

THE FUTURE OF SUSTAINABLE FARMING & FORESTRY IN MD

Research Supported by the
Harry R. Hughes Center
for Agro-Ecology

American Farmland Trust, Maryland Department of
Planning, and Land Stewardship Solutions LLC

UMCP Department of Agricultural and Resource Economics
Vision Forestry



WHAT'S AT STAKE

Large sectors of MD's rural economy

- Farming: \$2.3 billion sales, \$4.7 billion direct output, over 22,000 jobs, \$2.03 billion indirect and induced impacts
- Forest products: \$1.2 billion for materials, \$2.3 billion shipments, \$1.1 billion value added, \$43 million capital expenses, 10,000 jobs for \$650 m

Food security & environmental/ ecosystem services



KEY QUESTIONS

1. What's sustainability?
2. Where are farming & forestry headed under existing trends in markets, profitability?
3. Effects of environmental & smart growth policies?
4. Can policy evolve to help?



SUSTAINABLE FARMING & FORESTRY

Profitable industries that support productive, healthy soils, working landscapes, quality of water and natural resources in surrounding environment.



Taste the Grass Fed Difference



Maryland Department of Planning

METHODS

- Published & other reports, data
 - Interviews, consultations
 - Growth/ land use projections & impacts
 - Draft report
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- Stakeholder/ expert review & input
 - Final Report



Where are farming & forestry
headed under existing trends and
policies?





- Better technology, yields, info
- Commodity support/ trade
- Globalized markets
- Food Industry consolidation
- Specialized, large scale prod
- Land developed, fragmented
- Nutrient, phosphorus mgmt
- Efficiency benefits, some sectors



- Fewer MD wholesalers, retailers, direct marketing
- Less diversity in production, marketing, sales
- ↓ Costs to consumer
- ↓ Commodity Mkt shares
- ↓ Farms, farmers
- ↓ MD veges, fruit, canneries, cows, corn



MD Agriculture 1900's to 2000's: What Changes, Why?



