## EXHIBITS TO

## PENNSYLVANIA'S ABANDONED

## MINE RECLAMATION

## PLAN

1. Governor's Designation of DER
2. Attorney General's Opinion for Authority
3. Comparison of Federal Requirements vs State Authority
4. PA Executive Branch Organization Chart
5. DER Organization Chart
6. Resources Management Organization Chart
7. Three Year Reclamation Program
8. Population Trends
9. Aesthetic, Historic and Recreation Factors
10. Statewide Flora and Fauna
11. Public Participation
12. Map of Eligible Lands and Waters (Coalfields and AMD Polluted Streams)

# Walter N. Heine, Director Office of Surface Mining U. S. Department of the Interior Washington, D.C. 20240 <br> Dear Mr. Heine: <br> I hereby designate the Pennsylvania Department of Environmental Resources as the State agency authorized to implement and administer the Commonwealth of Pennsylvania's Abandoned Mine Reclamation Program, and to receive, administer, and disburse Federal grants, pursuant to Title IV of the "Surface Mining Control and Reclamation Act of 1977." P.L. 95-87. <br> Sincerely, 

MILTON J. SHAPP
Governor

## MJS:MKG:JPE/tg

bcc: Hon. Maurice K. Goddard Joel P. Epstein


Commonwealty of Pennsylvania Office of Attorney General Harrisaurg, Pa. 17120

Walter N. Heine, Director
Office of Surface Mining
U. S. Department of the Interior

18 th and C streets
Washington, D. C. 20460

Dear Mr. Heine:
Section 884.13(b) of the "Abandoned Mine Land Reclamation Program Provisions" (Federal Regulations), 43 Fed. Reg, 49932 et seq. (October 25, 1978, part II), (to be codified in 30 C.F.R. $\overline{88} 4.13[b])$, requires that Pennsylvania enclose as part of its proposed State Reclamation Plan pursuant to Title IV of the "Surface Mining Control and Reclamation Act of 1977", P.L. 95-87, an opinion of its chief legal officer that the Pennsylvania Department of Environmental Resources has the authority under State law to conduct an abandoned mine reclamation program in accordance with the requirements of the federal act, the rules and regulations promulgated thereunder and the provisions of the proposed State Reclamation Plan.

In the opinion of this office, the Pennsylvania Department of Environmental Resources is authorized to establish, administer and conduct a State Reclamation Plan in accordance with the requirements of Title IV of the federal act and the regulations promulgated thereunder. This authority is granted in the following Pennsylvania laws: "The Land and Water Conservation and Reclamation Act", Act of January 19, 1968, P.L. 996 (1967), No. 443, as amended, 32 P.S. $\$ 5101$ et seg. ; The Act of May 7, 1935, p.L. 141, 52 P.S. $\$ 809$ et seq.; "The Coal Mine Sealing Act of 1947", Act of June 30,1947, P.L. 1177 , as amended, 52 P.S. 528.1 et seg.; The Act of April 3, 1968 , P.L. 92, No. 42,52 P.S. $\S 30.201$ et seq.; The Act of July 19, 1965, P.L._, No. 117, as amended, $\overline{52} \overline{\text { P.S. }} \$ 30.101$ et seq.; "The Clean Streams Law", Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. $\$ 691.1$ et seq.; and "The Administrative Code of 1929", Act of April 9, 1929, P, L. 177, as amended, Section 1915-A, 71 P.S. § 510-15.


Comparison of Title IV, PL 95-87,
Requirements vs State Authorization

Sec. 401, PL 95-87: Abandoned Mine Reclamation Fund and Purposes:

1. By administrative action, an exclusive account has already been established to receive and disburse OSM funds for the purposes of the act. An amendment to PA Act 443 will further assure such an account by law.
2. Purposes: PA Act 443 as amended; Secs. 1915A and 1917A of the PA Administrative Code; PA's Coal Mine Sealing Act of. 1935 as amended; Act 117 as amended regarding property acquisition and disposal; and PA's Clean Streams Law of 1937 as amended collectively provide authorization for the State to carry out the purposes of Title IV.

Sec. 402, PL 95-87: Reclamation Fee:
This is a Federal responsibility not applicable to the State Program per se.

Sec. 403, PL 95-87: Objectives of the Fund:
Priorities of reclamation Activities will be followed as indicated in the State plan, and more specifically by the annual project requests.

Sec. 404: Eligible Lands and Waters:
PA's Act 443 established identical criteria except the State Act has a cut-off date of January 19, 1968. When using OSM funds for reclamation on eligible lands and waters, a cut-off date of August 3, 1977 will be used.

Sec. 405: State Reclamation Programs:
This plan established the State program under Title IV, PL 95-87. Following approval of this State plan, PA will submit annual requests for specific projects as required.

Sec. 406: Reclamation of Rural Lands:
As noted in Part B, Sec. III B \& C, PA has been an active participant in the coordination of reclamation activities between the SCS $\&$ the State. Such coordination will continue for the life of the program.

Sec. 407: Acquisition and Reclamation of Land:
PA Acts 443 and 117, as amended, are identical in their provisions to this section of PL 95-87.

Sec. 408: Liens:
PA Act 443 contains the same provisions.
Sec. 409: Filling Voids and Sealing Tunnels:
PA's Administrative Code and Coal Mine Sealing Acts provide identical authority.

Sec. 410: Emergency Powers:
While this is essentially an OSM action section, PA's Act 443 provides identical powers under the State's program.

Sec. 411: Fund Report:
Pursuant to approval of this pian, PA will submit the required report.

Sec. 412: Miscellaneous Powers:
PA's Act 443 contains similar authorizations.
Sec. 413: Interagency Cooperation:
Federal requirement.
PENNSYLVANIA EXECUTIVE BRANCH
(SHOWING ONLY MAJOR DEPARTMENTS AND COMMISSIONS)



Deputy for Resources Management

Exhibit 6
Reference: Part C
IV. Problem Quantification \& Projected Three Year Proposal
 3,300,000,000 -0$\dot{\dagger}$

| ${ }_{\text {Year } 1}^{1982}$ | Three Year Reclamation Plan |  |
| :---: | :---: | :---: |
|  | $1983$ | $1984$ |
| \$9,541,667 | \$13,577,449 | \$38,084,273 |
| -0- | 1,935,574 | 31,479,526 |
| -0- | -0- | -0- |
| -0- | 222,950 | -0- |
| -0- | 1,532,024 | 4,384,405 |
| -0- | -0- | -0- |
| -0- | -0- | -0- |
|  |  | ****38,987,949 |
| **6,000,000 | **6,000,000 | -0- |
| ${ }^{* * * 2,000,000}$ | *2,000,000 | -0- |
| 17,541,667 | 25,267,997 | 112,936,153 |
| 2,126,603 | 3,676,926 | 3,500,000 |



 sel 4गा4m Notes: 1. All of the above work will fall in the Priority 1 category.


[^0]Program Admin
 administrative costs

TOTALS:

$\frac{\text { Quantity }}{150,000 \mathrm{ac} \text {. }}$

2200 mil les of
45 ea. Range:
$\$ 100,000$ to
Total Cost $\$$ 7,500,000,000 assuming 2 seams 75,000,000

Type of Problem
10atuop acuepisqns
Mine fire Control
Mine Drainage Abatement
Burning Refuse Bank
$100,000,000$
cu. yd.
3000 sites.
$\$ 50,000$
per site
\$4000/ac.
$\$ 1.00 / \mathrm{yd} 3$
$\$ 1,500,000 / \mathrm{ml}$
$\$ 2.50 / \cdot \mathrm{yd}^{3}$
250,000,000 150,000,000 $900,000,000$
$1,300,000,000$ Estimated Total Problem
1980
Unit Cost
$\$ 25,000$ $\$ 25,000$
per acre seam $\$ 10,000,000$ ea. 1 225,000 acres
$2,600,000,000 \mathrm{yd}^{3}$ पР $14 \times 000^{\prime} 0000^{\prime} 009^{\prime} \mathrm{Z}$ ) Aq papialp eq pinous 2 since some banks can be used as fill in pits
and for subsidence contro

Disturbed Land Restoration Non-Burning Bank Restoration
Shafts, Drifts, Dralnage, Highwalls, Other Public Health \& Safety Projects

Centralia Acquisition/Relocation (cost sharing) Centralla Mine fire (cost sharing)

* State Share OSM Funds.
** Federal Share OSM Funds.
*** State Funds.
**** includes State and Federal Share OSM Funds and State Funds.
Exhibit 7


## EXHIBIT 8

## POPULATION TRENDS

Tab A - Population of Pennsylvania by County, 1940 to 1977

Tab B - Revised County Projections, DER

| County | 1940 | 1950 | 1960 | 1970 | 1974 | 1975 | 1976 | $\begin{gathered} 1977 \\ \text { (Provisional) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tatal | 9,900,180 | 10,498, 012 | 11,319,366 | 11,793,909 | (1) 11, 842,000 | 11,860,000 | 11,802,000 | 11,785,000 |
| Adams <br> Al legheny <br> Amstrong <br> Beaver <br> Bedford (2) | $\begin{array}{r} 39,435 \\ 1.41,539 \\ 81,087 \\ 156.754 \\ 40,809 \end{array}$ | $\begin{array}{r} 44,197 \\ 1,515,237 \\ 10,842 \\ 175,192 \\ 40,775 \end{array}$ | $\begin{array}{r} 51,906 \\ 1,628,587 \\ 9,524 \\ 206,948 \\ 42,451 \end{array}$ | $\begin{array}{r} 56,937 \\ 1,605,016 \\ 75,590 \\ 208,418 \\ 42,353 \end{array}$ | $\begin{array}{r} 62,000 \\ 1,533,600 \\ 76,200 \\ 208,000 \\ 43,500 \end{array}$ | $\begin{array}{r} 61,900 \\ 1,52,300 \\ 76.500 \\ 210,000 \\ 43,400 \end{array}$ | $\begin{array}{r} 61,900 \\ 1.503,600 \\ 76,300 \\ 209,900 \\ 42,900 \end{array}$ | $\begin{array}{r} 62,800 \\ 1,493,600 \\ 75.400 \\ 207,400 \\ 43,000 \end{array}$ |
| Berks Btair Bradford Bucks Butler | $\begin{array}{r} 241,884 \\ 140,358 \\ 50,615 \\ 107715 \\ 87.590 \end{array}$ | $\begin{aligned} & 255,740 \\ & 139.514 \\ & 55: 722 \\ & 144,620 \\ & 97,320 \end{aligned}$ | 275,474 137,270 54,925 308,567 114,639 | 296,382 135.356 57,962 41.9656 127,941 | 304,100 135,700 59,500 452,900 135,500 | 304,600 134,900 600,200 459,600 137,500 | $\begin{aligned} & 304,800 \\ & 13,500 \\ & 60,400 \\ & 463,000 \\ & 139,300 \end{aligned}$ | $\begin{aligned} & 302,100 \\ & 134,200 \\ & 60,700 \\ & 468,400 \\ & 141,200 \end{aligned}$ |
| Cambrla Cameron Carbon Centra Chester | $\begin{array}{r} 213,459 \\ 6,852 \\ 61,735 \\ 52,608 \\ 135,626 \end{array}$ | $\begin{array}{r} 209,541 \\ 7,023 \\ 57,558 \\ 55,922 \\ 159,141 \end{array}$ | $\begin{array}{r} 203,283 \\ 7,586 \\ 54,889 \\ 79,580 \\ 210,608 \end{array}$ | $\begin{array}{r} \mathbf{8 6}, 785 \\ 7,069 \\ 50,573 \\ 99,267 \\ 278,311 \end{array}$ | $\begin{array}{r} 187,700 \\ 6,800 \\ 52,100 \\ 105,800 \\ 287,100 \end{array}$ | $\begin{array}{r} 187,700 \\ 6,800 \\ 52,500 \\ 107,200 \\ 291,900 \end{array}$ | $\begin{array}{r} 188,100 \\ 6,800 \\ 52,100 \\ 109,100 \\ 295,000 \end{array}$ | $\begin{array}{r} 187,800 \\ 6,800 \\ 52,200 \\ 10,700 \\ 298,200 \end{array}$ |
| Clarion <br> Clearflald <br> Clinton <br> Columbla <br> Crawford | $\begin{aligned} & 38,410 \\ & 92,094 \\ & 34,577 \\ & 51,413 \\ & 71,644 \end{aligned}$ | $\begin{aligned} & 38,344 \\ & 85,957 \\ & 36,532 \\ & 53,460 \\ & 78,948 \end{aligned}$ | $\begin{aligned} & 37,408 \\ & 81,534 \\ & 37,619 \\ & 53,489 \\ & 77,956 \end{aligned}$ | $\begin{aligned} & 38,414 \\ & 74,619 \\ & 37,721 \\ & 55,714 \\ & 81,342 \end{aligned}$ | $\begin{aligned} & 40,200 \\ & 76,800 \\ & 38,000 \\ & 58,400 \\ & 85,100 \end{aligned}$ | $\begin{aligned} & 40,500 \\ & 77,800 \\ & 37,800 \\ & 58,900 \\ & 85,600 \end{aligned}$ | $\begin{array}{r} 41,000 \\ 78,300 \\ 37,600 \\ 59,000 \\ 85,700 \end{array}$ | $\begin{aligned} & 41,600 \\ & 78,900 \\ & 37,600 \\ & 59,400 \\ & 85,200 \end{aligned}$ |
| Cumberland <br> Dauphin <br> Dalaware <br> Elk <br> Eple | $\begin{array}{r} 74,806 \\ 17,410 \\ 310,756 \\ 34,443 \\ 180,889 \end{array}$ | $\begin{array}{r} 94,457 \\ 197,784 \\ 414,234 \\ 314,503 \\ 219,388 \end{array}$ | $\begin{aligned} & 124,816 \\ & 220,255 \\ & 553,154 \\ & 37,328 \\ & 250,682 \end{aligned}$ | $\begin{aligned} & 158,177 \\ & 22,173 \\ & 600.035 \\ & 37.770 \\ & 263,654 \end{aligned}$ | $\begin{aligned} & 168,500 \\ & 225,500 \\ & 592,300 \\ & 38,100 \\ & 271,600 \end{aligned}$ | $\begin{aligned} & 169,800 \\ & 223,600 \\ & 599,500 \\ & 37,700 \\ & 274,400 \end{aligned}$ | $\begin{aligned} & 169,100 \\ & 223,000 \\ & 537,400 \\ & 37,100 \\ & 274,700 \end{aligned}$ | $\begin{aligned} & 171,900 \\ & 223,500 \\ & 583,700 \\ & 36,400 \\ & 271,600 \end{aligned}$ |
| Fayerte <br> Forest <br> Franklin <br> Fulton <br> Greene | $\begin{array}{r} 200,999 \\ 59,791 \\ 69,378 \\ 10,673 \\ 44,671 \end{array}$ | $\begin{array}{r} 189,899 \\ 45,944 \\ 75,927 \\ 10,387 \\ 45,394 \end{array}$ | $\begin{array}{r} 169,340 \\ 4,485 \\ 88,172 \\ 10,597 \\ 39,424 \end{array}$ | $\begin{array}{r} 154,667 \\ 40,926 \\ 100,833 \\ 10,776 \\ 36,090 \end{array}$ | $\begin{array}{r} 155,900 \\ 5 \\ 104,900 \\ 11,600 \\ 38,000 \end{array}$ | $\begin{array}{r} 155,400 \\ 5,200 \\ 105,700 \\ 11,500 \\ 38,100 \end{array}$ | $\begin{array}{r} 155,500 \\ 5,100 \\ 107,000 \\ 11,800 \\ 38,300 \end{array}$ | $\begin{array}{r} 156,400 \\ 5,300 \\ 106,200 \\ 11,600 \\ 39,100 \end{array}$ |
| Huntingdon find ana Jefferson Junfata Lackawanna | $\begin{array}{r} 41,836 \\ 79,854 \\ 54,090 \\ 15,373 \\ 301,243 \end{array}$ | $\begin{array}{r} 40,872 \\ 77,106 \\ 49,147 \\ 15,243 \\ 257,396 \end{array}$ | 39,457 75,366 46,792 15,874 234,531 | $\begin{array}{r} 39,108 \\ 79,451 \\ 43,695 \\ 16,712 \\ 234,107 \end{array}$ | $\begin{array}{r} 39,900 \\ 88,600 \\ 45,600 \\ 17,700 \\ 234,800 \end{array}$ | $\begin{array}{r} 40,000 \\ 84,000 \\ 45,900 \\ 17,900 \\ 235,800 \end{array}$ | $\begin{array}{r} 40,000 \\ 86,400 \\ 46,300 \\ 18,000 \\ 231,100 \end{array}$ | $\begin{array}{r} 39,800 \\ 87,000 \\ 47,200 \\ 18,300 \\ 232,400 \end{array}$ |
| Lancaster <br> Lawrence <br> Lebanon (3) Lahigh Luzerne | $\begin{array}{r} 212,504 \\ 96,877 \\ 72,641 \\ 177,533 \\ 441,518 \end{array}$ | $\begin{aligned} & 234,717 \\ & 10,120 \\ & 81,683 \\ & 1989207 \\ & 392,241 \end{aligned}$ | $\begin{aligned} & 278,359 \\ & 112,965 \\ & 90,853 \\ & 227,536 \\ & 346,972 \end{aligned}$ | $\begin{aligned} & 319,693 \\ & 107,374 \\ & 99,665 \\ & 255,304 \\ & 342,301 \end{aligned}$ | $\begin{aligned} & 339,000 \\ & 107,400 \\ & 104,000 \\ & 262,400 \\ & 346,000 \end{aligned}$ | $\begin{aligned} & 343,100 \\ & 106,700 \\ & 122,300 \\ & 263,700 \\ & 345,000 \end{aligned}$ | $\begin{aligned} & 344,200 \\ & 105,700 \\ & 105,800 \\ & 264,200 \\ & 341,600 \end{aligned}$ | $\begin{aligned} & 347,900 \\ & 106,400 \\ & 104,800 \\ & 263,600 \\ & 338,600 \end{aligned}$ |
| Lyeoming <br> McKean <br> Marcer <br> Miffiln <br> Monroe | $\begin{array}{r} 93,633 \\ 56,673 \\ 101,039 \\ 42,993 \\ 29,802 \end{array}$ | $\begin{array}{r} 101,249 \\ 56,607 \\ 111,954 \\ 43,691 \\ 33,773 \end{array}$ | $\begin{array}{r} 109,367 \\ 544,517 \\ 127,519 \\ 44,348 \\ 39,567 \end{array}$ | $\begin{array}{r} 113,296 \\ 51,915 \\ 127,175 \\ 45,268 \\ 45.422 \end{array}$ | $\begin{array}{r} 115,300 \\ 51,700 \\ 127,800 \\ 44,900 \\ 52,300 \end{array}$ | $\begin{array}{r} 115,300 \\ 51,300 \\ 128,000 \\ 44,500 \\ 54,200 \end{array}$ | $\begin{array}{r} 115,100 \\ 50,700 \\ 127,700 \\ 44,400 \\ 56,000 \end{array}$ | $\begin{array}{r} 113,200 \\ 52,000 \\ 125,500 \\ 44,500 \\ 57,700 \end{array}$ |
| Montgomery Montour Nor thampton Northumberland Parry | $\begin{array}{r} 289,247 \\ 15,466 \\ 16,959 \\ 126,887 \\ 23,213 \end{array}$ | $\begin{array}{r} 353,068 \\ 16,001 \\ 185,243 \\ 177115 \\ 24,782 \end{array}$ | $\begin{array}{r} 516,682 \\ 16,730 \\ 21,412 \\ 104,138 \\ 26,582 \end{array}$ | $\begin{array}{r} 623,799 \\ 16,508 \\ 214,368 \\ 99,190 \\ 28,615 \end{array}$ | $\begin{array}{r} 632,400 \\ 17,100 \\ 223,600 \\ 100,300 \\ 31,600 \end{array}$ | $\begin{array}{r} 632,700 \\ 17.100 \\ 224,800 \\ 999,900 \\ 31^{1}, 800 \end{array}$ | $\begin{gathered} 631,200 \\ 16,700 \\ 224,200 \\ 99,600 \\ 32,300 \end{gathered}$ | $\begin{array}{r} 628,200 \\ 16,600 \\ 225,700 \\ 98,800 \\ 33,500 \end{array}$ |
| Phlladalphia <br> Pike <br> Potter <br> Schuyikill <br> Snyder | $\begin{array}{r} 1,931,334 \\ 7,452 \\ 18,201 \\ 228,331 \\ 20,208 \end{array}$ | $\begin{array}{r} 2,071,605 \\ 8,425 \\ 16,810 \\ 200,577 \\ 22,912 \end{array}$ | $\begin{array}{r} 2,002,512 \\ 9 ; 158 \\ 16,483 \\ 173,027 \\ 25,922 \end{array}$ | $1,948,609$ 11,818 160,395 29,269 | $\begin{array}{r} 1 ; 850,300 \\ 13,800 \\ 16,900 \\ 159,900 \\ 31,000 \end{array}$ | $\begin{array}{r} 1,823,200 \\ 14,100 \\ 17,100 \\ 159,700 \\ 31,100 \end{array}$ | $\begin{array}{r} 1,799,300 \\ 14,500 \\ 17,000 \\ 158,600 \\ 37,200 \end{array}$ | $\begin{array}{r} 1,784,500 \\ 14,300 \\ 16,800 \\ 157,600 \\ 31,100 \end{array}$ |
| Somarset <br> Sullivan <br> Susquahanna <br> Tloga <br> Uniton | $\begin{array}{r} 84,957 \\ 7,504 \\ 33,893 \\ 35,004 \\ 20,247 \end{array}$ | $\begin{aligned} & 81,813 \\ & 6,745 \\ & 31,970 \\ & 35,474 \\ & 23,150 \end{aligned}$ | $\begin{aligned} & 77,450 \\ & 6,251 \\ & 33,137 \\ & 36,614 \\ & 25,646 \end{aligned}$ | $\begin{aligned} & 76,037 \\ & 5,961 \\ & 34,34 \\ & 39,691 \\ & 28,603 \end{aligned}$ | $\begin{aligned} & 78,000 \\ & 6,000 \\ & 36,000 \\ & 43,500 \\ & 30,600 \end{aligned}$ | $\begin{array}{r} 78,500 \\ 6,000 \\ 36,900 \\ 41,700 \\ 31,100 \end{array}$ | $\begin{aligned} & 78,700 \\ & 5,900 \\ & 37,500 \\ & 41,900 \\ & 30,900 \end{aligned}$ | $\begin{aligned} & 79,900 \\ & 6,000 \\ & 37,100 \\ & 41,200 \\ & 30,900 \end{aligned}$ |
| Venango Warren Washington Wayne | $\begin{array}{r} 63,958 \\ 42,789 \\ 210,892 \\ 29,934 \end{array}$ | $\begin{array}{r} 65,328 \\ 42,698 \\ 209,628 \\ 28,478 \end{array}$ | $\begin{array}{r} 65,295 \\ 45,582 \\ 211,271 \\ 28,237 \end{array}$ | $\begin{array}{r} 62,353 \\ 47,682, \\ 210,876 \\ 29,581 \end{array}$ | 63,300 47,600 23,900 32,000 | $\begin{array}{r} 63,700 \\ 41,700 \\ 213,800 \\ 33,000 \end{array}$ | 63,200 213.100 33,800 | $\begin{array}{r} 63,200 \\ 46,900 \\ 23,600 \\ 34,100 \end{array}$ |
| Wes cmore i and Wyoning York | $\begin{aligned} & 303,411 \\ & 16,702 \\ & 178,022 \end{aligned}$ | $\begin{aligned} & 313,179 \\ & 16,766 \\ & 202,737 \end{aligned}$ | $\begin{aligned} & 352,629 \\ & 16,813 \\ & 238,336 \end{aligned}$ | $\begin{aligned} & 376,935 \\ & 19,082 \\ & 272,603 \end{aligned}$ | $\begin{array}{r} 378,800 \\ 22,200 \\ 283,000 \end{array}$ | $\begin{array}{r} 389,100 \\ 22,400 \\ 285,300 \end{array}$ | $\begin{array}{r} 381,200 \\ 23,300 \\ 287,100 \end{array}$ | $\begin{aligned} & 379,900 \\ & 24,400 \\ & 289,000 \end{aligned}$ |

Detall may not add to total because of rounding.
(1) The July 1,1974 State estimate shown here differ from that presented in Gurrent Population Reports, Series P-25. No. G15. The
(2) July, 1974 estimate published in that report is $11,84,000$,
(3) The population estimate for Lebanion County for July i, 1975, shown here, reflects an adjustment of 16,720, for inclusion of

Source: U. S. Department of Comnerce, Buraau of the Census, Current Population_Reports, Series P-26. No. $77-38$ and Decennial Censuses. 1979 Pennsylvania Abstract
(December 1982)

|  | 1980 | 1990 | 2000 |
| :---: | :---: | :---: | :---: |
| Adams | 68,292 | 81,197 | 83,677 |
| Allegheny | 1,450,085 | 1,453,563 | 1,465,725 |
| Armstrong | 77,768 | 88,006 | 90,587 |
| Beaver | 204,441 | 223,546 | 228,619 |
| Bedford | 46,784 | 55,847 | 57,664 |
| Berks | 312,509 | 345,334 | 352,939 |
| Blair (1) | 136,467 | 147,034 | 149,484 |
| Bradford | 62,919 | 73,400 | 75,915 |
| Bucks | 479,211 | 548,029 | 560,968 |
| Butler | 147,912 | 175,019 | 180,333 |
| Cambria (1) | 183,417 | 198,773 | 202,801 |
| Cameron | 6,674 | 7,214 | 7,393 |
| Carbon | 53,285 | 60,927 | 62,625 |
| Centre | 112,760 | 125,126 | 127,787 |
| Chester | 316,660 | 363,341 | 373,231 |
| Clarion (1) | 43,349 | 51,659 | 53,422 |
| Clearfield | 83,578 | 95,540 | 98,321 |
| Clinton | 38,971 | 43,852 | 45,060 |
| Columbia (1) | 61,958 | 72,927 | 75,120 |
| Crawford | 88,869 | 101,969 | 104,885 |
| Cumberland | 178,037 | 202,687 | 207,483 |
| Dauphin | 232,317 | 258,184 | 264,068 |
| Delaware | 555,007 | 545,316 | 547,654 |
| Elk | 38,338 | 43,467 | 44,845 |
| Erie | 279,780 | 305,062 | 310,069 |
| Fayette | 160,395 | 180,271 | 184,723 |
| Forest | 5,072 | 5,923 | 6,151 |
| Franklin | 113,629 | 131,802 | 135,851 |
| Fulton | 12,842 | 16,535 | 17,486 |
| Greene | 40,355 | 47,932 | 49,347 |
| Huntingdon | 42,253 | 49,194 | 50,673 |
| Indiana | 92,281 | 106,389 | 109,496 |
| Jefferson | 48,303 | 57,048 | 59,009 |
| Juniata | 19,188 | 23,095 | 23,948 |
| Lackawanna | 227,908 | 243,725 | 247,896 |
| Lancaster | 362,346 | 412,712 | 422,932 |
| Lawrence | 107,150 | 117,852 | 120,646 |
| Lebanon | 109,829 | 124,909 | 127,956 |
| Lehigh | 273,582 | 297,524 | 302,563 |
| Luzerne | 343,079 | 371,438 | 377,985 |
| Lycoming | 118,416 | 132,472 | 135,906 |
| McKean | 50,635 | 55,608 | 57,057 |

## DER PRELIMINARY POPULATION PROJECTIONS

(December 1982)

|  | 1980 | 1990 | 2000 |
| :---: | :---: | :---: | :---: |
| Mercer | 128,299 | 143,592 | 147,323 |
| Mifflin | 46,908 | 53,258 | 54,688 |
| Monroe | 69,409 | 87,454 | 90,170 |
| Montgomery | 643,621 | 699,592 | 713,232 |
| Montour | 16,675 | 19,038 | 19,611 |
| Northampton | 225,418 | 249,664 | 255,287 |
| Northumberland | 100,381 | 106,751 | 108,871 |
| Perry | 35,718 | 44,081 | 45,896 |
| Philadelphia | 1,688,210 | 1,243,284 | 1,216,582 |
| Pike | 18,271 | 26,446 | 27,427 |
| Potter | 17,726 | 21,080 | 21,880 |
| Schuylkill (1) | 160,639 | 174,479 | 178,254 |
| Snyder | 33,584 | 39,218 | 40,413 |
| Somerset | 81,243 | 92,687 | 95,257 |
| Sullivan | 6,349 | 7,547 | 7,841 |
| Susquehanna | 37,876 | 45,986 | 47,568 |
| Tioga | 40,973 | 47,513 | 49,180 |
| Union | 32,870 | 38,327 | 39,530 |
| Venango (1) | 64,457 | 72,633 | 74;672 |
| Warren | 47,449 | 53,355 | 54,955 |
| Washington | 217,074 | 243,022 | 249,161 |
| Wayne | 35,237 | 42,497 | 44,094 |
| Westmoreland | 392,294 | 438,389 | 449,139 |
| Wyoming | 26,433 | 33,746 | 35,167 |
| York | 312,963 | 356,617 | 365,756 |
| TOTALS | 11,866,728 | 12,421,704 (2) | 12,632,254 (2) |

(1) The 1980 Census data was revised by the "merging" of divided townships into a single population center in one county.
(2) State-level projections adopted from the 1978 Office of State Planning and Development (OSPD) report.
NOTE: Projections indicated above are revisions to projections utilized by DER for Water Quality Management Planning. Use of these projections establishes a uniform basis for each county.

