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Solving the Massachusetts PILOT Problem

Article 97 keeps rural Massachusetts land off the tax rolls *and* out of the housing pipeline. The PILOT Commission can fix only one of those. It should recommend fixing both.

A Parcenomics whitepaper — submitted for the record of the Governor's PILOT Commission, Executive Order 645

Patrick White · Principal Researcher, Parcenomics

www.parcenomics.com · patrickwhitestockbridge@gmail.com · 413-441-5231

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The proposition, stated first

Most of what the Commission will hear this summer is an argument about how to divide $54.5 million. This paper makes that argument too, because the division is genuinely inequitable — **fewer than one acre in five draws more than half the money.**

But the Commission should know at the outset that the argument has a ceiling, and the ceiling is low. The Department of Revenue's own estimate puts the entire aggregate shortfall at $4.5–5.5 million. Every dollar could be appropriated tomorrow and the disparity would remain, because a proportional increase applied to a disproportionate base preserves the disproportion exactly.

So this paper's principal recommendation is not about the formula at all.

Massachusetts holds 464,184 acres of PILOT-eligible land, much of it in towns with almost no other path to tax base growth. Some fraction of the perimeter of that land is already-disturbed ground fronting existing public roads — old field edges, former landings, roadside strips, parcels acquired incidentally as part of larger tracts. None of it is ecological core.

Releasing a screened portion of that edge for housing would convert untaxed acreage into permanent municipal tax base, produce housing in the communities least able to zone their way to it, strengthen rather than weaken core conservation, and cost the Commonwealth nothing.

Four things make this work, and all four already exist:

- **Proposition 2½ makes it permanent.** New growth is added to the levy limit and stays there. A PILOT dollar is an appropriation subject to next year's politics; a converted acre is capacity the town owns outright and compounds on.
- **BioMap already draws the line.** The Natural Heritage program's Core Habitat and Critical Natural Landscape layers, with connectivity modeling, exist and are currently linked to no disposal pathway at all.
- **The conservation literature already sets the buffer.** The Environmental Law Institute's synthesis of more than 1,400 studies recommends 230–300 meters from habitat edges.
- **Other states already run the swap.** New York has amended its constitution roughly sixteen times to execute equal-or-greater-value Forest Preserve exchanges. Every one ran net-additive to conservation.

No state has assembled these into a single pathway. The pieces sit in New York, Maine, New Jersey, Florida, and Massachusetts, unconnected. The Commission has the opportunity to recommend a first-in-nation framework in which **edge release funds core consolidation** — peripheral acres out, higher-value core acres in, under the existing Article 97 two-thirds vote and the Public Lands Preservation Act's no-net-loss test.

The obstacle is not cost, and it is not ecology. It is that Article 97 currently does double duty against the very communities this Commission was convened to examine — holding their land

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off the tax rolls, and simultaneously holding it out of the Commonwealth's flagship land-for-housing program.

That argument is developed in **Part IV**. Everything before it establishes why the alternative is insufficient.

Summary

The Commission has been asked whether the PILOT program for State-Owned Land works as intended, how it affects municipalities, and whether it balances the Commonwealth's conservation, biodiversity, and climate goals. This paper builds on the State Auditor's 2025 study of the program (Part II), which reached the same diagnosis by a different route and priced a per-acre floor.

This paper answers that the program works exactly as designed, that its design compensates land value and nothing else, and that the resulting geography is severe: **four western counties host 55.4% of the Commonwealth's eligible state-owned acres and receive 18.9% of the dollars.** Berkshire County alone holds 29.2% of the acres and receives 8.4% of the money.

But the paper's central argument is not about redistribution, and the Commission should be skeptical of anyone who tells it the answer is a larger appropriation.

The aggregate gap is small. The Department of Revenue's own estimate is that running the program at local tax rates would cost $59–60 million against an FY2026 actual of $54,508,272. That is a shortfall of roughly $4.5–5.5 million — eight to ten percent of the program, and six one-hundredths of one percent of the $8.1 billion in FY2026 local aid. Every dollar of it could be appropriated tomorrow and the geographic disparity would remain, because a proportional increase applied to a disproportionate base preserves the disproportion exactly.

Massachusetts is also not stingy — but the aggregate conceals more than it reveals. On a blended basis the Commonwealth pays about $117 per acre. That figure averages 178 acres of Suffolk County land at $5,642/acre with 135,417 acres of Berkshire forest at $34/acre, and describes neither.

Disaggregated by land class, the program's actual behavior appears:

Seven high-value counties hold 17.8% of the Commonwealth's eligible acres and receive 54.5% of the dollars, at $359 per acre. Seven large-tract counties hold 82.2% of the acres and receive 45.5%, at $65 per acre. Berkshire and Franklin — the two counties with the largest undeveloped holdings — receive $34 and $33 per acre respectively.

This is the disparity host communities actually experience, and it is a **land-class** problem before it is a regional one. The formula pays in proportion to land value and applies a single uniform rate to every acre in the Commonwealth. Value-proportionality is a defensible basis for compensating a developed parcel in a city. It is the wrong basis for a twenty-thousand-acre

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forest, because the burden that forest imposes on its host town does not scale with its assessed value.

Even so, the Commission should be careful with cross-state comparisons. Measured like-for-like against comparable land, Massachusetts still pays **more** than the states most often held up as models: Berkshire's $34 per acre against Minnesota's $5.281 acquired-natural-resources floor is roughly six times higher. Any recommendation framed as "pay more, the way other states do" will not survive contact with the numbers.

What those states do differently is not pay more. It is classify. Minnesota sets distinct rates by land category — a flat $3.087 per acre for tax-forfeited and other Department of Natural Resources land, and the greater of $5.281 per acre or 0.75% of appraised value for acquired natural resources land. Wisconsin, Michigan, and Pennsylvania likewise use per-acre bases for undeveloped holdings. Massachusetts uses one value-proportional rate for everything it owns.

The real finding is structural, and it connects two problems the Commonwealth currently treats as unrelated.

Article 97 of the Amendments to the Massachusetts Constitution does double duty against rural host communities. It holds conservation land off the local tax rolls, which the PILOT program partially and unevenly compensates. And it holds that same land out of the Commonwealth's flagship land-for-housing program: the Affordable Homes Act §122 guidance is explicit that eligible surplus land is *all state-owned land not subject to Article 97*. State Land for Homes has advanced roughly 700 acres toward 5,600+ housing units — courthouses, parking lots, a former group home, a university campus. Institutional surplus, concentrated where the institutions are, which is east.

So the counties holding 55.4% of the eligible acres are structurally excluded from the state's principal mechanism for converting public land into taxable housing, by the same constitutional provision that makes their land untaxable in the first place.

That is the connective tissue, and it points to a reform the Commission has not been asked to consider.

This paper therefore proposes two independent tracks, not a sequence.

Track A fixes the formula. It is bounded — the entire prize is $4.5–5.5 million, it is zero-sum among municipalities, and it requires legislation or appropriation.

Track B grows the base. It is unbounded, positive-sum, permanent under Proposition 2½, and it takes nothing from any other community. Its core is a screened edge-release program: peripheral, already-disturbed conservation land adjacent to existing roads, released for housing under ecological screening, with proceeds and land swaps directed to consolidating ecological cores.

Track B is the more important of the two, and it is the one no state has built. The Commission has the opportunity to recommend a first-in-nation framework.

Neither track depends on the other. The Commission should not treat Track A as a prerequisite.

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A note on the scope of this paper

The comparative section (Part V) rests on **nine programs verified against current primary sources** — New York, Minnesota, Michigan, Wisconsin, Pennsylvania, Connecticut, Vermont, Maine, and the federal PILT program — **not on fifty.**

Approximately 28 states could not be re-verified. The most complete existing fifty-state inventory is a 1996 New York Department of Taxation and Finance survey built on 1990 and 1994 data, and it is no longer safe to republish: for at least one state whose mechanism it recorded, no current authorizing statute could be located at all, suggesting repeal in the intervening thirty years.

We have therefore published depth rather than breadth, and marked the unverified states as unverified in Appendix B rather than carrying them forward as current. A commissioner who checks their own state will find it either accurate as of 2026 or labeled as unconfirmed. A complete fifty-state statutory verification is a defined piece of work and is listed among the open issues in Appendix C.

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Part I — Three concepts the rest of this paper rests on

1. The formula compensates value. The cost scales with acres.

A municipality's PILOT payment is its share of statewide eligible land value multiplied by the annual appropriation:

> Payment = (municipal eligible land value ÷ statewide eligible land value) × appropriation

Using the Commission's own worked example for Athol — $10,922,000 in eligible land value against $5,132,068,700 statewide, times a $53,000,000 General Appropriations Act line — the formula pays a uniform **$10.33 per $1,000 of assessed land value** to every municipality on the $53.0 million it distributes. In FY2026 a further $1,508,312 of the $54.5 million held 188 towns at their FY2025 payment.

That figure deserves attention. The program is already tax-rate-like in its internal logic. It is not a grant and not discretionary aid; it is a flat statewide levy-equivalent, set below what any actual municipality charges, applied to a land valuation the municipality did not perform and cannot appeal.

What the formula does not contain is anything about cost. The Commission's own materials confirm that the distribution does not take into account local property tax rates, municipal budgets, population, municipal service costs, or ecological or recreational value.

