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## **CalPlug Workshop Series #9**

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# Outline

- **About The Climate Registry**
- **Introduction to Greenhouse Gas Accounting**
- **Water-Energy Greenhouse Gas Guidance**



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# ABOUT THE CLIMATE REGISTRY



# About The Climate Registry

**We empower the world's leading organizations with the highest quality carbon data in order to operate more efficiently, sustainably and competitively.**

- **Provide tools and member support**
- **Foster community of members & policy makers**
- **Recognize leadership**
- **Author general and sector-specific guidance & protocols**

**“You can only manage what you measure.”**



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# Community of Members



BENTLEY



DIGITAL REALTY

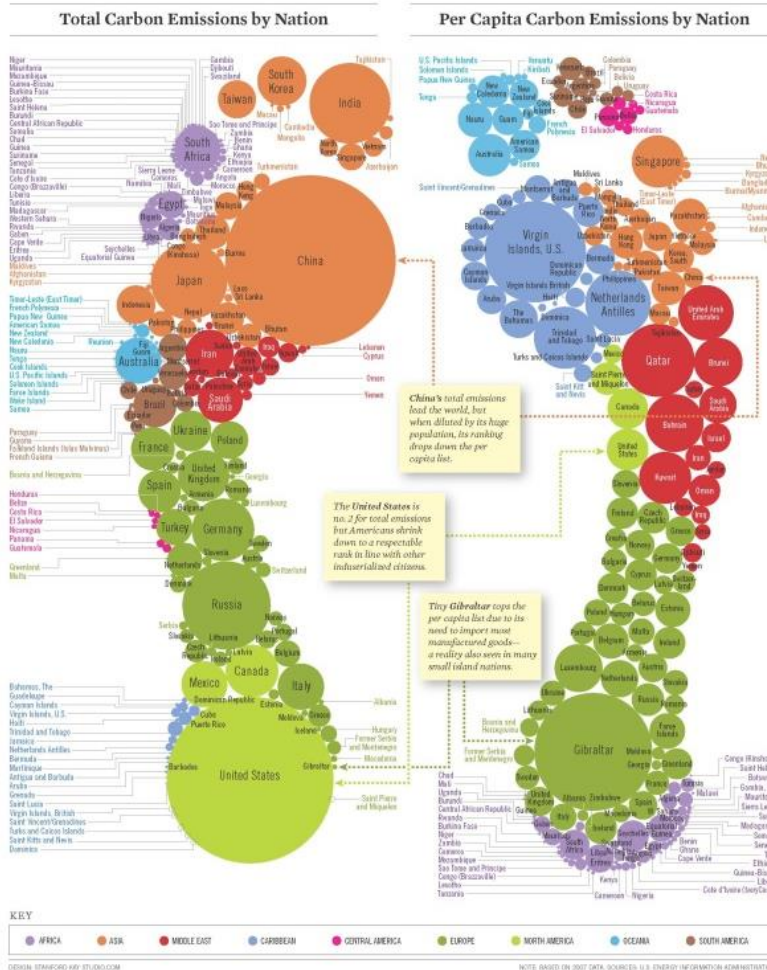




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# INTRODUCTION TO GREENHOUSE GAS ACCOUNTING

# What is a GHG footprint?



→ The total amount of greenhouse gases that are emitted into the atmosphere each year by an organization

→ Greenhouse gases include:

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF<sub>6</sub>)
- Nitrogen trifluoride (NF<sub>3</sub>)