## EXHIBIT 9

## AESTHETIC, HISTORIC AND RECREATION FACTORS

## Tab A - National Register of Historic Places

Tab B - Pennsylvania Recreational Areas

NATIONAL REGISTER OF HISTORIC PLACES

## 思

 Twin Bridges－West Paden Covered
## DATE

COLUMBIA
（cont．） Bridge No． 121 Welle Hess Covered Bridge No．S1 Shoemaker Covered Bridge Creasyville Covered Bridge Eckman，Sam，Covered Bridge No． 92
 Wagner Covered Bridge No． 19 Patterson Covered Bridge No． 112 Parr＇s Mill Covered Bridge No． 10 Kramer Covered Bridge No． 113 Rupert Covered Bridge No． 56
Snyder Covered Bridge No． 17
Stillwater Covered Bridge No． 134

White，Dr．James，House Saeger，Edward，House Roveche House

Ayres，John，House Fort Hunter Historic Keystone Building

Henderson，Dr．William，House Zion Lutheran Church and Graveyard Raymond，Charles and Joseph，Houses Enoch Matlock House

Romberger－Stover House Hershey Community Center Clemson Island Prehistoric Camp Curtin Five Station Seel，William，Building

## Bonifels

COUNTY

| COLUMBIA |
| :--- |
| （cont．） |

CRAWFORD
DAUPHIN
ELK


1979
1979
1979
1979
1979
1980
1980


Waggoner，Daniel，Log House and Barn AG Hill Complex Camelot Unionville Historic District Harmony Forge Mansion ¥อ！̣גS！ Rowland Theatre

Centre Furnace
Aaronsburg Historic District
Aaronsburg Historic Distriet

Clarion County Courthouse and Jail
Irvin－Patchin House
Clearfield County Courthouse
Murray，Thomas House
Old Town Historic District
Dimeling Hotel
McGees Mills Covered Bridge
Logan Mill Covered Bridge Mussina，Lyons，House
Apsley House
Harvey Judge，House Mussina，Lyons，House
Apsley House
Harvey Judge，House Harvey Judge，House McCormick，Robert，House
Logan Mills Gristmill Logan Mills Gristmill
Memorial Park Site David Covered Bridge
Hollingshead Covered Bridge No． 40 Johnson Covered Bridge No． 28 Riegel Covered Bridge No． 6
 Y Covered Bridge No． 156 Furnace Covered Bridge No． 11 Wanich Covered Bridge No． 69 Josiah Hess Covered Bridge No． 122 Twin Bridges－East Paden Covered Bridge No． 120
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## CLINTON

COLUMBIA
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| SITE | DATE | COUNTY | SITE |
| :---: | :---: | :---: | :---: |
| Cook, Joseph H., House | 1978 | LACKAWANNA | Crawford, James L., House |
| Locus 7 Site | 1980 | (cont.) | Watkins-Maxey House |
| St. Peter's Church | 1980 |  | Municipal Building and Central Fire |
| Carnegie Free Library | 1981 |  | Station |
| Cook, Anthony Wayne, Mansion | 1979 | LAWRENCE | Lawrence County Covered Bridges Thematic Resources |
| Burnt Cabins Gristmill | 1980 |  | Old Homestead (Pine Grove Farm) Lawrence County Courthouse |
| Carmichaels Covered Bridge | 1979 |  |  |
| King Covered Bridge | 1979 | LEBANON | Annville Historic District |
| Red, Neils, Covered Bridge | 1979 |  | Dr. B. Stauffer House |
| Hanna Hall | 1979 |  | Philip Erpff House |
| Grimes Covered Bridge | 1979 |  | Funck, Josiah, Mansion |
| Lippincott Covered Bridge | 1979 |  | Immel, John, House |
| Scott Covered Bridge | 1979 |  | Tabor Reformed Church |
| Nettie Woods Covered Bridge | 1979 |  | Bomberger's Distillery |
| Shriver Covered Bridge | 1979 |  | Landis Shoe Company Building |
| White Covered Bridge | 1979 |  | Rex House |
| Davis-Horn-Overholtzer Covered Bridge | 1979 |  | Gloninger Estate |
| Brumbaugh Homestead | 1979 | LUZERNE | Wyoming Seminary |
| St. Mary's Covered Bridge | 1980 |  | Stegmaier Brewery |
|  |  |  | Luzerne Presbyterial Institute |
| Thomas Covered Bridge | 1979 |  | Ashley Planes |
| Breezedale (Sutton-Elkin House) | 1979 |  | Guthrie, George W., School |
| Kintersburg Covered Bridge | 1979 |  | Luzerne County Courthouse |
| Trusal Covered Bridge | 1979 |  | Bittenbender Covered Bridge |
| Harmon's Covered Bridge | 1979 |  | Comerford Theater |
| Old Indiana County Jail and Sheriff's Office | 1979 | LYCOMING | St. James Episcopal Church |
| Groff's Market | 1980 |  | Faxon Lumber Co., Inc. |
| Gray-Taylor House | 1979 |  | Lycoming County Covered Bridge Thematic Resources |
|  |  |  | Reading-Halls Station Bridge |
| Central Railroad of New Jersey Freight Station | 1979 |  | Muncy Historic District |
| Dickson Works | 1979 | MCKEAN | None reported |
| Miners and Mechanics Bank Bldg. | 1978 |  |  |


| COUNTY | SITE | DATE | COUNTY | SITE |
| :---: | :---: | :---: | :---: | :---: |
| MERCER | Penn Middle School | 1979 | WASHINGTON (cont.) | Leatherman Covered Bridge |
| NORTHUMBERLAND | Kreigbaum Covered Bridge |  |  | Krepps Covered Bridges |
|  | Richards Covered Bridge | 1979 1979 |  | Henry Covered Bridge |
|  | Knoebel, Lawrence L., Covered Bridge | 1979 |  | Davis, Horn, Overholtzer Bailey Covered Bridge |
|  | Rishel Covered Bridge | 1979 |  | Day Covered Bridge |
|  | Brown, Gottlieb, Covered Bridge | 1979 |  | Scott Covered Bridge |
|  | Himmel's Church Covered Bridge | 1979 |  | Hughes Covered Bridge |
|  | Keefer Station Covered Bridge Hower-Slote House | 1979 1979 |  | Sawhill Covered Bridge |
|  | Hopper-Snyder Homestead | 1979 |  | Erskine Covered Bridge <br> Wyit Sprowls Covered Bridge |
|  | Kirk, William, House | 1980 |  | Brownlee, Scott, Covered Bridge |
| POTTER | None reported |  |  | Crawford Covered Bridge Danley Covered Bridge |
| SCHUYLKILL | Yuengling, Frank D. | 1979 |  | Miller, Longdon L.,Covered Bridge Plant's Covered Bridge |
|  | Nutting Hall | 1980 |  | Sprowl's Covered Bridge |
|  | Pottsville Downtown Historic District | 1982 |  | Wright No. 22 Covered Bridge |
| SOMERSET | Petersburg Tollhouse | 1979 |  | Grimes Covered Bridge |
|  | Somerset County Courthouse | 1980 |  | Lippincott Covered Bridge |
|  | Somerset County Covered Bridge Thematic Resource | 1980 | WAYNE | Lacawac |
|  |  |  |  | Delaware and Hudson Canal Company Gravity Railroad Depot |
| SULLIVAN | Sullivan County Covered Bridge Thematic Resource | 1979 | WESTMORELAND | Plumer House |
|  |  |  | WESTMORELAND | Plumer House <br> Squirrel Hill Site |
| SUSQUEHANNA | Montrose Inn | 1978 |  | Bells Mills Covered Bridge |
| TIOGA | None reported |  |  | Greene, Gen., Hotel Sewickley Manor |
| VENANGO | None reported |  | WYOMING | None reported |
| WARREN | None reported |  |  | - |
| WASHINGTON | Pennsylvania Railroad Passenger Station | 1979 |  |  |
|  | Mays, Blaney Covered Bridge | 1979 |  |  |

## PENNSYIVANIA

adams conuly
Fairlield. (A/RFIFI.i) $/ N N$, Main St., (4.2.

Getiyshurg. ADAMS COUNTY ( OURTHOUSE, Baltimore and W, Middle Sts., (10-1-74) PHU061034
Gettysburg. IOMBBIN HOUSE, 89 Steinwehr Ave., (3-26-73) Pifortiol2
Getiysbarg GETTYSBURG NATIONAL MILITARY PARK, (10-15-66) PH0061069 habs.
Gettysburg. LUTHERAN TIIEOLOGICAL SEMINARY-(OLD DORM. Seminary Ridge, Lutheran Theological Seminary campus, (53.74) P! 0061077 HABS.

Gettysburg. PENNSYZVANIA HALL, GETTYSBURG COLLEGE. Gettysburg College campus, (3-16-72) PH0O61085 HaBS.
Gettysburg. SHEADS HOUSE, 331 Buford Ave., (12-8-76)
Gettyshurg and vicinity. GETTYSBURG B.4TTLEFIELD HISTORIC DISTRICT, TOwn of Gettysburg and its environs. (3-19-75)
Geltysourg vicinity. BLACK HORSE TAVERN, w ô Gettysburg on PA 116,13. 30-78) Habs.
Gettysburg visinity. EISENHOWER NATIONAL HISTORIC SITE, SW edge of Gettysburg National Military Park, (11-27-67)
Hanover vicinity. COSVWAGO CHAPEL, 3 mi. NW of Hanover, (1-29.75)

Hunterstown. GREAT CONEHAGO FRENBYTERJAN CHORCH, Church Rd., (12-27-74) PH0051730
McSiburystown vicinity. CONEWAGO MASS HOUSE. N of MeStierrysiown on SR 476 (10-19-78)
New Oxford. JOHN'S BURNT MILL BRIDGE, SW of New Oxford, over South Branch of Conewago Creck, (12-16-74) PHO140104

## allegheny coonty

Bethel vicinity. MILLER, JAMES, HOUSE, E of Sethei on Manse Dr., (1-17-75)
Braddock. CARNEGIE FREE LIBRARY OF BR.ADDOCK, 419 Library St, (6-19.73) Prinos 1140
Bruceton vicinity. EXPCRIARENTAL MANE, S of Bruceton off Cuchran Mill Rd., (10-1877)

Bureton vicinity. EXPERIMENTAL MINE, U.S. BUREAU OF MINES, $S$ of Bruceton off Cuchran Mill Rd., (10-18-74) (1-2-76)
Churchill. BEULAA PRESBYTERIAN CHURCH, Beulah and McCready Rds., (11-3-75)
East Pittsourgh. WESTINGHOUSE GEORCE, MEMORIAL BRIDCEE, U.S. 30 at Turtle Creek, (3-28-77)
Edgeworth. SHIELDS, DAVID, HOUSE (NEWINGTON), Shields Lane, ( $10-29-75$ )
Gienshaw. LIGHTNER, IS.A.AC, HOUSE, 2407 Mt. Royal BIvd., (4-20-78)
Heidelberg vicinity. NEVILLE HOUSE, $S$ of Heidelberg on PA 50, (2-5-74) PH0061204 G.

Natrona Heights vicinity. BURTNER STONE HOUSE. NW of Natrona Heights on Burtner Rd., (1-13-72) PHOO61115
Oakdale vicinity. WAI.KER-EJVING LOG HOUSEE, NE of oakdate on Noblestown Rd. (1-30.76)
Pittshurgh. ALLEGHENY COUNTY COURTHOUSE AN! JAIL. 436 Grant St. (3-7.73) PHOO6! 1093 NHL; HABS.
Pittsburgh. ALLEGHENY POST OFFICE (OLD NORTH POST OFFICE), Allegheny Center, (7-27-71) PH0061107 HABS; G .

Pittshurgh. ALIAGGHENY WEST HISTORIC OMSFRICT, romphly bounded ing Brighton Red., bonik Way. Ridge and Allepheny Aves., 111-2781
Pilthourgh. DtiRKE Bt/LIDIV(i, 209-2il 4 th Ave., (9-18-78)
Pittsburgh. BUTLER STREET GATEHOUSE, 4734 Iutler St., (7-30.74) PH0061:23
Pittshurgh. BYERS-LY(ONS HOUSE, 901 Ridge Ave., (11-19.74) P10062821
Pitisburgh. CARNEGIE FREE LIBRARY OF ALLEGHENY, Allegheny Center, (11-1-74) Ph0061131
Pittsburgh. CATHEDRAL OF LEARNING, Forbes Ave. and Bigcluw Elvd., (11-3-75)
Pittsburgh. DOLLAR SAVIVGS BANK, 4 th Ave. and Smithfield St., (7-14-76)
Pittsburgh. DUQUESNE INCLINE, 1220 Grandview Ave., (3-4-75)
Pittsburgh. EAST LIBERTY MARKET, Centre Ave. and Baum Blvd., (12-12-77)
Pittsburgh. EMMANUEL EPISCOFAL CHURCH, North and Allegheny Aves., (5-3-74) PHOO61158
Pittsburgh. EVERGREEN HMMLET, Evergreen Hamlet Rd., (9-17.74) PH0061166
Pittsourgh. FORKS OF THE OHIO, Point Park, (10-15-66) PH0112453. NHL.
Pittsburgh. FRICK BUILDING AND ANNEX, 437 Grant St., (5-22-78)
Pittsburgh. GARDNER-BAILEY HOUSE, 124 W. Swissvale Ave., (10-1-74) PH0061182

Pittsburgh. HEATHSIDE COTfAGE, 410 Catoma S:., (12-50-74) PH006495S
Pittsburgh. HIGHLAND TOWERS APARTMENTS, 340 S. Highiand Ave., (9-28-76)
Pittsburgh. MAIN BUILDING, U.S. BUREAU OF MINES, 4800 Forbes Ave., (5-24-74) PHOO61191
Pittsburgli. MANCHESTER HISTORIC DISTRICT, Irregular pattern contained with Faulsey, Chateau, Franklin, and Bidwell Sts., (9-18-75)
Pattourgh. MEXICAN W.AR STREETS HISTORIC DISTRICT, Irregular pattern between Brighton and Arch Sts. and betweer. O'Hern and West Park, (5-28-75)
Pittshurgh. MORELAND-HOFFSTOT HOUSE, 5057 5th Ave. (2-23-78)
Pittsburgh. OLD hEIDELEERG APART$M E N T S, B r a d d a c k$ Ave. at Waverly St., (5. 4-76)
Pittsburgh. PENNSYLVANIA RAILROAD STATION, 1101 Liberty Ave., (4-22-76)
Pittsbligh. PHIPPS CONSERVATORY Schenley Park, (11-13-76)
Pittsburgh. PITTSBURGH \& LAKE ERIE KAILKOAD STATION, Smithfield St. at Carson St. . (1-11-74) Phioos 1212 ifabs.
Pittsburgh. PITTSBURGH ATHLETIC ASSOCIATION BUILDING, 4215 5th Ave., (12-15-78)
Pittsburgh. ROTUNDA OF THE PENNSYLVANIA RAILROAD STATION, 1100 Liberty Ave. at Grant St., (4-11.73) PHOO6122 1 घass.
Pittsburgh. SHADYSIDE PRESBYTERIAN CHURCH, Amberson Ave, and Westminster PI., (4-3.75)
Pittsburgh. SINGER, JOHN F., HOUSE, 1318 Singer Pf., (11-13-74) P40061255
Pittshurgh. SMITHFIELD STREET BRIDC; E, Smithfield St. at the Monongahela River, (3-21-74) PHOO61263 NHL.
Pittsburgh. SNYIIER, WILLIAM PENN, HOUSE, 852 Ridge Ave $(5-3.76)$
Pittsburgh. SOLDIERS AND SAILORS MEMORIAL HALL, 5th Ave. at Bigelow Blvd., (12-30-74) PH0035068
Pittsburgh. SOUTH SIDE MARKET BUILD. ING, 12 th and Bingham Sts., ( 10 -14-76)

Pittshurgh. ST: JoIIN II.HPTISTCS UKR.INV.tiv ( 4 CHOLIC CHKRCH, 109 S . Carson St. (10-29-74) P15005!239
Pittsburgh. ST. STAN/SL.Al/S K()STKA ROMAN CATHOLIC CHURCH, 21 st and Smallman Sts., (9-14.72) PUMOMS 247
Pittsburgh. UNION TRUST ETHLDING, 435 Grant St., (1-21-74) PH0061271
Pittsburgh. WAY, NICHOLAS, HOUSE, 108 Beaver Rd., (9-13-78)
Pittsburgh (Mount Washington). MOVONGAAELA INCLINE, Grandview Ave. at Wyoming Ave., (6-25-74) PH0088668
Pittshurgh vicinity. FULTON LOG HOUSE, NW of Pittsburgh on Clifton-Bridgeville Rd. off PA 65, (12-6-75)
Springdale. CARSON, RACHEL, HOUSE, 613 Marion Ave., (10-22-76)

## armstrong county

Cowansville vicinity. ST. PATRICK'S ROMAN CATHOLIC CHURCH, W of Cowansville off PA 268, (3-21-78)
Dayton. MARSHALL, THOMAS, HOUSE, State St., (4-22-76)

## beaver county

BEGINNING POINT OF THE U.S. PUBLIC LAND SURVEY, Reference-sie Columbiana County, OH (1-2-74)
Aliquippa. JONES, B. F., MEMORIAL LIBRARY, 663 Franklin Ave., (12-15-78)
Ambridge vicinity. OLD ECONOMY, NE of Pittsburgh on PA 65, (10-15-66) PHO1 12461 NHL.
Beaver. FORT MCINTOSH SITE, River Rd., (4-24-75)
Beaver. QUAY, MATTHEW S., HOUSE, 205 College Ave., (5-15-75) nith.
Darlington. GREERSBURG ACADEMY, Mar* ket St., (2-24-75)
Freedom. VICARY, CAPT. WILLIAM, HOI/SE, 1251 4th St., (11-8-74) PH0061280
Harmony. LEGICNVILLE, Between Duss Ave. and PA 6S, (3-27-75)

## bedford county

Bedford. BARCLAY HOUSE, 230 Juliana St., (9-18-78)
Bedford. ESPY HOUSE, 123 Pitt St., (11-19. 74) PH0073491

## berks county

Albany vicinity. BERK, DANJEL, LOG HOUSE, $S$ of Albany on Maiden Creek, (12-16-77)
Bally vicinity. CHRISTMAN, PIJILJP, HOUSE, 1 mi . SE of Baily at the Berks/Montgomery County line, (3.7-73) PH0061328
Birdsboro vicinity. BOONE, DANIEL, HOMESTEAD SITE AND BERTOLET CAB/N, $2 \mathrm{mi} . \mathrm{N}$ of Birdsboro, (3-24-72) PH0061310
Centerport vicinity. BELLMAN'S UNION CHURCH, SW of Centerport off Rte. 726, (12-4-73) PH0061301
Douglassville. OLD SHEDE'S HIOUSE, Old Philadelphia Pike, (1-21-74) Pli0061361 habs.
Douglassville. ST. GABRIEL'S EMISCOPAL CHURC'H, U.S. 422, (3-8-78)
Douglasville. WHITE HORSE TAVERN, 509 Oid Philadelphia Pike, (4-21-75)
Kusztown vicinity. HOTTENSTEIN MANSION, 2 mi. E of Kutztown on U.S. 222, (6. 22-72) PH0061336
Kutztown vicinity. KEMP'S HOTEL, E of Kutztown on US 222, (12-19-78)
Leesport. LEESPORT LOCK HOUSE, Walt St., (6-9.77)

Lenhartsville. LANUART FURM, jct. of U.S. 22 and PA 143, (9-18-78)
(.ohnchsville vicinity. KERM HOMESTE.4D, W of Lobachsville, (5-1-74) P100661344 IIABS.
Morgantown vicinity. Hobewell VILLACE NATIONAL HISTORIC SITE, 10 mi . NE of Morgantown off Pennsylvania Tpke., (10-15-66) PHO130737 HABS.
Reading. ASKEEW BRIDGE, N. 6th St. near Wuodward St. (3-1-73) PHOO61298 inans.
Reading. ASTOR THEATER, 730-742 Penn St., (1-5-78)
Reading- PAGOD.A, Mount Penn, at jet. of Duryea Dr. and Skyline Blvd., (11-7-72) PHOO61352 G.
Reading. TRINITY LUTHERAN CHURCH, 6th and Washington Sts., (6-7-76)
Reading vicinity. GRUBER UAGON WORKS, W of Reading off PA 183 in Tulpehocken Creek Park, (6-2-72) PIfO112763 HAER; NHL.
Reading vicinity. WERTZ'S COVERED BRIDGE, NW of Reading spanning Tulpehocken Creek, (11-17-78)
St. Lawrence. LEVAN FARM, PA 562, (12-19-78)
Stonersville vicinity. MILL TRACT FARM, NE of Stonersville on Mill Rd., (9-22-77) Habs.
Topton vicinity. SALLY ANN FURNACE COMPLEX, SW of Topton. (8-17-76)
Wernersville vicinity, OLD DRY ROAD (STAUDT FARM), $3 \mathrm{mi} .(4.8 \mathrm{~km}) \mathrm{NW}$ of Wernersville on Highland Rd.. (1-23-78)
Womelsdorf vicinity. WEISER, CONR,AD, HOUSE, 2 mi . E of Womelsdorf, (10-15-66) PH0061379 NHL.
Yellow House vicinity. FJSHER, HENRY, HOUSE, About 1.25 mi . N of Yellow House on PA 662, (6-4-73) PH0061395

## hlair county

Altoona. BAKER MANSION, 3500 Baker Blyd., (6-5-75)
Altoona. DUDLEY, CHARLES B., HOUSE, 802 Lexington Ave., (S-11-76) NHL.
Altoona. MISHLER THEATRE, 1208 12th Ave., (4-11-73) PH0061417
Altoona vicinity. HORSESHOE CURVE, 5 mi . $W$ of Altoona on PA 193, (11-1.3-66) PHOL12445 NHL.
Culp vicinity. FORT ROBERDEAU, W of Culp off U.S. 220, (5-29-74) PH0061 409
Cuip vicinity. ST. JOHN'S EVANGEL/CAL LUTHERAN CHURCH, NE of Culp, (9-1878)

Hollidaysburg. BLAIR COUNTY COURTHOUSE, 423 Allegheny St., (6-1776)

Hollidaysburg. HIGHLAND HALL, 517 Walnut St, (9-13-78)
Johnstown vicinity. ALLEGAENY PORTAGE RAILROAD NATIONAL HISTORIC SITE, U.S. 22, (10-15-66) (also in Cambria County)
Willinmsburg vicinity. ETNA FURNACE, N of Wilitamsburg, (4-11-73) P150061387
Williamsburg vicinity. ROYER, DANIEL, HOUSE, 5 mi . SW of Williamsburg on PA 866,(11-3-75)

## bradford county

Troy. VAN DYNE CIVIC BUll.DINC, Main and Elmira Sts., (1-21-74) P110061425

## bucks county

Carversville. CARVERSVILLE HISTORIC DISTRICT, Off PA 32 (12-13-78).
Cornwells Heights. ST. ELIZABETH'S CONVENT, 1663 Bristol Pike, (3-21-78)

Cornwalls Heights TREVOSE MANOR (JOSEPH GROWDEN HOUSE), S40S C'1 Trevose R(I., (5-24-76)
Doylestown. $\mathcal{F}$ ONTH:LLL, E. Court St. at int section of PA 313, (6-1:72) P1(06,71536
Duylestown. FOUNTAN HOUSE, State and Main Sts., (3-16-72) PH0071544
Doylestown. JAMES-LORAH HOU (JUDGE CIIAPAIAN HOUSE), 132 Main St., ( 10 -17-72) PH0071609 IIABS.
Doylestown. MERCER MUSEUM, Pine and Ashland Sts.. (3-16-72) PHO1 12771
Doytestown. MORAVIAN POTTERY Ai ) TILE WORKS, Court St. and PA 313, (6 72) PH0071633

Dublin vicinity. GREEN IIILLS FARM, SW of Dublin on Dublin Rd., (2-27-: , PH0071552
Durham. DURHAM MILL AND FURNAC Durham Rd., (1i-21-76)
Easton to Bristol. DELAWARE DIVISION OF THE PENNSYLVANIA CANAL, Parallels bank of the Delaware River from Easton Bristol, (10-29-74) PHOO34193 NHL. (a... in Northampton County)
Fairless Hills. SOTCHER FARMHOUSE, 335 Trenton Rd., (12-27-77)
Fallsington. FALLSINGTON HISTORIC D TRICT, S of U.S. 1, E of New Tyburn R.., (6-19-72) PH0071528
Langhorne vicinity. EDGEMONT (JENKS HOMESTEAD), N of Langhorne Bridgetown Rd., (12-16-77)
Levittown. PEMBERTON, PHINEAS, HOU د心 (BOLTON MANSION), Holly Dr., (9-2871) PHOO7i641 g.

Morrisville. SJMMERSEAT (THOMAS BA CLAY HOUSE), Clymer St. and Mor Ave., (7-17-71) PHOO71663 NHL.
Morrisville. TRENTON CITY/CALHOUN STREET BRIDGE, Spans Delaware Ri… between Morrisville, PA and Trenton, 1 ( $11-22-75$ ) (also in Marcer County, NJ)
Morrisville vicinity. PENNSBURY MANOR, On the Delaware River $S$ of Bordentown Rd., (10-28-69) PH0071650
New Britain vicinity, JAMES, MORGA HOMESTEAD, NW of New Britain on Fe Rd., (12-27-77)
New Hope vicinity. CHAPMAN, JOHN, HOUSE, S of New Hope off PA 232 Eagle Rd.,' (1-24-74) PH0071510
New Hope vicinity. EAGLE TAVERN, S New Hope, (4-20-78)
New Hópe vicinity. HONEY HOLLOW WATERSHED, 2.5 mi . S of the Dclawe River on PA 263, (8-4-69) PH0071595 N6
New Hope vicinity. SMITH FAM/LY FAR: STEAD, S of New Hope on River Rd., (1-30-78)
Newtown. HALF-MOON INN, 101 and 1 Court St., (12-6-77)
Newtown. NEWTOWN FRIENL. MEETINGHOUSE AND CEMETERY, Court St., (7-21-77)
Newtown vicinity. LEEDOM, DAVID, FARI SW of New town off Richboro Rd., (1-1-76
Newtown vicinity. MAKEFIELD MEETINu (MAKEFIELD MONTHLY MEETING), NE of Newtown at Mt. Eyre Rd. and Dolinon ton Rd., (1-18-74) Pliciol 1625
Newtown vicinity. TAYLOR, BENJAMI, HOMESTEAD, NE of Newtown off SR. $53_{4}$. (12-6-75)
Ottsille. KED HILL CFURCH ANN SCHOOL, Durham Rd., (5-22-78)
Philadelphia vicinity. ANDALUSI (NICHIOLAS BIDDLE ESTATE), $1.4 \mathrm{mi} . \mathrm{m}$ of Philadelphia on PA 32, (11-13-66) PH0075116 NHL.

Pincville
vicinity.
KEITH hOUSE-WASHINGTONS HEADQUARTERS, E of Pineville on Pineville Rd., (11-14-78)
Pipersville vicinity, STOVER-MYERS MILL., N of Pipersvilte on Dark Hollow Rd., (9-1378)

Quakertown. LIBERTY HALL, 1237 W Broad St., ( 1 -26-78)
Richboro. HAMITON HHLI. (BENNET. SE.tRCH HOUSE), 1269 Second Sircet Pike, (4-2-73) PHOO7!561
Richboro. TWIN 7REES FARM, 905 2nd St. Pike, (6-5-75)
Richboro vicinity. THOMPSON, JOHN HOUSE, 1925 2nd St. Pike, (7-16-73) PHOO71676
Rushlard vicinity. VANSANT FARMHOUSE, N of Rushiand on Ceder Lane, (8-2-77)
Southampton. SOUTHAMPTON BAPTIST CHURCH AND CEMETERY, 2nd St. Pike and Maple Ave., (9-18-78)
Wrightstown. SMITH, WILLIAM, HOUSE, Mud and Penns Park Rd., (4-13-77)
Wrightstown. WRIGHTSTOWN FRIENDS MEETING COMPLEX, PA 413, (10-29-75)
Wrightstown vicinity. HAYHURST FARM. NE of Wrightstown on Eagle Rd., (2-12-74) PHOO7 1579
Yardley vicinity. WASHINGTON CROSSING STATE PARK, Between Yardley and New Hope, on the Delaware River, (10-15-66) PH0071684 NuL; G . (also in Mercer County, NJ)

## butler county

Butler. BUTLER COUNTY COURTHOUSE, S. Main and Diamond Sts., (9-15-77)

Harmony. HARMONY HISTORIC DISTRICT, PA 68, (9-13-74) PH0071692 NHL.
Saxonburg. ROEBLING, JOHN, HOUSE, Rebecea and Main Sts., ( 1 1-13-76)
Zelienople. PASSAVANT HOUSE, 243 S. Main St., (4-11.-77)

## cambria county

Johnstown. CAMBRIA PUBLIC LIBRARY BUILDING (CARNEGIE LIBRARY BUILDING), 304 Washington St., (6-1972) PH0071706 G.

Johnstown. JOHNSTOWN INCLINED RAlL.WAY, Johns St. and Edgehill Dr., (6-18-73) PH0071714
Johnstown vicinity. JOHNSTOWN FLOOD NATIONAL MEMORIAL, Jct. of U.S. 219 and PA 869, (10-15-66)

## carbon county

Iim Thorpe. CARBON COUNTY JAIL, 128
Broadway St., (11-8-74) PH0035106
Jim Thorpe. CEVTRAL RAILROAD OF NEW JERSEY STATION. Susquehanna St., (1-176)

Jim Thorpe. OLD MAUCH CHUNK HISTORIC DISTRICT, Broadway, Susquehanna, Race, and High Sts., ( 1 -10-77)
Jim Thorpe. P.ACKER, ASA, MANSION, Packer Rd. ( $12-30-74$ ) PH0035084
Jim Thorpe. PACKER, HARRY, MANSION, Packer Rd., (11-20-74) PH0071722
Jim Thorpe. ST. MARK'S EPISCOPAL CHURCH, Race and Susquehanna Sts., (7-26-77)
Jim Thorpe, Summit Hii! and vicinity. MAUCH CHUNK AND SUMMIT HILL SWITCHBACK RAILROAD, Between Ludiow St. in Summit Hill and F.A.P. 209 in Jim Thorpe, (6-3-76) HaER.

## centre crumety

Bellefonte. BELLEFONTE ACADEMY, 225 E. Bishop St., (11-7.76)

Bellefonte. BEILEEONTE IIISTORIC DIS. TRICT, Roughly bounded by Stony Batter, Ardell Alley, Thomas, Armor Penn, Ridge, and Logan Sts., (8-12-77)
Bellefonte. BROCKERHOFF HOTEL, High and Allegheny Sts., (4-11-77)
Bellefonte. CENTRE COUNTY (OURTHOUSE, High St., (11-7.76)
Bellefonte. GAMBLEE MILIL, Dunlap and L.ambSts., (8-1-75)

Belletonte. MHAES-HUMES HOUSE, 293 N . Altegheny St., (10-21-76)
Bellefonte. SOUTH WARI) SCHOOL, Bishop St., (2-23-78)
Bellefonte. THOMAS, WHLLIAM, HOUSE, 266 N. Thomas St., (11-13-76)
Bellefonte vicinity. L.OCAN FI/RNACE MAN$S /() N, 3 \mathrm{mi}$. S of Bellefonte on PA 144, (4-(1-77)
Boalsburg. BO.AL MANSION, U.S. 322 and PA 45, (12-4.78)
Boalsburg. BOALSBURG HISTORIC DISTRICT, U.S. 322, (12-12-77)
Boalsburg. HILL HOUSE (COL. JAMES JOHNSTON HOUSE), Tennis St., (3-28-77) Centre Hall vicinity, BECK, JAMES, ROUND BARN, $3.2 \mathrm{mi} .(5.1 \mathrm{~km}$ ) E of Centre Hall on PA 192, (2-17-78)
Centre Hall vicinity. GREGG, ANDREW, HOMESTEAD, 2 mi . E of Centre Hall off PA 1.92, (7-28-77)
Centre Hall vicinity. NEFF, MAJ. JOHN, HoMESTEAD, SW of Centre Hall, (4-II77)

Centre Hall vicinity. PENN'S CAVE AND HOTEL, $5 \mathrm{mi} .(8 \mathrm{~km})$ E of Centre Hall off PA 192, (4-14-78)
Centre Hall vicinity. POTTER-ALLISON FARM, SE of Centre Hall on PA 144, (12-6-77)
Curtin. CURTIN VILLACiE (EAGILE IRONWORKS), Off U.S. 220, (3-11-71) PHOL 12780
Madisonburg. PICKLE, SIMON, STONE HOUSE, Jct. of PA 192 and PA 445, (4-1877)

Milesburg. IDDINGS-BALDRIDGE HOUSE, Railroad St., (7-29-77)
Philipshurg. PHILIPS, HARDMAN, HOUSE, Presquisle and 4th Sts., (9-18-78)
Philipsburg. UNION CHURCH AND DURIAL GROUND, E. Presqueisle St., (5-23-78) habs.
Port Matilda vicinity. GRAY, JOHN, HOUSE, $E$ of Port Matilda off PA 550, S of U.S. 220 , (4-3-75)
Rebersburg vicinity. CENTRE MILLS, SW of Rebersburg off PA 445, (12-12-76)
Spring Mills vicinity. ALLISON, WILL/AM, HOUSE. : mi. W of Spring Mills on PA 45, (4-18-77)
Spring Mills vicinity. FISHER, MAJ. JARED B., HOUSE, NE of Spring Mills on PA 45. (9.14-77)

State College. THOMPSON, GEN. JOHN, HOUSE, E. Branch Rd., (3-29-78)
Stormstown. ELDER, ABRAHAM, STONE HOUSE/TAVERN, PA 550. (4-13-77)
Wcodward. WOODWARD INN, PA 45, (12-18-78)

## chester county

Birchrunville. BIRCHRUNVILLE GENERAL STORE, Hollow and Flowing Springs Rds., (3-21.78)
Birmingham. BIRMINGHAM FRIENDS MEETINGHOUSE AND SCHOOL, 1245 Birmingham Rd., (7-27-71) PH0071749 habs.

Birmingham vicinity. DAVIS, DANIEL, HOUSE ANI) B.ARN, Birmingham and Street Rd. (PA 926) (4-11-73) PHOO71820
Birmingham vicinity. EDGEWOOD (CHARLES SHARPLESS HOUSE), SE of Birmingham at jct. of L.R. 15087 and 15221. (3-7-73) PH0071871

Bucktown vicinity. MICHENER, NATHAN, HOUSE. W of Bucktown on Ridge Rd., (43.76)

Chadds Ford. ( $-4 K \mathrm{Cl}$ ALE, Hillendate Rd., (1-13-72) Pf(0072001
Chadels Ford vicinity. bRINTON, EDWARD, HOUSE. NW of Chadds Ford on PA 100, (6,19-73) 1 HOO 71765
Chadds Ford vicinity. BRINTON'S MII.L. N of Chadds Ford on U.S. 100 , (5-27-7!) Plio071773
Chadds Ford vicinity. HARVEY, WILLIAM, HOUSE, NW of Chadds Ford on Brinton's Bridge Rd. off U.S.I, (5-27-71) PH0071927 habs.
Chadds Ford vicinity. PENNSBURY INN, On U.S. I at jet. with Hickory Hill Rd., (3:1672) PHOO 22044

Chatham vicinity. PRIMITIVE HALL. 2 mi . NW of Chatham on PA 841, (3-19-75) hass.
Chester Springs vicinity, GOOD NEWS bIJILDING (YELLOW SPRINGS SPA), N of Chester Springs on Art School Rd., (S-27-71) PH0071897 Habs.
Chester Springs vicinity. HALL'S BRID)(FE, About 3 mi . N of Chester Springs at Sheeder Rd, and Birch Run, (4-23-73) PHOO7.1901
Coatesville. HIGH BRIDGE, Spans west branch of the Brandywine, (3-26-76)
Coatesville. HUSTON, ABRAM, HOUSE AND CARRIAGE HOUSE, 53 S. 1st Ave., (9-15. 77)

Coatesville. LUKENS MAIN OFFICE BUILD. IN(; 50 S. ist Ave., (5-24-76)
Cortesvilic. NATIONAL BANK OF COATESVILLE BUILDING, 235 E. Lincoln Highway, (9-14-77)
Coatesville. TERRACINA, 76 S. 1 st Ave., (12-(3-78)
Coventryville. COVENTRY HALL, Off PA 23, (12-16-74) PHOOS1721
Devault vicinity. SPRINC MILL COMIRLEX, SW of Devault at jet. of Moores Rd. and PA 401, (12-14-78)
Dilworthtown. DILWORTHTOWN HISTORIC DISTRICT, Jct. of CR 15199 and 15087. (118.73) PH007.1846

Downingtown vicinity. ROOKE, ROBERT, HOUSE, N of Downingtown on Horseshoe Trail at Fellowship Rd., (9-19.73) PH0072109
Downingtown vicinity. WHEELEN HOUSE, NE of Downingtown on Fellowship Rd., (620.74) PH0072206

Eastown. WAYNESBOROUGH. 2049 Waynesborough Rd., (3-7.73) PH0072176 NHL; HABS.
Elverson vicinity. WARWICK MILLS, E of Elverton off PA 23 on James Mils Rd., (12-30-74) PH0085022
Ercildoun vicinity. PIERCE, LUKENS, HOUSE (FALLOWFIELD OCTAGONAL HOUSE), NW of Ercitdoun on Wimington Rd., (3-14-73) PH0072061 Hass.
Exton. ZOOK HOUSE; Off U.S. $30,(1-1.76)$
Hamorton vicinity. BARNS-BRINTON HOUSE, E of Hamorton on U.S. 1, (5-2771) PH0071731 HABS: G.

