



Monitoring Report

Summer 2002

Pennsylvania Department of Environmental Protection

(717) 787-6827

www.dep.state.pa.us



PWRP Quick Facts '96 – '02



★ 741 water obstruction & encroachment actions enrolled in the PWRP



– These permits impacted 81.39 acres



– The average encroachment is 0.11 acres



PWRP Quick Facts '96 – '02



★ 42 projects on the ground

- 38 completed, totaling approximately 86.57 acres
- 4 more sites currently under construction, due to be completed by end of 2002, for an additional estimated 17.08 acres



★ Projects located in:

- 22 of 67 Counties
- 14 of 20 Subbasins





PWRP Quick Facts 2002



★ 5th monitoring year



★ 3rd published monitoring report



★ Field surveys conducted in July & August

★ Pennsylvania's drought emergency is reflected in several sites



Project Number	County	Date Constructed	Monitoring Year	Current Size
D01F48-001	Northampton	September-02	0	4
D02A45-001	Monroe	October-96	4	3.18
D02A45-002	Monroe	October-97	4	0.24
D03D15-003	Chester	December-01	0	11.18
D03F46-001	Montgomery	September-00	2	0.75
D03F51-001	Philadelphia	November-01	1	1.7
D03H15-002	Chester	July-99	3	1.5
O16A25-001	Erie	August-98	4	4
O16B62-001	Warren	November-98	4	4.2
O16C53-001	Potter	September-00	2	1
O18D11-001	Cambria	July-97	4	1.08
O20A43-001	Mercer	September-97	4	11.74
O20A43-002	Mercer	September-02	0	1.5
P13A05-001	Bedford	September-00	2	9
P13A05-002	Bedford	September-01	1	1
P13D01-001	Adams	July-97	4	0.92
P13D01-002	Adams	October-98	4	5.82
S04D58-001	Susquehanna	September-00	2	2.24
S05C19-001	Columbia	June-97	4	0.91
S05E19-002	Cambria	July-98	4	1.73
S06A14-001	Centre	August-99	3	3
S06C22-001	Dauphin	September-99	3	0.29
S07D38-001	Lebanon	April-02	1	2
S07H67-001	York	August-01	1	0.5
S07J36-001	Lancaster	October-98	4	2.15
S07J36-002	Lancaster	November-99	3	1.75
S07J36-004	Lancaster	August-99	3	0.26
S07K36-001	Lancaster	September-00	2	2.25
S07K36-002	Lancaster	August-01	1	11
S09C14-001	Centre	May-01	1	0.5
S10A41-001	Lycoming	September-00	2	3.89
S10B41-001	Lycoming	June-99	3	0.65
S10C60-001	Union	October-97	4	0.34
S11B31-002	Huntingdon	September-98	4	0.67
S11B31-003	Huntingdon	November-99	3	0.77
S11B31-004	Huntingdon	September-00	2	0.5
S11C05-001	Bedford	September-00	2	1
S11C05-002	Bedford	September-01	1	0.7
S11D05-001	Bedford	September-01	1	2
S11D31-001	Huntingdon	July-97	4	0.74
S11D31-002	Huntingdon	September-00	2	0.6
S11D31-003	Huntingdon	June-02	0	0.4
42 projects	22 counties	Total		103.65