Nutrient Management - 1987, 2012, 2014

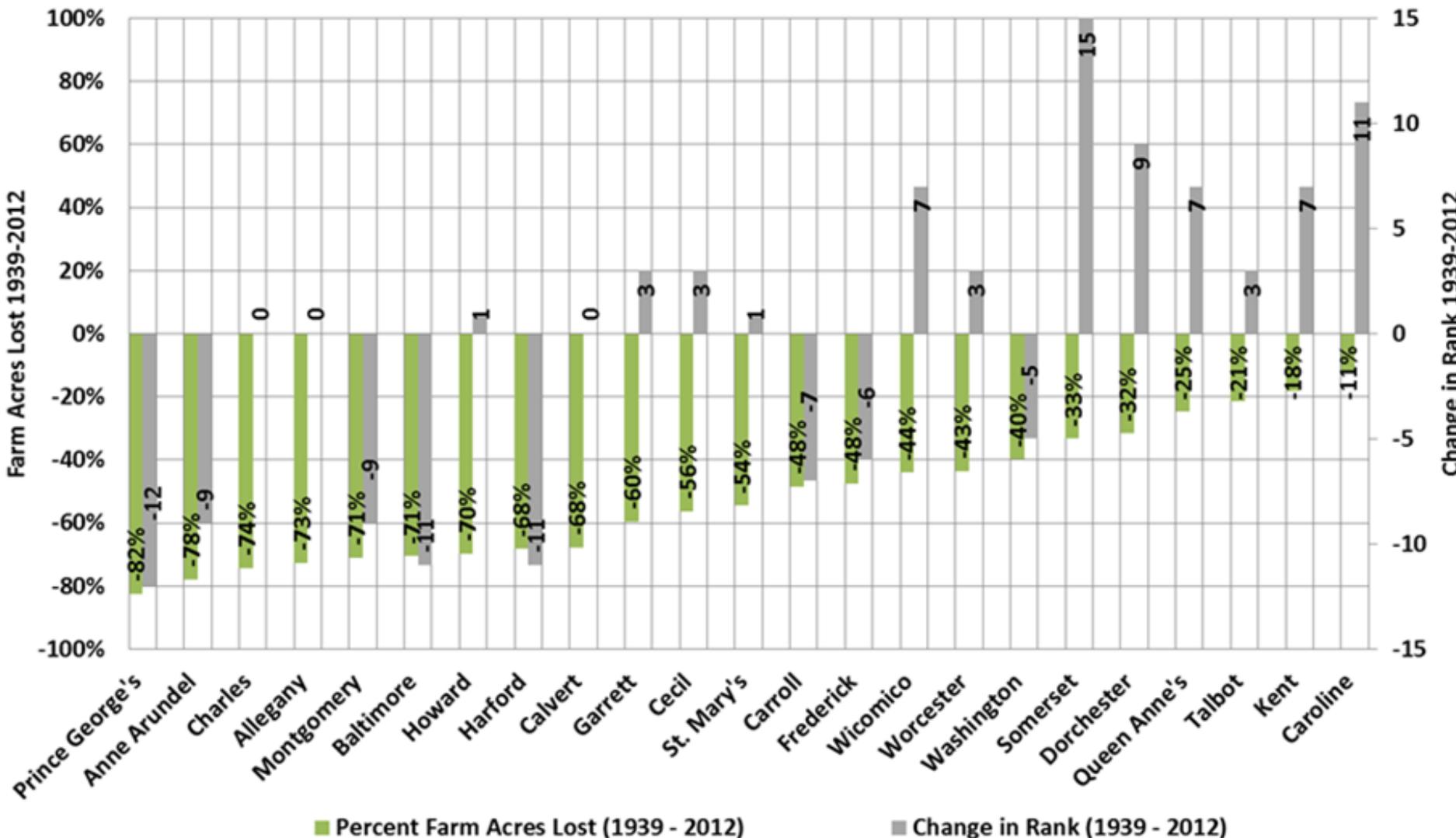


- Not caused massive farm failure
- Improved efficiency & Mgmt.
 - Pushed tech advancement
 - Cost share
 - Sufficient phase-in time to adjust

- Time and cost increase
- Contributed to loss of mid-size farm/ especially dairy
- Rigidity of regs difficult fit with diversity of conditions.
- Evolving policy = Moving goal posts

