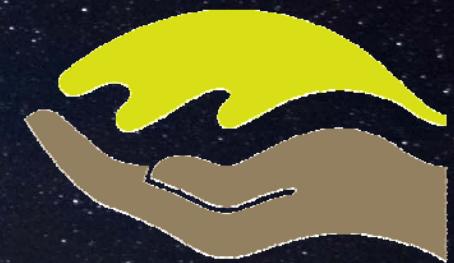


HCA Leadership Summit
September 22, 2016

Momentum at the Edge of Night
Panel Discussion

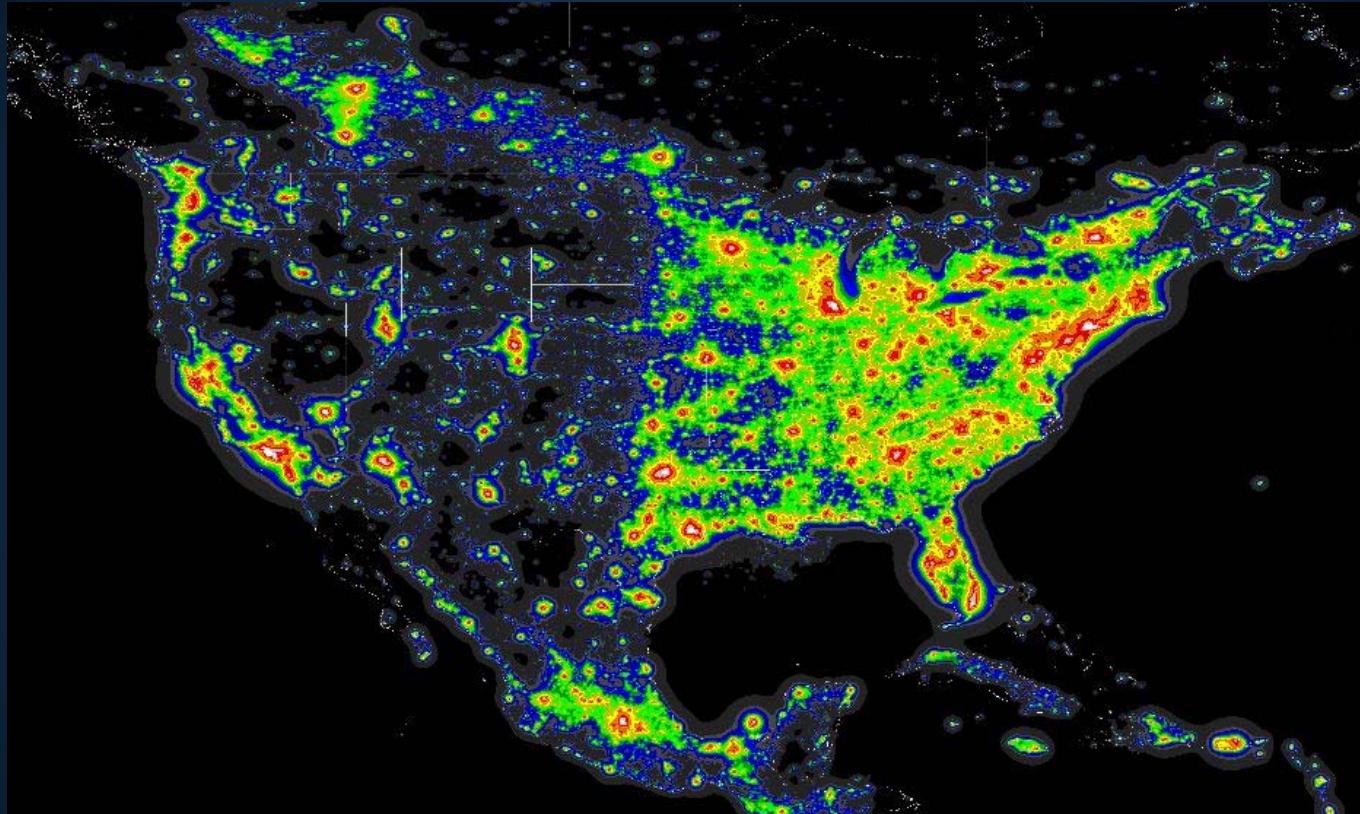


hill country alliance

Momentum at the Edge of Night

- **Ken Kattner (moderator) - Putman Mountain Observatory**
- **Cristi Clement – Board of Directors, Pedernales Electric Cooperative**
- **Doug Cochran – Park Superintendent, Enchanted Rock State Natural Area**
- **Terry “Tex” Toler, Main Street Manager, City of Llano**