But the obligations state-owned land imposes on a host community scale with **area and frontage**, not value: road miles maintained to reach and border it, road-stream crossings and culverts carrying water off it, emergency medical and fire response into it, search and rescue on it, wildfire and invasive-species management at its edges. In a county where the Commonwealth holds 135,417 acres of low-value forest, cost and compensation run in opposite directions.

This is the largest unquantified term in the entire policy debate, and it is unquantified because no one has been asked to measure it. **The Commission should direct that a municipal service-cost study for host communities be conducted before any formula change is recommended.** This paper publishes no service-cost estimate and will not; asserting a number we cannot source would reproduce the error we are documenting.

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1a. One rate is applied to two entirely different kinds of land.

The consequence of value-proportionality is not evenly distributed. It falls on a specific land type.

	Counties	Acres	Share of acres	Dollars	Share of dollars	Aggregate $/acre
High-value ($200+ an acre)	7	82,758	17.8%	$29,719,443	54.5%	$359
Large-tract (<$200/acre)	7	381,427	82.2%	$24,788,829	45.5%	$65

High-value: Suffolk, Nantucket, Essex, Barnstable, Dukes, Norfolk, Middlesex. Large-tract: Plymouth, Worcester, Bristol, Hampshire, Hampden, Franklin, Berkshire. Classification is by aggregate reimbursement per acre, derived from the Commission's own FY2026 table.

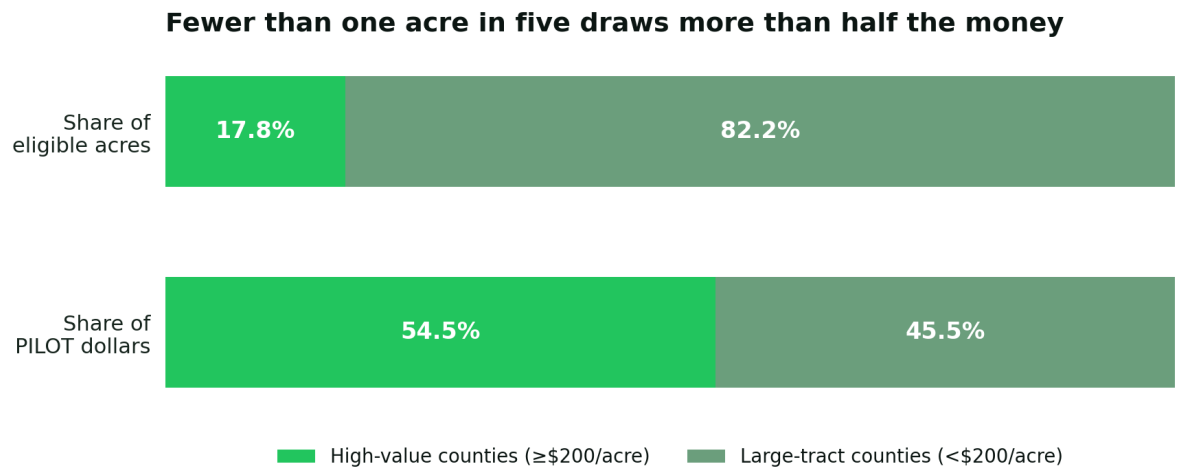


Figure 1. Share of eligible acres against share of PILOT dollars, by land class.

Fewer than one acre in five draws more than half the money. Barnstable sits at $202.39 an acre, so that holds only at cuts up to $202; at a $205 cut the high-value group is six counties with 12.1% of acres and 44.7% of dollars. The disparity holds at every cut.

The formula pays on land value only; in the Division of Local Services' words, "PILOT payments only cover the land itself and not buildings, roads, or other structures." Urban and suburban facility land and coastal land therefore draw shares far beyond their acreage. In FY2026 the 25 municipalities paid the most per state acre hold 0.4% of eligible acres (1,756 acres) and receive 10.4% of the dollars ($5.7 million).

This is the disparity host communities actually experience, and stating it as a land-class problem rather than a regional one matters for two reasons. It is more accurate — Plymouth and Worcester sit on the large-tract side of the line, and Dukes and Nantucket on the high-value side, so this is not a map of east against west. And it identifies the design defect rather

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than the political geography: **the Commonwealth applies a single value-proportional rate to a portfolio containing both urban parcels and twenty-thousand-acre forests.**

Value-proportionality is defensible for the first. For the second it measures the wrong thing entirely, because a forest's burden on its host town — road frontage, drainage structures, emergency response, wildfire exposure — has almost no relationship to its assessed value.

Every comparison state has reached the same conclusion and acted on it. Minnesota sets a flat $3.087 per acre for tax-forfeited and other DNR land and the greater of $5.281 per acre or 0.75% of appraised value for acquired natural resources land. Wisconsin pays the greater of a local-tax-rate calculation or $3.50 per acre. Michigan pays $4.00 per acre indexed. Pennsylvania pays $7.20 per acre.

Massachusetts is the outlier not in what it pays but in refusing to classify what it owns.

1b. One fire, and the part of it somebody counted

On the evening of November 18, 2024, a fire started on East Mountain in Great Barrington — on state forest land. The Butternut Fire burned close to 1,700 acres and was not declared controlled for nearly two weeks. It required roughly 100 firefighters a day cutting break lines in steep terrain, water drops from State Police and Massachusetts National Guard helicopters, and a multi-agency command post at the former fairgrounds. The town declared a local state of emergency. Fire officials believed the ignition was accidental and human-caused, possibly an abandoned campfire.

Great Barrington's fire chief later told *The Berkshire Eagle* that the fire cost the town **$34,937.83** — overwhelmingly firefighter salaries and overtime, with just over $4,000 in equipment. On state reimbursement, he said the town was still working on it, and that there was no guarantee.

That figure is not what the fire cost. It is the fraction of the cost that one municipality happened to tally.

The response drew departments from Egremont, Sheffield, Adams and Lee, from elsewhere in Berkshire County, and from out of state. Every one of those departments absorbed its own payroll, apparatus, and fuel. None of it was published. Neither was anything else the fire imposed on the region: two weeks of smoke drifting across South County and over a senior housing complex sitting directly below the mountain, whatever that did to people with respiratory conditions, and whatever it cost businesses in a resort economy during it.

Three things follow, and each is a finding rather than an estimate.

First, the burden of an incident on state-owned land is regional, but the compensation is parcel-bound. Mutual aid is how rural Massachusetts fights a fire of this size. Egremont and Sheffield sent crews to a fire on Commonwealth forest and receive nothing under any PILOT formula, because the acres are not in their towns.

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Second, the counted fraction is small and the uncounted remainder is unbounded. We do not know what the Butternut Fire cost. Nobody does. That is the point.

Third, the cost is concentrated in exactly the communities the formula pays least. Great Barrington sits in the county reimbursed at $34 an acre.

1c. The Butternut Fire was the near miss in a season that had hits

The Butternut Fire damaged no homes and injured no one. That is the right place to start the next question rather than the last one, because the same season answered it elsewhere.

The Commonwealth's own account of the 2024 fire season, published jointly by the Department of Conservation and Recreation and the Department of Fire Services, reports that during the fall of 2024 **more than 660 wildfires burned about 4,000 acres, damaging or destroying seven homes and more than 40 outbuildings, and threatening more than 550 homes.**

The scale of the departure is not subtle. DCR reports wildfire occurrence rose roughly **1,200 percent** during October and November against a normal expectation of about fifteen brush fires in October and twenty in November. The National Weather Service issued **fourteen red flag warnings for Massachusetts in November 2024 — an all-time monthly record.** More acreage burned in those two months than in 2022 and 2023 combined. And the state's chief fire warden noted the obvious about causation: with no lightning in the region during those months, every one of those fires was started by a person.

The drought did not end with the season. By early 2025 the state had logged dozens of wildfires before spring, with officials noting the fall's dry fuels had never recovered.

Three structural facts follow, and together they are the reason this belongs in a PILOT paper rather than a climate paper.

**First — and this is the fact the Commission should sit with — local fire departments have jurisdiction over wildland fires in Massachusetts* even on state-owned land.* DCR's Bureau of Forest Fire Control provides specialized wildland mutual aid, but it is not the responding authority, and its standing capacity is modest: on the order of thirteen district fire wardens and roughly four dozen seasonal firefighters statewide. The Commonwealth owns approximately 706,000 acres. The first-response fire service for those acres is the host municipality, staffed in much of western Massachusetts by volunteers, and compensated for the privilege at $34 an acre in Berkshire County.

Second, the risk is rising and the formula cannot see it. The Massachusetts Climate Change Assessment — the Commonwealth's own document — names increasing wildfire frequency among its forest health impacts, and separately names *increase in demand for state and municipal government services, including emergency response*, among its governance impacts. The state has therefore already concluded, in writing, that hosting forest will cost municipalities more over time. The PILOT formula is indexed to Equalized Valuation. It responds to what land

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is worth. It has no term that responds to what land costs, and no mechanism by which a rising risk profile changes a payment.