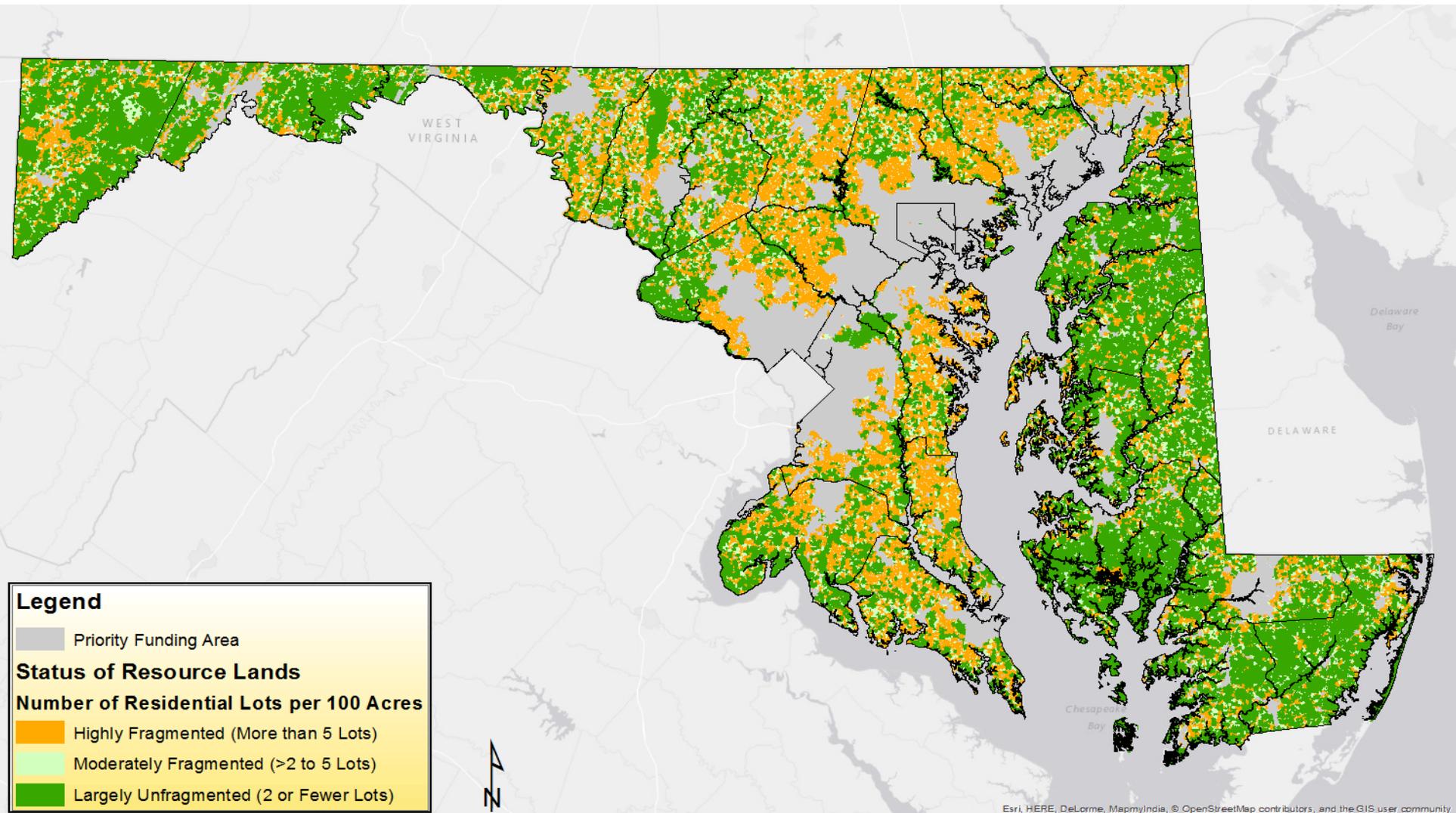


**Figure 3.2-1 Reduction in Farm Acres vs. Change in Economic Rank
Maryland Counties, 1939 - 2012**

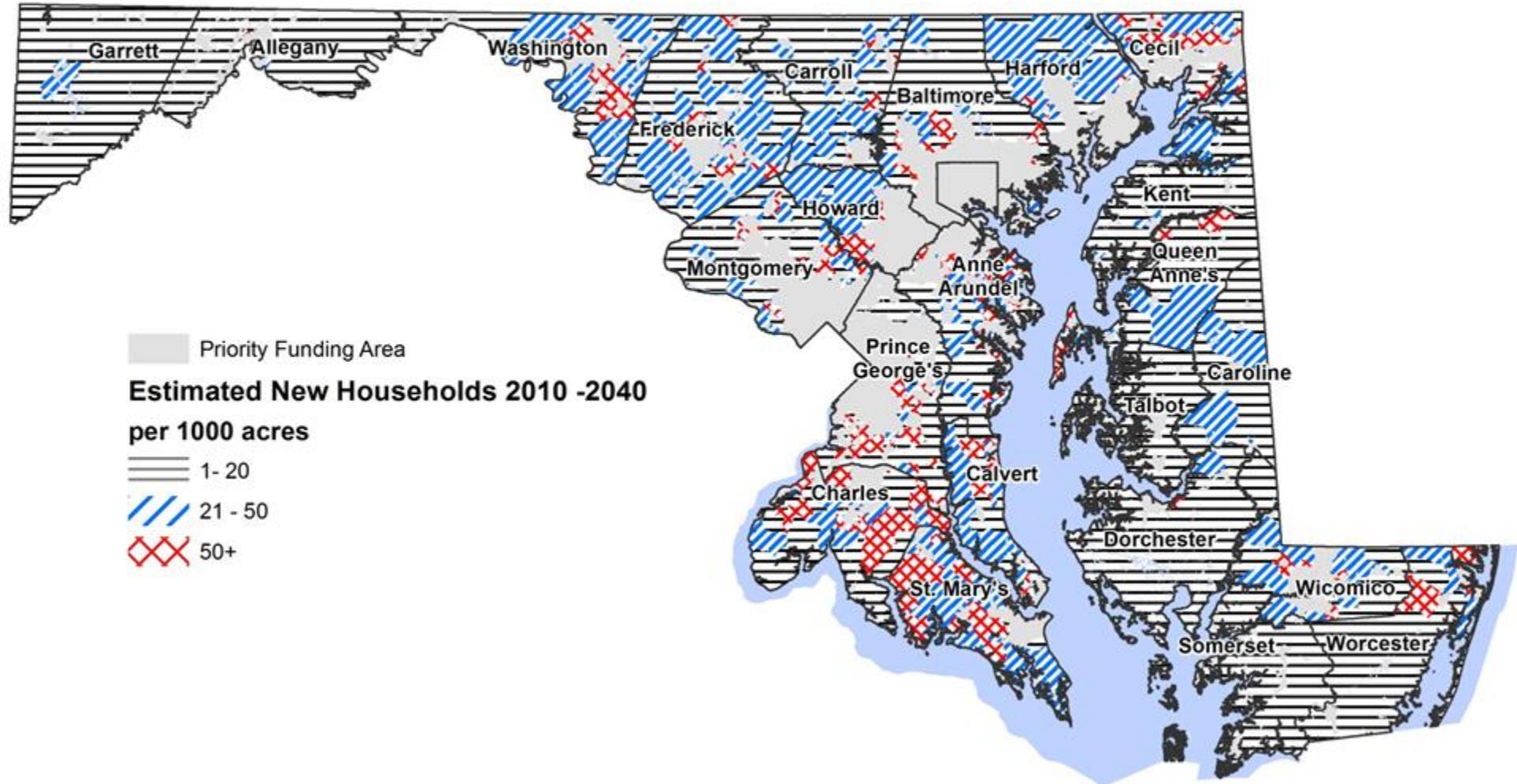


Source: Census of Agriculture. Farms are defined as