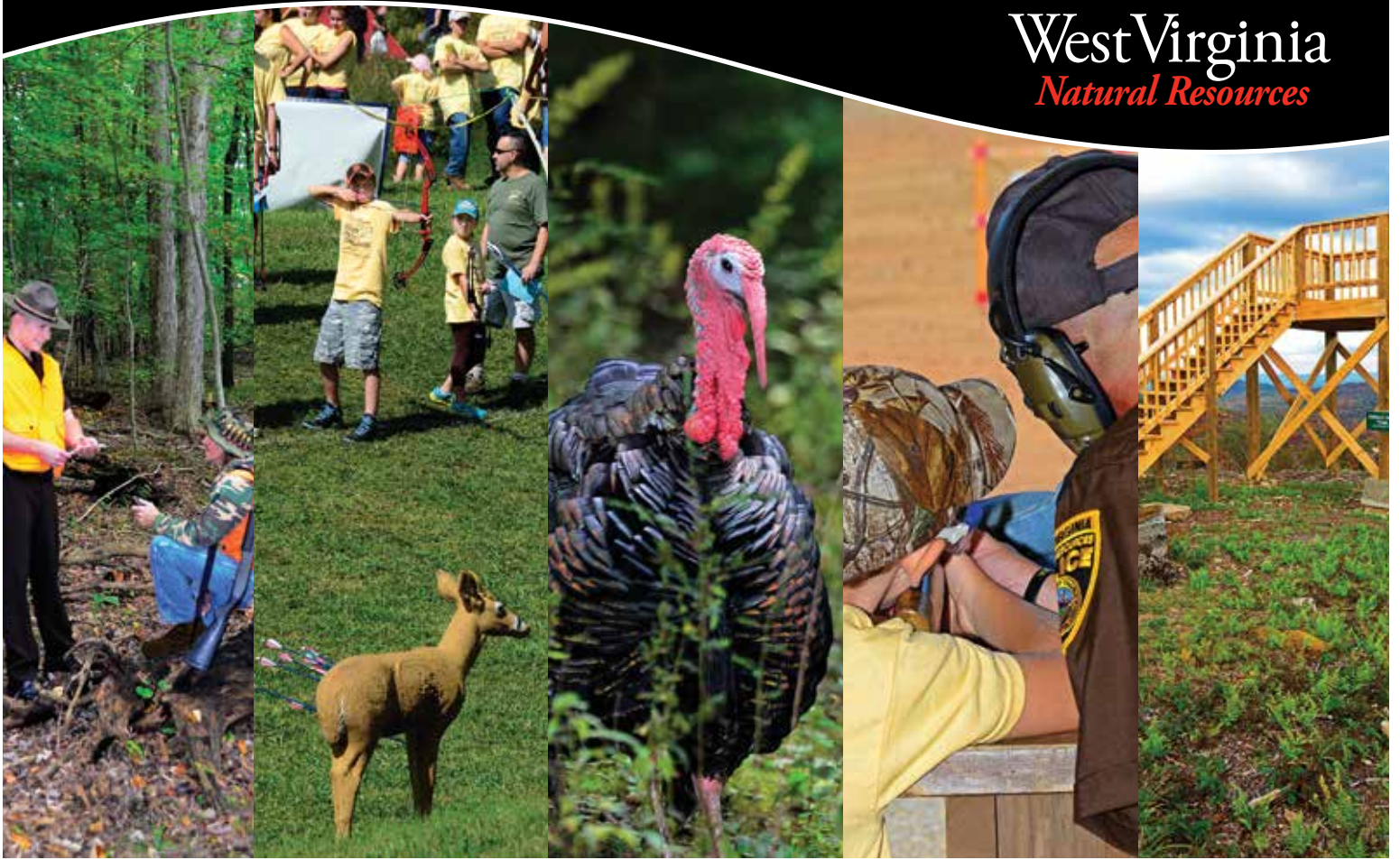


West Virginia  
*Natural Resources*



**DIVISION OF NATURAL RESOURCES ANNUAL REPORT 2012-2013**



WEST VIRGINIA



324 4th Avenue  
South Charleston, West Virginia 25303

**Telephone:** 304-558-2754  
**Fax:** 304-558-2768

**Web sites:**

[www.wvdnr.gov](http://www.wvdnr.gov)  
[www.wvstateparks.com](http://www.wvstateparks.com)  
[www.wvhunt.com](http://www.wvhunt.com)  
[www.wvfish.com](http://www.wvfish.com)  
[www.wonderfulwv.com](http://www.wonderfulwv.com)

**Electronic mail:**

[DNR.LandAndStreams@wv.gov](mailto:DNR.LandAndStreams@wv.gov)  
[DNR.Law@wv.gov](mailto:DNR.Law@wv.gov)  
[DNR.Parks@wv.gov](mailto:DNR.Parks@wv.gov)  
[DNR.Wildlife@wv.gov](mailto:DNR.Wildlife@wv.gov)



**Earl Ray Tomblin**  
Governor, State of West Virginia

**Keith Burdette**  
Secretary, Department of Commerce

**Frank Jezioro**  
Director, Division of Natural Resources

**Emily J. Fleming**  
Assistant to the Director / Legislative Liaison

**Bryan M. Hoffman**  
Executive Secretary, Administration Section

**David E. Murphy**  
Chief, Law Enforcement Section

**Kenneth K. Caplinger**  
Chief, Parks and Recreation Section

**Curtis I. Taylor**  
Chief, Wildlife Resources Section

**Joe T. Scarberry**  
Supervisor, Land and Streams

**Natural Resources Commissioners**

*Jeffrey S. Bowers, Sugar Grove*  
*Byron K. Chambers, Romney*  
*David M. Milne, Bruceton Mills*  
*Peter L. Cuffaro, Wheeling*  
*David F. Truban, Morgantown*  
*Kenneth R. Wilson, Chapmanville*  
*Thomas O. Dotson, White Sulphur Springs*

The West Virginia Division of Natural Resources Annual Report 2012-2013 is published by the Division of Natural Resources and the Department of Commerce Communications.

It is the policy of the Division of Natural Resources to provide its facilities, services, programs and employment opportunities to all persons without regard to sex, race, age, religion, national origin or ancestry, disability, or other protected group status.

# Foreword

## LETTER FROM THE DIRECTOR



### DIVISION OF NATURAL RESOURCES

324 4th Avenue, Room 328  
South Charleston, WV 25303-1228  
Telephone (304) 558-2754  
Fax (304) 558-2768  
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Earl Ray Tomblin  
Governor

Frank Jezioro  
Director

December 2, 2013

The Honorable Earl Ray Tomblin  
Governor of West Virginia  
State Capitol  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305

Dear Governor Tomblin:

Transmitted herewith is the annual report for the West Virginia Division of Natural Resources for fiscal year July 1, 2012, through June 30, 2013.

This report contains a summary of the activities and projects undertaken by the Division in the fulfillment of its legal responsibilities of managing the state's renewable natural resources.

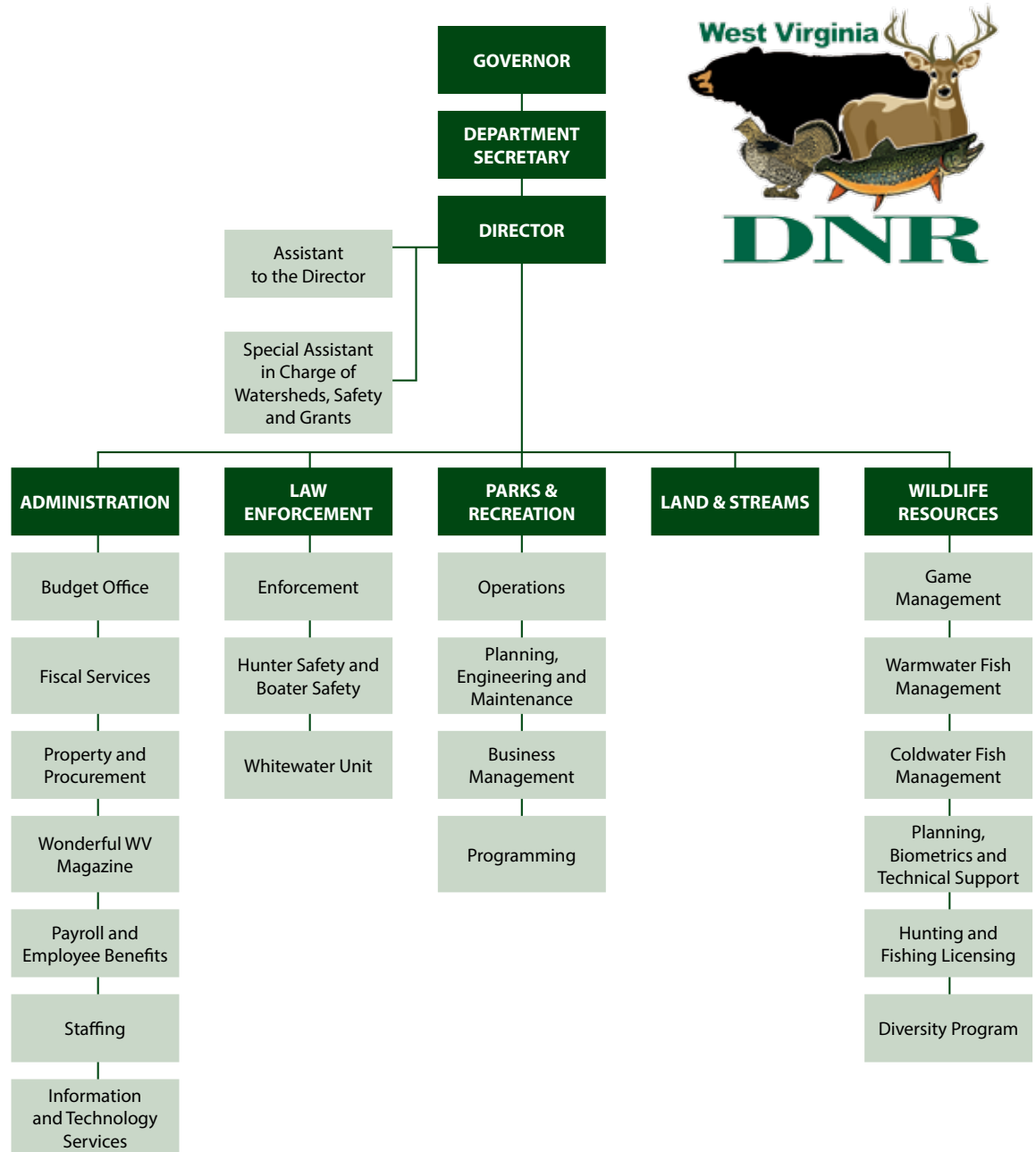
A detailed accounting of receipts and expenditures as prescribed by Chapter 20, Code of West Virginia, is also respectfully submitted.

Sincerely,

A handwritten signature in blue ink that reads "Frank Jezioro".

Frank Jezioro  
Director

## DNR ORGANIZATIONAL CHART





## **MISSION STATEMENT**

---

It is the statutory mission of the West Virginia Division of Natural Resources to provide and administer a long-range comprehensive program for the exploration, conservation, development, protection, enjoyment and use of the natural resources of the State of West Virginia.

