

March 5 GHG Webinar Questions and Answers

- What happens to the methane that is captured by the methane capture system? Is it saved somewhere? Could it be released accidentally later?
 - The methane emissions are captured as Landfill Gas (LFG) and is used to generate electricity. <https://www.epa.gov/lmop/benefits-landfill-gas-energy-projects>
 - Methane captured by the methane capture system is used to generate electricity that is sold back into the grid. More information about the system can be found here <https://lockwoodlandfill.wm.com/enviromental-stewardship.jsp>
- What are the emissions from wastewater sector?

These are direct emissions that result from the processing and discharge of wastewater, they are comprised of methane (CH₄) and Nitrous Oxide(N₂O).
- Does the Business-As-Usual forecast take into account that more people moved to the region April-July 2020 than in the last decade put together?
 - The business as usual scenario is based on projected growth in a number of indicator variables out to 2045, provided by the TRPA regional transportation plan This does not include 2020/COVID changes as there is not data to measure that and the long term impacts of 2020 are unknown at this time.
- Is Truckee included in the basin's emissions calculations?
 - Truckee is not included in the basin's emissions calculations. Wastewater generated in North Tahoe is processed by Truckee Tahoe Sanitation Agency, which is located in Truckee outside of the basin. Only the portion of emissions resulting from wastewater generated within the basin were counted for this inventory, since TTSA also treats wastewater generated in Truckee.
- What percentage of energy sector emissions are caused by gas vs. electricity consumption?
 - In 2018 emissions from electricity use accounted for 43.5% of energy sector emissions, natural gas use accounted for 56% of energy sector emissions, and other combustible fuels accounted for 0.5% of energy sector emissions
- Also, have you considered scenarios for gas vs. electricity emissions with increased building electrification, including in a 100% renewable energy electrical grid?
 - Future scenarios are not measured in this study but have been identified for future research.
- Did you account for forest health treatments and/or wildfire in this analysis?
 - Changes to the landscape from treatment projects between 2014 and 2018 were captured.
- Do you think there are opportunities to bring in additional EIP, Cap and Trade revenues, etc. to restore Basin meadows based on their carbon sequestration potential?
 - Yes, there is a possibility of this in the future. Understanding the total carbon emission reduction benefit of environmental projects will help in future funding applications.
- What % of emissions are due to wood-burning stoves and fireplaces?
 - The previous inventory included CO₂, CH₄ and N₂O emissions from wood combustion in its total emissions levels. Current best practices only account for CH₄ and N₂O emissions from wood combustion, with CO₂ emissions being measured, but not actually counted in

total emissions because they are considered biogenic (emissions that would have occurred were the wood left to decompose naturally in the landscape.)

- What are some of the characteristics of a meadow that determine whether its a carbon sink or producer?
 - Healthy meadows absorb more carbon. Indicators of healthy meadows include wetness, biodiversity, conifer encroachment, stream bank cutting, etc.
- How does vegetable gardening benefit or, not in the Tahoe area?
 - Growing local food reduces the need to import food into the Tahoe Basin, saving transportation emissions.
- How does the carbon offset market work in reality. who are the typical sellers?
 - Companies with high carbon emissions can either reduce their emissions or buy credits from other companies that have reduced emissions. Sellers sell their reductions in the market.
 - <https://www.kqed.org/quest/46929/cap-and-trade-101-how-californias-carbon-market-works>
 - The California Air Resources Board has a compliance offsets program that also includes livestock projects, mine methane capture, ozone depleting substances projects, rice cultivation projects, U.S. forest offset projects, and urban forest projects.
 - <https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program>
- Have you considered future transportation emission scenarios with projected level of transportation electrification, including in a grid that is increasingly powered by renewable energy sources?
 - The Regional Transportation Plan outlines greenhouse gas reduction projections from transportation. Learn more at <https://gis.trpa.org/rtp>
- How does TRPA plan on reducing transport emissions, with increased vehicle traffic that seems ambitious. Is there is plan for a charging system for EV's that uses green energy? It seems like solar is not be properly utilized in the basin.
 - There are a variety of strategies to reduce transportation emissions including transit, trails, and technology. There is active planning and implementation of electric vehicle infrastructure at Tahoe. Learn more here <http://tahoealternativefuels.com/>
 - Solar is difficult with many trees, snow, hills, and lack of large space. There are several solar projects in the planning stage around Tahoe.
- Does the inventory take into account black carbon emissions from diesel vehicles, wood stoves and prescribed fire?
 - The built environment component of the inventory does not account for black carbon emissions. It assesses CO₂, CH₄ and N₂O emissions, in line with the United States Community Wide Protocol <https://iclei.usa.org/us-community-protocol/>
- Can you provide more detail on the Placer County carbon credit program?
 - <https://www.placer.ca.gov/5928/Placer-County-Sustainability-Plan>
- I heard the presenter said the Placer County and State Cap and Trade Program have protocols that are used for carbon sequestration emission calculation. can you give more detailed information what protocols are used? Thanks.
 - <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program>
- Can you define the "energy" sector again. Is that just electricity and natural gas?

- Electricity and Natural Gas Usage. They will be broken out in the final report.
- What happened around 2010?
 - TRPA updated the Lake Tahoe Regional Plan in 2012 to promote compact mixed-use development in town centers to reduce the reliance on the automobile and improve energy efficiency. Since then, many projects have been completed and reduced emissions. Statewide policy and renewable energy generation are another factor.
- For modeling the building emissions in the Tahoe basin, can you use electricity use and natural gas use actuals via the CPUC (for IOUs) and CEC (for POUs)?
 - The emission calculations are based on averages.
- Can we have an example of a local "pristine" meadow and a local "degraded" meadow?
 - Recent meadow restoration projects include the Upper Truckee River in South Lake Tahoe, the Johnson Meadow segment is still in a degraded state with restoration planning ongoing.
- Would you consider adding a consumption-based solid waste inventory, which estimates GHG emissions from the complete life-cycle of materials consumed in the basin, beyond just end of life impacts at landfills?
 - Some emissions might be emitted outside the basin but include the complete life impacts of materials consumed here like production and transportation impacts.
- Can you describe how the inventory accounts for VMT outside of the basin (i.e., tourists coming from the Bay Area)?
 - The inventory reflects transportation emissions in Basin to avoid double counting emissions from other regions.
- How do we restore degraded meadows?
 - Meadow restoration include returning natural meanders to the river, removing encroaching trees, and planting native plants.
 - Reed, C.C., Merrill, A.G., Drew, W.M. *et al.* Montane Meadows: A Soil Carbon Sink or Source?. *Ecosystems* (2020). <https://doi.org/10.1007/s10021-020-00572-x>