short).	and 9pm. Staff answered questions on the topics identified by
<b>Funding Gap</b>		the group and reviewed related financial plan materials. Staff
3. COVID-19		advised they were available for follow-up questions and that
4. Homelessness		additional questions could be submitted at dnv.org/budget
5. Staffing Levels		where questions and responses would be made available for
6. Public Input		Council's financial plan deliberations meeting on March 1.

## Public input - received through dnv.org/budget

Topic	Question	Staff response
1. Active Transportation  (Allan Macdonald: Submitted on Tuesday, February 9, 2021 - 21:00)	No further expenditures should be made on construction of bicycle lanes until studies are performed to support such an expense on a project by project basis. For example, money is planned for creation of a bike lane along Lynn Valley road north of Mountain Highway. Is that warranted? I have no clue as a tax payer as no data has been provided with respect to bike use. Same goes for anywhere else in the district.	Completing cycling and walking connections is a Council priority. Construction of cycling facilities is the culmination of many years of planning and public engagement. The Transportation Plan identifies key corridors for investment and delivering safe cycling facilities is part of the District's strategy to increase active transportation, improve user safety, and reduce community carbon emissions.  Several priority bike routes are along key arterials. These routes were selected in part due to their direct connection between town centres and to key destinations (including regional and local parks). Based on best engineering practices, bike lane designs are influenced by the speeds and volumes of vehicular traffic. Where vehicle speeds and volumes are higher, drivers and cyclists are separated for everyone's safety. In the fall of 2020, the <a href="DNV Cycles">DNV Cycles</a> online survey consulted district-wide residents on a range of issues,

To	pic	Question	Staff response
			including their current use of bike lanes and their preferences. We heard from over 1,600 people, representing a full spectrum of opinions, and received over 90 pages of open text comments. This feedback, in conjunction with best engineering practices, guide the development of new cycling infrastructure.
2.	Active Transportation (Bart Faryna: Submitted on Wednesday, February 10, 2021 - 08:57)	Living on E. 29th Street (and Williams) for the last 7 years, there have been many, ABSOLUTELY USELESS "improvements", which took away major advantages to living on that street (street parking, slower street speeds) and provided many disadvantages (extended wait times at the red lights, higher traffic volume and speeds), ultimately resulting with less safety for people living in that areaeven though the "improvement" was supposedly approved and wanted by the residents. That whole upgrade is an absolute diseased for drivers until this day, with poor line placements and visibility, to bike lanes that are being used by a handful of people. Stop wasting tax dollars on useless upgrades that do not need changing, just to ask for more taxes the next year. I understand that the district has to spend certain amounts of money annually to get a bigger budget, but do not ask residents to pay more for the same useless upgrades and services. Absolutely disgraceful to be increasing taxes during these times as well.	See Public Input response #1 above
3.	Community Centres / Hubs	In reviewing the budget information I noticed that the Lions Gate Rec Centre will be opening in the fall.  I live in Norgate and we have been waiting for a Rec	The amenities of the Lions Gate Community Recreation Centre were informed by community work in the 1990s, again in 2008 and finally determined in 2013. The process included
	(Laura Boehm: Submitted on Tuesday,	Centre in the Lower Capilano area for over 20 years. I am surprised and extremely disappointed with the lack of services that have been included. No pool,	extensive community consultation and input to determine what types of spaces and activities were most desired and feasible in this neighbourhood facility. A Lower Capilano

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Topic	Question	Staff response
February 9, 2021 - 18:00)	ice rink, weight room are there even going to be any classes? It seems to me that this is just a perk for the new Lions Gate Village.	Partnership Committee comprised of community agencies, neighbourhood association(s) and local residents was very influential in this process. The outcome is a neighbourhood centre that will include a community living room and gathering space, meeting rooms and multi-purpose spaces to support a range of service types, a gymnasium, an arts space, community kitchen, home for Capilano Community Services Society and also an express library. This facility is meant to complement the other Community Recreation Centres and other services available in North Vancouver.
		The North Vancouver Recreation and Culture Commission (NVRC) will be operating the centre and offering and facilitating a range of programs and services such as: visual arts and dance programs, fitness, yoga and other active programs, sport and recreation programs, summer camps, birthday parties, events in the plaza and in the facility, cooking classes and community rentals of applicable spaces. In addition, Capilano Community Services Society plans to offer a range of community services for seniors, youth and families and District of North Vancouver Public Library will be managing the express library. Each partner is dedicated to serving the public need according to their mandate and to working together. Collectively and individually, there will be processes to regularly assess public need and to seek input to inform service and program planning.
		The facility is scheduled to be complete and open in the fall of 2021. Further information on the opening and planned services will be publicized closer to the scheduled opening.
1. Affordability	Many people have lost their jobs. The budget should be frozen at the 2020 level.	Costs are carefully reviewed each year and adjustments are made to contain increases and to keep rates stable and

Topic	Question	Staff response
(Karl Jensen: Submitted on Wednesday, February 17, 2021 - 07:39)		competitive in the region. The proposed increase is the lowest amongst the three North Shore municipalities and focuses on Council priorities, essential services, and critical investments in public infrastructure.  See the District's annual report for additional information on residential taxes and taxes per capita in the region (page 81)
		https://www.dnv.org/sites/default/files/edocs/2019-annual-report.pdf).
		The province has a program to assist qualifying homeowners in paying annual property taxes by deferring them. <a href="https://www.dnv.org/your-home-property/defer-paying-">https://www.dnv.org/your-home-property/defer-paying-</a>
5 Various tonics	Would like to know the completion date for the	your-taxes  1 Argula Artificial Turf Field (ATE) — this project is in early
(Zaparniuk: Submitted on Thursday, February 18, 2021 - 21:51)	<ol> <li>Would like to know the completion date for the Argyle turf?</li> <li>Would like to see promised sidewalks completed on the North side of Frederick Rd between Fromme and Mountain Hwy, and pedestrian lights at the new crosswalk at Baird on Frederick (very hard to see people ).</li> </ol>	<ol> <li>Argyle Artificial Turf Field (ATF) – this project is in early stages of design. Once design is complete and construction contracts are awarded information on the schedule will be posted to the dnv.org website as well as onsite at Argyle Secondary School. Completion is anticipated 2022.</li> <li>and 3.</li> </ol>
ŕ	<ol> <li>Sidewalks on the east side of Fromme as they are not present in some areas and those areas do not even allow space for pedestrians.</li> <li>Capital planning for Replacement of Karen Magnussen Rec Centre.</li> </ol>	The sidewalk planned for Frederick Road must be coordinated with a number of other projects in the area, completion may be delayed to 2022. The sidewalk on Fromme Road is included in the ten-year vision but not the five year financial plan.
	5. A space to host Flicka gymnastics displaced by the city with the Harry Jerome build. Note this was also used by all NShore high school gymnastics teams (Argyle won 2020 provincials, but now also does not have anywhere in the new school to train Rings or bars as this was not added to the gym space), we are also losing	4. Karen Magnussen Community Recreation Centre - a review of the condition and functionality of this facility is underway in order to inform the longer term plan. Once the review and planning are complete, the capital plan will be adjusted to reflect Council's direction regarding this facility.

To	pic	Question	Staff response
		Track training space due to loss of the Handsworth track. We need to think where our kids will go? Burnaby? Vancouver? Our NShore families will have to drive over bridges in order to get opportunities for their kids or they will leave the NShore. Please defend our families and our kids.	5. Flicka Gymnastics Club – this club is currently working with the City of North Vancouver regarding the feasibility to repurpose the Mickey McDougall Community Recreation Centre as a gymnastics facility. This work is well underway. The Gymnastics Club is also considering options for an interim facility if they should need it. Handsworth Track replacement requires a partnership agreement with North Vancouver School District to proceed.
6.	Community Centres / Facilities  (Cath: Submitted on Saturday, February 20, 2021 - 08:55)	Please help the Flicka Gymnastics club! They have no home as of December 1 2021 this club has thousands of athletes young and old training in this facility Please help keep this amazing club running with help to find them a new home since north van will not include them in the rebuild of Harry Jerome. Thanks	See Public Input response #5 above
7.	Affordability  (Mike Francik: Submitted on Saturday, February 20, 2021 - 16:42)	With all the construction going on, thousands of new residential units about to pay property taxes why do you need to suck more money out of existing residents?  My Pension doesn't go up 3%annually. Currently I pay more than \$600/month and apparently that is not enough	See response to Public Input question # 4 above.
8.	Affordable Housing (Kelly Bond: Submitted on	Thank you to all staff involved in the creation of the 2021-2025 Financial Plan. I am fully supportive and grateful for all of the affordable, social and supportive housing project commitments by Council. I am trying to clearly understand your funding for these projects.	The total cost of the four social and supportive housing projects can be found on page 54 of the financial plan workbook (investments total \$7.2 million, including \$3.7 million approved last year). The \$2.3 million shown in 2021 is the estimated funding required for that year only. The Kiwanis expenditures reflect current timing for the project.