## **BOARDS AND COMMISSIONS ON WHICH THE DIRECTOR SERVES**

---

- West Virginia Natural Resources Commission
- Wildlife Endowment Fund Board of Trustees
- Ohio River Management Fund Advisory Board
- West Virginia Public Land Corporation
- West Virginia Whitewater Commission
- West Virginia Tourism Commission
- West Virginia Outdoor Heritage Conservation Fund
- Hatfield-McCoy Regional Recreation Authority
- National Coal Heritage Area Authority

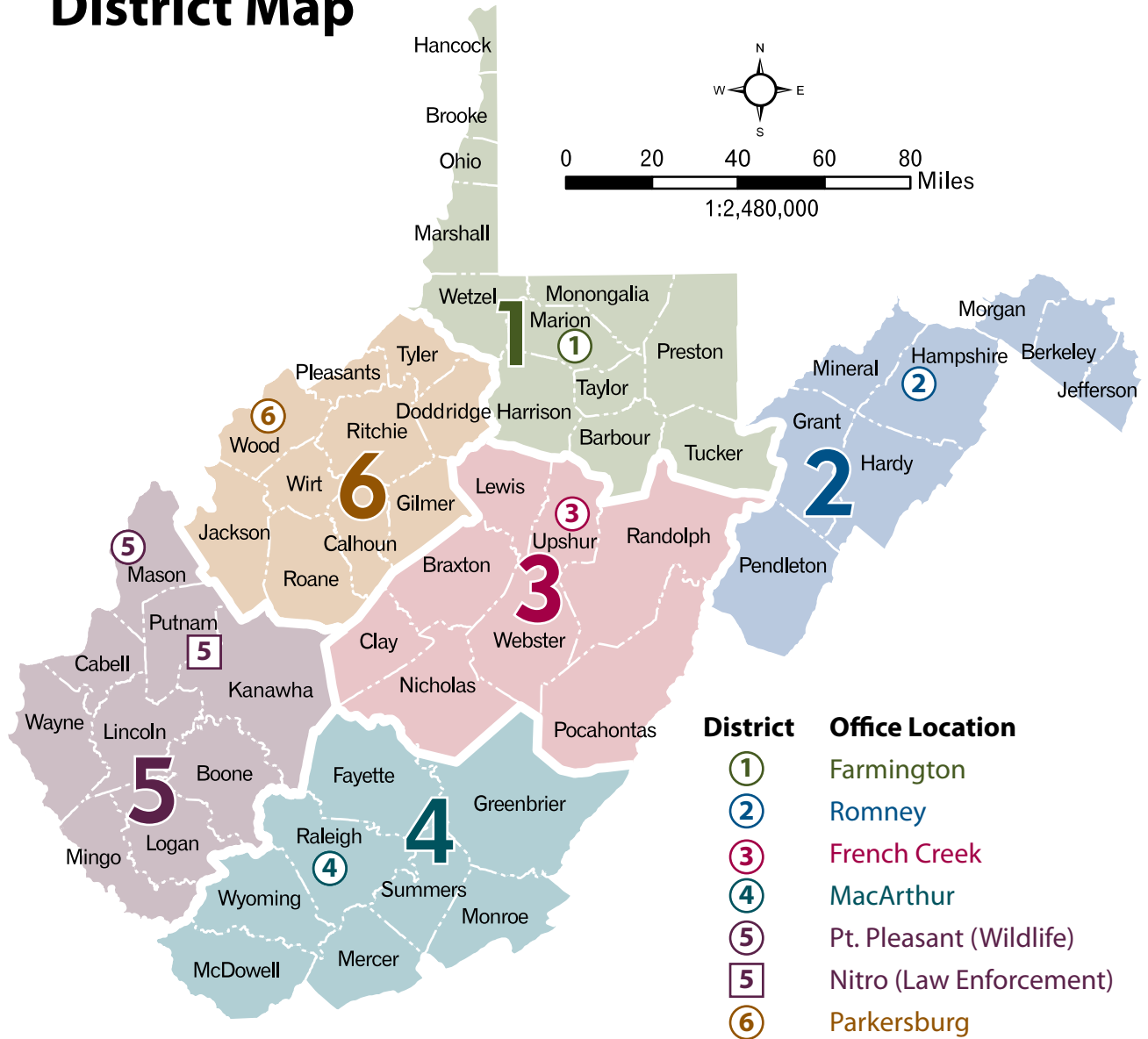
## **EEOC STATEMENT**

---

It is the policy of the Division of Natural Resources to provide its facilities, services, programs, and employment opportunities to all persons without regard to sex, race, age, religion, national origin, or ancestry, disability, or other protected group status. — *September 2005*

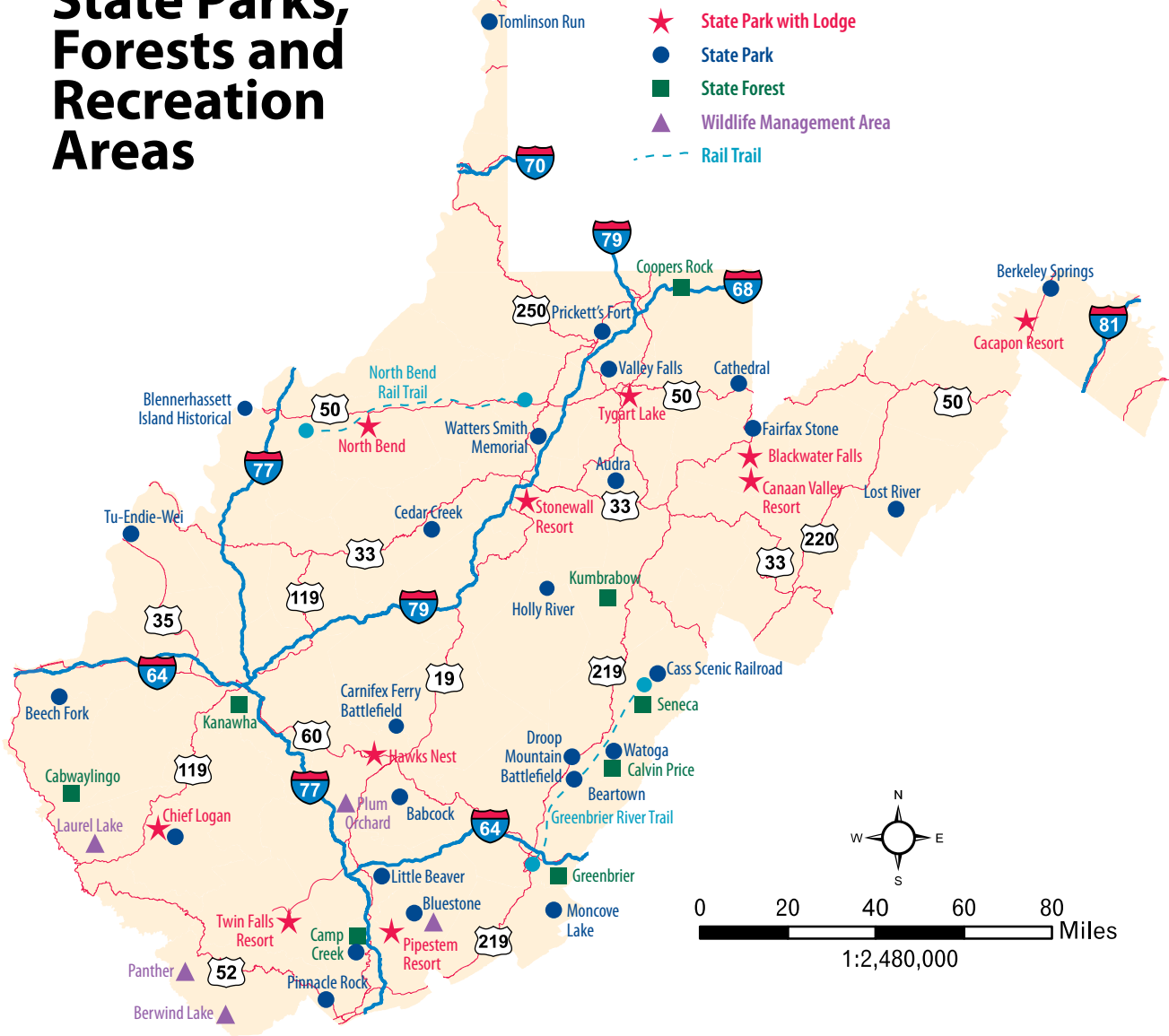


# West Virginia Division of Natural Resources District Map



West Virginia Division of Natural Resources

# State Parks, Forests and Recreation Areas



# West Virginia Division of Natural Resources Wildlife Management Areas

## District 1

(304) 825-6787

1. Bear Rocks Lake
2. Briery Mountain
3. Burches Run
4. Castleman's Run Lake
5. Cecil H. Underwood
6. Center Branch
7. Cross Creek
8. Dunkard Fork
9. Hillcrest
10. Lantz Farm and Nature Preserve
11. Lewis Wetzel
12. Little Indian Creek
13. Pedlar
14. Pleasant Creek
15. Pruntytown State Farm
16. Snake Hill
17. Teter Creek
18. Upper Deckers Creek

## District 2

(304) 822-3551

19. Allegheny
20. Edwards Run
21. Fort Mill Ridge
22. Nathaniel Mountain
23. Shannondale Springs
24. Short Mountain
25. Sleepy Creek
26. South Branch
27. Thorn Creek
28. Warden Lake
29. Widmeyer

## District 3

(304) 924-6211

30. Becky Creek
31. Big Ditch
32. Burnsville Lake
33. Elk River
34. Handley
35. Huttonsville
36. Slatyfork
37. Smoke Camp
38. Stonewall Jackson Lake
39. Stonewall Jackson Lake
40. Summersville Lake
41. Valley Bend
42. Wallback

## District 4

(304) 256-6947

43. Anawalt Lake
44. Berwind Lake
45. Beury Mountain
46. Bluestone Lake
47. Horse Creek Lake
48. Meadow River
49. Moncove Lake
50. Panther
51. Plum Orchard Lake
52. R.D. Bailey Lake
53. Tate Lohr
54. Tug Fork

## District 5

(304) 675-0871

55. Amherst/Plymouth
56. Beech Fork Lake
57. Big Ugly
58. Chief Cornstalk
59. East Lynn Lake
60. Elk Creek
61. Green Bottom
62. Hilbert
63. Laurel Lake
64. McClintic
65. Mill Creek
66. Morris Creek
67. Upper Mud River

## District 6

(304) 420-4550

68. Buffalo Run
69. Conaway Run Lake
70. Frozen Camp
71. Hughes River
72. O'Brien Lake
73. Ritchie Mines
74. Rollins Lake
75. Sand Hill
76. Stumptown
77. The Jug
78. Turkey Run
79. Woodrum Lake

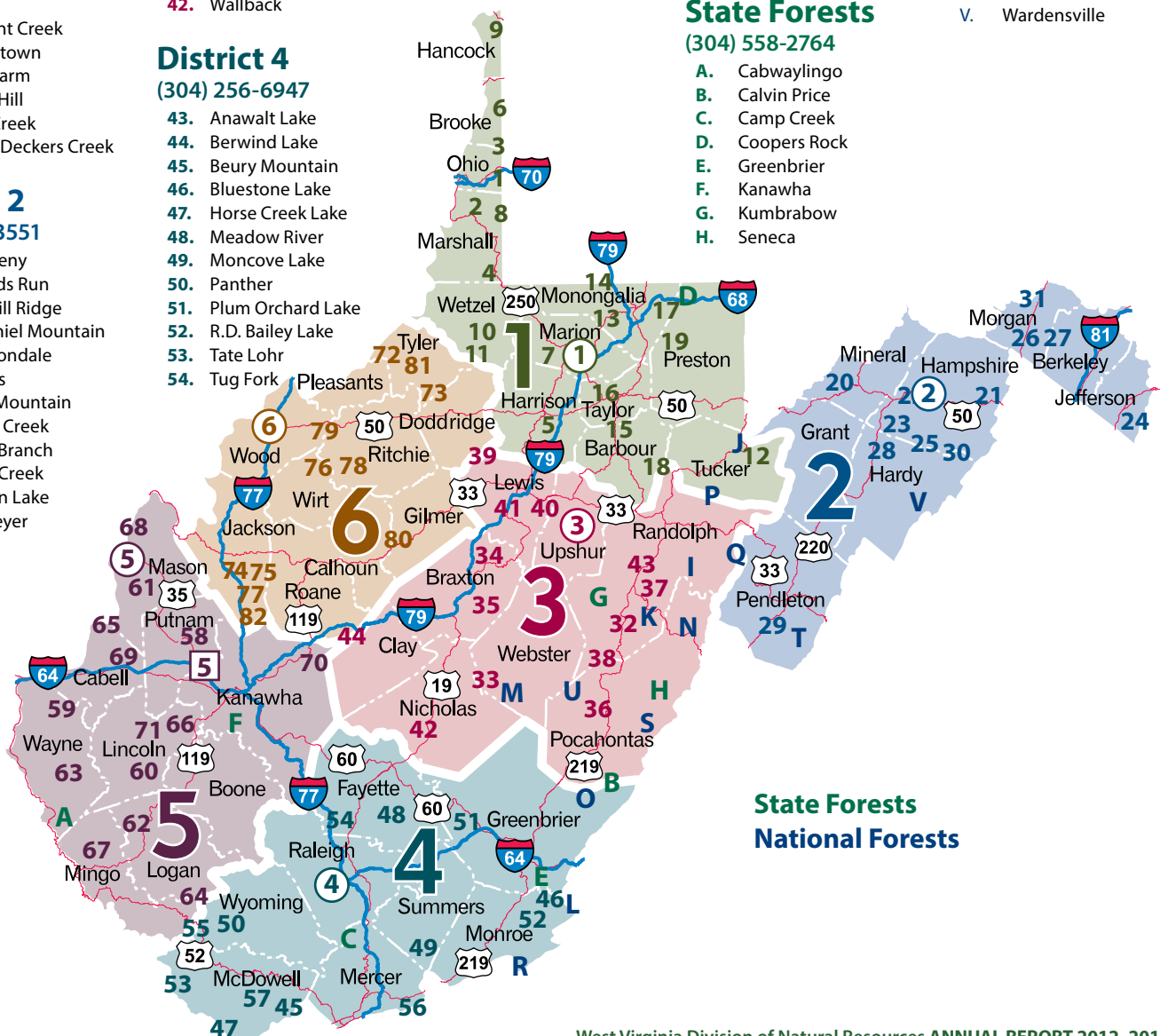
## National Forests

- I. Beaver Dam
- J. Blackwater
- K. Cheat
- L. Cove Creek
- M. Cranberry
- N. Little River
- O. Neola
- P. Otter Creek
- Q. Potomac
- R. Potts Creek
- S. Rimel
- T. Shenandoah
- U. Tea Creek
- V. Wardensville

## State Forests

(304) 558-2764

- A. Cabwaylingo
- B. Calvin Price
- C. Camp Creek
- D. Coopers Rock
- E. Greenbrier
- F. Kanawha
- G. Kumbrabow
- H. Seneca





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# Administration

The administrative offices provide services to all sections and offices of the Division of Natural Resources in the areas of budgeting, accounting, investments, staffing, payroll, employee benefits, procurement, property management and control, general services, computer application development and maintenance, and publishing *Wonderful West Virginia* magazine.