Image used with permission of Stanford Kay

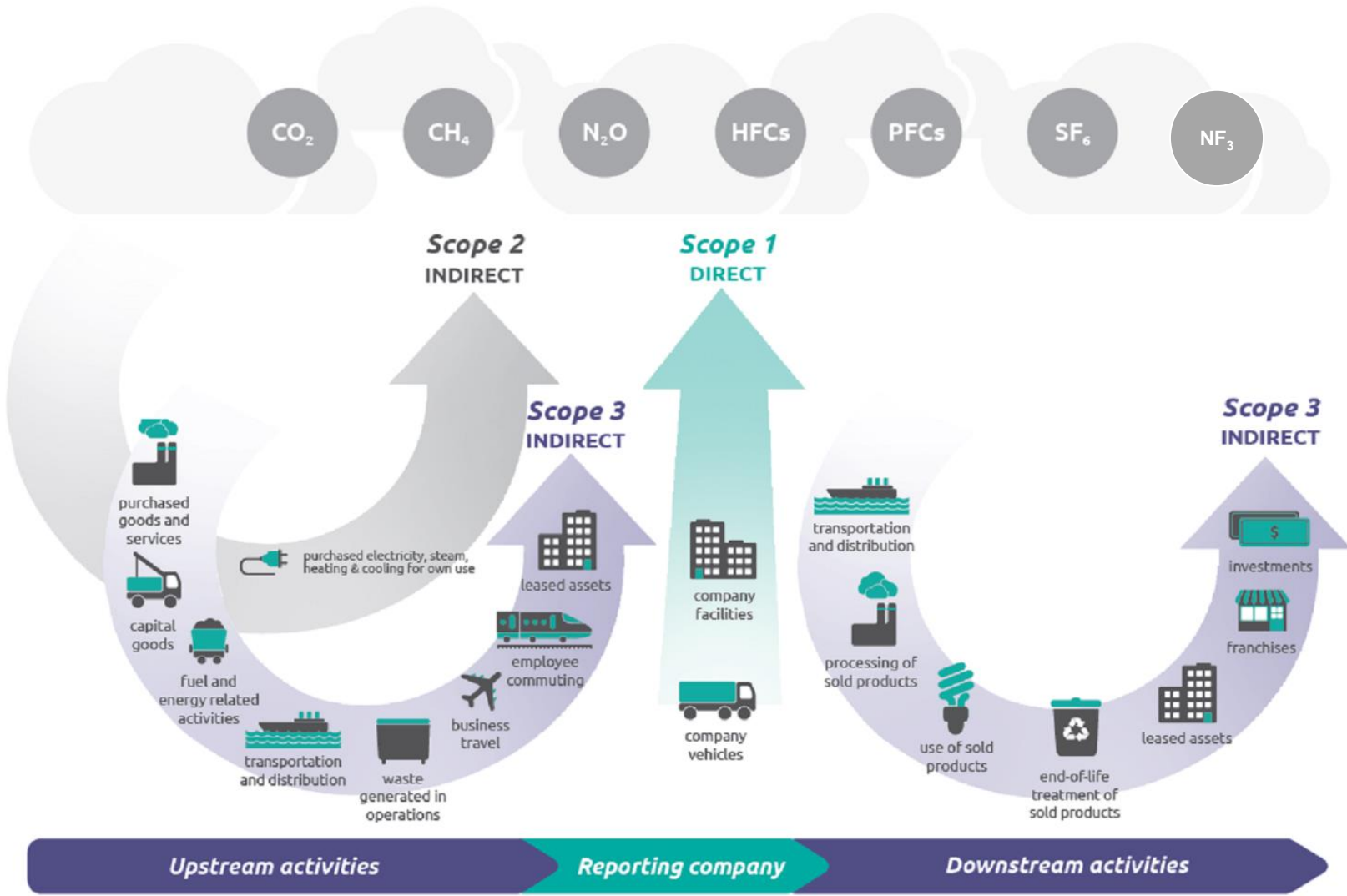


# Steps in GHG Accounting





# Step 3: GHG Emission Sources



Source: WRI / WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

# Step 4: Quantify and Report Emissions

**Activity Data:** the amount of fuel or material that, when