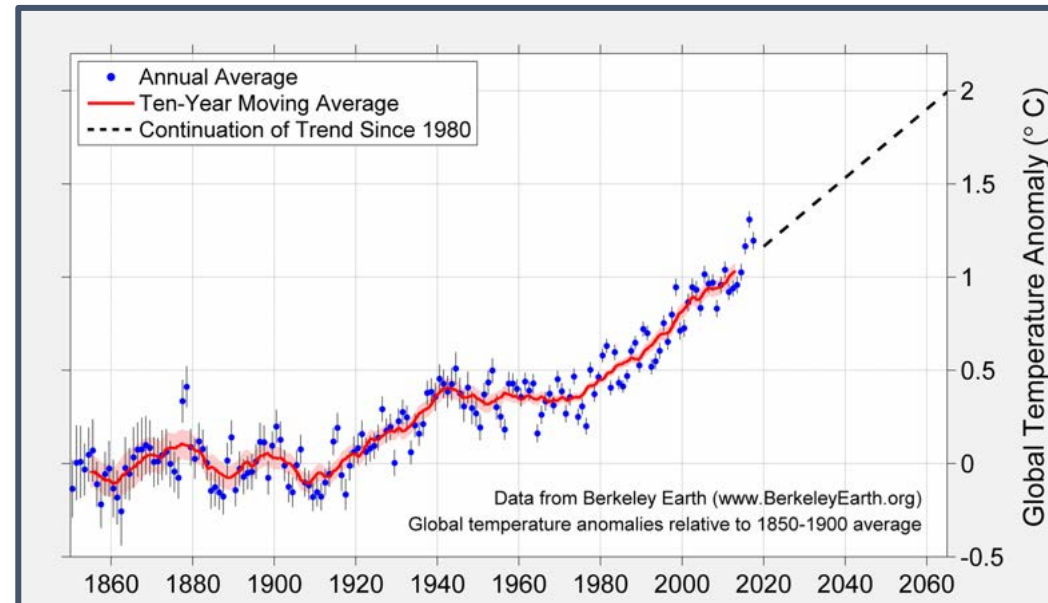


Carbon Accounting and Offset Proposal for the Methow Valley

Lazo Gitchos, Antonia Parrish, and Vince Wagner

Introduction

- Climate Change
- New Methow Valley interest



Carbon Footprint Calculation Methods



Some Things To Keep In Mind

- ▶ Calculated per Household. Individual footprints are just blind averages from larger groups
- ▶ Most lifestyle elements that produce carbon boil down to three major sources.

How Do Emissions Calculators Work?