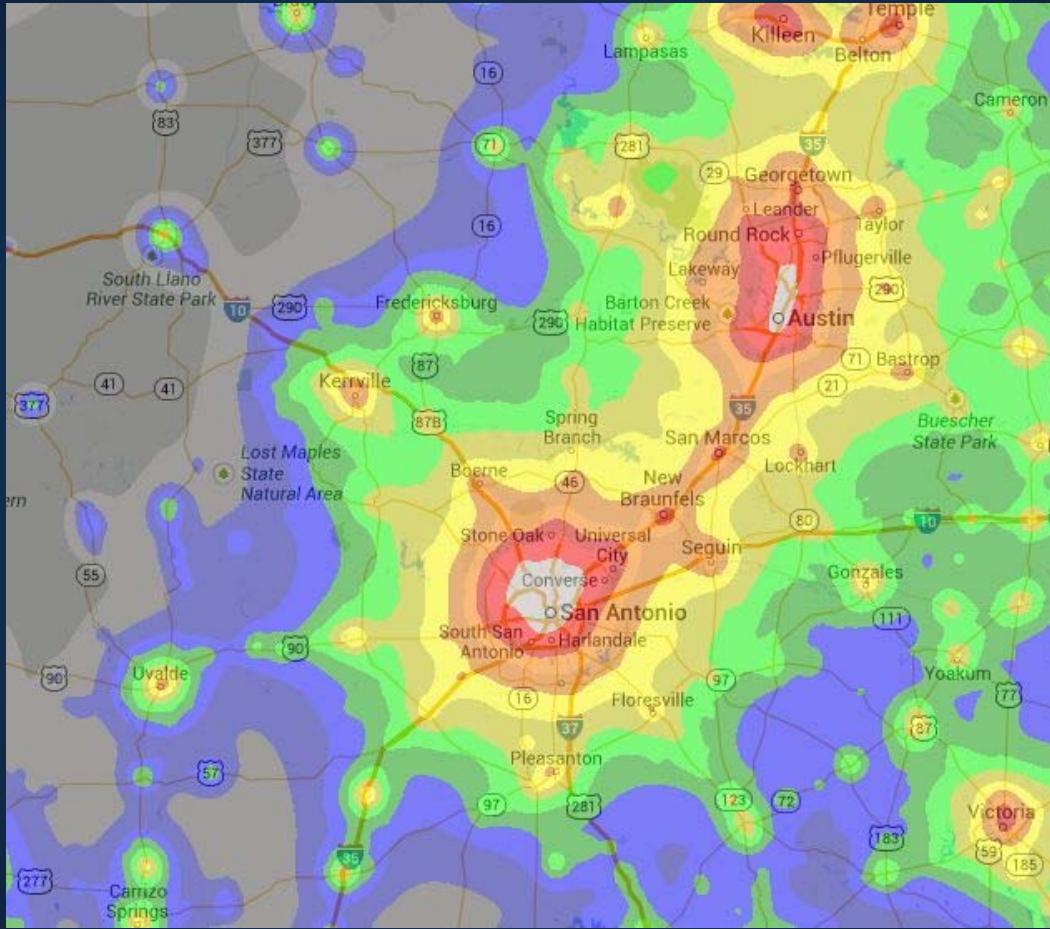
Momentum at the Edge of Night



Dark skies have virtually disappeared from the eastern half of the U.S.