**Administration  
Section**  
Bryan Hoffman,  
*Executive Secretary*

Sectional responsibilities include developing and maintaining sound fiscal and personnel policies, coordinating purchasing procedures, maintaining active inventory and records management programs, managing a statewide radio communication system, publishing the state's premier magazine, coordinating and developing and maintaining mainframe and local network program applications, and developing administrative procedures required for the orderly correlation of divisional activities and the overall operation of the division. The services are provided by employees working in seven major branches: staffing, payroll and employee benefits, procurement and property management, fiscal services, budget, information technology, and *Wonderful West Virginia* magazine.

## **WONDERFUL WEST VIRGINIA MAGAZINE**

---

*Wonderful West Virginia* is an official publication of the West Virginia Division of Natural Resources and is the state's premier publication. Published monthly, there are about 33,000 copies printed of each issue.

In FY 2013 the average number of copies mailed each month to paid individual subscribers was 28,525. In addition, some 2,332 copies were distributed each month to paid bulk subscribers such as government agencies, chambers of commerce, motels, real estate firms, newsstands in state parks, and other newsstand distributors.

## **STATEMENT OF DISBURSEMENTS**

---

The following report is limited to a presentation of the fiscal operations of the West Virginia Division of Natural Resources for the year ending June 30, 2013. Itemization of summarized financial data contained in this report is public and on file.

# Statement of Disbursements

## ADMINISTRATION SECTION

### EXECUTIVE/ADMINISTRATIVE

Personal Services	\$	302,486.55
Employee Benefits		107,938.49
Current Expenses		295,717.16
Repairs & Alterations		13,601.56
Equipment		2,427.60
<b>TOTAL</b>	<b>\$</b>	<b>722,171.36</b>

### FISCAL SERVICES

Personal Services	\$	567,689.75
Employee Benefits		207,563.86
Current Expenses		657,793.98
Repairs & Alterations		28,614.47
Equipment		10,575.00
PEIA Transfer		13,577.48
<b>TOTAL</b>	<b>\$</b>	<b>1,485,814.54</b>

### STAFFING/PAYROLL

Personal Services	\$	262,141.95
Employee Benefits		87,999.64
Current Expenses		31,818.67
Repairs & Alterations		12,282.00
<b>TOTAL</b>	<b>\$</b>	<b>394,242.26</b>

### GENERAL SERVICES

Personal Services	\$	347,197.32
Employee Benefits		127,742.61
Current Expenses		219,553.12
Repairs & Alterations		39,644.47
Equipment		10,834.96
Building Improvements		1,950.00
<b>TOTAL</b>	<b>\$</b>	<b>746,922.48</b>

### WONDERFUL WEST VIRGINIA MAGAZINE

Personal Services	\$	35,377.85
Employee Benefits		15,651.64
Current Expenses		584,060.44
Repairs & Alterations		2,136.00
<b>TOTAL</b>	<b>\$</b>	<b>637,225.93</b>

General Revenue Appropriated	\$	2,334,102.76
Special Revenue Non-Appropriated		627,724.11
Special Revenue Appropriated		960,951.64
Federal Revenue Appropriated		63,598.06
<b>TOTAL ADMINISTRATION</b>	<b>\$</b>	<b>3,986,376.57</b>

## LAW ENFORCEMENT SECTION

### LAW ENFORCEMENT

Personal Services	\$	5,644,646.85
Employee Benefits		2,134,636.66
Current Expenses		1,586,077.90
Repairs & Alterations		354,563.65
Equipment		386,983.80
PEIA Transfer		20,015.80
Medical Service Payments		6,736.00
<b>TOTAL</b>	<b>\$</b>	<b>10,133,660.66</b>

General Revenue Appropriated	\$	3,117,970.31
Special Revenue Non-Appropriated		893,069.92
Special Revenue Appropriated		5,502,520.86
Federal Revenue Appropriated		620,099.57
<b>TOTAL LAW ENFORCEMENT</b>	<b>\$</b>	<b>10,133,660.66</b>

## WILDLIFE RESOURCES SECTION

### GAME MANAGEMENT

Personal Services	\$	2,554,860.86
Employee Benefits		967,788.98
Current Expenses		1,159,903.59
Repairs & Alterations		278,156.39
Equipment		415,930.83
Payment of Claims		278,659.55
Capital Improvements/Land Purchases		45,118.85
PEIA Transfer		533.16
Building Improvements		41,508.00
Land Improvements		33,895.46
Land Purchases		177,600.00
Medical Service Payments		1,114.20
<b>TOTAL</b>	<b>\$</b>	<b>5,955,069.87</b>

### CAPITAL IMPROVEMENTS

Personal Services	\$	247,020.15
Employee Benefits		50,213.36
Current Expenses		237,784.75
Repairs & Alterations		88,001.18
Capital Improvements/Land Purchases		12,056.98
Building Improvements		21,357.40
Land Improvements		58,562.00
Land Purchases		1,111,779.00
Consultant Pmts for Capital Asset Proj		10,614.68
<b>TOTAL</b>	<b>\$</b>	<b>1,837,389.50</b>



# Statement of Disbursements

## COLD WATER FISH MANAGEMENT

Personal Services	\$	1,124,605.95
Employee Benefits		482,489.53
Current Expenses		999,049.21
Repairs & Alterations		125,301.63
Equipment		77,856.00
Medical Service Payments		229.00
<b>TOTAL</b>	<b>\$</b>	<b>2,809,531.32</b>

## WILDLIFE - ADMINISTRATION

Personal Services	\$	535,831.91
Employee Benefits		198,733.23
Current Expenses		1,295,360.18
Repairs & Alterations		31,622.02
Equipment		23,521.00
<b>TOTAL</b>	<b>\$</b>	<b>2,085,068.34</b>

## WARM WATER FISH MANAGEMENT

Personal Services	\$	1,059,810.14
Employee Benefits		398,637.43
Current Expenses		595,833.44
Repairs & Alterations		90,486.77
Equipment		25,339.93
Capital Improvements/Land Purchases		244.53
<b>TOTAL</b>	<b>\$</b>	<b>2,170,352.24</b>

## TECHNICAL SUPPORT

Personal Services	\$	535,528.61
Employee Benefits		204,122.33
Current Expenses		124,031.49
Repairs & Alterations		24,768.00
Equipment		16,898.00
<b>TOTAL</b>	<b>\$</b>	<b>905,348.43</b>

## SPECIAL PROJECTS

Personal Services	\$	272,987.00
Employee Benefits		103,935.73
Current Expenses		442,853.68
Repairs & Alterations		21,653.54
<b>TOTAL</b>	<b>\$</b>	<b>841,429.95</b>

**WILDLIFE DIVERSITY**

Personal Services	\$	727,741.80
Employee Benefits		287,083.97
Current Expenses		837,873.17
Repairs & Alterations		45,610.43
PEIA Transfer		1,381.33
Medical Service Payments		62.50
<b>TOTAL</b>	<b>\$</b>	<b>1,899,753.20</b>

**HUNTING & FISHING LICENSE UNIT**

Personal Services	\$	152,879.81
Employee Benefits		52,015.04
Current Expenses		217,324.01
Repairs & Alterations		7,476.00
<b>TOTAL</b>	<b>\$</b>	<b>429,694.86</b>

**ELKINS OPERATIONS CENTER**

Personal Services	\$	118,515.74
Employee Benefits		54,126.41
Current Expenses		107,272.32
Repairs & Alterations		33,094.46
Equipment		-10,850.00
<b>TOTAL</b>	<b>\$</b>	<b>302,158.93</b>

**WEST VIRGINIA WILDLIFE CENTER**

Personal Services	\$	225,877.98
Employee Benefits		81,925.12
Current Expenses		78,539.63
Repairs & Alterations		25,425.56
Building Improvements		832.57
Medical Service Payments		363.00
<b>TOTAL</b>	<b>\$</b>	<b>412,963.86</b>

General Revenue Appropriated	\$	178,557.40
Special Revenue Non-Appropriated		4,999,426.85
Special Revenue Appropriated		7,147,476.23
Federal Revenue Appropriated		7,323,300.02
<b>TOTAL WILDLIFE RESOURCES</b>	<b>\$</b>	<b>19,648,760.50</b>

## PARKS & RECREATION SECTION

### PARKS & RECREATION

Personal Services	\$ 17,972,982.73
Employee Benefits	6,280,092.58
Current Expenses	14,238,962.42
Repairs & Alterations	5,122,345.73
Equipment	135,055.12
Grants and Awards	500.00
PEIA Transfer	102,847.78
Building Improvements	25,925.00
Land Improvements	3,612.82
Consultant Pmts for Capital Asset Proj	242,871.96
Medical Service Payments	4,040.00
<b>TOTAL</b>	<b>\$ 44,129,236.14</b>

General Revenue Appropriated	\$ 13,784,901.93
Special Revenue Non-Appropriated	23,258,831.19
Special Revenue Appropriated	7,031,601.02
Federal Revenue Appropriated	53,902.00
<b>TOTAL PARKS &amp; RECREATION</b>	<b>\$ 44,129,236.14</b>

## SPECIAL PROGRAMS & SERVICES SECTION

### OFFICE OF LAND & STREAMS

Personal Services	\$ 228,936.96
Employee Benefits	68,942.02
Current Expenses	64,257.47
Repairs & Alterations	9,403.40
Equipment	87.00
PEIA Transfer	1,336.45
Land Purchases	156,000.00
<b>TOTAL</b>	<b>\$ 528,963.30</b>

Special Revenue Non-Appropriated	\$ 201,685.38
Special Revenue Appropriated	327,277.92
<b>TOTAL SPECIAL PROGRAMS &amp; SERVICES</b>	<b>\$ 528,963.30</b>

Grand Total General Revenue Appropriated	\$ 19,415,532.40
Grand Total Special Revenue Non-Appropriated	29,980,737.45
Grand Total Special Revenue Appropriated	20,969,827.67
Grand Total Federal Revenue Appropriated	8,060,899.65
<b>GRAND TOTAL DISBURSEMENTS</b>	<b>\$ 78,426,997.17</b>

# Statement of Revenues/Disbursements

## COMBINING STATEMENT OF REVENUES, DISBURSEMENTS AND CHANGES IN CASH BALANCES FISCAL YEAR 2012-2013

### APPROPRIATED FUNDS

#### GENERAL FUND (0265)

Appropriated Fund - No Cash Balance

#### DISBURSEMENTS

Personal Services	(11,091,276.33)	
Employee Benefits	(4,698,633.25)	
Current Expense	(2,027,484.54)	
Repairs and Alterations	(17,357.65)	
Equipment	(75,000.00)	
PEIA Reserve Transfer	(98,759.22)	
WV OPEB Contribution	(656,078.88)	
<b>TOTAL DISBURSEMENTS</b>		<b>(18,664,589.87)</b>

#### SPECIAL REVENUE LICENSE FUND (3200)

Cash Balance July 1, 2012	1,867,952.44
Investment Balance July 1, 2012	4,779,775.49
Beginning Fund Balance	6,647,727.93

#### RECEIPTS

Animal Replacement Costs	37,095.60	
Hunting & Fishing Licenses and Stamps	11,944,229.00	
High Intensity Drug Trafficking Grant	16,772.29	
Insurance Payments	585.00	
Investment Earnings	8,630.00	
Miscellaneous Permits and License	9,328.41	
Miscellaneous Collections	2,048.00	
Surplus Property Sale	44,040.00	
Transfer from Wildlife Endowment Fund	0.00	
<b>TOTAL RECEIPTS</b>		<b>12,062,728.30</b>