any place where \$1000 or more of agricultural products are produced or sold. Economic rank is based on total sales of agricultural products.

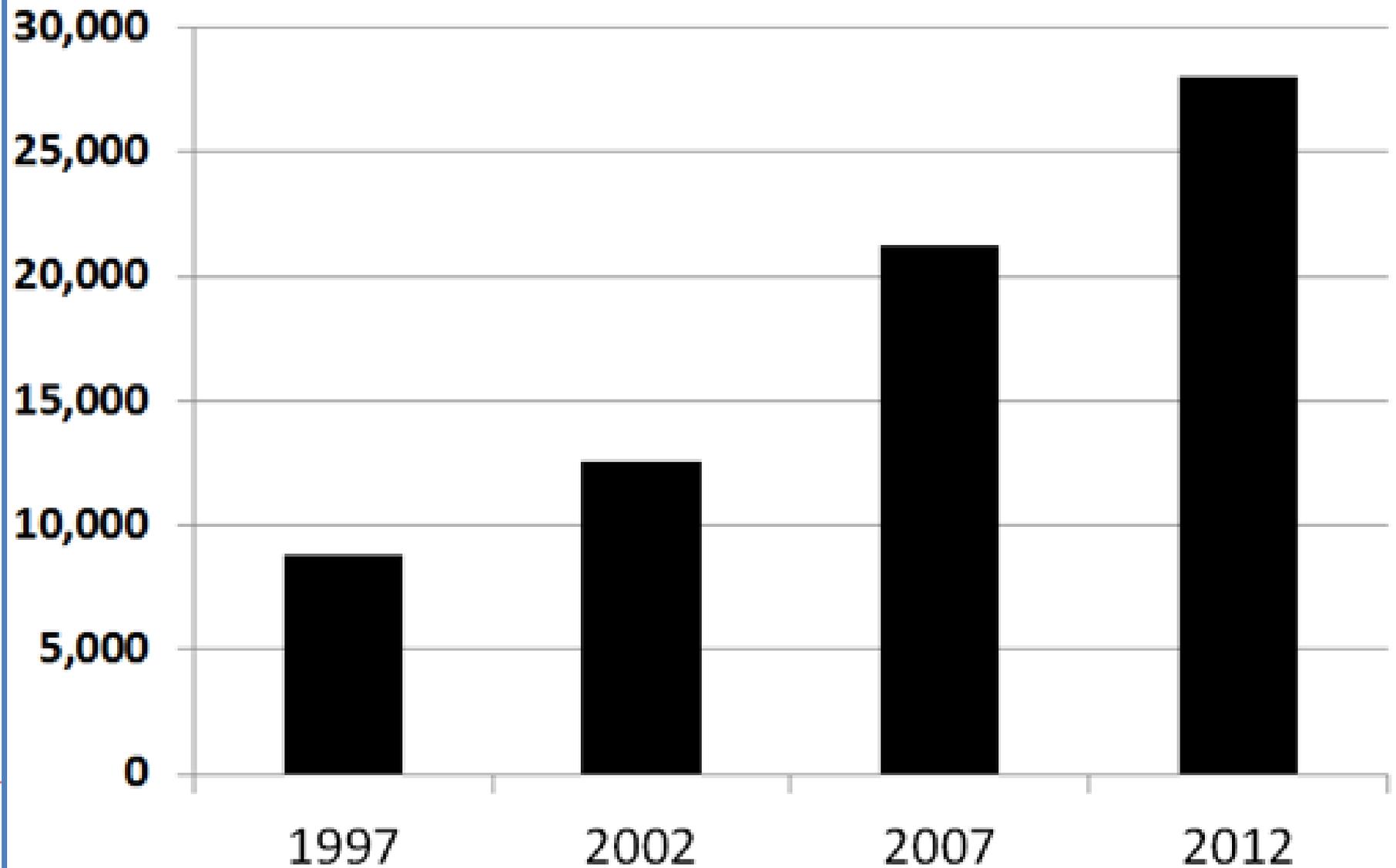
Residential Fragmentation of Rural Resource Lands, 2012