Hamorton vicinity. LONGWOOD GARDENS DISTRICT, On U.S. 1, (10.18.72) PH0071978

## NOTiCES

Kennett Square vicinity. CEDARCROFT (B,I) tRD TAYI.OR HOUSE), $N$ of Kennett Saf., (1le11.71) Plocili731 Nitt.
Kenmen Sumbe vicmity. MiRVEY, JETER, HOHSE AN/ BARN. f: of kennct Sq. on Yalfendate RU., (4-20.78)
Kimberton. KIMRERTON VILLACE HISTORIC DISTRICT, Both sides of Hares Hill Rd. between Kimberton and Cold Stream Rds., (5-6-76)
Kimberton vicinity, KENNEDY BRIDGE, N of Kimberton off PA 23 on Seven Stars Rd. over French Creek, (1-21-74) PH0071935
Kimberton viciniiy. STRICXLAND-RORERTS HOMESTE.41), $3 \mathrm{mi} .(4.8 \mathrm{~km}$ ) S of Kimberton on St. Natthews Rd., ( 1-30-78)
Knauertown vicinity. WARRENPOINT (WILLIAM BR.ANSON HOUSE), W of Knuuertown off PA 23, (11-11-75) HABS.
Knaucrtown vicinity. WARIICK FURNACE/FARMS, S of Knauertown off PA 23 on Warwick Furnace Rd., (9-13-76)
Lenape vicinity. EAST BRADFORD BOARDING SCHOOL FOR BOYS, 1 mi . E of Lenape at West Chester and Sconnelltown Rds., (3-7-73) PHiOO71854
Liqnville. UWCHLAN MEETINGHOUSE, N . Village Ave. (Rte. 113), (9-20-73) PHOO72141 g.
Malvern vicinity. wrIITE HORSE TAVERN. NW of Malvern at 480 Swedesford Rd., (12-29-78)
Marshallion. BRADFORD FRIENDS MEETINGHOUSE, E side of Northbrook Rd., (7-27-71) Pi!0071757
Marsiailton. MARSHALL, HUMPHRY, HOUSE, Strasburg Re. (PA 62) at jct. of Northbrook Rd., (5-27-71) PH0071986 нabs.
Marshaliton. MARSHALLTON INN, W. Sirasburg Rd., (7-29.77)
Marshailton vicinity. CARTER-WORTH HOLISE AND FARM, 450 Lucky Hill Rd., (9-15-77)
Mendenhall. PETERS, WILLIAM, HOUSE, Hillendale Rd., (5-27-71) PH0073415
Mendenhall vicinity. SPRJNGD.ilE FARM (ELHOOD MENDENHALL FAKM), NW of Mencienhall on Hillendale Rd., (3-7-73) P40072095
Mont Clare vicinity. RAPPS BRIDGE, W of Mont Clare off PA 724 on Mowere Rd., (6-18-73) PH0072079
Norristown vicinity. VALLEY FORGE, Valley Forge State Park, (10-15-66) 1110072150 NHL; haBs. (aiso in montgomery county)
Noritbrook. DEREYDOHN HOMESTEAD, At jct. of CR 15077 and 15080, (4-2-73) PHOO71838
Parkersville vicinity. PARKERSVILLE FRIENDS MEETINGIIOUSE, S of Parkersville off PA 926, (3-20-73) PHON72036
Phoenixville vicinity. CZARLESTOWN VILLAGE HISTORIC DISTRICT, SW of Phoenixville on Charlestown Rd., (5-16-78)
Phoenixville vicinity. DEERY FAMILY HOMESTEAD, W of Phoenixville, (12-2377)

Phocnixville vicinity. FAGLEY HOUSE, W of Phoenixville on Árt School Rd., (5-3-76)
Phoenixville vicinity. HARE'S HILL ROAD BRIDGE, W of Phoenixville on Hare's Hill Rd. (3-28-78)
Phoenixville vicinity. HARTMAN, GEORGE, HOUSE, W of Phoenixville on Church Rd., (3-26-76)
Phoenixville vicinity. MARTIN-LITTLE HOUSE, $S$ of Phnenixvilic off PA 113 on Church Rd., (7-2-73) PH0071960

Phoenixville vicinity. Af(O)RE HALL, E of Phoenixvitle on Valley Forge Rd., (11-1974) P190073466 11, 115.
 MATTills S, FARM, $S$ of Phocnixville on White Horse Rd., (12.27-77)
Phocnixville vicinity. PRITER'S MILL COMPLEX. W of Phoenixville on Scuen Stars Rd., (9-6-78)
Phoenixville vicinity ST. PETER'S CHURCH IN THE GREAT VALLEYY, S of Phocnixville off PA 423, (11-21-77)
Phosnixville vicinity. STONOROV, OSKAR G., HOUSE, SW of Phoenixville on Pickering Rd., (12-6-75)
Phoenixville vicinity. WILLLAMS, JOHN, FARM, S of Phoenixville on Union Hill Rd., (12-15-78)
Pottstown vicinity. COVENTRYVILLE HISTORIC DISTKICT, S of Pottstown on PA 23, (1-31-78)
Pughtown vicinity. MEREDITH, SIMON, HOUSE, 0.5 mi. W of Pughtown on Pughtown Rd., (12-16-74) PHOOS1713
Pughtown vicinity. TOWNSEND HOUSE, SW of Pughtown off PA 100 , (12-16-74) PH0062731
Romansville vicinity. TEMPLE-WEBSTERSTONER HOUSE, E of Romansville off PA 162, (3-7-73) P!10072133 навs.
Tredyffrin.
WETHERBY-HAMPTON-SNYDER-WILSON-ERDRAAN LOG HOUSE, 251 Inish Rd., (4-2-73) Pli0072184
Valley Forge State Park. STEUBEN, GEN. FREDERICK VON, HEADQUARTERS, PA 23. (11-28-72) PH0072168 NHL.

Valley Forge vicinity. CRESSRROOK FARM (J)HN HAVARD HOUSE), S of Valley Forge, off U.S. 76, (10-26-72) PH0071811
Valley Forge vicinity, EAST, NICHOLAS, HOUSE, W of Valley Forge on Kimberton Rd., (4-2-73) PH0071862
Valiey Forge vicinity. ESHERICK, WHARTON, STUDIO, SW of Valley Forge off Country Club Rd., (4-26-73) PH0072192
Valiey Forge vicinity. $H A R V A R D, ~ D A V I D$, IIOUSE, S of Valley Forge off U.S. 75, (10-26-72) PHU071919
Valley Fcrge vicinity. LAFAYETTE'S QUARTEPS, SE of Valley Forge on Wilson Rd., (6-20-74) PHOO71943
Valley Forge vicinity, LICHTFOOT MILL, W of Vailey Forge off PA 401, (4-13.73) peivo71951
Valley Forge vicinity. STIRLING, MAI. GEN. LORD, QUARTERS, $S$ of Valley Forge on Yellow Springs Rd., (2-15-74) FifOO72117
Wagontown vicinity. HIBERNIA HOUSE, N of Wagentown off PA 340, (11-20-75)
Warwick Towrship. ROGERS, PHILLIP, HOUSE (FENN WICK), Ridge Rd., (5-2573) PHCO72087 HABS.

Wert Chester. CIIESTER COUNTY COURTHOUSE, 10 N. High St., (6-5-72) PHOO7:790 HABS.
We:s Chester. COLLINS MANSION, 633 Goshen Rd., (11-9-72) PH0071803 Habs.
West Chester. FIRST PRESBYTERIAN CHURCH OF WEST CHESTER, 130 W . MinerSt., (11-27-72) PH0071889
West Chester. NATIONAL BANK OF CHESTER COUNTY, 17 N . High St., (6-572) PH0071994

West Chester. STRODE'S MILL (ETTER'S MILL ), Jet. of PA 100/S2 and CR 15087, (5-27-7i) PHOO72125 HABS.
Went Chester vicinity. OLD KENNETT MEETINGHOUSE, S of West Chester on U.S. 1, E of jet. of PA 52, (7-15-74) PH0072010

West Chester vicinity. ORTHODOX ATEETHNKHOUSE (BIRMINGHAM ORTI:OBOX AFEETIN(IIIOUSE), SW Wist Che"ier on Brmingham Rd., (4-2 72. 1010672428

## clearfield county

Cooper Senlement vicinity. ST. SEVERIV'S ()LI) L.()(; (HURCII, W of Cooper Sett ment off PA $\because 3,(6-5-75)$
Dubois. DUBOIS MANSION, Coilege Pl., ( $--~_{-}$ 16-75)

## clinton county

Lock Haven. HEISEY HOUSE, 362 E. Wa St., (3-16-72) PHOO34932 G.
Lock Haven. WATER STREET DISTRICT, (7--10-73) PH0034916
columbia county
CATAWISSA
Catawissa. CATAWISSA FRIEN;
MEETINGHOUSE, South and 3rd Sts., (6MEETINGH

## crawford county

Cambridge Springs. RIVEXSIDE HOTEL, Fountain St., (12-13-78)
Meadville. BALDWIN-REYNOLDS HOUSE, Terrace St., ( $12-30-74$ ) PH0062545
Meadville. BENTLY ISALL, Alicgheny Colk : campus, (5-6-77) hass.
Meadvilie. INDEPENDENT CONGRECIATIONAL CHURCH, 346 Chestnut St., (3-878)

Meadville. MOSIER, DR: J. R., OFFICE, T. race St., (3-28-77)
Meadville. RUTER HALL, N. Main St, on Allegheny College campus, (9-18-78)
New Richmond. BROWN, JOHN, TANNE Y SITE, Off PA 77. (12-14-78)
Prairie du Chien. DOUSMAN HOTEL, Wi $r$ St., (10-15.66) NHL.
Titusville. TITUSVILLE CITY HALL, 107 N . Franklin St., (3-31-75)

## cumberland county

Camp Hill. PEACE CIIURCH, NW corner of Trindle and St. Join's Rus., (3-24.72) PHOO34967
Carlistc. CARLISLE INDIAN SCHOOL E edge of Carlisle on U.S. $11,(10-i 5 . j)$ PHOI 12437 NHL.
Cartisle. HESSIAN POWDER MAGAZIVE, Guardhouse and Garrison Lanes, (5-17 i) PHOO34959
Carlisle. OLD WEST, DICKINSON $C L$ LEGE, Dickinson Co!!ege campus, (10-1566) PHO11 2402 NHL.

Dickinson vicinity. PINE GROVE FURN, E, S of Dickinson on PA 233, (4-13-77)
Mechanicsburg. CUMBERLAND VAL_Y RAILROAD STATION AND STATION MASTER'S HOUSE, 2 W . Strawberry Alley and 4 W. Strawberry Alley. (11-17-78)
Mechanicshurg vicinty. EBE $Y$, JOHANNES, iIOUSE (OLD BRIC....R HOUSE), NE of Mechanicsburg on U.S. I1, (4-2-73) PHCO34941
New Cumberland. BLACK, WILL, V, HOMESTEAD, Drexel Hill Park Rd., (* O77)

Newvibic vicinity. MCCULLOUCH, JOHN, IIOUSE, SE of New ille on PA 233, (12-2078)

Shippensburg. SHIPPEN HOUSE, 52 W . ng St., (11-25-75)
Shippensburg. WIDOW PIJER'S TAVERN (OLD COURTHOUSE), SW corner of King and Queen Sts., (t-17-74) PH0034975
Shippensburg vicinity. BLYTHE, BENJA 'N, HOMESTEAD, 217 Mcans Hollow Rd., (9-15-77)
$\checkmark$ liams Grove vicinity. WILLIAMS, JOHN HOUSE, 0.5 mi . S of Williams Grove, (7-2877)

V'~rmleysburg. WORMLEY, JOHN, HOUSE, 26 N. Front St., (11-2!-76)

Elizabethville vicinity. HENN/GER FARM COVERED BRIDGE, NE of Elizabethville, 12-18-78)
$F$ rishurg. BROAD STREET MARKET, Ver, dke St. between 3rd and 6th Sts., (12-27. 74) PHOO62740

Harrishurg. GERMAN EVANGELICAI ZION UTHIRAN CHURCH (TABERNACLE 'APTIST CHURCH), Capital and Herr Sts., 11-12-75)
Harrisburg. GRIFFITH, WILLIAM R., HOUSE (CATHEDRAL HOUSE), 215 N . ront St., (10-21-76) unbs.
8 risburg. HARRIS, JOHN, MANSION SIMON CAMERON HOUSE), 219 S. Front St., (9-20-73) NHL.
Harrisburg. HARRISBURG CENTRAL RAIL:OAD STATION AND TRAINSHED, bberdeen St., (6-1 1-75) NHL.
I...risburg. HARRISBURG HISTORIC DIS. TRICT, Bounded roughly by Forster, 3rd, Hanna Sts, and the Susquehanna River, (1-9-76)
1 risburg. MCAL:ISTER, ARCHIBALD, IOUSE, 5300 N. Front St., (6.7.76)
Harrisburg. SALEM UNITED CHURCH OF CHRIST, 231 Chestnut St., (4-23-75)
1 rrisburg. STATE CAPITOL BUILDING, 3rd nd State Sts., (9-14-77)
l.arrisburg. TELEGRAPH BUILDING, 214-216 Locust St., (3-3-78)
Harrisburg. WALNUT STREET BRIDGE, Valnut St. over Susquehanna River, (6-5'2) PH0035009
lucrsey. HIGH POINT (MILTON S. HERSHEY MANSION), Mansion Rd., (2-778)

1 rysville vicinity. ROCKVILLE BRIDGE, $1.5 \mathrm{mi} . \mathrm{S}$ of Marysville over Susquehanna River, ( $3-15-75$ ) (also in Perry County)
Middletown. CAMERON, SIMON, HOUSE $4 N D$ BANK, 28 and 30 E. Main St., (11-2116)
ddietown. ST. PETER'S KIERCH, 31 W. High St. (6-18-73) PH0034991
Middletown. SWATARA FERRY HOUSE, 400 Swatara St., (9-27-76)

## delaware county

mdmore. RONT READING, 2713 Haverford Rd., ( $10-26-72$ ) PHOC63525 HABS.
Boothwyn. CHICHESTER FRIENDS MEETINGHOUSE, 611 Meetinghouse Rd., :3-14-73) PHOO63355
, vomall. MASSEY, THOMAS, HOUSE, Lawrence and Springhouse Rds., ( $11-16.70$ ) Pl:0063444
yn Mawr. GLENA YS, 926 Coopertown Rd., (12-27-77)
ciladds Ford. BRANDYWINE BATTLEFIELD, Brandywine Battlefield Park, (10-15-66) PH0035700 NHL.
tadds Ford. CHAD HOUSE, PA 100, (3-1171) PH00633 12 HaEs.
wadds Ford. CHADDS FORD HISTORIC DISTRICT, Jct. of U.S. 1 and PA 100. (11-23-71) PH0063321
ladds Ford. GILPIN HOMESTEAD, Harvey Rd. (5-27-71) PH0063401
wadds Ford vicinity. PAINTER, WILLIAM; FARM. 2 mi . NE of Chadds. Ford on U.S. 1, (7-27-71) PH0063509
ladds Ford vicinity. TWADDELL'S MILL AND HOUSE, Rock Hill Rd. S of Chadds Ford, (3-7-73) PH0063550

Chester. OLD MAIN AND CHEMISTRY BUILDING, 14th St. between Melrose Ave. and Walnut St., (5-22-78)
Chester. PENN, WILLIAM, LANDING SITE, Penn and Front Sts., (3-11.71) PH0063517
Chester. 1724 CHESTER COURTHOUSE, Market St. below Sth St., (5-27-71) PHOO63339
Cheyney. CHEYNEY, JOHN, LOG TENANT HIOUSE AND FARM, Station Rd., (11-2178)

Concord Township. IVY MILILS IISTORIC DISTRICT, Corner of Ivy Mills and Pole Cat Rds., (8-21-72) PHOO63410
Concordiville. CONCORD FRIENDS MEETINGHOUSE, Old Concord Rd., (617.77)

Concordville. CONCORDVILLE HISTORIC DISTRICT, Concord Rd. and Baltimore Pike, (4-3-73) Pli(0)63363
Concordville. HANDWROUGHT, Concord and Station Rd., (1-18.78)
Concordville. NEWLIN, NICHOLAS, HOUSE, Concord Rd., (4.26-72) PH0063461
Darby. DARBY MEETING, 1017 Main St., (9. 13.78)

Dilworthtown vicinity. 1704 HOUSE, Oakland Rd., near jct. of U.S. 202 and CR 15199, (12-24-67) PHO1 12631 NHL; HABS.
Essington. LAZARETTO, THE, Wanamaker Ave. and 2nd St., (3-16-72) PH0063428 habs.
Essington. PRINTZHOF, THE, Taylor Ave. and 2nd St., ( $10-15-66$ ) PH0063533 NHL.
Haverford. FEDERAL SCHOOL. HaverfordDarby Rd., (11-5-74) PH0063380
Haverford. GRANGE, THE, Grove PI., (1-1176)

Haverford. NITRE HALL, Karakung Dr., (12-18-70) PH0063479 G.
Ithan. RADNOR FRIENDS MEETINGHOUSE, Sproui and Conestoga Rds., (8-31-78)
Media vicinity. CHAMBERLAIN-PENNELL HOUSE, W of Media off U.S. 1 at Valley Brook Rd., (12-27-77)
Media vicinity. OLD ROSE TREE TAVERN, N of Media at jct. of Rose Tree and Providence Rds., (6-21.71) PH0063495
Media vicinity. RIDLEY CREEK STATE PARK, NW of Media between PA 3 and PA 352, (10-8.76)
Media vicinity. ST. DAVID'S CHURCH AND GRAVEYARD, $7 \mathrm{mi} .(1 . i \mathrm{~km}$ ) N of Media, (9-20-78)
Prospect Park. MORTON HOMESTEAD, 100 Lincoln Ave., (12-2-70) PH0063452
Swarthmore. WEST, BENJAMIN, BIRTHPLACE, Swarthmore College campus, (10-15-66) PHOI12411 NHL.
Thornbury. CHESTER CREEK HISTORIC DISTR/CT, N, E, and S of Glen Mills along the W branch of Chester Creek, (3-24-72) PH0063347
Upland. CROZER, GEORGE K., MANSION (NETHERLEIGH), 6th St., (8-14-73) PH0063371
Upland. OLD MAIN (CROZER THEOLOGICAL SEMINARY, CROZER NORMAL $S C H O O L$ ), 21 st St. and Upland Ave., (6-1873) PH0063487

Uplard. PUSEY, CALED, HOUSE, is Race St., (3-11-71) PH0063541 HABS.
Upland. PUSEY-CROTIER MILL HISTORIC DISTRICT, Race St., (9-27-76)
Wallingford. LEIPER, THOMAS, ESTATE, Avondale Rd., (12-29-70) PH0063436 habs.
Wawa. FORGE HILL. Off U.S. 1, (3-7-73) PH0O63398

Wayne. SATURDAY CLUB, 1:7 W. Wayne Ave., (3-14-78)
Westchester vicinity. THOMPSON COTTAGE, SE of Westchester on Thornton Rd., (4-1377)

## etk county

Ridway vicinity. BONIFELS, W of Ridgway off Laurel Mill Rd., (12-14-78)

## erie county

Eric. CASHHER'S HOUSE, 413 State St., (113.72 ) P10063568 Haus.

Erie. ERIE LAND L/GHTHOUSE, Dunn Blyd., Lighthouse Park, (3-30-78) liass.
Eric. OLI) CUSTOMII(OUSE, 409 State St., (1-13-72) PHOOG3584 nabs.
Eric. U.S.S. $N / A(\dot{A} / R A$, State St. at Lake Erie, (4.11.73) PHOO63576

Waterford. EAdeile HOTEL, 32 High St. (10-28-77) stabs.

## fayette county

Brier Hill. BRIER HILL, On U.S. 40, (7-2-73) PH0063592
Brier Hill. COLLEY, PETER, TAVERN AND BARN, On U.S. 40, (7-24-73) PH0063649
Brownsville. BOWMAN'S CASTLE, Front St., (3-3-75)
Brownsville. DUNLAP'S CREEK BRIDGE, Spans Dunlap's Creek, (7-31-78)
Farmington. RUSH HOUSE, U.S. 40 and PA 381, (3-8-78)
Mill Run vicinity. FALLINGWATER, W of PA 381, (7-23-74) PHOO63606 NHL.
Mount Braddock vicinity. MEASON, ISAAC, HOUSE (DR. CHRISTOPHER GIST PLANTATION), U.S. 119 North, (1-25-71) PH0063631
Perryopolis. SEARIGHTS FULLING MILL, Cemetery Rd., (6-19-73) PH0063657
Point Marion vicinity. GALLATIN, ALBERT, HOUSE (FRIENDSHIP . $1 / L L$ ). $3 \mathrm{mi} . \mathrm{N}$ of Point Marion on PA 166, (10-15-66) PH0063614 NHL.
Uniontown vicinity. FORT NECESSITY NATIONAL. BATTLEFIELD, 11 mi . E of Uniontown on U.S. 40, (10-15-66) PH0350141
Uniontown vicinity. GADDIS, THOMAS, HOMESTEAD, S of Uniontown off U.S. $119,(4-26-74)$ PHOO63622
Uniontown vicinity. SEARIGHTS TOLLHOUSE, NATIONAL ROAD, W of Uniontown off U.S. 40, ( $10-15-66$ ) NHL.

## fronklin county

Blue Ridge Summit. MONTEREY HISTORIC DISTRICT, Off PA 16,(4-22-76)
Chambersburg. BROWN, JOHN, HOUSE, 225 E. King St., (3-5-70) PH0063665 G.

Chambersburg. FRANKLIN COUNTY COURTHOUSE, 1 N. Main St., on Memorial Sq., (1-18-74) PH0063673
Chambersburg. FRANKLIN COUNTY JAIL, NW comer of King and 2nd Sts., (1-21.70) PH0049735
Chambersburg. MASONIC TEMPLE. 74 S. 2nd St., (6-18-76)
Chambersburg. MEMORIAL FOUNTAIN AND STATUE, Memorial Sq., (5-19-78)
Chambersburg. TOWNHOUSE ROW, 57-85 N. Main St., (12-18-78)

Chambersburg vicinity. FINLEY, JAMES, HOUSE, Building No. 505, Letterkenny Army Depot, (11-19-74) P!!0080012
Chambersburg vicinity. GASS HOUSE, E of Chambersburg off U.S. 30 , (4-11-77)
Fort Loudon viciniry. SMALL HOUSE, About 4 mi . N of Fort Loudon on PA 75, (12-3174) PH003 5076

## 7576

Grecncastle vicinity. MARTIN:S MILL (OVERED BRID(JE, SW of Grecncastle over Conococheague Creck, (2-15-74) PH0063690
Kauffman. OLD BROWN'S MILL SCHOOL, Off U.S. 11, (3-7-73) PH0063703
Mercersburg. LANE HOUSE, 14 N. Main St., (1-13-72) PH0063681
Mercersburg. MERCERSBURG HISTORIC DISTRICT, Main and Seminary Sts., (12-1378)

Mercersburg vicinity. HAYS BRIDGE HISTORIC DISTRICT, E of Mercersburg on SR 331 and SR 328, (7-31-78)
St. Thomas vicinity. CHAMBERSBURG AND BEDFORD TURNPIKE ROAD COMPANY TOLL HOUSE, W of St. Thomas on U. S. 30, (1-3-78)
St. Thomas vicinity. WOODLAND, SW of St. Thomas on PA 416, (9-20-73) PH006371!
Waynesboro. ROYER-NICODEMUS HOUSE AND FARM, 1010 E. Main St., (8-28-76)
Waynesboro vicinity. SFRINGDALE MILLS (SHANK'S MILL), SE of Waynesboro off PA 16 on Amsterdam Rd.; (9-18-75)

## fulton county

McConncllsburg. FULTON HOUSE, 112-116 Lincoln Way East, (7-20-77)
McConnellsburg. MCCONNELL HOUSE, 114 Lincoln Way, (11-21-76)

## greene county

Carmichacls. GREENE ACADEMY, 314 N. Market St., (12-12-76)
Jefferson. HUGHES HOUSE, Haffeld St., (12-27-72) PHOO63738
Waynesburg, MILLER HALL, 51 W. College St. (4-14-78)
Waynesburg vicinity. GREENE HILLS FARM, 3.5 mi . E of Waynesburg on PA 21 , (4-23-73) PH0063720 G.

## huntingdon county

Rockhill Furnace. EAST BROAD TOP RAIL. ROAD, 1 mi . W o Orbisoniz on U.S. 522 , ( $10-15-66$ ) PH0063754 NHL.

## huntington courty

Allenport vicinity. SMALLEY, LEWIS, HOMESTEAD, E of Allenport on PA 103, (11-14-78)

## indiana county

Georgeville vicinity. MCCORMICK, JOHN B., HOUSE, W of Georgeville off PA 210. (5-374) PH0063762

Indiana. CLARK, SILAS M., HOUSE, 6th St. and Wayne Ave., (6-15-78)
Indiana. MITCHELL, JAMES, HOUSE, 57 S . 6th St., (12-4-78)
Indiana. OLD INDIANA COUNTY COURTHOUSE, 601 Philadelphia St., (10-29-74) PH0063771
Indiana. SUTTON, IOHN, HALL, Indiana University of Pennsylvania campus, (9-1775)

## jefferson county

Brookville. HALL., JOSEPJ E., HOUSE, 419 W. Main, (12-13-78)

## juniuta county

Mifflintown vicinity. TUSCARORA ACADE$M Y, 8 \mathrm{mi}$. S of Miflintown at jct. of SR 34005 and 34028. (6-30-72) PHOO63789

## lackawanna county

Carbondale. DELAWARE AND HUDSON CANAL GRAVITY RAILROAD SHOPS, 91 N. Main St. ( I 1-30-78)

Dalton. DALTON HOUSE, E. Main St., (5-2278)

Scrantun. ALBRIGIIT MEMORIAI. BUILI). ING, N. Washington Ave. and Vine St., (5-22-78)
Scranton. DELAWARE, LACKAWANNA AND WESTERN RAILROAD STATION. Lackawanna and Jefferson Aves. (12-6-77)
Scranton. DIME BANK BUILIDING, Wyoming Ave. and Sprise St., (7-14-78)
Scranton. FINCH BUILDING, 424 Wyoming Ave., (6-14-76)
Scranton. POWDERLY, TERENCE V.. HOUSE, 614 N. Main St., (10-15-66) PH0063746 NHL.
Scranton. S/LKMAN HOUSE, 2006 N. Main Ave., (12-18-78)
Scranton. ST. PETER'S CATHEDRAL COMPLEX, 315 Wyoming Ave., (7-19-76)
Scranton. TRIPP FAMILY HOMESTEAD, 1101 N. Main Ave., (6-19-72) PH0063797

## lancaster county

Bainbridge vicinity. LOCUST GROVE, S of Bainbridge off PA 44t, (8-3-77)
Brickerville. STIEGEL-COLEMAN HOUSE, PA 501 and U.S. 322. (11-13-66) PHOOS 1110 NHL.
Ephrata. EPHRATA CLOISTER, (12-24-67) Nfle; habs.
Gap vịinity. WFIITE CHIMNEYS, 1 mi. NW of Gap on U.S. 30, (4-1-75)
Lancaster. ABBEVILLE, 1140 Columbia Ave., (12-14-78)
Lancaster. BUCHANAN, JAMES, HOUSE. (WHEATLAND), 1120 Marictla Ave., (10. 15-66) PH0051136 NHL.
Lancaster. CENTRAL MARKET, William Henry Pl., (7-12-72) PHOOS 1021 HABS.
Lancaster. ELLICOTT, ANDREW, HOUSE (SEHNER-ELLICOTT HOUSE), 123 N . Prince St., (1-13-72) PH005 1047 Habs; $G$.
Lancaster. FULTON OPERA HOUSE, 12-14 N. Prince St., (8-11-69) PHOOS 1071 ntL.

Lancaster. HAND, GEN. EDWARD, HOUSE (ROCK FORD), 881 Rock Ford Rd., (11-21-76)
Lancaster. LANCASTER COUNTY COURTHOUSE, 43 E. King St., (11.7.78)
Lancaster. OLD CITY HALL, Penn Sq., (6-3072) PH0051098

Lancaster. OLD MAIN, GOETHEAN HALL, AND DIAGNOTHIAN HALL, Franklin and Marshall College campus, (7-30-75)
Lancaster. SOLDIERS AND SAJLORS MONUMENT. Penn Sq., (4-2-73) PH0051101
Lancaster vicinity. HERR, HANS, HOUSE, 1851 Hans Herr Dr., (5-3-71) PH0051080 habs; g .
Lancaster vicinity. WITMER'S TAVERN, 2014 Old Philadelphia Pike, (12-1-78)
Letort vicinity. CONESTOGA TOWN, (6-1873) PHOO5 1039

Lititz. STURGIS, JULIUS, PRETZEL HOUSE, 219-221. E. Main St., (12-16-74) PH0062723
Maricta. MARIETTA HISTORIC DISTRICT, Rouglaly bounded by Markel, front, Biddic, and Waterford Sts., (7-18-78)
Mount Joy. CENTRAL. HOTRIL. (A. BIABE:S IBREWERY), 102 N. Market St., (6-4-73) PHOOS 1012
Mount Joy vicinity. CAMERUN ESTATE, 2 mi. $\dot{W}$ of Mount Joy on Donegal Springs Rd., (11-3-7.5)
Mount Joy vicinity. DONEGAL MILLS PLANTATION, SW on Mount Joy on Trout Run Rd., (1-20-78)
New Castle. LAWRENCE COUNTY COURTHOUSE, Court St., (12-15-78)

Nottingham vicinity. KIRKS MILLS IIHSTOI. IC DISTRICT, W of Nottingham off PA 272, (7-17-78)
Ouarryvilie vicinity. FULTON, ROBER; BHRTHPLACE, 8 mi . S of Ouarryville o U.S. 222, (10-15-66) PH0112381 NiLL.