#### DISBURSEMENTS

Personal Services	(5,028,927.84)	
Employee Benefits	(1,996,213.61)	
Current Expense	(3,334,902.43)	
Repairs and Alterations	(323,541.51)	
Equipment	(460,598.11)	
Medical Service Payments	(7,850.20)	
Building Improvements	(2,356.26)	
2008 Capital Improvements	(5,145.01)	
2009 Capital Improvements	(21,717.50)	
2010 Capital Improvements	(182,614.25)	
2011 Capital Improvements	(68,437.11)	
2012 Capital Improvements	(20,717.59)	
2013 Capital Improvements	(566,197.77)	
WV OPEB Contribution	(247,355.92)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(12,266,575.11)</b>

# Statement of Revenues/Disbursements

Ending Fund Balance	6,443,881.12
Less - Investment Balance June 30, 2013	(4,490,562.87)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>1,953,318.25</b>

## GAME, FISH AND AQUATIC LIFE FUND (3202)

Cash Balance July 1, 2012	47,062.44
Investment Balance July 1, 2012	668,682.91
Beginning Fund Balance	715,745.35
<b>RECEIPTS</b>	
Investment Earnings	949.64
<b>PLUS TOTAL RECEIPTS</b>	<b>949.64</b>
<b>DISBURSEMENTS</b>	
Current Expense	(42,346.79)
<b>LESS TOTAL DISBURSEMENTS</b>	<b>(42,346.79)</b>
Ending Fund Balance	674,348.20
Less - Investment Balance June 30, 2013	(640,785.74)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>33,562.46</b>

## WILDLIFE DIVERSITY FUND (3203)

Cash Balance July 1, 2012	133,156.05
Investment Balance July 1, 2012	12,883.81
Beginning Fund Balance	146,039.86
<b>RECEIPTS</b>	
Investment Earnings	127.54
Miscellaneous Collections	563.37
Sale of Booklets	658.00
Sale of Wildlife Calendars	99,979.06
Sale of Wildlife License Plates	329,525.62
Special Events	3,157.56
Surplus Property Sale	2,567.50
<b>PLUS TOTAL RECEIPTS</b>	<b>436,578.65</b>
<b>DISBURSEMENTS</b>	
Personal Services	(276,548.15)
Employee Benefits	(113,937.08)
Current Expense	(84,103.35)
Repairs and Alterations	(131.18)
Bank Costs	(1,157.42)
WV OPEB Contribution	(12,460.00)
<b>LESS TOTAL DISBURSEMENTS</b>	<b>(488,337.18)</b>
Ending Fund Balance	94,281.33
Less - Investment Balance June 30, 2013	(10,911.35)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>83,369.98</b>



**USE & DEVELOPMENT FUND - PUBLIC LAND CORPORATION (3205)**

Cash Balance July 1, 2012 3,252,199.68

**RECEIPTS**

Coal Annual Fees	200.00	
Channel Changes	800.00	
Docking Facilities	11,200.00	
Gas & Oil Leases	33,990.11	
Low Water Fords	20,400.00	
Low Water Level Bridges	127,100.00	
Permits	92,986.59	
Pipeline Permits	386,082.50	
Right of Way	13,600.00	
Sand/Gravel ATE Management	8,400.00	
Sand and Gravel Royalties	124,958.25	
Stream Restoration	6,800.00	
Structures	158,125.00	
Subterranean Cable Permit Renewal	2,525.00	
Water Intake Supply System	7,100.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>994,267.45</b>

**DISBURSEMENTS**

Personal Services	(83,964.96)	
Employee Benefits	(27,088.99)	
Current Expense	(63,115.52)	
Repairs and Alterations	(645.80)	
Equipment	(10,921.96)	
PEIA Reserve Transfer	(818.05)	
Bank Costs	(921.38)	
WV OPEB Contribution	(2,349.60)	
Land Purchases	(30,900.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(220,726.26)</b>

**CASH BALANCE JUNE 30, 2013** 4,025,740.87**WHITewater STUDY AND IMPROVEMENT FUND (3253)**

Cash Balance July 1, 2012 66,405.15

Investment Balance July 1, 2012 41,659.99

Beginning Fund Balance 108,065.14

**RECEIPTS**

High Intensity Drug Trafficking Grant	1,168.20	
Investment Earnings	151.59	
Study and Improvement Fees	48,620.60	
Whitewater Stocking Study Fee-Gauley River	8,748.66	
<b>PLUS TOTAL RECEIPTS</b>		<b>58,689.05</b>

**DISBURSEMENTS**

Personal Services	(37,690.25)	
Employee Benefits	(17,210.69)	
Current Expense	(42,170.65)	
PEIA Reserve Transfer	(352.77)	
WV OPEB Contribution	(2,136.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(99,560.36)</b>

# Statement of Revenues/Disbursements

Ending Fund Balance	67,193.83
Less - Investment Balance June 30, 2013	(28,466.44)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>38,727.39</b>

## DIVISION OF NATURAL RESOURCES LOTTERY FUND (3267)

Cash Balance July 1, 2012		4,941,298.19
<b>RECEIPTS</b>		
Lottery Transfers	3,398,344.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>3,398,344.00</b>
<b>DISBURSEMENTS</b>		
Personal Services	(1,607,133.78)	
Employee Benefits	(740,771.66)	
Current Expense	(1,040,844.83)	
Repairs and Alterations	(11,229.95)	
Equipment	(85,076.19)	
PEIA Reserve Transfer	(14,376.73)	
Medical Service Payments	(62.50)	
Contractor Pmts for Capital Asset Proj	(313,309.61)	
Consultant Pmts for Capital Asset Proj	(211,604.96)	
WV OPEB Contribution	(108,224.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(4,132,634.21)</b>
<b>CASH BALANCE JUNE 30, 2013</b>		<b>4,207,007.98</b>

## STATE PARK IMPROVEMENT FUND (3277)

Cash Balance July 1, 2012		9,536,567.46
Beginning Fund Balance		
<b>RECEIPTS</b>		
Lottery Transfers	5,000,000.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>5,000,000.00</b>
<b>DISBURSEMENTS</b>		
Current Expense	(501,190.48)	
Repairs and Alterations	(1,830,434.05)	
Equipment	6,152.66	
Contractor Pmts for Capital Asset Proj	(1,408,371.07)	
Consultant Pmts for Capital Asset Proj	(31,267.00)	
Building Improvements	49,075.00	
Land Improvements	(3,612.82)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(3,719,647.76)</b>
<b>CASH BALANCE JUNE 30, 2013</b>		<b>10,816,919.70</b>

**CONSOLIDATED FEDERAL FUND (8707)**

Cash Balance July 1, 2012	2,713,277.21
Investment Balance July 1, 2012	4,122,407.91
Beginning Fund Balance	6,835,685.12

**RECEIPTS****Law Enforcement**

Boating Safety	604,767.00	
Duplicate Boat Safety Cards	110.00	
Hunter Safety Replacement Cards	19,098.00	
Hunter Safety	658,477.61	
Law Homeland Security	0.00	1,282,452.61

**Wildlife Resources**

Acid Water Studies	499,513.22	
Aquatic Restoration	10,499.62	
Bat White Nose Syndrome Study	30,380.05	
Biometrics	382,571.37	
Boating Access Administration	257,876.97	
Butterfly Study	6,348.24	
Commercial Navigable Rivers	62,765.46	
Chronic Wasting Disease Research-USDA	72,450.82	
District Wildlife Management	3,002,565.76	
Endangered Plants Grant	8,168.37	
Endangered Species	92,975.72	
EPA State Wetlands Development	197,892.00	
Fish & Wildlife Coordination	305,882.83	
Interagency Coordination	295,291.10	
Investment Earnings	65.00	
Miscellaneous	21,821.90	
NOAA Habitat Conservation Program	723,568.40	
Reservoir Investigations	100,121.16	
Rivers and Streams Assessment	113,330.53	
Small Impoundment Assessment	47,735.73	
State Wildlife Grants	441,460.42	
Surplus Property Sale	14,964.75	
Trout Hatchery Operations	2,836,165.34	
USDP AG NRCS Wildlife Habt Inc	7,200.00	
Warmwater Fish Hatcheries Grant	337,095.48	
Watershed Conservation Management	9,339.56	
Wildlife Research	1,184,382.14	11,062,431.94

**Parks**

Cass Club House National Park Service	0.00	0.00
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**PLUS TOTAL RECEIPTS**

12,344,884.55

# Statement of Revenues/Disbursements

## DISBURSEMENTS

Personal Services	(3,129,191.44)	
Employee Benefits	(1,124,098.07)	
Current Expense	(3,204,311.67)	
Repairs and Alterations	(109,062.29)	
Equipment	(357,445.58)	
Land Improvements	(2,925.70)	
WV OPEB Contribution	(133,864.90)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(8,060,899.65)</b>
Ending Fund Balance		11,119,670.02
Less - Investment Balance June 30, 2013		(5,152,581.23)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>5,967,088.79</b>

## NON-APPROPRIATED FUNDS

### LAW ENFORCEMENT PROGRAM FUND (3204)

Cash Balance July 1, 2012	245,178.15
Investment Balance July 1, 2012	2,575,412.75
Beginning Fund Balance	2,820,590.90

## RECEIPTS

Captive Cervid Facility License	4,875.00
High Intensity Drug Trafficking Grant	17,931.77
Investment Earnings	3,898.16
Miscellaneous Collections	4,700.00
Miscellaneous Permits	4,335.00
Motorboat Licenses	70,594.51
Tipping Fees	556,977.63
Transfers	42,981.00
Whitewater Rafting Licenses	32,500.00
<b>PLUS TOTAL RECEIPTS</b>	<b>738,793.07</b>

## DISBURSEMENTS

Personal Services	(306,452.22)
Employee Benefits	(114,263.71)
Current Expense	(27,523.10)
Repairs and Alterations	23,512.37
WV OPEB Contribution	(16,376.00)
<b>LESS TOTAL DISBURSEMENTS</b>	<b>(441,102.66)</b>
Ending Fund Balance	3,118,281.31
Less - Investment Balance June 30, 2013	(3,012,310.91)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>105,970.40</b>

### LAW ENFORCEMENT CONTRACTS (3208)

Cash Balance July 1, 2012	5,185.06
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## RECEIPTS

Hinton Boat Race Patrol	9,270.00
<b>PLUS TOTAL RECEIPTS</b>	<b>9,270.00</b>

## DISBURSEMENTS

Personal Services	(3,013.93)
<b>LESS TOTAL DISBURSEMENTS</b>	<b>(3,013.93)</b>
<b>CASH BALANCE JUNE 30, 2013</b>	<b>11,441.13</b>

**WILDLIFE ENDOWMENT FUND (3224)**

Cash Balance July 1, 2012		3,047.50
Investment Balance July 1, 2012		39,068,434.09
Beginning Fund Balance		39,071,481.59
<b>RECEIPTS</b>		
Investment Earnings	7,139,880.57	
Lifetime Hunting & Fishing License	557,982.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>7,697,862.57</b>
<b>DISBURSEMENTS</b>		
Fund Transfer	0.00	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>0.00</b>
Ending Fund Balance		46,769,344.16
Less - Investment Balance June 30, 2013		(46,767,734.16)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>1,610.00</b>

**WILDLIFE RESOURCES-RECREATION FUND (3227)**

Cash Balance July 1, 2012		348,941.43
Investment Balance July 1, 2012		7,926,430.58
Beginning Fund Balance		8,275,372.01
<b>RECEIPTS</b>		
Acid Impacted Stream Studies	19,030.91	
Allegheny Power	96,101.50	
Cabin Rentals	907.80	
Campsite Rentals	20,200.39	
Captive Cervid Facility License	4,875.00	
Coal Royalties	868,809.50	
Donation for Stream Treatment with Limestone	26,691.60	
Entrance Fees	47,203.26	
Fish Promotion and Research	110,382.67	
Gas Royalties	155,666.24	
Gift Shop Sales	9,605.94	
Gifts & Bequests	76,019.37	
Go-Wild Hunting & Fishing License Issuance Fee	193,305.60	
Habitat Land Inquiries	23,550.00	
Hunters Helping the Hungry	22,446.00	
Information Retrieval	42,269.00	
Investment Earnings	11,409.04	
Leases	11,950.00	
Miscellaneous Collections	(120.91)	
Mitigation Wildlife	39,585.00	
Oil Royalties	26,776.32	
Picnic Shelter Fees	1,785.06	
Real Estate License Fees	340,735.55	
Residence Rentals	750.00	
Scientific Collection Permit	27,175.00	
Surface Damages	390,941.05	
Timber Sales	272,856.33	
Toyota Donation for National Hunting & Fishing Day	7,500.00	
Trophy Fish Citations	3,405.00	



