

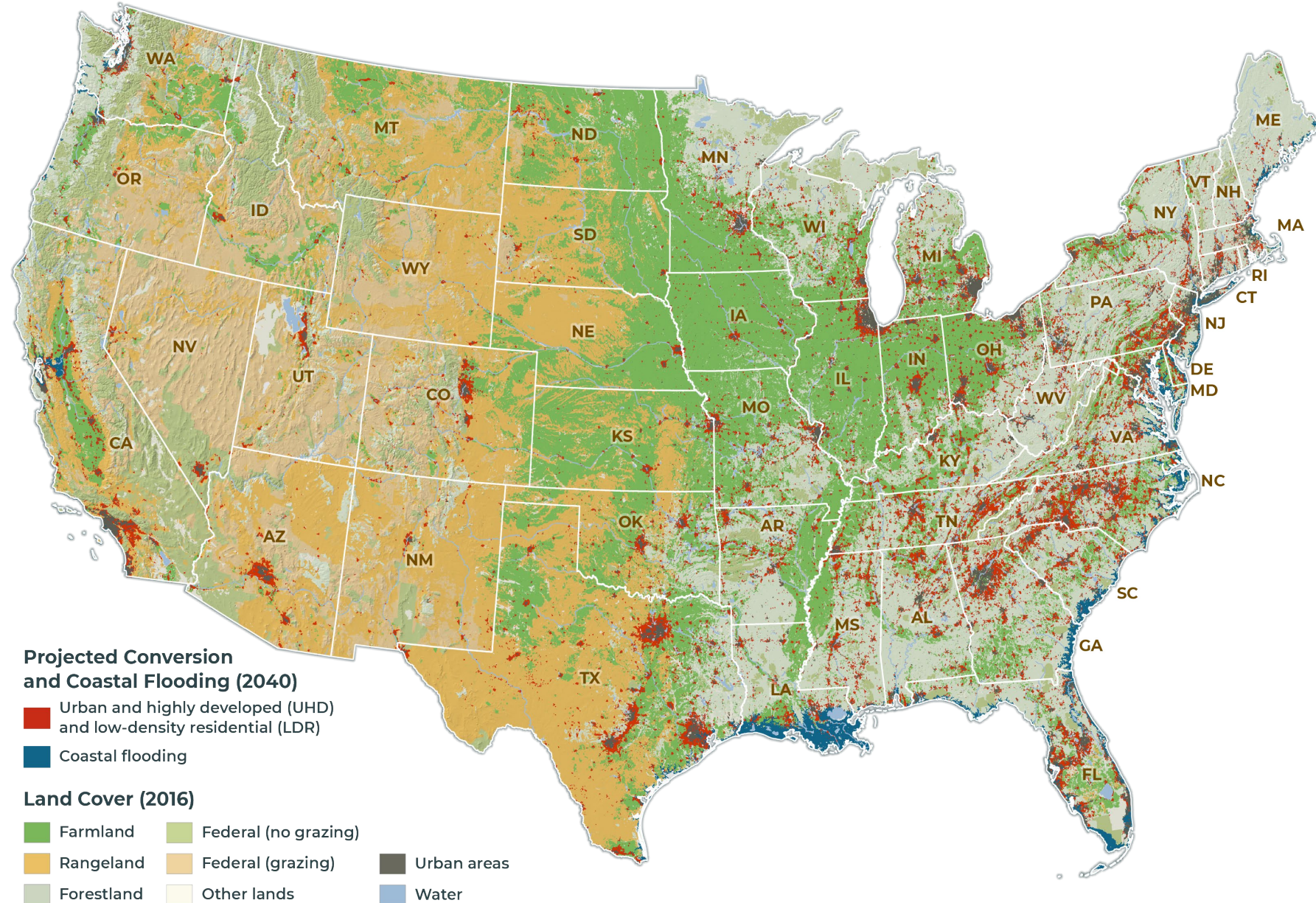
Farms Under Threat 2040

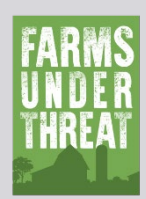
CHOOSING AN ABUNDANT FUTURE



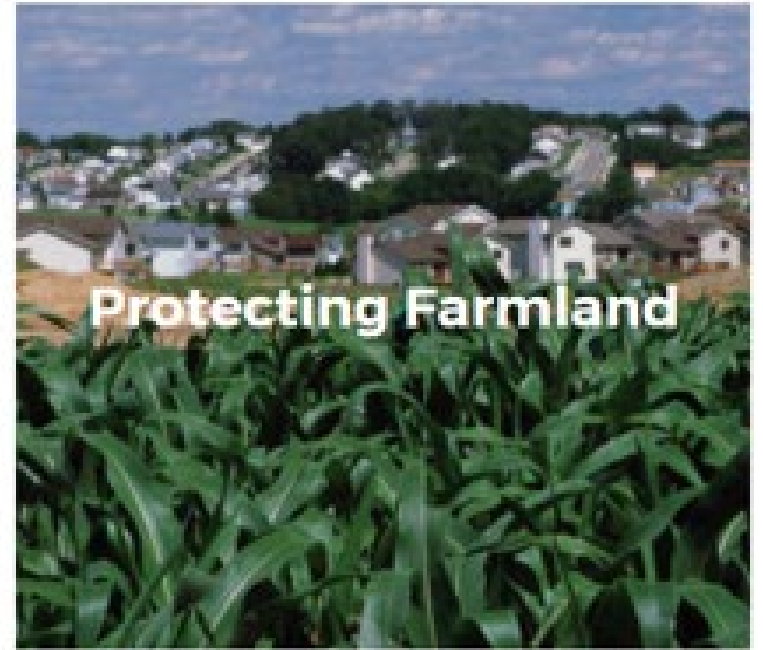
Agenda

- Introductions
- Overview
- Webapp Tour
- Engaging Communities and Policymakers
- Q&A





American Farmland Trust Saves the Land that Sustains



**No Farms
No Food®**



American Farmland Trust





What is Farms Under Threat?

AFT's multi-year initiative to document the status of and threats to America's agricultural land while offering policy solutions to save that land.





FARMS UNDER THREAT: THE STATE OF THE STATES

National geospatial analysis documented agricultural land use, quality and conversion from 2001-2016.