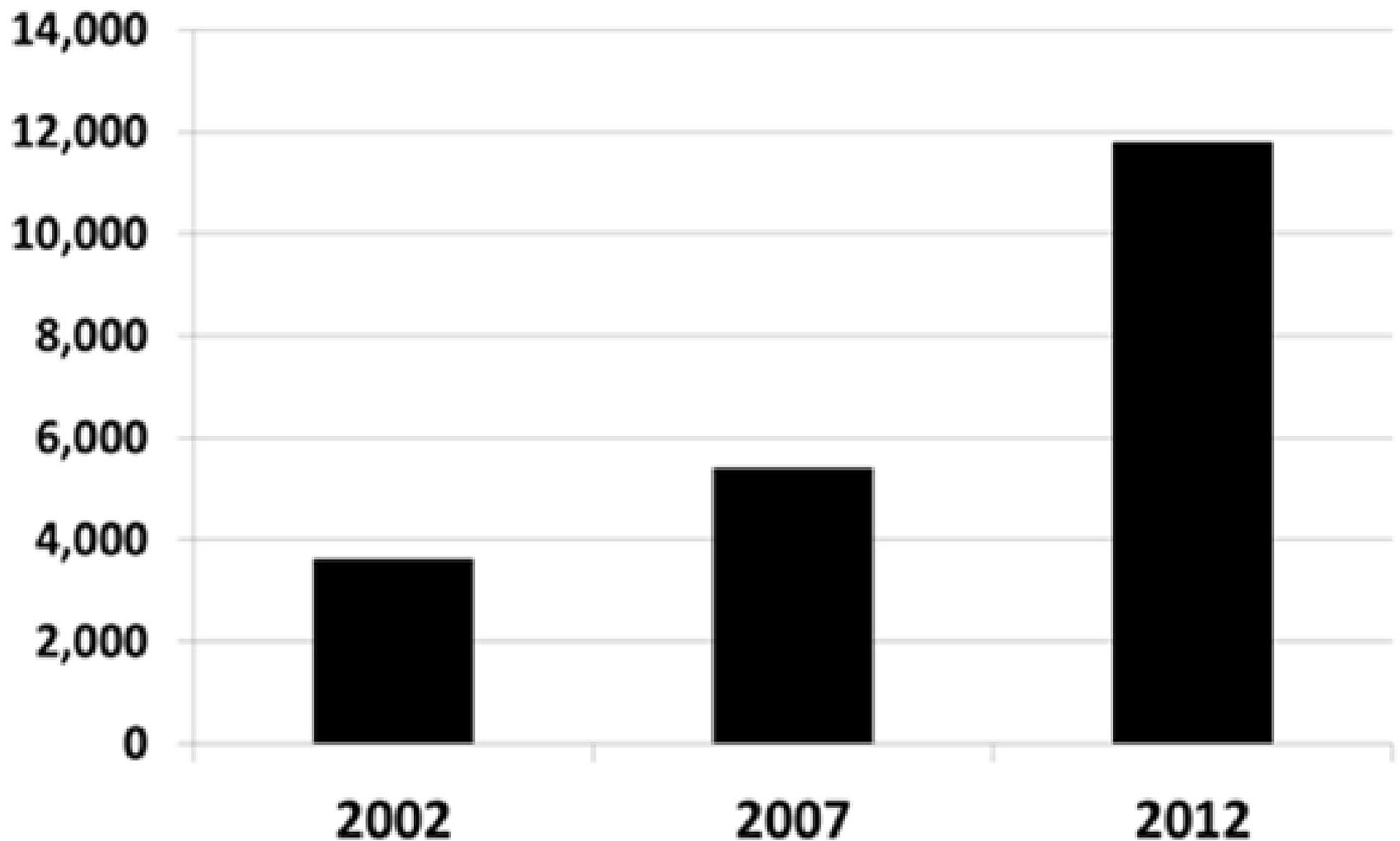
Estimated Residential Development Outside PFAs, 2010-2040, Maryland