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Topic	Question	Staff response
February 20, 2021 7:09:39 PM)	Page 4 of the budget: Affordability and Housing • Social and supportive housing projects in Upper Capilano (Delbrook), Lynn Creek (Orwell/Sanford), Lynn Valley (Kiwanis), and a proposed project in Lower Capilano/Marine (West 16th). Projects are supported by District lands and one- time costs are funded by the Housing Reserve (\$7.2 million). However, the HRF (p10) shows only \$2.036M for 2021? The numbers (p47) suggest funding for this year is for Lynn Valley Kiwanis ( \$1.346k) and the Lloyd housing project (\$960k) is yet to be approved. Given Kiwanis was approved in the previous council's term in 2018 I am surprised it remains an expenditure for the current year. Where do the Sanford and Delbrook one-time costs (refered to on p4) reflect in the capital plan documents?	The housing reserve will support these projects over the five-year period. Future projects will require additional lands and funding. Provisions for additional sites are causing the land and housing reserve funds to be in a negative balance by the end of the five-year period. Council has identified a number of new sites to support future social and supportive housing projects. Once these sites are confirmed the reserve funds ending balances will improve.  The contribution to the housing reserve is adjusted annually for inflation (\$520,200 in 2021) and staff will be exploring allocating a fixed percentage of Community Amenity Contributions (CACs) to housing this year. Further contributions may be required and will be the subject of the second workshop on the Long-term Financial Plan scheduled for later this year.
	More startling to me are the evident gaps in the Housing Reserve Fund for 2023/2024 and a lack of funding source for the same period. (P10). I was informed by staff last year that \$500k annually is allocated to this fund from property tax income. While I have requested ad nauseam over several years that a set percentage of all cash-in-lieu CACs be deposited to the HRF as well, it appears neither of those sources are probable in '23 and '24? Then a huge spike for 2025?  Is there no intention to allocate tax income to housing reserve fund in 2023 & 2024? Does DNV simply not anticipate contributing to Affordable	

Top	oic	Question	Staff response
		housing (waivers of DCCs, permits for qualifying projects) in those years? This would certainly be an incredible disappointment given Council has requested reports on project possibilities on six additional District owned lands. Is land the only anticipated contribution in these potential projects?	
		Of concern to me is the attached screenshot of the "general reserves" wherein the comment "negative balances will be adjusted by a Spring financial plan amendments and may require internal borrowing." My understanding was that one of the key reasons behind the new reserve fund Bylaw with specific reserve funds was to ensure transparency in expenditures. I'm not certain that's the case? I urge Council to require staff to create individual Appropriation Expenditure bylaws for withdrawals from reserve funds rather than "financial plan amendments" through the year.	
		Finally, on another topic, have financial ramifications of the potential unionization of RCMP been factored into the 5 year financial?	The impacts of RCMP unionization are a part of ongoing discussions with the RCMP. Estimated labour agreement impacts are included in the financial plan based on input from the RCMP.
		Thanks for entertaining my feedback.	
9.	Mountain Biking	I have concerns regarding funding for the mountain bike assn. while I understand we have some of the	While there may be some mountain bikers who, unfortunately, do not always consider all trail users, the vast
	(Nan Watson:	best trails in the world for me personally the bikers	majority are happy to share the trails across the North Shore.
	Submitted on	have taken the joy out of living in this area. I no	Without groups such as the North Shore Mountain Biking
	Sunday, February	longer walk the trail from the end of Hyannis	Association (NSMBA), the trails would not be what they are
	21, 2021 - 09:33)	because many of the bikers resent seniors walking	today - world class multi-use trails.

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Topic	Question	Staff response
	where they want to bike. A week ago walking down Berkley in three different sections I had no option but to walk in the road because the bikers were using the sidewalk to spread out bikes and gear. No parking the length of Hyannis both sides due to bikers. And my tax dollars are rewarding them, no thanks. BTW there are many bikers who are considerate but equally as many who are not. Please don't give my tax dollars to MB assn.	The District has a trail maintenance agreement with the NSMBA, which has proven to be beneficial to all trail users. NSMBA members contribute hundreds of volunteer hours of trail maintenance on an annual basis. Without this valuable partnership, the District simply would not have the staff resources to maintain the trails to the standard to which they are maintained.  As the District starts research on its Seymour Strategic Trails Plan, options for hiking only trails and loops will be considered. Once this planning work begins, the Parks department will invite comments from the public. We encourage the public to share additional comments at that time.
10. Affordability  (Alice Marusak: Submitted on Sunday, February 21, 2021 - 10:11)	It is truly unfathomable how you are continuing to think of ways for taxing hard working. individuals who own homes. It is hard enough to make ends meet, paying car insurance, house insurance, electricity, gas and the astronomical property taxes that we are already subjected to! If you want to generate money; everyone should be taxed, ie, tenants in apartments, etc. EVERYONE not just homeowners; we are struggling as well and nobody gives us a hand Also build low income housing in not high end or medium to high end neighbourhoods. I realize they need to live somewhere but it is not fair that I and others have and are sacrificing a lot in order to bring our children in a good medium high end community and have someone be subsidized for nothing and not be taxed etc.  I do not agree with the draft	See response to Public Input question # 4 above.

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Topic	Question	Staff response
11. Affordability  (J. A. McGrath: Submitted on February 21, 2021 - 1:22:17 PM)	Thank you for allowing us the opportunity to comment on the upcoming 2021 budget as laid out on the DNV.org/budget web pages.  I wish to register my objection to our taxes again being increased. Year after year they go up enough that we struggle to keep up.  My husband and I are retired and have lived on the North Shore since our late teens.  The amount of development with residential condos that has been allowed to occur in the past few years should more than fill the District's tax needs and we should NOT be hit with yet another increase. The subsequent traffic jams that have been created by it, have also caused much anguish, even for us retired taxpayers.  What once took 15 minutes to get from one area of the district to another, can now take hours. Why are developers these days allowed to shut down MAIN ARTERIES? This was NEVER allowed in the past.  Please! Do not increase my taxes again. I do not wish to leave my home because of it being too expensive to live here. My husband and I are both born and raised Vancouverites and feel we are being pushed away because of the expenses you are imposing, unnecessarily on us.  Please do not increase our taxes yet again.	See response to Public Input question # 4 above.
12. Budget Input on	See Attachment C	Fiscal Imbalance – the Long-Term Financial Plan was
Various Topics		presented to Council January 25, 2021 and proposed a

Topic	Question	Staff response
(Peter Teevan: Submitted on February 21, 2021 2:46:12 PM)		series of workshops over 2021 to bring the plans, strategies and finances into balance. Staff suggest the tenyear funding gap can be resolved within the current approach to property taxes when supported by the key emerging financial strategies.
2021 2.40.12 T W/		<ol> <li>Sustainable Financial Planning – the differences between property tax revenue increases and proposed 3% property tax rate increases results from the application of the District's financial strategies. These strategies support Council priorities, including steady and competitive property taxes in the region.</li> </ol>
		<ol> <li>Climate and Environment – the proposed department is realized through the reallocation of existing resources and also assumes contributions from senior government grants. Priorities for the department can be found on page 40 of the financial plan workbook.</li> </ol>
		4. Tax Growth Reserve Fund – this fund was included in the Reserve Funds Bylaw adopted by Council in 2020. Contributions and highlights of the fund are included on page 44 of the financial plan workbook. Other municipalities use tax growth to keep property taxes artificially low and tend to have unpredictable increases in their property taxes. We see the impacts of this practice
		in other municipalities in the region as revenue from this source declines and property taxes increase above inflation.
		<ol> <li>Transportation and Mobility – investment highlights are included on page 4 of the financial plan workbook and resources continue to shift towards this priority. The ten- year vision and funding was included in the Long-term Financial Plan workshop on January 25.</li> </ol>
		<ol> <li>Affordability and competitiveness – see response to question 4 above.</li> </ol>

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Topic	Question	Staff response
		<ol> <li>Mountain Biking - see the response to Council Input #2</li> <li>North Shore Wastewater Treatment Plant - this is a Metro Vancouver project that is driven by changes to Federal environmental legislation. District staff understand from speaking with Metro Vancouver staff that the project is both considerably delayed and over budget. The District has been increasing sewer rates since 2013 to mitigate what are anticipated to be major cost increases over the next five years. This incremental adjustment of rates to compensate will continue for at least the next five years.</li> <li>This link provides information on Metro Vancouver's project. <a href="https://northshorewwtp.ca/">https://northshorewwtp.ca/</a></li> <li>Various other questions including on District lands, service levels, etc. – Finance staff have offered to meet with members of the public wishing to learn more about the District's finances and the financial planning process. Please call 604-990-2302 or email <a href="majored-budget@dnv.org">budget@dnv.org</a> to connect with staff and arrange a time.</li> </ol>
13. Affordability and Active Transportation	Regarding the proposed 3% tax increase. I strongly oppose this. Why is it necessary to increase property taxes each year? My income has gone up a	See response to Public Input question 4 regarding the question on affordability and the response to Public Input questions 1 and 2 regarding the investments in active
(Peter Taylor: Submitted on Sunday, February 21, 2021 - 15:37)	grand total of 1% over the past 3 years combined and maybe 3% total over the past 10. It is not reasonable, especially during the pandemic hardships over the past year, to increase any taxes. I have been reluctantly deferring most of my property taxes because I can't afford them already. Make due with what you already collect. Population keeps increasing so you should have more taxes to collect. Stop spending on unnecessary things. How about a 0% increase for once or even a reduction.	transportation.