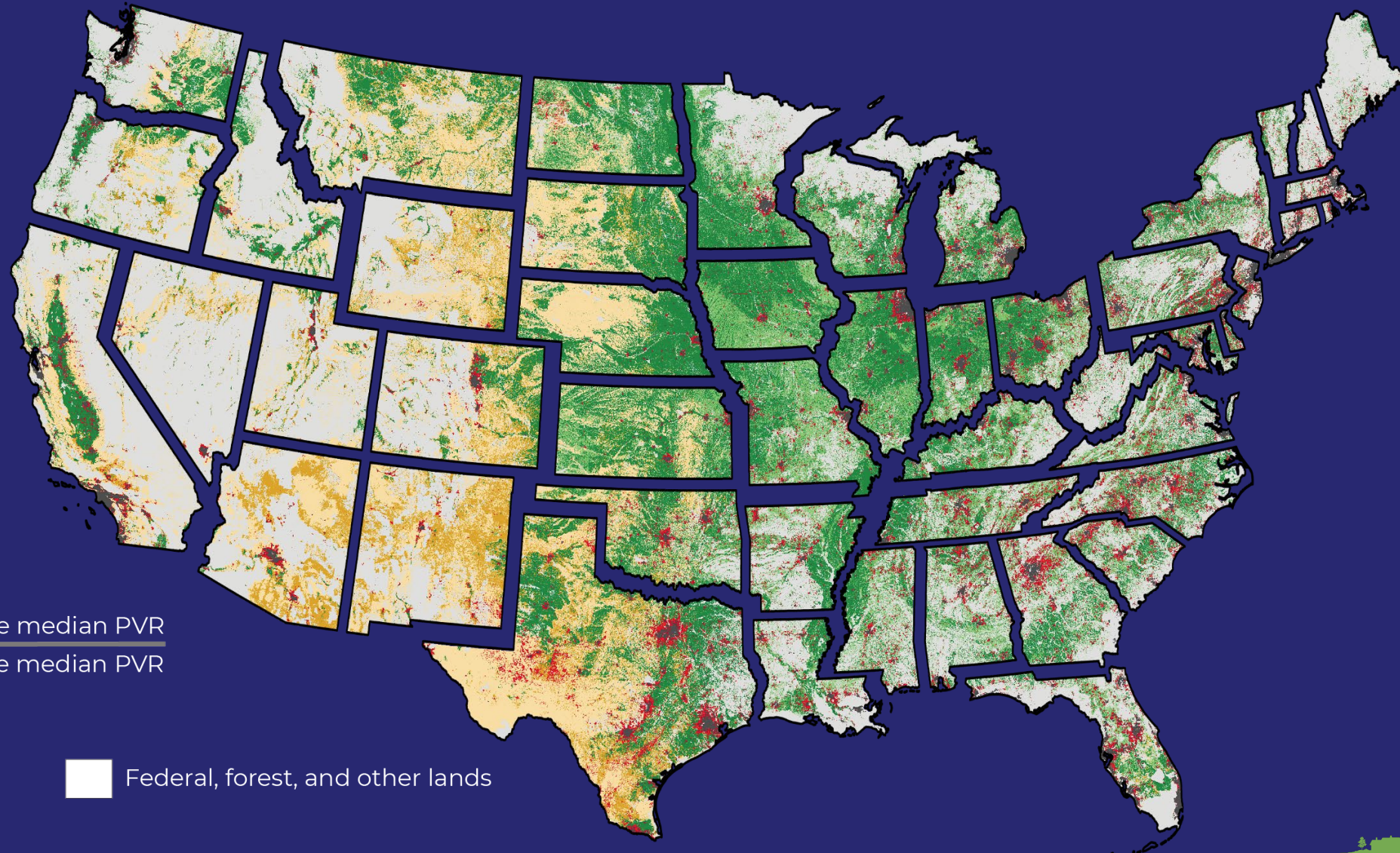
11 million acres of agricultural land converted

Distinguished between conversion to *Urban and Highly Developed (UHD)* and *Low-Density Residential (LDR)* land uses



Figure 2. Urban and highly developed (UHD), low-density residential (LDR), and rural land uses exist on a continuum from high-density urban areas to low-density rural areas. The UHD category encompasses dense urban cores, suburbs, and highly developed areas like warehouses. UHD transitions into LDR in residential areas where house lots exceed 1-2 acres. The LDR category also encompasses very large-lot residential areas, which might appear rural at first glance but are primarily used for housing, not for production agriculture.

Development Threatens Each State's Best Agricultural Land



Conversion

Farmland
Rangeland

Above state median PVR
Below state median PVR

Urban areas

Federal, forest, and other lands

Farms Under Threat 2040

CHOOSING AN ABUNDANT FUTURE



Released in
May 2022

Modelled projected
farmland conversion
to UHD and LDR
land uses using three
different scenarios

Spatial Modeling Approach

1. Started with *FUT: The State of the States* data (2001-2016)
 - Urban and highly developed and low-density residential conversion



Spatial Modeling Approach

1. Started with *FUT: The State of the States* data (2001-2016)
 - Urban and highly developed and low-density residential conversion
2. Projected *Business as Usual* scenario for 2016-2040
 - Same annual conversion rate as 2001-2016, adjusted for pop. growth
3. Projected 2 alternative scenarios
4. Projected coastal flooding risk
5. Quantified effects on ag land for each scenario
6. Caveats: no local zoning, no water scarcity