Third, a fire that does reach homes takes the host town's tax base with it. This is the compounding case, and it inverts the program's logic. When a wildfire originating on untaxed state land destroys taxable structures in the host municipality, the town absorbs the suppression cost, loses the assessed value permanently or for years, and receives no adjustment of any kind — because its PILOT payment is a function of the state's land value, not of anything that happened to the town. Seven Massachusetts households learned in the fall of 2024 that this is not hypothetical. Great Barrington did not, and the difference was wind, terrain, and roughly 100 firefighters a day.

A note on figures: reported 2024 statewide totals vary by source and by whether the count covers the fall season or the calendar year — DCR and DFS report about 1,300 wildfires for 2024 overall and about 660 during the fall period, and 2023 totals are reported in the range of roughly 1,300 to 1,700 acres. We use the fall-season figures, which are the ones the agencies published jointly and which bracket the Butternut Fire.

Regional planning staff reviewing an earlier draft of this paper raised the same example unprompted, and added categories this paper had not: that heavy outdoor recreation on state land raises emergency call volume in towns whose fire and ambulance services are substantially volunteer, that host towns purchase and maintain specialized rescue equipment such as all-terrain vehicles for backcountry response, and that training capacity is a binding constraint even where regional homeland security funding covers part of it. They also noted that in 2020 Berkshire and Franklin Counties together recorded on the order of 134 tree, brush, or grass fires, and that the Department of Conservation and Recreation's Bureau of Forest Fire Control attributes roughly 90 percent of such fires to human activity. *We report those last two figures as supplied to us and have not independently verified them; they are cited here to illustrate the category, not as findings of this paper.*

2. Share erosion is automatic, directional, and permanent.

Because the appropriation is fixed before the distribution runs, the program is zero-sum by construction. One municipality's gain in share is another's loss. A town whose eligible land value rises 4% in a year when statewide value rises 6% receives a smaller share, despite its own land having appreciated, and unless the appropriation grows enough to cover it, *less money than the year before*. That happened to 273 towns in FY2018 and 75 in FY2020; since FY2026 a hold-harmless has stopped it. Nothing in that outcome reflects a judgment that the town needs less. It is arithmetic.

The framework re-indexes every municipality's base value to its Equalized Valuation on a two-year cycle. Land values in the eastern half of the Commonwealth have grown faster than in the west for the entire life of the current system — the Commission's own valuation maps make the point in two slides. Faster appreciation elsewhere therefore transfers share away from the west at every reset: the four western counties' share of eligible value fell from 19.86% in FY2020 to 18.51% in FY2026 while their share of acres held at about 55%. The gain went to

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Barnstable, Dukes and Plymouth; Middlesex, Norfolk and Suffolk lost share too. The transfer requires no vote, appears in no line item, and is invisible in year-over-year payment figures because the appropriation has grown fast enough to mask it.

The Commission's appendix demonstrates the mechanic. Between FY2017 and FY2026, Pittsfield's payment rose 61.9% and Greenfield's 70.5%, while Holyoke's rose 176.0%. All three gained dollars. Only one gained share. In a fixed-pool program, only share is real.

The State Auditor's study recommends the discipline that prevents this: grow the appropriation at least by the average change in state-owned land values.

3. Article 97 does double duty.

Article 97 requires a two-thirds roll-call vote of both legislative branches to dispose of or change the use of conservation land, reinforced by the 2022 Public Lands Preservation Act's no-net-loss requirement (M.G.L. c.3 §5A). It is a strong and, in this paper's view, worth-keeping protection.

It also produces a consequence nobody designed. Article 97 land is untaxable, so the host town depends on PILOT. Article 97 land is *also* excluded from State Land for Homes, so the host town cannot convert any of it to taxable housing. The town gets the fiscal burden of hosting and access to neither remedy.

The exclusion is not incidental. The §122 surplus-land guidance states that all state-owned land *not* subject to Article 97 is eligible to be declared surplus, and the June 2025 inventory release confirms the review exempted protected open space, wetlands, and flood plains outright.

The result is a program that distributes housing-development opportunity in inverse proportion to conservation-land hosting. This is worth stating precisely because it is not a criticism of State Land for Homes, which is doing what it was designed to do. It is an observation that the design leaves out exactly the communities this Commission was convened to examine.

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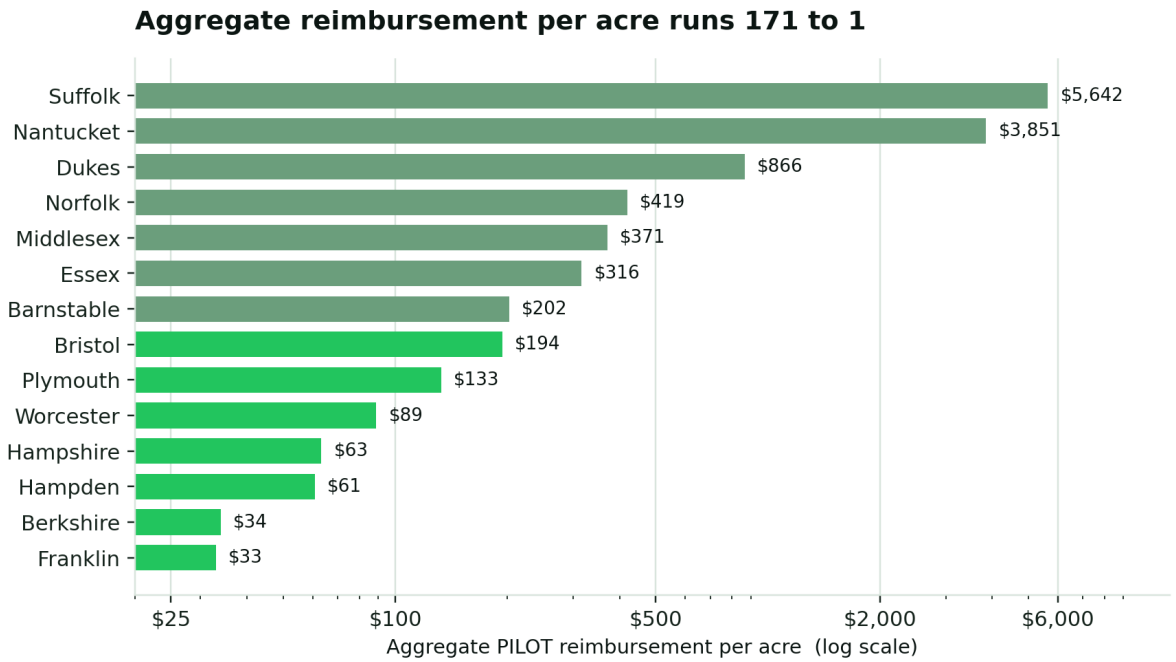
Part II — What the money actually looks like

The distribution

County	Acres (FY26)	PILOT (FY26)	Aggregate $/acre	As published	Share of acres	Share of dollars
Suffolk	178	$1,004,212	$5,642	$4,885	0.0%	1.8%
Nantucket	89	$342,747	$3,851	$3,862	0.0%	0.6%
Dukes	5,462	$4,729,800	$866	$1,394	1.2%	8.7%
Norfolk	9,897	$4,145,898	$419	$285	2.1%	7.6%
Middlesex	23,546	$8,729,394	$371	$722	5.1%	16.0%
Essex	17,109	$5,408,750	$316	$3,105	3.7%	9.9%
Barnstable	26,477	$5,358,642	$202	$1,879	5.7%	9.8%
Bristol	19,428	$3,766,930	$194	$272	4.2%	6.9%
Plymouth	32,234	$4,277,570	$133	$1,062	6.9%	7.8%
Worcester	72,440	$6,441,593	$89	$280	15.6%	11.8%
Hampshire	33,619	$2,129,145	$63	$110	7.2%	3.9%
Hampden	23,787	$1,447,908	$61	$89	5.1%	2.7%
Berkshire	135,417	$4,597,030	$34	$47	29.2%	8.4%
Franklin	64,502	$2,128,653	$33	$59	13.9%	3.9%
Statewide	**464,184**	**$54,508,272**	**$117**	**$775**		

