March 7, 2023

RE: Comment on facilities plan/budgeting process

Hello Amelia,

Thank you for letter dated February 15, 2023, it was shared at the public board meeting held on Wednesday, February 22, 2023. The Board of Education has asked that I respond to your inquiry.

I appreciate the time you had taken to examine the data from the 2015 Long Range Facilities Plan, the 2017 *Becoming Sustainable* plan and the 2021 Long Range Facilities Plan as well as the information provided in the more recent *Ensuring Capacity and Safety at NDSS* package.

The 2015 plan focused on addressing over a decade's worth of enrolment decline and the associated loss of revenue that results from fewer students. The April 26, 2017, *Becoming Sustainable* facilities plan update, which was an update to the 2015 Long Range Facilities Plan (LRFP), recommended school closures and consolidation as one of the strategies to reduce annual operating costs, reduce future capital expenses, and identify capital assets for future consideration.

There have been two significant changes since these plans were approved that have resulted in the need for significant revision. The changes to the building code have resulted in significant changes to our seismic remediation program (from 3 to 32 schools requiring seismic upgrading due to recent building code changes), and the Supreme Court ruling [on class size and composition] resulted in the opening of over 70 classrooms in the school district.

In the approved Long Range Facilities Plan from May 2021, the school district relied on regular projections provided by Baragar Systems. This data influenced short-term recommendations and assisted in determining where additional capacity may be required for the next three years.

As explained in the 2021 LRFP document, in addition to Baragar Systems, the district also engaged with Licker Geospacial (LG) to provide longer term growth data (LG was not used in the 2015 and 2017 plans). This group liaised with local municipal and regional district authorities to understand future growth patterns.

Each year, we provide projections to the Ministry of Education and Child Care for the next school year – which happens around spring. In the fall, when we have physical students in their seats, we are then able to correctly determine how our projections compare to actual numbers.

School districts across the province constantly grapple with enrolment projections where, as we have seen, may change drastically from year to year. We plan to assess our situation on a regular basis and address capacity and safety in our most challenged school communities.

If you have any questions, please email our Secretary-Treasurer Mark Walsh at SecretaryTreasurer@sd68.bc.ca, who led the district's LRFP process.

Sincerely,

Scott Saywell
Superintendent/CEO

From: Karen Matthews
To: Karen Matthews
Subject: FW: Comment on facilities plan/budgeting process
Date: February 17, 2023 10:55:36 AM

From: Daniel & Amelia Mahony < >
Sent: Wednesday, February 15, 2023 8:32:36 PM
To: Charlene Mckay <Charlene.Mckay@sd68.bc.ca>; Tania Brzovic <Tania.Brzovic@sd68.bc.ca>; Bill Robinson <Bill.Robinson@sd68.bc.ca>; Greg Keller <Greg.Keller@sd68.bc.ca>; Jessica Stanley <Jessica.Stanley@sd68.bc.ca>; Elaine Wilkinson <Elaine.Wilkinson@sd68.bc.ca>; Stephanie Higginson <Stephanie.Higginson@sd68.bc.ca>; Naomi Bailey <Naomi.Bailey@sd68.bc.ca>
Cc: Chantel O'neill <Chantel.Oneill@sd68.bc.ca>; District Administration Centre Manager <DistrictAdministrationCentreManager@sd68.bc.ca>
Subject: RE: Comment on facilities plan/budgeting process

Hello,

I'd like a response to this letter please. I see that feedback is currently being accepted for what to do with NDSS and I feel that these comments speak to the lack of information/student data given in that handout that is asking for the public's opinion. I feel it is 100% impossible to make the decisions based on the information given. The document has a lot of text and is very shiny but completely lacks information necessary to give an informed opinion. The comments you will get back will be based on proximity to the problem/gut feeling/emotions only. No usable enrollment data is given. Only NDSS and not the other schools that are all growing (as show in the 2015 data). And, no financial data is given which will be what the decision is 99% based on.

The data below says that you shouldn't have closed schools such as Woodlands. Now, you are using the fact that you closed it as a reason not to reopen it.

Amelia

From: Daniel & Amelia Mahony < >
Sent: June 24, 2022 8:47 AM
To: Charlene Mckay <Charlene.Mckay@sd68.bc.ca>; chantel.oneil@sd68.bc.ca; Tania Brzovic <Tania.Brzovic@sd68.bc.ca>; Bill Robinson <Bill.Robinson@sd68.bc.ca>; Greg Keller <Greg.Keller@sd68.bc.ca>; Jessica Stanley <Jessica.Stanley@sd68.bc.ca>; Elaine Wilkinson <Elaine.Wilkinson@sd68.bc.ca>; Stephanie Higginson <Stephanie.Higginson@sd68.bc.ca>; Naomi Bailey <Naomi.Bailey@sd68.bc.ca>
Subject: Comment on facilities plan/budgeting process

Hello school district board,

I hope this letter finds you well and safe.