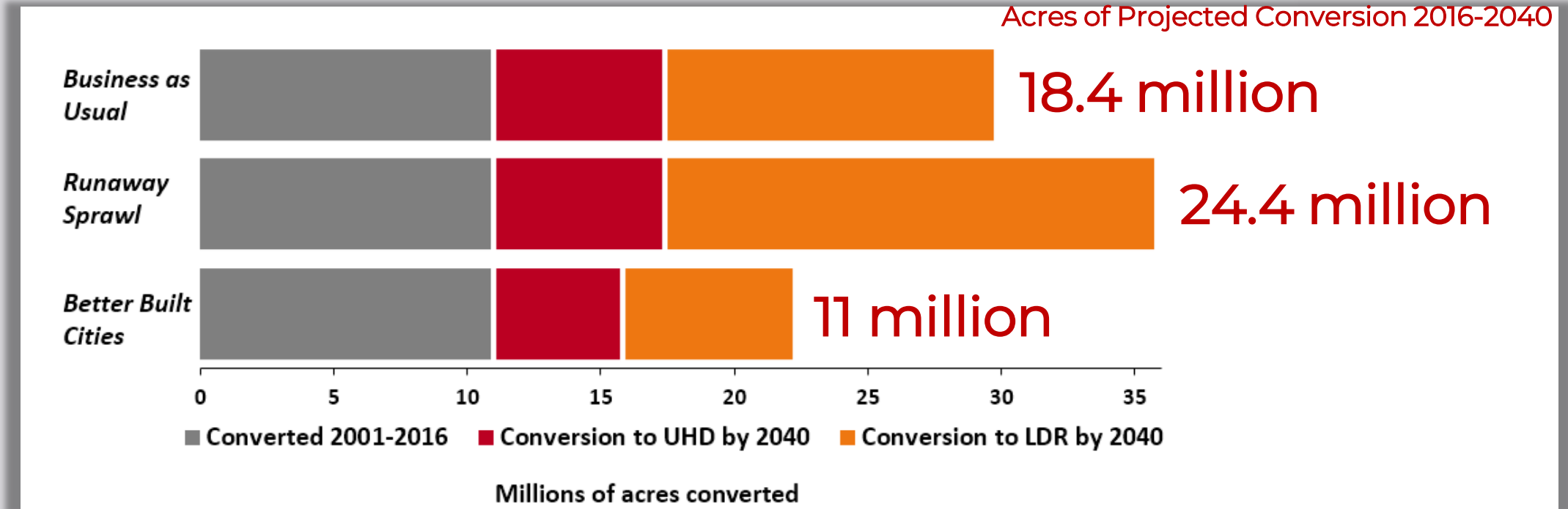
Three Future Scenarios



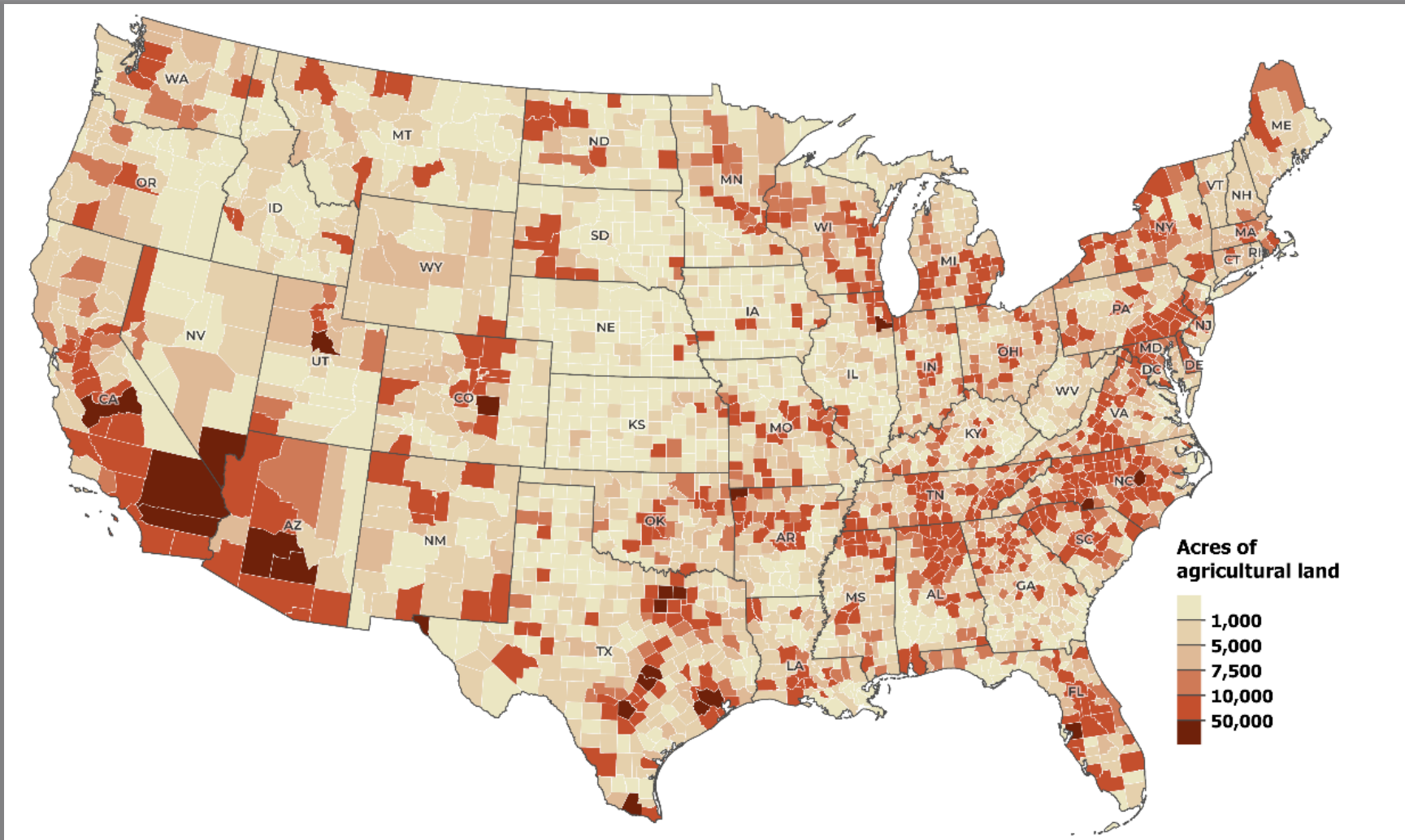
Assumptions Made for the Three Future Scenarios

Scenario	Rate of UHD Conversion	Rate of LDR Conversion
Business as Usual	Historical rate, adjusted for future population growth	Historical rate
Runaway Sprawl	Same as <i>Business as Usual</i>	50% higher than <i>Business as Usual</i>
Better Built Cities	25% lower than <i>Business as Usual</i>	50% lower than <i>Business as Usual</i>

Which Future Will We Choose?

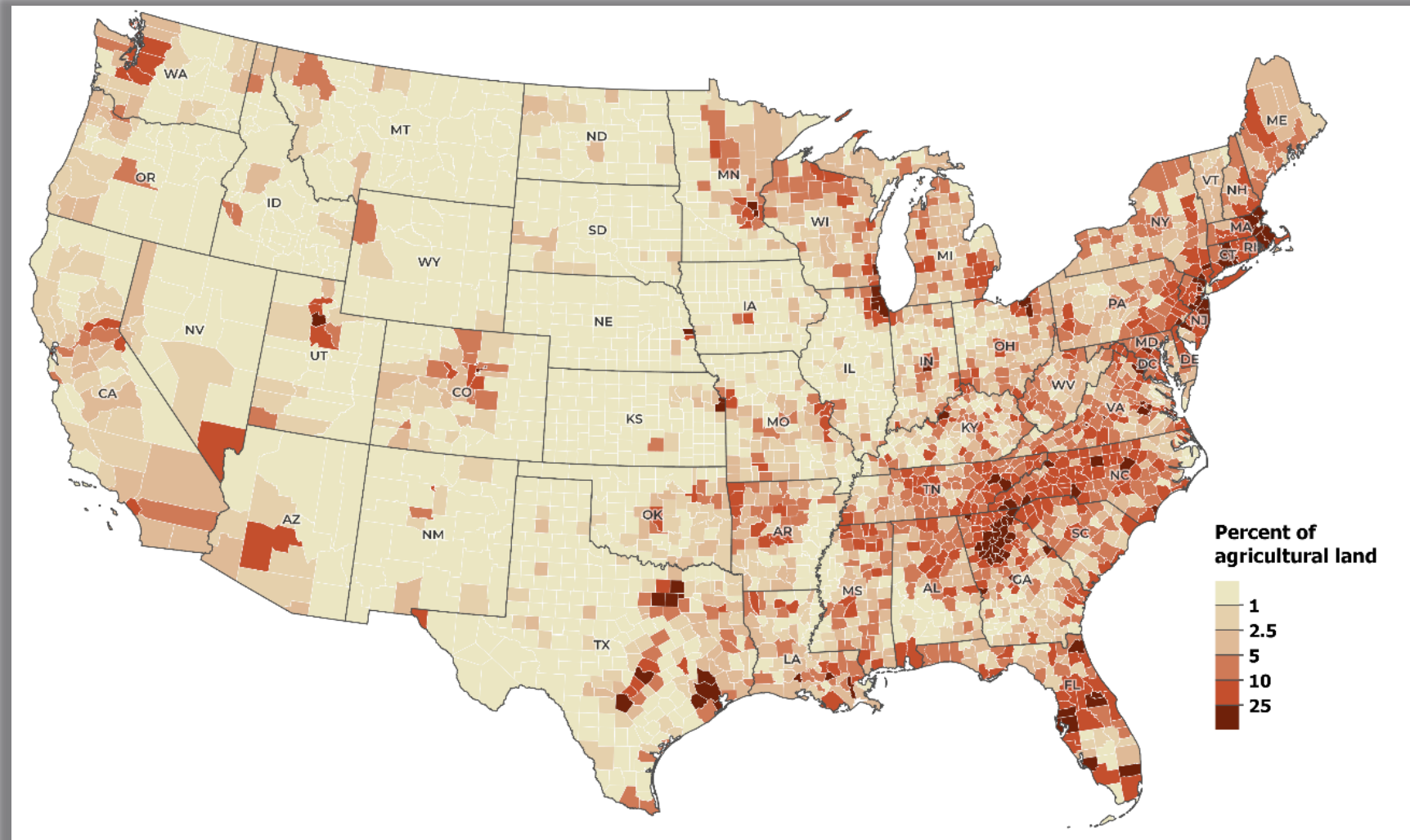


Projected Acres of Conversion in *Business as Usual*

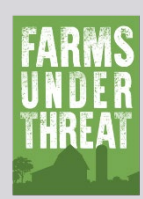


Acres of agricultural land projected to be converted to UHD and LDR land uses between 2016 and 2040 in the *Business as Usual* scenario, by county.

Projected Percent Conversion in *Business as Usual*



Percent of agricultural land projected to be converted to UHD and LDR land uses between 2016 and 2040 in the *Business as Usual* scenario, by county.



