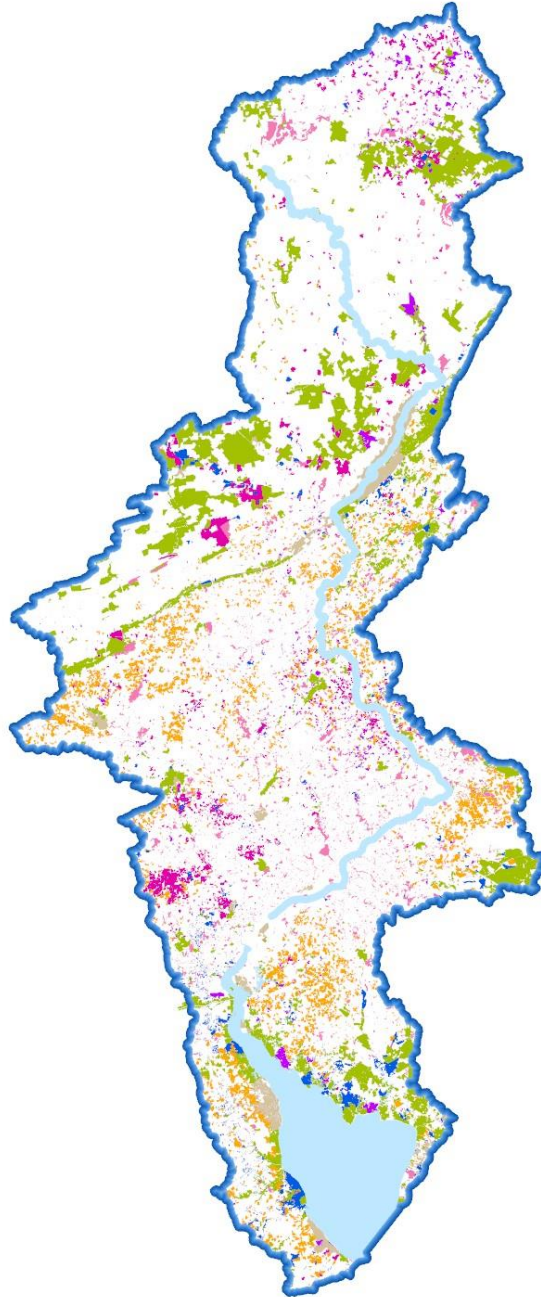


Delaware River Basin Protected Lands

2023 Summary



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Grant funded through the William Penn Foundation*

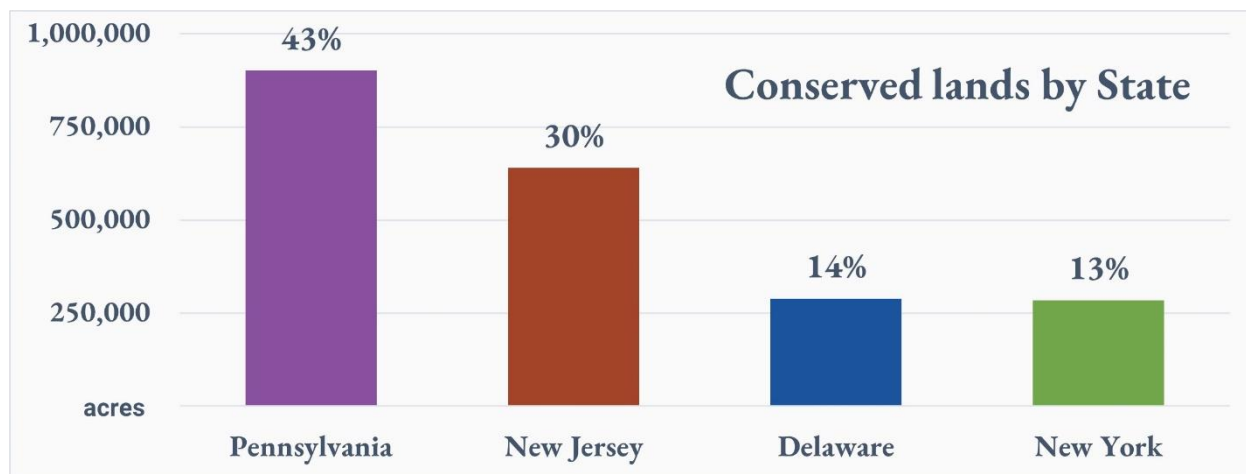


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Land Conservation Metrics and Statistics

