

## Transportation consequences of GMPC action re: 4:1 boundaries

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**From:** mike birdsall <mike\_birdsall@yahoo.com>

**Sent:** Wednesday, September 20, 2023 5:28 PM

**To:** Miller, Ivan <Ivan.Miller@kingcounty.gov>

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**Subject:** Transportation consequences of GMPC action re: 4:1 boundaries

Dear Mr. Miller:

Please accept the following message as additional comments for the upcoming GMPC meeting:

I write to express concerns regarding the question now before the Growth Management Planning Council (GMPC) of applying the 4:1 land conversion program beyond the original Urban Growth Area (UGA) boundary, and in particular using the Joint Planning Agreement (JPA) boundary established some years ago for the cities of Snoqualmie and North Bend. I discuss the topic solely from the transportation perspective. Should you have followup questions, I am available by phone, zoom, or in person.

Fundamentally I support WSDOT's letter of July 12 to the GMPC. That letter objected to land use changes not considered in their design of the interchange project at SR18 / I-90, which is now under construction.

The design of that very expensive improvement was based directly on the region's adopted land use and transportation plans, as required by state and federal law. The PSRC regional plan available to WSDOT at the time of their design studies was Vision 2040, while the interchange's design year is 2045. The design volumes for 2045 would have been derived by trend extrapolation from 2040 to 2045, a common engineering practice.

Obtaining the project funding in the legislature also took a major political effort. Changing the land use assumptions now in the immediate area of that interchange challenges the policy commitments behind that project at the highest level of state government. It also invalidates decades of mutually agreed planning assumptions involving all jurisdictions in the region.

As a matter of policy WSDOT relies on PSRC to supply regionally accepted design volumes, based on its 20-year regional growth forecast - in this case the VISION 2040 traffic forecast. Their confidence in the traffic forecasting by PSRC should not be jeopardized by local decisions that undermine the regional vision.

Preserving that trust and cooperation is my main concern at the policy level. At the technical level it looks like this:

Any future land use changes not "baked in" to VISION 2040's travel forecasting are thus not accounted for in the design of the interchange project now being constructed. Any additional land use actions will therefore increase the forecast volumes in the surrounding area, going beyond what has been planned for and designed to. The future functionality of that very expensive project could be at risk. As WSDOT's letter put it, the interchange's design volumes will be reached earlier than anticipated, reducing the benefits of that expensive project.

An important question arises: what level of change is significant? One small land use change may not have a large impact, but the combination of all such changes authorized by a new policy regarding 4:1 conversions will have a larger impact. That cumulative impact should be identified and evaluated before the policy is enacted, lest there be untoward consequences for the region's transportation plans as a whole.

Another question immediately follows: when the interchange capacity is fully utilized, what next? Will another interchange modification even be possible to accommodate more growth? If so, shouldn't the growth that contributes to this need be asked to fund some of that cost? That is what GMA concurrency is supposed to account for.

To be clear: the policy action of concern is not to allow one proposal in isolation presuming that it makes an insignificant change to the 20-year future traffic forecast. The real policy action at hand is to establish a principle of where to allow 4:1 conversions: at the original UGA boundary or at any expanded boundary however that may be defined, such as the JPA boundary previously adopted for two cities only. It is my understanding that the existing JPA agreement in question explicitly did not authorize 4:1 conversions. Extending the 4:1 policy to that JPA boundary amounts to an extension of the region's growth boundary, adding more growth to the periphery of the urban area where trip lengths are longest and thus climate-affecting environmental impacts are greatest. The transportation and related environmental consequences of that land use change have not been accounted for in any existing regional plan.

In order to evaluate the real action properly, all potential 4:1 conversions must be considered together to establish the cumulative impacts of the action at hand in the area of the interchange. And depending on how the new policy is worded, there might be impacts in other areas as well as the current focus on Snoqualmie and North Bend.

There is a simple way to accomplish that evaluation, before the policy is enacted: test the impact of the policy change using the PSRC traffic forecasting model. Like WSDOT, King County also relies on the PSRC travel forecasts, and does not generate traffic forecasting volumes on its own. And for its own planning purposes, King County can - as a member of PSRC - request special traffic forecasting services from PSRC. It is a rather simple exercise of PSRC's regional traffic forecasting model to input the total amount of potential 4:1 conversions possible at the JPA boundary and see how much the forecast traffic volumes change, at the interchange and anywhere else.

County staff may have already identified the land parcels in question and the amount of new development thereby made possible. Given those inputs, the PSRC traffic forecasting model can straightforwardly determine the revised future forecast volumes in the surrounding area, especially the I-90 / SR18 interchange but also other arterials in the area. Armed with that information, the GMPC can make a more informed decision about the wisdom of expanding the eligibility of the 4:1 program, and any other conditions that may be desirable to support that decision. The WSDOT letter suggests the impacts on the interchange of just one such parcel conversion. What is needed is a complete analysis of all such parcels in combination.

That kind of "what if" testing is how travel forecasting models are commonly used precisely to test any new policy action or new technical assumption (e.g., road improvements to offset adverse impacts). It can be done quite easily at this time to evaluate the consequences of broadening the eligibility for 4:1 conversions.

I therefore recommend that the GMPC not take any action at this time to extend the scope of the 4:1 conversion program beyond the UGA boundary, and instead to initiate a "what if" test using the PSRC regional travel forecasting model to demonstrate the traffic impacts of the cumulative sum of all such conversions to any other boundary, all in the context of the regional transportation plan.

Respectfully,

**Mike Birdsall**

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**From:** mike birdsall [mike\\_birdsall@yahoo.com](mailto:mike_birdsall@yahoo.com)

**Sent:** Thursday, September 21, 2023 11:26 AM

**Subject:** Transportation consequences of GMPC action re: 4:1 boundaries

Dear Mr. Miller:

Yesterday I wrote to you regarding the subject of 4:1 boundaries, from a transportation perspective. I should have also identified myself in that email as a transportation planner with an extensive background in regional planning and growth management, as well as traffic forecasting models. For the benefit of the GMPC, my career experience, for several employers, includes:

- multimodal transportation planning for Boston, San Francisco, Anchorage, and Sao Paulo, Brazil
- regional transportation planning at the Puget Sound Governmental Conference which subsequently evolved to become the Puget Sound Regional Council
- transportation consulting to Seattle's Mayor Charles Royer
- transportation planning for various cities and counties in Washington, Alaska, and Idaho
- growth management impact mitigation and concurrency ordinances for various cities and counties
- developing and using traffic forecasting models for all of the above

**Mike Birdsall**

*Love is patient, love is kind. It does not envy, it does not boast, it is not proud. It does not dishonour others, it is not self-seeking, it is not easily angered, it keeps no record of wrongs. Love does not delight in evil but rejoices with the truth. It always protects, always trusts, always hopes, always perseveres. 1 Cor 13:4-7*