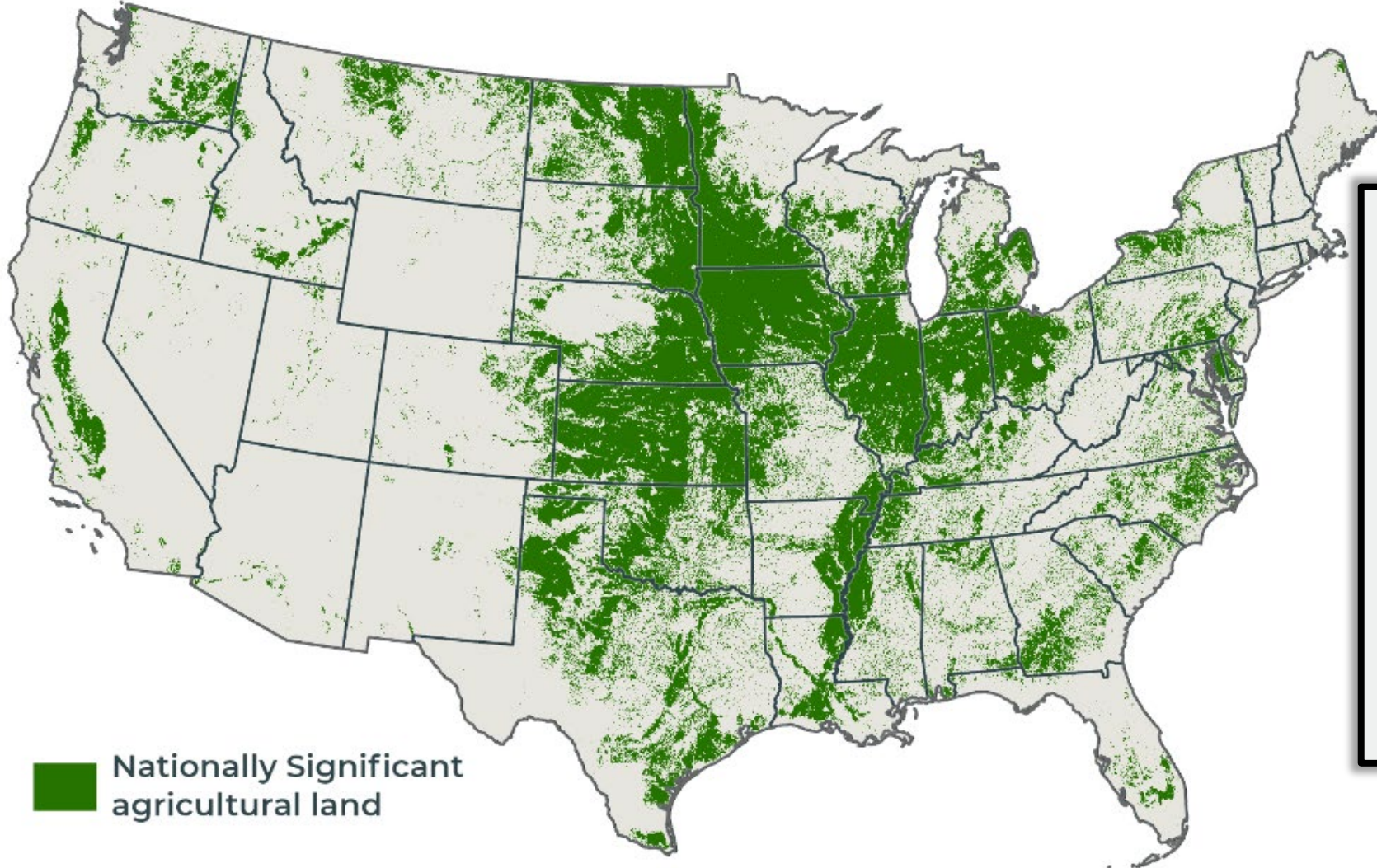
Top 12 States: Projected Conversion Acres and Percent

Acres Projected to Be Converted by 2040

	Business as Usual	Runaway Sprawl	Better Built Cities
Texas	2,192,700	2,770,100	1,375,500
North Carolina	1,197,300	1,678,100	661,500
Tennessee	1,014,600	1,409,200	564,800
Georgia	798,400	1,062,300	474,500
California	797,400	935,300	522,100
Florida	620,200	762,500	410,400
Virginia	594,100	836,200	328,700
Missouri	568,200	794,400	309,400
Alabama	545,000	751,600	310,800
Pennsylvania	543,800	760,000	309,300
Ohio	518,500	696,800	298,700
Wisconsin	515,200	688,000	304,800
Contiguous U.S.	18,415,000	24,403,800	10,869,900

Percentage of Agricultural Land Projected to be Converted by 2040

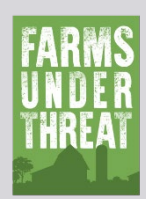
	Business as Usual	Runaway Sprawl	Better Built Cities
New Jersey	16.0	20.1	10.0
Connecticut	15.8	20.9	10.3
Massachusetts	14.8	17.9	10.0
Rhode Island	14.5	17.6	9.8
Delaware	12.5	16.6	8.1
North Carolina	11.6	16.2	6.4
New Hampshire	8.3	10.0	5.2
Tennessee	8.2	11.5	4.6
Maryland	7.8	10.8	4.3
South Carolina	7.5	10.1	4.4
Florida	7.4	9.1	4.9
Virginia	7.3	10.2	4.0
Contiguous U.S.	2.0	2.6	1.1



 Nationally Significant agricultural land

NATIONALLY SIGNIFICANT LAND
IS OVER
50% more likely
TO BE CONVERTED BY 2040 THAN
OTHER AGRICULTURAL LAND.

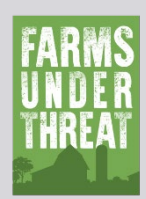




Top 12 States: Acres of Nationally Significant Land

State	Business as Usual	Better Built Cities	Runaway Sprawl
Texas	990,900	631,500	1,232,200
North Carolina	737,000	397,700	1,042,500
Tennessee	420,000	244,100	568,000
Ohio	378,200	218,400	504,600
Pennsylvania	355,700	201,900	497,800
Georgia	347,900	209,000	467,700
Wisconsin	342,900	203,700	455,600
Alabama	337,200	188,900	459,000
Indiana	321,800	184,300	429,400
Michigan	304,000	163,400	446,000
Illinois	292,700	191,800	358,400
Mississippi	292,400	151,300	420,500
Contiguous U.S.	9,021,200	5,258,100	12,064,100