Figure 1. Percentage of Conserved Lands within the Delaware River Basin by State



Protected properties are categorized by jurisdiction level (federal, state, local, or land trust) and conservation type (fee owned or easement). The Delaware River Basin boasts over two million acres of conserved land of which 68% are fee owned lands and 32% have an easement on the property (1,432,000 acres and 682,900 acres, respectfully). Government owned or eased lands (including agricultural preservation) comprise 87% of land conservation while 13% are protected by land trust (Figure 2, Table 1). Of the government-held or eased lands, 43% State-held, 22% are agricultural easements, 13% are county or municipal, 6% is federal, and 3% are other government conservation easements. Land trust conservation easements account for 56% while fee acquisitions are 44%. Percentage of conserved lands within the Basin by state are as follows: 43% within Pennsylvania, 30% within New Jersey, 14% in New York, 13% in Delaware, and less than 1% in Maryland (Figure 1). Twenty-six percent (26%) of the Delaware Basin is under some kind of conservation protection (Figure 3).

Figure 2. Land ownership or easement holder organizations

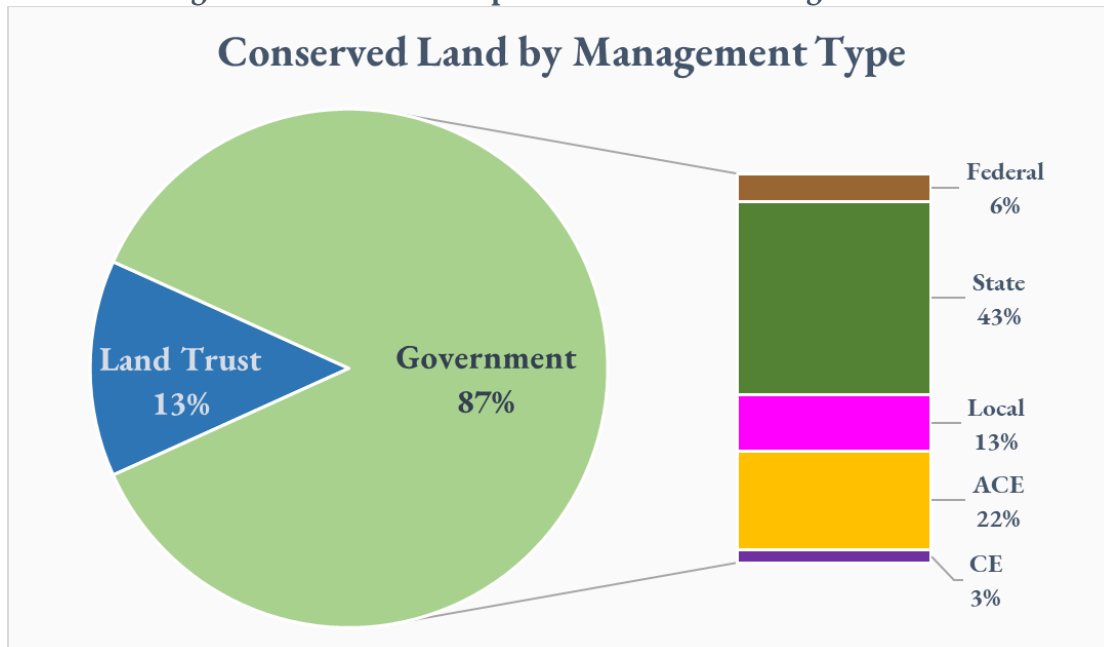


Table 1. Acres conserved per state by conservation category

Category	Pennsylvania	New York	Delaware	New Jersey	DRB
Federal	24,463		90,087	14,890	129,439
State	390,234	174,332	66,229	278,939	910,532
Local	127,917	49,400	13,591	75,151	266,059
Government Agricultural Easement	183,542		73,617	203,135	460,294
Government CE	22,188	23,816	2,478	14,617	63,124
Land Trust	35,107	4,285	39,508	47,120	126,020
Land Trust CE	117,029	32,725	3,644	6,107	159,505
Conserved Lands	900,481	284,558	289,154	639,959	2,114,973

* Total conserved lands within the Delaware River Basin include 822 acres in Maryland, of which of 800 are State land and 22 acres are government easements

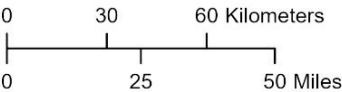
Figure 3. Map of Protected Lands in the Delaware River Basin