Safe Harbor vicinity. BIG AND LITTLE INDIAN ROCK PETROGLYPHS, S of Safe Harbor, (4-3-78)
Terre Hill vicinity. WEAVER, HENR) FARMSTEAD, S of Terre Hill off U.S. 32: (12-15-78)
Washington vicinity. STRICKLER SITE, (6-18-73) PHOOS 1128

## lebanon county

Annville. BIEVER HOUSE, 49 S. White Oak St., (2-14-78)
Cornwall. CORNWALL IRON FURNACE ( 11 1-13-66) PHOOS 1152 NHL.
Lebanon. CIIESTNUT STREET LOG HOUSE 1110 Chestaut St., (11-20-78)
Lebanon. CORNWALL \& LEBANON RAILROAD STATION, 161 N. 8th St., (12-4-7.4 PHOO84824 HABS.
Lebanon. READING RAILROAD STATIOA N. 8ih St., (7-17-75)

Lebanon. ST. LUKES EPISCOPAL CHURCH, 6th and Chestnut Sts., (9-4-74) PH0051179
Lebanon vicinity. UNION CANAL TUNNEL W of Lebanon off PA 72 , (10-1-74, PH007688 1
Myerstown. MEIER, ISAAC, HOMESTEAD. 520 S. College St., (4-2-73) PH0051 187
Myerstown vicinity. TULPEHOCKEl MANOR PLANTATION, 2 mi . W c. Myerstown on U.S. 422, (5-12-75)
Newmanstown vicinity. BOMBERGER'S DISTILLERY, 7 mi . SW of Newmanstow off PA 501, (6-26-75)
Newmanstown vicinity. HOUSE OF MILLE AT MILLBACH, SW of Newmanstown off Rtc. 1, (4-23-73) PH0051161
Newmanstown vicinity. ZELLERR, HEINRJC $H_{4}$ II()USE, W of Newmanstown off SR $41!$ (5-12.75)
Palmyra vicinity. BINDNAGLES EVANGELICAL LUTHERAN CHURCH, N of Palmyr* at jct. of SR 38003 and SR T330, (7-7-75)
Schacfferstown. BRENDLE FARMS, Ict. \& PA 501 and 897, (7-24-72), PH0051144

## lehigh county

Allentown. TROUT HALL, 414 Walnut St (11-14-78)
Allentown vicinity. DORNEYVILLE CROSSROAD SETTLEMENT, $S$ of Altentown at jct. of U.S. 222 and PA 29, (12-7-77)
Bethlehem. EETHLEHEM HISTORIC DII TRICT I, SUBDISTRICT A, Bounded b Main, Nevada, and E. Broad Sts., and the river, (5-5-72) habs;-G. (also in Northampton County)
Catasauqua. TAYIOR, GEORGE, HOUSE Front St., (7-17-71) PHOO51209 NHi..
Emmaus. KEMMERER HOUSE, 3 Iroquois St. (9-14-77)
Emmaus. SHEL.TER HOUSE, S. 4 th St., (2 (7.78)

Fullerton vicinity. HELFR/CIFS SPRING. (iRIST MH.L, W of Fullerton on Mickley Rd. ( $10-14-77$ )

## luzerne county

Eckley. ECKLEY HISTORC DISTRICT, Bot sides of Main St. through town of Eekley, (10-26-71) PHOOS 1233
Forty Fort. DENISON HOUSE, 35 Denison 2 St., (12-2-70) PHOOS 1225 навS; $G$.
Hazelton. KELLER HOUSE, 217 W. Broa St., (11-13-76)
wilkes-Barre. CATLIN HALL, WHKES COLLFECF., 92 S. River St., (3-16-72) PHOOS 1217
'ilkes-Barre. CENTRAL RAII,ROAD OF NEW JERSEY STATION, 31-3S S. Baltimure St., (5-12.75)
Wikes-Barre. MC(lilNTOCK HALIL, 44 S. 1River St. (3.16.72) Pheost241
ikes-Barre. WEISS HALL (JUDCGE ED. MUN/I TAYLOR HOUSE), 98 S . River St., (11.27.72) P1f(0)51250

Wyoming. SWETLAND HOMESTEAD), 855 Wyoming Ave., (12.13-78)

## tycoming county

-ag!ish Center. ENCil.SH (ENTER SUSPEN. SION DRHDCE, Over Pinc Creek, (12-1478)
rsey Shore. JERSEY SHORE HISTORIC: DISTRICT, irregular shape roughly bounded by Lawshe Run, W. Branch Susquehanna River, $S$ borough boundaries, and Tomb Ave., (3-31-75)
'illiamsport. U.S. POST OFFICE, W. 4th St. between Government Pl. and West St., (3-16-72) PHOOS 1268 навs.
Williamsport. WILLIAMSPORT CITY HALL, Pine St., (11-7-76)
(illimasport. HERDIC, PETER, HOUSE, 40.7 4th St., (11-21-78)

## mckean county

Rradford. $\operatorname{BRADFORD~OLD~CITY~HALL,~}$ Kennedy and Boylston Sts., (5-17-76)
radford vicinity. CROOK FARM, NE of Bradford on Seaward Ave. extended, (3-2676)
"ane. KANE, THOMAS L., MEMORIAL CHAPEL, 30 Chestnut St., (3-29-78)
it. Jewett. KIN ZUA VIADUCT, 4.2 mi . NE of Mt. Jewett, (8-29-77)

## mercer county

reenville vicinity. KIDD'S MILLS COVERED BRIDGE HISTORIC DISTRICT, 5 mi . S of Greenville off PA 58 , (12-2-74) PH0047635
Cireenville vicinity. NEW HAMBURG HISTORICAL AREA, (12.2.74) PH0076791
Jamestown. GIBSON HOUSE, 210 Liberty St., (12-1-78)

- tercer vicinity. BIG BEND HISTORICAL AREA (SHENANGO RIVER LAKE), 6 mi. NW of Mercer on Shenango River, (4-2175)

Mercer vicinity. JOHNSTON'S TAVERN, 6 mi. $S$ of Mercer on U.S. 19, (3-24-72) PHOOSI 276 HABS.
harot. BUHL, FRANK H., MANSION, 422 E. State St., (12-2-77)

## mifflin county

ewistown. MCCOY HOUSE, 17 N. Main St., (3-14-73) PH0O51284
Lewistown. MIFFLIN COUNTY COURTHOUSE, 1 W. Miarket St., (5-28-76) ewistown vicinity. OLD HOOPES SCHOOL, NE of Lewistown, (12-20-78)

## monroe county

East Stroudsburg vicinity, ZION LUTHERAN CHURCH, Off River Rd., (11-9-72) PHCOS 1306 habs.
iaylorsburg vicinity. ROSS COMMON MANOR, S of Saylorsburg on PA 115, (11-22-78)
kiota vicinity. FENNER-SNYDER MILL. U.S. 29, $N$ of Sciota, (5-13-76)
innwnee-on-the-Delaware. WORTHINGTON HALL, Worthingion Ave., (4-14.78)

Stroudsburg vicinity. cUIET VALLEY FARM, SW of Stroudshurg off U.S. 209, (4-23.73) PH0051292G.
Swiftwater. SWIFTW ATER INN, PA 61t.(6-4-7is)

## montgamery county

V.AtIIt:Y FORGil:, Reforence-see Chester (ounty (1-274)
Audubon. MHILL (;ROVE, Pawling Rd., 13-16. 72) 1100S1462

Byan Alhyn. filitive AlRN, loot Pamermill R(d., (8-31-78)
Bryn Mawf. BRYN MAWR (HARRITON), SOO 1fitritor Rd., (7-2-73) P\} 10051349
Cenlegevale vicinity. KUSFER AHII.A, On Skippack (icek at Mill Rel. and Water Se. R(l., (3-24-71) [1loos:314
Conshohocken. if(OT/NT JOY (PITTER LEE(iAUX MANSION. North Lane and Hector St., (3-11-71) PHOOS 1489
Conshohocken. WASIIINGTON HOSE AND STEAM FIRE ENGINE COMPANY, NO. I, 15 W. Hector St., (11-20-75)
Delphi. KNURR LOG HOUSE, Meng Rd., (11-5-74) PHOOS1438
Erdenheim. SPRINGFIELD MILL, On Northwestern Ave. between Germantown Ave. and Bethlehem Pike, (5-13-76)
Evansburg. EVANSBURG HISTORIC DISTRICT (PROVIDENCE SQUARE), On U.S. 422, bounded by Cross Key Rd., Grange Ave., Mill Rd., and Ridge Pike, (6-19.72) PHO112798
Evansburg vicinity. SKIPPACK BRIDGF, E of Evansburg on PA 422, (12-2-70) PHOOS:535
Fort Washington. FARMAR MILL (MATHER MILL $), \mathrm{N}$ of Flourtown at jct. of U.S. 309 and PA 73, (5-19-72) PHOL12801
Fort Washington. HOPE LODGE, 553 Bethlehem Pike, (4-26-72) PHOO51390
Fort Washington. QUAKER MANOR HOUSE, 1165 Pinetown Rd., (11-21-76)
Fort Washington vicinity. HIGHLANDS, THE, W of Fort Washington at Skippack Pike and Sheaff Lane, (12-12-76)
Harleysville. KLEIN MEETINGHOUSE, Maple Ave., (4-13-73) PH0051411 G .
Harleysville vicinity. BERGY BRIDGE HISTORIC DISTRICT, NW of Harleysville off PA 63, (10-10-73) PHOOS1331
Hatboro. LOLLER ACADEMY, 424 S. York Rd., (8-24-78)
Horsham vicinity. GRAEME PARK, Keith Valley Rd. (10-15-66) PHO1 12950 NHL: HABS.
King of Prussiax. KING OF PR USSIA INN, Ict. of U.S. 202 and PA 363, (12-23-75)
King of Prussia. POPLAR LANE, 1000 Boxwood Court, (5-22-78)
Kulpsvilie vicinity. MORGAN, EOUARD, LOG HOUSE, Off PA 363 on Weikel Rd., (5-17-73) PH0051471 G.
Lansdale. JENKINS HOMESTEAD, 137 Jenkins Ave., (9-15-77)
Lederach vicinity. KOLB, DIELMAN, HOMESTEAD, S of Lederach on Kinsey Rd., (8-17-73) PH0051420
Merion. GENERAL WAYNE INN, 625 Montgomery Ave., (i-1-76)
Montgomeryville vicinity. KNAPP FARM, S of Montgomeryvilte off PA 309, (10-22.76)
Pennsburg vicinity. RIETH, ANDREAS, HOMESTEAD, SE of Pennsburg on Geryville Pike, (9-19-73) PH005!527
Plymouth Meeting. CORSON, ALAN W., HOMESTEAD, 5130 Butler Pike, (6-19-73) PHOOS 1365
Plymouth Mecting. HOVENDEN HOUSE; IIARN AND AIB()LITION HALLL, I E. Germantown Pike, (2-18-71) PHOOS1403

Plymouth Meeting. PLYMOUTH FRIENDS MEETIN(BHOUSE, Corner of Germantown and Buther Pikes, (2-18-71) PH0051497
Plymouth Meeting, PLYMOUUTH MEETING HISTERIC DISTRICT. (2-18-71) Pleoostsol
Potestown. POTTSTOIVN ROLLER MHLL, Sorith and Hanover Sts., (10-10-74) Plluox 7860
Pottitown vicinity. ANTES, HENRY, HOUSE, Nitol Potistown on Coionial Rd., (5-12-75) Pottiteswn vicinity. I'OrTS(iROVI: MAANSION, W of Pottetown on Benjamin Franklin liwy. (Hligh St.), (1.18.74) P16051519
Schwenksville vicitity. ENGILEf/ARITT, $J(I N, H O M E: S F E A \|$, $W$ of Schwenksiville oll PA 73 on Keyser Rd., (6-4-73) Phioosis73
Schwenksville vicinity. (iRUBB, CONRAD, HOMESTEAD, NW of Schwenksville off PA 73 on Perkiomenville Rd., (6-19-73) PHOOS1381
Schwenksville vicinity. LONG MEADOW FARM (PLANK HOUSE AND BARN), NW of Schwenksviile on PA 73, (6-19-73) PHOOS1454
Schwenksville vicinity. PENNYPACKER MANSION, 5 Haldeman Rd., (11-7-76)
Schwenksville vicinity. SUNRISE MILL, 3 mi . W of Schwenksville on Neiffer Rd., (4-11. 77)

Skippack. COLE, WARREN Z., HOUSE (KIDDER-DEJAVEN HOUSE), Skippack Pike and Evansburg Rd., (3-7-73) Pf10051357
Trappe. AUGUSTUS LUTHERAN CHÜRCH. 7th Ave. E and Main St., (12-24-67) PHOOS1322 Nitl.
Tylersport vicinity. LANDIS HOMESTEAD, SW of Tylersport off PA 563 on Murwoud Rd., (10-10-73) PHOOS' 446
Valley Forge State Park. WASHINGTON'S HEADQUARTERS, Valley Creek Rd. near jct. of PA 252 and 23, (2-11-73) PHOOS 1543 NhL.; habs; G .
Worcester. WENTZ, PETER, HOMESTEAD, Schultz Rd., (5-8-73) PH005 1551

## newport county

Portsmouth. OAK GLEN, 745 Union St., (329.78)

## northampton county

BETHLEHEM HISTORIC DISTRICT I, SUBDISTRICT A, Reference-see Lehigh County (1-2-74) PHOOS1560
DELAWARE DIVISION OF THE PENNSYLVANIA CANAL, Reference-see Bucks County ( $1-2-74$ )
Bethlehem. GEMEINHAUS-LEWIS DAVID DE SCHWEINITZ RESIDENCE. W. Church St., (5-15-75) HABS; NHL.
Bethlelrem. GRISTMILLER'S HOUSE, 459 Old York Rd., (6-18-73) PHOOS 1586
Bethlehem. MORAVIAN SUN INN, 564 Main St., (10-2-73) PHOOS 1594 HABS; $\mathbf{G}$.
Behlehem. OLD WATERWORKS, Within Historic Subdistrict A near Monocacy Creek, (6-19-72) Plf0051608 habs.
Bethlehem. TANNERY, THE, Within Bethlehem Historic Subdistrict A near Monucacy Creck, (6-19-72)
Easton. LEHIGH CANAL: EASTERN SECTION CLENDON AND ABBOTT STREET INDUSTRIAL SITES, Lehigh River from Hopeville to conluence of Lehigh and Delaware Rivers, ( $10-2-78$ )
Easton. NICHOLAS, JACOB, HOUSE, 458 Ferry St., (11-21-76)
Euston. SEIPSVILLE HOTEL, 2912 Old Nazareth Rd., (5-6-77)

Easton vicinity. CHAIN BRIDGE, SW of Glendon on Hugh Moore Pkwy. across the Lehigh River, (2-12-74) PH0051578
Easton vicinity. COFFEETOWN GRIST MILL, 7 mi . S of Easton at Coffectown and Kressman Rds., (11-16-77)
Nazareth vicinity. JACOBSBURG HISTORIC DISTRICT, 3 mi . NE of Nazareth off PA 115, (10-17-77)
Walnutport. LEIIIGH CANAL: LEHIGH GAP-WALNUTPORT SECTION, Lehigh Gap to $S$ Walnutport boundary, ( $10-2-78$ )

## northumberland county.

McEnensville vicinity. WARRIOR RUN PRESBYTERIAN CHURCH, N of McEwensville on PA 147, (4-2-73) PH0051641
Milton. MILTON FREIGHT STATION, 90 Broadway, (4-13-77)
Milton. PENNSYLVANIA CANAL AND LIMESTONE RUN AQUEDUCT: WEST BRANCH DIVISION, Bounded by Broadway, Filbert St., Limestone Run and Bound Ave., (12-19-78)
Montandon vicinity: SODOM SCHOOLHOUSE, E of Montandon on PA 45, (2-1274) PHOOS 1632

Northumberland. PRIESTLEY, JOSEPII, HOUSE, Priestley Ave., (10-15-66) PH00SI624 NHL.
Sunbury. BECK HOUSE, 62 N. Front St., (1-11-76)
Sunbury. NORTHUMBERLAND COUNTY COURTHOUSE, 207 Market St., (12-3074) PH0062839

Sunbury vicinity. SNYDER, CASPAR, HOUSE (BLUE BALL TAVERN), $S$ of Sunbury on PA 147,

## payette county

Belle Vernon vicinity. COOK, COL. EDWARD, HOUSE, E of Belle Vernon, (3-29. 78).

## perry county

ROCXVILLE BRIDGE, Reference-see Dauphin County
phin County
Marysville vicinity. ROCKVILLE BRIDGE, Reference-see Dauphin County
New Bloomfield. PERRY COUNTY COURTHOUSE, Center Sq.. (2-24-75)
Newport vicinity. LITTLE BUFFALO HISTORIC DISTRICT, SW of Newport off PA 34, (4-3.78)

## philadelphia

Philadelphia. UNIVERSITY OF PENNSYLVANIA CAMPUS HISTORIC DISTRICT, Roughly bounded by Hamilton Walk, South, 32nd, Walnut, 36th, Spruce, and 39th Sts., (12-28.78)

## philadelphia county

Philadelphia. ACADEMY OF MUSIC. Broad and Locust Sts., (10-15-66) PH0061433 nhl; liabs.
Philadelphia. ADELPZII SCHOOL. 1223-1225 Spring St., (9-18-78)
Philadelphia. AMERICAN PHILOSOPHICAL SOCIETY HAL,L, Independence Sq.. (10-15-66) PHOO61441 NHL.
Phitadelphia. ARCII STREET MEETJNGHOUSE, 302.338 Arch St., (S. 27-71) PH0061450
Philadelphia. ARCH STREET OPERA HOUSE, $1003-1005$ Arch St., (6-13-78) HABS.
Philadelphia. ARCH STREET PRESBYTERIAN CHURCH. 1726-1732 Arch St., (5-27. 71) PH0061468

Phitatelphia. ATHENAEUM ()F PIILLADELPHIA, 219 S. Gth St., (2-1-72) PH0061476 Nhl; Habs.
Philadelphia. BARTRAM, JOHN, HOUSE, 54th St. and Eastwick Ave., (10-15-66) PHOOGI484 NHL; HABS; G.
Philadelphia. BEGGARSTOWN SCHOOL, 6669 Germantown Ave., (11-23-71) PH0061492
Philadelphia. BELLEVUE STRATFORD IIOTEL, 200 S . Broad St., (3-24-77) uabs.
Philadelphia. BERGDOLL MANSION, 2201-2205 Green St., ( $11-7-76$ )
Philadelphia. BILLMEYER, DANIEL, HOUSE, 6504 Germantown Ave., (12-1371) PH0061506

Philadelphia. BILLMEYER, MICHAEL, HOUSE, 6505-6507 Germantown Ave., (1-13-72) PH0061514
Philadelphia. CARPENTERS* HALL, 310 Chestnut St., (4-15-70) PHO 12470 NHL; mabs.
Philadelphia. CATHEDRAL OF SAINTS PETER AND PAUL, 18th St. and the Pkwy., (6-24-71) PH0061522
Philadelphia. CENTENNIAL NATIONAL BANK, 3200 Market St., (3-11-71) PH0061531 habs.
Philadelphia. CHAMOUNIX, West Fairmount Park on Chamounix Dr., (4-26-72) PH006 1549
Philadelphia. CHATEAU CRILLON APART-
MENT HOUSE, 222 S. 19 th St., (4-25-78)
Philadelphia. CHRIST CHURCH, 22-26 N. 2nd St., (4-15-70) PH0061565 NHL; HABS; G.

Philade!phia. CHRIST CHURCH BURIAL GROUND, 5th and Arch Sts., (6-24-71) PH0061573
Philadelphia. CHURCH OF ST. JAMES THE LESS, Hunting Park Ave. and Clearlield St., ( 11 -20-74) PH0061581
Philadelphia. CHURCH OF THE HOLY TRINITY, 19 th and Walnut Sts. facing Rittenhouse Sq., (2-6-73) PH0061590 Habs.
Philadelphia. CLARKSON-WATSON HOUSE. 5275-5277 Germantown Ave., (4-2-73) PH0061603
Philadelphia. CLIFFS, THE, East Fairmount Park near 33rd St., (3-16-72) PH006161.1 habs.
Philadelphia. CLINTON STREET HISTORIC DISTRICT, Bounded by 9th, 11 th , Pine, and Cypress Sts., (4-26-72) PH0061620
Philadelphia. CLIVEDEN (BENJAMIN CHEW HOUSE), 640t Germantown Ave., (10-15. 66) PHOO6 1557 NHL; HABS; G.

Philadelphia. COLLEGE HALL, UNIVERSITY OF PENNSYLVANIA, Bounded by Walnut, Spruce, 34th, and 36th Sts., (2-14-78)
Philadelphia. COLONIAL GERMANTOWN HISTORIC DISTRICT. Germantown Ave. between Windrim Ave, and Upsal St., (10-15-66) PHO 112488 NHL: HABS; $G$.
Philadelphia. COMMANDANTS QUARTERS. U.S. Naval Base, (6-3-76)

Philadelphia. COMPTON AND BLOOM FIELO) (MORRIS ARBORETUM), 9414 Mendowbrook Ave., (12-22-78)
Philadelphia. CONYVGIAM-HACKER HOUSE, 5214 Germantown Ave., (1-13-72) PH0061638 IABS.
Philadclphia. COPE, EIDWARI) DRINKER. HOUSF, 2102 Pine St., (5-15-75) NILL.
Philadelphia. DESHIER-MORRIS IOOUSE, 5442 Germantown Ave., (1-13-72) PH0061646
Philadelphia. DRAKE HOTEL, 1512-1514 Spruce St., (9-18-78)
Philadelphia. DRINKER'S COURT, 236-238 Delancey St., (5-27-71) PH0061654

Philadciphia. İROPSIE UNIVERSITY COM: PLEX, Iroad and York Sts., (1-17.75)
Philadelphia. EAKINS, THOMAS, HOUSE, 1729 Mount Vernon Pl., (10-15.66) PHOO61662 NuL; Hass.
Philade!phia. EASTERN STATE PENITENYI. $A B Y, 21 \mathrm{st}$ St. and Fairmount Ave., (10-45. 66) PlIOO6 1671 NHL, HABS.

Philadelphia. ELFRETH'S ALLEY HISTOKIC DISTRICT, Between 2nd and Front Sts. (10-15-66) PH0061689 NHL; HABS; G.
Philadelphia. EYRE, WILSON, HOUSE, 100's Spruce St., (4-13-77)
Philadelphia. FAIRMOUNT PARK, Botr banks of Schuylkill River and Wissahicko Creek, from Spring Garden St. u Northwestern Ave., (2-7-72) PH021353) habs; NHL; $G$.
Philadelphia. FAIRMOUNT WATER WORKS E banks of Schuylkill River, (5-11-76) NHL.
Philadelphia. FIDELITY MUTUAL LIFE IN SURANCE COMPANY BUILDING, Fairmount and Pennsylvania Aves., (7-2-73) PH006170
Philadelphía. FIDELITY-PHILADELPMI. TRUST COMPANY BUILDING, 123-15 S. Broad St., (11-27-78)

Philadelphia. FIRST UNITARIAN CHURCH, 2121 Chestnut St., (5-27-71) PH006171 ${ }^{\circ}$ habs.
Habs. 1326 N. Broad St., ( $1-13-72$ ) PH0061727
Philadelphia. FORT MIFFLIN, Marina and Penrose Ferry Rds., (8-29-70) NHL; HABs.
Philadelphia. FORT MIFFLIN HOSPITA Marina and Penrose Ferry Rds., (9-29-64 PH007228 I HABS.
Philadelphia. FOUNDER'S HALL, GIRARD COLLEGE, Corinthian and Girard Ave (8-4-69) PHOO61743 NHL.
Philadelphia. FRANKFORD ARSENA Tacony and Bridge. Sts., (3-16-72) PHO112810
Philadelphia. FREE QUAKI MEETINGHOUSE, SW corner of Sth a Arch Sts., (9-22-71) PH0061751 habs.
Philadelphia. FURNESS LIBRARY, 34th St. below Walnut on University of Pennsyivania campus, (5-19-72) PH0061778
PhiladeIphia. GIRARD COLLEGE CO PLEX, Bounded by Poplar St., Girard, College, S. College, and Ridge Aves., (10-29-74) PH0061794
Philadelphia. GLORIA DEI (OLD SWEDE CHURCH NATIONAL HISTORIC SI Swanson St., between Christian and We .ir Sts., (10-15-66) hass; G.
Philadelphia. GRAHAM AND LAIRD. SCHORER AND MITCHELL FACTORI 19 th St. between Hamilton and Buttonwi d Sts., (7-7-78)
Philadelphia. GRAVER'S LANE STATION, Gravers Lane and Reading Railroad Line, (11-7-77)
Philadelphia. GRUMBLETHORPE TENK T HOUSE, 5269 Germantown Ave., (6-19.. - ) PHOO61808
Philadelphia.
GRUMBLETHORPE (WISTER'S BIG HOUSE), 5267 Gern $1-$ town Ave., (3-16-72) PH0072494
Philadclphia. HARPER, FRANCES ELL_N WATKINS. HOUSE, 10006 Bainbridge St., (12-8-76) NHL.
Philadelphia. HATFIELD HOUSE. Fairm nt Park, 33rd St. near Girard Ave., $(3-16$ 2) PHOO6!816 Habs.
Philadelphia. HEAD HOUSE SQUARE, Both sides of the 400 block of $S$. 2nd St., (6-19. 72) PH006 1824 hiabs.

Philadelphia. HILL-PHYSICK HOUSE, 3: S: 4th St., (5-27-71) PH0061832 NHL; HAB.

Phnadelphia. HOWELL HOUSE, 5218 Germantown Ave.. (1-13-72) PH0061841
Pbilndelphia. INDEPENDENCE NATIONAL STORICAL PARK, Bounded by Walnut, 1, Chestnut, and 2nd Sts., (10-15-66) FH0061859 HABS.
Philadelphia. INSTITUTE OF THE DCNNSYLVANIA HOSPITAL, 111 N. 49th , (10-15-66) PHOO61867 NHL.
Ph delphia. INSURANCE COMPANY OF NORTH AMERICA BUILDING, 1600 Arch St., (6-2-78) NHL.
Ph:'rdelphia, IRISII, NATHANIEL, HOUSE, 4 S. Iront St. (3-1G-72) PIIOO72231
Ph delphia. IVY LOD (;E, 29 E. Penn St., (2-1-72) PH0061875
Philadelphia. JOHNSON, JOHN, HOUSE. -DG Germantown" Ave., (1-13-72) 10061883 IIABS.
Ph delphia. KNOWLTON (RHAWN IIOUSE). 8001 Verree Rd., (10-1-74) PH0061891
Ph" delphia. LAND TITLE BUILDING, 1400 estaut St., (12-15-78) Habs.
Ph delphia. LAUREL HILL CEMETERY, 3822 Ridge Ave., ( $10-28-77$ ) uABs.
Philadelphia. MARINE BARRACKS, Bldg. 0, Naval Base, Iroad St., (7-13-76)
Ph delphia. MARINE CORPS SUPPLY AC. .VITY, 1100 S. Broad St., (8-6-75)
Philadclphia. MASONIC TEMPLE, 1 N. Broad St., (5-27-71) PHOO61921 Habs.
Ph delphia. MAXWELL, EBENEZER, )USE, 200 W. Tulpehocken St., (2-24i) PH0061930 HABS; G.

Philadelphia. MEMORIAL HALL, West Fair-- רunt Park, (12-8-76) NHL.

Ph delphia. MENNONITE EETINGHOUSE, 6119 Germantown Ave., (7-23-73) PH0061948 HABS.
Philadelphia. METROPOLITAN OPERA.
:*)USE. 858 N. Broad St., (2-1-72) 10061956
'h delphia. MIKVEH ISRAEL CEMETERY, NW corner of Spruce and Darien Sts., (6-24-71)
Th delphia. MONASTERY, THE, Fairmount rk, Kitchen's Lane at Wissabickon Creek, 16-72) PHOO61972
Jhiladelphia. MOORE, CAPT. THOMAS,
HOUSE, 702 S. Front St., (3-16-72) 10061760 Habs.
Ph delphia. MOORE, CLARENCE B., ..JUSE, 1321 Locust St., (5-8.73) PH006198:
Philadelphia. MOTHER BETHEL A.M.E. IURCH, 419 6th St., (3-16-72) 10072214 NHL: $G$.
Phoudelphia. MOUNT' PLEASANT, Fairmount Park, (10-15-66) PH01 12526 NHL; HABS.
phindelphia. MT. AIRY STATION, E. Gowen 'e., (9-22-77)
Ph delphia. MUSICAL FUND HALL, 808 Locust St., (3.11-71) PH0072222 NHL.
Philadelphia. NEW MARKET, S. 2nd St., tween Pine and Lombard Sts., (11-13-66) 10072249 NHL; HABS.
Ph delphia. NORTHERN SAVING FUND AND SAFE DEPOSIT COMPANY, 600 Spring Garcien St., (9-28-77) навs.
Ph" delphia. OAKLEY, VIOLET, STUDIO, 7 St. George's Rd., (9-13-77)
Ph delphia. OLD CITY HISTORIC DISTRICT, Otd city area including parts of Washington Square East Development Area d Franklin Square East Development ea, (5-5-72) PH0072265 навs.
Ph...delphia. OLD DREXEL BUILDING, 34
S. 38d St., (9-5-75)

Philadelphia. OLD GERMANTOWN ACADE MY AND HEADMASTERS HOUSES, Schoolhouse Lane and Greene St., (1-1372) PH 0072290

Philadelphia, PEALE, CHARLES WILLSON, HOUSE (BELFIELD), 2100 Clarkson Ave., (10-15-66) PH0072257 NuL.
Philadelphia. PENNSYLVAN1A ACADEMY OF TIIE FINE ARTS, SW corner of Broad and Cherry Sts., (5-27-71) PH0072311 NiLL; G.

Philadelphia. PENNSYLVANIA HOSPITAL Xth and Spruce Sts., (10-15-66) P'10072303 nstl.; Halls; $g$.
Philatelphia. IENNSYLVANIA INSTITUTE FOR THE: DEAF, Hroad and Pine Sts., (12-15-78) Habs.
Philadetphia. PIIILADELIPHIA CITY UALIL, Penn Sts., Broad and Market Sts., (12-8-76) NHE.
Philidelphia. PIIILADELIPHIA COLLEGE OF ART (ASYLUM FOR THE DEAF AND $\left.D U N^{-} B\right)$, NW corner of Broad and Pine Sts., (5-27-71) PH0072320 c.
Philadelphia. PHILADELPHIA CONTRIBUTIONSIIIP, 212 S. 4th St., (5-27-71) PHOO72338 HABS; NHL.
Philadelphia. PIIILADELPHIA SAVINGS FUND SOCIETY BUILDING, 12 S. 19th St., (12-8-76) NHL.
Philadelphia. PLAYS AND PLAYERS (THE PLAYHOUSE), 1714 Delancey St., (3-1473) PHOO72346

Philudelphia. POE, EDGAR ALLAN, HOUSE, (10-15-66) PH00723S4 NHL; HAES; $\mathbf{a}$.
Philadelphia. PORTICO ROW, 900-930 Spruce St., (12-16-77) HABS.
Philadelphia. POWELTON, THE, 3500-3520 Powetton Ave., 214-218 35th St., and 215-221 36th St., (12-13-78)
Philadelphia. RANDOLPH HOUSE, East Fairmount Park, (3-24-72) PHOO72362 habs.
Philadelphia. READING TERMINAL AND TRAINSHED, 115-1141 Market St., (6-3072) PHOO72401 NHL.

Philadelphia. REYNOLDS-MORRIS HOUSE, 225 S. 8th St., (12-24-67) PHO1 12534 NHL; Habs.
Phitadelphia. RINGGOLD PLACE 1900 block Waverly St., (8-29-78)
Philadelphia. ROBERTS-QUAY HOUSE, 1035-1037 Spruce St; 277 S. 11th St., (11-13-76)
Philadelphia. RYERSS MANSION, Central and Cottman Aves., (11-21-76)
Philadeiphia. SANSOM ROW. 3402-3436 Sansom St., (12-27-77)
Philadelphia. SIMS, JOSEPH, HOUSE, 228 S. 9th St., ( $11-14-77$ ) Habs.
Philadeiphia. SOCIETY HILL HISTORIC DISTRICT, Bounded on the N by Walnut St., on the $S$ by Lombard $S t$., on the $E$ by pier line of Delaware River, and on the $W$ by 8 th St., (6-23-71) PH0072397 Habs.
Philadelphia. SOLOMON HOUSE, 130-132S. 17th St., (8-24-78)
Philadelphia. SOUTH FRONT STREET HISTORIC DISTRICT (SOUTHWARK), 700-712 S. Front St., W side Bainbridge St. to Kenilworth St., (4-25-72) PH0072419
Philadelphia. SOUTHWARK DISTRICT, Bounded by Delaware, Washington Aves., 5th, Lombard, Front, and Catherine Sts., (5. 19.72) PH0072427 Habs.

Philadelphia. SPRING GARDEN DISTRICT, Roughly bounded by Fairmount Ave., 15th, 24th, Mt. Vernun and Spring Garden Sts., (12-21-78)
Philadelphia. ST, AUGUSTINE'S CATHOLIC CHURCH, 4 th and New Sts., (6-15-76)

Philadelphia. ST. CLEMENTS PROTESTANT EPISCOPAL CHURCH, SW corner of 20th and Cherry Sts.; (11-20-70) PH0072371
Philadelphia. ST. GEORGE'S METHODIST CHURCH, 324 New St., (5.27.71) PH0072389
Philadelphia. ST. JAMES HOTEL, 1226-1232 Walnut St., (11-13-76)
Philadelphia. STENTON (JAMES LOGAN HOME), 18 th and Courtand Sts., (10-1566) PHOO6 1913 NHL; habs.