Topic	Question	Staff response
	The massive waste of money on the East 29th 'improvements' is one example of wasteful spending. The narrowing of the road and the crazy two way bike lane is nuts and much more dangerous in my opinion. The traffic lights at E29th and Williams was all that was needed. We don't need make work projects like that. Don't spend on things like that and stop increasing taxes.	
14. Various topics	See Attachment D	
(Corrie Kost: Submitted on February 21, 2021 11:14 PM)	Attached is a draft of my proposed comments I will be making on the 2021-2025 Draft Financial Plan.  They are not to be taken as a complete assessment of the report, but should be taken as a limited attempt to show some of the issues that I hope will be addressed. I do hope that council will consider adding more supplementary information (as has been customary in past Draft Financial Plans) for those citizens that want a more in-depth examination of the plan.  I am still somewhat troubled by the fact that council decisions on the Tax Distribution (and thus the ultimate proposed tax increase for the residential class) will only take place after the final adoption of the Draft Financial Plan bylaws scheduled for April 12/2021. Note that a complete Financial Plan Schedule has not been published since the 2018-2022 Draft Financial Plan.	The financial plan is presented at the policy level for Council direction. Staff are exploring new ways to share the service vision and information on the District's ongoing services, ensuring full transparency in all District business.  Council is legally required to adopt the annual financial plan bylaw before it adopts the annual property tax bylaw under section 165.1 of the Community Charter.  Questions submitted in the attachment are generally covered in the responses in this document. Finance staff have also offered to meet with members of the public wishing to learn more about the District's finances and the financial planning process. Please call 604-990-2302 or email <a href="mailto:budget@dnv.org">budget@dnv.org</a> to connect with staff and arrange a time.  Thank you for sharing the article "Carbon: Getting to net zero and even net negative is surprisingly feasible, and affordable", dated January 27, 2021.

Topic	Question	Staff response
15. Housing	We, members of the DNV Rental, Social and Affordable Housing Task Force, wish to point out to Council that there is an apparent a discrepancy	The budget anticipates a new position that will report to the Manager of Community Planning to ensure integration within the organization, which will help drive success with this
(Kelly Bond:	between our Interim Report's priority action item	important objective. This position will directly liaise with key
Submitted on	"hire one or more high ranking positions" and the	local, regional and provincial partners to move the District's
February 22,	proposed action reflected in the current Budget	housing agenda forward with increasing pace and focus.
2021 12:12:55 PM)	plan for 2021-22.	
	We are concerned that a planner does not	
	necessarily reflect the desired level of authority,	
RSAH Task Force:	performance or influence we were anticipating	
	when we made this recommendation. We foresee	
Kelly Bond	that the person in this position would work directly	
(Chair),	with local groups, internal DNV departments,	
Keith Collyer,	neighbouring municipalities, senior levels of	
Bruce Crowe,	government, and housing providers to develop	
lan Cullis,	creative solutions such as closing one lane of a two	
Hesam Deihimi,	lane road in order to use the land for housing or	
Phil Dupasquier,	negotiating with TransLink for the re-development	
Katherine	of Phibbs Exchange to include a housing	
Fagerlund	component.	
Heather Fowler,	The fundamental point is that we are advocating for	
Derek Holloway, (Vice-Chair)	the creation of a position to move forward comprehensively, decisively and immediately with a	
Ellison Malin,	mandate for increasing the supply of rental, social	
Michael Sadler	and affordable housing in the DNV. DNV residents	
Whender Sauler	approved an expenditure of \$150 Million for	
	affordable housing in a non-binding referendum in	
	2018. While we have seen progress in the area of	
	social housing with this council, in order to increase	
	the momentum we need the person in place that	
	we have advocated for.	

elcome your response to the above nents. Thank you for all you do for our nunity. We're all in this together. They and with respect, and with respect, and with respect, and alable Housing Task Force roposed budget with regards to climate, and community improvements such as and community centres, transport and tes is greatly welcomed. There are some	The District currently has several policies, strategies and processes in place to effectively manage growth and change in a controlled manner to mitigate impacts to the community
lable Housing Task Force roposed budget with regards to climate, onment and community improvements such as and community centres, transport and es is greatly welcomed. There are some	processes in place to effectively manage growth and change in
onment and community improvements such as and community centres, transport and es is greatly welcomed. There are some	processes in place to effectively manage growth and change in
stic proposals which seem very exciting. One in ular is in response to the need for more lable mid income housing to boost our local nunity. There is an important mention of ing diversity and promoting lower impact whome construction' which from what I can remight mean (I hope!) putting firmer controls nat seems to be an out of control parade of imposing and intrusive structures which are aching on our neighbourhoods and directly sting the quality of life in our community. As seed to smarter housing which build a feeling of acy and connectivity within the community esigns which compliment and blend in with a tural beauty of our area, we have been ged with imposing eye sore constructions that the blend in but rather directly compete with our all backdrop. Large unsightly towers, blocks of designed townhouses without any setbacks atural vegetation and individual monsters	<ul> <li>and environment, while providing more diverse housing options to meet the needs of current and future residents. This includes:         <ul> <li>Official Community Plan (OCP):</li> </ul> </li> <li>Sets the direction for future growth and change in the District through 2030, as guided by the community's vision.</li> <li>Looking to 2030, the OCP identifies capacity for net new housing units, population increase and new jobs.</li> <li>Envisions directing most of this growth into a vibrant network of well-designed, safe and livable village and town centres to contain sprawl, minimize impacts, deliver infrastructure, and provide more diverse housing choices and affordable housing options in suitable locations.</li> <li>Contains Development Permit Areas, which are areas where special requirements and guidelines for any development or alteration of the land are in effect. The various DPAs include guidelines to ensure the form and character of new development respond to the local context and minimize impacts to the community and environment.</li> <li>Rental and Affordable Housing Strategy (RAHS):</li> </ul>
t a set	ting the quality of life in our community. As ed to smarter housing which build a feeling of cy and connectivity within the community esigns which compliment and blend in with tural beauty of our area, we have been ed with imposing eye sore constructions that blend in but rather directly compete with our backdrop. Large unsightly towers, blocks of designed townhouses without any setbacks

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Topic	Question	Staff response
	natural vegetation have been the trend in the past and have adversely affected our well being in the area. The feeling of intimacy and connectivity in our community gets lost and the feeling of natural beauty which is so unique to the area gets destroyed. It is a welcome sign that this at long last might change. Many people have not understood why these irksome constructions have been permitted and have felt overwhelmed and powerless to stop the invasive trend. I am very relieved to see that this might stop going forward with policies put in place to protect the sense of community connectivity as well as the incredible natural beauty we are so fortunate to have on our doorstep. It is wonderful that you are looking to protect these precious assets.  Perhaps you could confirm to me and many others that there will be a clearly defined housing policy that will protect our community and natural environment with respect to the comments and concerns I raise above?	<ul> <li>Helps guide developers, community members, Council, and staff toward meeting the estimated demand for rental and affordable housing in the District.</li> <li>Focuses on how the District can meet the needs of low and low-to-moderate income earning households that are most likely to face challenges in finding appropriate and affordable housing.         Community Engagement:     </li> <li>The District's various policies and strategies were carefully developed with input from residents and stakeholders.</li> <li>In addition to the policies and strategies that provide direction to accommodating growth, residents have further opportunity to provide input on developments through the rezoning and development approval processes.</li> <li>Work is underway to ensure the District's policies, strategies, and processes remain current and reflect the needs of the community. This includes:         Targeted Official Community Plan Review:     </li> <li>The District is undertaking a targeted review of the OCP focused on four key strategic areas: housing, transportation, climate change, and economy and employment lands. The outcome of the review will be an action plan for implementation that will advance progress towards realizing the OCP's vision in these four strategic areas. The final Action Plan is anticipated to be brought to Council for consideration in fall 2021.</li></ul>

Topic	Question	Staff response
Торіс	Question	<ul> <li>implement several of these recommendations. A final report is anticipated for summer 2021.         Housing Needs Report:     </li> <li>The District is preparing a Housing Needs Report, which will identify current and projected housing needs that takes into consideration current and projected</li> </ul>
		population, household income, economic sectors, available and anticipated housing units, and more. This report will inform the District's approach to housing across the continuum.

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From:

pteevan@shaw.ca

To: Cc:

Mayor and Council - DNV; Budget "info nvcan.ca"; "Corrie Kost"

Subject:

Budget Input 1/9 - Topic 1 - Introduction: Fiscal Imbalance

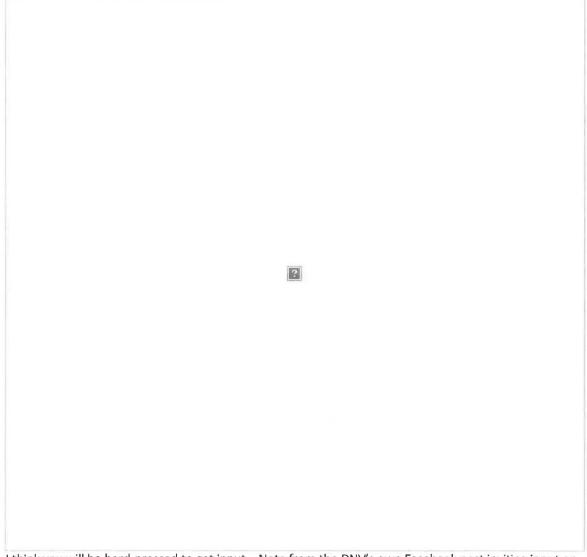
Date: February 21, 2021 2:46:22 PM

Attachments:

image001.emz

Dear Mayor, Council & Staff,

This will be the first in a series of emails that I will attempt to submit by the deadline. And I just have to say that it is very difficult to provide input in a) such a short timeline from when the public were given the budget proposal, and b) given the fact that we have seen no public workshops or debates by Council since the document was released. One really can't count the last meeting on the budget because the pubic wasn't allowed to see the document until the meeting had already started.