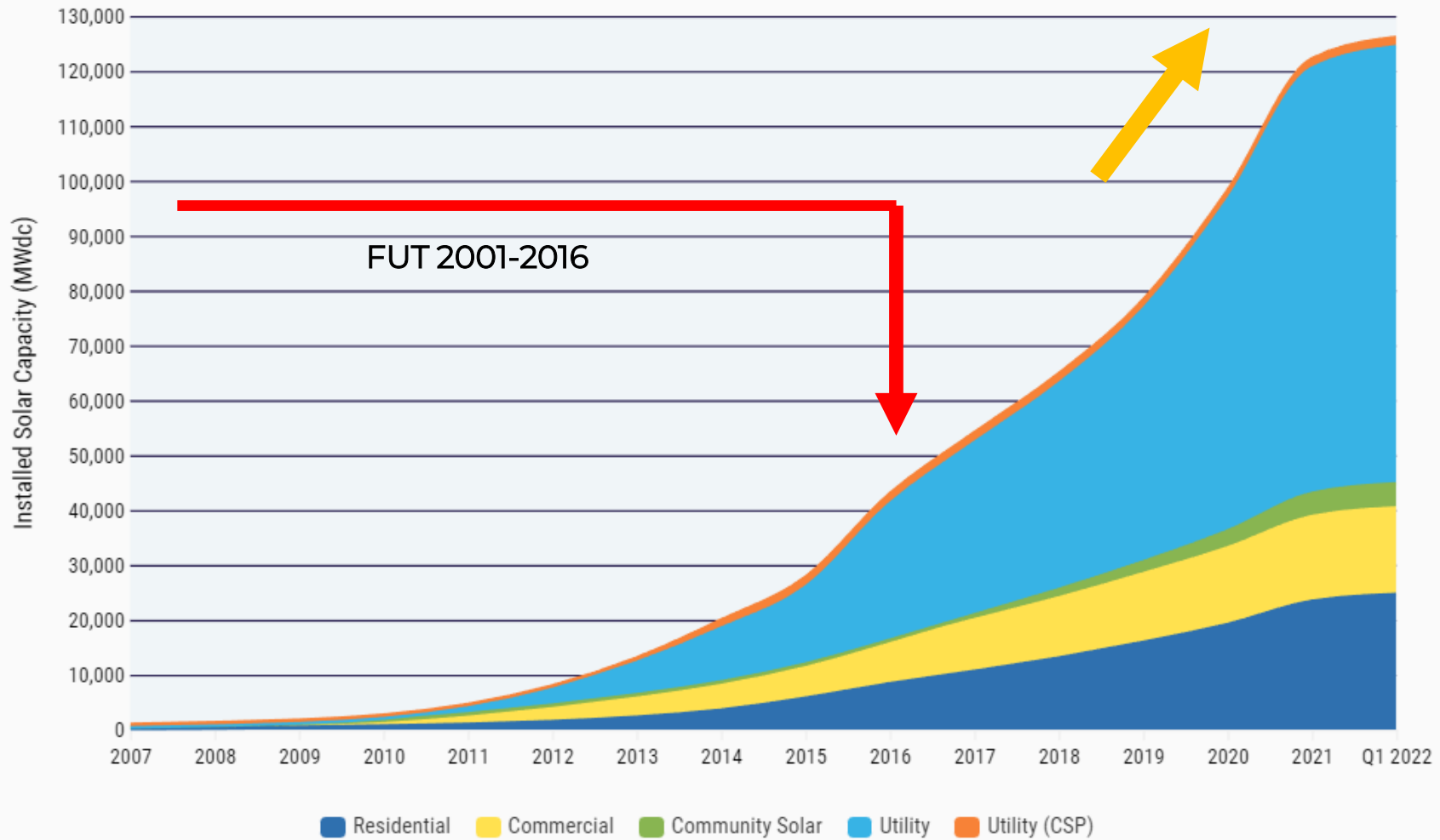


450,000 acres of coastal farmland and ranchland may be flooded by 2040

State	Acres Projected to Be Flooded by Sea-Level Rise
California	298,500
Louisiana	73,000
Washington	39,300
North Carolina	17,400
Oregon	4,400
Texas	4,000
Maryland	3,600
Virginia	1,600
Delaware	1,600
New Jersey	1,500
Florida	1,300
South Carolina	800
Contiguous U.S.	449,000



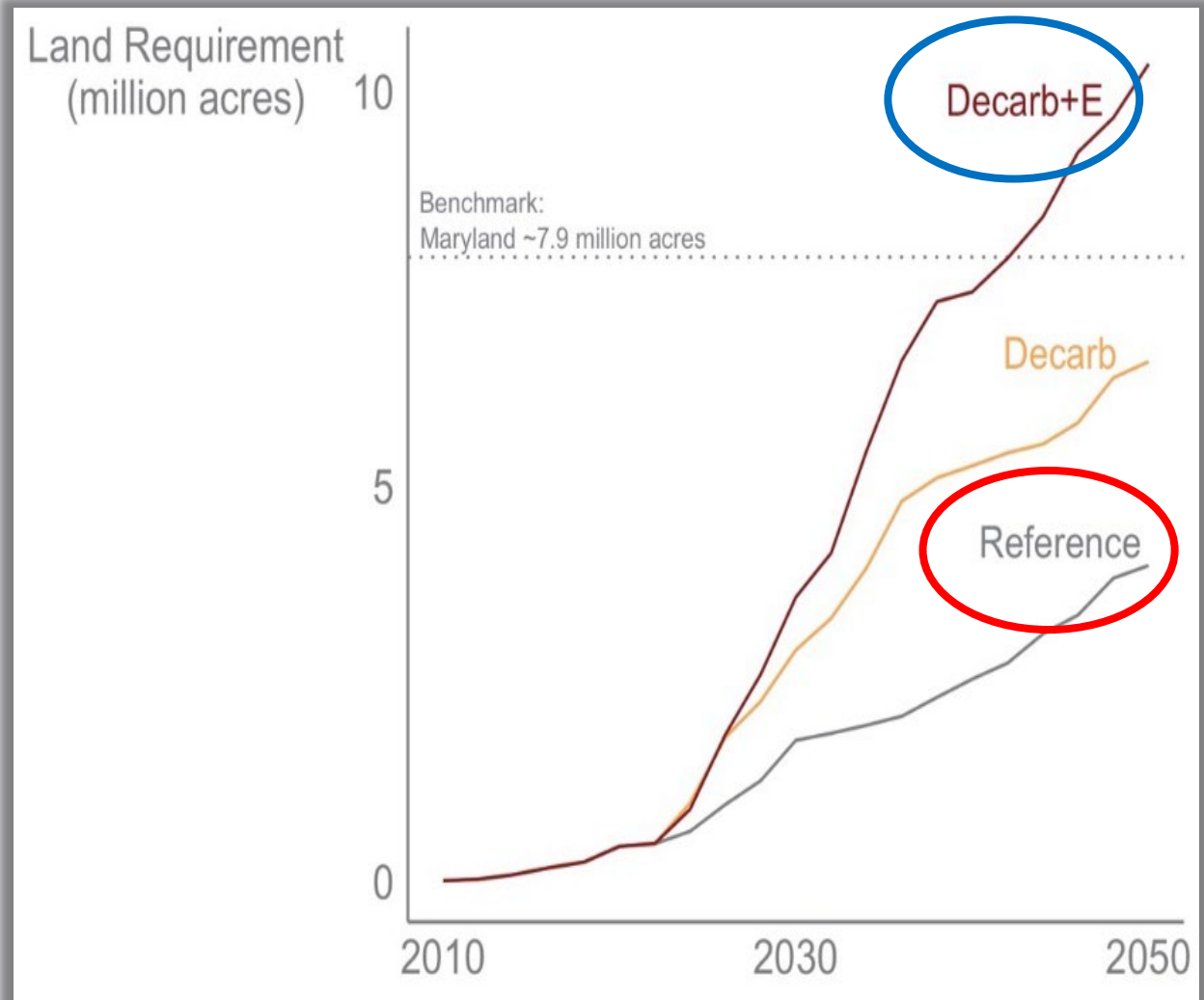
Cumulative U.S. Solar Installations



Source: [SEIA/Wood Mackenzie Power & Renewables U.S. Solar Market Insight Q2 2022](#)