Satellite data from World Atlas of the Artificial Night Sky Brightness

Momentum at the Edge of Night



Light Pollution Map for the Texas Hill Country
Bortle Scale

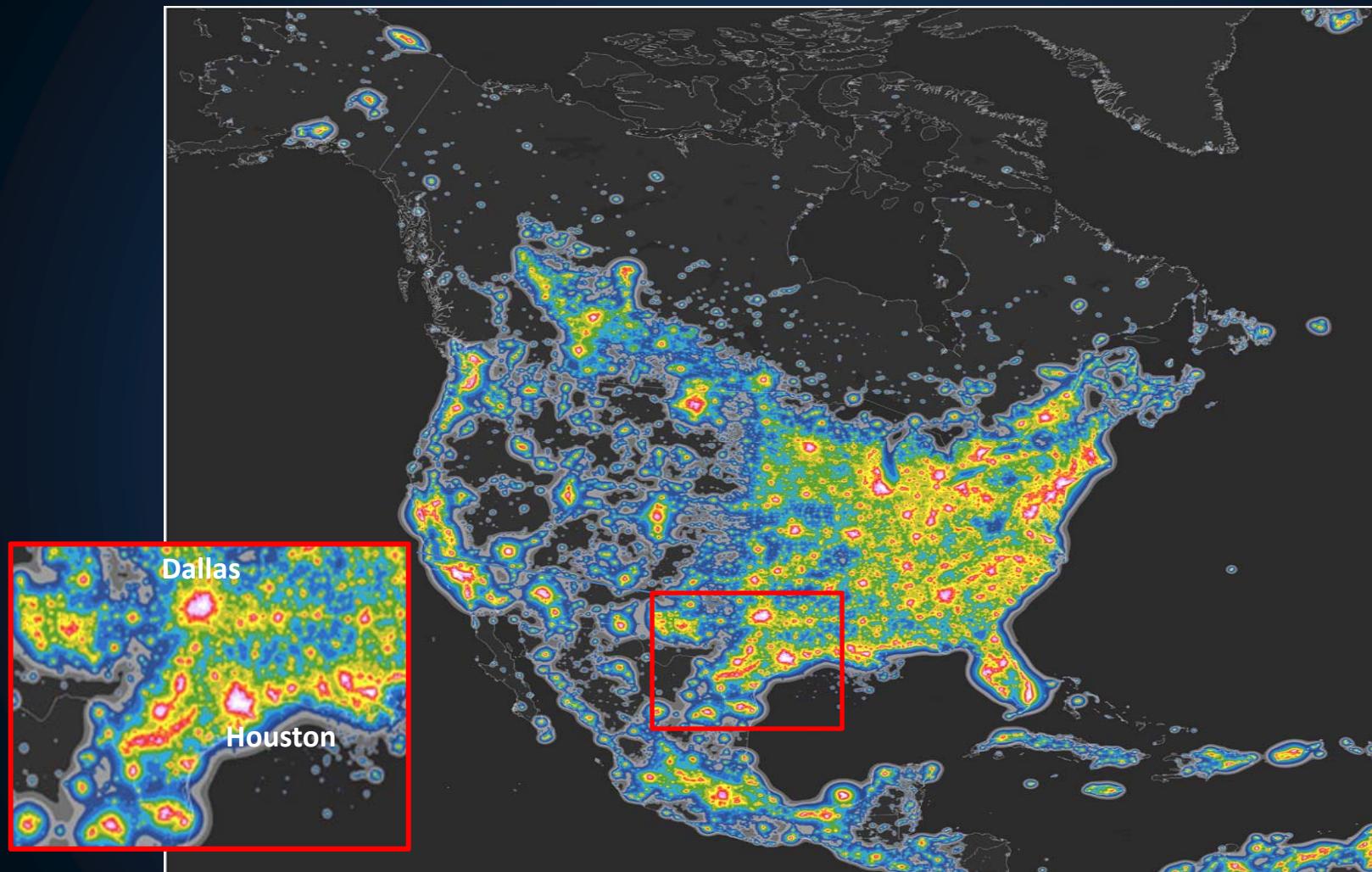


More than 80% of the world and 99% of U.S. and European Populations live under light polluted skies.