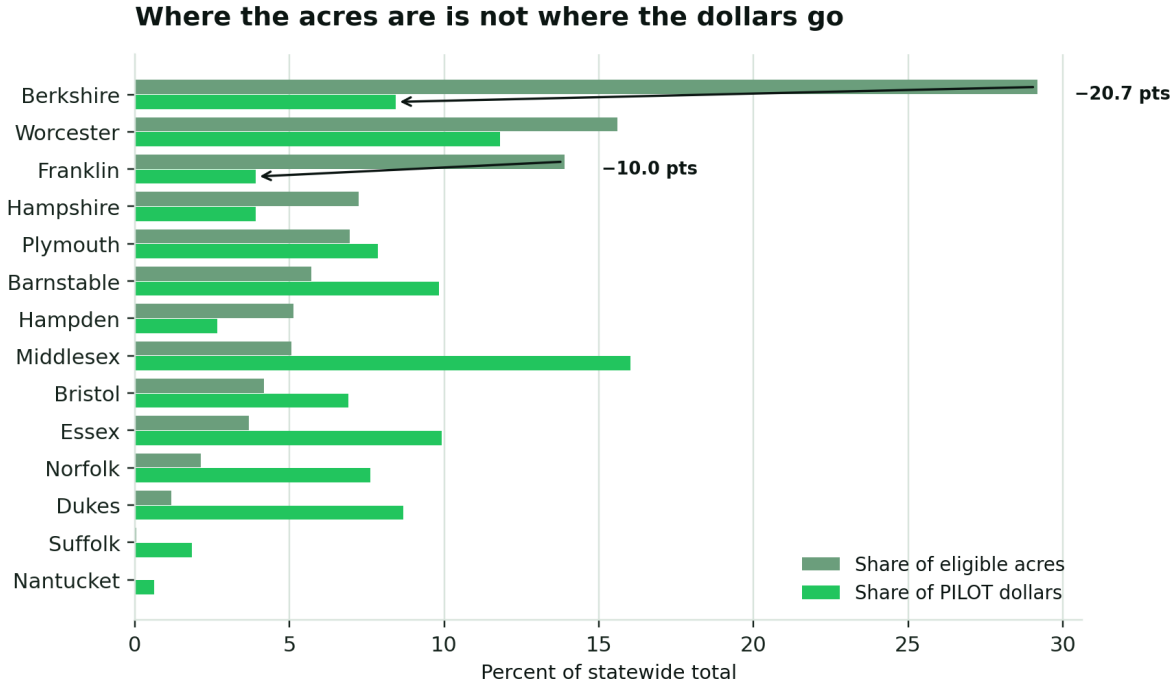
Four western counties — Berkshire, Franklin, Hampshire, Hampden — hold **55.4% of eligible acres and receive 18.9% of dollars.** Four eastern counties — Suffolk, Norfolk, Middlesex, Essex — hold **10.9% of acres and receive 35.4%.**

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FY2026. Each county's reported PILOT dollars divided by its reported eligible acres. Green = large-tract counties (<$200/acre). Note the log scale: the visual understates the true spread.

Figure 2. Aggregate reimbursement per acre by county, FY2026.



FY2026. Counties ordered by share of statewide eligible acreage. Berkshire holds 29.2% of the acres and receives 8.4% of the dollars.

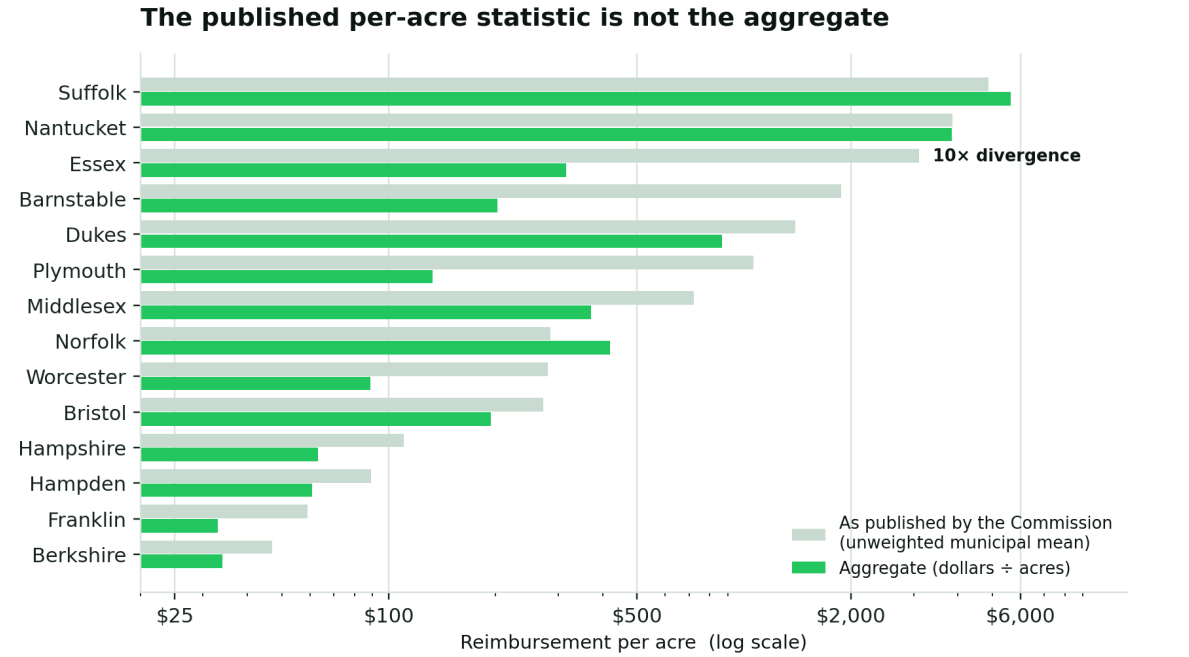
Figure 3. Share of statewide eligible acres against share of statewide PILOT dollars, by county.

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A note on the Commission's published statistic

The listening-session materials report per-acre reimbursement in a column labeled *Average of Actual PILOT Per-Acre*, characterizing the range as $47/acre in Berkshire County to $4,885 in Suffolk.

Those figures cannot be aggregate ratios. Dividing each county's own reported dollars by its own reported acres — both from the same table — produces materially different values, shown above. The published column appears to be an unweighted mean of municipal per-acre values within each county, a construction that weights a two-acre host equally with a twenty-thousand-acre host and systematically overstates reimbursement in counties containing small-acreage, high-value municipalities. The Essex divergence is tenfold: $3,105 as published, $316 in aggregate.



FY2026. The Commission's "Average of Actual PILOT Per-Acre" column compared with each county's reported dollars divided by its reported acres. The published construction appears to be an unweighted mean across municipalities, which weights a two-acre host equally with a twenty-thousand-acre host. This reading is inferred from the divergence pattern and is pending confirmation with the Division of Local Services.

Figure 4. The Commission's published per-acre column compared with each county's aggregate ratio.

Measured on aggregates, **the reimbursement spread is 171 to 1 (Suffolk to Franklin), not the roughly 104 to 1 the published range implies.**

This observation has limits. What is certain is the arithmetic: dividing the Commission's own reported dollars by its own reported acres produces the aggregate column above, and those values differ materially from the published ones. That computation is reproducible from the Commission's table and does not depend on any assumption of ours.

What is inferred is the *explanation*. We read the published column as an unweighted mean across municipalities because that construction would produce exactly this divergence pattern. We have not seen documentation of the calculation, and we have not asked the Division of

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Local Services to confirm it. A rebuild of unweighted town means from DLS FY2025 data comes within 1.5% of the published figure in four counties (Berkshire, Hampshire, Franklin and Barnstable) and misses Suffolk, Norfolk and Worcester by a third or more. If DLS computes the figure by some other method, our characterization is wrong and we will correct it — the underlying disparity finding would be unaffected, because it rests on the aggregates rather than on the published column.

This is a methodology observation, not an allegation. The underlying data are internally consistent; our concern is only that the summary statistic, however it is built, understates the disparity it exists to describe.

What Massachusetts is not

Two claims should be retired before the Commission's deliberations proceed.

Massachusetts is not underfunding the program in aggregate. DOR's own local-rate estimate implies a shortfall of $4.5–5.5 million, or 8–10%.

Massachusetts is not ungenerous by national standards — but the right comparison is like-for-like. The blended $117/acre is not a meaningful cross-state number, because it averages land classes the comparison states price separately. Measured against comparable land, Berkshire's $34/acre still exceeds Minnesota's $5.281 acquired-natural-resources floor by roughly six times, and Massachusetts pays more per acre than New York's Adirondack towns receive.

The Commonwealth's problem is not the level. It is that a single value-proportional rate is applied to a portfolio containing both urban parcels and large undeveloped tracts, that payments depend on an annual appropriation, and that concentration is nowhere recognized.

What the State Auditor found

The most thorough public study of this program before this paper came from the Office of the State Auditor. In January 2025, Auditor Diana DiZoglio's Division of Local Mandates published *Pursuing Equitable State-Owned Land Reimbursements for Municipalities*, a municipal impact study built on FY2024 data, with a public dashboard that lets any town test the numbers for itself. It deserves more attention than it has had, and this paper builds on it.

It sorted the land by what it is. At least 92% of PILOT acreage is protected: parks, forests, beaches and wildlife management areas. Towns whose state holdings are mostly protected land received a median of $110 an acre in FY2024. Towns whose holdings are mostly developed state land received $936. County averages ran from $32 an acre in Franklin to $5,504 in Suffolk. That is the land-class finding of Part I, reached by a different route: the study sorts by use, this paper by value, and both arrive in the same place.

It found where the shortfall concentrates. Of the 129 municipalities hosting more than 1,000 state acres, 97 received less than the $127 statewide median, and 80 of those 97 are in Berkshire, Franklin, Hampden, Hampshire and Worcester counties. The 32 cities and towns of the northwest host more than 116,000 protected acres, a quarter of the program's land, and

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received 5.7% of the appropriation, about $3 million. Plymouth and Savoy each host more than 10,000 acres of state forest. Plymouth received $102 an acre; Savoy received $11.

It showed how rising appropriations hid the problem. Funding rose from $30 million in FY2020 to $51.5 million in FY2024. The study's finding: the increases "masked inequities." Had FY2024 been level-funded, 143 towns would have received less.

It named what the formula leaves out: the environmental and public health value of protected land. One estimate the study cites puts the annual non-market value of the National Park system at $653 an acre.

The study made three recommendations. Each appears in Track A of this paper, and the Commission should treat the study as the starting point for all three.