Philadelphis, STRICKXAND, WILLIAM, ROW, 215-227 S. 9th St., (9-14-77)
Philadelphia. SULLY, THOMAS, KESIDENCE, 530 Spruce St., (10-15-66) PHOI 12976 Nht; has.
Philadeiphia, TANNER, HENRY O., HOUSE. 2908 W. Diamond St., (5-11-76) NHL.
Philadelphia. THADDEUS ROSCIUSZKO NATIONAL MEMORIAL, 301 Pinc St., (12-18-70) PHOO61905
Philadelphia. TIIIRTIETH STREET STATION, W. River Dr., Market, 30th, and Arch Sts., (6-7-78)
Philadelphia. U.S. NAVAL HOME (NAVAL ASYLUM), Gray's Ferry Ave. at 24th St., (8-21-72) PH(0072435 NHL; HABS.
Philadelphia. U.S.S. OLYM $P / A$ Pier 40, at foot of Chestnut St., ( $10-15-66$ ) PH0072443 Nill.
Philadelphia. UPSALA, 6430 Germantown Ave., (1-13-72) PHOO72451 habs; $G$.
Philadelphia. USS BECUNA, PENN'S LAND. ING, Delaware Ave. and Spruce St., (8-29. 78)

Philadelphia. WALNUT STREET THEATRE, 9th and Walnut Sts., (10-15-66) PHOO72460 NHL; HABS.
Philadelphia. WANAMAKER, JOHN STORE, Juniper and Market Sts., (6-2-78) NHL.
Philadelphia. WARW/CK, TAIE, 1701 Locust St., (8-10-78)
Philadelphia. WESLEY AFRICAN METHODIST EPISCOPAL ZION CHURCH, 1500 Lombard St., (12-1-78)
Philadelphia. WIDOW MALOBY'S TAVERN, 700 S. Front St., (3-16-72) PH0072486 habs.
Philadelphia. WITHERSPOON BUILDING, 1319-1323 Walnut St., (9-18-78)
Philadelphia. WOODFORD, East Fairmount Park, (12-24-67) PH0072508 NHL; HABS.
Philadelphia. WOODLAND TERRACE, 501-519, 500-520 Woodland Ter., (3-1672) PH0072516

Philadelphia. WOODLANDS, THE (WILLIAM HAMILTON HOUSE), 40th St. and Woodland Ave., W., (12-24-67) PHO1 12518 NHL; HABS.
Philadelphia. WYCK HOUSE, 6026 Germantown Ave., ( $10-26-71$ ) PH0072524 HABS; g .

## pike county

DELAWARE AND HUDSON CANAL. Reference-see Orange County, NY (1-2-74)
Bushikill. TURN STORE AND THE TINSMITH'S SHOP, U.S. 209, (9-18-78)
Milford. PINCHOT, GIFFORD, HOUSE (GREY TOWERS), W edge of Milford, (10-15-66) PHO072532 NHL.

## potter county

Coudersport. COUDERSPORT AND PORT ALLEGANY RAILROAD STATION, 201 S. West St., (11-21-76)
Coudersport. COUDERSPORT AND PORT ALLEGENY RAILROAD STATION, 201 S. West St., (11-21-76)
Coudersport. POTTER COUNTY COURTHOUSE, E. 2nd St., (2-24-75)

## providence county

North Scituate. SMITHVILLLE SEMINARY, Institute Lane, (3-29-78)

## schuylkill county

New Ringgoid. NEW RINGGOLD GRISTMILL, SR 53062, (12-18-78)
Pottsville. CLOUD HOME, 351 S. 2nd St., (5-22-78)
Pottsville. O'HARA, JOHN, HOUSE, $606 \mathrm{Ma}-$ hantongo St., (5-22-78)
Rock vicinity. SCHUYLKILL COUNTY BRIDGE no. 113, E of Rock off PA 895, (13.78)

Rock vicinity. SCHUYLKILL COUNTY BRIDGE no. 114 , W of Rock off PA 895 , (1-3-78)
Tamaqua. ANTHRACITE BANK BUILDING, 133 W. Broad St., (9-13-78)
Tamaqua. ORMROD, GEORGE, HOUSE, 218 W. Broad St., (6-14-77)
snyder county
Beavertown vicinity. GROSS BRIDGE, 3 mi . W of Beavertown on SR 574, (8-29-77)
Selinsgrove. SNYDER, GOV. SIMON, MANSION, 119-121 N. Market St., (8-25-78)

## somerset county

Meyersdale vicinity. BOLLMAN, W., AND COMPANY BRIDGE. 1.5 mi . ( 2.4 km ) N of Mycrsdale on U.S. 219, (11-8.78)

## sullivan county

Hillsgrove vicinity. HILLSGROVE COVERED BRIDGE, 3 mi. E of Hillsgrove off PA 87 over Loyalsock Creek, (7-2-73) PH007254 I
Laporte.
SULLIVAN
COUNTY
COURTHOUSE, Main and Muncy Sts., (12-(5-78)

## susquehanna county

Lanesboro. STARRUCCA VIADUCT, SR 57058 over Starrucca Creek, (10-29-75) hatr.
Montrose. MULFORD, SYLVANUS, HOUSE, 65 Church St., (5-22-78)
Montrose. SILVER LAKE BANK, 75 Church St., (3-7-75)
Susquehanna. ERIE RAILROAD STATION (STARRUCCA HOUSE), $S$ bank of Susquehanna River, (6-19-72) PH0072559 haER.

## tioga county

Lawrenceville. FORD, JAMES, HOUSE, Cowanesque St., (12-6-75)
Lawrencevilic. RYON. JUDGE JOHN, HOUSE, Main St., (12-16-77)
Wellsboro. ROBINSON HOUSE, 120 Main St., (8-3-77)
union county
Allenwood vicinity. GRIFFEY, BENJAMIN, HOUSE, W of Allenwood on PA 44, (9-13: 78)

Lewisburg. PACKWOOD HOUSE-AMERICAN HOTEL, 10 Market St., (9-20-78)
Lewisburg vicinity. BUFFALO PRESBYTERA. AN CHURCH, W of Lewisburg on PA 192. (1-30-76)
Lewisburg vicinity: SLIFER HOUSE, NE of Lewisburg off U.S. 15 on SR 59024, (6-1875)

Lewisburg vicinity. SLIFER HOUSE, N of Lewisburg off U.S. 15 on SR 59024, (6-18-
New Berlin. NEW BERLIN PRESBYTERIAN CHURCH (NEW BERLIN COMMUNITY CENTER), Vine and High Sis., (10-26-72) PH0072567

New Berlin. OLD UNION COUNTY COURTHOUSE, Market and Vine Sts., (11-9-72) PH0072575

## venango county

Franklin. DALE, SAMUEL F., HOUSE, 1409 Elk St., (12-4-75)
Franklin. PLUMER BLOCK, 1205 Liberty St., (4-20-78)
Oil City. NATIONAL TRANSIT BUILDING. 206 Seneca St., (9-13-78)
Oil City. U.S. POST OFFICE, 270 Seneca St., (9-15-77)
Pleasantville. ALLEGHENY BAPTIST CHURCH (FREE METHODIST CHUREH), PA 27 and Main St., (12-15-78)
Titusville vicinity. $D R A K E$ OIL WELL, 3 mi. SE of Titusville on PA 36, in Drake Well Memorial Park, (11-13-66) NHL.
Titusville vicinity. PITHOLE CITY, SITE OF, (3-20-73) PHOO72583

## warren county

Irvine. IRVINE UNITED PRESBYTERIAN CHURCH, Off U.S. 6, (8-27-76)
Russell vicinity. IRVINE, GUY C., HOUSE, 1.5 mi . S of Russell on U.S. 62, (9-13-78)

Warren. HAZELTINE, A. J., HOUSE, 710 Pennsylvania Ave., W., (11-21-76)
Warren. PENNSYLVANIA RAILROAD PAS. SENGER STATION, 316 Chestnut St., (11-19-74) PH0085294
Warren. STRUTHERS LIBRARY BIILDING, 3rd Ave. and Liberty St., (10.10-75)
Warren. WARREN COUNTY-COURTHOUSE, Market St. and 4th Ave., (4-18-77)
Warren. WETMORE HOUSE, 210 4th Ave., (4-28-75)

## washington county

Avella vicinity. MANCHESTER, ISAAC, HOUSE (PLANTATION PLENTY), $2 \mathrm{mi} . S$ of Avella on PA 231, (6-21-75)
Avella vicinity. MEADOWCROFT ROCKSHELTER, W of Avella, (1t-21-78)
Blainsburg vicinity. MALDEN INN. W of Blainsburg on U.S. 40, (1-24-74) PH0073393
California. OLD MAIN, CALIFORNIA STATE COLLEGE, California State Coliege campus, (5-2-74) PH0072621
Canonsburg. ADMINISTRATION BUILD. ING, WASHINGTON AND JEFFERSON -COLLEGE, Washington and Jefferson College campus, (8-16-77)
Canonsburg. ROBERTS HOUSE, 225 N. Central Ave., (4-10-75)
Centerville. HARRISON HOUSE, Old Rte. 40, (12-30.74) PH0073199
Claysville. DERROW, MARGARET, HOUSE, W. Main St., (11-5-74) PH007260S

Claysville. MONTGOMERY HOUSE, W. Main St., (10-25-74) PH0099350
Eighty-Four vicinity. BROWNLEE, SAMUEL, HOUSE, N of Eighty-Four on PA 519, (11-7-76)
Fredericktown vicinity. REGESTER LOG HOUSE. N of Fredericktown off PA 88, (10-16-74) PH0072630
Gastonville vicinity. DUSMAL HOUSE, E of Gastonville off Gilmore Rd., (2-24-75)
Marianna vicinity. ULERY MILL, SE of Marianna, (4-20-78)
Monongahela. ACHESON, EDWARD G., HOUSE, 908 Main St., (5-1!-76)
Scenery Hill. HILL'S TAVERN (CENTURY INN), U.S. 40, (11-19-74) PH0073504
Washington. BRADFORD, DAVID. HOUSE, 175 S. Main St., (7-16-73) PH0072591 habs.

Washington. LEMOYNE, DR. JULAUS. HOUSE, 49 E. Maiden St. (10-25-73) PH007:613
Washington. SACKVILLE HOUSE, 309 E Whecling St. (11-21-76)
Washington. WASHINGTON COUNT: COURTHOUSE, S. Main St., (7-30-74) PH0072648
Washington. WASHINGTON COUNTY JAIL Cherry St., (7-30-74) PH0072656
Washington vicinity. " $S$ " $B R I D G E, 6 \mathrm{mi}$. W or Washington on U.S. 40, (4-4-75)
Washington vicinity. TRINITY HALL, 1 mi . : of Washington on PA 18, (9-27-76)
West Brownsville. DORSEY, JOSEPH HOUSE, 113 Cherry Ave., (11-19-74) PHOO73482
wayne county
DELAWARE AND HUDSON CANAL. Reference-see Orange County, NY (1-2-74),
Bethany. WILMOT HOUSE, Wayne St., (2-15-74) PH0072664 habs.
Bethany. WILMOT MANSION, Wayne ant Sugar Sts., (1-26-78)
Equinunk vicinity. HILL'S SAWMILL, $S$ ot Equinunk off PA 191, (11-8-74). PH0087874
South Canaan vicinity. OCTAGON STON SCHOOLHOUSE, 1 mi . SW of Sout Canaan, (5-6-77)
Starrucca. STONE ARCH BRIDGE, STARRUCCA CREEK, SR 57054, (10-21-77)
White Mills. DORFLINGER, EUGENl ESTATE, U.S. 6 and Charles St., (9-18-78)

## westmoreland county

Delmont. SALEM CROSSROADS HISTORI DISTRICT, Pittsburgh and Greenburg Sts (9-18-78)
Greenburg. WESTMORELAND COUNTY COURTHOUSE, N. Main St., (3-30-78)
Greensburg. GREENSBURG RAILROA STATION, Harrison Ave., (11-7-77)
Greensburg vicinity. OLD HANNASTOWi., SITE OF ( $1-26.72$ ) PHO1 12828
Harrison City vicinity. BUSHY RUN BATTLEFIELD, 2 mi . E of Harrison City on P 993, ( $10-15-66$ ) PHO 112984 NHL.
Irwin. BRUSH HILL, 651 Brush Hill Rd., (lv-14-75)
Latrobe vicinity. ST. VINCENT ARCHABBEV GRISTMILL, SW of Latrobe off U.S. 3 (1-18-78)
Ligonier. FORT LIGONIER SITE, S. Market St., (1-21-75)
New Florence vicinity. LAUREL HILL FU NACE, SE of New Florence on Baldw Run, (4-28-75)
Torrance vicinity. WESTERN DIVISIONPENNSYLVANIA CANAL (CONEMAUGH RIVER LAKE), N of Torrance, (9-17-7 PH0088650
wyoming county
Meshoppen. OLD WHITE MILL, Off Welles St. (9-11-75) G.
Nicholson vicinity. TUNKHNNNO VIADUCT, 0.5 mi . E of Nicholson at Tur hannock Creek, (4-11-77)
york county
Feiton vicinity. WALLACE-CROSS MILL,S ? Felton, (12-22-77)
Hanover. NACE (NEAS), GEORGE, HOUSE: 113-115 W. Chestnut St., (4-26-72) PH0072699
Laurel vicinity. GUINSTON UNIT. ? PRESBYTERIAN CHURCH, E of Laurel f PA 74, (1-11.76)

September 9, 1980

Mr. Robert Buhrman<br>Mine Drainage Engineer<br>Department of Environmental Resources<br>Evangelical Press Building<br>Third and Reilly Streets<br>Harrisburg, Pennsylvania 17120

Dear Mr. Buhrman:
The review process conducted by the Office of Historic Preservation begins when our office is notified that a specific project is being planned. This notice should contain a United States Geological Survey 7.5 minute topographic map (or a xeroxed portion) with the project area clearly deliniated. This location is examined to determine the impact on cultural resources, both historic and prehistoric. The initial source for this information is historic and prehistoric site files. The prehistoric sites are usually recorded with the understanding that the information (especially the location) will be held in strict confidence and will only be available to qualified professionals.

If after the review of the project area we find cultural resources are present in or near the project area, the contractor is notified that the site will require further investigation to determine their significance and the possible impact of construction. This survey is performed by a professional cultural resources contractor (usually an archeologist) and we will help you prepare specification for this work. If no sites are located in our files, but the area appears to be of the type in which cultural resources are frequently found, (i.e. at or near the junction of two streams, adjacent to natural resources used in the past) we will conduct a brief field reconnaissance to determine what if any cultural resources are present. If sites are present, an investigation by a cultural resources contractor must be conducted. If no cultural resources are present, the project is cleared.

I hope the above has been helpful and if you have any other questions, please feel free to contact my office at (717) 7838947.

Sincerely,

Ed Weintraub
State Historic Preservation Officer
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
$\begin{gathered}\text { Office of Resources Management } \\ \text { R. Timothy Weston, Associate Deputy Secretary }\end{gathered}$
PENNSYLVANIA RECREATIONAL AREAS
JULY 1982 (Revised)
List of Abbreviations


## PENNSYLVANIA

STATE FOREST NATURAL AREAS AND WILD AREAS

## BACKGROUND

Under the powers and duties assigned to the Department of Environmental Resources by the Administrative Code of April 9, 1929, P. L. 177 \& 1902-A, it states in paragraph 6, "That the Department is authorized and directed to set aside, within the state forests, unusual or historical groves of trees, or natural features, especially worthy of permanent preservation, to make the same accessible and convenient for public use and to dedicate them in perpetuity to the people of the Stats for their recreation and enjoyment", and in paragraph 12, 'To set aside when in the judgment of the Department of Environmental Resources, it is deemed necessary, for exclusive use for parks, parkways, and other places of scientific, scenic, or wildlife interest, any state-owned lands which are now or which may hereafter be under the jurisdiction of the Department of Environmental Resources."

The Department has long recognized the value and need for setting aside unusual or interesting areas of state forest land. As early as 1908, the Department recomended preserving several virgin hemlock stands that had been left by the lumbermen because of inaccessibility. These virgin stands were given legal status in May 1921 when the legislature "authorized the Department to set aside unusual or historic groves of trees." The State Forest Commission passed a resolution in September 1921 describing these areas as Forest Monuments. Thirteen Monuments were designated by the Commission.

The term "monument" was proper for the type of area that was set aside under this early effort; however, in the 1960's, it became apparent that in addition to the virgin timber tracts and very rare bogs, there was a need for, and considerbale public interest in, setting aside additional areas where natural succession could be observed with little or no influence by man. This new concept included preserving typical examples of second growth forests and common plant communities. Coincidental with the broadened interest in preserving representative natural ecosystems was a public awareness for large forest areas that would be retained in a wild or undeveloped condition, an outgrowth of the wilderness concept that had developed on national forests in the Western states.

In December 1970, the State Forest Commission passed a resolution changing the name from State Forest Monument to State Forest Natural Area and designated thirteen areas under a new definition that more aptly described the broadened concept. The resolution also created a new class of state forest land called Wild Areas and designated Quehanna as the state's first Wild Area. .

Recognizing the need for the preservation of addithonal areas of forest land with either limited or no human disturbance, the Department incorporated the following objectives into the Forest Resource Plan:
(1) Protect areas of scenic, historic, geologic, or ecological significance through the establishment of Natural Areas which will remain in an undisturbed state, with development and maintenance being limited to that required for health and safety.
(2) Set aside certain areas of land to be known as Wild Areas where development or disturbance of permanent nature will be prohibited, thereby preserving the wild character of the area.

During the inventory phase of the Forest Resource Plan, all unique or unusual biologic, geologic, scenic and historic areas were considered and studied for possible natural area designation. In addition to the "unique" or "unusual", representative examples of all major forest types occurring in Pennsylvania were also included in the natural area system. Natural area status was considered advisable whenever other resource development would have an adverse effect on the future utility or value of the area.

Potential Wild Areas were also located during the inventory process of the Forest Resource Plan. To be considered, an area had to be: 3,000 acres or larger; relatively free of man-made developments such as roads, rights-of-way, pipelines, powerlines, campsite leases; mineral ownership in the Commonwealth; and possess high scenic values.

With the passage of Act 275 that created the Department of Environmental Resources in 1970, the functions of the State Forest Commission were transferred to the Environmental Quality Board. In January 1975, the Environmental Quality Board reaffirmed the Department's policy on Natural Areas and Wild Areas and approved slightly modified definitions that would provide better protection for these two classes of land.

The proposed Natural Areas and Wild Areas located during the development of the Forest Resource Plans were submitted to the Environmental Quality Board on April 17, 1975. The thirteen original Natural Areas and thirtyone proposed Natural Areas were designated by the Board along with the one original and twelve proposed Wild Areas.

On April 9, 1979, eighteen of the Natural Areas were designated by the Bureau of Forestry and the Pennsylvania Fish Commission as special regulation areas for the protection of all amphibians and reptiles within the designated areas. Section 251 of the Fish Law states: The taking, catching, killing and possession of individuals of any species of Pennsylvania amphibians and reptiles occuring naturally within'the boundaries of designated natural areas, by persons other than those posessing a valid scientific collectors permit is prohibited.

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9-B-4
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A Natural Area is defined as an area of unique scenic, historic, geologic or ecological value which will be maintained in a natural condition by allowing physical and biological processes to operate, usually without direct human intervention. These areas are set aside to provide locations for scientific observation of natural systems to protect examples of typical and unique plant and animal communities, and to protect outstanding examples of natural interest and beauty.

The guidelines governing the administration of Natural Areas are as follows:
(1) No human habitation will be permitted, except that primitive type, backpack camping may be permitted in designated areas only.
(2) Access for all but essential administrative activities will be restricted to foot trails.
(3) Buildings and other improvements will be restricted to the minimum required for public health, safety and interpretive aids.
(4) Timber harvesting will not be permitted except as may be required for maintenance of the public safety.
(5) Rights-of-way, leases and mineral development will be prohibited.

## WILD AREA DEFINITION

A Wild Area is defined as an extensive area which the general public will be permitted to see, use and enjoy for such activities as hiking, hunting, fishing and the pursuit of peace and solitude. No development of a permanent nature will be permitted so as to retain the undeveloped character of the area. These areas will be administered according to the principals of forest protection and management applied to Departmentmanaged lands with the following restrictions:
(1) Campsite leases will be prohibited.
(2) No new public access roads will be constructed. Existing roads will remain open only where there is a public need. All motorized conveyances or vehicles shall be prohibited with the exception of licensed vehicles which may be operated only on open public roads.
(3) Forest trail use will be restricted to hiking, horseback riding and bicycling.
(4) Buildings and other improvements will be restricted to the minimum required for public health, safety and interpretive aids.
(5) Rights-of-way, leases and mineral development will be prohibited.
(6) Overnight camping will be limited to the backpack primitive type.

$$
9-B-5
$$

STATE
WILD, SCENIC \& RECREATIONAI RIVERS

1. RIVERS IN SYSTEM

Schuylkill River - Port Clinton to Fairmount Dam
Stony Creek \& tributaries - Dresden Lake to West Boundary Game Lands
2. RIVER STUDY COMPLETE/LEGISLATION PENDING

Lehigh River \& tributaries - Walter Dam to Jim Thorpe
French Creek - Hopewell Lake to Phoenixville
3. RIVER STUDY COMPLETE/ON HOLD

Pine Creek - Ansonia to Jersey Shore
4. RIVER STUDY COMPLETE/LEGISLATION DRAFTED BUT NOT INTRODUCED

Lick Run - Headwaters to West Branch
5. RIVER STUDIES IN PROGRESS

Black Moshannon Creek - Dam to Moshannon Creek
Dunbar Creek - Headwaters to Dunbar
Moshannon Creek - Philipsburg to West Branch
Mosquito Creek - Headwaters to West Branch
Muddy Creek - Headwaters to Susquehanna River
Octoraro Creek - Headwaters to Maryland Border
Penns Creek - Penns Cave to Selinsgrove
Schrader Creek - Headwaters to Towanda Creek
West Branch Susquehanna - Karthaus to Keating
6. RIVER STUDIES BEGUN/ON HOLD

Slippery Rock, Wolf Creeks and Connoquenessing Creek - Headwaters to Beaver River
7. IA ON STUDY INVENTORY - PRIMARY EMPHASIS

Beech Creek - Kato to Beech Creek
Clarion River - Ridgway to Allegheny River
Delaware River - Delaware Water Gap to Yardley
Juniata River - Mount Union to Lewistown
Kinzua Creek - Headwaters to Allegheny Reservoir
Letort Spring Run - Headwaters to Conodoguinet
Little Juniata River - Spruce Creek to Juniata River
Loyalsock Creek - Headwaters to Loyalsockville
North Fork-Redbank Creek - Headwaters to Redbank Creek
Sinnemahoning System - Emporium to Keating
Susquehanna River - Athens to Lackawama River
Susquehanna River - West Branch Susquehanna to Juniata River
Tionesta Creek - South Branch to Tionesta Lake
Tuscarora Creek - Headwaters to Jundata River
Youghiogheny River - Confluence to South Connellsville
8. OTHER LAS ON LNVENTORY

Allegheny River - Kinzua Dan to Fatst Brady
Bear Run - Headwaters to Youghiogheny River
Brandywine Creek - Headwaters to Delaware Border
Brokenstraw Creek - N.Y. Border to Allegheny River
Bushkill Creek - Headwaters to Delaware River
Casselman River - Garrett to Youghiogheny River
Cucumber Run - Headwaters to Youghiogheny River
Cussewago Creek - Headwaters to French Creek
East Branch Tionesta Creek - Junc. of S. Branch to Tionesta Lake
French Creek - Headwaters to Allegheny River
Hammersley Fork - Headwaters to Kettle Creek
Indian Creek - Mill Run Reservoir to Youghiogheny River
Jonathan Run - Headwaters to Youghiogheny River
Lake Creek - Headwaters to Sugar Creek
Laurel Hill Creek - Headwaters to Casselman River
Laurel Run - Headwaters to Sherman Creek
Meadow Run - Headwaters to Youghiogheny River
Muddy Creek - Headwaters to French Creek
North Fork Beech Creek - Clarence to Kato
South Branch French Creek - Headwaters to French Creek
Spruce Creek - Headwaters to Little Juniata
Squaw Run - Headwaters to Allegheny River
Sugar Creek - Junction of Branches to French Creek
West Branch French Creek - Headwaters to French Creek
West Branch Susquehanna River - Clearfield to Karthaus \& Keating to Lock Haven
Youghiogheny River - South Connellsville to Versailles

FEDERAL
WILD, SCENIC \& RECREATIONAL RIVERS

1. RIVERS IN SYSTEMDelaware River - New York to Delaware Water Gap
2. RIVER STUDY COMPLETE/RIVER DETERMINED ELIGIBLE
Pine Creek - Ansonia to Jersey Shore
Youghiogheny River - Confluence to South Connellsville
3. RIVER STUDY COMPLETE/RIVER ELIGIBLE WITH WATER QUALITYIMPROVEMENTSClarion River - Ridgway to the Allegheny River
4. RIVER STUDY IN PROGRESS
Allegheny River - Kinzua Dam to East Brady
5. RIVER MENTIONED IN HCRS SYSTEMS STUDY
Beech Creek - Headwaters to Oviston
Black Moshannon Creek - Black Mo. Dam to Moshannon CreekCasselman River - Casselman to Youghiogheny RiverDelaware River - Washington's Crossing to Frenchtown, N.J.Indian Creek - Headwaters to Youghiogheny River
Laurel Hill Creek - Allen Creek to Ursina
Lehigh River - Lehigh Tannery to Jim ThorpeMoshannon Creek - Winbourne to W. Branch SusquehannaWest Branch Susquehanna River - Karthaus to Queens Run

| WAter area |  |
| :---: | :---: |
| NAME | SIZE |
| －－ | －－ |
| Blanchard Lake（Rec．Pool） Foster Joseph Sayers Dam Bald Eagle Creek | 1，730．00 Ac． |
| Beltzville Lake（Rec．Pool） Pohocopo Creek | 947．00 Ac． |
| Pool（Day Use Area） <br> Wading Pool <br> East Branch Clarion River | $\begin{aligned} & 35^{\prime} \times 105^{\prime} \\ & 15^{\prime} \times 20^{\prime} \end{aligned}$ |
| －－ | －－ |
| －－ | －－ |
| －－ | －－ |
| Black Moshannon Lake Black Moshannon Creek | 250．00 Ac． |
| Pool（Group Camp） Pool（Day Use Area） | $\begin{aligned} & 25^{\prime} \times 75^{\prime} \\ & 42^{\prime} \times 82^{\prime} \end{aligned}$ |
| －－ | － |
| West Branch Susquehanna （75 Miles Scenic River） |  |


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| ACQUIRED BY | WATER AREA |  |
| :---: | :---: | :---: |
| F.L. | Warming Pond for Pool (Race Mill Pond) Pool (Day Use Area) Conococheague Creek | $\begin{aligned} & .75 \mathrm{Ac} . \\ & 75^{\prime} \times 190^{\prime} \end{aligned}$ |
| Project 70 <br> LWCF-O\&G | Canoe Lake Canoe Creek | 155.00 Ac. |
| O\&G-GF <br> Game Commission Exchange | Chapman Lake <br> West Branch Tionesta Creek | 68.00 Ac. |
| F.L. | Clear Creek Clarion River | 1.00 Ac. |
| Project 70 \& HUD O\&G | Lake Marburg <br> West Branch Codorus Creek | 1,275.00 Ac. |
|  | Pool (Day Use Area) <br> Pool - Wading | $\begin{aligned} & 26 ; 700 \mathrm{Sq} \mathrm{Ft} \\ & 1,880 \mathrm{Sq} \mathrm{Ft} \end{aligned}$ |
| F.L. | Colonel Denning Lake Doubling Gap Creek | 3.60 Ac . |
| F.L. | Pine Creek |  |
| Special Appropriation, Gift \& O\&G | Pool (Day Use Area) Wading Pool Clarion River | 105 ' $\times 35$ ' |
| F.L. | Cowans Gap Lake Little Augwick Creek | 42.00 Ac. |
| F.L. | Nine Mile Run |  |
| F.L. COE Admin. | East Branch Dam \& Lake (Rec Pool) <br> East Branch Clarion River | 1,160.00 Ac. |










|  | STATE PARKS |  |
| :---: | :---: | :---: |
| ST PARK ACQuIRED | OPEN TO PUBLIC | TOTAL ACREAGE |
| 1969 | 1979 | 3,349.05 |
| 1920 | 1953 | 483.39 |
| 1963 | 1968 | 1,005.61 |
|  | 1937 | 7,143.77 |
| 1912 | 1912 | 153.97 |
| 1958 | 1961 | 2,337.82 |
| 1949 | 1958 | 2,800.00 |
| 1905 | 1925 | 350.26 |
| 1945 | 1945 | 15,500.00 |


| PARK REGION | PARK | COUNT |
| :---: | :---: | :---: |
| 4 | Evansburg | Montgomery |
| 4 | Fort Washington | Mongtomery |
| 4 | Frances Slocum | Luzerne |
| 4 | French Creek (5,370 was deeded March 31, 19 (Formerly National Park Service Recreation Demonstration Area) | Berks-Chester 47) |
| 4 | George W. Childs | Pike |
| 3 | Gifford Pinchot | York |
| 4 | Gouldsboro | Monroe-Wayne |
| 3 | Greenwood Furnace | Huntingdon |
| 4 | Hickory Run <br> (Formerly National <br> Park Service Recreation Demonstration Area) +Boulder Field | Carbon |


| SIZE |
| :--- |
| 137.00 Ac . |
| 35' $\times 105^{\prime}$ |
| $15^{\prime} \times 20^{\prime}$ |
|  |
|  |
| 160.00 Ac. |
| 7.00 Ac. |
| 78.00 Ac. |
| -- |
| 4.13 Ac. |
| 205.00 |
| $19,096 \mathrm{Sq} \mathrm{Ft}$ |
| 63.00 Ac. |
| 0.30 Ac. |
| 0.25 Ac. |

SIZE
$\ldots$
$\ldots$
$\ldots$
_-
88.00 Ac.
$24,310 \mathrm{Sq} \mathrm{Ft}$
$2,625 \mathrm{Sq} \mathrm{Ft}$
93.7 Ac.
52.00 Ac.
$40.00 \quad$.
535.00 Ac.
$9,270.00 \mathrm{Sq} \mathrm{Ft}$
$1,256.00 \mathrm{Sq} \mathrm{Ft}$
$1,440.00 \mathrm{Ac}$.