Protected Lands in the Delaware River Basin 2023

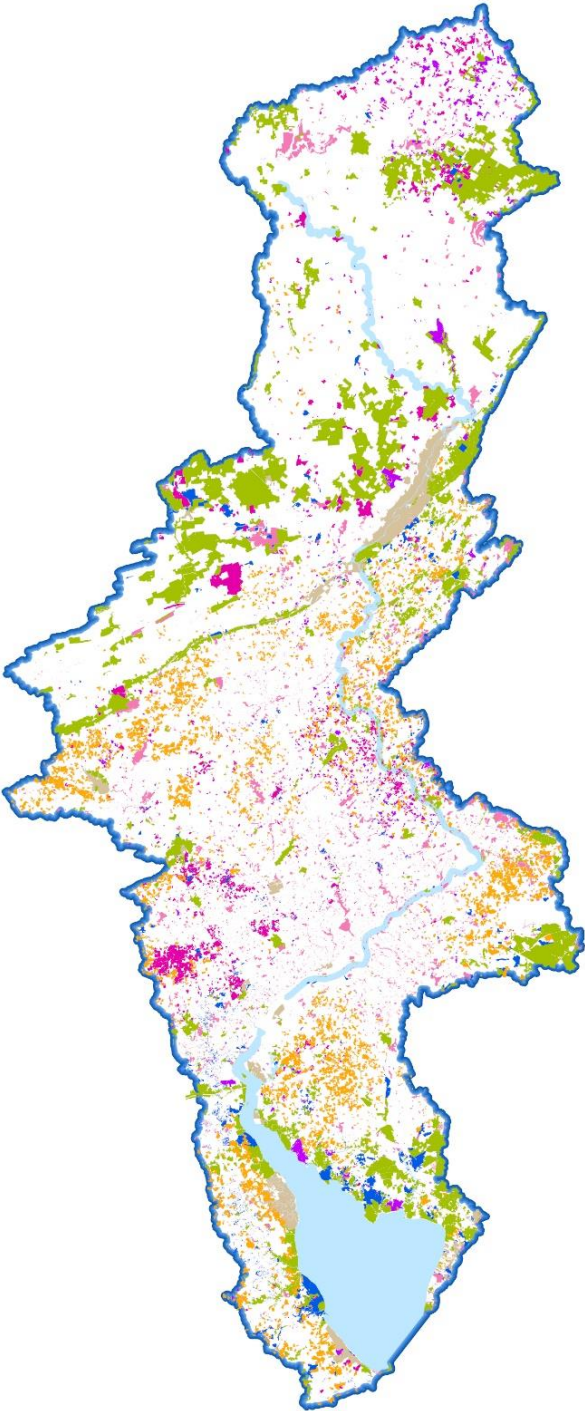


Conservation Category

- Federal Land
- State Land
- Local Government Land
- Government Agricultural Easement
- Government Conservation Easement
- Land Trust Land
- Land Trust Conservation Easement



Disclaimer: Multiple data sources from four states and a multitude of land trusts were used for this comprehensive protected lands map.



DRWI Cluster Groups

Eight sub-watershed regions of the Delaware River Basin create collaboration clusters amongst land trusts and watershed associations which directly affect priority restoration and conservation areas (Figure 4). Together, these clusters account for nearly 25% of the basin yet contain 53% of DRB conserved land, which is crucial to improving water quality that will uplift sensitive ecological regions. Upper Lehigh has over 200,000 acres (41%) protected within its boundaries while the Poconos and Kittatinny, Schuylkill Highlands, and New Jersey Highlands all have 30% of their respective regions

protected (Figure 5, Table 2). State lands account for 48% of protected lands within these clusters (536,000 out of 1,117,500 acres, Table 3).



Figure 4. DRWI Clusters



Table 2. Conserved land within DRWI clusters

Cluster Conserved Land	Acres	% of Cluster
Upper Lehigh	200,891	41%
Poconos and Kittatinny	272,398	32%
Schuylkill Highlands	33,052	30%
New Jersey Highlands	131,754	30%
Brandywine and Christina	94,670	26%
Middle Schuylkill	127,834	25%
Kirkwood Cohansey Aquifer	242,802	18%
Upstream Suburban Philadelphia	7,499	9%
<i>Outside clusters</i>	<i>993,760</i>	