1. **A conservation and recreation floor.** Supplemental payments to towns below a per-acre floor, on their protected acres only. The study priced it:

Floor per acre	Municipalities supplemented	FY2024 cost
$50	75	$5.8 million
$75	106	$12.3 million
$100	128	$20.1 million
$125	147	$28.6 million

2. **Grow the appropriation at least as fast as state-owned land values**, so that a town whose values lag is not cut by the formula.
3. **A hold-harmless**, citing the one-time hold-harmless the Commonwealth used in FY2019 and the no-decrease clause already in the Watershed PILOT statute.

The Auditor has carried this work to the Legislature. In 2023 she joined Senator Paul Mark and Representative Shirley Arriaga on H.2697, which would require the Commonwealth to reimburse the full taxable value of state land and would bar any town's payment from falling; she testified for it before the Joint Committee on Revenue.

Where this paper adds to the study. Its figures are FY2026, after the hold-harmless layer appeared. It sorts land by value as well as use, and shows how the high-value share depends on where the line is drawn. It compares Massachusetts like for like with other states' land classes. It prices the fire and emergency exposure host towns carry. And it carries the argument into Track B, growing the base at the edge, which no formula change can do. The study also flags the pressure ahead: nearly 16,000 acres entered the program between FY2019 and FY2024, 29% of them in the northwest. Unless the appropriation follows the acres, every acre added lowers the payment on every acre already held. That is the strongest case for the study's second recommendation.

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Part III — Track A: Fixing the formula

Track A is worth doing. It is also bounded, zero-sum, and — on the cross-state evidence — the track most likely to produce a formula that looks corrected without being funded.

A1. Publish the aggregate statistic. (No cost. No legislation.)

Report per-acre reimbursement as county and municipal aggregates, alongside share-of-acres against share-of-dollars, and retire the unweighted mean. This is the highest-leverage item available to the Commission because every subsequent argument runs through the number.

A2. Fund to the Department of Revenue's own local-rate estimate.

Cost: $4.5–5.5 million above FY2026. Closes the aggregate gap entirely.

Objection, which we think is correct: this does nothing about distribution. It is the cheapest lever and the least corrective, and adopting it alone would let the Commission report progress without addressing the finding that convened it.

A3. Classify the portfolio before adjusting the rate.

The single change with the largest structural effect is also the one no Massachusetts reform has attempted: **stop applying one value-proportional rate to every acre the Commonwealth owns.**

Every comparison state distinguishes land classes and sets a different basis for each. Minnesota pays a flat $3.087 per acre for tax-forfeited and other DNR land and the greater of $5.281 per acre or 0.75% of appraised value for acquired natural resources land. Wisconsin §70.114 pays the greater of a local-tax-rate calculation or $3.50 per acre. Michigan pays $4.00 per acre indexed. Pennsylvania pays $7.20 per acre across DCNR, Fish & Boat, and Game Commission holdings.

The "greater of" construction is the important one, because it does exactly what the Massachusetts formula cannot: it preserves value-proportionality where value is the right measure, and installs a per-acre floor where it isn't. A developed urban parcel clears the floor on value alone. A twenty-thousand-acre forest does not, and receives the floor instead.

The State Auditor's study has already priced a Massachusetts version: a conservation and recreation floor on protected acres, costing $5.8 million at $50 an acre and $28.6 million at $125 in FY2024 (Part II). The Commission does not need to start from Minnesota's numbers. It can start from these.

Objection: a per-acre floor is not, strictly, a payment in lieu of taxes — it compensates burden rather than foregone revenue. That objection is correct on the merits and should be met by naming the component as a burden payment rather than folding it into the value formula and hoping the distinction goes unnoticed.

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A4. Adopt a concentration adjustment — but not at Minnesota's rate.

Minnesota is the only state to have squarely legislated the concentration problem before this Commission. Its 2023 reform (H.F. 825 / 2023 Ch. 64) added per-acre supplements keyed to the share of a county's total area in PILT-eligible ownership: **+$0.185/acre where that share is 25% or more, +$0.082/acre where 10–25%.** Minnesota also codified an express statutory purpose — addressing "the disproportionate impact of state land ownership" — at Minn. Stat. §477A.10.

The principle is exactly right. The magnitude is not.

Those supplements total roughly **$1.36 million against a $48.8 million program — 2.8%.** Berkshire County's 135,417 eligible acres are 22.4% of its area, the 10–25% tier; at that rate the supplement would yield **$11,104 per year.** Minnesota identified that six counties hold 62% of its PILT acres while receiving 39% of payments, then corrected it with a payment that moves under three percent of the program.

The Commission should take Minnesota's principle and reject its scale. A statutory equity-purpose clause modeled on §477A.10, paired with a concentration supplement set at a magnitude that actually closes the gap it names.

A5. Put the hold-harmless in statute.

The Commonwealth has been appropriating to avoid year-over-year decreases without being required to. Municipalities cannot budget against a practice. Vermont's PILOT statute (32 V.S.A. §3708) contains a floor guaranteeing no municipality falls below its historical payment; Massachusetts's own Watershed PILOT already carries a statutory hold-harmless. The Commonwealth used a one-time hold-harmless in FY2019, and the State Auditor's study recommends making one permanent.

Objection: it constrains appropriation flexibility. That is the point, and it is a trade the Legislature has already made for the Commonwealth's other PILOT program.

A floor is not enough on its own. Any reform that reclassifies land or adds a per-acre component will move money, and some municipalities will move down. Those communities have already built the current payment into their budgets. Two protections should travel with any formula change: a hold-harmless applied to *the transition* and not merely to the steady state, so that no municipality's payment falls below its pre-reform level while it adjusts; and an explicit multi-year phase-in of the new formula, so that a town facing a reduction has time to absorb it through its normal budget cycle rather than in a single year. Neither is currently required by statute. Both should be, and both should be settled before a formula is chosen — not appended after the distributional tables are run and the losers start calling.

A6. Rationalize eligibility.

Approximately **241,816 acres — 34.3% of the Commonwealth's 706,000 state-owned acres — generate no payment.** The Commission's own materials conclude that current eligibility "reflects historical decisions rather than intentional policy design." The tax-status-at-

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acquisition test and the holding-agency test both fail the question of whether identical parcels are treated identically.

Objection: the cost is unquantified, and bringing ineligible acreage into the base without a corresponding appropriation increase would dilute every current recipient's share — the precise hazard this paper documents. Pricing and phase-in are prerequisites, not details.

A7. The lesson Track A must not ignore

Two states prove that formula design without funding architecture is decorative.

Connecticut enacted a genuinely sophisticated tiered PILOT in 2021 (P.A. 21-3), keyed to Equalized Net Grand List Per Capita, with a Tier 1 trigger for municipalities where the state owns more than 50% of the property. Full implementation was scored at roughly $137 million per year in additional cost. It has never been funded to the statutory formula; when the appropriation is insufficient, grants are prorated.

Michigan wrote "payment in full" into statute in 2012 (PA 603/604). House Fiscal Agency materials confirm appropriations have repeatedly been prorated below statutory levels, and that prorated payments satisfy the obligation — the appropriations act overrides the entitlement language.

For scale: Connecticut's unfunded formula gap alone is about **2.5 times the entire Massachusetts SOL PILOT program.**

The structural alternatives that do work are visible in the same evidence. **Pennsylvania** funds its per-acre payments from dedicated gaming revenue (Act 34 of 2023 raised DCNR land from $6.00 to $7.20/acre and Fish & Boat and Game Commission land from $3.60 to $7.20/acre, split three ways among county, municipality, and school district). **Federal PILT** became a mandatory entitlement in 2014 and reached $733.6 million in FY2026 — though that mandatory status expires after FY2026 and reverts to discretionary absent action, which is its own cautionary note. **Minnesota** pays from an open, non-capped General Fund appropriation.

If the Commission recommends a concentration fix delivered through a capped annual appropriation, it should expect Connecticut's result.

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Part IV — Track B: Growing the base

Track A argues about how to divide $54.5 million. Track B asks a different question: how does a town with 30% of its land area in state ownership ever grow its own tax base?

The mechanism, and why it is structurally superior

Under Proposition 2½, new growth is added **permanently** to a municipality's levy limit. It is capacity the town may levy without an override, on top of the annual 2.5% and any override, and it compounds into the base as units come online.

A PILOT dollar is an annual appropriation subject to the politics of the next budget cycle. A new-growth dollar is permanent taxing capacity the town owns outright.

This is not a marginal difference. **One acre converted from untaxed state land to taxable housing is worth structurally more to a host municipality than the equivalent PILOT increase, forever** — and it takes nothing from any other community.

It also breaks the circular trap that afflicts rural Massachusetts: infrastructure cannot be funded without new growth, and new growth cannot happen without infrastructure. Edge parcels adjacent to existing roads break the circle at exactly the point where the infrastructure already exists.

The proposal: screened edge release

The Commonwealth holds hundreds of thousands of conservation acres. Some fraction of the perimeter of that holding is already-disturbed land — old field edges, former landings, roadside strips, previously developed parcels acquired as part of larger tracts — fronting on existing town roads. Releasing a screened portion of that edge for housing would convert untaxed acreage into permanent local tax base, produce housing in the communities least able to zone their way to it, and cost the Commonwealth nothing.

The framing that matters: edge release should fund core consolidation.