used, causes GHGs



**Emission Factor (EF):** converts activity data into GHGs



x EF =



**Global Warming Potential (GWP):** converts non-CO<sub>2</sub> emissions into CO<sub>2</sub>e



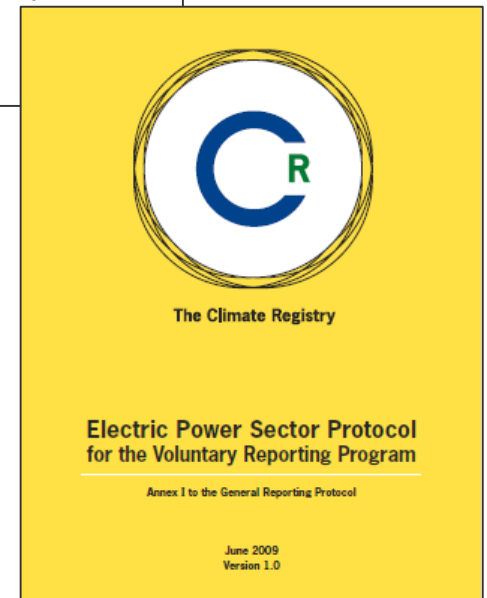
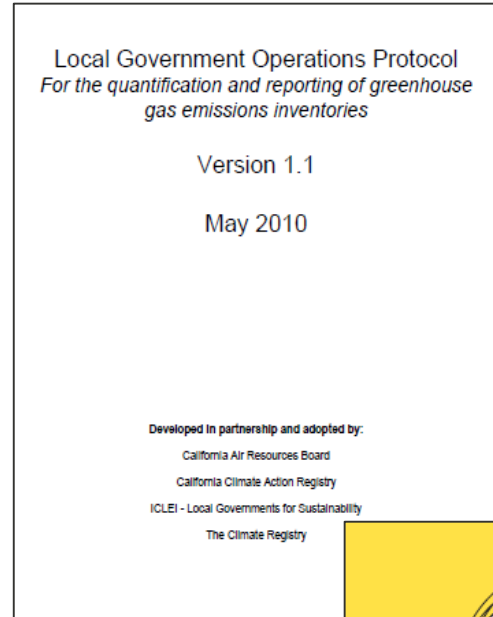
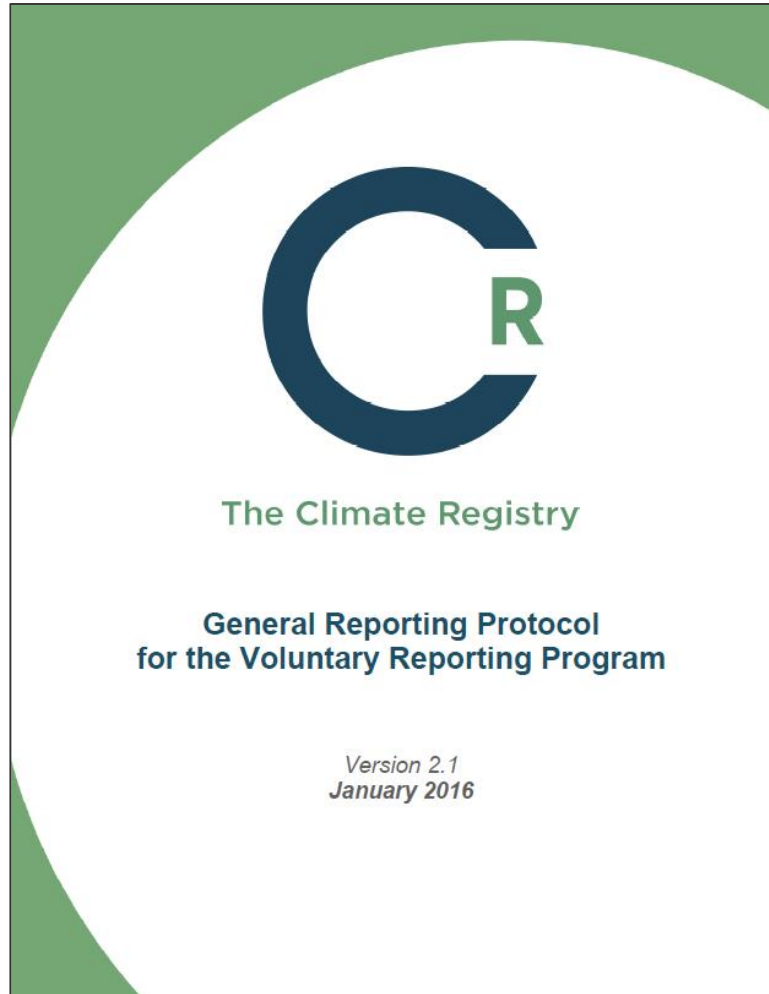
x EF x GWP =





