Definitions and Sources: Progress Indicators in Common Agenda

Our priorities and strategies outline how we will unite our efforts and maximize our impact to ensure we meet our 2040 vision for clean, clear local water. This document contains baseline values for the progress indicators and their data sources for accurate tracking and reporting.

Water Quality Goals and Baseline Values

Goals	Baseline Value	Data Source
20 stream segments changed from impaired to supporting aquatic life	0 stream segments	DEP's Integrated Report
Decreased nutrient and sediment loads	21,908,552.60 (N), 962,957.76 (P), 729,598,634.97 (sediment)	2024 Progress CAST values
Less salt	85.64 mg/l chloride Jan 2025 49.83 mg/l chloride Oct 2025	County Stroud Salt Watch Results
Lower water temperature and higher dissolved oxygen in tributaries	Rates of trends will vary between location – no exact baseline value determined as criteria are based on Designated Usage	Data Dashboard/Sondes
Improved macroinvertebrate scores	38.30 (county avg)	2000-2025 data from the Lancaster Watershed Report Card (DEP, SRBC, PSU, LCCD)

Land Management Goals and Baseline Values

Goals	Baseline Value	Data Source
600 acres of HQ wetlands restored and/or floodplain reconnected	377.02 ac (wetland restoration), 57.58 ac (wetland creation), 22.37 ac (wetland rehab) 44.19 ac (floodplain restoration)	2024 Progress CAST Values March 2026 LCCD PK Values
90% of farms implementing effective runoff reduction practices	51.57%	March 2026 LCCD PK
75% of streams buffered, stabilized, and/or restored	51.6% of streams buffered 3% of miles stream stabilized/restored	Report Card – PSU buffer dataset using 1m Chesapeake Conservancy GIS layer 2024 Progress CAST values

Goals	Baseline Value	Data Source
15% increase in tree canopy	146,666.05 ac	Chesapeake Conservancy
30% of the county is permanently protected lands	125,277.35 acres of easements (20.58%) out of total 608,640 acres	WeConservePA GIS layers (2026) and Lancaster County GIS Layers
60% of developed land treated by stormwater management practices	~40% * see description	2024 CAST and LandStudies Analysis * see description

Water Quality Goals:

20 streams segments changed from impaired to supporting aquatic life

- *Baseline:* 0 stream segments
- *Data Source:* DEP's Integrated Reports will be used to determine if a stream in Lancaster County has been delisted. PA DEP is the agency responsible for the impairment/supporting statuses for streams in the state and any changes are reported in their biyearly Integrated Reports. To be delisted, a stream must meet the criteria to support aquatic life.

Decreased nutrient and sediment loads

- *Baseline:* 21,908,552.60 (N), 962,957.76 (P), 729,598,634.97 (sediment)
- *Data Source:* These loads were calculated from the 2024 Progress CAST run for Lancaster County. CAST is administered by the Chesapeake Bay Program.

Less Salt

- *Baseline:* 85.64 mg/l chloride Jan 2025, 49.83 mg/l chloride Oct 2025
- *Data Source:* The Stroud Water Research Center hosts seasonal Salt Watches, allowing organizations and volunteers to sample streams for road salt during baseflow and winter conditions. Data for this goal were from the 2025 Salt Watch sampling events that took place in January and October. The results from Lancaster County were averaged to get the baseline values.

Lower water temperature and higher dissolved oxygen in tributaries

- *Baseline:* would not be a good quantitative metric, instead look at summer averages as streams have different base groundwater temps and other factors
- *Data Source:* LCCD, SRBC, and USGS sondes

Improved macroinvertebrate scores

- *Baseline:* 38.30
- *Data Source:* The baseline value is a county average taken from 2000-2025 data that is highlighted in the Lancaster County Watershed Report Card. This document synthesizes macroinvertebrate data collected from PA DEP, SRBC, PSU, and LCCD.

Land Management Goals and Baseline Values:

600 acres of HQ wetlands restored and/or floodplain reconnected

- *Baseline:* 377.02 ac (wetland restoration), 57.58 ac (wetland creation), 22.37 ac (wetland rehab), 44.19 ac (floodplain restoration)
- *Data Source:* These values were calculated by the 2024 Progress CAST run for Lancaster County wetland BMPs. The values for these BMPs are provided by state agencies and organizations reporting BMP implementation. The Floodplain Restoration value was calculated using data from a PracticeKeeper BMP export performed on 3/9/2026.