ACQuIRED
Project
DGS \& LWCF
Gift
F.L.
F.L.
Project 70
F.L. \& GSA
Project 70
F.L.
Project 70
Project 70
O\&G

| ARKS |
| ---: |
| TOTAL |
| ACREAGE |
| $13,500.70$ |
| $5,880.00$ |
| 585.00 |
| 612.77 |
| 829.95 |
|  |
| $2,159.00$ |
| $1,143.51$ |
| 595.00 |
| $1,705.35$ |

STATE PA
OPEN TO
PUBLIC
1974
Estimated
1922
1924
1972
1937
1972
1955
1974
1959

| COUNTY | FIRST PARK <br> LAND ACOUIRED |
| :--- | :---: |
| Somerset <br> Westmoreland-Cambria- <br> Indiana-Fayette | 1967 |
| Carbon (currently <br> under acq. by DGS) | 1976 |
| Tioga |  |
| Westmoreland |  |$\quad 1922$


| PARK REGION | PARK |
| :---: | :---: |
| 2 | Laurel Ridge |
| 4 | Lehigh Gorge |
| 1 | Leonard Harrison +Pine Creek Gorge |
| 2 | Linn Run |
| 3 | Little Buffalo |
| 1 | Little Pine |
| 4 | Locust Lake |
| 1 | Lyman Run |
| 4 | Marsh Creek |
| 2 | M. K. Goddard Game Commission Administers 2,079.91 acres |
| 2 | McConnells Mill +Gorge |


| FIRST PARK LAND ACQUIRED | STATE PARKS |  |  | NAME WATER AREA SIZE |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | OPEN TO PUBLIC | TOTAL ACREAGE |  |  |  |
| 1964 | 1964 | 231.00 | Military Affairs | Memorial Lake | 85 |
| 1966 | 1972 | $\begin{array}{r} 76.00 \\ 0.74 \end{array}$ | Gift O\&G | Susquehanna River | 85.00 Ac |
|  |  | 76.74 |  |  |  |
| 1902 | 1906 | 23.57 | F.L. | West Branch Antietam Creek | - |
| 1960 | 1970 | $\begin{array}{r} 12,375.00 \\ 2,300.00 \\ 1,163.00 \\ \hline \end{array}$ | GSA <br> LWCF-O\&G <br> Project 70 | Lake Arthur Muddy Creek | 3,225.00 Ac. |
|  |  | 15,838.00 |  |  |  |
| 1969 |  | $\begin{array}{r}1,024.12 \\ 278.16 \\ \hline\end{array}$ | Project 70 O\&G (Corridor) | Stephen Foster Lake (Proposed) <br> Mill Creek | 75.00 Ac. |
|  |  | 1,302.28 |  |  | 5,676 Sa Ft |
| 1956 | 1970 | $\begin{array}{r} 160.00 \\ 86.00 \\ 87.00 \\ 1.50 \\ \hline \end{array}$ | Gift <br> O\&G <br> GSA <br> GSA (Access Rd) | Pool (Day Use Area) Diving Pool Wading Pool Delaware River \& | $\begin{aligned} & 202^{\prime} \times 84^{\prime} \\ & 34^{\prime} \times 52^{\prime} \\ & 42^{\prime} \times 74^{\prime} \end{aligned}$ |
|  |  | 334.50 |  | Neshaminy Creek |  |
| 1961 | 1974 | 5,283.00 |  <br> Project 70 | Nockamixon Lake <br> Main Pool <br> Diving Pool <br> Tohickon Creek | $1,450.00 \mathrm{Ac}$. $19,000 \mathrm{Sq} \mathrm{Ft}$ $1,401 \mathrm{Sq} \mathrm{Ft}$ |
| 1963 | 1970 | $\begin{array}{r} 3,070.00 \\ 15,643.34 \\ \hline \end{array}$ | O\&G <br> Project 70 | Youghiogheny River | -- |
|  |  | 719.28 |  |  |  |
| 1967 |  | 7,006.60 | Project 70 | Oil Creek | -- |
|  | 1925 | 117.53 | F.L. | Ole Bull Kettle Creek | . 75 Ac . |



## 

1,640.00 Ac.
1,640.00 Ac.



| STATE PARKS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| FIRST PARK LAND ACQUIRED | OPEN TO PUBLIC | tOTAL ACREAGE | $\underset{B Y}{\text { ACQURED }}$ | name Water area |
|  | 1936 | 968.00 | F.L. | Parker Lake Laurel Run |
|  | 1913 | 637.00 | F.L. | Laurel Lake 2 <br> Fuller Lake  <br> Mountain Creek 1 |
|  | 1936 | 620.00 | F.L. | Poe Lake <br> Poe Creek |
| 1946 | 1946 | 36.00 | GF \& O\&G | Allegheny \& Monongahela Rivers |
|  | 1929 | 3,100.00 | Fed. Gov't \& by Purchase \& Exchan with City of Erie | Lake Erie ge |
| 1958 | 1961 | 6,249.03 | O\&G \& Exchange | Glendale Lake Beaver Dam Run |
| 1958 | 1919 | 2,971.00 | $\begin{aligned} & \text { F.L. } \\ & \text { O\&G } \end{aligned}$ | Promised Land Lake 4 <br> Lower Lake  <br> Paupack Creek 1 |
| 1921 |  | 25,573.70 | GF | Pymatuning Reservoir (elev. 1008) |
|  |  | $\underline{259.30}$ | Project 70 | Upper Lake (Game |
|  |  | 25,833.00 |  | Commission Lease) |
| 1945 | 1945 | 6,908.76 | $\begin{aligned} & \text { Gift-NPS } \\ & \text { O\&G } \end{aligned}$ | Raccoon Lake Traverse Creek |
|  |  | $\begin{array}{r} 314.35 \\ \hline 7.223 .11 \end{array}$ | LWCF | Organized Group Camp Lake |



$$
\begin{array}{ll}
2 & \text { Presque Isle } \\
+ \text { Ecological Preserve }
\end{array}
$$

## Prince Gallitzin

3 P
Promised Land
(Bruce Lake-See Natural Areas)
Gụumemíd $\quad$ _ (Game Commission owns an additional 13,955 acres)

 (Formerly National Park Service Recreation Demonstration Area)
JdM mort paseyornd 'כ $\forall$ SG'tl
N

NAME
Stover Lake
Tohickon Creek
Rauchtown Creek
Halfway Lake
Halfway Run
Pool (Day Use Area)
Wading Pool
Honey Creek
Lake Rose
Lake Jean.
Kitchen Creek
In Channel Dam \#1
In Channel Dam \#2
Sycamore Mills Dams
Ridley Creek
Delaware River (Canal)
Ryerson Station Lake
Pool (Day Use Area)
Wading Pool



| PARK REGION | PARK | COUNTY |
| :---: | :---: | :---: |
| 4 | Ralph Stover | Bucks |
| 1 | Ravensburg | Clinton |
| 1 | Raymond B. Winter | Union |
| 1 | Reeds Gap | Mifflin |
| 4 | Ricketts Glen +Glens Area | Luzerne <br> Sullivan-Columbia |
| 4 | Ridley Creek | Delaware |
| 4 | Roosevelt | Bucks-Northampton |
| 2 | Ryerson Station | Greene |
| 4 | *Salt Springs | Susquehanna |
| 3 S | Samuel S. Lewis | York |


| WATER AREA |  |
| :---: | :---: |
| NAME | SIZE |
| -- | -- |
| Shawnee Lake | 451.00 Ac. |
| Shawnee Branch Juniata River |  |
| Overlooks Susquehanna River and |  |
| West Branch Susquehanna River |  |
| Lake Augusta | 3,000.00 Ac. |
| Confluence of North \& West Branch of Susquehanna River |  |
| George B. Stevenson Dam \& |  |
| Reservoir | 142.00 Ac . |
| First Fork Sinnemahoning Creek |  |
| Pool (Day Use Area) | $46^{\prime} \times 100^{\prime}$ |
| Wading Pool | 15'x20' |
| West Cowley Run |  |
| Overlooks Susquehanna River |  |
| Swatara Lake (Proposed) | 750.00 Ac. |
| Swatara Creek |  |
| Tobyhanna Lake \#2 |  |
| Jim Smith Run |  |
| Trough Creek |  |
| Tuscarora Lake | 96.18 Ac. |
| Locust Creek |  |



| FIRST PARK LAND ACQUIRED | STATE PARKS |  |
| :---: | :---: | :---: |
|  | OPEN TO PUBLIC | TOTAL ACREAGE |
|  | 1925 | 318.00 |
| 1949 | 1951 | 3,840.16 |
|  |  | 77.06 |
| 1960 | 1960 |  |
| 1967 | 1972 |  |
|  | 1958 | 1,610.00 |
|  | 1931 | 386.00 |
| 1959 | 1965 | 224.25 |
| 1972 |  | $3,200.00$ (Estimate) |
| 1949 | 1949 | 5,439.70 |
|  | 1936 | 541.00 |
| 1960 | 1971 | 1,716.00 |


| $\begin{aligned} & 7 \\ & 2 \\ & 0 \\ & \hline 0 \end{aligned}$ |  | 믕 © © | $\frac{.5}{5}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| PARK REGION | PARK |
| :---: | :---: |
| 1 | S. B. Elliott |
| 3 | Shawnee |
| 1 | Shikellamy Day Use Area |
|  | Marina Area |
| 1 | Sinnemahoning |
| 1 | Sizerville |
| 3 | Susquehannock |
| 4 | *Swatara (Currently under acquisition by DGS |
| 4 | Tobyhanna |
| 3 | Trough Creek |
| 4 | Tuscarora |

SIZE
$\ldots$
12.50 Ac.
12.00 Ac.
$\ldots$
22.00 Ac.
0.30 Ac.
720.00 Ac.

|  |  |
| :--- | ---: |
|  | NAME |
|  |  |
| Neshaminy Creek |  |



 FIRST PARK
LAND ACGUIRED
$\pm$
-8
-

 | 8 |
| :--- |
| 8 |
| 8 |

$\begin{array}{ll}2 & \\ 2 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0\end{array}$ Bedford
Huntingdon
Sullivan Indiana

| NAME WATER AREA SIzE |
| :--- |
|  |
| Nescopeck Lake (Proposed) <br> Nescopeck Creek | West Branch Susquehanna River

NOILVWHOANI 7VYZN3פ


PARK AREAS UNDER LEASE

| FIRST PARK <br> LAND ACQUIRED | OPEN TO <br> PUBLIC | TOTAL <br> ACREAGE |
| :---: | :---: | ---: |
| 1945 | 1952 | 15.00 |
|  |  | $3,654.00$ |
|  |  | $2,981.00$ |
| 1960 | 1961 | 19.59 |

COUNTY
Philadelphia






$+\quad N$
$N$
 4 + -


$\begin{array}{ccrc}\text { STATE ENVIRONMENTAL EDUCATION CENTERS } \\ \begin{array}{c}\text { FIRST PARK }\end{array} & \begin{array}{c}\text { OPEN TO }\end{array} & \begin{array}{c}\text { TOTAL } \\ \text { LAND ACQUIRED }\end{array} & \begin{array}{c}\text { ACQUIRED } \\ \text { PUBLIC }\end{array} \\ 1979 & 1980 & 322.00 & \text { O\&G \& LWCF } \\ 1973 & & 1,419.60 & \text { Project 70 } \\ 1966 & 1971 & 665.82 & \text { Project 70 }\end{array}$
PARK
Jennings
Kings Gap

$$
\begin{aligned}
& \text { ADMINISTERED BY } \\
& \text { Forestry, District \#5 } \\
& \text { Forestry, District \#16 } \\
& \text { Forestry, Districk \#6 } \\
& \text { Forestry, District \#7 } \\
& \text { Forestry, District \#2 } \\
& \text { Forestry, District \#2 } \\
& \text { Forestry, District \#16 } \\
& \text { Forestry, District \#1 } \\
& \text { Forestry, District \#5 } \\
& \text { Forestry, District \#16 } \\
& \text { Forestry, District \#20 } \\
& \text { Forestry, District \#16 } \\
& \text { Parks, Region \#3 } \\
& \text { Forestry, District \#7 } \\
& \text { Forestry, District \#10 }
\end{aligned}
$$

$$
\begin{aligned}
& \quad \text { AREA } \\
& \text { Alan Seeger } \\
& \text { Asaph Run } \\
& \text { Babcock } \\
& \text { Bear Gap } \\
& \text { Bear Valley } \\
& \text { Blankley } \\
& \text { Bradley Wales } \\
& \text { Cherry Springs } \\
& \text { Colerain } \\
& \text { County Bridge } \\
& \text { Dry Run } \\
& \text { Fall Brook } \\
& \text { Fowlers Hollow } \\
& \text { Hairy Johns } \\
& \text { Jesse Hall }
\end{aligned}
$$

\[

\]

STATE FOREST PICNIC AREAS
STATE FOREST

 sequog Forbes
 Weiser sequol xneypiw Susquehannock aлемеןa Rothrock Rothrock
 4
3
3
3






State forest natural areas

STATE FOREST
Rothrock
Tiadaghton
Tiadaghton
Rothrock
Rothrock
Tioga
Tuscarora
Delaware

ADMINISTERED BY
Forestry, District \#5
Forestry, District \#12
Forestry, District \#12
Forestry, District \#5
Forestry, District \#5
Forestry, District \#16
Forestry, District \#3
Parks, Region \#4

[^1]AREA Alan Seeger<br>Algerine Swamp<br>Bark Cabin

+Bear Meadows
Big Flat Laurel
Black Ash Swamp
+Box Huckleberry

$$
\begin{aligned}
& \text { ADMINISTERED BY } \\
& \text { Forestry, District \#2 } \\
& \text { Forestry, District \#11 } \\
& \text { Forestry, District \#7 } \\
& \text { Parks, Region \#1 } \\
& \text { Forestry, District \#13 }
\end{aligned}
$$

$$
\begin{array}{cl}
\text { STATE FOREST PICNIC AREAS } \\
\begin{array}{c}
\text { TOTAL } \\
\text { ACREAGE }
\end{array} & \text { STATE FOREST } \\
6.00 & \text { Buchanan } \\
15.00 & \text { Lackawanna } \\
5.00 & \text { Bald Eagle } \\
4.00 & \text { Tiadaghton } \\
1.70 & \text { Elk }
\end{array}
$$

$$
\begin{aligned}
& \text { WATER AREA } \\
& \text { Sweet Root Creek } \\
& \text { Trib. Pond Creek } \\
& \text { Trib. Lancaster Valley Creek } \\
& \text { Pine Bottom Run }
\end{aligned}
$$


STATE FOREST NATURAL AREAS
water area


Cranberry Run
Detweiler Run
Clark Run
East Branch Big Run
Hammersley Fork
Hammersley Fork
Laurel Run
Johnson Run
Laurel Run
Kettle Creek
STATE FOREST NATURAL AREAS

| $\begin{aligned} & z \\ & \vdots \\ & 0 \\ & 0 \end{aligned}$ |  | － | $\begin{aligned} & \frac{n}{5} \\ & \frac{\pi}{8} \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 을 } \\ & \text {. } \end{aligned}$ |  | $\begin{aligned} & \text { 凹 } \\ & \text { 苞 } \\ & \text { 들 } \end{aligned}$ | $\begin{aligned} & \stackrel{\substack{0 \\ \hline}}{\underline{U}} \end{aligned}$ | 身 | 2 | $\begin{aligned} & \frac{5}{0} \\ & \stackrel{2}{Z} \\ & \vec{B} \end{aligned}$ | $\begin{aligned} & \text { 등 } \\ & \stackrel{0}{E} \\ & \text { E } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \bar{亏} \\ & \text { Doㅇ } \\ & \text { in } \end{aligned}$ | $\begin{aligned} & \text { 品 } \\ & \frac{0}{5} \\ & 0 \\ & \end{aligned}$ |  | $\begin{aligned} & \overline{\overline{0}} \\ & \text { 흔 } \end{aligned}$ |  |  | $\begin{aligned} & \text { Dr } \\ & \frac{C}{E} \\ & 0 \\ & 3 \\ & 3 \end{aligned}$ | 㐫 |  |


ADMINISTERED BY
Forestry，District \＃10
and \＃13
Forestry，District \＃19
Forestry，District \＃1
Forestry，District \＃10
Forestry，District \＃5
Forestry，District \＃6
Forestry，District \＃10
Forestry，District \＃15
Forestry，District \＃3
Forestry，District \＃20
Forestry，District \＃13
Forestry，District \＃7
Forestry，District \＃20AREA
Bucktail State Park
Buckhorn
Carbaugh Run
Cranberry Swamp
Detweiler Run
Dr．Charles F．Lewis
East Branch Swamp
Forrest H．Dutlinger
Frank E．Masland，Jr．
High Knob
Johnson Run
Joyce Kilmer
Kettle Creek Gorge
STATE FOREST NATURAL AREAS

WATER AREA


Headwaters of Paige Run

 oak and laurel

Table mountain pine, pitch pine, shortleaf pine, white pine, virgin pine and mixed oak

High plateau dissected by 4 streams; variety of forest types and sites Highest point in Pennsylvania Old growth hemlock and Tuscarora sandstone outcrop Scrub oak, mixed oak forest, mountain swamp Scenic gorge with second growth red pine, white pine, hemlock, oak, and northern hardwoods. A small tract of
virgin hemlock High mountain bog

Virginia pine, old fields, abandoned
farm settiement

COUNTY
 Cameron-
Clinton line
关

Franklin Lycoming
 $\stackrel{5}{0}$
$\stackrel{y}{6}$ $\stackrel{\otimes}{\stackrel{\otimes}{2}}$

 SBynivia 3nOINn Water gap, major fault line, thrust
fault, talus slope
 stand White birch, high mountain bog mixed . .
 STATE FOREST
Rothrock Rothrock
Elk

Moshannon
Michaux Tiadaghton Forbes Bald Eagle $\stackrel{0}{0}$
$\frac{3}{01}$
$\frac{0}{9}$
0

 TOTAL
ACREAGE

624
892 917 $\bar{\omega}$ 4,987

$\underset{\sim}{\infty} \underset{\sim}{\infty}$ | 0 |
| :--- |
| 0 |

7,216 $\begin{array}{cc}\wedge & 0 \\ 0 \\ \text { in }\end{array}$

Forestry, District \#5
Forestry, District \#13
Forestry, District \#9
Forestry, District \#1 Forestry, District \#12 Forestry, District \#4 L\# 1כ!ns!a 'Ansanog Forestry, District \#19

 Meeting of the Pines uny 人цәг дамоา

Marion Brooks
Miller Run

Mt. Davis
Mt Logan
Pennel Run

Pine Lake


WATER AREA
Roaring Run
Jamison Run
Swift Run
Tributary of Littl
SweetRoot Creek

Headwaters of Drury Run Headwaters of Shermans Creek North Branch Buffalo Creek



AREA
Pine Tree Trail
Reynolds Spring
Roaring Run
Rosecrans Bog
Snyder-Middleswarth
Stillwater
Sweet Root
Tall Timbers
Tamarack Swamp
+The Hemlocks
The Hook
Wykoff Run

+ Listed in National Re

$$
\begin{aligned}
& \quad \text { AREA } \\
& \text { Algerine } \\
& \text { Asaph } \\
& \text { Burn's Run } \\
& \text { Clear Shade } \\
& \text { Fish Dam } \\
& \text { *Hammersley } \\
& \text { Martin Hill } \\
& \text { McIntyre } \\
& \text { *Ouebec Run } \\
& \text { Quehanna } \\
& \text { Thickhead Mou }
\end{aligned}
$$

$$
\begin{aligned}
& \text { ADMINISTERED BY } \\
& \text { Forestry, District \#12 } \\
& \text { Forestry, District \#16 } \\
& \text { Forestry, District \#10 } \\
& \text { Forestry, District \#6 } \\
& \text { Forestry, District \#10 } \\
& \text { Forestry, District \#15 } \\
& \text { Forestry, District \#2 } \\
& \text { Forestry, District \#12 } \\
& \text { Forestry, District \#4 } \\
& \text { Forestry, District \#13 } \\
& \text { and \#9 } \\
& \text { Forestry, District \#5 }
\end{aligned}
$$

$$
\text { Burn's Run } \begin{aligned}
& \text { High plateau dissected by a stream } \\
& \text { \& open grassy meadows }
\end{aligned} \quad \text { Clear Shade Creek }
$$



$$
\begin{aligned}
& \text { AREA } \\
& \text { Trough Creek } \\
& \text { Tuscarora } \\
& \text { White Mountain } \\
& \text { Wolf Run }
\end{aligned}
$$

$$
\begin{aligned}
& \text { ADMINISTERED BY } \\
& \text { Forestry, District \#5 } \\
& \text { Forestry, District \#3 } \\
& \text { Forestry, District \#7 } \\
& \text { Forestry, District \#12 } \\
& \text { AREA } \\
& \text { Bradley Wales } \\
& \text { Colton Point } \\
& \text { High Knob } \\
& \begin{array}{l}
\text { Hyner View } \\
\text { (Name by Geographic Board } \\
\text { on 11-11-54 as a Picnic Area) } \\
\text { Leonard Harrison }
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \text { WATER AREA } \\
& \text { Juniata River (Raystown } \\
& \text { Branch) } \\
& \text { Penns Creek } \\
& \text { Wolf Run and Mill Run }
\end{aligned}
$$






> STATE FOREST AREAS COUNTY - FOREST DISTRICT JURISDICTION Clinton*, Union*, Centre*, Mifflin*, Snyder*, Juniata* Bedford, Fulton, Franklin Erie, Crawford, Warren, Forest, Pike*, Menango Elk*, Cameron*, Potter* Allegheny, Greene, Fayette*, Westmoreland*, Washington, Somerset* Indiana*, Cambria*, Blair, Somerset* Mercer, Lawrence, Beaver, Butler, Jefferson*, Venango*, Armstrong, Clarion* *Designates Location of State Forest Area
 PARK
Delaware River Islands(2)
Shoemaker
Raubs
Schuylkill River
Desilting Basins (3)
Alburn Pool
Felix Pool
Kernsville Pool
Fourteen Mile Island
Little Tinicum Island

 FOREST
DISTRICT
\#7
\#2
$\# 14$
$\# 19$
$\# 13$
$\# 4$
$\# 6$
$\# 8$

$$
\begin{aligned}
& \begin{array}{l}
\text { STATE FOREST AREAS } \\
\text { COUNTY - FOREST DISTRICT JURISDICTION } \\
\text { Susquehanna, Wayne, Wyoming, Lackawanna*, } \\
\text { Lucerne } \\
\text { Franklin*, Cumberland*, Adams*, York } \\
\text { Clearfield*, Elk*, Cameron*, Centre* } \\
\text { Huntingdon*, Centre*, Mifflin* } \\
\text { Clinton*, Centre* } \\
\text { Potter*, Clinton*, Mclean* } \\
\text { Lycoming*, Clinton*, Union* } \\
\text { Toga*, Bradford* } \\
\text { Juniata*, Perry*, Mifflin*, Huntingdon*, } \\
\text { Franklin*, Cumberland* } \\
\text { Lancaster, Berks*, Leigh, Bucks, } \\
\text { Chester, Montgomery, Delaware } \\
\text { Dauphin*, Lebanon, Berks, Carbon*, } \\
\text { Schuylkill*, Leigh } \\
\text { Sullivan*, Lucerne, Columbia, contour } \\
\text { Northumberland. }
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \text { 否哥 }
\end{aligned}
$$

STATE PARK REGIONS; STATE PARKS;
SCENIC OVERLOOKS; AND OTHER AREAS

2 PARK REGIONS
ENVIRONMENTAL EDUCATION CENTER

* SCENIC AREAS
* DESILFING BASINS

NATURAL AREAS
STATE FOREST DISTRICTS; NATURAL AND WILD AREAS


$$
\begin{aligned}
& \text { DESIGNATED STATE } \\
& \text { SCENIC RIVERS } \\
& \text { SCHUYLKILL RIVER - ACT } 333 \\
& \text { OF } 1978 \\
& \text { STONY CREEK - ACT } 18 \text { OF } \\
& 1980 \\
& \text { LEHIGH RIVER - ACT } 71 \text { OF } \\
& \text { 1982 } \\
& \text { FRENCH CREEK - ACT } 97 \text { OF } \\
& 1982
\end{aligned}
$$

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717-352-2211
$717-485-3148$
$717-536-3191$
$412-238-9533$
$814-643-2340$
$814-472-8320$
$717-966-3117$
$814-764-3251$
$814-765-3741$
$717-923-1450$
$717-961-4561$
$717-327-3450$
$814-486-3353$
$814-723-6951$
$814-274-8474$
$717-724-2868$
$215-469-6217$
$717-385-2545$
$717-424-3001$
$717-389-3606$
STATE FOREST DISTRICTS
10099 Lincolnway East, Fayetteville, PA 17222
R. D. \#2, Box 3, McConnellsburg, PA 17233
Box 67, Blain, Pa 17006
132 West Main Street, Ligonier, PA 15658
401 Penn Street, Box 403, Huntingdon, PA
401 Penn Street, Box 403, Huntingdon, PA 16652
131 Hillcrest Drive, Ebensburg, PA 15931
Buffalo Valley Shopping Center, Box 111, Mifflinburg, PA 17844 Box 471, Clarion, PA 16214
Box 952, Clearfield, PA 16830
Star Route, Shintown, Renovo, PA 17764
401 Scranton State Office Bldg., 100 Lackawanna Avenue, Scranton, PA 18503 423 East Central Avenue, South Williamsport, PA 17701
R. D. \#1, Route 155, Box 327, Emporium, PA 15834
6 South Hammond Road, Warren, PA 16365
8 East Seventh Street, Coudersport, PA 16915 Box 94, 96 West Avenue, Wellsboro, PA 16901
Ridge Road, R. D. \#4, Pottstown, PA 19464
Box 98, Cressona, PA 17929
P. O. Box 150, 474 Clearview Lane, Stroudsburg, PA 18360
Box 439, Old Berwick Highway, Bloomsburg, PA 17815

For additional Information Call or Write:
District Forester - Michaux State Forest, District \#1
District Forester - Buchanan State Forest, District \#2
 District Forester - Forbes State Forest, District \#4 District Forester - Rothrock State Forest, District \#5 District Forester - Gallitzin State Forest, District \#6 District Forester - Bald Eagle State Forest, District \#7 District Forester - Kittanning State Forest, District \#8
 District Forester - Sproul State Forest, District \#10 District Forester - Lackawanna State Forest, District \#11 District Forester - Tiadaghton State Forest, District \#12 District Forester - Elk State Forest, District \#13
District Forester - Cornplanter State Forest, District \#14 District Forester - Cornplanter State Forest, District \#14
District Forester - Susquehannock State Forest, District District Forester - Susquehannock State Forest, District \#15
District Forester - Tioga State Forest, District \#16 District Forester - Valley Forge State Forest, District \#17 District Forester - Weiser State Forest, District \#18 District Forester - Delaware State Forest, District \#19 District Forester - Wyoming State Forest, District \#20
$814-486-3365$
$412-865-2131$
$814-733-2202$
$215-257-3646$
STATE PARK REGIONAL OFFICES
R. D. \#1, Box 1-A, Emporium, PA 15834
Moriane State Park, R. D. \#1, Prospect, PA 16052
Shawnee State Park, Schellsburg, PA 15559
R. D. \#3, Box 91, Nockamixon State Park, Quakertown; PA 18951
For Additional Information Call or Write:
Regional Park Superintendent, State Park Region 1
Regional Park Superintendent, State Park Region 2
Regional Park Superintendent, State Park Region 3
Regional Park Superintendent, State Park Region 4

## EXHIBIT 10

## STATEWIDE FLORA AND FAUNA

Tab A - Federally Listed Endangered and Threatened Species in Pennsylvania

Tab B - Pennsylvania's Endangered Fishes, Reptiles and Amphibians

Tab C - Animals in Pennsylvania
Tab D - A Checklist of the Fishes of Pennsylvania
Tab E - List of the Amphibians and Reptiles of Pennsylvania

Tab F - Flora of Pennsylvania
Tab G - Endangered Plants

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN PENNSYLVANIA

| Cormmon Name | Scientific Name | Status | Description |
| :---: | :---: | :---: | :---: |
| $\frac{\text { FISHES: }}{\text { Cisco longjaw }}$ | Coregonus alpenae | E | Lake Erie - probably extinct |
| Pike, blue | $\frac{\text { Stizostedion }}{\text { gitreum }}$ | E | Deep water of Lake Erie - probably extinct |
| Sturgeon, shortnose* | Acipenser brevirostrum | E | Delaware River and other Atlantic coastal rivers |
| $\frac{\text { REPTILES: }}{\text { None }}$ |  |  |  |
| BIRDS: |  |  |  |
| Eagle, bald | Haliaeetus leucocephalus | E | Entire state |
| Falcon, American peregrine | Falco peregrinus anatum | E | Entire state - re-establishment to former breeding range in progress |
| Falcon, Arctic peregrine | Falco peregrinus tundrius | S | Entire state migratory no nesting |
| Warbler, Kirtland's | Dendroica kirtlandii | E | Entire state - occasional migrant |
| MAMMALS: |  |  |  |
| Bat, Indiana | Myotis sodalis | E | Entire state |
| Cougar, eastern | Felis concolor cougar | E | Entire state - probably extinct |
| MOLLUSKS: |  |  |  |
| None |  |  |  |
| PLANTS: |  |  |  |
| None |  |  |  |
| *Principal responsibility for this species is vested with the National Marine Fisheries Service |  |  |  |

## Classification Criteria


#### Abstract

Endangered: A species or subspecies whose prospects for survival and reproduction are in immediate jeopardy. The causes for this classification include loss or modification of habitat, overexploitation, predation, competition, pollution (pesticides), and disease. Critically low or declining populations may establish an animal as endangered at the State and/or Federal levels, or be so designated based on professional opinions.


Threatened: A species or subspecies whose prospects for survival and reproduction are threatened by circumstances similar to those affecting endangered species. Determination of a species as "threatened' rather than "endangered" involves time. "Threatened" status calls attention to the plight of the species before circumstances affecting it overwhelm the species and its status deteriorates to the point that it becomes endangered or faces extinction.

## Evaluation Criteria

The following criteria are provided to assist permit reviewers in determining if a proposed action may affect a species designated as threatened or endangered. The reviewer should become familiar with the material included that covers individual species. If a permit meets any of the following criteria, the Fish and Wildijfe Service and the Pennsylvania Game Commission or the Pennsylvania Fish Commission should be consulted.

## Bald Eag1e

1. Any action which will cause disturbance to an eagle nest
2. Any action that will affect water quality in the feeding areas of the 3 known pairs of nesting eagles. For planning purposes, this can be considered to be aquatic areas within a 20 mile radius of Conneaut Lake and Linesville, Pennsylvania.

Indiana Bat

1. Actions which will disturb any cave or tumnel with the following characteristics:
a. in or near the limestone region
b. large enough to have stable temperatures above freezing in the winter

## Shortnose Sturgeon

1. The shortnose sturgeon is found in the main stem of the Delaware River. Any projects significantly affecting the water quality of this area should have consultation with the National Marine Fisheries Service and the Pennsylvania Fish Commission
$\frac{\text { Pennsylvania's }}{\text { Reptiles and Amphibians }} \frac{\text { Fishes, }}{}$
Reptilos and Amphibians

Of the 560 species of fishes found in the United States and Canada, about 170 species are found in Pennsylvania. Most are fairly abundant or common in many lakes, streams, and rivers of the Commonwealth. Others have a more limited geographic distribution and some (such as the chinook salmon and coho salmon) are presently found only in a specific water area to which they have been introduced by the Pennsylvania Fish Commission. Many species of fishes not native to the state have been introduced in Pennsylvania waters, some accidently (i.e., goldfish), but most deliberately by the Fish Commission to improve recreational fishing opportunities. . Good examples are all species of trout, other than the native brook trout, coho and chinook salmon in Lake Erie, and kokanee salmon in Upper Woods Pond, Wayne County. Although native to portions of the state, such species as muskellunge, largemouth and smallmouth bass have been introduced into many streams and lakes where they were not naturally found.

Over the past several centuries, however, some native species of Pennsylvania's fishes have declined in numbers for various reasons, chiefly man's destruction of required habitat through pollution, physical changes (construction and development), or other damage. Dams, for example, have blocked the migration of the American shad and other anadromous species in the Susquehama River since early in this century. In no case, however, has overfishing for sport caused a decline to extinction or endangerment of a population of any native species of fish. Even commercial fishing probably is not fully to blame for the reduction or disappearance of any fish found in boundary waters (such as Lake Erie) or inland waters of the Commonwealth.

The abundance and distribution of some of the 79 species and subspecies of Pennsylvania reptiles and amphibians has also been negatively influenced by man's disruption of necessary habitat, or, in some cases, through removal of the animals from their habitat for commercial or sporting purposes.

The Pennsylvania Fish Commission has determined, through its own field surveys and the information supplied by professionals, who are members of several Advisory Committees, the status of Pennsylvania's possibly extirpated, endangered, threatened, or status indeterminate fishes, reptiles or amphibians, according to the following listing:

POSSIBLY EXTIRPATED (Species known to have been a part of the state fauna in the past but not believed to be a part of the present fauna.)

```
Paddlefish - Folyodon spathula
Skipjack herring - Alosa chrysochloris
Mooneye - Hiodon tergisus
Northern redbelly dace - phoxinus eos
Ironcolor shiner - Notropis chalybeus
```

Bullhead minnow - Pimophales vigilax Lake chubsucker - Erimyzon sucetta Pirate perch - Aphredoderus sayanus
Mud sunfish - Acantharcus pomotis Blackbanded sunfish - Enneacanthus chaetodon
Longear sunfish - Lepomis megalotis
Swamp darter - Etheostoma fusiforme
Sharpnose darter - Percina oxyrhyncha
Blue pike - Stizostedion vitreum glaucum
Spoonhead sculpin - Cottus ricei
Four horned sculpin - Myoxocephalus quadricornis
ENDANGERED (Actively threatened with extinction in the state. Continued survival unlikely without special protective measures.)

```
Shortnose sturgeon - Acipenser brevirostrum Lake sturgeon - Acipenser fulvescens Threespine stickleback - Gasterosteous aculeatus Blue pike - Stizostedion vitreum glaucum Eastern tiger salamander - Ambystoma t. tigrinum Eastern mud salamander - Pseudotriton m: montanus New Jersey chorus frog - Pseudacris triseriata kalmi
Coastal plain leopard frog - Rana utricularia
Eastern mud turtle - Kinosternon s. subrubrum
Red-bellied turtle - Chrysemys rubriventris
Bog turtle - Clemmys muhlenbergi
Blanding's turtle - Emydoidea blandingii
Midland smooth softshell - Trionyx m. muticus
Massasauga - Sistrurus catenatus
```

THREATENED (Not under immediate threat of extinction in the state but occurring in such small numbers and/or in such restricted habitat that it could quickly cease to be a part of the state fauna.)

Eastern sand darter - Ammocrypta pellucida
Green salamander - Aneides aeneus
STATUS INDETERMINATE (Apparently threatened or uncommon to rare but insufficient data currently available on which to base a reliable assessment of status.)