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# TCR's Accounting Resources

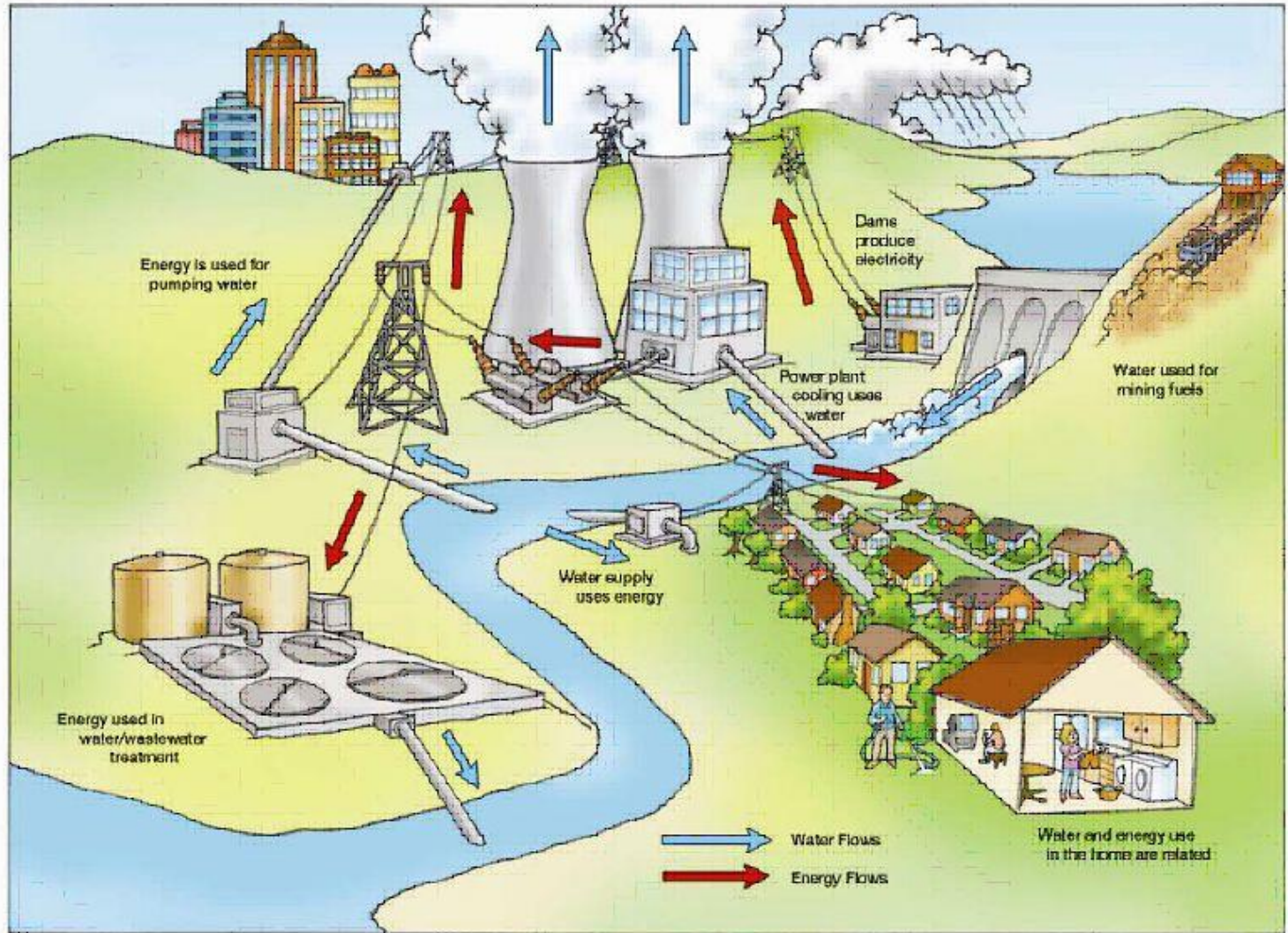




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# **WATER-ENERGY GREENHOUSE GAS GUIDANCE**

# The Water-Energy GHG Nexus





# TCR's Water-Energy GHG (WEG) Guidance

## Project Goals:

- Provide a consistent and transparent methodology to quantify the emissions embedded in delivered water
- Allow benchmarking for water suppliers
- Offer a way for suppliers to claim credit for reducing energy use and GHGs associated with water