-Vacation travel

-Commuting

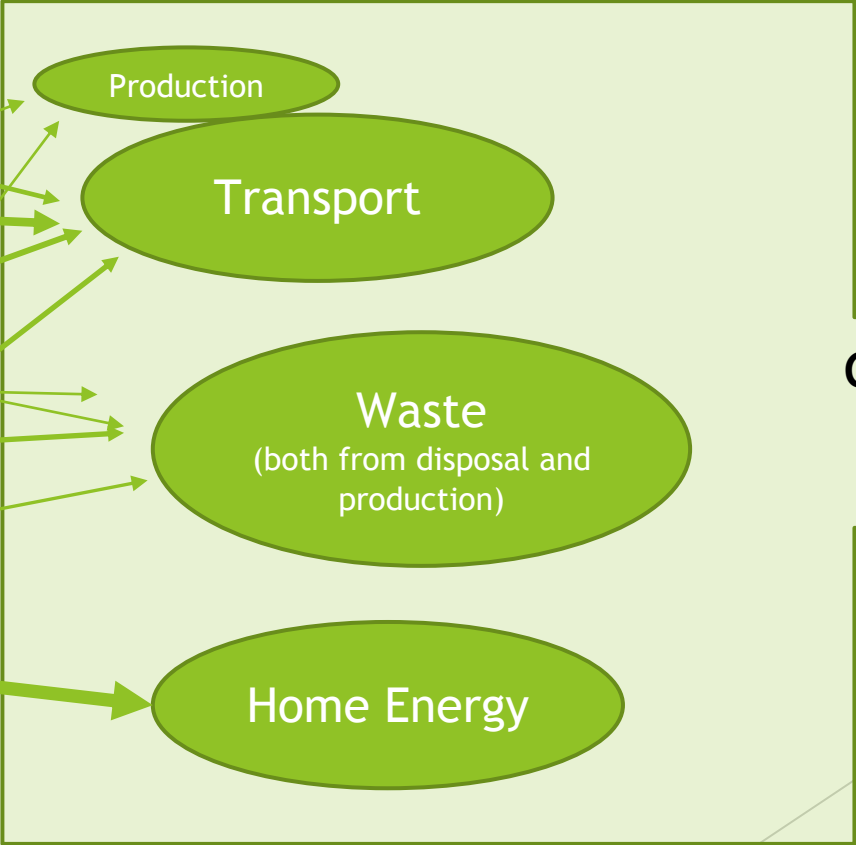
-Clothes

-Services

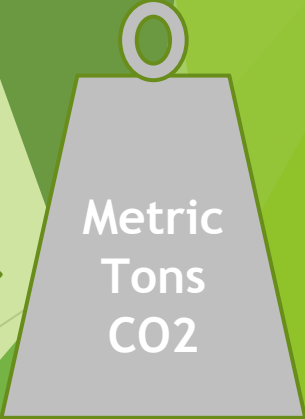
-Food

-Household Goods

