



Thomas Gunter <thomasgunter@utah.gov>

recommendations for Air Quality Regulation Strategy

1 message

Iain Hueton

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Reply-To: [REDACTED]

To: "thomasgunter@utah.gov" <thomasgunter@utah.gov>

Thomas

First of all, thank you for your willingness to put yourself in harm's way :) by being the point person on public air quality concerns. I am the former Chair of the Weber County Air Quality Advisory Board so I know what it's like to be the target of derision by the diesel abusers and fireplace fanatics.

I do have a few suggestions as to how we should move forward: some will require managing multiple variables but can be pitched in a way that builds sufficient political support while targeting small populations of heavy emitters.

Philosophically, we have to decide as a local population if we are going to amp up our enforcement where we try to affect behavior after-the-fact, or do we want to consider preemption where we prevent the pollution in the first place. My guess is, that it's a bit of both.

Wood stoves and fireplaces.

We can keep doing what we are doing now, which is minimal enforcement and minimal fines (even after multiple offenses). Or we could increase the fines and penalties to the point where they would actually be a disincentive to burning. With 2-3(?) enforcement officers responsible for the Wasatch Front, there's no way we are catching enough people burning on red days. We need people to self-police. No amount of education is going to fix this: people know what not to do, and they are doing it anyway. The first offense does not need to be a warning: it's a significant fine. That's the "stick". The "carrot" is that we MUST reach out to the retired / low-income population that is economically dependent on the ability to burn wood to supplement their energy needs in the winter. Yes, we offer incentives to help them replace their stoves with more efficient natural gas furnaces / stoves but for someone on limited income they can't even afford that. What if we were to provide larger incentives to insulate homes, replace window etc, but do it by providing low interest loans and grants. There's a limit to those funds however, and maybe we should try something creative and work with local financial institutions to help fund these changes to people's homes. Maybe the cost of the renovation could be financed by these local financial institutions as 2nd mortgages, but the mortgages are backed by the State / DAQ where the lien ends up in the State's hands if there is a default. We obviously aren't looking to take anybody's house, but the value-add of better insulation and windows on a house is clearly an increase in its value and therefore can appear as a lien on the deed at the time of future of sale. That way, the owner can take 5-10 years to pay off the "loan" and rejuvenate the fund.

Traeger: this is a bit of a landmine, because the State Office of Econ Dev provided subsidies to move them here, and now Traeger is expanding the use of smokers on the Wasatch Front. That's crazy, but there's no way we are going to be able to push on them politically. Maybe we can require that all smokers and bbq's sold on the Wasatch Front come with a brochure on air quality issues and the recommendations on when they should and shouldn't be used.

High-pollution vehicles

As you know, cars and trucks are on a sliding scale of emissions based on age, with vehicles pre-'71 as much as 40x more emitting than vehicles post-2006. There is an incredible amount of fraud regarding the "vintage vehicle" license plate, most being 1970-1990 pick up trucks that people use as "beater trucks". However although State regulations say that vintage vehicles are only supposed to be used for car shows (NOT daily drivers), no one checks, there is no mileage cap, and no penalties if you cheat. I reviewed some 2016 data, Weber County alone has over 239 cars (1970-1986), over 272 light trucks (1970-1986). Of those, 190 trucks are registered as vintage (70%), and 162 cars are registered as vintage (68%). Most of this is fraud. How do I know? The ratio of cars vs trucks at your average car show is more than 10:1, and NONE of the trucks are post-1970. Furthermore, 55 of these vintage trucks are 1980-1986 (from a total of 113). That's 49%. Seriously, a "show" truck from the '80's? They are hideous. These are all low-mpg, high emitting polluters that shouldn't be getting an exemption. These older vehicles (611 of 1970-'86 vintage) can easily be putting out 40x the emissions of a modern / post-2006 vehicle, which means they put out the equivalent of 24,440 vehicles, which represents 13% of total vehicle emissions from 0.3% of the Weber County's Fleet of 187,561 vehicles.

What to do about it? Many solutions possible. Throw a bone to the legitimate vintage car people by imposing a mileage cap of 500 or 1,000 miles per year. Since registration is a pain, and expensive, make vintage cars get re-registered every other year, but give them a 1,000-2,000-mile mileage cap for that period. This will let all the legitimate show-car folks off the hook. If they are claim that they drive to out-of-State car shows (which means the pollution is also out-of-state), have them produce a receipt from that car show, and we'll subtract the "there-and-back" mileage from their total miles driven. Most of these vehicles are being driven locally, probably >5000 miles per year each. As soon as they are in violation of their mileage cap, remove the vintage plate, have them pay a "pollution" fine, and then require that they still pass emissions from then on.