I am writing to comment on the decision making process for opening/closing of schools. My comments relate to the quality of the student enrollment data that leads to possible strategic decision-making outcomes for these decisions.

I realize school resource planning is complex, but I am finding it hard to figure out how strategic decisions can be made from the data presented.

I applaud the districts decisions to reopen schools.

However, I'd like to point out that you had this data <u>years ago</u>. But, it wasn't presented to you correctly.

I'd encourage the district to hire a data analysist. Given the quality of the graphs below and some of the projected enrollment data presented in the past, I am going to assume there isn't one on staff.

There are 3 points I'd like to make:

<u>#1 Student enrollment data in 2015 actually showed elementary enrollment increasing to 2025. But, instead, decisions based on declining student enrollment were made:</u>

I was in attendance at the 2015 meeting where school closures were tabled and discussed. I was struck by the graphs of current and future enrollment that were presented. I wrote a letter trying to describe why they were misleading (see attached). In fact, they were presented in a way that would go against any science/mathematical standard of practice for graphing.

For the 2015 presentation, my main point was that current and future student enrollment numbers were presented on **2 separate graphs and on 2 different scales at 2 different resolutions** to try and show that student numbers were going to decline in the future.
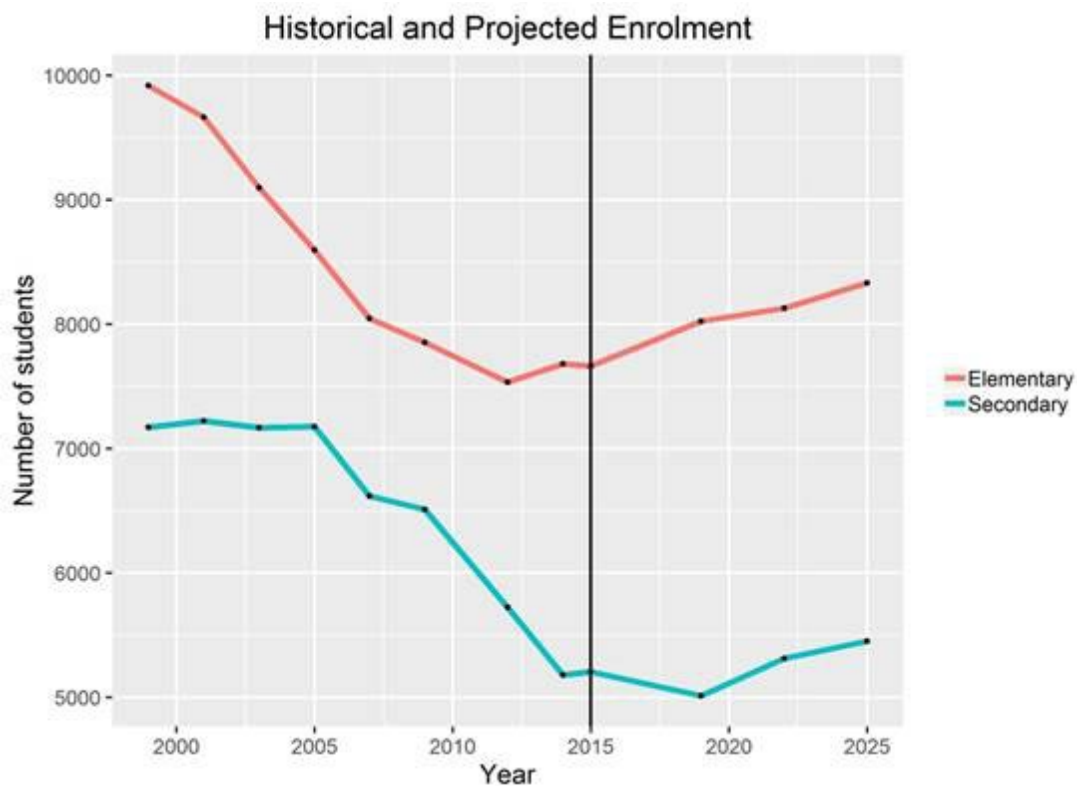
The y-axis scale on the historical enrolment graph is from 5000-10500.

The y-axis scale on the future enrolment graph is from 4000-10000.

Graphs from 2015 facilities plan:

Historical Enrolment
1999-2014

Enrolment Projection
2015-2025
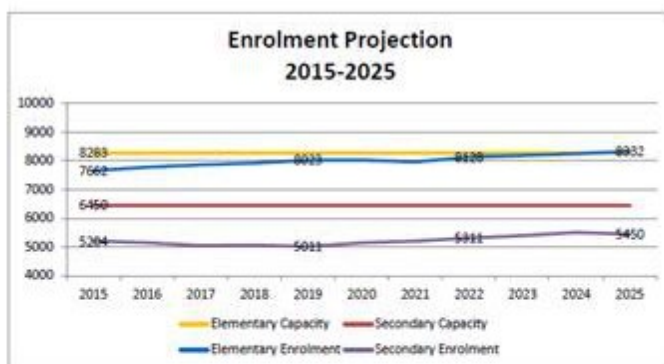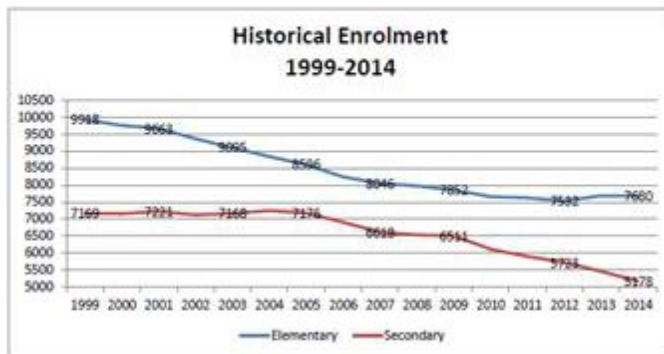
When I used the **SAME** numbers on **ONE** graph:

Historical and Projected Enrolment

This second graph shows in fact that numbers are due to increase, not decrease – especially for elementary schools.

I realize there are other factors that contribute to decision-making for school resources, but these graphs are just so glaringly wrong to be used in any meaningful way to make decisions.

#2 Scenario data on future predications would improve ability to make informed decisions.

In the 2015 data above and the new 2021 tables, all of the graphs are missing confidence intervals or something equivalent.
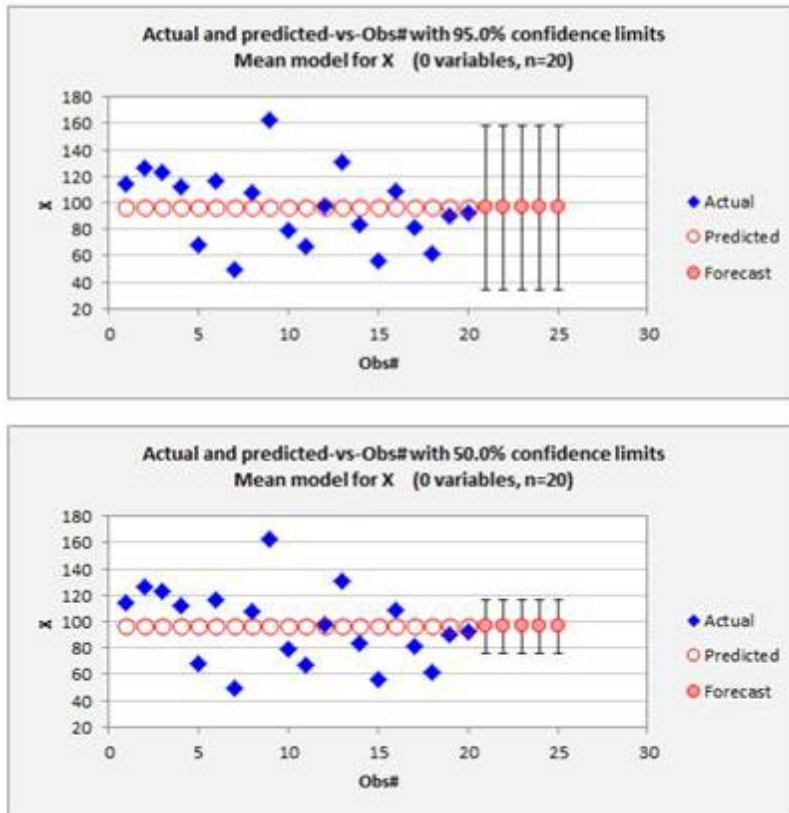
Confidence intervals are a measure of how confident you are in that prediction. Without confidence intervals, you are saying that there is only one possible outcome for future enrollment.

A data analysis would be able to add this information to your data.

In reality, there are many possible outcomes and good planning should encompass several of the more likely student enrollment outcomes.

These example graphs show confidence intervals in the form of vertical lines to say that the real future value could be anywhere between 40 and 160 (top graph) with high confidence or

with less confidence between 80-120 (lower graph):

Actual and predicted-vs-Obs# with 95.0% confidence limits
Mean model for X   (0 variables, n=20)

Actual and predicted-vs-Obs# with 50.0% confidence limits
Mean model for X   (0 variables, n=20)

In the 2021 plan, what is the likelihood that 457 students will be at McGirr school in 2030-31? How confident is that prediction?

Confidence intervals might tell you, for example, that between 430 to 470 students might be present at the school and you can plan for multiple possibilities and then could refine as the time drew nearer.

My suggestion would be to ask the data consultants to supply a range of possibilities for student enrollments and the probability of each one occurring over time. Or, for an in-house analysist to add these.

As a data analyst myself, it would be something I'd expect to be asked if supplying this type of information.

<u>#3 – Has an analysis been done on 'predicted numbers' vs 'actual numbers' of students?</u>

After an enrollment year, is there information that captures what the student enrollment was predicted to be vs. what it actually was? This would give you a good indication of whether or not your enrolment models are working.

Thank you for listening and hope these comments provide good food-for-thought.

Amelia