-Home Energy

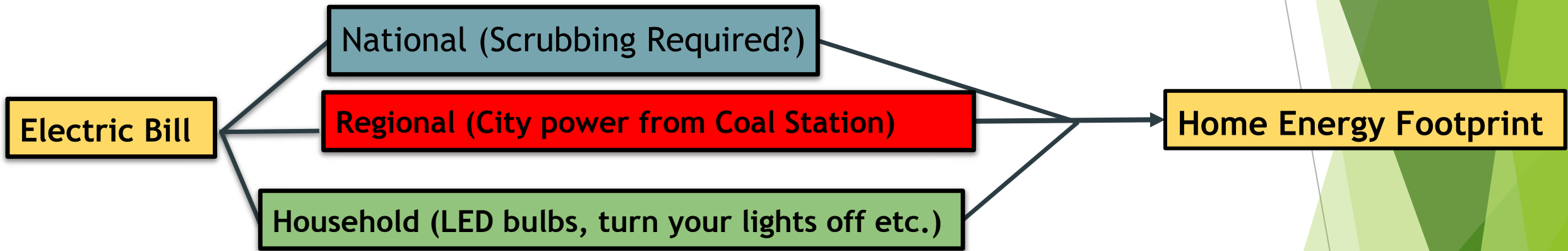


Corresponding
Hydrocarbon
Combustion

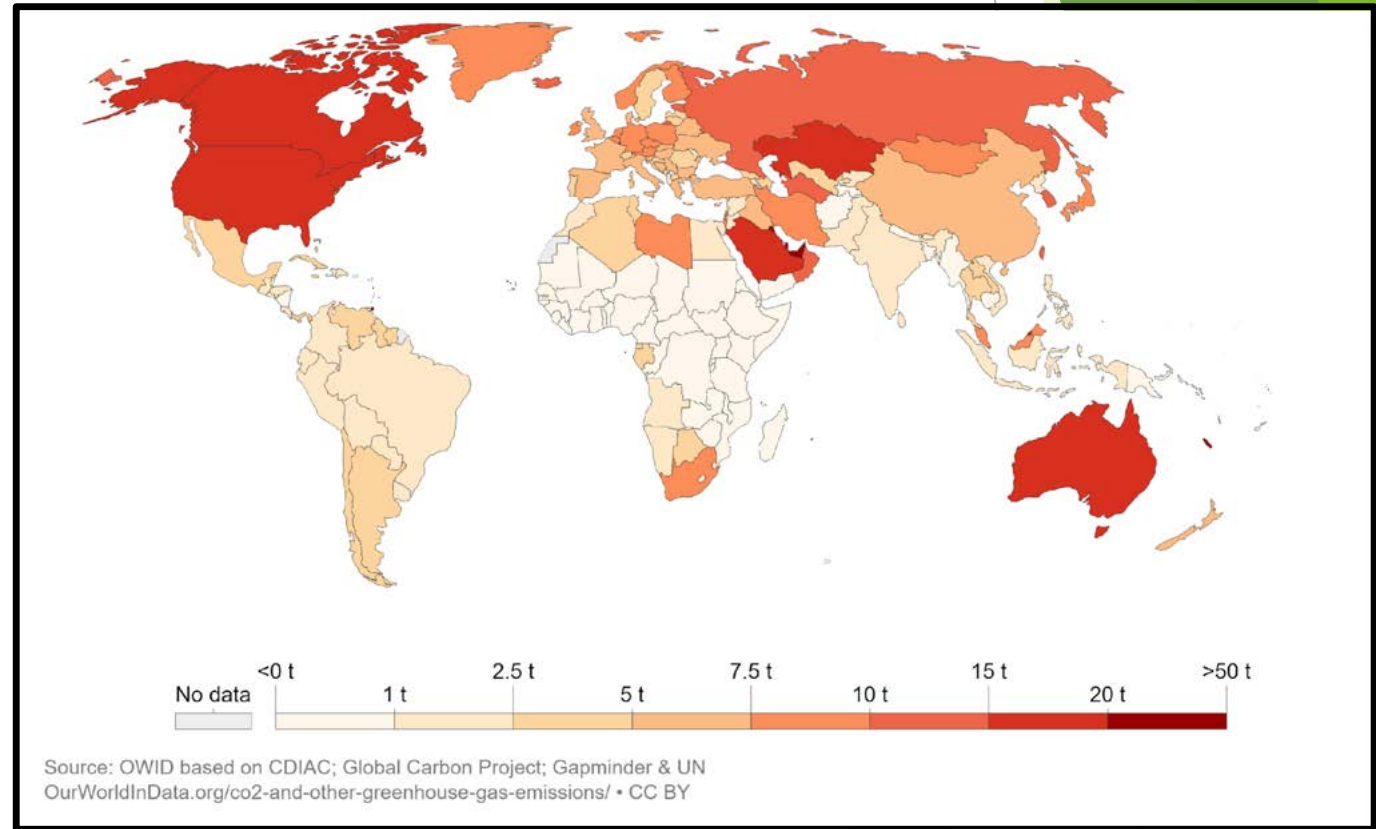


What Affects my Footprint?