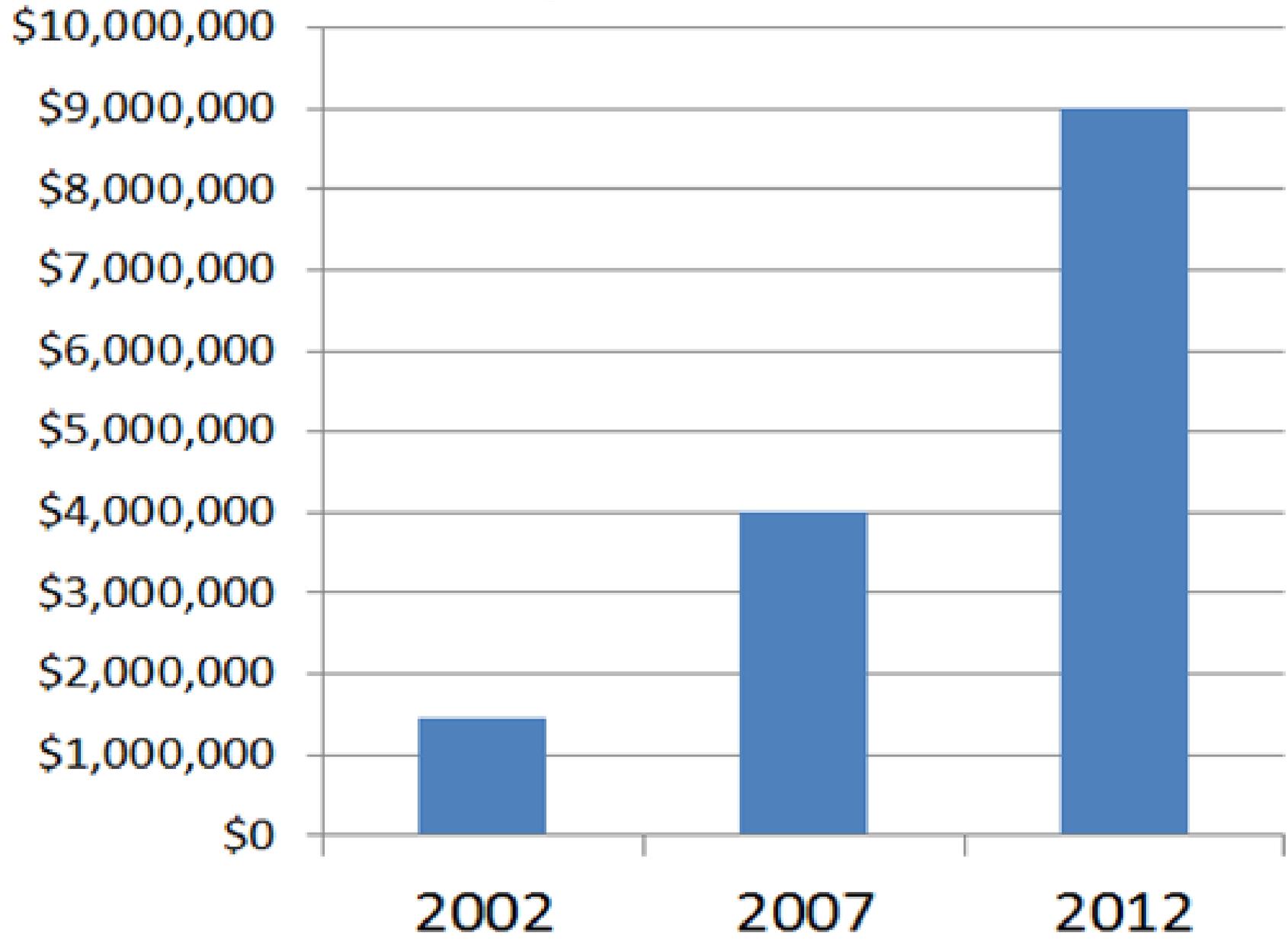
Direct Sales of Farm Products Sold in Maryland (\$1,000)