# Statement of Revenues/Disbursements

Wildlife Cooperative Agreements	259,920.00	
Wildlife Special Events	18,854.60	
<b>PLUS TOTAL RECEIPTS</b>		3,130,586.82
<b>DISBURSEMENTS</b>		
Personal Services	(523,949.68)	
Employee Benefits	(175,500.70)	
Current Expense	(829,743.61)	
Repairs and Alterations	(40,126.03)	
Equipment	(130,232.21)	
Bank Costs	(115,186.80)	
Land Improvements	(30,969.76)	
Land Purchases	(177,600.00)	
Building Purchase or Construction	(45,363.38)	
Building Improvements	(42,340.57)	
WV OPEB Contribution	(20,639.10)	
<b>LESS TOTAL DISBURSEMENTS</b>		(2,131,651.84)
Ending Fund Balance		9,274,306.99
Less - Investment Balance June 30, 2013		(8,797,839.62)
<b>CASH BALANCE JUNE 30, 2013</b>		476,467.37

## BEAR DAMAGE FUND (3228)

Cash Balance July 1, 2012		7,972.60
Investment Balance July 1, 2012		188,495.98
Beginning Fund Balance		196,468.58
<b>RECEIPTS</b>		
Bear Damage Stamps	273,475.00	
Investment Earnings	234.09	
<b>PLUS TOTAL RECEIPTS</b>		273,709.09
<b>DISBURSEMENTS</b>		
Employee Benefits	(678.08)	
Current Expense	(19,747.38)	
Repairs and Alterations	(44.45)	
Payment of Claims	(278,659.55)	
<b>LESS TOTAL DISBURSEMENTS</b>		(299,129.46)
Ending Fund Balance		171,048.21
Less - Investment Balance June 30, 2013		(162,730.07)
<b>CASH BALANCE JUNE 30, 2013</b>		8,318.14

## WILDLIFE RESOURCES CONTRACTS FUND (3229)

Cash Balance July 1, 2012		200,255.20
Investment Balance July 1, 2012		591,735.36
Beginning Fund Balance		791,990.56
<b>RECEIPTS</b>		
Eramet Project - Ohio River	48,000.00	
Golden Winged Warbler	3,700.00	
Investment Earnings	1,067.68	
<b>PLUS TOTAL RECEIPTS</b>		52,767.68

**DISBURSEMENTS**

Current Expense	(4,975.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(4,975.00)</b>
Ending Fund Balance		839,783.24
Less - Investment Balance June 30, 2013		(686,803.04)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>152,980.20</b>

**MIGRATORY WATERFOWL STAMP FUND (3231)**

Cash Balance July 1, 2012		1,289.96
Investment Balance July 1, 2012		96,925.65
Beginning Fund Balance		98,215.61
<b>RECEIPTS</b>		
Investment Earnings	120.74	
<b>PLUS TOTAL RECEIPTS</b>		<b>120.74</b>
<b>DISBURSEMENTS</b>		
Current Expense	(29,446.13)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(29,446.13)</b>
Ending Fund Balance		68,890.22
Less - Investment Balance June 30, 2013		(66,246.39)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>2,643.83</b>

**CONSERVATION STAMP FUND (3232)**

Cash Balance July 1, 2012		148,136.58
Investment Balance July 1, 2012		1,623,167.16
Beginning Fund Balance		1,771,303.74
<b>RECEIPTS</b>		
Conservation Stamp Sales	1,526,730.00	
Investment Earnings	2,676.17	
Prior Year Expiring Funds	300,000.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>1,829,406.17</b>
<b>DISBURSEMENTS</b>		
Personal Services	(113,401.30)	
Employee Benefits	(13,538.69)	
Current Expense	(86,542.58)	
Repairs and Alterations	(165.04)	
Land Purchases	(748,579.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(962,226.61)</b>
Ending Fund Balance		2,638,483.30
Less - Investment Balance June 30, 2013		(2,467,143.33)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>171,339.97</b>

# Statement of Revenues/Disbursements

## TROUT STAMP FUND (3233)

Cash Balance July 1, 2012		117,813.48
Investment Balance July 1, 2012		2,460,154.73
Beginning Fund Balance		2,577,968.21
<b>RECEIPTS</b>		
Investment Earnings	2,792.98	
Trout Stamp Sales	1,178,945.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>1,181,737.98</b>
<b>DISBURSEMENTS</b>		
Personal Services	(1,048,513.57)	
Employee Benefits	(456,050.24)	
Current Expense	(150.00)	
WV OPEB Contribution	(67,284.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(1,571,997.81)</b>
Ending Fund Balance		2,187,708.38
Less - Investment Balance June 30, 2013		(2,058,947.71)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>128,760.67</b>

## GIFTS, GRANTS & BEQUESTS (3237)

Cash Balance July 1, 2012		30,566.28
<b>RECEIPTS</b>		
Prior Year Expiring Funds	22,619.40	
Special Events	45,926.10	
<b>PLUS TOTAL RECEIPTS</b>		<b>68,545.50</b>
<b>DISBURSEMENTS</b>		
Current Expense	(45,239.04)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(45,239.04)</b>
<b>CASH BALANCE JUNE 30, 2013</b>		<b>53,872.74</b>

## LAND MINERALS AND SPECIAL PROJECTS (3239)

Cash Balance July 1, 2012		228,909.07
<b>RECEIPTS</b>		
Land Leases	20,502.00	
Miscellaneous Collections	169.14	
Real Estate Taxes	5,163.58	
Right-of-Way	15,896.50	
Royalties	108,000.00	
Transfers	1,200.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>150,931.22</b>
<b>DISBURSEMENTS</b>		
Personal Services	(53,280.00)	
Employee Benefits	(18,294.41)	
Current Expense	(24.00)	
WV OPEB Contribution	(4,272.00)	
Remittance of Taxes	(196.57)	
PEIA Reserve Transfer	(518.40)	
Land Purchases	(125,100.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(201,685.38)</b>
<b>CASH BALANCE JUNE 30, 2013</b>		<b>178,154.91</b>

**PAYROLL CLEARING ACCOUNT (3245)**

Cash Balance July 1, 2012		3,420.02
<b>RECEIPTS</b>		
Miscellaneous Collections	0.00	
<b>PLUS TOTAL RECEIPTS</b>		0.00
<b>DISBURSEMENTS</b>		
Employee Benefits	80.00	
<b>LESS TOTAL DISBURSEMENTS</b>		80.00
<b>CASH BALANCE JUNE 30, 2013</b>		3,500.02

**LAW ENFORCEMENT AND SPORTS EDUCATION STAMPS (3247)**

Cash Balance July 1, 2012		30,296.17
Investment Balance July 1, 2012		672,044.86
Beginning Fund Balance		702,341.03
<b>RECEIPTS</b>		
Law Enforcement / Sports Ed. Stamps	392,180.00	
High Intensity Drug Trafficking Grant	2,438.67	
Investment Earnings	858.81	
<b>PLUS TOTAL RECEIPTS</b>		395,477.48
<b>DISBURSEMENTS</b>		
Personal Services	(314,526.58)	
Employee Benefits	(119,970.79)	
WV OPEB Contribution	(14,952.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		(449,449.37)
Ending Fund Balance		648,369.14
Less - Investment Balance June 30, 2013		(610,903.67)
<b>CASH BALANCE JUNE 30, 2013</b>		37,465.47

**MAGAZINE SALES & SUBSCRIPTIONS (3248)**

Cash Balance July 1, 2012		20,918.49
Investment Balance July 1, 2012		409,172.52
Beginning Fund Balance		430,091.01
<b>RECEIPTS</b>		
Investment Earnings	581.80	
Magazine Sponsorship	3,700.00	
Magazine Bookshelf Sales	7,544.68	
Magazine Sales	38,645.65	
Magazine Subscriptions	514,998.88	
<b>PLUS TOTAL RECEIPTS</b>		565,471.01
<b>DISBURSEMENTS</b>		
Current Expense	(556,989.79)	
Bank Costs	(2,595.28)	
<b>LESS TOTAL DISBURSEMENTS</b>		(559,585.07)
Ending Fund Balance		435,976.95
Less - Investment Balance June 30, 2013		(420,754.32)
<b>CASH BALANCE JUNE 30, 2013</b>		15,222.63

# Statement of Revenues/Disbursements

## CLEARING ACCOUNT-EQUIPMENT (3251)

Cash Balance July 1, 2012		159,954.67
<b>RECEIPTS</b>		
Rental Leases	550.00	
Surplus Property Sale	13,120.00	
<b>PLUS TOTAL RECEIPTS</b>		13,670.00
<b>DISBURSEMENTS</b>		
Employee Benefits	(14,445.00)	
Current Expense	(100,158.73)	
<b>LESS TOTAL DISBURSEMENTS</b>		(114,603.73)
<b>CASH BALANCE JUNE 30, 2013</b>		59,020.94

## CLASS A-1 SMALL ARMS HUNTING LICENSE (3259)

Cash Balance July 1, 2012		3,911.82
Investment Balance July 1, 2012		438,978.33
Beginning Fund Balance		442,890.15
<b>RECEIPTS</b>		
Class A-1 Small Arms Hunting License	80,270.00	
Lifetime Small Arms Hunting License	3,675.00	
Investment Earnings	633.69	
<b>PLUS TOTAL RECEIPTS</b>		84,578.69
<b>DISBURSEMENTS</b>		
Employee Benefits	0.00	
<b>LESS TOTAL DISBURSEMENTS</b>		0.00
Ending Fund Balance		527,468.84
Less - Investment Balance June 30, 2013		(517,612.02)
<b>CASH BALANCE JUNE 30, 2013</b>		9,856.82

## PARKS IMPROVEMENT TO FACILITIES (3260)

Cash Balance July 1, 2012		24,929.00
<b>RECEIPTS</b>		
Interagency Federal Payments	0.00	
<b>PLUS TOTAL RECEIPTS</b>		0.00
<b>DISBURSEMENTS</b>		
Current Expense	(23,081.00)	
Repairs and Alterations	(1,848.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		(24,929.00)
<b>CASH BALANCE JUNE 30, 2013</b>		0.00

**WATTERS SMITH MEMORIAL STATE PARK (3261)**

Cash Balance July 1, 2012	4.49
Investment Balance July 1, 2012	86,546.11
Beginning Fund Balance	86,550.60
<b>RECEIPTS</b>	
Investment Earnings	117.03
<b>PLUS TOTAL RECEIPTS</b>	<b>117.03</b>
<b>DISBURSEMENTS</b>	
Equipment	0.00
<b>LESS TOTAL DISBURSEMENTS</b>	<b>0.00</b>
Ending Fund Balance	86,667.63
Less - Investment Balance June 30, 2013	(86,663.14)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>4.49</b>

**DECOY ANIMALS ASSESSMENT FEE (3264)**

Cash Balance July 1, 2012	517.02
Investment Balance July 1, 2012	2,810.77
Beginning Fund Balance	3,327.79
<b>RECEIPTS</b>	
Decoy Animal Assessment Fee	2,650.00
Investment Earnings	4.55
<b>PLUS TOTAL RECEIPTS</b>	<b>2,654.55</b>
<b>DISBURSEMENTS</b>	
Current Expense	588.04
Repairs and Alterations	(92.00)
<b>LESS TOTAL DISBURSEMENTS</b>	<b>496.04</b>
Ending Fund Balance	6,478.38
Less - Investment Balance June 30, 2013	(6,415.32)
<b>CASH BALANCE JUNE 30, 2013</b>	<b>63.06</b>

**STATE PARK OPERATING FUND (3265)**

Cash Balance July 1, 2012	424,681.32
Investment Balance July 1, 2012	3,357,379.22
Beginning Fund Balance	3,782,060.54
<b>RECEIPTS</b>	
Arts and Crafts	9,614.04
Bath / Massages	343,622.00
Bicycle Rental	2,754.18
Boat Charters	12,214.23
Boat Rental	49,100.27
Cabin Advance Reservation	3,839,522.41
Cabin Rentals	811,322.39
Campsite Advance Reservation	409,587.99
Campsite Rentals	1,228,583.51
Cass Advance Fares	231,714.99
Coin Laundry Machines	6,653.70
Consumers Sales Tax	(55,929.69)
Cot & Crib Rental	20,506.77
Dinner Train Advance	55,932.00