- Enhance communication of the benefits of WEG reduction efforts to customers

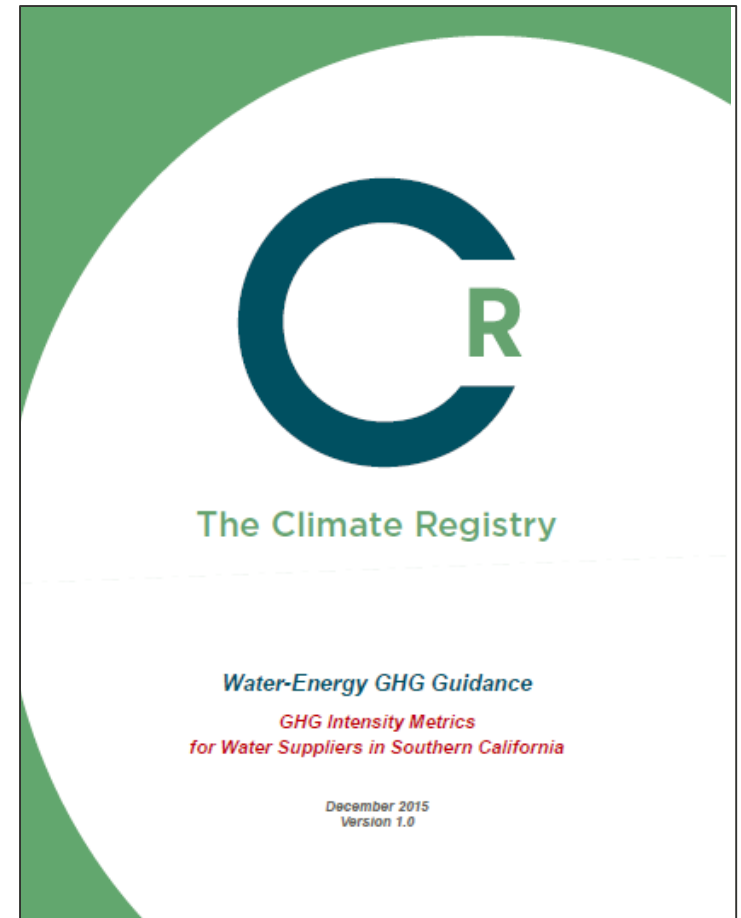




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# TCR's WEG Guidance

- Sector-specific annex to TCR's General Reporting Protocol
- For TCR members that are water suppliers in Southern CA
- Presents methodology to calculate a series of WEG intensity metrics alongside GHG inventory





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**Thank you!**

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