I think you will be hard-pressed to get input – Note from the DNV's own Facebook post inviting input on the budget - zero likes, zero comments, 1 share... and guess who shared it? Our Seymour Community

Association (me).

Suffice to say: I am not pleased with the process thus far.

I will do my best to frame my questions or requests as follows:

#### In bold, italics between two horizontal lines

#### Now to the budget:

Now perhaps I don't understand how corporate/organizational communications ought to happen – but I thought that the Introduction, the Executive Summary and then the Final Summary/Comments are the places **where the most important information is highlighted and conveyed**. The introduction is PRIME REAL ESTATE (so-to-speak).

If that is the intent of this document then message received: **Our house is on fire! We have a \$200 million dollar fiscal imbalance!** And the proposal to fix this: "this gap can be resolved through property taxes.....".

Ok. So... 10 year budget process. Current tax revenues are \$120 million / year (rounded off).... Take your \$200 million divided by 10 years = \$20 million / year.... We have to raise taxes by 16.7% in order to balance our books? And this in an environment where your other commentary is how we are the model of sound fiscal management with our sober 2%+1% "sustainable" approach to budget increases?

Wow. Do these numbers not add up.

Now... Having viewed the workshop videos (how many of our 89,000 citizens have done so?), I can say that perhaps our house may not actually be on fire... but do you think maybe this concept could be communicated better?

Here is what I learned about business writing:

Basic model: 1) Tell them what you're going to tell them, 2) Tell them, 3) Tell them what you told them. And paragraphs are supposed to be about single topics. So let me paraphrase the Introduction to the 2021-2025 Financial Plan.

So, allow me to summarize each paragraph of the Budget Introduction:

Paragraph 1: This plan is about our COVID Response.

Paragraph 2: The pandemic has disrupted the local economy and at a future workshop on tax distribution you will be looking to relieve business pressures.

Paragraph 3: We have a \$200 million dollar fiscal imbalance that suddenly appeared out of the storm clouds (because we have never been presented this before now).

Paragraph 4: This plan reflects best practices.

Paragraph 5: This plan sets a stable foundation of best practices and is set to be adopted within the month.

So to paraphrase those 5 paragraphs one would be led to conclude that while you, the District, are

doing an exemplary job at Fiscal Management, COVID has caused a huge imbalance and taxes will have to be raised to a) correct the imbalance and b) to relieve pressure on businesses?

Is that the message this budget conveys? Because that's certainly not what I heard in the various workshops to date.

What I heard in the workshops was this: Council has set some optimistic plans for creation of social and affordable housing and that while "technically" we show the District's contribution as cash, that creates a "funding gap", in real terms, our contribution will be use of public-owned lands, not cash, and there really isn't a "funding gap" at all.

So which is it? THIS is the official budget – does what I read here nullify what I heard as commentary in the workshops?

Because if, while reading this email, you are thinking "No, no, no Peter, you don't understand", then I propose to you that they way this introduction is written may have missed the "mark".

The way this introduction is written begs the question that I posed to Mr. Danyluk at the NVCAN meeting last week:

This \$200 Fiscal Imbalance/Shortfall – Can we please see a list of project proposals, what they anticipated costs are, what DNV Taxpayers' "contribution" is and what Council Meeting, Agenda Item, etc these projects were proposed and voted upon, and how, by our Council members?

I am quite serious about the question. According to this budget, and based on the fact that this is the first time we have reported a "Fiscal Imbalance" – the conclusion must be that in this past year, this Council has voted to spend \$200 million dollars that we do not have.

As a result, we will have to raise taxes on homeowners a minimum of 16.67% PLUS any relief you plan to give to businesses, in order to balance our books (which is required by law).

Wow.

You have got my attention and we have barely got into the budget.

More to follow...

Peter Teevan 1900 Block Indian River Cres North Vancouver District, BC pteevan@shaw.ca From: pteevan@shaw.ca
To: Mayor and Council - DNV; Budget
Co. "info pycan ca": "Cyrrie Koet"

Cc: "info\_nycan.ca"; "Corrie Kost"

Subject: [WARNING: AMP - ATTACHMENT UNSCANNED]Budget Input 2/9 - Tax Increases 2% + 1%?

Attachments: image!

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Dear Mayor, Council and Staff,

Each year you explain to us that you are setting the budget at a "sustainable" 2% for operations plus 1% for long-term asset renewal reserves.

And each year I look at the budget and I don't see it reflect the 2% plus the 1%. It always reflects more - much more.

This year's budget is no different:

I ask to draw your attention to page 6 of the budget workbook – you will see the following:

Average Residential Home	Change	over.	2020
Property tax increase	3.0%	\$	71
Net Operations	2.0%	\$	47
Asset Management	1.0%	\$	24

Then, on page 9 you will see this line:

### Five Year Financial Plan (000s)

				2020	2021	2022		2023	2024		2025
Revenue				-		245					
Taxation				\$ 111,908	\$ 117,287	\$ 122.073	S	128,293	\$ 133,532	S	138,235
A 1 F	101	2.1	~	00 000	10.5	404-700	_	180 210	*** ***		104 000

These figures do NOT reflect 2% increases per year, nor do they reflect 3% increases per year.

In fact, they represent the following:

	2020	2021	2022	2023	2024	2025	
Taxation	111,908	117,287	122,073	128,293	133,532	138,235	
		4.81%	4.08%	5.10%	4.08%	3.52%	23.53%
		10					4.71%

#### A total of 23.53% over the five years which represents an average of 4.71% per year.

But let's look a little further:

Spending:

1		1					
Operating Expenditures		33					
Community Services	\$ 40,854	\$	42,608	\$ 43,588	\$ 44,436	\$ 45,478	\$ 46,188
Planning and Development	13,062	100	13,619	13,091	13,335	13,663	13,837
Protective Services	43,965	190	45,130	45,970	46,846	47,905	48,918
Transportation and Engineering	9,345		9,167	9.043	9.058	9.306	9,420
Utilities	48,427	70	49,796	53,856	58,980	65,040	72,034
Governance and Admin	17,415		18,556	17,043	15,042	15.011	15,490
	173,068		178,876	182,591	187,697	196,403	205,887
1		_					

	2020	2021	2022	2023	2024	2025	
Operating Expenses	173068	178876	182591	187697	196403	205887	
		3.36%	2.08%	2.80%	4.64%	4.83%	18.96%
							3.79%

Our operating spending (in which your budget claims growth is constrained to 2% per year) is a total of 18.96% over 5 years or 3.79% average per year – almost double the 2% reported.

How is this sustainable, let alone truthful?

Now one explanation, and personally I prefer things would NOT be presented this way... is that the Revenue, Taxation line includes the pass-through charges to Metro Vancouver and Translink... but I would prefer to see those broken out so I can see who is costing me what.

Another possible explanation is that this line, and more distinctly the Operating Expenditures Total line reflects the true costs, but they are offset by withdrawals from the Tax Growth Reserve Fund (I know, don't get me started)... but I will write a whole other email on that Reserve Fund.

So where can we "prove out" the 2% and the 1%? I see the words, but nowhere do it see it in the numbers.

But the really important questions to me are these:

What are the long term changes in these numbers:

- 1. Revenue, Taxation over the last 30 years? How about per household? Per Capita?
- 2. Operating Expenditures Total over the last 30 years? How about per household? Per Capita?

There are the true tests of whether our taxation and spending are, in truth, sustainable. This is the data I would like to see please.

You know, as I sit and write these questions, it occurs to me that there will not be Council Meeting time devoted to ANSWERING them. Unless a specific Councillor decides to pickup on one or two aspects and ask about them during your meetings or workshops.

So here I have another request/question of you:

Can we please schedule an annual Public Hearing on the Annual Budget where citizens can provide feedback, and ask questions and the answers are provided BEFORE closing the hearing and terminating the discussion abruptly because Council members do not unanimously agree to meet into the wee hours so we, the public, can have a chance to voice our concerns?

More to follow,

Peter Teevan 1900 Block Indian River Cres North Vancouver District, BC pteevan@shaw.ca

Dear Mayor, Council & Staff,

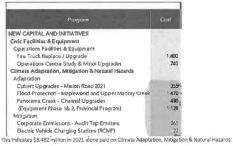
I was surprised to read in the Budget's "Budget in Brief: Climate and Environment" section, Page 4 of the Budget document that we have created a new Climate Action. Natural Systems and Biodiversity Department in the Hall. I certainly don't recall discussion of such a creation in any public meeting – even during the CEEP series.

We discussed this with Mr. Danyluk during the NVCAN meeting last week – and he seemed to indicate that this new department does not necessarily connote new spending – more different reporting of the same dollars under a new heading... but looking at the following from Page 42:

Operating		2020 Judget		2021 udget		Y:Y
Revenue						
- Government Grants	5	51	\$	201	5	150
- Investment Income		2,248		1,648		(600)
- Penalties & Interest on Taxes		825		87C		45
- Sales, Fees, and Other User Charges		1,780		1,765		(14)
		4,904	in i	4,485		(419)
Transfers from Reserves		5,055		6,157		1,102
Source of Funds		9,959		10,642		683
Costs				1000		
- Corporate Services		9,567		9,937		370
- Executive Services		507		517		10
- Finance Services		3,979		4,169		190
- Climate, Nat. System & Biodiversity		408		942		534
- Mayor and Council		658		695		37
		15,119		16,260		1,141
- Other Support Svcs & Provisions		1,507		1,627		120
- Operating Initiatives		789		670		(119)
, ,		17,415		18,557		1,142
Debt Service		2.762		2,762		(2)
Transfers to Reserves		23,116		24,458		1,342
Use of Funds		43,293		45,777		2,484
Tax Levy	\$	33,334	\$	35,135	\$	1,801
% Costs recovered by Revenue		28.2%		24.2%		4.0%

This table would seem to indicate that we are spending \$942,000 in operational funding on this new department, and then there would be capital investments over and above this?