PWRP Sites

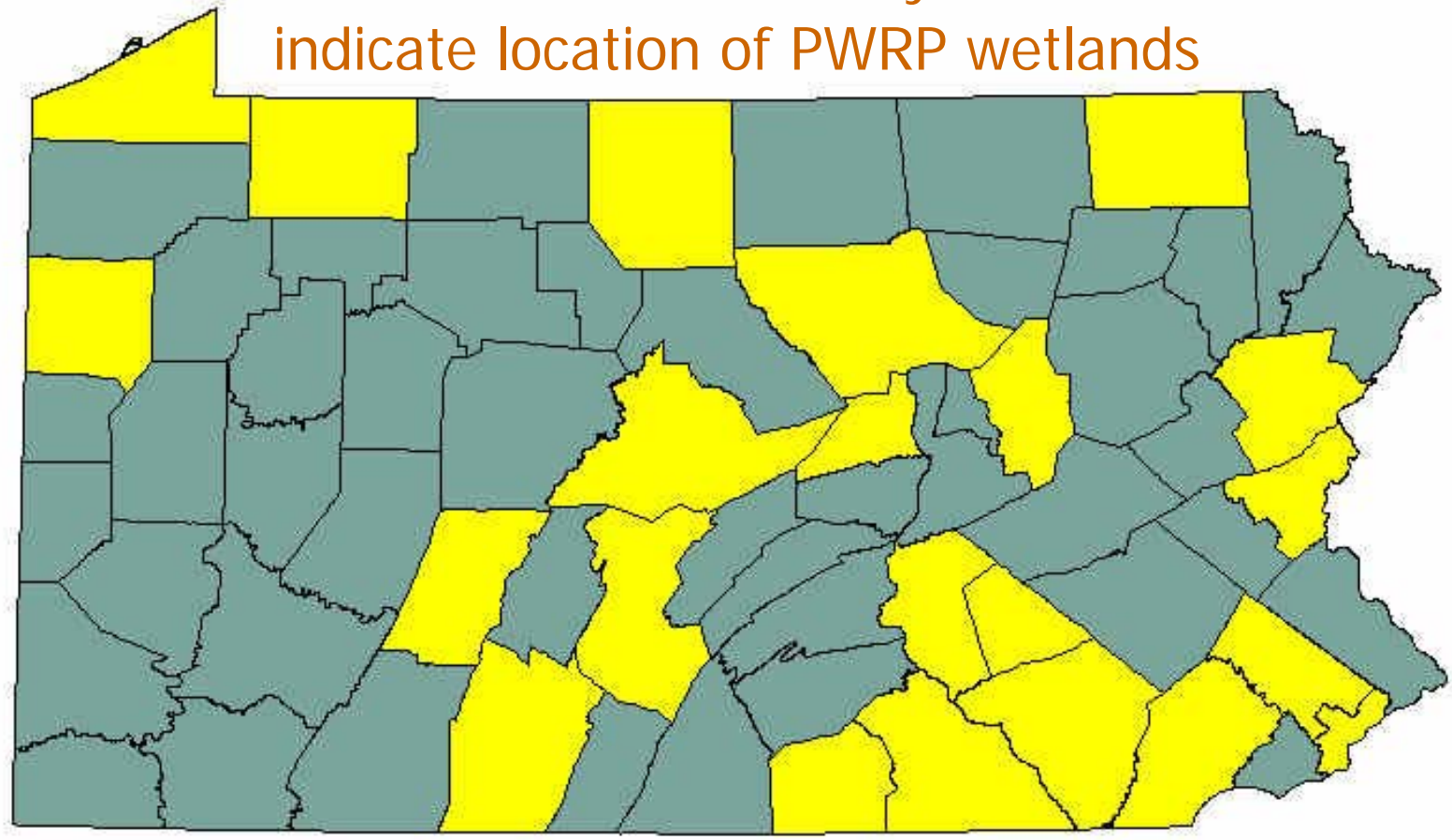
★ Table shows all PWRP wetland replacement sites that are either constructed or are currently being constructed and due to be finished by the end of 2002



Counties



Counties shown in yellow indicate location of PWRP wetlands





D02A45-001



- ★ Monroe County
- ★ Constructed 10/96
- ★ 3.5 acres
PEM/PFO/POW
- ★ Vegetation continues to fill in
- ★ 2001 (top photo) & 2002 (bottom photo)
- ★ Well established wetland community



D02A45-002



- ★ Monroe County
- ★ Constructed 10/97
- ★ 0.4 acres PEM/POW
- ★ Although viewed from different angles, little has changed from 2001 (top photo) to 2002 (bottom)
- ★ Well established wetland community





D03F46-001



- ★ Montgomery County
- ★ Constructed 09/00
- ★ 3 acres PEM/POW
- ★ Photos from 2001 (top) and 2002 (bottom)
- ★ Scheduled for vegetative enhancement





D03F51-001



- ★ Philadelphia County
- ★ Construction completed 11/01
- ★ 2 acres PEM/PFO
- ★ Recently completed, this wetland is thriving
- ★ Photos show two varied areas within the wetland in 07/02



D03H15-002



- ★ Chester County
- ★ Constructed 07/99
- ★ 1.5 acres PEM
- ★ Photos from 2001 (top) and 2002 (bottom)
- ★ Well established, seasonally saturated wetland





016A25-001



- ★ Erie County
- ★ Constructed 08/98
- ★ 4 acres PEM
- ★ Photos from 2001 (top photo) and 2002 (bottom)
- ★ Well established, restored, seasonally saturated wetland community