90% of farms implementing effective runoff reduction practices

- *Baseline:* 51.57%
- *Data Source:* The baseline value was calculated from a PracticeKeeper BMP export (3/9/2026). The total number of BMPs entered into the database were divided by the number of implemented BMPs. The following BMPs considered to be effective at reducing runoff on agricultural land include: *Access Control, Access Road, Bio-Infiltration Area, Channel Bank Vegetation, Channel Bed Stabilization, Comprehensive Nutrient Management Plan – Applied, Conservation Cover, Conservation Crop Rotation, Constructed Wetland, Continuous cover crops, Continuous no till with high residue, Contour Buffer Strips, Contour Farming, Cover Crop, Critical Area Planting, Diversion, Drainage Water Management, Feed Management, Fence, Field Border, Filter Strip, Floodplain Restoration, Forage and Biomass Planting, Forage Harvest Management, Grade Stabilization Structure, Grassed Waterway, Grazing Land*

Mechanical Treatment, Heavy Use Area Protection, Infiltration Trench, Injecting or incorporating manure, Intensive Management of Rotational Grazing, Lined Waterway or Outlet, Livestock Shelter Structure, Mulching, Native Meadow, Native Planting, Nutrient Exclusion, Nutrient Management, Prescribed Grazing, Rain Garden/Bio-Retention, Residue and Tillage Management, Mulch Till, Residue and Tillage Management, No-Till/Strip Till/Direct Seed, Residue and Tillage Management, Reduced Till, Residue and Tillage Management, Ridge Till, Residue Management, Seasonal, Restoration: Buffers/Landscape/Floodplain, Riparian Forest Buffer, Riparian forest buffer, terrestrial and aquatic wildlife habitat, Riparian Herbaceous Cover, Roof Runoff Structure, Roofs and Covers, Silvopasture Establishment, Stormwater Capture and Use, Stormwater Runoff Control, Stream Crossing, Stream Habitat Improvement and Management, Streambank and Shoreline Protection, Stripcropping, Structure for Water Control, Subsurface Drain, Surface Drain, Field Ditch, Surface Drain, Main or Lateral, Surface Infiltration Basin, Terrace, Trails and Walkways, Tree/Shrub Establishment, Underground Outlet, Vegetated Swale, Vegetated Treatment Area, Waste Storage Facility, Water and Sediment Control Basin, Wetland Creation, Wetland Enhancement, Wetland Restoration, Windbreak/Shelterbelt Establishment

75% of streams buffered stabilized, and/or restored

- *Baseline:* 51.60% of streams buffered, 3% miles of stream stabilized/restored
- *Data Source:* The Lancaster County Watershed Report Card calculated the buffer statistic with the assistance of the PSU Agriculture and Environmental Center using the 2024 1m Chesapeake Conservancy landuse map layer. 2024 Progress CAST BMPs were used to calculate the miles of stream stabilized/restored with the Stream Restoration category for both urban and non-urban land.

15% increase in tree canopy

- *Baseline:* 146,666.05 acres
- *Data Source:* From Ryan - That summary includes all of the forest cover and any canopy over turf, impervious etc. Let me know if you want just forested acres or any variation of the classifications.

30% of the county is permanently protected lands

- *Baseline:* 125,277.35 acres of easements (20.58%) out of total 608,640 acres
- *Data Source:* The data layers for this baseline value are 2026 WeConservePA (2026) easement layers and 2024 Lancaster County landuse and agriculture easement layers from the county GIS department. Landuse codes for agriculture are defined as: *800 - agriculture 801 - vacant land - agricultural activities 802 - improvements under construction 810 - field crops, truck crops, and fruit crops 820 - livestock and products 823 - poultry and poultry products 824 - beef, cattle, calves, hogs, sheep, dairy products 825 - honey and beeswax 840 - orchard crops 843 - apples, pears, peaches, cherries, etc 844 - grape vineyards 860 - nursery and greenhouse 870 - specialty farms 880 - fish, game and wildlife preserves 890 - other agricultural related activities 899 - new parcel split enrolled in act 319 until sold 10 acres or more*

60% of developed land treated by stormwater management practices

- *Baseline:* ~40% implemented with 15% margin for BMP functionality and safety
- *Data Source:* CSDatum & 2024 CAST Progress
    - 157,000 acres of developed land & 66,000 acres of turf
    - *Increasing the metric would be to add practices in older developed areas or applying BMPs to turf grass/developed park*
    - *Use CAST for stormwater management composite (total acres treated)*
    - *Blanket statement – focus on turf grass*
    - *Mike LaSala for help*