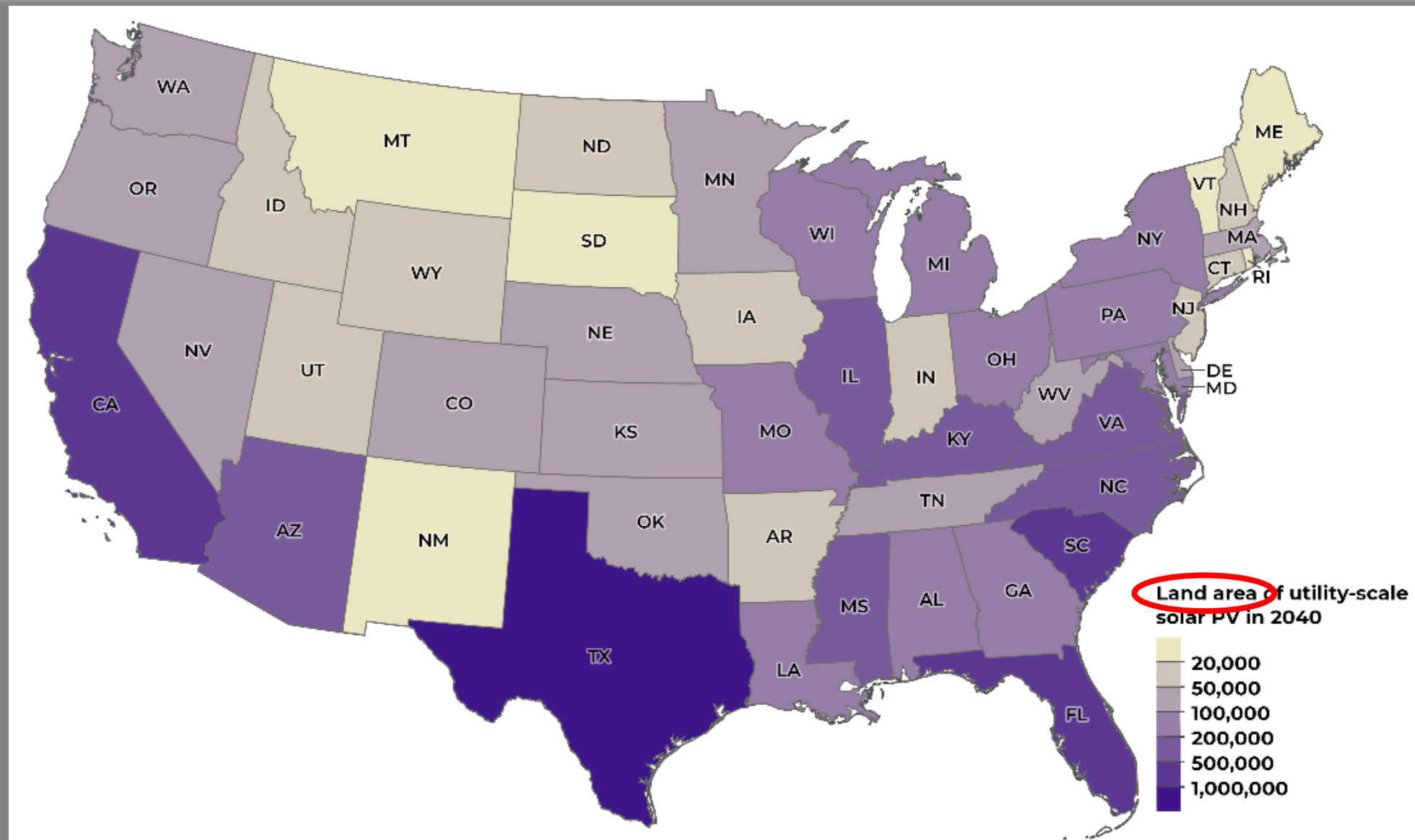


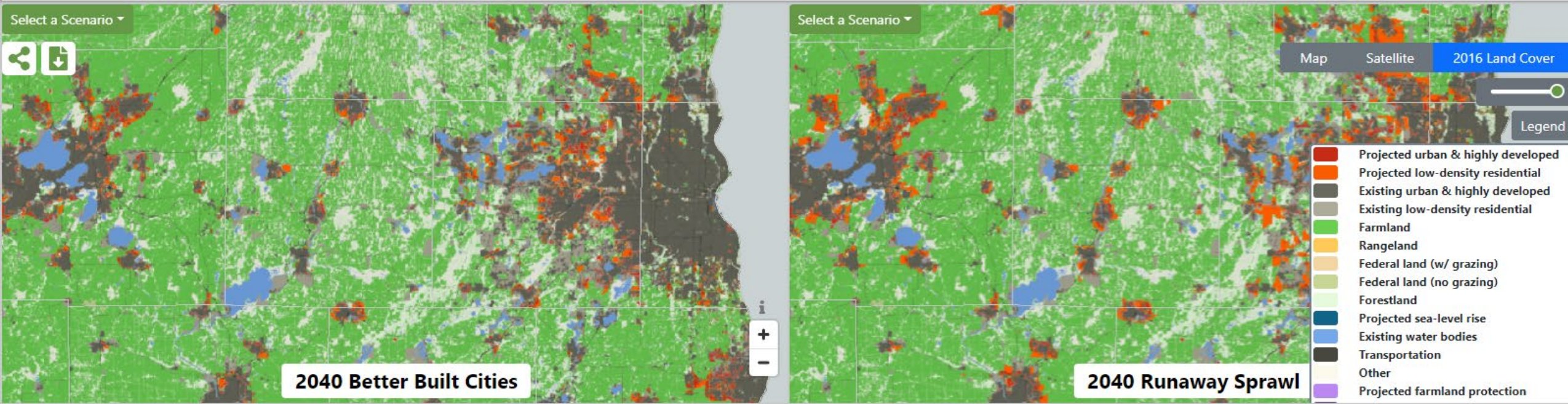
DOE Solar Futures Study



Decarbonizing US Grid: 8-10 Million Acres
90% in Rural Communities
IRA Will Accelerate → Need Smart Solar

Projected Acres of Solar Development





Tour of the FUT-2040 Webapp



**National
Agricultural
Land
Network**

A PROJECT OF
AMERICAN FARMLAND TRUST



American Farmland Trust

Policy Recommendations

- Encourage smart growth
- Protect agricultural land
- Advance smart solar siting
- Support farmland access






Plan for Agriculture, Not Just Around it

An aerial photograph of a rural farmstead. In the center, there is a large, long, light-colored barn with a red roof and two tall, cylindrical silos. To the left of the barn is a cluster of trees and a house with a grey roof. A paved road runs along the right side of the barn. The surrounding landscape is dominated by vibrant green fields, likely corn, with distinct rows visible in the foreground. The background shows a dense line of trees under a clear sky.

Planning for agriculture creates a public policy framework to protect farmland, promote ag conservation practices, and support local agriculture for community benefits including economic development, ecosystem services and community food security.



20th Century
Agriculture was
Transformed for
Productivity

Now it Must be
Transformed for
Resiliency

1900

- 6m farms supported a population of 76m people mostly living in rural areas

Today

- 2m farms support a population of ~330m people mostly living in urban areas

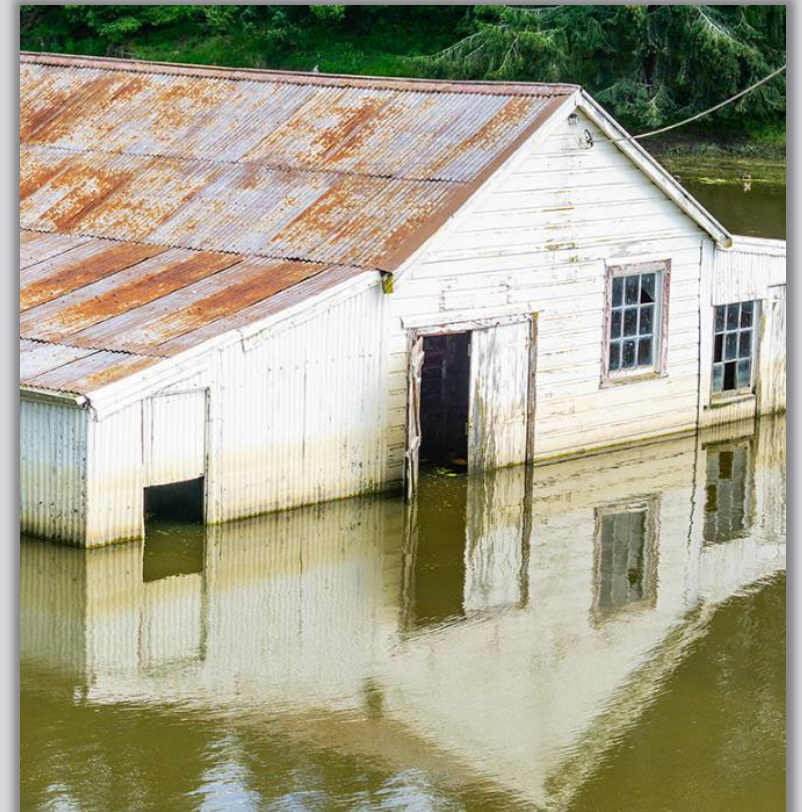
Impact

- Average farm size rose 67%, farm numbers dropped 63%.