016B62-001



- ★ Warren County
- ★ Constructed 11/98
- ★ 4.2 acres PEM
- ★ Photos from 2001 (top) and 2002 (bottom)
- ★ Well established wetland community



016C53-001



- ★ Potter County
- ★ Constructed 09/00



- ★ 2 acres PEM
- ★ Spikerush (*Eleocharis* sp.) continue to fill in from 2001 (top) to 2002 (bottom) despite drought conditions





018D11-001



- ★ Cambria County
- ★ Constructed 07/97
- ★ 1.3 acres
PEM/POW
- ★ Photo shows
wetland area
07/01
- ★ Establishment of
wetland community is progressing
- ★ Vegetative enhancements, for educational
purposes, are being coordinated with landowner
at his request.





020A43-001



- ★ Mercer County
- ★ Constructed 09/97
- ★ 12.5 acres
- ★ Same wetland area, although from a different angle, in 2001 (top) and 2002 (bottom)
- ★ Well established mixed of PEM, PSS, PFO, & POW created & restored wetlands





P13A05-001



- ★ Bedford County
- ★ Constructed 09/00
- ★ 6 acres PEM/POW
- ★ Increase in vegetation of approximately 5% from 2001 (left photo) to 2002 (right)



P13A05-002



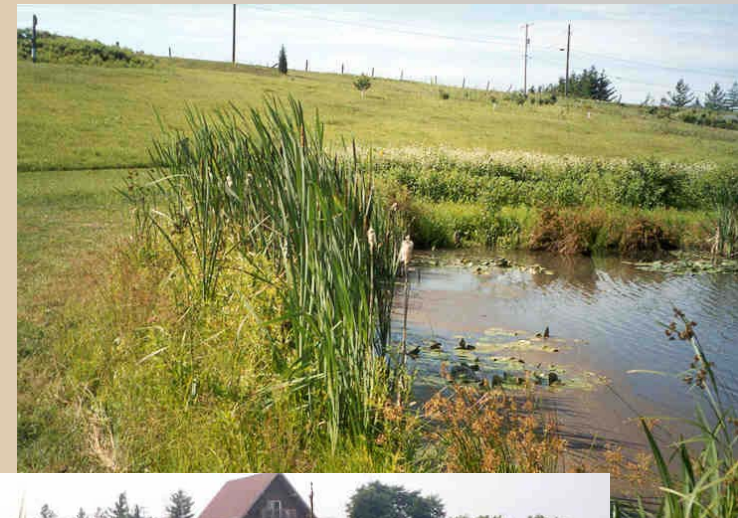
- ★ Bedford County
- ★ Construction finished 09/01
- ★ 1 acre PEM/POW
- ★ Photos show vegetation growth in two areas of the wetland in 2002



P13D01-001



- ★ Adams County
- ★ Constructed 07/97
- ★ 2 acres PEM/POW
- ★ Photos of same area, just different angle, show little change from 2001 (top photo) to 2002 (bottom)
- ★ Well established wetland community





P13D01-002



- ★ Adams County
- ★ Constructed 10/98
- ★ 4.7 acres PEM
- ★ Pictures from a varied angle show little change in this seasonally saturated area from 2001 (top) to 2002 (bottom)
- ★ This site struggles under the drought conditions of the past few years





S04D58-001

- ★ Susquehanna County
- ★ Constructed 09/00
- ★ 2.25 acres PEM/POW
- ★ Progress is slow but constant from 2001 (top photo) to 2002 (bottom)
- ★ Landowner reports use by numerous amphibians, green & great blue herons, flickers & mourning doves, as well as occasional visits from mallard & wood ducks.





S05C19-001



- ★ Columbia county
- ★ Constructed 06/97
- ★ 1.7 acres
PEM/POW



- ★ Photos from 2001
(top) to 2002
(bottom)



- ★ A well established
wetland
community



S05E19-002



- ★ Cambria County
- ★ Constructed 07/98
- ★ 1.8 acres PEM/POW
- ★ Photos of same wetland area, viewed from different angles, in 2001 (top) & 2002 (bottom)
- ★ Wetland community is well established



S06A14-001



- ★ Centre County
- ★ Constructed 08/99
- ★ 3 acres
PEM/POW
- ★ Photos from 2001 (top photo) & 2002 (bottom)
- ★ An established wetland community