#### 2021 Capital Details and Reserv



Now, hopefully you will recall my feedback to you during the Sea Level Rise workshop series. That despite the statement from the Provincial Government that we should expect and prepare for Sea Level rise of 1 metre in the next 80 years, and another metre in the following 100 years taking us through to the year 2200. I pointed out that round numbers like 1 metre seem political and not sclentific. These figures represent sea level rises of 12.5mm/year and 11.11mm/year respectively

However, the "natural" sea level rise since the last ice-age – 20,000 years ago is already 6mm per year.

You will also likely recall my feedback that no one – from Council, staff or the pald consultant, had bothered to check with the Canadian Hydrographic Service in Victoria to see whether these theories were in fact, proving out. But | did.

The Canadian Hydrographic Service are the branch of the Federal Government tasked with Forecasting, monitoring and reporting tide and current levels in our oceans, including "king tide" events and storm surges.

You may recall the answer they gave me — that, in fact, over the last 100-or-so years that on Canada's Pacific Coast the sea levels were rising a miniscule amount — certainly less than even the post-ice-age rates! So while sea levels may be rising, the LAND along our Pacific Coast is rebounding, rising, changing to mitigate this problem.

Even so, we have 180 years to make the changes, So why then are we spending \$1.47 million in taxpayer funds in 2021? Are we to expect that we will be spending \$1.47 million in each of the next 180 years for this unproven risk?

What is the rush? Who, other than me, has checked with the Canadian Hydrographic Service to assess the real risks?

is the scientific "foundation" of all our Climate Action budget figures equally suspect as the sea level rise?

So what then are "Climate Change Adaption, Mitigation and Natural Hazards" costing DIVV tax payers?

is it the YOY difference in the new Department operational budgets? \$534,000? Or is it \$942,000 per year?

is it \$942,000 plus the \$3.482 million in capital projects? Or \$4,424,000 per year? If yes, for how long?

And then there are items like this:

What will the Impact to our operational budgets be from this move? As we take our Corporate Buildings (I assume this means DNV-owned) and switch them from existing energy sources to more expensive green ones, what is the extra cost? Where is that in the budget.

I think we can easily say we are spending \$5 million + in 2021 alone on Climate Change.

- Now let me ask you a couple difficult questions:

  1. Were these budgets disclosed to Council and the Public during the various debates on the subject?

  2. Will these lowestments actually SQLVE any problems? And where is the surety of that?

More to follow.

Peter Teevan 1900 Block Indian River Cres North Vancouver District, BC pteevan@shaw.ca

disconsibilities and Move and Council - DNN: Bidges linfs mean. at: 'Confe Kost' Bidges linfs mean. at: 'Confe Kost' Bidges for All '70 - The Crowth Reserve February 21, 2021 2-46-40 PM Image012 are immediated and image023 are image023 are image023 are image023 are

Dear Mayor, Council & Staff,

I would be shocked if you didn't already expect me to provide feedback about the Tax Growth Reserve Fund.

#### My concerns about this fund remain:

- 1. That it would have the tendency to become a slush fund over time.
- 2. That is would tend to keep the pressure on a declining base of existing taxpayers (not newly built) to pay 100% of the operating budget

  3. That there are no limits on how long a "new build" is considered "new" and has its tax revenues "sequestered" into the fund rather than going to share the operating budget.
- 4. That there is no limit to the balance of the fund before a future Council is required to review and re-establish rules on it.

In response staff, and therefore Council have promised to be open and transparent about the fund.

#### We are still looking forward to openness and transparency with regards to this fund.

There is no section of the budget that provides open and transparent reporting on the status and use(s) of this Reserve Fund.

There was none in last year's Annual Report.

There was none in last year's Annual Budget.

On page 8 of the budget – We see the following statement:

To which my questions are: Where? When? How will such regular reviews take place? Because I do not see it in either this year's Budget nor In last year's Annual Report.

Further, on page 11 we see the following table:

		F3- W	Reserve Funds									
		Total	Exi	sting Capital Utilities		disting Capital Non-Utilities		Land and Housing	Nε	w Capital and		Develop.
Available funds												
Opening balances Jan 1, 2021	S	122,837	\$	33,003	\$	29,037	\$	9,691	\$	6,925	\$	44,181
Contributions to reserves	100	308,707		79,252		138,958		15,086		20,120		55,291
	5	431,544	\$	112,255	\$	167,995	\$	24,777	\$	27,045	\$	99,472
Use of funds	18,											
Capital plan appropriations	5	385,558	\$	76,712	\$	180,028	\$	41,603	\$	22,779	\$	64,436
Debt repayments	1777	9,944		1.00		9,944				-		
	S	395,502	\$	76,712	\$	189,972	\$	41,603	\$	22,779	\$	64,436
Ending balances Dec 31, 2025	S	36,042	\$	35,543	\$	(21,977)	S	(16,826)	\$	4,266	\$	35,036

But I cannot identify which column is the Tax Growth Fund? Is it among these general column balances? Or somewhere else?

Now finally on Page 44 of the Budget we do see some disclosure of the Tax Growth Reserve Fund – here:

	2020 Budget	2021 Budget	Y:Y
Revenue			
- Developer Contributions	\$ 14,932	\$ 5,565	\$ (9,367)
- Investment Income	2,716	1,873	(843)
	17,648	7,438	(10,210)
Transfers from Reserves			
- Existing Capital	57,153	48,458	(8,695)
- Land & Housing	3,684	2,306	(1,378)
- New Capital	6,462	8,825	2,363
- Development	4,081	5,607	1,526
- Operating Reserves	-	2,177	2,177
Appropriations from Reserves	71,380	67,373	(4,007)
- Interfund Transfers (between funds)	53,234	50,494	(2,740)
Source of Funds	142,262	125,305	(16,957)
Transfers to Reserves			
- Existing Capital	40,213	42,953	2,750
- Land & Housing	2,818	2,931	113
- New Capital & Initiatives	2,795	3,198	403
- Development	15,908	6,252	(9,656)
- Tax Growth	2,815		(57)
- Operating Reserves	6,484		(6,484)
Contributions to Reserves	71,033	58,102	(12,931)
- Interfund Transfers (between funds)	71,229	67,203	(4,026)
Use of Funds	142,262	125,305	(16,957)
Tax Levy	\$	7	S -

#### But let me ask the following:

- 1. If there are no limits on how long new builds go into this fund, how are contributions to the fund going DOWN year-over-year?
- 2. I note that \$2.758 million of our total taxation \$117.287 million is already 2.53% of our taxation revenue lines.

3. Are the utility fees (paid to Metro) from new builds ALSO going into the Tax Growth Reserve Fund?

#### AND THEN THERE IS THIS STATEMENT:

The Tax Growth Reserve will smooth future impacts on services, including ongoing costs related to new assets and increased demand. Any projected surplus in this reserve over the five-year period of this plan may be reallocated to capital priorities, reducing the estimated funding gap in this plan.

What? "Any projected surplus in this reserve over the five-year period of this plan may be reallocated to capital priorities..."
That did not take long! It is now the slush fund that I warned you all of:

I call upon this Council to now, as part of this Budget Cycle to abolish the Tox Growth Reserve Fund and have all taxation revenues from all DNV buildings go into the general taxation revenue budget line(s).

Already, "hungry" eyes are upon this fund and you are herein indicating a corruption of this fund's intent and purpose.

You have failed to provide the openness and transparency that was promised. You are now intending to co-opt this fund's purpose and intent and it hasn't even been a full year!

This was a mistake – please erase it.

More to follow.

Dear Mayor, Council & Staff,

As you are more aware than I, one of the major themes endemic to the 2018 Election Cycle was some relief for residents on the subject of Transportation.

And we know from the DNY Transportation Plan that 81% of daily trips are by car.

We also know from the pandemic that private auto use has rebounded to pre-pandemic levels but that transit use has experienced a severe and seemingly longer-term retraction.

#### How are these factors represented in our Budget?

Page 4 speaks of "major upgrades to roads and bridges".... Really? Major upgrades?

All I can think of as "major" is the interchange project, which long pre-dates this Council and may, or may not provide some relief.

We see the following on page 31: Road and Bridges — includes provisions for road upgrades

within the town centres, LED lighting upgrades, Bendale

and Lytton intersection upgrade, and road safety upgrades

in various locations

None of which I consider "major"... nor have I seen any announcement of what is planned at Bendale & Lytton (which is just OFF the arterial route).