# Statement of Revenues/Disbursements

Disc Golf	5,050.30	
Driving Range	18,975.89	
Entrance Fees	213,879.99	
Equipment Rental	(94,283.48)	
Facility Use Rental	110,108.85	
Firewood Sales	110,365.68	
Food & Snacks	197,073.69	
Games	2,687.63	
Gas Royalties	12,118.17	
Gift Cards	34,515.95	
Gift Shop Sales	1,673,693.85	
Greens Fees	725,183.42	
Group Camps	34,276.35	
Hotel Occupancy Tax	571,153.62	
Insurance Payments	500,000.00	
Investment Earnings	2,204.08	
Lodge Advance Reservation	2,898,550.26	
Lodge Rooms	3,119,337.49	
Lottery Collections - Net	11,744.50	
Magazine Sales	205.15	
Miniature Golf	20,810.33	
Miscellaneous Collections	(1,143.01)	
Miscellaneous Non-Taxable	147,600.25	
Miscellaneous Taxable	66,272.13	
Picnic Shelter Fees	200,548.69	
Pro Shop	142,719.05	
Railfan Weekend Tickets	49,387.64	
Railroad Charters	24,006.72	
Railroad Fares	533,244.41	
Residence Rentals	21,621.00	
Restaurants	1,712,077.68	
Roman Bath	111,900.80	
Shooting Ranges	29,516.50	
Sled Rental	16,703.33	
Special Events	51,686.38	
Swimming Fees	306,311.59	
Tram	127,290.39	
Vending Machines	46,938.61	20,719,532.67
<b>RECEIPTS - CONCESSIONS</b>		
Boat Dock Concession	25,850.54	
Coin Machine Concession	12,216.55	
Food and Snacks Concession	6,086.76	
Golf Carts	276,070.42	
Marina	7,683.44	
Miscellaneous Concession	104,211.42	
Restaurant Concession	35,648.52	
Riding Stable	16,259.90	484,027.55
<b>PLUS TOTAL RECEIPTS</b>		<b>21,203,560.22</b>

**DISBURSEMENTS**

Personal Services	(9,147,799.03)	
Employee Benefits	(2,238,155.88)	
Current Expense	(10,543,235.20)	
Repairs and Alterations	(19,646.82)	
Equipment	18,868.41	
Remittance Of Taxes	(591,776.37)	
Grants and Awards	(500.00)	
Bank Costs	(323,869.93)	
PEIA Reserve Transfer	(24,866.83)	
Medical Service Pmts	(4,040.00)	
WV OPEB Contribution	(173,563.60)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(23,048,585.25)</b>
Ending Fund Balance		1,937,035.51
Less - Investment Balance June 30, 2013		(953,583.30)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>983,452.21</b>

**CANAAN MAINTENANCE FUND (3274)**

Cash Balance July 1, 2012		18,597.86
<b>RECEIPTS</b>		
Maintenance Transfer from Operating Fund	0.00	
<b>PLUS TOTAL RECEIPTS</b>		<b>0.00</b>
<b>DISBURSEMENTS</b>		
Current Expense	0.00	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>0.00</b>
<b>CASH BALANCE JUNE 30, 2013</b>		<b>18,597.86</b>

**COYOTE MANAGEMENT FUND (3292)**

Cash Balance July 1, 2012		748.18
Investment Balance July 1, 2012		603.03
Beginning Fund Balance		1,351.21
<b>RECEIPTS</b>		
Coyote Management Donations	1,384.00	
Investment Earnings	2.32	
<b>PLUS TOTAL RECEIPTS</b>		<b>1,386.32</b>
<b>DISBURSEMENTS</b>		
Current Expense	0.00	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>0.00</b>
Ending Fund Balance		2,737.53
Less - Investment Balance June 30, 2013		(2,605.35)
<b>CASH BALANCE JUNE 30, 2013</b>		<b>132.18</b>



**ALL FLOOD DISASTER FUNDS (3280, 3281, 3282, 3284, 3293, 3294, 3295, 3296, 3297, 3299)**

Fund 3280 (MAY '02 FLOOD DISASTER) Cash Balance July 1, 2012		49,740.77
Fund 3281 (JUN '03 FLOOD DISASTER) Cash Balance July 1, 2012		4,515.88
Fund 3282 (NOV '03 FLOOD DISASTER) Cash Balance July 1, 2012		54,485.68
Fund 3284 (MAY '04 FLOOD DISASTER) Cash Balance July 1, 2012		3,212.22
Fund 3293 (JUN '08 FLOOD DISASTER) Cash Balance July 1, 2012		7,209.38
Fund 3295 (MAR '10 FLOOD DISASTER) Cash Balance July 1, 2012		161,685.67
Fund 3296 (DEC '09 FLOOD DISASTER) Cash Balance July 1, 2012		3,240.00
<b>RECEIPTS</b>		
Fund 3295 Transfers In	69,938.04	
Fund 3297 Transfers In	154,908.96	
Fund 3299 Transfers In	134,710.05	
<b>PLUS TOTAL RECEIPTS</b>		<b>359,557.05</b>
<b>DISBURSEMENTS</b>		
Fund 3282 Employee Benefits	(189.00)	
Fund 3282 Current Expense	(455.12)	
Fund 3282 Repairs and Alterations	(6,174.86)	
Fund 3282 Contractor Pmts for Capital Asset Proj	(5,045.95)	
Fund 3295 Current Expense	(544.82)	
Fund 3295 Repairs and Alterations	(4,387.00)	
Fund 3295 Contractor Pmts for Capital Asset Proj	(69,996.46)	
Fund 3299 Contractor Pmts for Capital Asset Proj	(6,900.00)	
<b>LESS TOTAL DISBURSEMENTS</b>		<b>(93,693.21)</b>
<b>CASH BALANCE JUNE 30, 2013</b>		<b>549,953.44</b>

**RECAPITULATION OF FUNDS**

	<b>Revenue</b>	<b>Disbursements</b>	<b>Investments</b>
General Fund	0.00	(19,415,532.40)	0.00
Consolidated Federal Funds	12,344,884.55	(8,060,899.65)	5,152,581.23
Appropriated Special Revenue Funds	21,951,557.09	(20,969,827.67)	5,170,726.40
Non-Appropriated Special Revenue Funds	37,760,203.19	(29,980,737.45)	66,618,292.35
<b>TOTAL ALL FUNDS</b>	<b>72,056,644.83</b>	<b>(78,426,997.17)</b>	<b>76,941,599.98</b>



# Office of Land and Streams

**Office of Land  
and Streams**  
Joe T. Scarberry,  
*Supervisor*

The Office of Land and Streams serves the Division in many capacities. Two primary responsibilities are: the supervision and administration of the Division's land acquisition and real estate title documents program and the administration of the State's rivers and streams. These main functions involve the acquisition, exchange, and leasing of land and improvements and exercise control over the various activities in the State's rivers and streams. They include organizing and archiving of the real estate title documents for the Division and the everyday administration of the real estate title once lands are acquired and various rights-of-entry and license agreements on the State's rivers and streams.

## **LAND ACQUISITION**

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The acquisition function is accomplished by purchase, lease, condemnation, donations, bequests and exchanges. It involves various procedures such as: the collection of legal data from county courthouse records, negotiations with property owners to obtain leases and/or options to purchase, detailed physical inspections of all types of real estate, obtaining appraisal reports of fair market value, and the preparation of various real estate title documents and real estate quantitative and status reports.

The Office of Land and Streams is responsible for procedures dealing with the preparation, execution, and recordation of legal documents such as deeds, leases, license agreements, rights-of-way, joint interagency agreements, easements and land purchase invoices. It also prepares numerous other types of documents for state and federal agencies including permits, applications, agreements and contracts.

This Office maintains a close liaison with the attorneys assigned by the State Attorney General's Office to projects such as land acquisitions, court cases, and other required real estate legal work. This Section also handles all contract boundary survey work and contracts consultants for engineering services relating to oil, gas, and coal resources owned or leased by the Division of Natural Resources. The primary land acquisition program and the real estate related activities are conducted on behalf of the West Virginia Department of Commerce, the Parks and Recreation and Wildlife Resources Sections of the Division of Natural Resources, and for the Division of Forestry.

## **RIVERS AND STREAM MANAGEMENT**

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The Division of Natural Resources holds for the state the title to the beds of the state's rivers, creeks and streams totaling some 34,000 miles or some 5,000 named waterways in the state. In the past year 317 right-of-entry letters were granted to governmental agencies, companies, and individuals to conduct construction activities in the state's rivers, creeks, and streams as well as 649 right-of-way licenses were granted for pipelines, underground or underwater cables, and overhead power and telephone lines crossing the state's waterways. Additionally, 268 large stream structure agreements were granted for bridges and culverts in the state's streams.

## **OTHER FUNCTIONS**

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This Office is also responsible for the up-to-date inventory of all lands owned or leased by the West Virginia Division of Natural Resources. The Division of Natural Resources lands are broken down as follows: Administration 14 acres, State Forests 71,392 acres, State Parks 76,961 acres, and Wildlife Management Areas/Public Access Sites 371,100 acres, for a total of 519,476 acres of land with partial mineral rights as well as holding title to 34,000 miles of the state's river and creek beds. This acreage encompasses some 359 separate areas such as: wildlife management areas, public access sites, wetlands, state parks, trails and forest lands. These lands provide recreation and are of great natural and/or historical significance and are managed for the use and benefit of the citizens of West Virginia and its visitors.

## PROPERTIES ACQUIRED

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AREA	ACREAGE
<b>Amherst-Plymouth Wildlife Management Area</b> Dennis P. Farrell	550.00
<b>Cass Scenic Railroad State Park</b> E. J. Marcum	0.50
<b>Cross Creek Wildlife Management Area</b> Starvaggi Industries, Inc.	592.00
<b>Dents Run Wildlife Management Area</b> Consolidation Coal Company	67.00
<b>Frozen Camp Wildlife Management Area</b> Susan Smith	0.50
<b>Panther Wildlife Management Area</b> H3 LLC 1/10 interest	50.00
<b>South Branch Wildlife Management Area</b> R & T Packing	100.00
<b>Wallback Hill Wildlife Management Area</b> Facemyer Lumber, LLC	191.00
<b>Widermeyer Wildlife Management Area</b> Hardeigh E. Sealy	1.50

## LAND LICENSED OR LEASED TO DNR

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AREA	ACREAGE
<b>Belington Public Access Site</b> Laurel Mountain VFW	.50
<b>Big Ugly Wildlife Management Area</b> Heartwood Forest Fund III, LP	1.06*
<b>Bullskin Run Streambank Protection Area</b> Avon Wood Inc.	54.60
<b>Camp Towles Public Access Site</b> Taylor County Board of Education	1530.11
<b>Chapmanville Public Access Site</b> WV Division of Highways	11739.00*
<b>Cheat Riverview Public Access Site</b> Riverview Inn/Friends of the Cheat	280.30
<b>Fox Forest Wildlife Management Area</b> Joseph Lee Biola	110.00
<b>French Creek Embayment Public Access Site</b> Riverview Rental Hal C. Williamson	1.00* 0.584*

<b>Hanging Rock Public Access Site Charles R</b> Charles R. Herriott	1.00*
<b>Holly Meadows Bridge Public Access Site</b> WV Division of Highways	.42
<b>Jenkinsburg Public Access Site</b> David L. Hought & Cynthia F. Graves	.50
<b>Meadow Creek Public Access Site</b> Sammy L. Pugh	.50
<b>O'Brian Lake Wildlife Management Area</b> Jackson County Commission	1152.50
<b>Parsons Black Fork Public Access Site</b> CJ's Pizzeria & Friends of the Cheat Jones Auto Work & Friends of the Cheat	.50 .50
<b>Rocky Fork Marsh Stream Bank Protection Area</b> Cooper R. McQuilkin	.80
<b>Stilwell Park and Public Access Site</b> Pocahontas County Parks and Recreation	.50
<b>Tate Creek Public Access Site</b> Wolfepen Knob Der Company	.50
<b>Tuscarora Creek Stream Bank Protection Area</b> Olean Acres	.52*
<b>Tygart under US 33 Public Access Site</b> WV Division of Highways	.22
<b>Wirt County Rifle Range</b> Wirt County Development Authority	80.00

\*Renewals not included in summary of new acreages

	<b>ACREAGE</b>
10 parcels acquired	1502.50
14 parcels licensed or leased	1268.00
3 parcels licensed or leased agreements canceled	-1614.50
<b>Net increase for FY 2012-2013</b>	<b>+1156.00</b>

## OPTIONS TO PURCHASE OBTAINED

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AREA	ACREAGE
<b>Blue Creek Public Access Site</b> Phillip & Faye Shaffer	3.53
<b>Frozen Camp Wildlife Management Area</b> Susan Smith	.50
<b>Lewis Wetzel Wildlife Management Area</b> Benjamin Jarvis	59.00
<b>Panther Wildlife Management Area</b> H3 LLC 1/10 interest	50.00
<b>School House Cave Wildlife Management Area</b> Linda K. Sponaugle & Donna Jean Smith	0.35
<b>Wallback Wildlife Management Area</b> Facemyer Resources, LLC	190.50
Dorothy Rush	144.00

## PARCELS IN PROCESS OF ACQUISITION

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AREA	ACREAGE
<b>Elk River – Kanawha County</b> Slack Group, LLC	1.36
<b>Lewis Wetzel Wildlife Management Area</b> Benjamin Jarvis	59.00
<b>Preston County</b> Estate of Harold J. Rehe	337.9
Donna J.Rehe	244.10
<b>Wallback Wildlife Management Area</b> Dorothy Rush	144.00
<b>Wells Lock &amp; Dam Public Access Site</b> Wayne & Sandra Wright	7.94
<b>PARCELS IN PROCESS OF ACQUISITION:</b>	<b>6</b>
<b>TOTAL ACREAGE</b>	<b>794.30</b>

## PROPERTY MANAGEMENT

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The Office of Land and Streams prepared and processed, through various stages of completion, 88 documents relating to the use of the Division of Natural Resources' real estate holdings. These documents included lease agreements, license agreements, easements, mitigation agreements, and amendments and supplements to other existing agreements. Land rights covered by these agreements included road rights-of-way, power line, cable line, water line, sewage line, and gas and oil line rights-of-way.