Figure 4. Conserved Land per 100,000 ac in Cluster

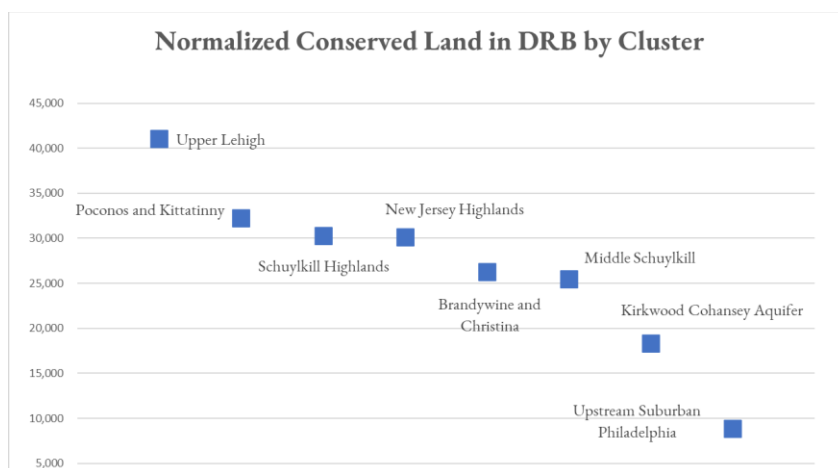


Table 3. Conserved land by category within clusters

Cluster	Government*	Land Trust	Easements**	DRB
Brandywine and Christina	28,447	11,470	54,754	94,670
Kirkwood Cohansey Aquifer	157,806	25,176	64,934	247,916
Middle Schuylkill	37,626	496	89,713	127,834
New Jersey Highlands	73,209	9,099	50,771	133,080
Poconos and Kittatinny	235,834	4,938	31,743	272,515
Schuylkill Highlands	14,930	2,021	16,101	33,052
Upper Lehigh	172,683	11,362	16,845	200,891
Upstream Suburban Philadelphia	4,358	1,760	1,382	7,499
Cluster Total	724,893	66,322	326,243	1,117,458

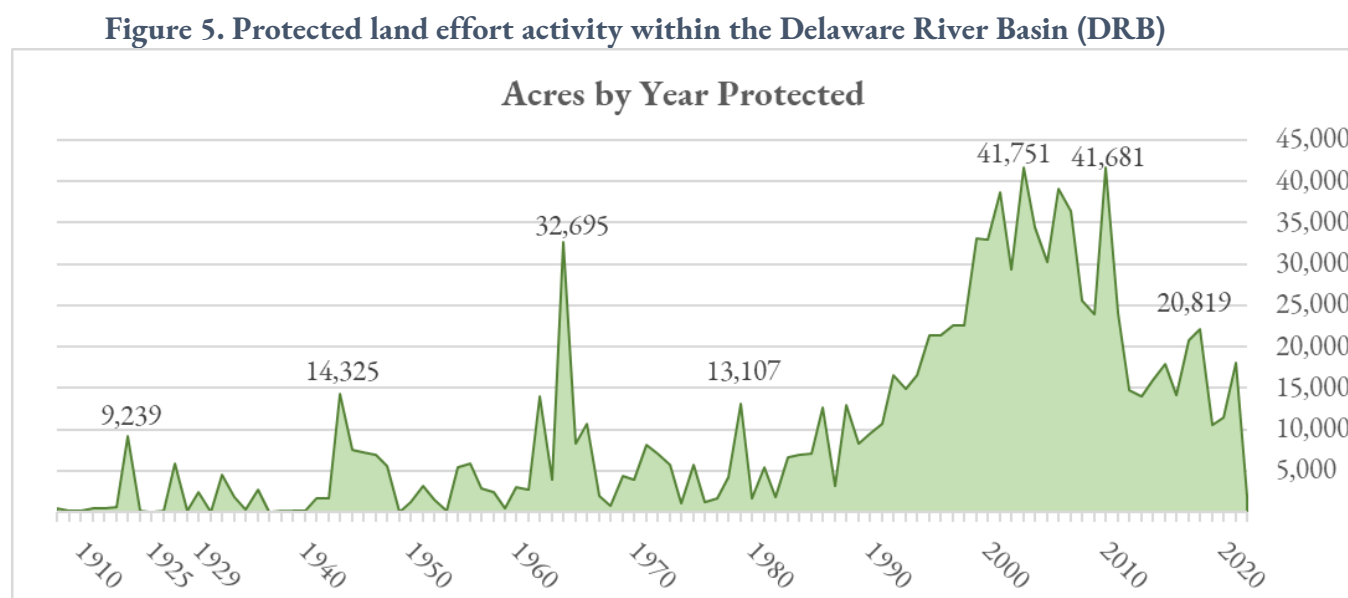
**Government land includes Federal, State, County, and Municipal*

***Easements include county agricultural, governmental conservation, and land trust conservation*

Land Conserved by Year

A general trend in land conservation throughout the watershed is shown in Figure 6 and a cumulative land protection graph is shown in Figure 7. Protection years for acquisitions are based on sale or deed date from tax parcel data where available. Acquisition years were also determined by reported deed recording dates and self-reported acquisition years. Fifty percent of the data have dates. Easements dates were primarily self-reported, but in some cases were available via tax parcel easement records (specifically Chester County).