Conversion

Climate
Change

Consolidation



Climate Change already is affecting agriculture

Resilient farming systems are flexible, diversified, decentralized, and renewable



Regenerative Ag is a Climate Solution



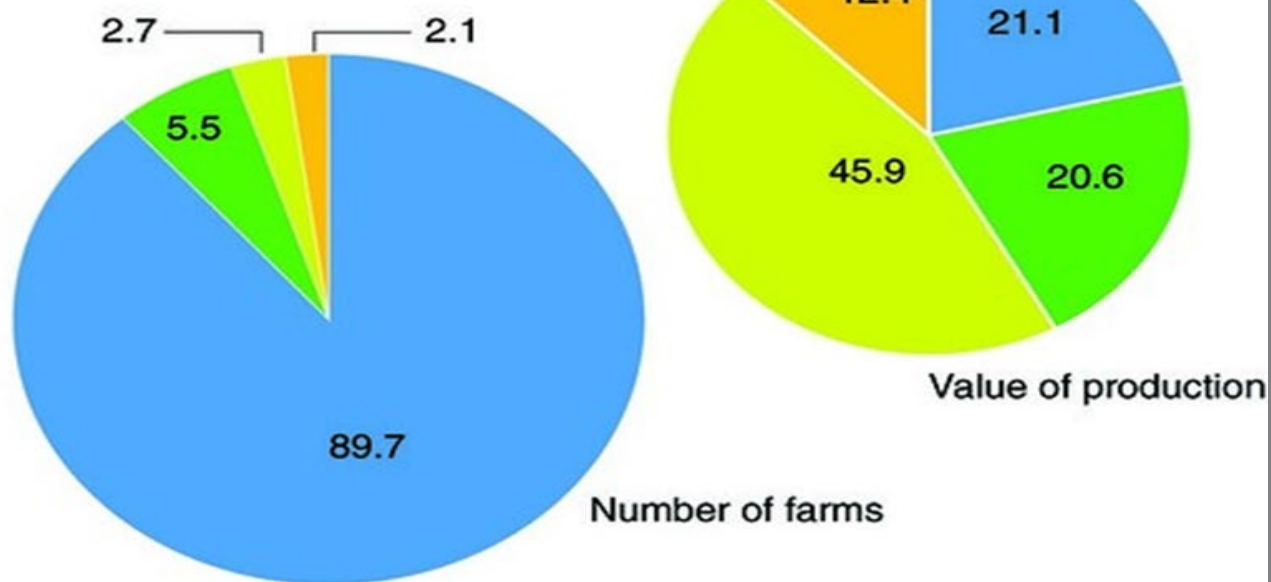
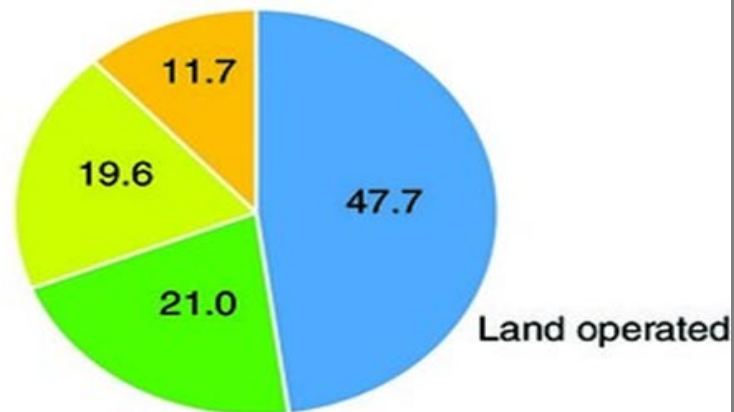
- Cover crops
- Diversified systems
- Low till/no till
- Methane digestion
- Rotational grazing

Small & Midsized Farms Contribute to their Communities but Need More Support



Distribution of farms, land operated and value of production by farm type, 2018

- Small family farms
- Mid-sized family farms
- Large-scale family farms
- Nonfamily farms



Source: USDA, Economic Research Service and USDA, National Agricultural Statistics Service, 2018 Agricultural Resource Management Survey.

Consolidation favors larger and larger farms

The top 1% of the very largest, specialized farms supply 35% of the value of farm products.