The processing of these agreements required close communication with various field and central office personnel with various other sections of the Division of Natural Resources and with the Department of Commerce; Division of Forestry; and other state, county and local governmental offices.

## RIVERS AND STREAM MANAGEMENT

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Another function of the Division of Natural Resources is to hold title to the beds of the streams within the state of West Virginia. The Office of Land and Streams exercises control over the following activities involving these real estate resources:

- Dredging and/or pumping of sand, gravel, and derelict coal from the beds of the streams in the state.
- Leasing areas of the beds and under the beds of the streams for the purpose of exploring for oil, gas, and other minerals.
- Utilizing the beds of the streams for the purpose of crossing or placing in the streams pipelines, fords, submarine cables, culverts, bridges, low water bridges, dams, dikes, commercial docking, loading and mooring facilities, recreational marinas and other structures.

During FY 2012-2013, 585 rights-of-entry were issued for various types of in-stream construction activities. These included channel changes, bridge construction, culvert construction, gravel removal, ford preparation, stream bank protection, water impoundments, fills and pipeline construction.

During FY 2012-2013, 649 rights-of-way or license agreements were issued for gas, water and sewer pipelines; underground and overhead telephone, power and fiber optic cables; and loading, docking and, mooring agreements.

Licensed commercial sand, gravel and coal dredging and/or pumping operations produced 421,756 tons of sand and gravel from the beds of the streams in 2012-2013, as reflected below:

### 2012-2013 COMMERCIAL DREDGERS REPORT

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Total Tonnage Used

COMPANY	RIVER/CREEK	TYPE	TONS
Tri-State River Products	Ohio River	Sand & Gravel	421,756





# Law Enforcement Section



## Law Enforcement Section

David E. Murphy, *Chief*

The Law Enforcement Section is responsible for the prompt, orderly, and effective enforcement of all laws of Chapter 20, Code of West Virginia, and rules promulgated under that authority. Of primary importance is the protection of West Virginia's wildlife to the degree that they are not endangered by unlawful activities. A highly visible, uniformed Natural Resources Police Officer patrol is the only viable way to accomplish this mission. Prevention and apprehension are crucial to the enforcement goal, and the Natural Resources Police Officer is meeting that goal. In West Virginia, no species of wildlife is jeopardized because of illegal taking.

## LAW ENFORCEMENT PROGRAM

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The Law Enforcement Section normally has a staffing level of 123 Natural Resources Police Officers and 11 support personnel. The Section currently has 114 Natural Resources Police Officers. Three Natural Resources Police Officers retired, four officers and three civilians resigned, and seven new officers and two civilians were employed during fiscal year 2013.

The Law Enforcement Section has been actively seeking new and innovative methods for the accomplishment of its overall mission. The following are just some of the highlights of this past fiscal year:


- Participated in numerous public meetings to provide for a better understanding of the Law Enforcement Section's goals and objectives.
- Monitored various trout stockings to ensure compliance.
- Utilized deer, turkey, and bear decoys in an effort to curtail "road hunting" violations.
- Increased boating and fishing patrols on all major Corps of Engineer lakes.
- Provided watercraft support to various regattas and other major river events.
- Participated in the overall planning and coordination of the National Hunting and Fishing Day Expo at Stonewall Resort State Park.
- Increased ATV patrols on wildlife management areas in an effort to deter unlawful entry.
- Participated in a nationwide program, Operation Dry Water, in an effort to reduce alcohol-related boating incidents.
- Assisted West Virginia State Police in HIDTA, High Intensity Drug Trafficking Area, patrols.
- Conducted training to enable officers to better detect boaters operating under the influence of alcohol (BUI).
- Purchased 78 bullet-proof vests and 39 dual-band VHF and UHF digital mobile radios with grant monies.

## OFFICER TRAINING

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The Law Enforcement Section takes pride in the amount and quality of training provided to Natural Resources Police Officers. Officers log thousands of hours each year sharpening their skills and preparing for the worst.

Several Defensive Tactics classes were held to train officers to defend themselves. In a continuing effort to be prepared for the worst in Homeland Security, officers received training on various Homeland Security topics, including joint disaster drills with the National Transportation Safety Administration, U.S. Coast Guard, and multiple in-state and out-of-state law enforcement agencies.



West Virginia hosted CSI in the Wild, which is a comprehensive course on Hunting Incident Investigations sponsored by the International Hunter Education Association and the Law Enforcement Section of the Division of Natural Resources. Law enforcement officers from across the U.S. and West Virginia learned unique techniques of investigation to find the causes of hunting related injuries, prosecute offenders where needed, and to learn what can be done to prevent further injuries.

Natural Resources Police Officers are required by the Law Enforcement Professional Standards Committee to complete 16 hours of in-service training annually. Each of the six districts conduct four regional training sessions annually, consisting of one unit of Defensive Tactics and three units of Firearm instruction, making the DNR Law Enforcement Section one of the state leaders in firearms training.

The Section continues to provide instructors to other law enforcement agencies to assist them in meeting their Law Enforcement Training Committee standards. Some courses conducted include, Defensive Tactics, Firearms, Law Enforcement Boating, and Tracking.

Two officers attended the National Marine Patrol Officer Course conducted at the U.S. Coast Guard Training Center in Charleston, South Carolina.

## **HUNTER EDUCATION PROGRAM**

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The mandatory Hunter Education Program in West Virginia continues to be a success. During fiscal year 2013, more than 8,000 students graduated from 512 statewide classes. Volunteer instructors continue to provide a great service to the Hunter Education Program. In fiscal year 2013, more than 177 instructors drove 14,900 miles and donated more than 3,000 hours to the program. Natural Resources Police Officers logged 2,600 hours and drove 22,000 miles.

The Law Enforcement Section dedicates six regional training sergeants, one office assistant, and one state coordinator to this program.

The Law Enforcement Section maintains an online class information and registration that can be accessed on the DNR website [www.wvdnr.gov](http://www.wvdnr.gov). Online classes are also offered at the same site. Those interested in taking an online course have two from which to choose. The courses are designed to eliminate the classroom portion; however, once completed, the student must print a voucher and then contact his or her nearest district office to make an appointment to take a hands-on test and final exam.

During the 2012 calendar year, West Virginia experienced eight Class A hunting incidents, resulting in one fatality. The fatality was a result of a hunter mistaking an individual for game. Class A incidents are defined as an injury caused by the discharge of a bow or firearm while hunting. There were 12 Class B hunting incidents. Three of these incidents were tree-stand related, which resulted in one fatality. Three other hunters died of heart attacks. Class B incidents are defined as any other hunting-related injury.

Officers across the state have participated in several sporting and hunting shows; attended summer camps; and other special events such as JAKES Day, BOW (Becoming an Outdoor Woman), and Archery In the School programs.

The Law Enforcement Section has conducted numerous interviews for TV, radio, and magazines promoting safe hunting and boating.

## **BOATING SAFETY/EDUCATION PROGRAM**

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West Virginia has more than 57,000 registered recreational boats. The owners, as well as their families and friends, have the opportunity to enjoy the activities West Virginia's waters provide. Unfortunately, the state has had 25 boating accidents this year, resulting in five fatalities. Alcohol, operator inexperience, and lack of training account for these incidents.

Boating safety classes are offered in all of the counties in West Virginia. Few take advantage of this training. The U.S. Coast Guard Auxiliary, the U.S. Power Squadrons, and the National Association of State Boating Law Administrators (NASBLA) have approved courses. Classes are also available online at [www.wvdnr.gov](http://www.wvdnr.gov). The Law Enforcement Section is directly involved in either teaching or assisting in these courses.

In fiscal year 2013, 34 traditional style classes were taught and 252 students successfully completed the course. Anyone born after Dec. 31, 1986, is required to successfully complete a NASBLA-approved course before operating a motorboat. Several news releases and interviews have been conducted to get this message out to the public.

Officers from this section have participated in boating events and patrols around the state in an effort to promote water safety and reduce the number of accidents.

Operation Dry Water, a national campaign to reduce boating accidents, was conducted June 28, 2013, through June 30, 2013. Increased patrols with emphasis on enforcement of drunk boating and reckless operation of a motorboat, were conducted across West Virginia and the United States.

## **WHITewater ENFORCEMENT PROGRAM**

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The Law Enforcement Section has the responsibility of regulating the commercial whitewater industry in West Virginia. Twenty-three commercial whitewater outfitters and guides were licensed for 2013.

The Law Enforcement Section issues all licenses, collects all fees, maintains all records of outfitters, and investigates new license applications and license transfers. Natural Resources Police Officers patrol rivers, conduct compliance checks on guides and equipment, and investigate whitewater accidents.

The Whitewater Commission and the division continue to work together making commercial whitewater operations as efficient as possible. The commission and division have worked diligently over the past year to update the whitewater reporting systems. The new website is near completion and will streamline all required reporting by whitewater outfitters.

## LAW ENFORCEMENT ACTIVITY

JUNE 30, 2012 – JUNE 28, 2013

DISTRICT	CLASSIFICATION OF HOURS			ARRESTS			WARNINGS			PUBLIC MEETINGS		COMPLAINTS		
	SPECIAL DETAIL HOURS	REGULAR WORK HOURS	TOTAL HOURS	CHAPTER 20 ARRESTS	CHAPTER 22 ARRESTS	OTHER ARRESTS	CHAPTER 20 WARNINGS	CHAPTER 22 WARNINGS	OTHER WARNINGS	NUMBER	CONTACTS	RECEIVED	WILDLIFE DAMAGE INVEST.	OTHERS INVESTIGATED
ONE	0	38564	38564	843	123	146	678	266	218	18	48	1631	279	1377
TWO	0	28288	28288	673	242	83	200	164	68	36	30	1176	415	774
THREE	0	30827	30827	705	197	138	439	245	163	47	76	1334	393	909
FOUR	412	34610	35022	668	134	159	954	275	325	26	31	1211	270	936
FIVE	572	33445	34017	1050	194	144	655	324	227	20	67	1194	143	1070
SIX	0	29559	29559	560	115	130	669	398	170	34	35	1013	106	895
TOTALS:	984	195293	196277	4499	1005	800	3595	1672	1171	181	287	7559	1606	5961