This is not a proposal to trade conservation for housing. It is a proposal to trade *low-value perimeter* for *high-value core*, using mechanisms other states have already built:

- **New York's equal-or-greater-value land swap model.** Because Article XIV forbids sale, lease, or exchange of Forest Preserve outright, New York has amended its constitution roughly sixteen times via parcel-specific, voter-ratified swaps — Perkins Clearing (~8,500 acres), Keene (12 acres out, 144 in), Raquette Lake (1 out, 12 in). Every one ran **net-additive to conservation.**
- **Maine's same-region replacement mandate** (Art. IX §23), which pairs a two-thirds vote with a same-county, same-purpose replacement-land requirement.
- **New Jersey's Green Acres no-net-loss diversion regime**, requiring State House Commission approval, an ecological-impact test, and replacement land of equal or greater value.

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- **Massachusetts's own Public Lands Preservation Act** (M.G.L. c.3 §5A), which already codifies no-net-loss for Article 97 dispositions.

The screening framework is likewise already built and currently unused for this purpose. **BioMap** — the Natural Heritage and Endangered Species Program's joint product with The Nature Conservancy, updated 2022 — maps Core Habitat (~1.24 million acres) and Critical Natural Landscape with connectivity modeling. It is non-regulatory and is not linked to any disposal pathway. Priority Habitat under the Massachusetts Endangered Species Act supplies the separate regulatory screen.

For edge-depth thresholds, the Environmental Law Institute's *Conservation Thresholds for Land Use Planners* (2003), synthesizing more than 1,400 studies, recommends buffer zones of **230 to 300 meters** from habitat edges to mitigate edge effects, maintaining habitat patches larger than 55 hectares, and conserving 20–50% of the total landscape.

A defensible framework therefore looks like: protect all BioMap Core Habitat and Critical Natural Landscape, plus a 230–300 m buffer; consider for release only already-disturbed parcels outside that envelope, fronting existing public roads; screen out wetlands, priority habitat, steep slope, and connectivity corridors; route every disposition through the existing Article 97 two-thirds vote and PLPA no-net-loss test; and direct proceeds and swaps to core consolidation.

No state has assembled this. The building blocks exist separately in New York, Maine, New Jersey, Florida, and Massachusetts. No jurisdiction has combined constitutional protection, ecological core/edge screening, and edge-release-for-housing into a single pathway. Massachusetts can be first.

One barrier to this closed three weeks ago

An obvious objection to edge release is that it does not matter what the Commonwealth conveys if the receiving town's zoning will not permit housing on it. Rural districts frequently carry large minimum lot sizes and do not allow multifamily use at all.

That objection was substantially weakened on **July 9, 2026**, when the Governor signed the FY2027 budget with an emergency preamble, amending the Zoning Act (M.G.L. c. 40A) effective immediately. Four changes bear directly on edge parcels:

- **Residential use variances are now available statewide**, including in districts where local zoning does not permit the use. Previously a use variance was available only where a bylaw specifically authorized it — which, in most rural towns, it did not.
- **The variance standard fell from "substantial hardship" to "practical difficulty,"** and permit granting authorities are now directed to weigh benefits to the applicant and the public — with the public interest expressly defined to include *the production of housing* — against detriment to the neighborhood.
- **A variance now runs two years rather than one**, extendable by up to two more at the board's discretion. Conveyance, permitting, and construction on a released parcel can realistically fit inside that window; they could not fit inside one year.

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- **Zoning freezes on application, not on permit issuance**, so a project cannot be overtaken by a bylaw amendment adopted while it is pending.

The Commission should take the practical consequence seriously. **A screened edge parcel conveyed to a rural municipality can now be built for housing under a use variance even where the underlying district prohibits residential use** — and the statute now instructs the board to count housing production on the benefit side of the ledger.

The Commonwealth spent the last several years assembling the permitting tools that make edge release work. It has not yet made any land available to use them on.

The objection the Commission will hear, and the answer

The Department of Conservation and Recreation and the conservation members of this Commission will say — correctly — that intact forest is the cheapest stormwater and climate infrastructure a municipality has, that edge development is where fragmentation harm concentrates, and that a release program creates a precedent that will be widened by future legislatures.

Three responses:

First, the screening framework above is designed so that **no core tract is touched** and the buffer thresholds come from the conservation literature, not from a development proponent.

Second, the swap structure means the program is **net-additive to conservation** on the New York model, not a trade against it. If it cannot be run net-additive, it should not be run.

Third — and this is the argument the Commission should weigh most carefully — the Commonwealth's conservation and biodiversity targets are currently being financed disproportionately by a small number of rural tax bases that were never asked. A program that permanently removes parcels from both the tax base and the development base, and compensates at $34 an acre, is not a stable long-term basis for public support of conservation in the communities that host it. **Edge release, done right, is a conservation-durability measure.**

This is a contested judgment, not a finding. The Commission should hear DCR's version of it directly.

B2. A municipal fiscal impact statement at acquisition

Before the Commonwealth acquires land, disclose the permanent effect on the host municipality's tax base and PILOT position.

Objection: friction in acquisition at a moment when climate and biodiversity targets require speed. *Counter:* the current practice asks host communities to absorb a permanent fiscal consequence without ever quantifying it for them.

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Part V — What other states actually do

Scope and vintage note: the survey underlying this section verified nine programs against current (2024–2026) primary sources — New York, Minnesota, Michigan, Wisconsin, Pennsylvania, Connecticut, Vermont, Maine, and federal PILT — not fifty. A comprehensive fifty-state inventory does not currently exist in verified form; the most complete prior survey is a 1996 New York Department of Taxation and Finance study built on 1990 and 1994 data, which found programs in 34 states and none in roughly 16. Approximately 28 states could not be re-verified against current primary sources. Those states are reported in Appendix B as unverified, not as confirmed current entries. A stale confident table does more damage than an incomplete, labeled one.

The four mechanisms

Full local taxability. New York taxes designated state land "for all purposes" under RPTL §532, assessed by the **local assessor** as if privately owned, with the state holding only the appeal rights of any taxpayer. The *Town of Shandaken* line of cases confirmed the obligation. Roughly 3.9 million acres are taxable, plus easements on 800,000+ acres. The state's all-in liability was about **$250 million in FY2016** — up from roughly $100 million twenty years earlier.

Per-acre payment. Minnesota, Michigan, Pennsylvania, Wisconsin, Vermont. Rates are low in absolute terms (Minnesota's aggregate is $5.71/acre; Pennsylvania's is $7.20; Michigan's swamp and tax-reverted rate is $4.00 indexed) but they are **entitlements**, not shares of a pool.

"Greater of" hybrids. Minnesota pays the greater of $5.281/acre or 0.75% of appraised value on acquired natural resources land. **Wisconsin §70.114** is the closest analogue to what Massachusetts municipalities have asked for: for land acquired after 1991, the payment is the greater of the parcel's estimated value times the **aggregate local net general property tax rate**, or $3.50/acre.

Share-of-appropriation. Massachusetts SOL PILOT. Connecticut's tiered system is a variant.

The lesson that matters most

Local assessment authority, not the nominal rate, is what protects host communities.

New York's executive branch attempted three separate times — under Governors Pataki, Paterson, and Cuomo — to convert full taxability into a capped PILOT. The best-documented attempt is Cuomo's 2018–19 Executive Budget, Article VII Part F, which would have frozen Forest Preserve assessments, replaced locally-assessed taxation with PILOTs at a rate set by the State Comptroller, and capped growth by a state-determined factor.

A coalition of local governments, school districts, and conservation organizations defeated it. Their arguments: it broke the 1885–86 bargain; central rate-setting would erode payments in real terms and shift burden onto private landowners in Forest Preserve towns; and the Budget Division had not analyzed local impacts.

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All three attempts failed. Full taxability survives. In every case the fight was over *who assesses* and *whether payments can decline* — not over the rate.

Massachusetts currently sits on the losing side of both questions. The Bureau of Local Assessment values state-owned land centrally, and payments can decline because share can erode.

Migration in the other direction

New York's Putnam County is the one documented case of a jurisdiction moving *from* a formula PILOT *to* full taxability. Putnam had the highest percentage of land in exempt state ownership (8.4%) and little taxable state land; the state instituted a formula PILOT ($400,000 in 1994, raised to $600,000 in 1995). In 2004, Chapter 364 amended RPTL §532(d) to make Putnam state land directly taxable for all purposes.

New York also operates concentration triggers Massachusetts lacks entirely. **RPTL §534(3)** makes certain reforestation lands taxable only where they exceed 3,000 acres **and** comprise at least 9.5% of the assessing unit's acreage — a dual absolute-and-proportional test directly applicable to the Massachusetts problem.

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Part VI — The analysis that has not been run

Every claim in Part IV about edge acreage is conceptual. Parcenomics has published that limitation before — our April 2026 housing brief flagged the state forest edge opportunity as "conceptual pending DCR GIS analysis of parcel suitability, infrastructure proximity, and ecological sensitivity" — and it remains true.

We recommend the Commission direct that this analysis be conducted, and we specify it here so that it can be.

Specification

Inputs. MassGIS DCR and Division of Fisheries and Wildlife ownership layers; MassGIS road centerline file; BioMap Core Habitat and Critical Natural Landscape; MassDEP wetlands; NHESP Priority Habitat; slope derived from statewide elevation data; municipal assessor parcel boundaries.