Example: Home Energy

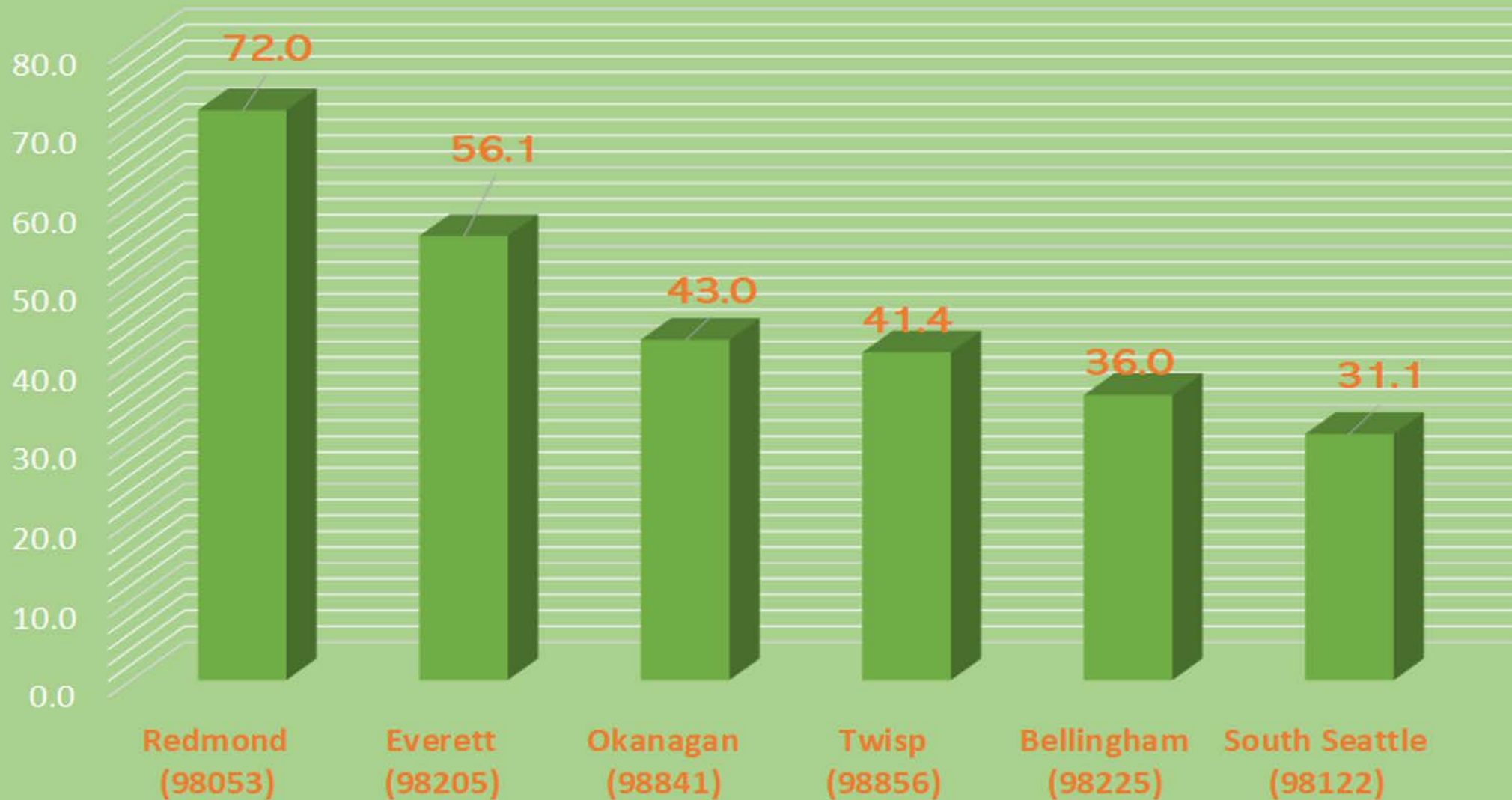


Distribution of Global Emissions

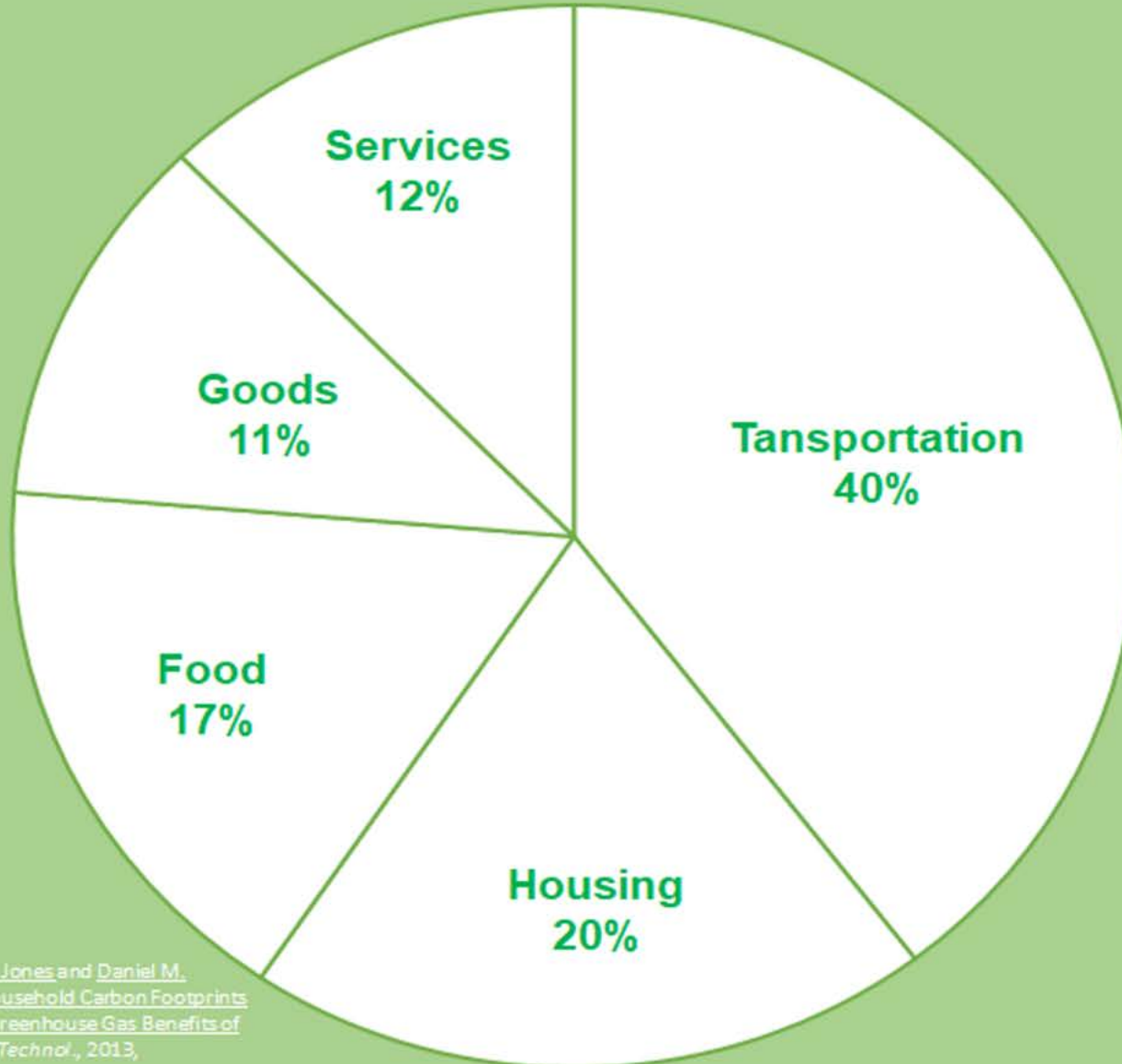


Metric Tons of CO2 Emitted per Capita (2018)	
Saudi Arabia	18.6
United States	16.1
Sweden	4.5
Tanzania	0.2

Washington Household Average Metric Tons of CO₂ Emitted by Zipcode



Average Methow Valley household emissions by category



Reducing Your Footprint

- ▶ **It's a good idea**
- ▶ It can be done on a household, regional, and national level
- ▶ Using a footprint calculator can help you to:
 - Be inspired to change something
 - Know where focus your efforts
 - Give you ideas how to do it



Reducing Household Footprint:

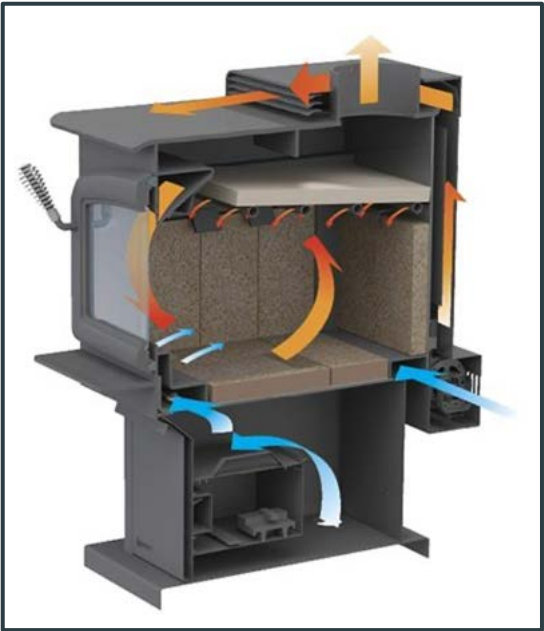
- ▶ A Methow household heated with a non-catalytic wood stove may consider switching to a catalytic stove or pellet stove, increasing their heating efficiency from 67% to 72% or 78% respectively



Reducing Household Footprint:

Let's say that for the 2019-2020 winter in the Methow you use 4.0 cords of wood to heat your household with a non-catalytic stove.....