#### Then on page 48 we see this table:

#### 2021 Capital Details and Reserve Appropriations, continued (000s)

		ENGLISHES A			MAINM	VAD VAD HOWING		NEW CAP IA			DEVELORMENT			1070 mb 50000	
Prouggr	B.ET	Irrivast. Rassivu	Floot & Equipment	dulinia	iand	Housing	ranap, & Mais lity	Common ity Hearth &	Clicate and repeation	Cost Charges	Amenity Centrib	Officials:	Borrwing	Grants	Genera Su <sub>t</sub> alur
Transportation	VQL.														
Active Transportation															
Cyding - Equipment	150		75			-	75	*	10	1.2	16		-	25	3.5
Cycling Routes															
CNV border-Harbour Ave 8Vain St Cycle Link)	150					-	-						150		
Edgamont - Quaensdala	390						350						-		
Hons Gate Village-CNV Border	420	8			-	2	300	~			-	~	120	120	
Lynn Valley TC - Lynn Creek TC (East)	150		131		60		150	-		- 25	25			*	5.5
Lynn Valley TC - Lynn Creck TC (West)	1,400					*	700							700	
West Van border - Tatlow Ave (Marine Dr Cycle Link)	250					-		*					63	188	
Salety R Mobility															
Salty & Active Transportation	287	177	7.4	0	-	-	45		9	65	10			2	0.5
Salety & Traffic Calming	450		-0.0		2	-	200	-	- 4	2.5	125		250	(8)	100
Emergency Response Facilities	75					-	75	*							
Skilsmalks															
Upper Capilano - Montroyal Blad (South)	50		90	-		5	50			(4)	3.77				308
Lynn Valley - Frederick (North)	330			9	- 8	- 6		2		12.		8	300	12	
Seymour - Dollarton (North) 2021	330				2	2	~	9			190	- 20	330		
UrbanTraik															
Fainmont Park	125						125		100		-	-	*	283	
Spirit Trail (Eastern Segment)	200				5.		100		-				50	50	
Roads & Bridges															
Road Upgrades - Centres	3,000										2	2,000	2 0		
Street Lighting Upgrade	80G	300	1.0		2	-	300			60	22	-0.00		41	
Traffic Safety & Monitoring - Railway Cocysings	455		0.40	100		-	455		-	2.0		-	0.00	(8)	
Transit															
MOTI Partnership Project - Lower Lynn Connectivity	900				5		400				500	2			
Upgrades to Transit Shelters, Transit Stops	300			- 1	8	2	300		98		<u>.</u>	2	590	+	

The biggest investment in roads here? Done by a private developer in a town centre.

Anything east of the Seymour River?

The Bendale/Lytton project? Not in the budget according to this table.

#### There is this other table on page 55

Roads & Bridges						- 1	10000				1-31-5
Bridge Canyon & Montroyal Over Macray	1335	-	4,000	4,000	-		1,000	2,000	120		8,000
Road Upgrades - Centres		3,000	3,500	3,000	3,000		12,490	5	12 495		
Street Lighting Upgrade		600	3-0			- 9	600	600		*	
Traffic Safety & Monitoring - Railway Crossings		455	100	100	-		455	455	15		
MoTI Municipal Infrastructure		*	4 000	*	-		< 0000	4,000	100		4,000

Again, same questions: what MAJOR upgrades? What, if anything, east of the Seymour River?

Where does this budget reflect the need to get traffic moving and to replace major, aging infrastructure?

I am sorry, but this budget does not reflect your stated priorities.

The COVID-19 pandemic has shown the following:

- Continued interest and in fact GROWTH in interest and intention to use private automobiles.
   Seemingly permanent, or at least long-term reduction in use of shared-space public transit facilities.
- 3. An increase in RECREATIONAL cycling not commuting or shopping.

So where then are your plans to help our District? Lighting does not improve traffic flow.

And if you think you are going to deliver the "15 minute" or "5 minute" neighbourhood in the next 5 years, then please tell me when I should look forward to a Costco opening in Seymour? Because anything else means extra costs for families.

Eput this to you... after the public SCREAMED for help in Transportation from 2012 through to today, that this budget can only be described as "lip service".

I see nothing here to give me any hope of relief.

Do I misunderstand? Not see the whole picture? Great. Please SHOW ME.

More to follow.

Peter Teevan

1900 Block Indian River Cres North Vancouver District, BC pteevan@shaw.ca From:

pteevan@shaw.ca

To: Cc: Mayor and Council - DNV; Budget

Subject:

"Info nycan.ca"; "Corrie Kost" [WARNING: AMP - ATTACHMENT UNSCANNED]Budget Input 6/9 - Key Performance Indicators

Date: Attachments: February 21, 2021 2:46:53 PM

image001.emz image004.emz

Dear Mayor, Council & Staff,

In the budget, you show us the following graph:
From page 6

Now to my mind this is trying to tell us that as District Residents and Taxpayers that we are doing quite well among our neighbouring municipalities.

But, we are comparing apples to oranges. My way of looking at this is that our tax increases are good, among a group of "bad actors".

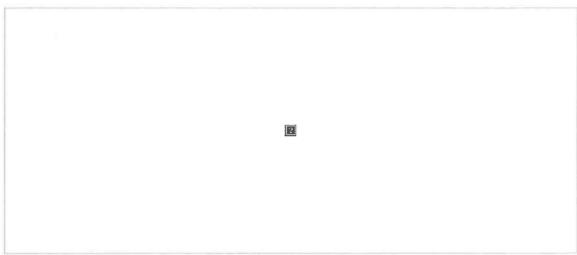
I would much rather see the "bigger picture".

How are tax revenues (gross, per household, per capita) trending over the long-term? Say 25-30 years? How does our District compare with other municipalities similar in size to us, from across Canada?

I would want to look at:

Taxation (gross, per household, per capita) over time. # of municipal staff (gross, per household, per capita) over time. Operating Expenditures (gross, per household, per capita) over time. Debt (gross, per household, per capita) over time.

And I would like to see these figures compared with the following:



Here are 15 Canadian municipalities whose populations are +/- 10% of our own.

Let me tell you about a best-practice I learned in the car dealership business:

Auto Dealers of the same franchise, from non-competing markets would form "Dealership 20 Groups" or "Performance Groups" and they would also submit the same standard-form Financial Statements monthly to the group facilitator.

Twice per year the key people, in municipal government they would be the Mayor, CAO, CFO and Chair of the Finance Committee would attend a meeting with their peers.

The facilitator would have pre-assembled and distributed the financial statement data with comparisons of each dealer to the best-in-class and average for a multitude of Key Performance Indicators.

As a citizen, this is what I want to see. I am not interested in how we stack up against the City of Vancouver or even the City of North Vancouver with their high development, high density and activist Councils.

And when you tell a citizen on the West Coast that "there is no more budget for snow clearing" – I want to see how Pickering, Cape Breton, New Market and Repentigny all take in taxation and if it's less than we do... ok, I "get" the no budget for snow clearing.

What I am saying is that I want to see comparisons that are meaningful – apples-to-apples.

And If my own prior research on taxation levels in places like Pickering are valid, I think what you would find is that District of North Vancouver taxpayers are paying SIGNFICANTLY more than our "peers" in place like Pickering.

More to follow.

pleman@stimu.ca Meyor and Council - DRV/; Budget Tinfo.nucan.ca; "Cornie Kost" Budget (input '79 - North Shore Mountain Bike Associal February 21, 2021 2:46:56 PM

Dear Mayor, Council and Staff,

I see reference to the North Shore Mountain Biking Association (NSMBA) in several places in the budget, starting with page 24:

full-time park ranger, removal of infested Linden trees, and ongoing funding (\$100,000) to the North Shore Mountain Biking Association for annual trail upgrades and maintenance.

Operating initiatives include a provision to complete work on the Seymour Trails Strategic Plan along with other initiatives supporting parks including temporary support for graffiti removal, fire signs, and vehicle leasing costs due to COVID-19.

These statements are confusing to me... To my knowledge NSMBA has already been enjoying \$500,000 of taxpayer funds per year – is this \$100,000 replacing previous amounts? Is it in-addition? And by "on-going" does that mean NSMBA's funding has been moved to CORE FUNDING?

I think a bit of review is in order. We taxpayers deserve to see full disclosure. What is the total being given per year? To date? To NSMBA.

This vehicle leasing costs? Whose vehicle? Are the taxpayer funding a vehicle being used by NSMBA?

At which public meeting were these amounts voted upon? And by which members of Council?

Information is being released in bits and pieces and we want to see the whole picture please.

More to follow.

From: pteevan@shaw.ca

To: Mayor and Council - DNV; Budget
Cc: "info nvcan.ca"; "Corrie Kost"

Subject: Budget Input - 8/9 - Sewage Treatment Plant

**Date:** February 21, 2021 2:47:17 PM

Dear Mayor, Council and Staff,

I note on page 37 under the category "Strategic Priorities" there is the statement: "work with Metro Vancouver to complete the North Shore Liquid Waste Treatment Plant including enhancing treatment to tertiary level".

Keeping in mind our "fiscal imbalance" focussed upon in the budget introduction, I am motivated to ask the following:

Who owned the lands being used for the sewage treatment plant before the project commenced? Did Metro Vancouver buy the lands? If so, from whom?

If owned by DNV Taxpayers, then how are CNV and DWV paying their share to DNV taxpayers, seeing as they are using our land for their purposes?

Are we, DNV Taxpayers, using any of our budget funds for this project, which we are also paying for in ever-increasing pass-through utility fees to Metro Vancouver?

Of note – I searched for "Sewage Treatment Plant" on DNV.org and the only references that came up are as follows:

Blog Post

# How a community's ideas helped shape a new wastewater treatment plant

https://www.dnv.org/dnv-blog/how-communitys-ideas-helped-shape-new-wastewater-treatment-plant

Event

# Princess Park plant party

Last year's volunteer project at Princess Park was a great success in protecting the park's creeks and sensitive ecosystems.