S06C22-001



★ Dauphin
County



★ Constructed
10/99



★ 0.3 acres
PEM/POW



★ Photo of site in 07/02

★ Wetland community is well established



S07D38-001



- ★ Lebanon County
- ★ Construction concluded 05/02
- ★ 2.5 acres PEM
- ★ Photos show two adjacent areas of wetland site in 07/02
- ★ Vegetative community is beginning to establish



S07H67-001



- ★ York County
- ★ Constructed 08/01
- ★ 0.5 acres PEM/POW
- ★ Photos show almost adjacent areas in 07/02, the first monitoring year



S07J36-001



- ★ Lancaster County
- ★ Constructed 10/98
- ★ 2.6 acres PEM/POW
- ★ Progress is slow but constant as can be seen in these comparison photos from 2001 (left) to 2002 (right)



S07J36-002



- ★ Lancaster County
- ★ Constructed 11/99
- ★ 1.75 acres PEM
- ★ Same area of seasonally saturated wetland shown from different angles in 2001 (top photo) & 2002 (bottom)
- ★ Wetland has been struggling under drought conditions





S07J36-004



- ★ Lancaster County
- ★ Constructed 08/99
- ★ 0.3 acres PEM
- ★ Wetland area photos shows little change from 2001 (top photo) to 2002 (bottom)
- ★ Seasonally saturated wetland community is well established





S07K36-001

- ★ Lancaster County
- ★ Constructed 09/00
- ★ 2.3 acres PEM
- ★ Wetland vegetation is filling in this area of the wetland and maturing nicely from 2001 (top photo) to 2002 (bottom)





S07K36-002



- ★ Lancaster County
- ★ Constructed 08/01
- ★ 5 acres PEM
- ★ A 2002 photo shows vegetation beginning to emerge on this site



S09C14-001



- ★ Centre County
- ★ Construction finished 08/01
- ★ 0.25 acres PEM/POW
- ★ Vegetation is filling in
- ★ 2 photos from 2002 show adjacent wetland areas



S10A41-001



★ Lycoming County

★ Constructed
09/01



★ 1.6 acres PEM

★ Photo shows
area of

seasonally
saturated

wetland in 07/02





S10B41-001



- ★ Lycoming County
- ★ Constructed 06/99
- ★ 1 acre PEM/POW
- ★ Expansion of vegetation by approximately 10% into open water areas from 2001 (top photo) to 2002 (bottom)



S10C60-001



- ★ Union County
- ★ Constructed 10/97
- ★ 0.6 acres PEM/POW
- ★ Comparison photos from 2001 (left) and 2002 (right)



S11B31-002



- ★ Huntingdon County
- ★ Constructed 09/98
- ★ 1 acre PEM/POW
- ★ Photos from 2001 (left) and 2002 (right)



S11B31-003

- ★ Huntingdon County
- ★ Constructed 11/99
- ★ 1 acre PEM/POW
- ★ Comparison photos from 2002 (bottom) & 2001 (top)
- ★ Established wetland community





S11B31-004



- ★ Huntingdon County
- ★ Constructed 09/00
- ★ 0.5 acres PEM
- ★ Photos of approximately the same area of the seasonally saturated wetland from 2001 (top photo) to 2002 (bottom)



S11C05-001



- ★ Bedford County
- ★ Constructed 09/00
- ★ 1 acre PEM/POW
- ★ Photos show two adjacent areas of the wetland site in 2002
- ★ Vegetation is developing nicely



S11C05-002



- ★ Bedford County
- ★ Construction completed 09/01
- ★ 1 acre
- ★ Photos show wetland areas in 07/02, the first monitoring year
- ★ Allowing vegetation to fill in naturally, if unable, vegetative remediation will be performed





S11D05-001



- ★ Bedford County
- ★ Construction completed 09/01
- ★ 1 acre PEM/POW
- ★ Photos show wetland areas in 07/02, the first monitoring year



S11D31-001



- ★ Huntingdon County
- ★ Constructed 07/97
- ★ 2 acres PEM/POW
- ★ Photos of a seasonally saturated portion of the wetland from 2001 (top) to 2002 (bottom)
- ★ Well established wetland community



S11D31-002



- ★ Huntingdon County
- ★ Constructed 09/00
- ★ 0.6 acres PEM
- ★ Comparison photos show how vegetation is successfully filling in (2002, bottom photo) previously open areas (2001, top)