Bigger picture: we need to get older, high-emissions cars off the road. Cash-for-clunkers is a very expensive solution, and also subject to massive fraud. How about modifying registration fees based on year / amount of emissions? Cars have improved emissions technology at various times (1971, 1978, 1981, 1990, 2006?) Since each period represents allowance for very different emissions, why not put higher registration fees on the periods that are higher-emitting? A \$500 truck from 1973 is putting out 40-100x the emissions of a 2007 Toyota Tercel: maybe the registration fee should be representative of that? Again, creative financing from the State could help with this process by providing support programs to get people into newer vehicles. I didn't say "new". I said "newer". If we can get someone out of their 1970's pick-up and into something from the mid-to-late 2000's, the emissions improvement would be huge, and the cost of the vehicle would be generally less than \$10,000.

Legitimately, we'll get huge pushback from the 24 counties that are not part of the Wasatch Front and it's bad-air zone. So, we could consider a different arrangement for residents of outlying counties. Keep the system as is, but they would not be able to bring that vehicle onto the Wasatch Front during our periods of poor air quality (Nov 1-March 1, June 1-Sept 1?). The County identification sticker serves as the ID, and the new license-plate scanners would immediately be able to identify illegal vehicles. As for local vehicles (5-county area, plus Morgan Box Elder, Summit, Tooele for commuters?), they could potentially get seasonal registration stickers.....there are no car shows in the winter. They are all in the summer, so the vintage care folks are covered. People who have work-trucks (not farm trucks) could still use those vehicles, only in the "off-season". Alternatively, we could limit those vehicles to green-air days, but that's harder to enforce and contributory to red-air days eventually.

I won't even get into the Idaho registration scam for right now

Heavy Diesel

We need to separate the 2 types of heavy diesel trucks to understand their effects. Long-distance semi / tractor-trailers are typically owned by trucking companies who have a vested interest in making them run as cleanly and efficiently as possible. If they can squeeze an extra 0.25 mpg out of their rig, they are going to do it. Although our Legislators like to pin diesel emissions on long-distance trucks passing through the State

on I-15 or I-80, the reality is that most of their emissions are off the Wasatch Front, and they are running fairly clean.

The big polluters are the “local” trucks that never leave the Wasatch Front. They typically spend a lot of time idling, driving in traffic, many short trips etc: all behaviors most likely to produce high emissions. Since these vehicles aren’t necessarily doing as many annual miles, owners are less likely to maintain them as cleanly. Since we have no emissions testing on heavy diesel, where’s the incentive to do the right thing? Farm vehicles already have an exemption, but heavy diesel is a HUGE contributor to local emissions and should be managed accordingly. However, our inspection stations are not set up to deal with this. There are portable testing systems available that could be managed at the fleet-level, so that the DAQ or State-approved vendor takes the system out to truck-fleet sites and does onsite testing (this avoids the corporate push-back that we’d surely get for requiring a truck to be offline for half a day while a driver takes it for inspection).

The problem may be even worse for construction equipment because total mileage is even less. Even if we did require inspection, owners have no way of transporting to an inspection site short of putting it on a flatbed. Again, a portable system could be taken onsite to test fleets (particularly for rental companies who don’t even pay for gas, so why would they care about emissions). I have been walking by condo construction site at the North Salt Lake Frontrunner station for almost 3 years, and the wintertime diesel emissions from onsite rented construction equipment can be oppressive.

As with light-duty vehicles, emissions can continue to be managed on a County basis so that we are not pushing on vehicles in Rich or Daggett counties, while really what we are trying to deal with is the Wasatch Front.

2-cycle engines

Lawnmowers, weed-whackers and leaf-blowers are shockingly high emitters due to their complete lack of emission controls...even worse if they are 2 cycle engines. Exchange programs have proven popular and should continue to be supported. However, we need to deal with the source: the price difference between a 2-cycle and a 4-cycle leafblower / weedwacker is not very large, and it’s time to ban 2-cycle models from the State. Yes, we’ll get complaints, but the complainers are welcome to go back to brooms and rakes. The proximity of these devices to residential homes makes them far worse than a dirty vehicle: would be the equivalent of parking dozens of vehicles IN your backyard and running them for an hour.

Luckily the lifecycle of these machines isn’t too long, so they will disappear if we eliminate the source. The State should continue with education and exchange programs. Even better, we need better promotion of electric versions: they are so much more powerful and effective in the last few years, but most people still think they are underpowered. Let’s work with the manufacturers to help them promotion to electric (see Weber State’s exchange program through the Office of Sustainability / [REDACTED]).

I could go on.....but I know you’re dying here 😊 Happy to work with you and be more involved if that’s useful

Cheers

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Certified data nerd / air quality enthusiast

Former Chair, Weber County Air Quality Advisory Board (disbanded right after we obtained diesel testing, because the Commissioners say our air is clean enough).

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