Value of Sales of Certified or Exempt Organically Produced Commodities in Maryland (\$1,000)



MD Aquaculture Sales



Maryland 2012 Census of Agriculture	Farms	Sales (\$1,000)	Rank by Sales in MD	Percent of Total Sales
Item				
Total Sales	12,256	2,271,397	(X)	100.0
Poultry and eggs	1,688	922,999	1	40.6
Grains, oilseeds, dry beans, and dry peas	3,769	716,348	2	31.5
Nursery, greenhouse, floriculture and sod	535	204,808	3	9.0
Milk from cows	463	187,497	4	8.3
Vegetables, melons, potatoes, and sweet potatoes	797	70,711	5	3.1
Cattle and calves	2,663	69,917	6	3.1
Other crops and hay	2,507	35,806	7	1.6
Fruits, tree nuts, and berries	476	20,065	8	0.9
Horses, ponies, mules, burros, and donkeys	661	13,188	9	0.6
Hogs and pigs	340	(D)	10	
Aquaculture	25	9,011	11	0.4
Other animals and other animal products	353	(D)	12	(D)
Sheep, goats, wool, mohair, and milk	795	(D)	13	(D)
Cut Christmas trees and short rotation woody crops (See 2012 Census for full description)	151	1,792	14	0.1
Tobacco	43	1,026	15	(Z)
Cotton and cottonseed	-	-	-	-

WHERE'S FARMING HEADED?

- ↑ Poultry/grains, Nursery/Horticulture, Emerging Local & Direct Market Opportunities
- ↓ Industrial livestock/ large scale commodities in fragmented landscapes

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- Environmental Regs: Industry holding its own
 - LU/ SG Policies: Helping, but not enough