Method. Intersect state ownership against road centerlines. Buffer to a defensible edge depth from the road, tested at multiple depths. Subtract the full BioMap Core Habitat and Critical Natural Landscape envelope plus a 230–300 m ecological buffer. Subtract wetlands, Priority Habitat, and slope above a buildability threshold. Classify the residual by existing disturbance. Aggregate to the municipality.

Outputs. Developable edge acreage by municipality; estimated unit yield at stated density assumptions; and permanent new-growth levy capacity at stated assessed-value assumptions, presented as a band with every modeling assumption labeled.

Verification discipline. Measured quantities — acreage, slope, distance — reported as measured. Modeled quantities — unit yield, assessed value, absorption pace — reported as labeled scenario bands, never as point estimates.

Why this specification is credible

This is the same structure Parcenomics has already published in municipal work.

In the Great Barrington fiscal levers report, we measured the town's impervious cover directly from the MassGIS 2016 Land Cover / Land Use data: **44.45 million ft² total (~1,020 acres), 15.2 million ft² of road right-of-way excluded, 29.2 million ft² billable = 8,883 Equivalent Residential Units**, with the tax-exempt share of the billable base at **16.9%** — the basis for a stormwater utility fee that reaches parcels the property tax cannot. The revenue requirement was published as a band ($200K–$620K), not a point estimate, because the town does not engineer-cost its drainage program.

The same report's new-growth analysis converts units to permanent levy capacity at labeled value assumptions ($500K / $700K / $800K per home), bracketed for sensitivity, with the underlying rate verified and the value assumptions explicitly flagged as modeled.

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Edge inventory is the same operation against different layers: ownership and roads in place of land cover, ecological screens in place of right-of-way exclusions, and the same measured-quantity-plus-banded-scenario discipline throughout.

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Part VII — Answering the Commission's questions

Does the current PILOT program work as intended? It works exactly as designed. The design compensates land value and nothing else. Whether that was the intent is the question the Commission should put to the record.

How does the program affect municipalities across the Commonwealth? Asymmetrically and directionally. 55.4% of eligible acres sit in four western counties receiving 18.9% of the dollars, and the gap widens on its own at every valuation cycle.

Are there opportunities to improve how the program operates? Yes, and the least expensive costs nothing: publish the aggregate per-acre and share-based statistics so the distributional question is visible in the Commission's own materials.

What tradeoffs should be considered? The central one is not fiscal. Closing the aggregate gap costs $4.5–5.5 million. The real trade is between the Commonwealth's budget flexibility and municipalities' ability to plan — the same trade already made, in the other direction, for Watershed PILOT. The second is between the speed of conservation acquisition and the fiscal durability of the communities hosting it.

Does the program appropriately balance conservation, biodiversity, and climate goals? The program is currently structured so that the more successfully the Commonwealth conserves land in a low-value county, the less that county is compensated per acre for hosting it — while Article 97 simultaneously excludes it from the state's principal land-for-housing program. Whatever balance that represents, it was not chosen. A screened edge-release program directing proceeds to core consolidation would improve conservation outcomes and host-community fiscal capacity at the same time, and is the recommendation this paper most urges the Commission to examine.

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Appendix A — Verification register

VERIFIED — stated directly in the Commission's July 2026 listening-session materials:

FY26 SOL PILOT total $54,508,272 · FY26 Watershed PILOT $9,312,874 · county acreage and payment table · 464,184 eligible acres · ~706,000 state-owned acres · Athol worked example · DOR local-rate estimate $59–60 million · FY26 local aid $8,139,530,607 · 16 of 29 Watershed communities receiving hold-harmless (~$1 million) · town payment series for Marion, Greenfield, Holyoke, Pittsfield FY17–FY26 · SOL and Watershed formula statements · MGL c.58 §§13–17 · 2016 Municipal Modernization Law.

VERIFIED — external primary sources:

2024 Massachusetts fire season, per joint DCR/DFS publication: more than 660 wildfires burning approximately 4,000 acres during the fall period; seven homes and more than 40 outbuildings damaged or destroyed; more than 550 homes threatened; wildfire occurrence up roughly 1,200% in October–November against a normal of ~15 October and ~20 November brush fires; 14 National Weather Service red flag warnings in November 2024, an all-time monthly record; causation overwhelmingly human (debris burning, abandoned campfires), with the state chief fire warden noting no regional lightning in those months · Massachusetts Climate Change Assessment naming increasing wildfire frequency among forest health impacts and increased municipal emergency-response demand among governance impacts · local fire departments hold jurisdiction over wildland fires including on state-owned land, with DCR Bureau of Forest Fire Control providing specialized mutual aid at a standing capacity of approximately 13 district fire wardens and roughly four dozen seasonal firefighters · Butternut Fire, Great Barrington, ignited November 18, 2024 on East Mountain state forest land; approximately 1,700 acres; not declared controlled for nearly two weeks; multi-agency response with mutual aid from Egremont, Sheffield, Adams, Lee and out-of-state departments; State Police and Massachusetts National Guard helicopter water drops; local state of emergency declared; town cost of **$34,937.83** with just over $4,000 in equipment, and no guaranteed state reimbursement, per Great Barrington Fire Chief Scott Turner as reported by *The Berkshire Eagle* · M.G.L. c. 40A amendments enacted in the FY2027 budget, signed July 9, 2026 with an emergency preamble and effective immediately: §10 replaced ("practical difficulty" standard; housing production as a public-interest benefit; statewide residential use variances; two-year term with two-year extension), §6 (nonconforming extension or alteration without special permit where dimensional requirements are met), §§5 and 11 (electronic notice), and zoning freeze on application filing ·

Minnesota per-acre rates and concentration supplements (Minn. Stat. §477A.10–.14; H.F. 825 / 2023 Ch. 64; MN DNR PILT Overview 2025: $48,836,442 across 8,559,263 acres) · New York RPTL §532, §534(3) (NY DTF Pub. 1212, Jan. 2019; ~$250M FY2016 all-in) · Connecticut P.A. 21-3 tier structure (CT OPM) · Michigan MCL 324.2150 and proration practice (MI House Fiscal Agency) · Pennsylvania Act 34 of 2023 rates · Wisconsin Wis. Stat. §70.113/.114/.119 · Vermont 32 V.S.A. §3708 · Federal PILT FY2026 $733,591,949 (DOI PILT National Summary) · DLS *The Basics of Assessing State-Owned Land* (mass.gov): PILOT covers "the land itself and

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not buildings, roads, or other structures" · Massachusetts Affordable Homes Act §122 surplus land guidance (Article 97 exclusion) · State Land for Homes inventory and unit counts · BioMap Core Habitat ~1.24 million acres · ELI *Conservation Thresholds for Land Use Planners* (2003) buffer recommendations.

Office of the State Auditor, Division of Local Mandates, *Pursuing Equitable State-Owned Land Reimbursements for Municipalities*, Municipal Impact Study, January 24, 2025 (FY2024 data), https://www.mass.gov/info-details/pursuing-equitable-state-owned-land-reimbursements-for-municipalities, and its State-Owned Land Dashboard. H.2697 (193rd General Court), An Act to reform payments in lieu of taxes for state-owned land.

DERIVED — computed from the above (script: `pilot_calc.py`):

Aggregate per-acre by county · statewide $117.43/acre (blended; not a valid cross-state comparator) · uniform rate $10.33 per $1,000 on the $53.0M formula portion ($1,508,312 above formula held 188 towns at FY2025) · **land-class split: high-value 7 counties 82,758 ac / 17.8% of acres / $29,719,443 / 54.5% of dollars / $359 per acre; large-tract 7 counties 381,427 ac / 82.2% / $24,788,829 / 45.5% / $65 per acre** · western four-county 55.4% / 18.9% · eastern four-county 10.9% / 35.4% · Suffolk:Franklin 171:1 · aggregate shortfall $4.49–5.49M (8.2–10.1%) · 241,816 ineligible acres (34.3%) · town growth rates FY17–FY26 · Minnesota aggregate $5.71/acre · **Berkshire $33.95/acre against Minnesota's $5.281 acquired-land floor = 6.4:1 (like-for-like)** · MN supplements as 2.8% of program · MN 10–25% supplement applied to Berkshire (22.4% of county area) = $11,104 · CT unfunded gap as 2.5× the MA program · 25 municipalities with the highest FY2026 PILOT per eligible acre: 0.4% of acres, 10.4% of dollars (DLS acres, cherry-sheet dollars) · western four-county share of eligible value 19.86% (FY2020) to 18.51% (FY2026).

Note on the land-class split: the $200/acre boundary is an analyst-chosen cut, not a statutory category. It is used to demonstrate that the program's dollars concentrate on a small share of high-value acreage. Barnstable sits at $202.39 an acre, so "more than half the money" holds only at cuts up to $202; at a $205 cut the high-value group is six counties with 12.1% of acres and 44.7% of dollars. The disparity holds at every cut; the counties on each side of the line depend on where it is drawn.