The Milky Way is hidden from more than one third of humanity, including 60% of Europeans and nearly 80% of North Americans.

The New World Atlas of artificial night sky brightness,
Science Advances, 10 June 2016: Vol.2, no. 6

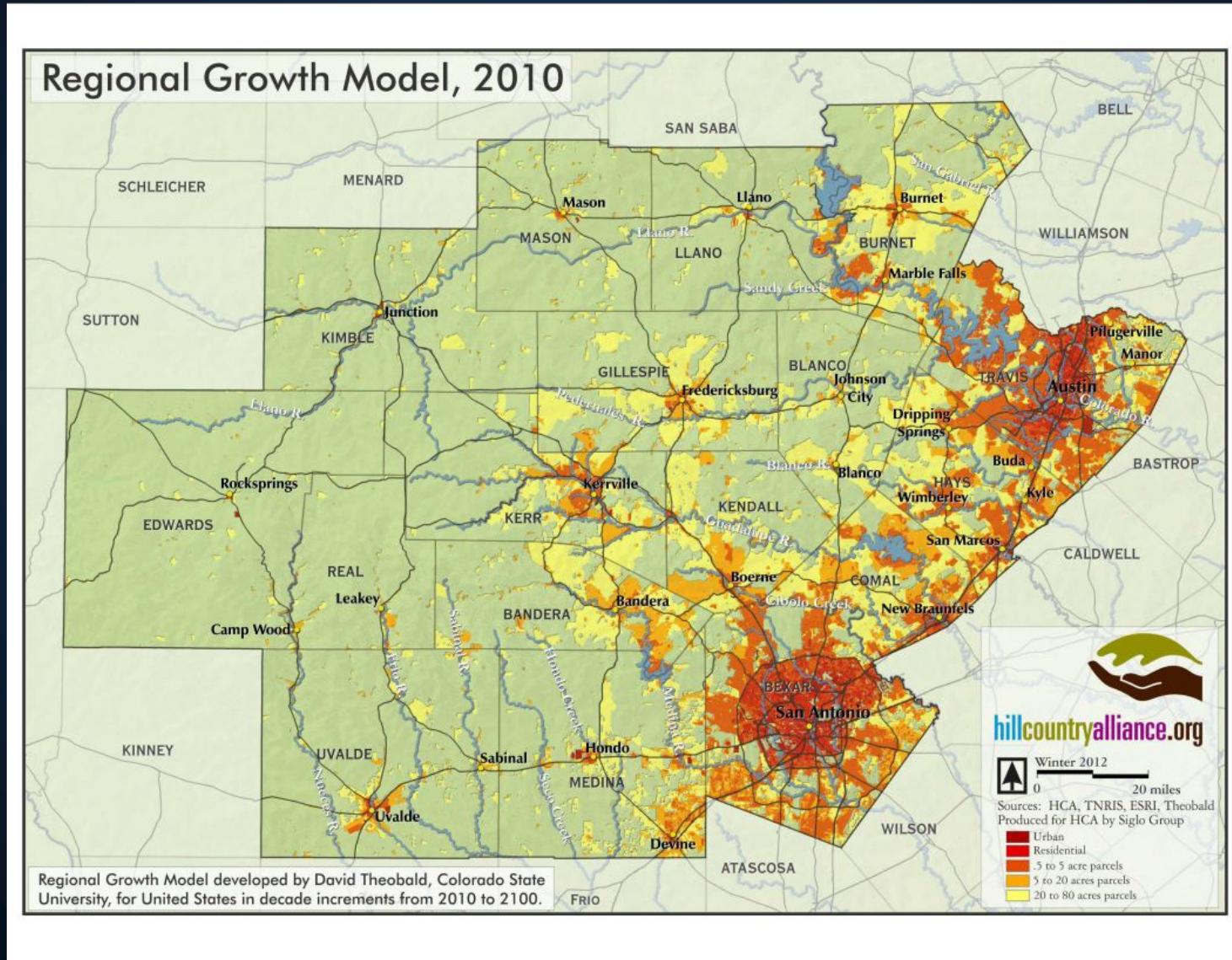
Map of North America's artificial sky brightness, in twofold increasing steps, as a ratio to the natural sky brightness.