Northern brook lamprey - Ichthyomyzon fossor
Silver lamprey - Ichthyomyzon unicuspis
Sea lamprey - petromyzon marinus
Atlantic sturgeon - Acipenser oxyrhynchus
Cisco - Coregonus artedii
Lake whitefish - Coregonus clupeaformis
Southern redbelly dace - Phoxinus erythrogaster
Gravel chub - Hybopsis x-punctata
Hornyhead chub - Nocomis biguttatus
Silver chub - Hybopsis storeriana

```
Blackchin shiner - Notropis heterodon
Blacknose shiner - Notropis heterolepis
Redfin shiner - Notropis umbratilis
Spotted sucker - Minytrema melanops
Black bullhead - Ictalurus melas
Mountain madtom - Noturus eleutherus
Tadpole madtom - Noturus gyrinus
Northern madtom - Noturus stigmosus
Burbot - Lota lota
Banded sunfish - Enneacanthus obesus
Warmouth - Lepomis gulosus
Spotted bass - Micropterus punctulatus
Bluebreast darter - Etheostoma camurum
Iowa darter - Etheostoma exile
Spotted darter - Etheostoma maculatum
Tippecanoe darter - Etheostoma tippecanoe
Channel darter - Percina copelandi
Longhead darter - Percina macrocephala
Sauger - Stizostedion canadense
Coal skink - Eumeces anthracinus
Broad-headed skink - Eumeces laticeps
Kirtland's water snake - Clonophis kirtlandi
Eastern hognose snake - Heterodon platyrhinos
Eastern kingsnake - Lampropeltis g. getulus
Rough green snake - Opheodrys aestivalus
Timber rattlesnake - Crotalus horridus
```


## ANIMALS IN PENNSYLVANIA

Bat
Big Brown
Evening
Hoary
Indiana
Keen
Leib
Little Brown
Pygmy
Red
Seminole
Silver-haired
Bear, Black
Beaver
Bobcat
Chipmunk
Deer, White-tailed
Elk, Eastern or Wapiti
Ermine
Fox
Gray
Red
Ground Squirrel
Chipmunk
Thirteen-lined
Hare, Snowshoe
Mink
Mole
Eastern
Hairy-tailed
Star-nosed
Mouse
Deer
House
Jumping, Meadow
Jumping, Woodland
White-footed
Mountain Lion
Muskrat
Opossum
Otter, River

Porcupine
Rabbit
Eastern Cottontail
New England
Snowshoe Hare
Raccoon
Rat
Black
Eastern Wood
Norway
Shrew
Least
Masked
Pygmy
Rock
Short-tailed
Smoky
Water
Skunk
Spotted
Squirrel
Eastern F1ying
Northern Flying
Fox
Gray
Red
Vole
Meadow
Pine
Red-backed Rock
Wapiti or Eastern E1k
Weasel
Ermine
Least
Long-tailed
Mink
Otter
Woodchuck

## A CHECKLIST OF THF FISHES OF PRNNSYLVANIA

 November: 1979CLASS - AGNATHA
ORDER - PETROMYZONTIFORMES
FAMILY - Petromyzontidae, Lampreys

1. Ohio lamprey, Ichthyomyzon bdellium
*2. Northern brook lamprey, Ichthyomyzon fossor
2. Allegheny brook lamprey, Ichthyomyzon greeleyi
*4. Silver lamprey, Ichthyomyzon unicuspis
3. Least brook lamprey, Lampetra aepyptera
4. American brook lamprey, Lampetra lamottei
*7. Sea lamprey, Petromyzon marinus
CLASS - OSTEICHTHYES
ORDER - ACIPENSERIFORMES
FAMILY - Acipenseridae, Sturgeons
(Esf)*8. Shortnose sturgeon, Acipenser brevirostrum
(Es)*9. Lake sturgeon, Acipenser fulvescens
*10. Atlantic sturgeon, Acipenser oxyrhynchus
FAMILY - Polyondontidae
(x)ll. Paddlefish, Polyodon spathula
ORDER - SEMIONOTIFORMES
FAMILY - Lepisosteidae, Gars
*12. Spotted gar, Lepisosteus oculatus
5. Longnose gar, Lepisosteus osseus
ORDER - AMIIFORMES
FAMILY - Amiidae
6. Bowfin, Amia calva
ORDER - ANGUILLIFORMES
FAMILY - Anguillidae, Freshwater Eels
7. American eel, Anguilla rostrata
ORLDER - CFOPEIFORMLS
FAMILY - Clupeidae, Herrings
8. Bluoback herring, Alosa acstivalis
(X) 17. Skipjack herring, Alosa chrysochloris
9. Hickory shad, Alosa mediocris
10. Alewife, Alosa psoudoharengus
11. American shad, Alosa sapidissima
12. Gizzard shad, Dorosoma cepedianum
ORDER - SALMONIFORMES
FAMILY - Salmonidae, Trouts
(Ef) 22. Longjaw cisco, Coregonus alpenae
*23. Cisco, Coregonus artedii
*24. Lake whitefish, Coregonus clupeaformis
13. Coho, Oncorhynchus kisutch
14. Kokanee, Oncorhynchus nerka kennerlyi
15. Chinook salmon, Oncorhynchus tshawytscha
16. Rainbow trout, Salmo gairdneri
17. Atlantic salmon, Sajmo salar
18. Brown trout, Salmo trutta
19. Brook trout, Salvelinus fontinalis
20. Lake trout, Salvelinus namaycush
FAMILY - Osmeridae, Smelts
21. Rainbow smelt, Osmerus mordax
FAMILY - Umbridae; Mudminnows
22. Central mudminnow, Umbra limi
23. Eastern mudminnow, Umbra pygmaea
FAMILY - Esocidae, Pikes
24. Redfin pickerel, Esox americanus americanus
25. Grass pickerel, Esox americanus vermiculatus
26. Northern pike, Esox lucius
27. Muskellunge, Esox masquinongy
28. Chain pickerel, Esox niger
29. Amur pike, Esox reicherti
ORDER - OSTEOGLOSSIFORMES
FAMILY - Hiodontidae, Mooneyes
(X) 42. Mooneye, Hiodon tergisus
ORDER - CYPRINIFORMES
FAMILY - Cyprinidae, Minnows and Carp
30. Stoneroller, Campostoma anomalum
31. Goldfish, Carassius auratus
(X) 45. Northern redbelly dace, Phoxinus eos
*46. Southern redbelly dace, Phoxinus erythrogaster
32. Redside dace; Clinostomus elongatus
33. Rosyside dace, Clinostomus funduloides
34. Carp, Cyprinus carpio
35. Silverjaw minnow, Ericymba buccata
36. Tonguetied minnow, Exoglossum laurae
37. Cutlips minnow, Exoglossum maxillingua
38. Silvery minnow, Hybognathus nuchalis
39. Bigeye chub, Hybopsis amblops
40. Streamline chub, Hybopsis dissimilis
*56. Silver chub, Hybopsis storeriana
*57. Gravel chub, Hybopsis x-punctata
*58. Hornyhead chub, Nocomis biguttatus
41. River chub, Nocomis micropogon
42. Golden shiner, Notemigonus crysoleucas
43. Comely shiner, Notropis amoenus
44. Satinfin shiner, Notropis analostanus
45. Emerald shiner, Notropis atherinoides
46. Bridle shiner, Notropis bifrenatus
*65. Ghost shiner, Notropis buchanani
(X) 66. Ironcolor shiner, Notropis chalybeus
47. Striped shiner, Notropis chrysocephalus
48. Common shiner, Notropis cornutus
49. Bigmouth shiner, Notropis dorsalis
*70. Blackchin shiner, Notropis heterodon
*71. Blacknose shiner, Notropis heterolepis
50. Spottail shiner, Notropis hudsonius
51. Silver shiner, Notropis photogenis
52. Swallowtail shiner, Notropis procne
53. Rosyface shiner, Notropis rubellus
54. Spotfin shiner, Notropis spilopterus
55. Sand shiner, Notropis stramineus
*78. Redfin shiner, Notropis umbratilis
56. Mimic shiner, Notropis volucellus
57. Bluntnose minnow, Pimephales notatus
58. Fathead minnow, Pimcphales promelas
(X)82. Bullhead minnow, Pimephales vigilax
59. Blacknose dace, Rhinichthys atratulus

84: Longnose dace, Rhinichthys cataractae
85. Creek chub, Semotilis atromaculatus
86. Fallfish, Semotilis corporalis
87. Pearl dace, Semotilis margarita

FAMILY - Catostomidae, Suckers
88. Quillback, Carpiodes cyprinus
(D) 89. Longnose sucker, Catostomus catostomus
90. White sucker, Catostomus commersoni
91. Creek chubsucker, frimyzon oblongu:;
(X) 92. Lake chubsucker, fimyzon sucetta
93. Northern hog sucker, Hypentelium nigricans
*94. Smallmouth buffalo, Ictiobus bubalus
*95. Spotted sucker, Minytrema melanops
96. Silver redhorse, Moxostoma anisurum
97. River redhorse, Moxostoma carinatum
98. Black redhorse, Moxostoma duquesnei
99. Golden redhorse, Moxostoma erythrurum
100. Shorthead redhorse, Moxostoma macrolepidotum

## ORDER - SILURIFORMES

FAMILY - Ictaluridae, Freshwater Catfishes
101. White catfish, Ictalurus catus
*102. Black bullhead, Ictalurus melas
103. Yellow bullhead, Ictalurus natalis
104. Brown bullhead, Ictalurus nebulosus
105. Channel catfish, Ictalurus punctatus
*106. Mountain madtom, Noturus eleutherus
107. Stonecat, Noturus flavus
*l08. Tadpole madtom, Noturus gyrinus
109. Margined madtom, Noturus insignis
110. Brindled madtom, Noturus miurus
*lll. Northern madtom, Noturus stigmosus
112. Flathead catfish, Pylodictis olivarus

## ORDER - CYPRINODONTIFORMES

FAMILY - Cyprinodontidae, Killifishes
113. Banded killifish, Fundulus diaphanus
114. Murmichog, Fundulus heteroclitus
ORDER - GADIFORMES
FAMILY - Gadidae, Codfishes
*115. Burbot, Lota lota
ORDER - ATHERINIFORMES
FAMILY - Atherinidae, Silversides
116. Brook silverside, Labidesthes sicculus
ORDER - GASTEROSTEIFORMES
FAMILY - Gasterosteidae, Sticklebacks
(D) 117. Fourspine stickleback, Apeltes quadracus
118. Brook stickleback, Culaea inconstans
(Es)*ll9. Threespine stickleback, Gasterosteus aculeatus
ORDER - PERCOPSIFORMES
FAMILY - Percopsidae, Trout-perches
120. Trout-perch, Perconsis omiscomaycus

## FAMILY - Aphredoderidae, Pirate Perches

(X)121. Pirate perch, Aphredoderus sayanus

ORDER - PERCIFORMES<br>FAMILY - Percichthyidae, Sea Basses

122. White perch, Morone americana
123. White bass, Morone chrysops
124. Striped bass, Morone saxatilis

FAMILY - Centrarchidae, Sunfishes
(X) 125. Mud sunfish, Acantharcus pomotis
126. Rock bass, Ambloplites rupestris
(X) 127. Blackbanded sunfish, Enneacanthus chaetodon
128. Bluespotted sunfish, Enneacanthus gloriosus
*129. Banded sunfi.sh, Enneacanthus obesus
130. Redbreast sunfish, Lepomis auritus
131. Green sunfish, Lepomis cyanellus
132. Pumpkinseed, Lepomis gibbosus
*133. Warmouth, Lepomis gulosus
134. Bluegill, Lepomis macrochirus
(X) 135. Longear sunfish, Lepomis megalotis
136. Redear sunfish, Lepomis microlophus
137. Smallmouth bass, Micropterus dolomieui
*138. Spotted bass, Micropterus punctulatus
139. Largemouth bass, Micropterus salmoides
140. White crappie, Pomoxis annularis
141. Black crappie, Fomoxis nigromaculatus

## FAMILY - Percidae, Perches

(T) 142. Eastern sand darter, Ammocrypta pellucida
143. Greenside darter, Etheostoma blennioides
144. Rainbow darter, Etheostoma caeruleum
*145. Bluebreast darter, Etheostoma camurum
*146. Iowa darter, Etheostoma exile
147. Fantail darter, Etheostoma flabcllare
(X)148.' Swamp darter, Etheostoma fusiforme
*149. Spotted darter, Etheostoma maculatum
150. Least darter, Etheostoma microperca
151. Johnny darter, Etheostoma nigrum
152. Tessellated darter, Etheostoma olmstedi
*153. Tippecanoe darter, Etheostoma tippecanoe
154. Variegate darter, Etheostoma variatum,
155. Banded darter, Etheostoma zonale
156. Yellow perch, perca flavescens
157. Logperch, Percina caprodes
*158. Channel darter, percina copelandi
159. Gilt larter, Porcina evides
*160. Longhead darter, Percina macrocephala
161. Blackside darter, Percina maculata
(X) 162. Sharpnose darter, Percina oxyrhyncha
163. Shield darter, Percina peltata
*164. Sauger, Stizostedion canadense
165. Walleye, Stizostedion vitreum vitreum
(Esf) (X) 166. Blue pike, Stizostedion vitreum glaucum
FAMILY - Sciaenidae, Druns
167. Freshwater drum, Aplodinotus grunniens

FAMILY - Cottidae, Sculpins
168. Mottled sculpin, Cottus bairdi
169. Slimy sculpin, Cottus cognatus
170. Potomac sculpin, Cottus girardi
(x)171. Spoonhead sculpin, Cottus ricei
(X)172. Four horned sculpin, Myoxocephalus quadricornis

Symbols

* Species that are uncommon to rare in this state and which have a peripheral or otherwise restricted distribution. We need more information about these species.
(D) Species having a disjunct distribution in this state, i.e., existing in one or more restricted colonies far removed from the main species range, which lies outside Pennsylvania.
(X) Species known to have been a part of the state fauna, but which are now believed extirpated. Of the species in this category, the blue pike only is listed as United States endangered by the Department of the Interior, U. S. Fish and Wildlife Service, and as endangered in Pennsylvania by the Pennsylvania Fish Commission.
(T) A species not' in immediate danger of extinction, but existing in depleted numbers or vulnerable to further depletion; threatened.
(E) Species currently listed as endangered in the state (Es) and/or as United States endangered by the U. S. Fish and Wildlife Service (Ef).


# LIST OF THE AMPHIBIANS AND REPTILES OF PENNSYLVANIA 

by C. J. McCoy

## CLASS AMPHIBIA - Amphibians

## CAUDATA - Salamanders

1. Cryptobranchus alleganiensis alleganiensis - Eastern hellbender
2. Necturus maculosus maculosus - Mudpuppy
3. Ambystoma jeffersonianum - Jefferson salamander
4. Ambystoma maculatum - Spotted salamander
5. Ambystoma opacum - Marbled salamander
(Es) 6. Ambystoma tigrinum tigrinum - Eastern tiger salamander
6. Notophthalmus viridescens viridescens - Red-spotted newt, red eft
7. Desmognathus fuscus fuscus - Northern dusky salamander
8. Desmognathus monticola monticola - Appalachian seal salamander
9. Desmognathus ochrophaeus - Mountain dusky salamander
10. Plethodon cinereus cinereus - Eastern red-backed salamander
11. Plethodon glutinosus glutinosus - Eastern slimy salamander
12. Plethodon hoffmani - Valley and ridge salamander
13. Plethodon richmondi - Ravine salamander
14. Plethodon wehrlei - Wehrle's salamander
15. Hemidactylium scutatum - Four-toed salamander
16. Gyrinophilus porphyriticus porphyriticus - Northern spring salamander
(Es)18. Pseudotriton montanus montanus - Eastern mud salamander
17. Pseudotriton ruber ruber - Northern red salamander
(Ts) 20. Aneides aeneus - Green salamander
18. Eurycea bislineata bislineata - Northern two-lined salamander
19. Eurycea longicauda longicauda - Long-tailed salamander

SALIENTIA - Frogs
23. Scaphiopus holbrooki holbrooki - Eastern spadefoot
24. Bufo americanus americanus - American toad
25. Bufo woodhousei fowleri - Fowler's toad
26. Acris crepitans crepitans - Northern cricket frog
27. Hyla crucifer crucifer - Northern spring peeper
28. Hyla versicolor versicolor - Eastern gray treefrog
29. Pseudacris brachyphona - Mountain chorus frog
30. Pseudacris triseriata feriarum - Upland chorus frog
(Es) 31. Pseudacris triseriata kalmi - New Jersey chorus frog
32. Pseudacris triseriata triseriata - Western chorus frog
33. Rana catesbeiana - Bullfrog
34. Rana clamitans melanota - Northern green frog
35. Rana palustris - Pickerel frog
36. Rana pipiens - Northern leopard frog
37. Rana sylvatica - Wood frog
(Es) 38. Rana utricularia - Coastal Plain leopard frog

Chelonia - Turtles
39. Chelydra serpentina sexpentina - Northern snapping turtie
40. Sternotherus odoratus - Stinkpot
(Es) 41. Kinosternon subrubrum subrubrum - Eastern mud turtle
42. Clemnys quetita - in.utted turtile
43. Clemays insculpeii - Nood turtle
(Es) 44. Clemuys muhlenbergi - Boq turtle
(Es)45. Emydoidea blandingi - Blanding's turtle
46. Terrapene carolina carolina - Eastern box turtle
47. Graptemys geographica - Map turtle
48. Chrysemys picta picta - Eastern painted turtle
49. Chrysemys picta marginata - Midland painted turtle
(Es) 50. Chrysemys (Pseudemvs) rubriventris - Red-bellied,turtle
51. Trionyx spinifera spinifera - Eastern spiny softshell
(Es)52. Trionyx muticus muticus - Northern smooth softshell
SAURIA - Lizards
53. Sceloporus undulatus hyacinthinus - Northern Fence lizard
*54. Eumeces anthracinus anthracinus - Northern coal skink
55. Eumeces fasciatus - Five-lined skink
*56. Eumeces laticeps - Broad-headed skink
SERPENTES - Snakes
*57. Clonophis kirtlandi - Kirtland's snake
58. Regina septemvittata - Queen snake
59. Natrix sipedon sipedion - Northern water snake
60. Storeria dekayi dekayi - Northern brown snake
61. Storeria occipitomaculata occipitomaculata - Northern red-bellied snake
62. Thamophis brachystoma - Short-headed garter snake
63. Thamnophis sauritus sauritus - Eastern ribbon snake
64. Thamophis sauritus septentrionalis - Northern ribbon snake
65. Thamnophis sirtalis sirtalis - Eastern garter snake
66. Virginia valeriae valeriae - Eastern smooth earth snake
67. Virginia valeriae pulchra - Mountain earth snake
*68. Heterodon platyrhinos - Eastern hognose snake
69. Diadophis punctatus edwardsi - Eastern ringneck snake
70. Carphophis amoenus amoenus - Eastern worm snake
71. Coluber constrictor constrictor - Northern black racer
*72. Opheodrys aestivus - Rough green snake
73. Opheodrys vernalis vernalis - Eastern smooth green snake
74. Elaphe obsoleta obsoleta - Black rat snake
*75. Lampropeltis getulus getulus - Eastern kingsnake
76. Lampropeitis triangulum triangulum - Eastern milk snake
77. Agkistrodion contortrix mokeson - Northern copperhead $\dagger$
(Es) 78. Sistrurus catenatus catenatus - Eastern massasaugat
*79. Crotalus horridus - Timber rattlesnaket
Symbols
(Es) Listed as endangered by the Pennsylvania Fish Commission. Continued survival in the state unlikely without special protective measures.
(Ts) Listed as threatened by the Pennsylvania Fish Commission. Not in immediate danger of extinction, but existing in depleted numiers or valnerable to future depletion.

* Apparently threatened or uncommon to rare in Pennsylvania, but insufficient data available on which to base a reliable assessment of status.
$t$ Venomous species.

The following information is intended to describe the flora of Pennsylvania. The information is reprinted from a book entitled Atlas of the Flora of Pennsylvania, by Edgar T. Wherry, John M. Fogg, Jr., and Herbert A. Wah1, published in 1979 by The Morris Arboretum of the University of Pennsylvania. The Department of Environmental Resources acknowledges and appreciates the permission received from the publisher to allow this reprinting.

Pennsylvania is devisible into the four major physiographic provinces discussed below. The map on page 45, in the main body can be referred to for a specific location for each area.
gEOLOGY OF PENNSYLVANIA IN RELATION TO PLAN'T DISTRIBUTION ${ }^{1}$

## COASTAL PLAIN

This small yet significant area occupies southeastern Bucks, Philadelphia, and Delaware Counties. It is underlain by unconsolidated gravels, sands, and clays deposited from Cretaceous to Pleistocene times - over the past hundred million years - but never hardened into rocks. Here the streams are sluggish, wet-lands are frequent, and the soils are of relatively acid character. Before the advent of civilization the vegetation here - judging from scattered remnants - was like that familiar across the Delaware river in southern New Jersey, including small tracts of pineland. Superimposed on the dwindling native flora numerous taxa were brought in from various parts of the world by maritime traffic over the years; many of the these proved merely temporarily adventive, but some have persisted and even spread well inland. The inner margin of the Coastal Plain is the "Fall-line" - or more realistically "Fall-zone" - where the streams have waterfalls or rapids before becoming tidal. its approximate position is indicated on the basemap by a dashed strip.

## PIEDMONT

Some 15 counties, from the Fall-line north to Northampton and west to Franklin, lie wholly or largely in this geologically heterogeneous province. In it there are small areas of pre-Cambrian crystalline rocks as much as a billion years old, and of Cambrian to Ordovician sandstone, shale, and limestone several hundred million years old. Most of it, however, is underlain by red sandstone and shale of Upper Triassic age, deposited around 200 million years ago, with local intrusions of dark gray igneous rock known technically as diabase, or colloquially as traprock.

After deposition ceased, the area was uplifted sufficiently to permit erosion of the hardened deposits by the rain and streams; the less-resistant formations were worn down to the gently rolling country which characterizes much of the Piedmont, while the moreresistant igneous rocks and sandstones upheld hills. At the higher elevations the soils tend to be rather strongly acid, less so at the lower
${ }^{1}$ Reprinted from Atlas of the Flora of Pennsylvania, Edgar T. Wherry, John M. Fogg, Jr., Herbert A. Wah1, 1979. Reprinted with permission of the publisher, The Morris Arboretum of The University of Pennsylvania.
elevations, and circumneutral over the limestones and calcareous shales. Characteristic vegetation developed on each soil type.

In addition, in parts of Delaware, Chester, and southern Lancaster Counties there are outcrops of a metamorphosed igneous rock known as serpentinite (serpentine) especially rich in magnesium, nickel, and chromium. On these there develop "barrens" - areas of sparse vegetation comprising species which either "prefer" these elements or at any rate tolerate them better than the widespread species of the region.

## RIDGE-VALLEY

During the 400 million years of Paleozoic geologic time most of Pennsylvania was covered by shallow seas in which various sediments were deposited, and ultimately hardened into rocks. Then at the end of the Permian, 225 million years ago, the "Appalachian Revolution," occurred when pressure from the southeast folded the strata up to form a mountain range curving across Pennsylvania from the midsouth to the mid-east boundaries. After erosion wore this down, there remained in a belt of 25 counties from Somerset to Monroe a striking series of alternating ridges and valleys. The ridges represent the outcropping edges of hard sandstone strata; especially prominent is the one designated on the base-map as the "moun-tain-front," indicated by a row of inverted v's, forming the northwest margin of the Piedmont.

The valieys correspond to outcrops of more readily eroded rocks, especially limestone and shale. Sometimes streams follow them for a short distance, but turn and form "watergaps" through the ridges. The soils of the ridges tend to be acid, of the valleys circumneutral, although the complexity of the folded strata leads to local variations. In this province occur the "shale-barrens," on steep slopes of Middle Devonian shale which weather into masses of flakes without any ordinary soil being formed. Although better developed in Virginia and West Virginia, these do occur locally in Bedford, Fulton, and Huntingdon counties, supporting a sparse vegetation including several disjunct and endemic taxa. There are also "sand-barrens," developed over a sandy dolomitic limestone in Huntingdon and Centre counties, with vegetation of "New-Jersey-pineland" aspect.

## APPALACHIAN PLATEAU

In far northeastern Pennsylvania, and northwest of a line curving from central Lycoming down to southern Somerset counties, the Appalachian revolution uplifted the strata without folding them. Correspondingiy, half the counties of the State lie on a plateau into which streams have cut a complex valley-system. The boundary between this and the Ridge-Valley province, known as the Plateau-front and indicated on the base-map by a line of V's, is a prominent escarpment rising several hundred feet above the adjacent lowland. For some distance north-west
from this the summits, which constitute the highest in the State, are capped by nearly horizontal beds of hard sandstone, on which highly acid soils develop, dry on rock outcrops and boggy around springs. The cool climate corresponding to the altitude favors the growth of plants characteristic of high northern latitudes.

Toward the western and far northern parts of this province the surface rocks are less resistant sandstones and shales, altitudes diminish, and many plants of Great Lakes shores and of the Ohio Valley drainage system extend some distance into Pennsylvania.

## PLEISTOCENE GLACIATION

A million or so years ago the Earth's climate became so cool and moist that more snow fell in northern lands than could melt during the succeeding summers, so that sheets of ice gradually accumulated. These moved southward, grinding off vast amounts of soil and rock on the way. One such sheet came down the Delaware Valley to about latitude $40^{\circ} 30^{\prime}$, depositing as it melted heaps of its accumulated debris to form a "terminal moraine." This early moraine, which is known as the Jerseyan in reference to the region where it has been most studied, has been largely washed away by subsequent erosion; it is better preserved along the Susquehanna river in Northumberland county than along the Delaware. Its position is indicated on the base-map by lines of small circles in the eastern and northwestern parts of the state.

For many centuries thereafter the Earth's climate fluctuated markedly, so that ice sheets largely vanished, only to form once more. In midland North America this happened repeatedly, but no ice sheet seems to have reached Pennsylvania again untik about 50,000 years ago. The terminal moraine of this sheet, which is designated the Wisconsin in reference to the state where it has been most thoroughly studied, continued to accumulate until about 10,000 years ago and is accordingly better preserved than the Jerseyan. The dash-lines which mark its position on the base-map, show that it did not reach so far south.

When an ice-sheet moves over vegetated land, all plant life is destroyed, except for a few hardy taxa growing on peaks extending above the ice-level. After the ice melts away, however, diaspores - seeds and other structures capable of propagating plants - from unaffected areas colonize the bare land and develop a new vegetation cover. Especially successful are wet-land dwellers, since the debris dropped by melting ice-sheets dams up multiple springs and streams, resulting in the formation in deglaciated areas of wet depressions, ponds and lakes. In these the invading plants develop in bogs and swamps which may persist for long periods, accumulating humus or peat deposits, usually strongly acid, and kept cool by moisture-evaporation. Correspondingly, the moraine lines on the basemap represent the southern range-limits of many taxa characteristic of northern wet-lands.

## PLANTS OF UNUSUAL HABITATS SERPENTINITE BARRENS

Scattered through the southeastern part of the Piedmont physiographic province are isolated outcrops of serpentinite rock. Presumably because of the unusual chemical character of the dominant mineral, serpentine, - relatively high content of magnesium, nickel, and chromium with low calcium, potassium, and phosphorus these support a specialized flora with these rare species relatively frequent: Adiantum pedatum dwarf form; Bouteloua curtipendula; Deschampsia caespitosa v. glauca; Panicum annulum; Sphenopholis obtusata v. pubescens; Sporobolus heterolepis; Carex bicknellii; Fimbristylis baldwiniana; Scleria pauciflora v. caroliniana; Lilium philadelphicum; Smilax herbacea ssp. crispifolia, Liparis loeselii; Quercus $x$ bushii \& marilandica; Talinum teretifolium; Arenaria stricta; Cerastium arvense $v$. villosissimum \& v. villosum; Arabis Iyrata; Ceanothus americanus; Viola sagittata pubescent state; Gaylussacia baccata; Lyonia ligustrina; Vaccinium stamineum $v$. neglectum; Gentiana villosa; Sabatia angularis; Asclepias verticillata \& viridiflora; Phlox subulata; Pyenanthemum tenuifolium; Agalinis tenuifolia; Aureolaria pedicularia; Lobelia spicata; Aster depauperatus \& laevis; Eupatorium aromaticum; Helianthus giganteus; Senecio smallii; Sericocarpus asteroides; Vernonia glauca.

## DEVONIAN SHALE BARRENS

These barrens develop on outcrops of a hard but flaky shale of Mid-Devonian age in the Appalachian Ridge-Valley physiographir, province between north latitude $37^{\circ}$ and $40^{\circ} 30^{\prime}$ from Virginia across West Virginia and Maryland into Pennsylvania. Here they occur chiefly in Bedford, Fulton, and Huntingdon counties, usually on south-facing slopes with a stream at base. They are occupied by well-spaced pine and oak trees, with sparse undergrowth on rock-ledges and talus slopes.

While a number of widespread occupants of moderately acid gravelly soils spread over these barrens, their greatest interest concerns the number of endemics they support; many of these do not range north of Maryland, but the following are known in Pennsylvania: Paronychia montana; Trifolium virginicum; Oenothera argillicola; Pseudotaenidia montana; Calystegia spithamaea ssp. purchiana; Phlox subulata ssp. brittonii; Antennaria virginica var. argillicola; Senecio antennariifolius.

## GEOGRAPHIC RELATIONS

While many of the taxa included in this Atlas range widely over surrounding states, a considerable number reach a geographic limit in Pennsylvania, or extend only sparingly beyond its borders; these are separable into four groups:

## 1. Northern Taxa

These include plants widespread in Canada and/or our northern states, and ranging southward in
habitats where the soil temperature remains relatively low in summer, because of high altitude, deep shade, or copious evaporation of moisture. Many extend south from Pennsylvania in the Appalachians; those not known beyond our south-boundary are marked by an asterisk ( ${ }^{*}$ ).

## PTERIDOPHYTA

Lycopodium annotinum, complanatum*, inundatum, sabinaefolium*, selago; Isoetes dodgei ${ }^{*}$, muricata*, riparia*; Equisetum variegatum *; Botrychium lanceolatum v. angustisegmentum, multifidum typ. ${ }^{*}$ \& v. intermedium, simplex typ., v. laxifolium ${ }^{*}$ \& v. tenebrosum ${ }^{*}$; Cryptogramma stelleri; Cystopteris fragilis typ. \& v. mackayi; Dryopteris campyloptera, clintoniana; Gymnocarpium dryopteris; Matteuccia pensylvanica; Phegopteris connectilis; Polystichum braunii*; Woodsia ilvensis.

## SPERMATOPHYTA - GYMNOSPERMAE

Abies balsamea; Larix laricina; Picea mariana, rubens; Pinus resinosa; Juniperus communis; Taxus canadensis.

## SPERMATOPHYTA - ANGIOSPERMAE MONOCOTYLEDONEAE

Sparganium angustifolium*, chlorocarpum typ. \& v. acaule, fluctuans*, minimum*; Potamogeton alpinus $v$. tenuifolius*, epihydrus, filiformis v. borealis*, friesii, gramineus*, hillii*, natans*, oakesianus, obtusifolius*, praelongus*, pusillus, richardsonii ${ }^{*}$, robbinsii, spirillus, strictifolius $v$. rutiloides*, vaseyi ${ }^{*}$, zosteriformis; Scheuchzeria palustris v. americana*; Triglochin palustris*.

## GRAMINEAE

Agropyron trachycaulum v. glaucum*, v. novaeangliae ${ }^{*}$ \& v. unilaterale ${ }^{*}$; Bromus ciliatus, kalmii; Cinna latifolia; Deschampsia caespitosa v. glauca; Elymus wiegandii*; Gly ceria borealis*, grandis, pallida v. fernaldii*; Hierochloe odorata*; Hystrix patula v. bigeloviana*; Milium effusum v. cisatlanticum; Oryzopsis asperifolia, pungens*; Panicum boreale*, calliphyllum*, commonsianum v. euchlamydeum*, xanthophysum; Poa languida*, paludigena*, saltuensiss; Schizachne purpurascens; Trisetum spicatum v. molle; Zizania aquatica v. angustifolia*.

## CYPERACEAE

Carex aenea ${ }^{*}$, arctata ${ }^{*}$, backii*, baileyi, bebbii*, brunescens V . sphaerostachya, canescens typ. \& v. disjuncta, careyana, chordorrhiza*, cryptolepis*, cumulata*, debilis v. interjecta, deweyana*, diandra*, disperma*, eburnea, flava*, garberi*, intumescens v. fernaldii, laricina, lasiocarpa v. americana*, leptonervia, limosa, novaeangliae*, oligosperma*, ormostachya*, pallescens v. neogaea*, pauciflora*, paupercula v. irrigua* \& v. pallens*, prairea*, pseudocyperus*, retrorsa*, sartwellii*, sprengelii, substricta*, trisperma, tuckermanii*, viridula*; Cyperus houghtonii; Eleocharis compressa v. atrata*, elliptica*, palustris v. major*, pauciflora v.
fernaldii*: Eriophorum gracile, spissum*, tenellum*, viridi-carinatum; Rhynchospora capillaced, fusca; Scirpus acutus*, ancistrochaetus* atrocinctus, heterochaetus*, pedicellatus*, subterminalis, torreyi*.

## ARACEAE - JUNCACEAE

Alisaema stewardsonii; Calla palustris*; Xyris montana*; Eriocaulon septangulare; Juncus alpinus $v$. rariflorus*, articulatus; balticus $v$. littoralis*, brachycephalus*, filiformis, greenei*, pelocarpus.

## LILIACEAE - IRIDACEAE

Clintonia borealis; Smilacina trifolia*; Streptopus amplexifolius $v$. americanus, roseus typ., $v$. longipes* \& v. perspectus; Trillium undalatum; Sisylinchium montanum v. crebrum.

## ORCHIDACEAE

Coeloglossum bracteatum; Corallorhiza trifida v. verna; Cypripedium calceolus v. parviflorum, reginae; Goodyera repens v. ophioides, tesselata*; Listera cordata; Malaxis brachypoda; Platanthera blephariglottis, dilatata ${ }^{*}$, hookeri*, huronensis*, x media*, orbiculata typ. \&' $v$. macrophylla*; Spiranthes lacera, romanzoffiana*.

## DICOTYLEDONEAE - FREE-PETAL SUBCLASS SALICACEAE - LORANTHACEAE

Populus balsamifera*; Salix amygdaloides*, candida*, glaucophylloides v. albovestita* \& v. glaucophylla*, gracilis $v$. textoris*, interior $v$. exterior*, lucida v. intonsa*, serissima*; Myrica gale v . subglabra*; Alnus crispa typ. \& v. mollis*, rugosa typ. * \& v. americana; Betula papyrifera typ. \& v. cordifolia, populifolia; Arceuthobium pusillum*.