We're going to keep the positive momentum going and build off of these projects by planting native plant species, enhancing trails, and cleaning up the park.

https://www.dnv.org/parklands-volunteer-20191026

Page

## **Our Invasive Plant Management Strategy**

The District's Invasive Plant Management Strategy provides a comprehensive framework to guide management, prevention, treatment, and control of harmful invasive plants on public and private land. Get full details of the strategy.

https://www.dnv.org/community-environment/our-invasive-plant-management-strategy

Page

## Protecting our sanitary sewer system

We are working hard to prevent rainwater from entering our sanitary sewer system, which can lead to health and environmental issues, damage to private residences, and significant additional costs for all of us. Find out what we're doing to reduce the risk, and learn what role you have to play.

https://www.dnv.org/your-home-property/protecting-our-sanitary-sewer-system

Page

# Where we are controlling invasive plants

Under Provincial legislation, the District is obligated to manage invasive species on our public lands. View a map showing where invasive species are being treated between June and September of 2018.

https://www.dnv.org/community-environment/where-we-are-controlling-invasive-plants

Page

# Managing invasive plants on your property

Our Invasive Plant Management Strategy explores preliminary options to help manage and control high risk invasive plants on private properties, but even without these protections, we can all still do our part to control the spread of invasive species:

https://www.dnv.org/your-home-property/managing-invasive-plants-your-property

Page

# What you can do about invasive insects

Learn about invasive plants and insects in the District, including chafer beetles and fire ants, and find out how you can do your part to help control them.

https://www.dnv.org/your-home-property/what-you-can-do-about-invasive-insects

The only page reference to the actual project was last updated in 2017....

Why do we not have a resource page on this important infrastructure project??

Invasive plants this is NOT.

Last email to follow....

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Mmyor.and Council\_DNN/S Baldget
Tinfo.mxcan.ca? "Comple Kost?
[NARNNIK: AMP - ATTACHHENT UNSCANNED]Budget Input 9/9 - Miscellaneous Questions.
Fernany 21, 2002 12-47-99 PM
Image006.4mrs
Image006.4mrs
Image006.4mrs
Image006.5mrs
Image006.5mrs Dear Mayor, Council & Staff, Following are more "micro" questions that didn't fit into the previous more major topics/themes.

Page 4

• Income earned from District lands transfers to the Land Income Reserve, supporting future land acquisitions (\$9.5 million).

I am not familiar with this – could you please provide some details?

Page 5 Would like more details on this please.

Page 7 1 What is happening with the utility fees of new builds? Are they going to Metro as well? Or into the Tax Growth Reserve Fund? and the antiquest and antiquest as the many arms a summer of the property of the summer of the summe

Climate adaptation, new engineering standards, project delays and rising construction costs are all impacting required capital plan funding. Is this the same thing we talked about in climate budgets?

As the District implements planned changes to services levels through the capital plan, staff This statement confuses me... "service levels" to me implies operational, not capital funding... so please clarify this statement?

#### Five Year Capital Plan (000s)

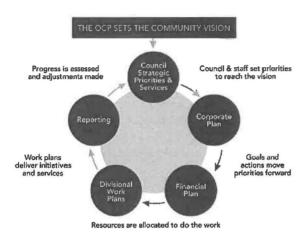
	PLAN						
	2021	2022	2023	2024	2025	TOTAL	
Expenditures							
Affordable Housing	\$ 2,306	590	<u>=</u> -	2	\$ 38,707	\$ 41,603	
Child and Seniors Care		2,960	2,960	-	9	5,920	
Civic Facilities and Equipment	6,858	6,786	(19,928	4,060	4,269	41,901	
Mitigation, Adaptation and Natural Hazards	5,471	4,488	4,053	3,225	3,500	20,736	
Community Facilities, Arts and Culture	13,368	7,879	18,443	12,858	5,661	58,208	
Contingency	1,307	1,300	1,510	1,661	1,578	7,357	
Lands and Real Estate	35	1,349	860	505	3,174	5,923	
Parks and Open Spaces	8,891	16,762	9,131	10,827	5,345	50,957	
Public Safety	13,435	21,354	13,540	1,952	378	50,658	
Technology	2,530	2,549	2,569	2,389	2,409	12,445	
Transportation	16,408	24,709	20,729	17,075	12,675	91,597	
Utilities	16,435	23,455	14,691	14,528	15,168	84,277	
	\$ 87,045	\$ 114,181	\$ 108,413	\$ 69,078	\$ 92,864	\$ 471,581	

The \$38.707 million in 2025.... What is this project? Civic facilities... \$19.9 million in 2023... is that Lynn Creek? Where is the new Ron Andrews Rec Centre plan? Beyond 5 years again?

Page 11



Page 12..



The "public" is conspicuously absent from this diagram.

#### **Council Directions**

Council articulated its priorities for the 2019-2022 term through the Council Directions document. Council's priority directions include:

- 1. Improving mobility and transportation
- 2. Increasing housing diversity and addressing affordability
- 3. Supporting a vibrant economy and jobs-housing balance
- 4. Taking action on climate change

For Council, these are the most important issues the District of North Vancouver will pursue over their term. During the planning process, new approaches and initiatives were identified as important elements that will help us to understand and make improvements on these pressing issues.

- 1. (Robust Community Engagement
- 2. Working Collaboratively and Strengthening Relationships
- 3. Focus on our Customers
- 4. Keeping the Organization Resilient

Subsequent plans, including this financial plan and the organization's Corporate Plan, have embedded these priorities.

age 15	
Please provide details on these high-lighted items.	

Page 16

#### Capital and lands

- · Rezone District lands identified to support social and supportive housing and employment
- Leverage other lands, including partners, and explore opportunities to co-locate services
- Consolidate end of life facilities into community hubs
- Pursue transportation demand management measures (e.g. pay parking) and develop active transportation options
- . Monitor growth related capital and review and adjust development charges to ensure they are accurate
- Explore allocating a fixed percentage of Community Amenity Contributions (CACs) to affordability and housing
- Maintain a prioritized list of projects by service, monitor and apply for senior government grants as they come available
- Add one percent to the tax levy for asset management until sustainment levels are reached

A couple of notes of feedback... I think the taxpayers would see use of public lands for social and supportive housing to be fundamentally different than using same for "employment". Totally support end of life facilities in community hubs — we are woefully under-configured and it will get worse as the baby-boom ages. I submit that many citizens would not appreciate the use of their tax dollars in order to hamper their ability to transit

Would appreciate more details on the high-lighted items Page 42

This idea of a Council Liaison Officer seems anti-thetical to me. My hope, as a citizen, is that my Council members can deal more directly with staff than I can. I don't want a buffer/gatekeeper who costs me money making the process more difficult.

I see the following under "public art" - \$800,000 + \$400,000 = 1.2 million. How many affordable housing units could we BUY from a developer for \$1.2 million? If the public art is more Mountain Bikes on swizzlythings (like Maplewood), I suggest we have bigger priorities.

Page 47
\$1.75 million in borrowing for the Argyle artificial turf field.... Does SD44 help with this cost? Wouldn't CAC's be a great use here rather than public art or borrowing?

13,000 for Deep Cove Kayak centre? Isn't this a private business? Is the rent factor going up to accommodate these upgrades?

750+330+500+750 = 2.33 Million in Technology upgrades? That seems quite a lot over and above our operating budgets... please provide details. Competitive tender/bid process being used?

\$265,000 for Audit to top emitters? Do we need to use taxpayer funds for this? Wouldn't Hydro/Fortis do this for free? Why are taxpayers paying for business updates?

Page 53 -

First, please look at the 5 Years total column for Public Art: \$23,955 million dollars for public art? 5 projects? How many artists will be getting this?

How does this align with our top priorities of transportation, affordable housing, climate change? Please provide details and convince us this is a good "investment".

Same page... parks and open spaces... Please review the list... how much is being Invested east of the Seymour River? EQUITY...

Page 56 – please look at the 5 year total for "Fleet Services" – to me that means new vehicles... \$8.495 million for new cars? For what? Aren't cars (which depreciate) operational expenses?

Page 59

Donata Class	% Property Tax					
Property Class	2020	2021				
Residential	71.7%	71.8%				
Utilities	0.2%	0.2%				
Major Industry	10.2%	10.1%				
Light Industry	0.9%	0.9%				
Business	16.7%	16.7%				
Recreation	0.3%	0.3%				
TOTAL	100.0%	100.0%				

Does this table constitute a staff recommendation? That businesses should receive NO TAX relief?

Ok, that wraps up the bulk of my high-lights and notes on the budget.

This has been a major amount of volunteer hours invested in providing this. Those who are paid for this work – I hope that you consider it sincerely and read and respond.

Sincerely.

# Comments/Question on 2021 Draft Financial Plan by Corrie Kost

C/Q1 – **Staffing levels** are again apparently not shown this year. Could they be provided? Last reported on page 26 of the 2015 plan where it reported Core Operations had 556 FTE and together with Partner Agencies the **Total FTEs was 940.6** 

C/Q2 – Timing between tabling of the plan by council and meeting with community was much longer (desirable) for 2016 and 2017 plan 23 & 29 days) but subsequently reduced for 2019, 2020, and 2021 to 3, 9, 9 days respectively.

C/Q3 – The **\$200m** FUNDING GAP appears to have come out of nowhere. The subject **"funding gap"** was only mentioned in the 2017, 2018, 2019 Financial Plans to say "1% of the previous year's tax levy is added each year for asset renewal until the sustainment level is reached". Draft Financial Plan for 2020 mentioned the subject twice. The current (2021) plan mentioned the subject 12 times. Note that the yearly added "1% for asset renewal until sustainment level is reached" was originally to be for a 10 year period. On page 15 of the 2018 Financial Plan Workbook it stated "Our actual performance over the last three years is now within the best practice range and continuing the 1% policy through 2022 will help enable the District to reduce its infrastructure backlog and begin to replenish its reserves". We are now in its 16<sup>th</sup> year.