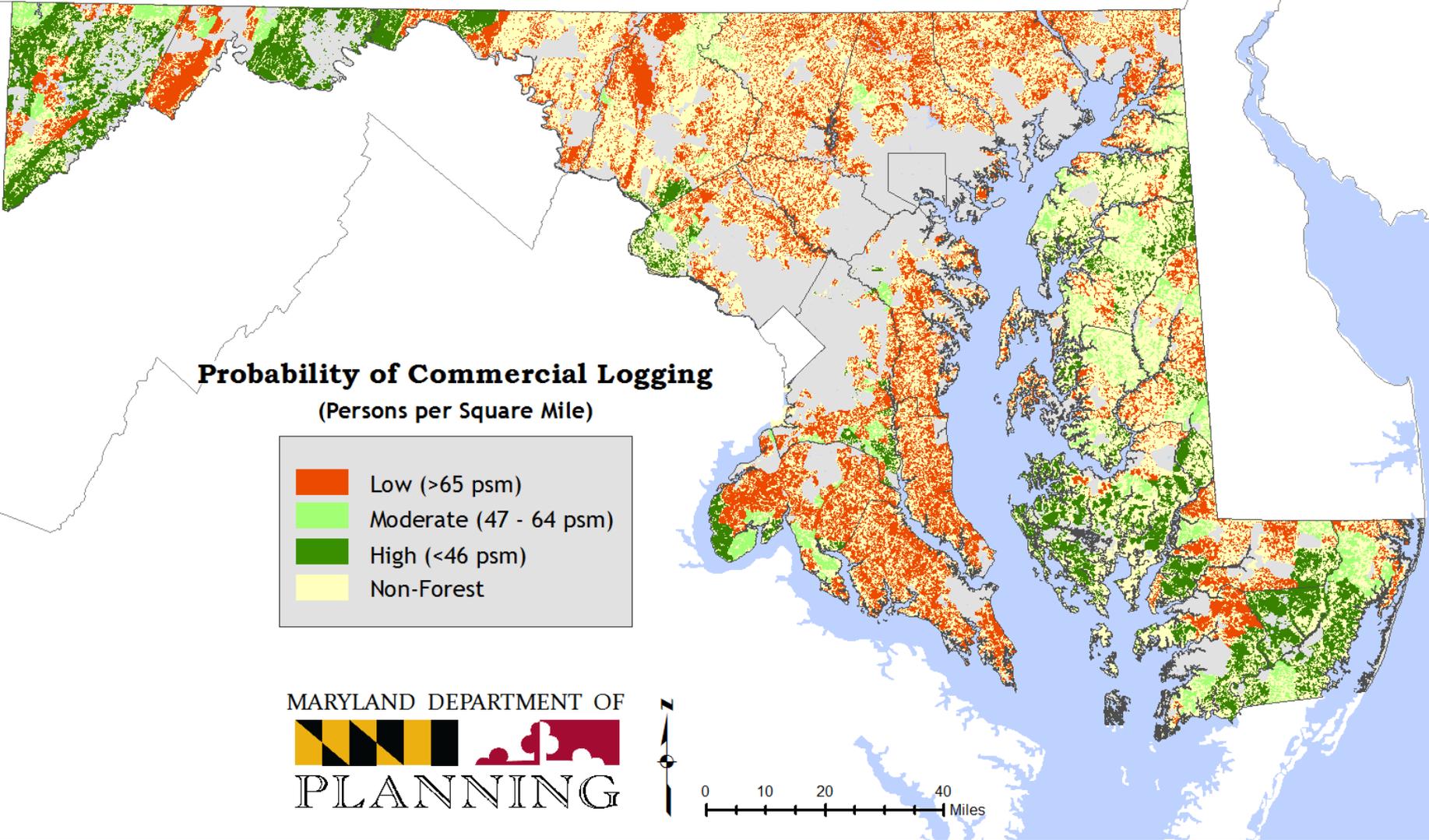
MD Forestry 1914 - 2013

MD Forestry 2013

- same acres
 - ▲ greater annual production
 - ▲ more standing timber
 - similar harvest
 - ▼ but very low % annual prod
 - ▲ MD Manufacturers 20% self sufficient
 - ▼ fewer mills, mfg plants
- Resource fragmentation
 - 80% private, 8 of 10 < 10 Ac
 - Neighbors say no
 - Harvesting, permitting more difficult
 - Unreliable supply chain
 - Local markets shrink



2010 Population Density as Indicator of Probability of Commercial Logging



WHERE'S FORESTRY HEADED?

- ↑ Land locked, fragmented supply
- ↑ Constrained by owners, neighbors, sediment/erosion control, market access
- ↓ Fewer mills, manufacturers
- ↓ Erosion of incentives for industry, investment
- ➔ Unfortunate confluence of land use & environmental policies



CAN POLICY HELP? PRIORITIES:

- Improve preservation
- Enable Private Investment with Predictable Outcomes
- Minimize Conflicts through Purposefully Planned Communities
- Evaluate & Reduce Obstacles to Local Foods
- Simplify Logging on Small Woodlots
- Expand Access to Green Building Markets
- Strategic Planning Efforts, both industries



WHAT MIGHT THE COMMISSION DO?

Ask Rural Economies Work Group, its Subcommittees to

- Consider findings & recommendations
- Recommend actions to full Commission

Consider collaboration with agencies, interests, associations to support economic development through these industries