## POLYGONACEAE - NYMPHAEACEAE

Polygonum careyi, cilinode; Rumex orbiculatus*; Chenopodium capitatum*, strictum v. glaucophyllum*; Claytonia caroliniana; Montia chamissoi*; Stellaria calycantha v. floribunda* \& v. isophylla; Nuphar luteum ssp. pumilum*, rubrodicum*, variegatum; Nymphaea tuberosa.

## RANUNCULACEAE

Actaea rubra; Anemone canadensis; Clematis occidentalis; Coptis groenlandica; Ranunculus flabellaris, longirostris, reptans typ. ${ }^{*} \& v$. ovalis*, trichophyllus typ. ${ }^{*}$ \& v. calvescens*; Trollius laxus*.

## FUMARIACEAE - SAXIFRAGACEAE

Dicentra canadensis; Cakile edentula v. lacustris*; Sedum rosea; Mitella nuda*; Parnassia glauca*; Ribes cynosbati, glandulosum, hirtellum, lacustre, triste; Tiarella cordifolia.

## ROSACEAE

Agrimonia striata; Amelanchier bartramiana*, intermedia, sanguinea; Crataegus anomala*, arnoldiana*, brainerdii typ. \& v. egglestonií*, coleae*, compacta*, dilatata*, foetida, leiophylla**, levis*, pedicellata typ.*, v. albicans*, v. ellwangeriana* \& v. robesoniana*, populnea*,
stonei*; Dalibarda repens; Geum rivale; Potentilla anserina*, arguta, fruticosa*, palustris*, paradoxa*, tridentata; Prunus depressa*, pumila*; Rosa blanda*; Rubus (subg, Cýlactis) pubescens*; (subg. Idaeobatus) strigosus; (subg. Eubatus) adirondackensis*, canadensis; Sorbus americana, decora*.

## LEGUMINOSAE

Astragalus canadensis typ., neglectus*; Desmodium canadense; Lathyrus japonicus v. glaber*, ochroleucus*, palustris typ.*, v. linearifolius* \& v. myrtifolius; Vicia americana.

## GERANIACEAE - VITACEAE

Geranium bicknellii*, robertianum; Oxalis montana; Linum medium*; Rhus radicans v. rydbergii; Nemopanthus mucronata; Acer pensylvanicum, spicatum; Rhamnus alnifolia; Parthenocissus vitacea*; Vitis novae-angliae*, riparia v. syrticola*.

## GUTTIFERAE - ELAEAGNACEAE

Hypericum boreale, majus, pyramidata; Viola canadensis, renifolia*, rostrata, selkirkii*; Shepherdia canadensis*.

## ONAGRACEAE - CORNACEAE

Epilobium palustre v. oliganthum ${ }^{*}$; Myriophyllum exalbescens, farwellii*, tenellum*; Conioselinum chinense; Cornus canadensis.

## DICOTYLEDONEAE-UNITED-PETAL SUBCLASS <br> ERICACEAE sens. lat.

Andromeda glaucophylla; Arctostaphylos uvaursi v. coactilis; Chamaedaphne calyculata" v. angustifolia; Chiogenes hispidula; Kalmia angustifolia, polifolia*; Ledum groenlandicum*; Pyrola secunda, virens v. convoluta \& f. paucifolia*; Rhododendron canadense*, prinophyllum; Vaccinium myrtilloides, oxycoccus typ. \& v. ovalifolium.

## PRIMULACEAE - POLEMONIACEAE

Lysimachia thyrsiflora; Gentiana linearis;
Menyanthes trifoliata v. minor; Apocynum sibiricum v. cordigerum *; Calystegia spithamaea ssp. stans*.

## BORAGINACEAE - LENTIBULARIACEAE

Cynoglossum boreale*; Lithospermum croceum*; Stachiys palustris v. homotricha* \& v. nipigonensis*; Utricularia geminiscapa, intermedia, minor*.

## RUBIACEAE - LOBELIACEAE

Galium labradoricum*, palustre*, trifidum*; Linnaea borealis v. americana; Lonicera canadensis, dioica v. glaucescens, hirsuta*, oblongifolia*, villosa v. tonsa*; Lobelia dortmanna*, kalmii ${ }^{*}$.

## COMPOSITAE

Antennaria canadensis, munda; Aster cordiflorus v. racemiflorus; Bidens connata;

Gnaphalium macounii; Hieracium canadense*; Megalodontia beckii*; Senecio aureus v. aquilonius* \& v. semicordatus*; Solidago purshii, uiginosa.

## 2. Midland Taxa

These plants are widespread in the Mississippi and tributary valleys, ranging eastward in habitats where the soil-reaction tends to be circum-neutral owing to base-rich underlying rock or ascending moisture-circulation. Some extend east of Pennsylvania; those not known beyond our east boundary are marked by an asterisk ( ${ }^{*}$ ).

## PTERIDOPHYTA

Lycopodium porophilum*; Asplenium resiliens*; Cystopteris protrusa.

## SPERMATOPHYTA - MONOCOTYLEDONEAE ALISMATACEAE - CYPERACEAE

Alisma triviale; Aristida curtissii; Bouteloua curtipendula; Diarrhena americana*; Festuca paradoxa*; Melica nitens*; Muhlenbergia curtisetosa*; Panicum leibergii ${ }^{*}$; Carex amphibola* ${ }^{*}$, atherodes, frankii ${ }^{*}$, geyeri ${ }^{*}$, shortiana*

## COMMELINACEAE - ORCHIDACEAE

Tradescantia ohiensis; Camassia scilloides*; Erythronium albidum*; Samilax glauca; Stenanthium gramineum ${ }^{*}$; Trillium flexipes*, nivale*, sessile*; Uvularia grandiflora*; Dios. corea quaternata*; Iris cristata*; Cypripedium candidum; Spiranthes ovalis*.

DICOTYLEDONEAE - FREE-PETAL SUBCLASS SALICACEAE - FAGACEAE
Salix interior v. exterior, longipes v. wardii*; Carya laciniosa*; Quercus imbricaria*, macrocarpa, muehlenbergii, shumardii ${ }^{*}$.

## CARYOPHYLLACEAE - MAGNOLIACEAE

Silene nivea*; Anemone quinquefolia v. interior*; Clematis viorna*; Delphinium tricorne*; Ranunculus fascicularis; Jeffersonia diphylla; Magnolia acuminata, tripetala*.

## PAPAVERACEAE - SAXIFRAGACEAE

Stylophorum diphyllum*; Arabis hirsuta v. adpressipilis*, perstellata v. phalacrocarpa* \& v. shortii*; Ribes missouriense.

## ROSACEAE - LEGUMINOSAE

Agrimonia rostellata; Crataegus brumalis, fontanesiana*, gattingeri ${ }^{*}$, margaretta*, rugosa*, virella*; Geum vernum*; Malus glaucescens*, lancifolia*; Potentilla paradoxa*; Rubus michiganensis ${ }^{*}$, wheeleri $^{*}$; Astragalus canadensis v. longilobus; Baptisia australis; Cassia marilandica*; Lathyrus venosus; Strophostyles pauciflora*; Vicia caroliniana.

## OXALIDACEAE - EUPHORBIACEAE

Oxalis grandis*; Zanthoxylum americanum*; Acalypha rhomboidea v. deamii*; Euphorbia
commutata** dentata*, obtusata*; Phyllanthus caroliniensis*.

## ANACARDIACEAE - TILIACEAE

Rhus aromatica; Euonymus atropurpureus*, obovatus; Pachystima canbyi*; Acer nigrum; Aesculus glabra*, octandra*; Rhamnus lanceolata*; Tilia heterophylla*.

## GUTTIFERAE - UMBELLIFERAE

Hypericum drummondii*; Ludwigia polycarpa; Chaerophyllum procumbens v. shortii*; Erigenia bulbosa*; Ligusticum canadense*; Thaspium trifoliatum v. flavum*.

## DICOTYLEDONEAE - <br> UNITED-PETAL SUBCLASS

## ERICACEAE - HYDROPHYLLACEAE

Vaccinium vacillans v. missouriense*; Dodecatheon amethystinum*, meadia*; Lysimachia hybrida, lanceolata*; Gentiana alba*; Swertia caroliniensis*; Cynanchum laeve*; Matelea obliqua*; Phlox divaricata; Ellisia nyctelea; Hydrophyllum appendiculatum*; Phacelia purshii ${ }^{*}$.

## BORAGINACEAE - LABIATAE

Lithospermum canescens*, latifolium*; Onosmodium dispidissimum*; Lippia lanceolata v. recognita; Verbena simplex; Blephilia ciliata, hirsuta; Scutellaria elliptica v. hirsuta, nervosa*; Stachys palustris v. homotricha, tenuifolia typ.* \& v. hispida.

## SCROPHULARIACEAE - LOBELIACEAE

Agalinis paupercula; Aureolaria flava v. macrantha ${ }^{*}$; Galium concinnum; Hedyotis purpurea typ., v. calycosa, v. ciliolata*, v. longifolia, \& v. tenuifolia*; Symphoricarpos albus; Triosteum illinoense*; Valeriana pauciflora*; Valerianella chenopodifolia*; Lobelia spicata v. leptostachys* \& v. scaposa*.

## COMPOSITAE

Ambrosia psilostachya ${ }^{*}$ v. coronopifolia; Antennaria parlinii v. arnoglossa, petaloidea; Aster cordifolius $v$. linariifolius*, oblongifolius $v$. angustatis* \& v. orientis*, shortii*, simplex v. interior*; Cacalia muhlenbergii; Coreopsis tripteris* typ. \& v. deamii*; Eclipta alba; Elephantopus carolinianus; Erigeron strigosus v. beyrichii; Eupatorium altissimum*; Helianthus microcephalus ${ }^{*}$; Lactuca hirsuta ${ }^{*}$ typ. \& v. sanguinea; Polymnia canadensis, uvedalia*; Prenanthes crepidinea*; Senecio plattensis; Silphium trifoliatum ${ }^{*}$; Solidago racemosa*; Vernonia gigantea*.

## 3. Appalachian Taxa

These plants are widespread in the southern Appalachians from northern Alabama and Georgia across eastern Tennessee, northwestern South Carolina, western North Carolina, Virginia and Maryland and middle West Virginia, a region of temperate climate with high annual precipitation, resulting in acid soils. Some ex-
tend sporadically northeast of Pennsylvania: those not known beyond our boundary in tiat direction are marked with an asterisk ( ${ }^{*}$ ).

PTERIDOPHYTA \& GYMNOSPERMAE
Asplenium bradleyi, montanum, pinnatifidum; Athyrium asplenioides v , subtripinnatum; Pinus pungens*.

## ANGIOSPERMAE - MONOCOTYLEDONEAE

Potamogeton tennesseensis*; Calamagrostis porteri; Cymophyllus fraseri*; Juncus gymnocarpus*; Clintonia umbellulata; Disporum lanuginosum; Uvularia pudica*; Iris verna v. smalliana*; Lîistera smallii*; Platanthera peramoena.

## DICOTYLEDONEAE -

FREE-PETAL SUBCLASS
SANTALACEAE - CARYOPHYLLACEAE
Pyrularia pubera*; Aristolochia durior*; Paronychia fastigiata v. nuttallii, montana*; Silene virginica.

## RANUNCULACEAE - FUMARIACEAE

Aconitum reclinatum*, uncinatum *; Caltha palustris v. flabellifolia*; Cimicifuga americana*; Delphinium exaltatum*; Ranunculus allegheniensis; Thalictrum coriaceum*, steeleanum*; Trautvetteria carolinensis*; Berberis canadensis*; Calycanthus floridus v. laevigatus*; Dicentra eximia.

## CRUCIFERAE - ROSACEAE

Arabis laevigata v. burkii*; Sedum telephioides; Heuchera pubescens* typ. \& v. brachyandra*; Saxifraga micranthidifolia*; Crataegus rubella*; Prunus allegheniensis; Spiraea corymbosa, virginiana*.

## LEGUMINOSAE - UMBELLIFERAE

Baptisia australis; Lathyrus venosus; Trifolium virginicum*; Sida hermaphrodita*; Viola hastata*, tripartita f. glaberrima.*; Opuntia calcicola*; Oenothera argillicola*', tetragona v. latifolia*; Angelica triquinata*; Pseudotaenidia montana*.

## DICOTYLEDONEAE -

 UNITED-PETAL SUBCLASSCLETHRACEAE - RUBIACEAE
Clethra acuminata*; Gaylussacia brachycera*: Menziesia pilosa*; Oxydendrum arboreum*; Rhododendron arborescens*, calendulaceum*: Calystegia spithamaea ssp. purchiana*; Phlox ovata*, stolonifera*, subulata ssp. brittonii ${ }^{*}$; Polemonium van-bruntiae; Phacelia dubia; Meehania cordata*; Scutellaria saxatilis*; Aureolaria laevigata*; Chelone glabra v. elatior; Penstemon canescens*; Galium latifolium*; Hedyotis michauxij*.

## COMPOSITAE

Antennaria solitaria*, virginica typ. \& v. argiflicola*; Aster oblongifolius v. orientis*; Chrysogonum virginianum*; Liatris scariosa
*typ. \& v. virginiana; Marshallia grandiflora*;
Senecio antennariifolius*; Solidago roanensis*.

## 4. Lowland Taxa

These plants are widespread in lowlands where the soils are sandy and acid; on the AtlanticGulf Coastal Plain where the winter temperatures are relatively mild, and range north to coastal Canada, west in the Great Lakes lowland, and sporadically into Pennsylvania uplands, where winter temperatures are relatively low. Those not known outside the Coastal Plain are marked by an asterisk (*).

## PTERIDOPHYTA - GYMNOSPERMAE

Lycopodium appressum, chapmanii; Ophioglossum vulgatum v. pycnostichum; Lygodium palmatum; Dryopteris celsa; Thelypteris simulata; Woodwardia areolata, virginica; Pinus echinata, virginiana.

## SPERMATOPHYTA - ANGIOSPERMAE MONOCOTYLEDONEAE, REDUCED

Typha glauca; Potamogeton bicupulatus, pulcher; Zannichellia palustris v. major; Lophotocarpus* spongiosus; Sagittaria australis, eatonii*, latifolia v. pubescens, subulata *typ. \& v. gracillima*.

## GRAMINEAE

Agrostis altissima, hyemalis; Ammophila breviligulata; Andropogon elliottii, glomeratus; Aristida longespica typ. \& v. geniculata, oligantha, purpurascens; Digitaria filiformis; Echinochloa walteri*; Eragrostis spectabilis; Erianthus saccharoides; Glyceria obtusa; Gymnopogon ambiguus; Leptoloma cognatum; Panicum anceps, annulum, commonsianum v. addisonii*, longifolium, longiligulatum*, lucidum, recognitum, scoparium, spretum*, verrucosum, villosissimum, yadkinense; Paspalum floridanum v. glabratum, laeve typ., v. circulare \& v. pilosum, psammophilum, setaceum; Poa autumnalis; Setaria geniculata; Sporobolus clandestinus, cryptandrus; Stipa avenacea; Triplasis purpurea; Tripsacum dactyloides; Uniola latifolia, laxa*; Zizania aquatica typ. \& v. angustifolia.

## CYPERACEAE

Carex barrattii ${ }^{*}$, bullata, collinsii, debilis, impressa*, polymorpha, styloflexa, vestita, walteriana v. brevis*; Cyperus diandrus, lancastriensis, odoratus, ovularis, refractus, retrorsus; Eleocharis diandra*, obtusa v. ellipsoidalis \& v. jejuna, quadrangulata, tricostata*, tuberculosa; Fimbristylis baldwiniana, castanea*, drummondii; Rhynchospora globularis v. recognita; Scirpus maritimus v. fernaldii*, smithii; Scleria minor, muhlenbergii, pauciflora.

## LEMNACEAE - PONTEDERIACEAE

Lemna valdiviana; Xyris torta; Eriocaulon parkeri ${ }^{*}$; Commelina erecta, virginica; Heteranthera reniformis.

## JUNCACEAE - LILIACEAE

Juncus biflorus, dichotomus*, longii, militaris, platyphyllus, scirpoides; Luzula bulbosa; Aletris farinosa; Helonias bullata; Melanthium virginicum; Smilax pseudo-china*, pulverulenta.

## IRIDACEAE - ORCHIDACEAE

Iris prismatica; Sisyrinchium arenicola*, atlanticum, intermedium; Corallorhiza wisteriana; Listera australis; Platanthera cristata; Spiranthes grayi, vernalis*; Tipularia discolor.

## DICOTYLEDONEAE -

FREE-PETAL SUBCLASS
MYRICACEAE - LORANTHACEAE
Myrica heterophylla; Betula nigra; Castanea pumila; Quercus falcata, marilandica, phellos; Celtis tenuifolia; Phoradendron serotinum.

## POLYGONACEAE - ROSACEAE

Polygonum opelousanum, robustius; Amaranthus cannabinus*; Ranunculus hederaceus; Drosera intermedia; Liquidambar styraciflua; Tillaea aquatica*; Agrimonia microcarpa; Amelanchier canadensis, obovalis; Prunus maritima.

## LEGUMINOSAE

Aeschynomene virginica*; Clitoria mariana; Crotalaria sagittalis; Desmodium glabellum, laevigatum, nuttallii, rigidum; Galactia regularis, volubilis; Lespedeza stuevei; Strophostyles umbellata; Stylosanthes biflora, riparia.

## LINACEAE - MALVACEAE

Linum intercursum, medium v. texanum, sulcatum; Polygala cruciata v. aquilonia, incarnata, lutea*, nuttallii; Crontonopsis elliptica*; Euphorbia ipecacuanhae*; Rhus copallina; flex glabra*, laevigata, opaca; Euonymus americanus; Vitis rupestris; Hibiscus militaris.

## GUTTIFERAE - CACTACEAE

Ascyrum hypericoides v. multicaule, stans*; Hypericum adpressum, denticulatum*; Elatine americana; Helianthemum propinquum; Lechea minor; Viola brittoniana*; Passiflora lutea; Opuntia compressa.

## LYTHRACEAE - UMBELLIFERAE

Ammania coccinea; Lythrum hyssopifolia; Rotala ramosior; Rhexia mariana*, virginica; Jussiaea repens v. glabrescens; Ludwigia sphaerocarpa* v. jungens; Oenothera fruticosa typ. \& v. linearis, laciniata; Myriophyllum heterophyllum*; Proserpinaca intermedia*, pectinata*; Eryngium aquaticum; Hydrocotyle ranunculoides, umbellata; Ptilimnium capillaceum*.

## UNITED PETAL SUBCLASS

CLETHRACEAE-GENTIANACEAE
Clethra alnifolia; Gaylussacia dumosa; Leucothoe racemosa; Lyonia mariana; Rhododendron atlanticum; Vaccinium caesium; Hottonia inflata; Samolus parviflorus; Diospyros virginiana; Chio-
nanthus virginicus; Bartonia paniculata; Gentiana catesbaei ${ }^{*}$, saponaria, villosa; Sabatia campanulata* ${ }^{*}$ stellaris*.

## ASCLEPIADACEAE - VERBENACEAE

Asclepias incarnata v. pulchra, rubra, variegata; Cuscuta compacta; Ipomoea lacumosa; Onosmodium virginianum; Lippia lanceolata $v$. recognita.

## LABIATAE - SOLANACEAE

Lycopus americanus v. Iongii*; Monarda punctata; Pycnanthemum clinopodioides, torrei; Salvia lyrata; Scutellaria integrifolia; Stachys hyssopifolia v. ambigua; Trichostema setaceum; Physalis pruinosa.

## SCROPHULARIACEAE - LOBELIACEAE

Agalinis decemloba, fasciculata*, purpurea; Buchnera americana; Gratiola aurea; Limosalla subulata*; Linaria canadensis; Lindernia anagallidea; Melampyrum lineare v. pectinatum; Micranthemum micranthemoides*; Utricularia fibrosa*, inflata v. minor*, resupinata; Ruellia caroliniensis v. dentata; Diodia teres; Viburnum dentatum, nudum; Lobelia nuttallii*, puberula.

## COMPOSITAE

Arnica acaulis*; Aster dumosus, novi-belgii, radula, spectabilis*, vimineus; Bidens bidentoides* ${ }^{*}$, laevis; Cirsium horridulum; Coreopsis rosea*; Eclipta alba; Eupatorium album, aromaticum, coelestinum, dubium, hyssopifolium, pilosum, pubescens, rotundifolium; Helianthus angustifolius; Heterotheca mariana; Hieracium gronovii; Krigia virginica; Kuhnia eupatoroides; Lactuca floridana typ. \& v. villosa; Liatris spicata typ. \& v. resinosa; Mikania scandens; Prenanthes serpentaria; Rudbeckia speciosa; Senecio pauperculus v. crawfordii, smallii; Sericocarpus linifolius; Solidago odora, puberula, rugosa v. sphagnophila, sempervirens* tenuifolia; Vernonia glauca.

## ENDEMIC PLANTS

Range is restricted to a single county or a few neighboring ones in Pennsylvania and adjoining states.

## PTERIDOPHYTA

Adiantum pedatum serpentinite form; Gymnocarpium $\times$ heterosporum.

## MONOCOTYLEDONEAE

Potamogeton porteri; Panicum commonsianum v. euc ,lamydeum; Trillium cernuum f. tangerae.

DICOTYLEDONEAE -
FREE-PETAL SUBCLASS
Chenopodium foggii; Claytonia virginica $\mathbf{f}$. lutea; Cerastium arvense v. villosissimum; Crataegus compacta, compta, crawfordiana, evansiana, fortunata, gaudens, laetans, laetifica, lecta, leiophylla, milleri, porteri, punctata v. microphylla, puta, putata, relicta, shaferi, tanu-
phylla, vittata; Rubus cacaponensis, porter: racemiger.

## UNITED-PETAL SUBCLASS

Aster depauperatus.

## ABBREVIATIONS

= : equivalent or synonym
$\dagger$ : introduced
cv. : cultivar, a taxon developed or perpetuated in cultivation
f: form, a minor deviant within a population, without an independent range
Fl. Eur. : Flora Europaea, a multivolume series in course of publication
G.M. : Gray's Manual of Botany, 8th ed., 1950
incl. : including
s. l. : sensu tato, in comprehensive sense
s. s. : sensu stricto, in restricted sense
ssp., subsp. : subspecies, a major subdivision of a species with markedly distinctive characters and range
syn. : synonym, an epithet sometimes used instead of the one here accepted
typ. : typical, original
type : the specimen or description on which a technical epithet is based
v., var. : variety, a lesser subdivision of a species with moderately distinctive characters
$x$ : hybrid, symbol placed between epithets of parental taxa or before an individual epithet

## ALPHABETICAL LISTING OF PLANT FAMILY NAMES

Gotanical Name Common Name
ACANTHACEAE. Acanthus
ACERACEAE ..... Maple
AIZOACEAE Carpet-Weed
ALISMATACEAE Water-Plantain
AMARANTHACEAE Amaranth
AMARYLLIDACEAE Amaryllis
ANACARDIACEAE ..... Cashew
ANNONACEAE Custard-Apple
APOCYNACEAE ..... Dogbane
AQUIFOLIACEAE ..... Holly
ARACEAE ..... Arum
ARALIACEAE Ginseng
ARISTOLOCHIACEAE Wild-Ginger
ASCLEPIADACEAE Milkweed
BALSAMINACEAE Jewel-Weed
BERBERIDACEAE Barberry
BETULACEAE ..... Birch
BIGNONIACEAE. Bignonia
BORAGINACEAE ..... Borage
BUTOMACEAE Flowering-Rush
CACTACEAE . . . . . . . . . . . . . . . . . . . .Cactus
CALLITRICHACEAE ..... Water-Star
CALYCANTHACEAE Calycanthus
CAMPANULACEAE ..... Bellflower
CANNACEAE
Hemp
CAPPARACEAE Caper
CAPRIFOLIACEAE Honeysuckle
CARYOPHYLLACEAE. Pink
CELASTRACEAE ..... Bitter-Sweet
CERATOPHYLLACEAE .Hornwort
CERCIDOPHYLLACEAE Katsura-Tree
CHENOPODIACEAE . . . . . . . . . . . Goosefoot
CISTACEAE . . . . . . . . . . . . . . . . . . . Rockrose
CLETHRACEAE . . . . . . . . . . . . Summer-Sweet
COMMELINACEAE Spider Wort
COMPOSITAE. ..... Composite
CONVOLVULACEAE Morning-Glory
CORNACEAE ..... Dogwood
CORYLACEAE Hazel
CRASSULACEAE Stone-Crop
CRUCIFERAE Cress
CUCURBITACEAE ..... Gourd
CUPRESSACEAE ..... Cypress
CYPERACEAE ..... Sedge
dioscoreaceae ..... Yam
DIPSACACEAE ..... Teasel
DROSERACEAE Sundew
EBENACEAE ..... Ebony
ElAEAGNACEAE ..... Oleaster
ELATINACEAE ..... Waterwort
EQUISETACEAE ..... Horsetail
ERICACEAE ..... Heath
ERIOCAULACEAE Pipewort
EUPHORBIACEAE Spurge
FAGACEAE Beech
FUMARIACEAE Fumeroot
GENTIANACEAE Gentian
GERANIACEAE Geranium
GINKGOACEAE ..... Ginkgo
GRAMINEAE ..... Grass
GUTTIFERAE. St. John's-Wort
HALORAGACEAE Water-Milfoil
HAMAMELIDACEAE Witch-Hazel
HIPPOCASTANACEAE Buckeye
HYDROCHARITACEAE Water-Weed
hYDROPHYLLACEAE Water-Leaf
IRIDACEAE ..... Iris
ISOETACEAE
Quillwort
Quillwort
JUGLANDACEAE Walnut
JUNCACEAE Rush
LABIATAE ..... Mint
LARDIZABALACEAE ..... Lardizabala
LAURACEAE Laurel
LEGUMINOSAE Legume
LEMNACEAE Duckweed
LENTIBULARIACEAE ..... Bladder-Wort
LILIACEAE ..... Lily
LIMNANTHACEAE False-Mermaid
LINACEAE ..... Flax
LOBELIACEAE ..... Lobelia
LOGANIACEAE ..... Logania
LORANTHACEAE. ..... Mistletoe
LYCOPODIACEAE ..... Clubmoss
LYTHRACEAE ..... Loosestrife
MAGNOLIACEAE Magnolia
MALVACEAE ..... Mallow
MARSILEACEAE ..... Water-Clover
MARTYNIACEAE ..... Martynia
MELASTOMATACEAE Meadow-Beauty
MENISPERMACEAE Moonseed
MORACEAE ..... Mulberry
MYRICACEAE Bayberry
NAJADACEAENYCTAGINACEAE . . . . . . . . . . . Four-O'Clock
NYMPHAEACEAE. .....  WaterlilyNYSSACEAE . . . . . . . . . . . . . . . . . Sour-Gum
OLEACEAE . . . . . . . . . . . . . . . . . . . . . OliveONAGRACEAE. . . . . . . . . . . . Evening-PrimroseOPHIOGLOSSACEAE . . . . . . . Adder's-TongueORCHIDACEAE . . . . . . . . . . . . . . . . . OrchidOROBANCHACEAE . . . . . . . . . . . Broom-Rape
OSMUNDACEAE
OXALIDACEAE Wood-Sorrel
PAPAVERACEAE Poppy
PASSIFLORACEAE. Passion-Flower
PEDALIACEAE ..... Sesame
PHRYMACEAE. .Lopseed
PHYTOLACCACEAE Poke-Weed
PINACEAE ..... Pine
PLANTAGINACEAE ..... Plantain
PLATANACEAE Plane-Tree
PODOSTEMACEAE River-Weed
POLEMONIACEAE ..... Phlox
POLYGALACEAE Candy-Root
POLYGONACEAE Buckwheat
POLYPODIACEAE ..... Fern
PONTEDERIACEAE . . . . . . . . . . Pickerel-Weed
PORTULACACEAE Purslane
PRIMULACEAE ..... Primrose
RANUNCULACEAE Buttercup
RESEDACEAE Mignonette
RHAMNACEAE ..... Buckthorn
ROSACEAE Rose
RUBIACEAE Madder
RUTACEAE ..... Rue
SALICACEAE Willow
SANTALACEAE Sandalwood
SAPINDACEAE ..... Soapberry
SARRACENIACEAE ..... Pitcher-Plant
SAURURACEAE Lizard's-Tail
SAXIFRAGACEAE Saxifrage
SCHIZAEACEAESCROPHULARIACEAE . . . . . . . . . . . . Figwort
SELAGINELLACEAE Spike-MossSIMAROUBACEAE
SIMAROUBACEAE Quassia
SOLANACEAE Nightshade
SPARGANIACEAE .....  Bur-Reed
STAPHYLEACEAE ..... Bladder-Pod
STYRACACEAE .Styrax
TAMARICACEAE Tamarisk
TAXACEAE ..... Yew
TAXODIACEAE .Bald-Cypress
TETRAGONIACEAE Four-Angle
TILIACEAE .Linden
THYMELAEACEAE Leatherwood
TROPAEOLACEAETYPHACEAECat-Tail
ULMACEAE ..... Elm
UMBELLIFERAE ..... Carrot
URTICACEAE ..... Nettle
VALERIANACEAE .Valerian
VERBENACEAE Verbena
VIOLACEAE ..... Violet
VITACEAE ..... Grape
XYRIDACEAE .Yellow-Eyed Grass
ZOSTERACEAE Pond-Weed
ZYGOPHYLLACEAE Caltrop

## ENDANGERED PLANTS

The Federal Endangered and Threatened Species Act (Public Law 93-205; 87 stat. 884) became effective on December 28, 1973. The purpose of the Act was to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth".

All federal agencies are enjoined from taking any actions "Authorized, funded or carried out by them" that may threaten the existence of endangered or threatened species or result in disturbance which by its nature would destroy or modify the "critical habitat" of such species.

The U.S. Department of the Interior commissioned the Smithsonion Institution to develop a list of endangered and threatened plant species for each state. This proposed list was developed and published in the Federal Register vol, 40, No. 127, July l, 1975. This list, see attachment, is currently under study in preparation for a final list. There will very probably be several additions to and deletions from the proposed list. Upon approval and publication of the final list, federal agencies will have to abide by the restrictions outlined in the second paragraph above.

At the present time there is no state legislation dealing with endangered or threatened plant species in Pennsylvania. The Department of Environmental Resources has been designated by the Governor's office as the agency responsible for endangered and threatened plant activities until such legislation is enacted.

Wild ginseng, although it does not appear on the proposed federal list of endangered plants, falls under the control of the Endangered Species Scientific Authority, an agency of the U.S. Department of the Interior. Wild ginseng appears on the endangered species list of several foreign countries and according to the Convention on International Trade in Endangered Species can be exported only on approval of the Endangered Species Scientific Authority. The Authority has granted Pennsylvania the right to export wild ginseng roots during 1978, however, unless legislation regulating the harvesting of the plant is enacted during 1979, it is doubtful that the Endangered Species Scientific Authority will approve exports for 1979.

PROPOSED FEDERAL LIST OF ENDANGERED AND THREATENED PLANTS IN PENNSYLVANIA FEDERAL REGISTER Vol. 41 No. 117 June 16, 1976

| ENDANGERED |  |  |
| :---: | :---: | :---: |
| SCIENTIFIC NAME | COMMON NAME | HABITAT |
| Orchidaceae Isotria medeoloides | Pogonia, small whorled | dry mixed oak woods |
| Ranunculaceae Trollius laxus | Globeflower, spreading | wet meadows, swamps |
| Cyperaceae Scirpus ancistrochaetus | Bulrush | bogs |
| Coryophyllaceae Cerastium arvense var. villosissimum | Mouse-ear <br> long-hairy field chickweed | serpentine barrens (Chester County) |
| Hydrocharitaceae Elodea Schweinitzie | Waterweed, Schweinitz's |  |
| THREATENED |  |  |
| Asteraceae Echinacea Laevigata | Smooth purple coneflower | open meadows and wood edges |
| Juncaeae Juncus gymnocarpus | Rush | mossy swamps |
| Orchidaceae Cypripedium candidum | Small white lady's slipper | calcareous meadows |
| Orchidaceae Plantanthera peramoena | Purple Fringeless orchis | alluvial thickets and low woods |
| Poaceae Calamagrostis porteri | Reed - Bentgrass | sand barrens |
| Poaceae Muhlenbergia curtisetosa | Nimble will | woodlands, thickets, roadsides |
| Poaceae Poa paludigena | Poa-Grass | bogs |
| Polypodiaceae Asplenium ebenoides | Scott's Spleenwort | rock ledges |
| Potamogetonaceae Potamogeton Hillii | Pondweed | wetlands, shallow water |
| Rosaceae Prunus alleghaniesis | Allegheny plum | thickets, So.central PA. |
| Scrophulariaceae Micranthemum micranthemoides |  | fresh tidal mud |


[^0]:    ## SUB-TOTAL

[^1]:    AREA
    Sweet Root
    Thornhurst
    Ulsh Gap
    Upper Pine Bottom
    Wayside Memorial