The strategy (discussed on page 14 of the 2021 Plan) to fund the \$200million funding gap with the listed financial strategies – namely:

- Rezoning District lands for housing and employment
- Opportunities to leverage other lands and co-locate services
- · Consolidating end of life facilities into community hubs
- Demand management and lower cost options to achieve service levels
- Property tax strategy for industry, business and social housing
- Reviewing the accuracy of development charges
- Debt financing options

The strategy may well work for the noted 10yr plan BUT I doubt it would work for the period 2031-2041. This is because at least some of the bulleted items above cannot be used again.

C/Q4 - Still no recent data on Infrastructure Life Expectancies and their average age for ROADS, STORM and SEWER pipes, BUILDINGS, WATER, BRUIDGES, LIGHTS& SIGNALS, SIDEWALKS. They were last published for 2010. Page 15 of the 2018 report noted a \$100million (5% of total asset base) "backlog" but failed to make an explicit list of asset condition categories (from "very good" to "very bad").

C/Q5 – Could a summary be provided of the negative and positive financial impacts of Covid-19 on the local government finances. For example, I see positive financial impacts of closing facilities (eg Libraries, Rec. Centres) in that taxpayers are still paying a substantial share of the costs via municipal taxes. I also see negative impacts since user fees are no longer collected for closed Rec. Centres. Perhaps there are some positive and/or negative financial impact to policing resulting from changes in crime rates. Similarly for the fire protection programs. A department by department overview would be welcomed. Assuming some overall net loss of income by DNV – how much of this was offset with grants by the provincial and federal governments?

C/Q6 – According to the attached report by the DOE – Lawrence Berkeley National Lab future Climate Change costs are expected to be about \$1/day/capita, which for DNV amounts to about \$31 million/yr. The numbers may be somewhat different for the DNV. Any estimates?

C/Q7 – Can you tell us the Municipal Spending per capita that took place in 2020? How do we compare with other Metro Vancouver municipalities?

C/Q8 – I am aware that many of our seniors are not web-enabled. Has the DNV considered how to remedy the social inequity that disenfranchises this vulnerable group – particularly as it relates to public issues / local governance. Note that the local newspaper is no longer being delivered to many households in the DNV.

C/Q9 - Could the public be provided with the Total municipal budget (in constant dollars) for the years 2020, 2015, 2010, 2005, an 2000?

C/Q10 – When can we expect to see the new sewage plant to be operational. It was to be completed in 2020. Any cost changes to the DNV?

C/Q11 – Could you provide a list of municipal services that have aided in the reduction of fees or taxes through innovation in the delivery of those services? Specifics would be most welcomed.

# Carbon: Getting to net zero -- and even net negative -- is surprisingly feasible, and affordable

Date:

January 27, 2021

Source:

DOE/Lawrence Berkeley National Laboratory

About \$124B/yr for US About \$31M/yr for DNV

Summary:

Reaching zero net emissions of carbon dioxide from energy and industry by 2050 can be accomplished by rebuilding U.S. energy infrastructure to run primarily on renewable energy, at a net cost of about \$1 per person per day, according to new research.

Share: https://www.sciencedaily.com/releases/2021/01/210127122410.htm

**FULL STORY** 

Reaching zero net emissions of carbon dioxide from energy and industry by 2050 can be accomplished by rebuilding U.S. energy infrastructure to run primarily on renewable energy, at a net cost of about \$1 per person per day, according to new research published by the Department of Energy's Lawrence Berkeley National Laboratory (Berkeley Lab), the University of San Francisco (USF), and the consulting firm Evolved Energy Research.

The researchers created a detailed model of the entire U.S. energy and industrial system to produce the first detailed, peer-reviewed study of how to achieve carbon-neutrality by 2050. According to the Intergovernmental Panel on Climate Change (IPCC), the world must reach zero net CO<sub>2</sub> emissions by mid-century in order to limit global warming to 1.5 degrees Celsius and avoid the most dangerous impacts of climate change. The researchers developed multiple feasible technology pathways that differ widely in remaining fossil fuel use, land use, consumer adoption, nuclear energy, and bio-based fuels use but share a key set of strategies. "By methodically increasing energy efficiency, switching to electric technologies, utilizing clean electricity (especially wind and solar power), and deploying a small amount of carbon capture technology, the United

#### Transforming the infrastructure

published recently in the scientific journal AGU Advances.

"The decarbonization of the U.S. energy system is fundamentally an infrastructure transformation," said Berkeley Lab senior scientist Margaret Torn, one of the study's lead authors. "It means that by 2050 we need to build many gigawatts of wind and solar power plants, new transmission lines, a fleet of electric cars and light trucks, millions of heat pumps to replace conventional furnaces and water heaters, and more energy-efficient buildings -- while continuing to research and innovate new technologies."

States can reach zero emissions," the authors write in "Carbon Neutral Pathways for the United States,"

In this transition, very little infrastructure would need "early retirement," or replacement before the end of its economic life. "No one is asking consumers to switch out their brand-new car for an electric vehicle," Torn said. "The point is that efficient, low-carbon technologies need to be used when it comes time to replace the current equipment."

The pathways studied have net costs ranging from 0.2% to 1.2% of GDP, with higher costs resulting from certain tradeoffs, such as limiting the amount of land given to solar and wind farms. In the lowest-cost pathways, about 90% of electricity generation comes from wind and solar. One scenario showed that the U.S. can meet all its energy needs with 100% renewable energy (solar, wind, and bioenergy), but it would cost more and require greater land use.

"We were pleasantly surprised that the cost of the transformation is lower now than in similar studies we did five years ago, even though this achieves much more ambitious carbon reduction," said Torn. "The main reason is that the cost of wind and solar power and batteries for electric vehicles have declined faster than expected." The scenarios were generated using new energy models complete with details of both energy consumption and production -- such as the entire U.S. building stock, vehicle fleet, power plants, and more -- for 16 geographic regions in the U.S. Costs were calculated using projections for fossil fuel and renewable energy prices from DOE Annual Energy Outlook and the NREL Annual Technology Baseline report.

The cost figures would be lower still if they included the economic and climate benefits of decarbonizing our energy systems. For example, less reliance on oil will mean less money spent on oil and less economic uncertainty due to oil price fluctuations. Climate benefits include the avoided impacts of climate change, such as extreme droughts and hurricanes, avoided air and water pollution from fossil fuel combustion, and improved public health.

The economic costs of the scenarios are almost exclusively capital costs from building new infrastructure. But Torn points out there is an economic upside to that spending: "All that infrastructure build equates to jobs, and potentially jobs in the U.S., as opposed to sending money overseas to buy oil from other countries. There's no question that there will need to be a well-thought-out economic transition strategy for fossil fuel-based industries and communities, but there's also no question that there are a lot of jobs in building a low-carbon economy."

#### The next 10 years

An important finding of this study is that the actions required in the next 10 years are similar regardless of long-term differences between pathways. In the near term, we need to increase generation and transmission of renewable energy, make sure all new infrastructure, such as cars and buildings, are low carbon, and maintain current natural gas capacity for now for reliability.

"This is a very important finding. We don't need to have a big battle now over questions like the near-term construction of nuclear power plants, because new nuclear is not required in the next ten years to be on a net-zero emissions path. Instead we should make policy to drive the steps that we know are required now, while accelerating R&D and further developing our options for the choices we must make starting in the 2030s," said study lead author Jim Williams, associate professor of Energy Systems Management at USF and a Berkeley Lab affiliate scientist.

#### The net negative case

Another important achievement of this study is that it's the first published work to give a detailed roadmap of how the U.S. energy and industrial system can become a source of negative CO<sub>2</sub> emissions by mid-century, meaning more carbon dioxide is taken out of the atmosphere than added.

According to the study, with higher levels of carbon capture, biofuels, and electric fuels, the U.S. energy and industrial system could be "net negative" to the tune of 500 metric tons of CO<sub>2</sub> removed from the atmosphere each year. (This would require more electricity generation, land use, and interstate transmission to achieve.) The authors calculated the cost of this net negative pathway to be 0.6% of GDP -- only slightly higher than the main carbon-neutral pathway cost of 0.4% of GDP. "This is affordable to society just on energy grounds alone," Williams said.

When combined with increasing CO<sub>2</sub> uptake by the land, mainly by changing agricultural and forest management practices, the researchers calculated that the net negative emissions scenario would put the U.S. on track with a global trajectory to reduce atmospheric CO<sub>2</sub> concentrations to 350 parts per million (ppm) at some distance in the future. The 350 ppm endpoint of this global trajectory has been described by many scientists as what would be needed to stabilize the climate at levels similar to pre-industrial times.

The study was supported in part by the Sustainable Development Solutions Network, an initiative of the United Nations.

#### **Story Source:**

<u>Materials</u> provided by <u>**DOE/Lawrence Berkeley National Laboratory**</u>. Note: Content may be edited for style and length.

#### Journal Reference:

 James H. Williams, Ryan A. Jones, Ben Haley, Gabe Kwok, Jeremy Hargreaves, Jamil Farbes, Margaret S. Torn. Carbon-Neutral Pathways for the United States. AGU Advances, 2021; 2 (1) DOI: 10.1029/2020AV000284