Fabio Falchi et al. Sci Adv 2016;2:e1600377

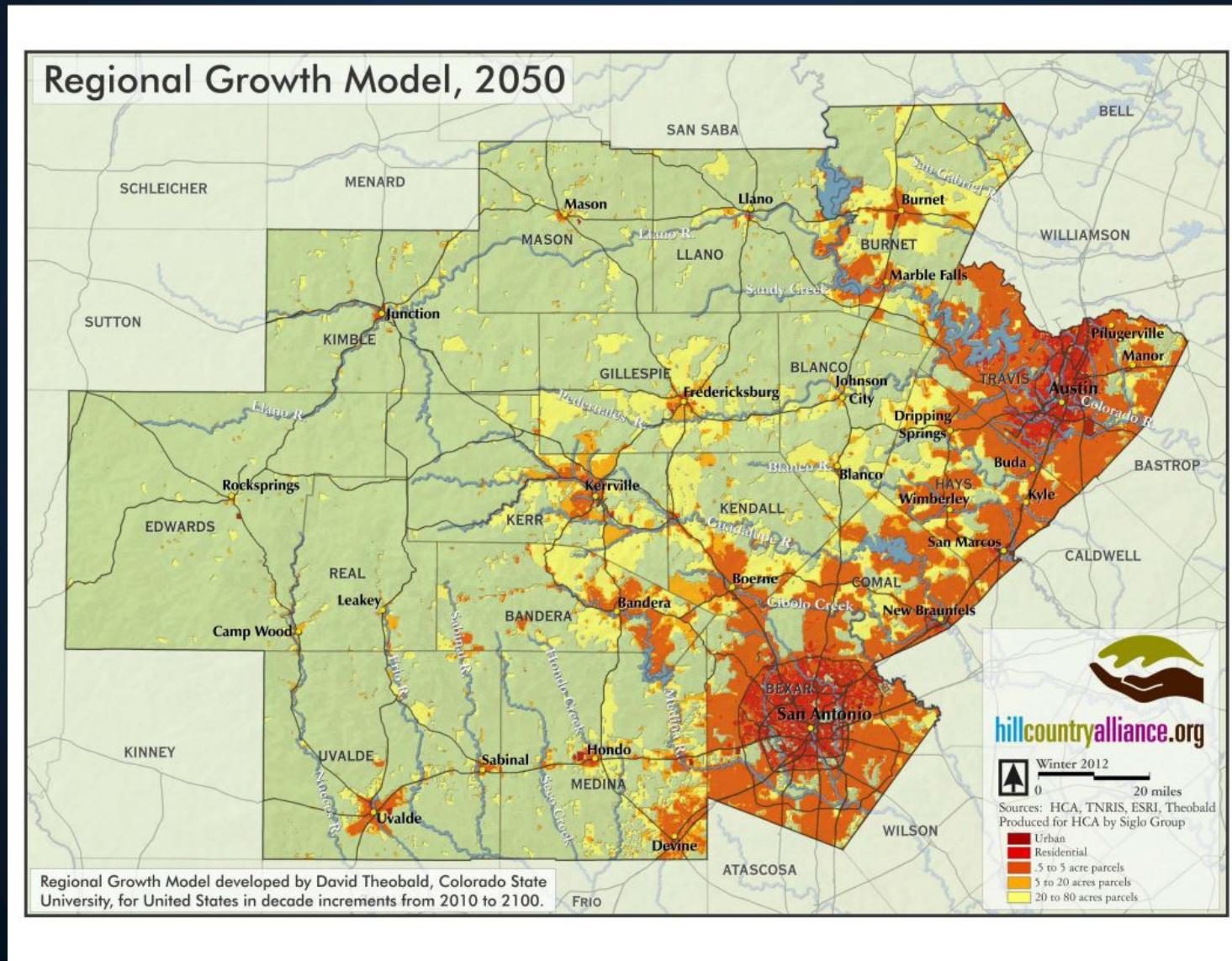
Momentum at the Edge of Night

Hill Country – Regional Growth