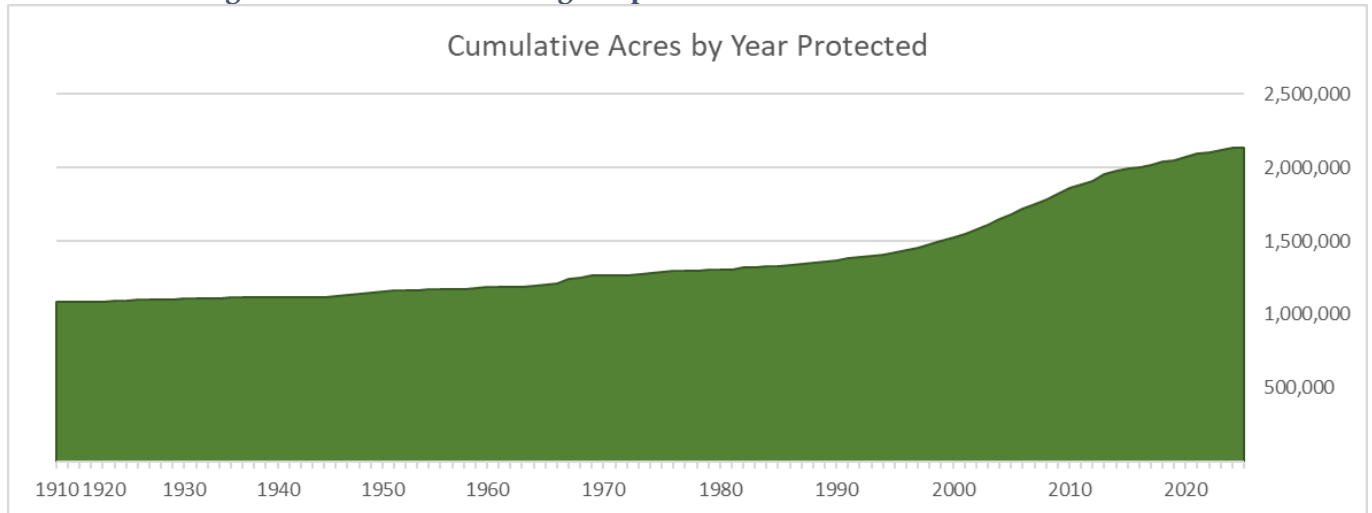
Figure 6 highlights large annual acquisition peaks in the data. These primarily occur due to large land acquisitions by or transfers to the State. In 2004, protected land within the DRW increased by 41,751 acres of which 21,200 acres were part of a state or county agricultural easement program; and 10,600 acres were land trust conservation easements. In 2011, land trust conservation easements added an additional 27,730 acres or 67% of the year's total (41,680 acres). The 1965 spike came from a large Federal land acquisition by the National Park Service in the form of the Delaware Water Gap National Recreation Area. During land protection spikes, agricultural conservation easements were the most frequent method of protection: 42% when agricultural easements were present, then 22% State acquisitions, and 20% land trust conservation easements.



**for those lands with year of deed acquisition or easement recording date*

Figure 7 shows the trend in land conservation from 1905 to today. Half of this data has an unknown preservation year; it is included in the chart as a base value of 1,084,500 acres. Since this time, the rate in land protection has increased from 18,000 acres per decade in 1930 to 82,400 acres per decade in 1970 to 200,000 acres per decade in 2020.

Figure 6. Cumulative acreage of protected lands within the DRB



ArcGIS Dashboard

A public-facing final product of the data is the DRB Protected Lands Dashboard. The left panel lists Land Trusts, Watershed Associations, and DRWI Cluster groups within the mapped area. Clicking on one will focus the map on the selected area and return conserved lands within the boundary. The right panel will update to display the conserved acres by category in the map window as well as the total area throughout the Basin.

Data is available for download or as a REST service layer on Pennsylvania's Spatial Data Access (PASDA) website. PASDA is Pennsylvania's official public access open geospatial data portal hosted by Pennsylvania State University. WeConservePA's hosted layers are found at <https://www.pasda.psu.edu/uci/SearchResults.aspx?originator=WeConservePA>. The relevant layers for this project include: 1) Delaware River Basin Protected Lands, 2) Delaware River Basin Land Trust Associations, 3) Delaware River Basin Watershed Associations, 4) Delaware River Basin Environmental Advisory Councils, and 5) Delaware River Basin Clusters.

Figure 7. Delaware River Basin Protected Lands Dashboard