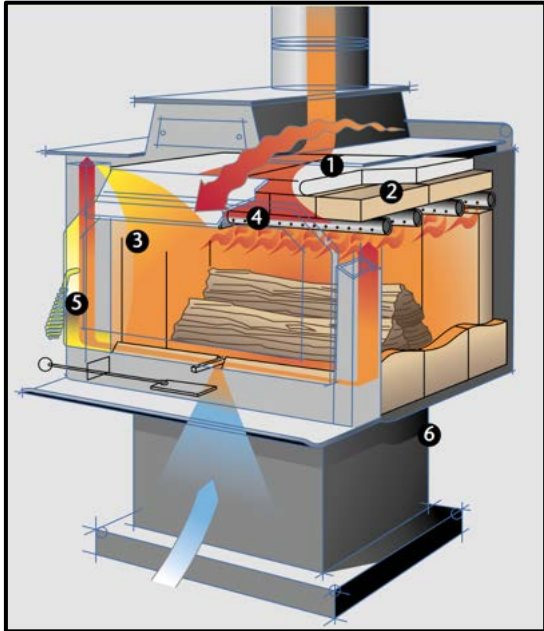
10.0 Tons CO2



Non-Catalytic Stove



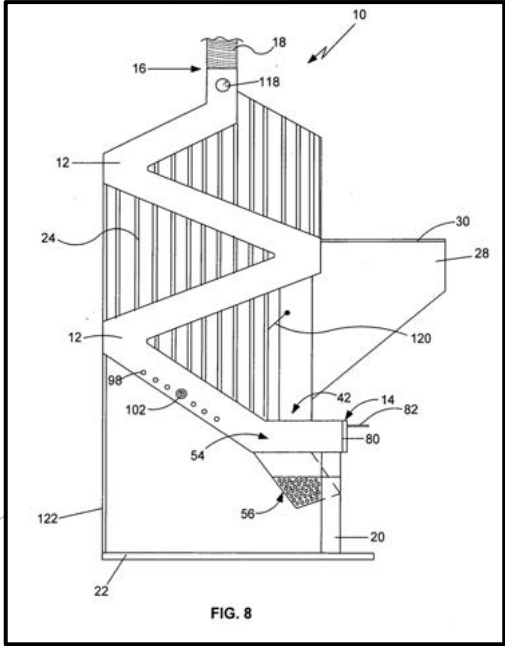
8.5 Tons CO2



Catalytic Stove



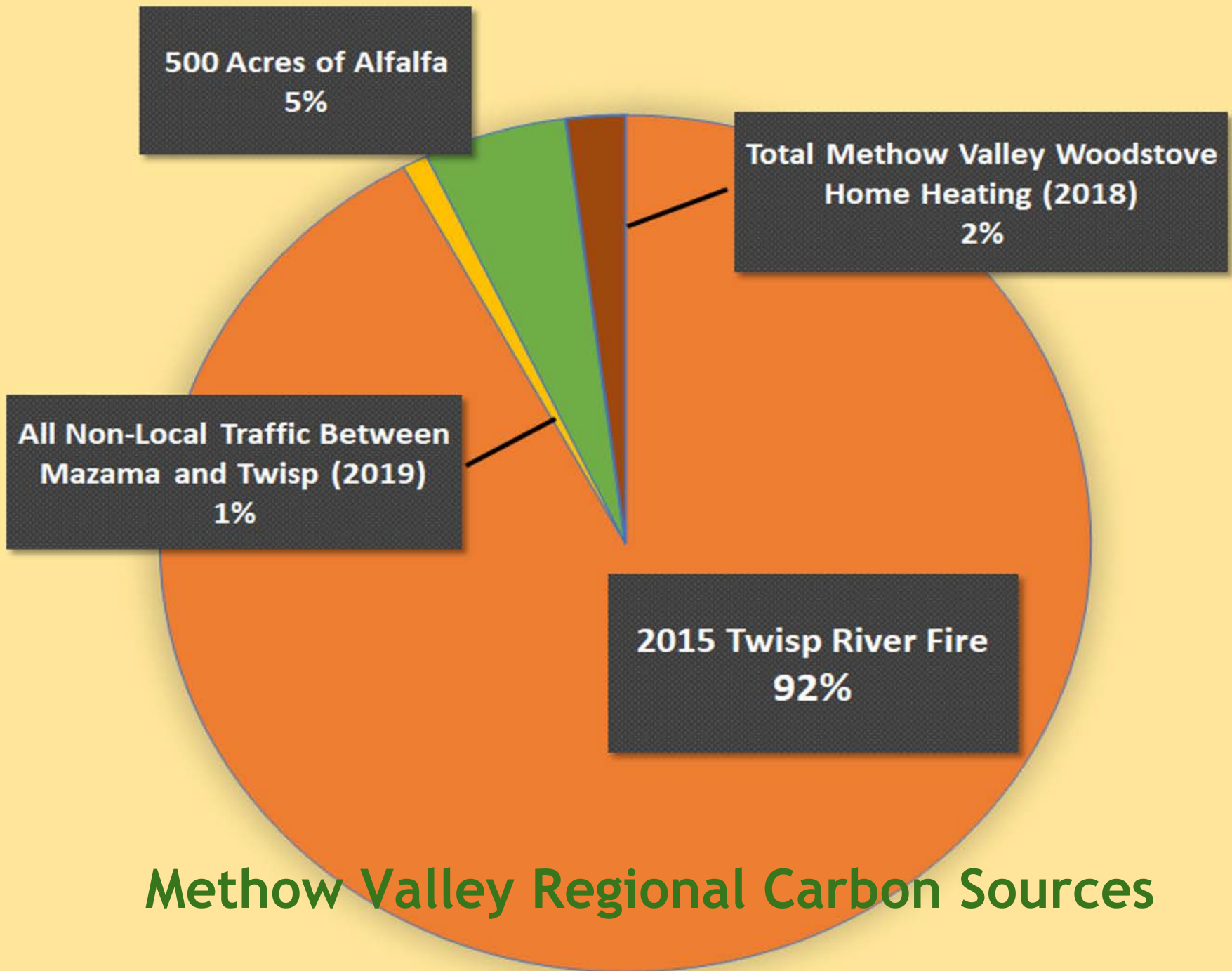
6.4 Tons CO2



Pellet Stove

Methow Valley Regional Breakdown:





Methow Valley Regional Carbon Sources

Reducing Regional Footprint:

- ▶ Wildfire management can be addressed on the community level through applying for USFS grants.
- ▶ The following is from a 2019 USFS press release:

‘Since 2005, over 310 grants have been awarded to small businesses, nonprofits, institutions of higher education, tribes, states, and local governments to promote the economic and environmental health of communities. Since 2013, this funding has also helped establish 10 Statewide Wood Utilization Teams and 22 Statewide Wood Energy Teams that collectively expand and support wood products and wood energy markets.’

Reducing Regional Footprint:

Grant applied for by city to subsidize businesses which consume brushwood

Tim's Mulching Company



Reduced Fire Risk

Reducing National(global) Footprint:



- ▶ Understanding the United States role in global carbon emissions may cause people to consider which political actions they support.
 - Pulling out of the Paris Agreement
 - Requiring carbon offset from coal plants
 - Investing in large scale clean energy research

Advantages of the Various Emissions Calculations We Used

- ▶ **Nature conservancy-** Considers income when calculation footprint and comparison with similar households. Introduces an element of equity when considering responsibility/capability to make changes.

<https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/>