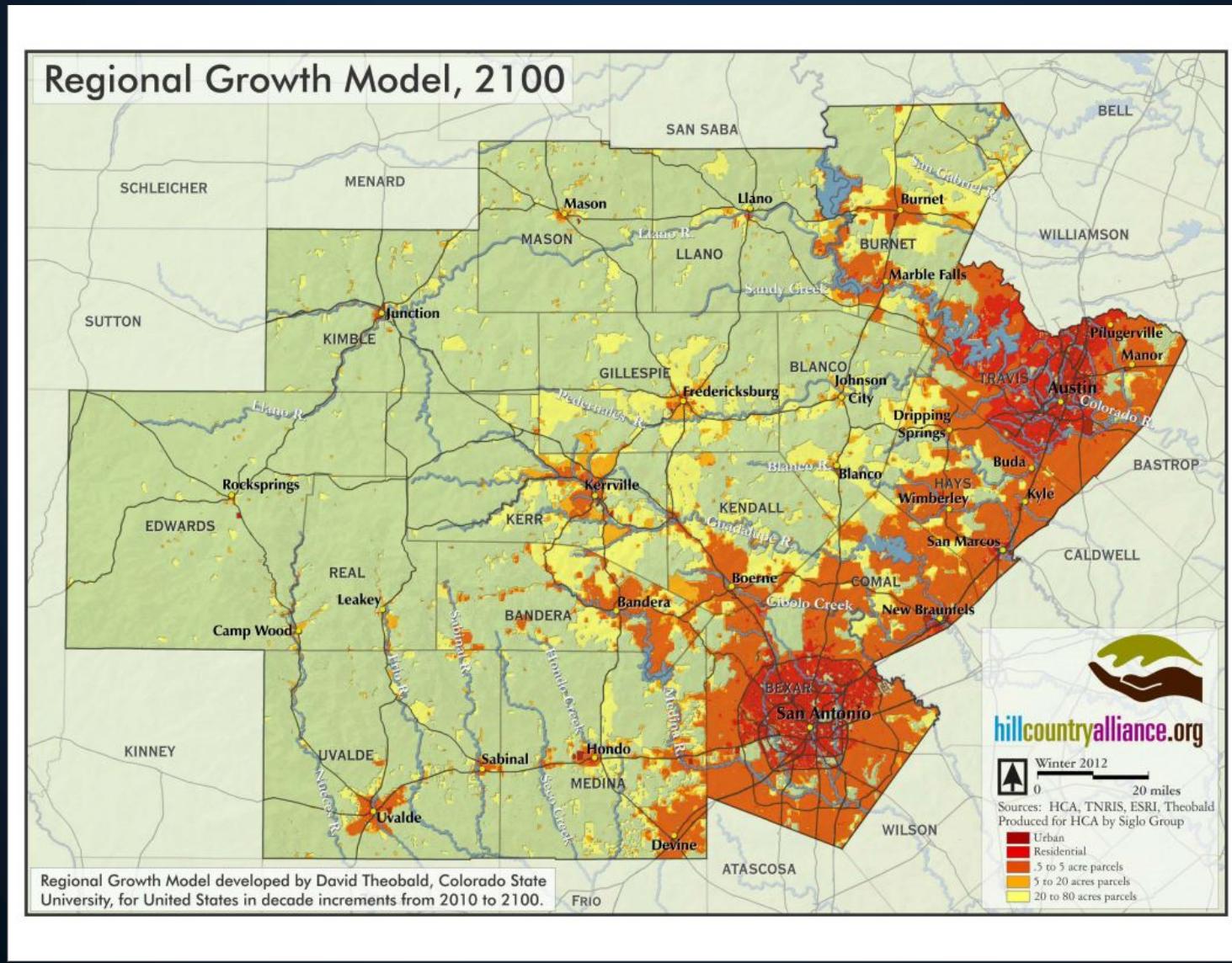
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Hill Country – Regional Growth