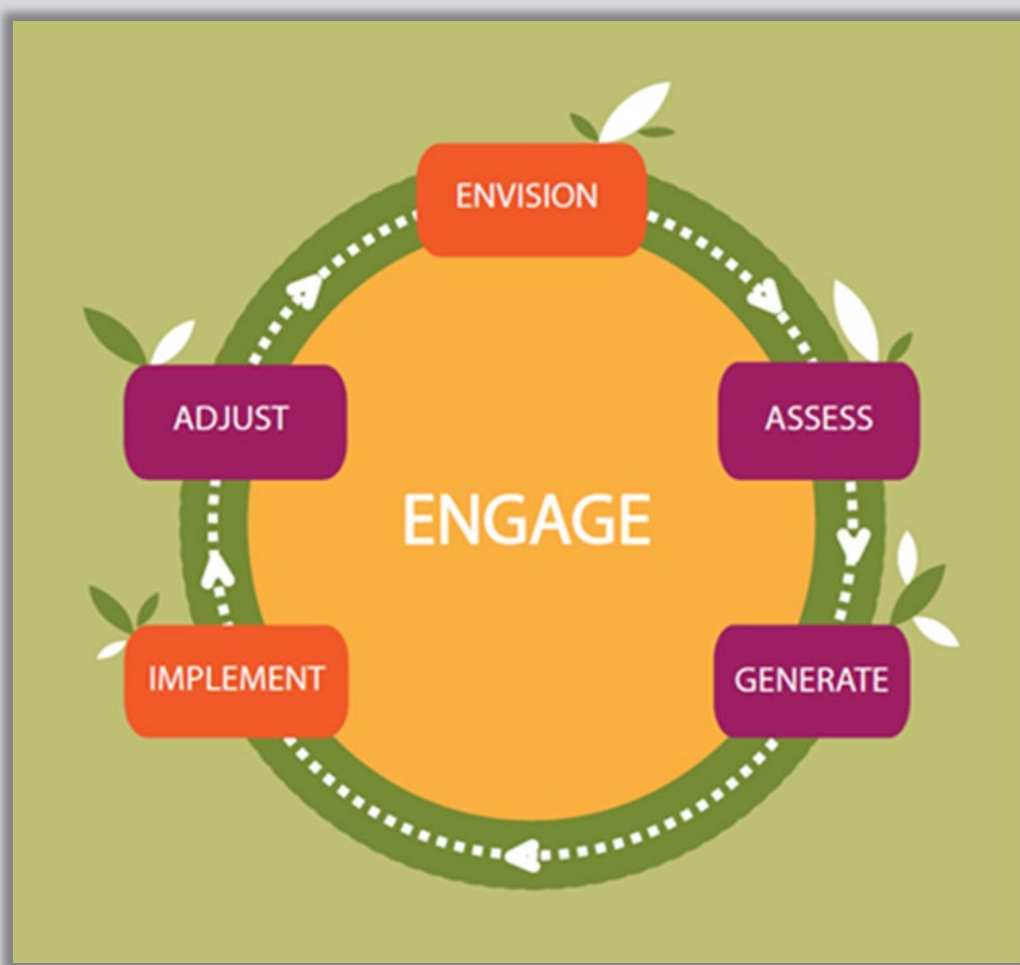


Most Farms Struggle Financially

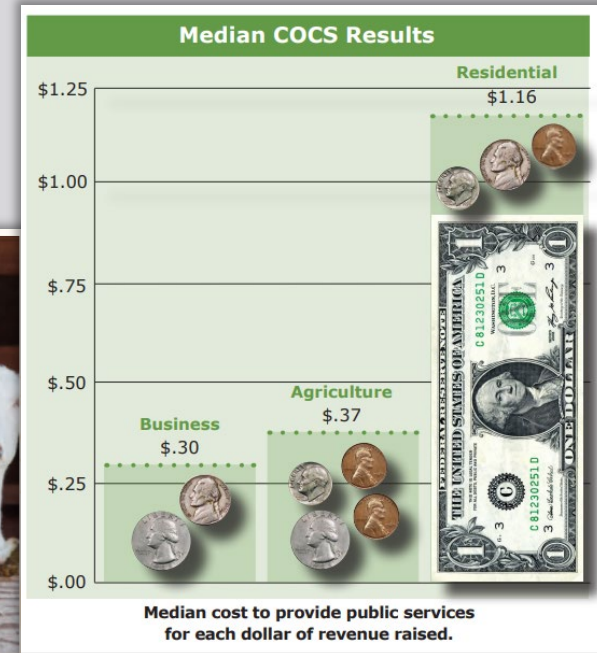
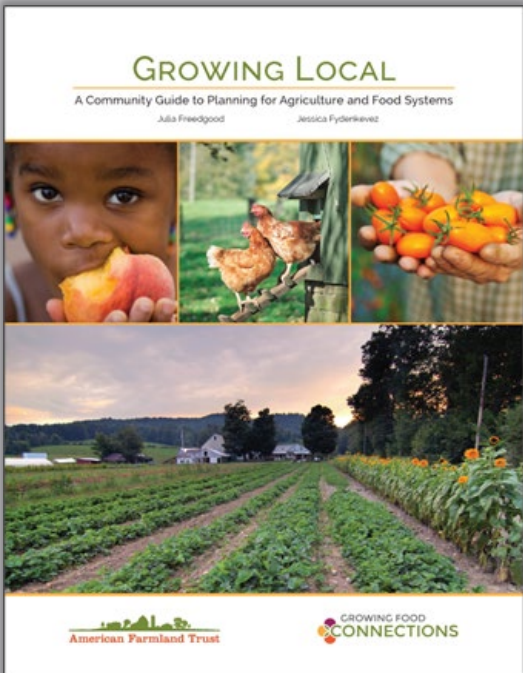
- Farmers share of the food dollar = \$.08
- Median farm income in 2020 = -\$1,198
- 96% of farm households have off-farm income which contributes an average of 82% of their total income



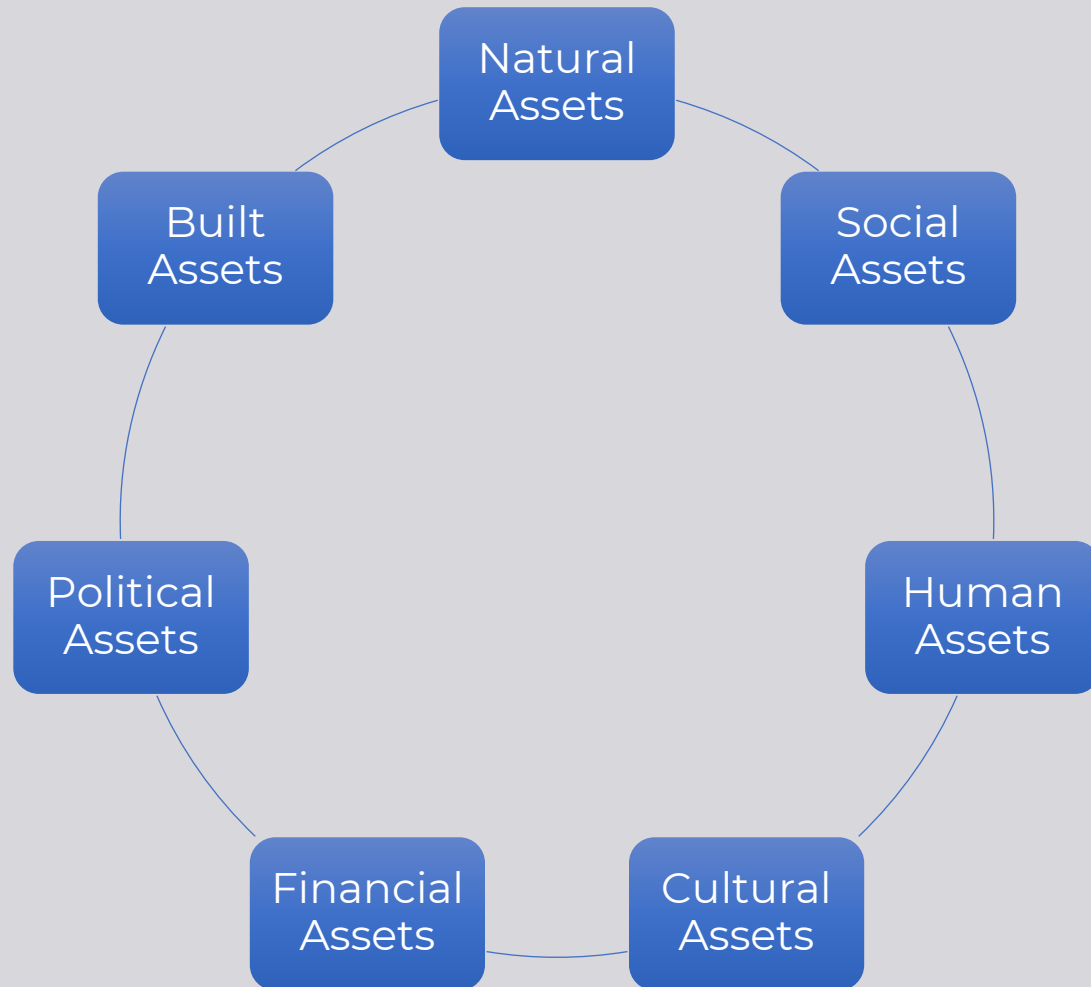
Food dollar



AFT's Approach to Planning for Ag



Community “Capitals” Framework



Community “capitals” or assets are any type of resource that can be invested, used, or saved to build community wealth.

A Couple of Examples

Intergovernmental Cooperation
in the City of Lawrence and
Douglas County, Kansas

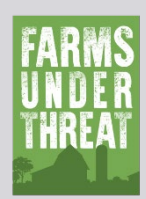


Lessons From an Agricultural
Preservation Leader: Lancaster
County, Pennsylvania

5 Principals to Guide Planning for Agriculture



1. Take a systems not a sector approach
2. Follow the community's lead—listen to farmers and ranchers
3. Lift up community assets
4. Plan with implementation in mind
5. Approach urban and rural communities differently



Planning in rural vs. urban communities

Urban

- Lots of planning
- Dedicated staff
- Diversified funding
- Regulatory fixes are “easy”
- Support from elected officials
- Committed community and government partnerships

Rural

- Little if any planning
- Limited staff capacity/funding
- Scarce resources
- Distaste for regulation
- Support from elected officials
- Committed community and government partnerships



Primary Elements



Protect
Farmland



Promote
Conservation



Support
Agriculture

Thank you!

Any questions?



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