Can we fix traffic congestion?

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If your work commute is the worst part of your day, you'll be pleased to hear there are better ways.

I hate traffic.

I face it every day, twice a day, on one of the busiest freeways in Perth.

It's frustrating and stressful. But after weighing up a whole range of factors, it always comes out as my best option to get to work as fast as possible at the lowest cost possible. So I grit my teeth and bear it.

But wouldn't life be infinitely more pleasant without it? To be able to get where you need to go quickly and painlessly?

In this modern world where research and innovation can breed better food and cure the incurable, why can't it fix traffic?

I spoke to Main Roads Western Australia to find out more.

Whose fault is traffic?

"In its simplest form of explanation, a transportation network consists of supply and demand," explains Main Roads.

"Traffic congestion occurs when traffic demand exceeds the road network capacity."

So you cause traffic. I cause traffic. Anyone in traffic is causing traffic.

There are just too many cars and not enough road.

It's like a water pipe. The bigger the pipe, the more freely water can flow through it.

But we can't keep expanding roads. Well, we could for a little while, but only limited expansion is possible on Perth's freeways. And ultimately, it doesn't make a difference. When extra lanes are added, people who previously didn't drive on that road suddenly do. Then you're right back where you started.

That leaves us with the one option: reducing cars on the road.

A crash course in traffic reduction

So is it time to resort to a colosseum-style fight to the death to determine those most worthy of driving their cars on the road? Or do we still have a few peaceful options to explore?

"What about walking and cycling?" you may ask.

Certainly, if you can, that's a great way to go.

But living close enough to the CBD to walk or cycle is a luxury most can't afford, even if we did live conservatively and made our own avocado on toast at home.

Ah, but we still have the shining beacon of public transportation—only a lot of us live far away from those options too. 38% of Perth's train-goers 'park 'n' ride'.

Main Roads says we could get around these issues with better land planning.

"The best plans for avoiding problems associated with traffic congestion are land-use plans that reduce reliance on private car trips and promote sustainable modes of transport such as walking, cycling and public transport."

"Development of higher-density, mixed land-uses built around public transport nodes (otherwise known as transit-oriented developments) reduces the need to travel longer distances for employment and other social needs."

Transit-oriented developments are basically like mini-cities, where homes are located close to shops, offices and train stations. Our best examples in Perth include Subiaco, Joondalup and Maylands.

As someone who has lived in both Subiaco and Maylands, I have to say the lifestyle aspect was amazing. I barely used my car and felt a lot less stressed.

Then circumstances changed, and I ended up in a family home out in the 'burbs. My car has been racking up the kilometres ever since.

Parents with small children usually end up in this situation because it seems like the best choice for the kids. Homes with big backyards for kids to play in, separate bathrooms for grownups and rugrats and individual bedrooms for everyone. A lot of us grew up in this sort of family home and still think of it as the most idyllic option.

But times have changed, and we have an exploding population to factor in. That means this sort of low-density living has got to go if city workers want to keep their sanity on the roads.

But I want my home among the gum trees!

Alright, so you don't want to give up your clothesline out the back or veranda out the front. What other choices are we left with?

Car sharing is one way to reduce cars on the road.

Spreading out the traffic is another.

"Use of flexible working arrangements such as the ability to work from home or changes to travel times to outside of the peak periods assists in spreading the traffic load from peak times to shoulders/non-peak periods," says Main Roads.

"Decentralising employment from the city centre will also aid in reducing congestion."

So if you're a CEO who offers your employees work-from-home options, give yourself a well deserved pat on the back. And if your boss is flexible with your work hours, go give them a high five, because these legends are doing their bit to reduce traffic.

But not all workplaces can be flexible, which is why some people may have to wait for a smarter solution.

Surely self-driving cars will save us?

During every peak-hour drive, I've confidently declared to my partner, "We wouldn't have this problem if we all used self-driving cars."

With all my eggs in the autonomous car basket, I was crushed to learn they might not be the futuristic solution of my dreams.

"The impact of autonomous cars on congestion is currently unknown and largely debated in the industry," says Main Roads.

"Whilst automated vehicles have the potential to cut congestion by increasing the capacity of our roads, reducing incidents and/or reducing the need to own private vehicles, they also pose the threat of increasing congestion due to 'zero-occupancy' trips unless a road pricing system is implemented to discourage this."

Thankfully, we aren't writing them off yet. We just need to test the waters a little before we can decide for sure if it will help.

In the meantime, Main Roads along with other parts of the Transport Portfolio, consisting of Department of Transport and Public Transport Authority, are looking at other smart solutions. Their Transport @ 3.5 Million plan outlines how they're looking to handle the expected 70% increase in Perth's population. Some of the more futuristic solutions include utilising cloud and smart technology.

"Main Roads will deliver Perth's first Smart Freeway on Kwinana Freeway to create an additional northbound lane from Canning Highway to the Narrows Bridge through the use of smart technology," they tell me.

"Some of the technology features will include the ability to close and reopen traffic lanes in the event of an incident and adjust speed limits to move more vehicles during busy periods to reduce stop-start conditions."

Knowing Main Roads is planning for the future gives me a glimmer of hope that my car's horn won't need to be exercised so thoroughly.

Here's hoping I can keep my cool until then.

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