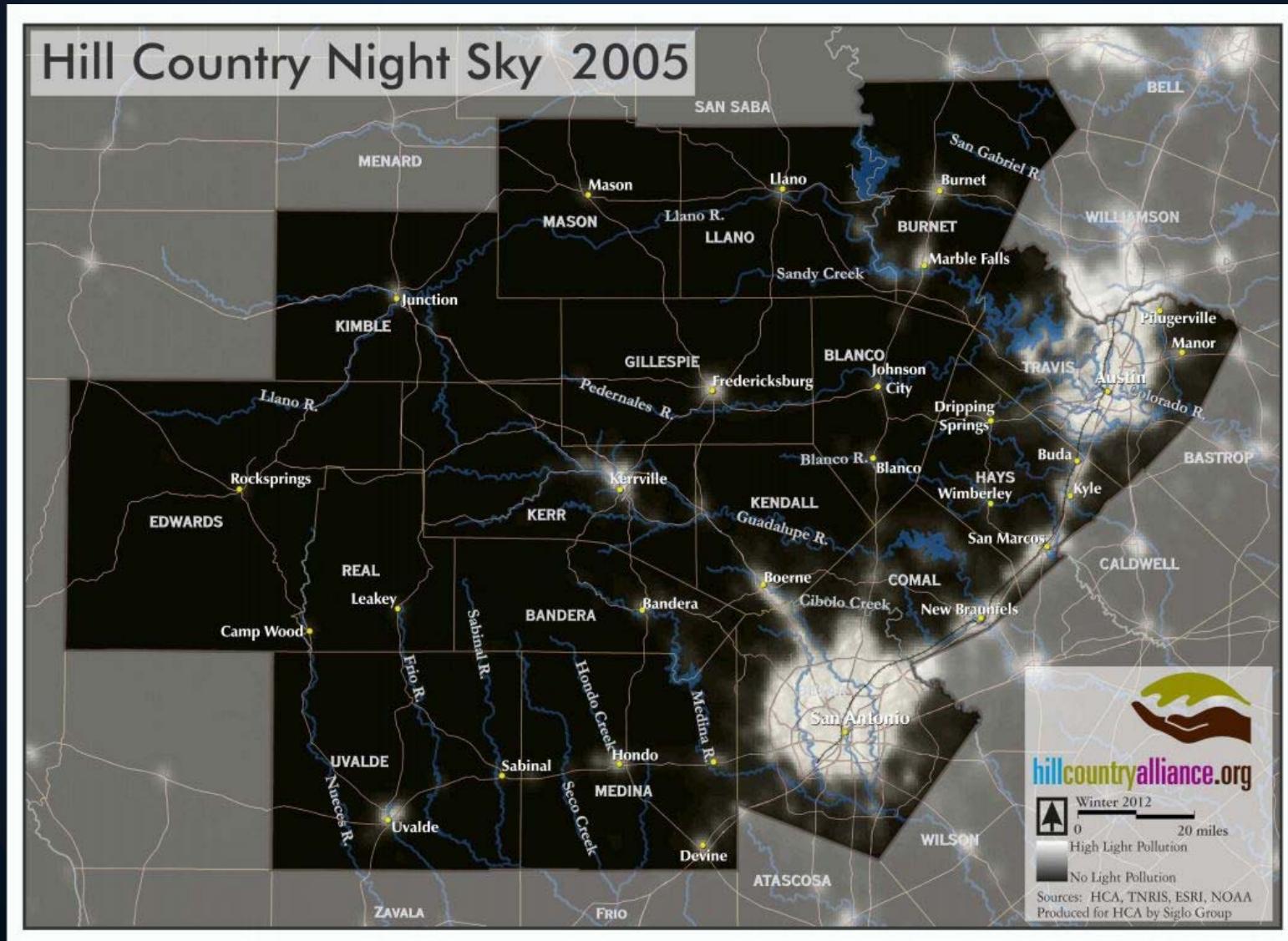
Momentum at the Edge of Night

Hill Country – Regional Growth



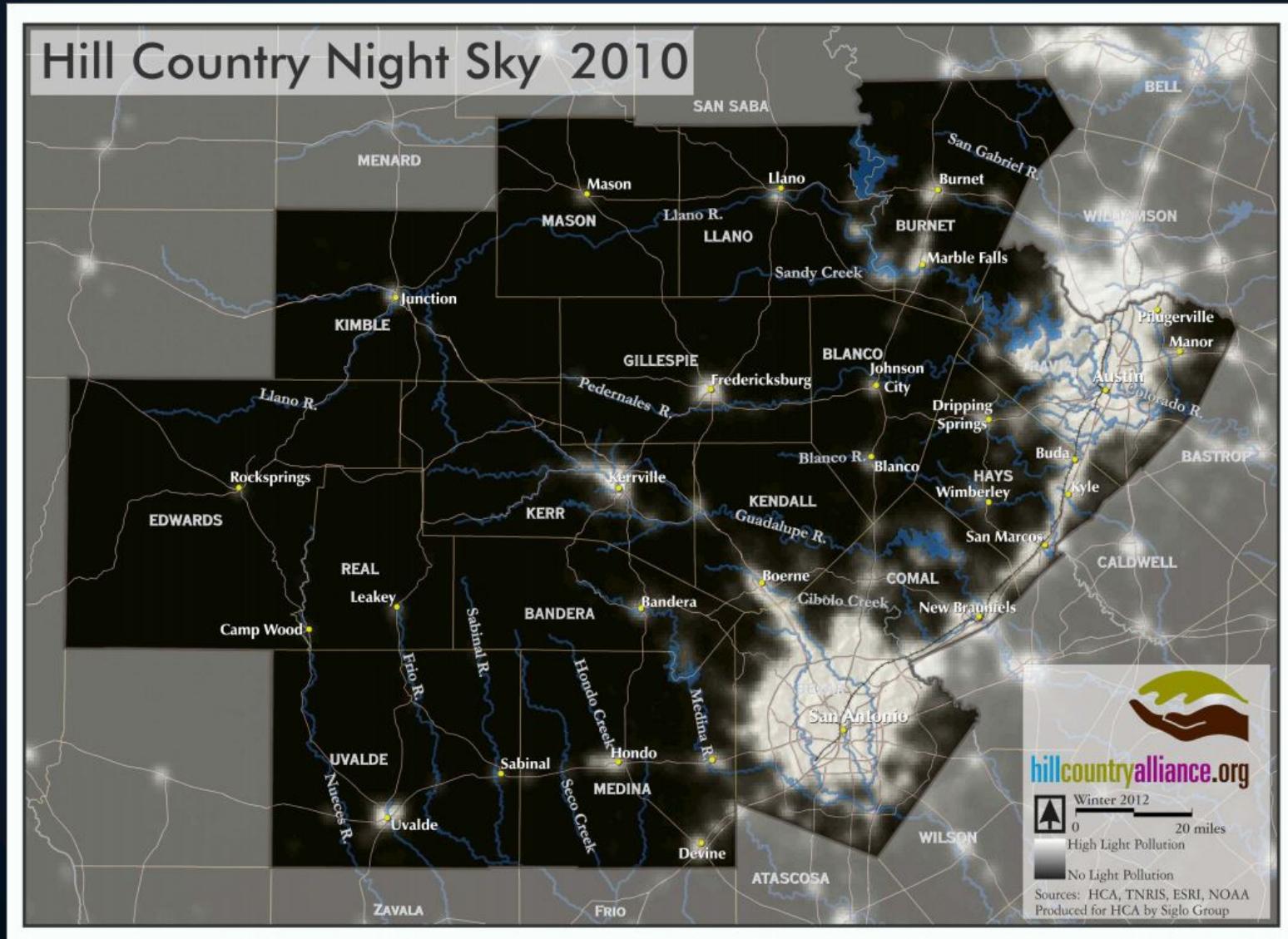
Momentum at the Edge of Night

Hill Country – Light Pollution



Momentum at the Edge of Night

Hill Country – Light Pollution



Momentum at the Edge of Night

Hill Country – Light Pollution