UNVERIFIED — must not enter prose without a source:

- Municipal service costs attributable to hosting state-owned land. No figure appears in this paper. The single most important missing number in the debate.
- Statewide 2024 fire totals vary by source and reporting period (calendar year vs. fall season; approximately 1,300 fires for 2024 overall against approximately 660 for the fall). 2023 acreage is reported between roughly 1,300 and 1,700 acres depending on source. The fall-season figures used here are the jointly published DCR/DFS numbers; confirm against the agencies' own season summary before external release.

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- Forward-looking wildfire projections specific to Massachusetts. The Massachusetts Climate Change Assessment names increasing wildfire frequency as an impact but this paper cites no modeled projection of future fire frequency, acreage, or structure loss, and does not estimate one.
- The full cost of the Butternut Fire. Only Great Barrington's own $34,937.83 was tallied and published. Mutual-aid payroll and apparatus costs borne by other municipalities, state agency costs, and any health, air-quality, or economic effects across the two-week burn are unquantified and are not estimated here.
- Fire-count and human-causation figures for Berkshire and Franklin Counties, and the volunteer-staffing, equipment, and training constraints described in Part I §1b. Supplied by regional planning staff in review comments; reported as attributed and **not independently verified**. Confirm against the Bureau of Forest Fire Control and the cited Woodlands Partnership municipal financial stability report before external release.
- Developable edge acreage. No figure appears in this paper pending the Part VI analysis.
- The construction of the Commission's *Average of Actual PILOT Per-Acre* column. Our reading is inferred from the divergence pattern and is disclosed as such in Part II. Not resolved; see Appendix C.
- FY16–FY25 appropriation levels — readable only from the deck's bar chart, and used nowhere numerically in this paper.
- Whether the appendix town series (Marion, Greenfield, Holyoke, Pittsfield) are SOL PILOT only or include other components. Used illustratively in Part I; the share-erosion mechanic does not depend on them. Not resolved; see Appendix C.
- Approximately 28 states' current program status (see Appendix B).

Arithmetic note: county acreage sums to 464,185 against a stated grand total of 464,184. One-acre rounding in the source.

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Appendix B — Comparative survey scope and limitations

What was verified. Nine programs were verified against current (2024–2026) primary sources: New York, Minnesota, Michigan, Wisconsin, Pennsylvania, Connecticut, Vermont, Maine, and federal PILT. Every comparative claim in Part V rests on one of these.

What was not. Approximately 28 states could not be re-verified within the scope of this paper and are not characterized in it. They are not asserted to lack programs; their current status is simply unconfirmed.

Why the existing national inventory cannot be used. The most complete prior survey is the September 1996 New York Department of Taxation and Finance study, itself built on 1990 (Adams) and 1994 (Fong & Kuenzi) data. It found reimbursement programs in 34 states and none in roughly 16. That baseline is now three decades old and demonstrably decayed. Three concentration mechanisms it recorded — Illinois compensating school districts where the state owned more than 45% of district land, Colorado triggering at 0.1% of county area, Georgia at 20,000 acres — could not be confirmed against current code. **In the Illinois case no current authorizing statute could be located at all, which suggests the provision has been repealed.** These are cited in this paper only as historical, never as current practice.

Why we did not publish a fifty-row table anyway. A comparative matrix is only useful to this Commission if a member can check their own state and find it right. One stale row discredits the rest. Nine verified programs supporting a structural argument is more defensible than fifty rows of mixed vintage supporting a broader one.

Source basis. The comparative research underlying Parts III and V was conducted across two structured research passes and cites more than 40 primary and secondary sources — state statutes and session laws, legislative fiscal notes, state revenue and natural-resources agency publications, legislative auditor reports, Congressional Research Service analysis, and federal Department of the Interior program summaries. Every source is named at the point of use.

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Appendix C — Open issues

This paper is deliberately bounded. The following questions bear directly on the Commission's mandate, are not answered here, and are not answerable from the public record as it currently stands. Each is a defined piece of work rather than an unknown.

1. Municipal service costs attributable to hosting state-owned land.

The formula excludes service costs by design, and no one has measured them. Road miles maintained to reach and border state holdings, road-stream crossings and drainage structures carrying water off them, emergency medical and fire response, search and rescue, wildfire and invasive-species management at the edges — all scale with area, none appear in the calculation. The Butternut Fire (Part I §1b) shows the shape of the problem precisely: one municipality counted $34,937.83, and no one counted anything else. Until this is quantified for a representative sample of host communities, any claim that the current payment is adequate or inadequate is an assertion rather than a finding. *Scope: a service-cost study across a stratified sample of high-concentration host municipalities, capturing mutual-aid cost borne by non-host towns as well as host-town cost.*

2. Developable edge acreage.

Part IV's argument is structurally sound and quantitatively empty. The specification in Part VI is complete and runnable, but the analysis has not been performed, and this paper publishes no acreage, unit, or revenue figure derived from it. *Scope: the GIS run specified in Part VI, statewide or by region.*

3. Current program status in approximately 28 states.

See Appendix B. The 1996 baseline has decayed past the point of safe use. *Scope: a fifty-state statutory verification producing a vintage-labeled matrix.*

4. The construction of the Commission's published per-acre statistic.

Part II demonstrates that the *Average of Actual PILOT Per-Acre* column cannot be an aggregate ratio, and infers from the divergence pattern that it is an unweighted municipal mean. That inference has not been confirmed with the Division of Local Services, and we publish it as an inference rather than a finding. **If DLS supplies the actual construction, we will update this paper to reflect it.** The disparity finding itself rests on aggregates computed from the Commission's own table and is unaffected either way. *Scope: one confirmation from DLS.*

5. The composition of the town-level payment series.

The Commission's appendix reports FY17–FY26 series for Marion, Greenfield, Holyoke, and Pittsfield. Whether these are SOL PILOT only or include other components is not stated. Part I uses them to *illustrate* share erosion; the mechanic itself follows from the formula and does not depend on these four towns. If the series are composite, the illustration would be replaced, not the argument. *Scope: one confirmation from DLS.*

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6. The cost of eligibility rationalization.

Approximately 241,816 state-owned acres generate no payment. Bringing them into the base without a corresponding appropriation increase would dilute every current recipient's share. The cost of doing it properly has not been priced. *Scope: a fiscal estimate under alternative phase-in schedules.*

7. Whether a Massachusetts concentration supplement can be keyed to municipal land-area share.

Minnesota's trigger is the percentage of *county* area in state ownership. Massachusetts distributes to municipalities, and the municipal land-area denominators required to replicate that trigger were not assembled for this paper. *Scope: municipal land-area compilation and supplement modeling at alternative thresholds and rates.*

Parcenomics prepared this paper independently and at its own cost as a contribution to the Commission's public record. The open issues above are stated as they are so that anyone — the Commission, a regional planning agency, or an individual municipality — can commission the work from any competent analyst. Parcenomics is available to scope or perform any of it.

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Revisions, 19 October 2026

- Federal PILT, FY2026: $733.0 million corrected to $733.6 million ($733,591,949) (A7).
- Minnesota supplement for Berkshire: $25,052 corrected to $11,104. Berkshire's eligible land is 22.4% of county area, the 10–25% tier at $0.082 an acre (A4, Appendix A).
- $10.33 per $1,000: applies to the $53.0 million formula portion; in FY2026 a further $1,508,312 held 188 towns at their FY2025 payment (Part I §1).
- Land-class split: "more than half the money" holds only at cuts up to $202 an acre; at $205 the high-value group holds 12.1% of acres and 44.7% of dollars. "Robust to reasonable alternative thresholds" removed (Part I §1a, Appendix A).
- Share erosion: "eastward" replaced by "away from the west", with FY2020–FY2026 value shares (Part I §2).
- Eligible acres: 464,184 throughout, replacing 461,000; ineligible acres 241,816 (34.3%), replacing 245,000 (34.7%) (Proposition, A6, Appendices A and C).
- "178 acres of Boston land" corrected to Suffolk County land; Boston itself has 155 eligible acres (Summary).
- Published per-acre column: added a rebuild from DLS town data that matches four counties and misses Suffolk, Norfolk and Worcester (Part II).
- Land value only: added a paragraph noting the formula pays on land, not buildings, and the FY2026 share of the 25 municipalities paid the most per acre (Part I §1a, Appendix A).
- Share erosion: a lagging town receives a smaller share and, unless the appropriation covers it, less money; 273 towns received less in FY2018 and 75 in FY2020, none since the FY2026 hold-harmless (Part I §2).
- Wording: eight sentences tightened; About block title and link corrected; cover date revised.
- Added "What the State Auditor found" (Part II), crediting the Division of Local Mandates' January 2025 study, with cross-references in the Summary, Part I §2, A3 and A5 and a source entry in Appendix A.

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About this paper

Locked Twice: Solving the Massachusetts PILOT Problem

Prepared and submitted for the record of the Governor's PILOT Commission, established by Executive Order 645.

Patrick White

Principal Researcher, Parcenomics

www.parcenomics.com

patrickwhitestockbridge@gmail.com · 413-441-5231

Parcenomics provides municipal fiscal analytics for Massachusetts cities and towns — rate classification, compliance review, assessment equity, exemption analysis, and municipal fiscal profiles. Every finding is traced to the public record.

This paper was prepared independently and at Parcenomics' own cost as a contribution to the Commission's public record. It was not commissioned by, and does not represent the position of, any municipality, agency, or organization.

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Every figure traces to the public record; interpretation and any decisions rest with the reader.

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