- ▶ **Wildland Fire Emissions Information System Carbon Calculator-**Used to calculate regional impact of wildfires in the Methow valley. Considers many local ecological elements such as fuel density and type, percent fuel consumption, and area burned. Based on satellite data 1994-2013.

<https://wfeis.mtri.org/>

- ▶ **United Nations Carbon Footprint Calculator-**The best option for comparing footprints between nations. Includes nationwide elements such as industrial waste.

<https://offset.climateneutralnow.org/footprintcalc>

Our Favorite Calculator for the Valley

Nature Conservancy Calculator

<https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/>

- Carbon footprint based on location
- Covers household, travel, food, home, and shopping
- Provides various links to offset options



Twisp Works



- Sustainable development and climate advocacy
- Carbon credits



C6 Forest to Farm

- Goal: Generate biochar from small-diameter forest material and logging
- Carbon credits



Methow Conservancy

- Sustainable farming practices



Methow 
Conservancy

Rob Crandall

- Carbon sequestration education
- emissions reduction



Recommendations

- Collaboration and Creativity
- Use of local programs and initiatives



Special Thanks To....

Julie Tate-Libby from Twisp Works

Tom and Gina McCoy from C6 Forest to Farm

Sarah Brooks and Jason Paulsen from the Methow
Conservancy

Rob Crandall from Methow Natives and MVIC

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the left and right sides of the frame, leaving a large white central area. The shapes are layered, creating a sense of depth and movement.

Questions?