## REPORT OF PROSECUTIONS BY CHARGE

FY 2012–2013

HEADING AND CHARGE	DISTRICT						TOTAL
	ONE	TWO	THREE	FOUR	FIVE	SIX	
<b>HUNTING</b>							
LOADED GUN IN VEHICLE	57	32	42	38	49	25	243
UNCASED GUN IN VEHICLE AT NIGHT	5	0	4	3	1	1	14
SPOTLIGHTING WITH FIREARM OR IMPLEMENT IN POSSESSION	5	1	8	1	11	5	31
ILLEGAL POSSESSION OF WILDLIFE OR PARTS THEREOF - GAME	62	35	43	55	69	57	321
HUNTING CLOSED SEASON	16	12	21	17	38	20	124
EXCEEDING DAILY BAG LIMIT	1	0	0	0	1	1	3
UNCASED GUN, CLOSED SEASON	1	0	1	2	1	0	5
UNCASED GUN ON SUNDAY	0	0	0	2	0	0	2
FAILURE TO FIELD TAG GAME	36	13	16	3	6	10	84
FAILURE TO CHECK GAME	19	14	9	27	13	21	103
NEGLIGENT SHOOTING	2	0	0	0	2	0	4
SHOOTING FROM OR ACROSS HIGHWAY	5	2	10	2	8	3	30
SHOOTING WITHIN 500 FEET OF DWELLING; 400 CHURCH/SCHOOL	12	5	7	4	3	5	36
HUNTING WITHOUT PERMISSION	42	32	28	33	33	18	186
POSSESSION OF ILLEGAL HUNTING PARAPHERNALIA	0	0	0	0	0	1	1
ILLEGAL TRAPPING	2	12	3	9	0	6	32
HUNTING MIGRATORY BIRDS WITH UNPLUGGED GUN	0	0	0	0	0	2	2
ILLEGAL METHOD OF HUNTING - (MUST BE IN 20-2-5)	1	0	0	1	2	2	6
HUNTING AFTER KILLING LEGAL DEER	18	3	2	3	3	9	38
ILLEGALLY CARRYING A PISTOL OR REVOLVER	0	0	1	0	0	0	1
KILLING PROTECTED BIRD	0	0	0	0	0	1	1
ILLEGAL SALE OF WILDLIFE - INCLUDING BEAR	1	0	0	0	0	0	1
ILLEGAL TRANSPORT OF WILDLIFE OUT OF STATE	0	0	0	0	1	2	3
ILLEGAL IMPORT OF WILDLIFE	0	2	0	0	0	0	2
HUNTING OVER BAIT TURKEY/GROUSE/PHEASANT/QUAIL	2	1	1	9	2	2	17
ILLEGAL KILLING OR TAKING OF DEER, TURKEY OR BOAR	13	7	6	17	10	10	63
INSUFFICIENT OR NO BLAZE ORANGE	15	26	12	6	9	4	72
HUNTING ON SUNDAY	2	5	0	6	8	6	27
HUNTING DEER 1/2 HR AFTER SUNSET OR BEFORE SUNRISE	5	0	3	26	16	3	53
SHOOTING AT GAME NOT PLAINLY VISIBLE	1	2	2	1	2	0	8
SHOOTING/HUNTING FROM A MOTOR VEHICLE	25	18	42	19	35	12	151
ILLEGAL KILLING OR TAKING OF BEAR	1	0	1	3	2	1	8
HUNTING WHILE UNDER THE INFLUENCE	3	1	0	1	0	1	6
ATV IN RESTRICTED AREA	0	0	0	0	0	2	2
HUNT WITH CROSSBOW WITHOUT CLASS Y PERMIT	1	0	0	1	0	0	2
HUNT IN VEHICLE WITHOUT CLASS Q PERMIT	0	0	0	4	0	0	4
HUNTING WITHOUT REQUIRED HUNTER EDUCATION CARD	0	0	0	0	9	0	9

HEADING AND CHARGE	DISTRICT						TOTAL
	ONE	TWO	THREE	FOUR	FIVE	SIX	
INTERFERENCE WITH HUNTING/TRAPPER	0	2	0	0	0	0	2
KILL BEAR OVER BAIT	0	0	0	0	2	3	5
ILLEGAL POSSESSION OF BEAR	3	0	2	1	3	0	9
HUNTING BEAR CLOSED SEASON	0	0	1	0	3	0	4
FAILURE TO FIELD TAG BEAR	0	0	1	0	0	0	1
FAILURE TO CHECK BEAR	1	0	1	0	1	0	3
VIOLATION OF BEAR LAW	1	1	0	0	1	9	12
SHOOTING/HUNTING FROM AN ATV	1	0	0	0	2	4	7
OTHER GAME LAW VIOLATIONS	7	10	10	6	15	5	53
<b>TOTAL HUNTING</b>	<b>366</b>	<b>236</b>	<b>277</b>	<b>300</b>	<b>361</b>	<b>251</b>	<b>1791</b>

#### FISHING

TAKING FISH BY ILLEGAL METHOD	0	1	2	0	1	0	4
EXCEEDING DAILY CREEL LIMIT	5	17	3	2	1	3	31
ILLEGAL POSSESSION OF FISH, MINNOWS AND AQUATIC LIFE	1	7	2	0	2	0	12
TAKING FROGS DURING CLOSED SEASON	1	0	0	0	0	0	1
USING PROHIBITED BAIT IN RESTRICTED AREA	0	17	12	1	0	0	30
FISHING WITHOUT PERMISSION	1	5	1	1	0	0	8
INTERFERENCE WITH FISHERMEN	0	1	0	0	0	0	1
FISHING IN RESTRICTED AREA	0	0	0	0	11	0	11
OTHER FISHING VIOLATIONS	5	10	1	1	5	2	24
<b>TOTAL FISHING</b>	<b>13</b>	<b>58</b>	<b>21</b>	<b>5</b>	<b>20</b>	<b>5</b>	<b>122</b>

HEADING AND CHARGE	DISTRICT						TOTAL
	ONE	TWO	THREE	FOUR	FIVE	SIX	
<b>BOATING</b>							
OPERATING UNREGISTERED WATERCRAFT	1	2	3	4	8	0	18
OPERATING WATERCRAFT WITHOUT PROPER EQUIPMENT	1	0	1	0	7	6	15
INSUFFICIENT NUMBER OF LIFE PRESERVERS	26	24	22	8	16	7	103
OVERLOADING A WATERCRAFT	0	0	4	1	1	3	9
IMPROPER LOCATION/SPACING OF NBRS ON WATERCRAFT	1	0	0	0	1	0	2
RECKLESS OPERATION OF WATERCRAFT	1	0	0	2	2	3	8
CREATING A WAKE IN A NO-WAKE ZONE	3	0	11	3	0	0	17
DIVING ILLEGALLY	0	0	0	0	1	0	1
PULLING SKIER WITHOUT OBSERVER OR MIRROR	3	1	2	4	2	3	15
SKIING WITHOUT A LIFE PRESERVER	0	0	1	0	2	0	3
NONE OR NO APPROVED EQUIPMENT	6	0	2	0	1	0	9
OPERATING A WATERCRAFT IN RESTRICTED AREA	0	0	0	0	2	0	2
OVERPOWERING A WATERCRAFT	0	0	1	0	0	0	1
OPERATING WATERCRAFT WHILE UNDER THE INFLUENCE	1	0	3	1	0	0	5
BOATING UNDER THE INFLUENCE	3	0	1	1	0	3	8
OPERATING WITHOUT REQUIRED BOATER SAFETY CARD	1	0	0	5	4	0	10
PASSENGER UNDER 12 WITHOUT PFD WHILE IN OPERATION	6	1	0	2	4	5	18
OTHER BOATING VIOLATIONS	2	1	17	1	6	1	28
<b>TOTAL BOATING</b>	<b>55</b>	<b>29</b>	<b>68</b>	<b>32</b>	<b>57</b>	<b>31</b>	<b>272</b>

#### WASTE MANAGEMENT

TRANSPORTING HAZ. WASTE TO UNPERMITTED FACILITY	0	1	0	0	0	0	1
OTHER HAZARDOUS WASTE VIOLATIONS	1	0	0	0	0	0	1
CONTRIBUTING TO AN OPEN DUMP	0	19	7	20	2	14	62
UNPERMITTED SOLID WASTE FACILITY	0	0	3	0	1	0	4
ENDANGERMENT BY WASTE DISPOSAL	4	1	0	1	0	0	6
WASTE TIRE VIOLATION 22-15-21	0	0	0	0	0	1	1
UNAUTHORIZED USE OF DUMPSTER 61-3-53	0	4	0	1	1	0	6
OPEN BURNING OF REFUSE	7	50	4	20	9	27	117
FAILURE TO SHOW PROOF OF PROPER DISPOSAL	1	29	0	10	3	5	48
OTHER SOLID WASTE VIOLATIONS	17	16	23	5	21	5	87
<b>TOTAL WASTE MANAGEMENT</b>	<b>30</b>	<b>120</b>	<b>37</b>	<b>57</b>	<b>37</b>	<b>52</b>	<b>333</b>

HEADING AND CHARGE	DISTRICT						TOTAL
	ONE	TWO	THREE	FOUR	FIVE	SIX	
<b>POLLUTION</b>							
STREAM POLLUTION	0	0	1	0	0	0	1
CONSTRUCTION WITHOUT A PERMIT	0	0	0	1	0	0	1
OTHER POLLUTION VIOLATIONS	0	0	1	0	0	0	1
<b>TOTAL POLLUTION</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>FORESTRY</b>							
ILLEGAL BURNING	35	6	6	5	11	15	78
ABANDONING A FIRE	3	1	1	2	1	6	14
STARTING FIRES ON LANDS OF ANOTHER	1	1	0	0	0	0	2
PERMITTING A FIRE TO ESCAPE	6	2	0	0	1	0	9
VIOLATIONS OF GINSENG REGULATIONS	0	0	0	8	7	0	15
OTHER FORESTRY VIOLATIONS	3	4	3	0	2	3	15
<b>TOTAL FORESTRY</b>	<b>48</b>	<b>14</b>	<b>10</b>	<b>15</b>	<b>22</b>	<b>24</b>	<b>133</b>
<b>GENERAL</b>							
VIOLATION OF PARK REGULATIONS	11	40	5	45	9	0	110
WITHHOLDING INFORMATION	10	2	4	7	2	3	28
OBSTRUCTING,HINDERING, OR INTERFERING WITH OFFICER	2	4	6	2	3	9	26
CONSPIRING IN A VIOLATION OF CHAPTER 20	61	14	30	11	21	39	176
OFFENSE OUTSIDE CHAPTER 20	61	56	27	54	25	68	291
VIOLATION OF FUR DEALERS REGULATIONS	0	0	1	0	0	0	1
DRUG RELATED VIOLATION	26	4	1	21	6	16	74
WMA VIOLATIONS	4	37	4	18	0	10	73
CONSPIRING IN A FISHING VIOLATION OF CHAPTER 20	4	4	2	1	0	0	11
<u>MISCELLANEOUS VIOLATIONS</u>	43	30	18	21	20	7	139
<b>TOTAL GENERAL</b>	<b>222</b>	<b>191</b>	<b>98</b>	<b>180</b>	<b>86</b>	<b>152</b>	<b>929</b>
<b>TOTAL ALL PROSECUTIONS</b>	<b>1008</b>	<b>915</b>	<b>625</b>	<b>749</b>	<b>878</b>	<b>719</b>	<b>4894</b>



## PROSECUTION PROGRAM BY COUNTY

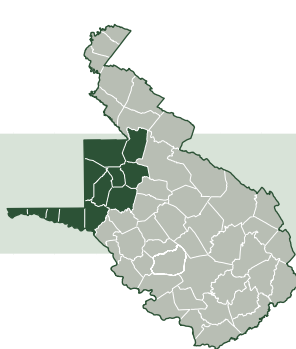

FY 2012–2013

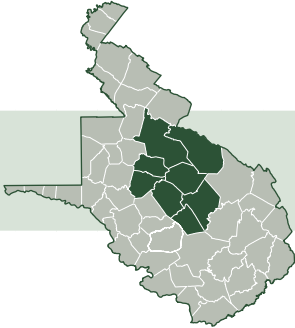
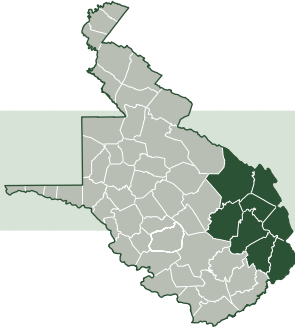
COUNTY	NUMBER OF PROSECUTIONS	Amounts Assessed		Dispositions of Prosecutions			
		FINES	COSTS	CONVICTED	DISMISSED	ACQUITTED	FAILED TO APPEAR
Barbour	99	\$4,319.20	\$13,356.14	89	10	0	0
Berkeley	128	\$5,116.70	\$17,501.10	108	6	0	14
Boone	50	\$1,650.00	\$8,192.80	41	9	0	0
Braxton	47	\$846.80	\$4,954.00	30	16	0	1
Brooke	51	\$3,462.76	\$7,122.44	48	3	0	0
Cabell	80	\$1,655.00	\$6,450.40	39	39	0	2
Calhoun	72	\$1,770.00	\$7,914.60	38	34	0	0
Clay	44	\$1,200.00	\$4,502.40	28	15	0	1
Doddridge	3	\$220.00	\$482.40	3	0	0	0
Fayette	72	\$1,545.00	\$5,888.80	38	12	0	22
Gilmer	7	\$170.00	\$482.40	3	4	0	0
Grant	86	\$5,079.45	\$11,899.20	74	8	0	4
Greenbrier	127	\$3,905.00	\$14,271.20	89	33	0	5
Hampshire	181	\$8,085.00	\$26,893.80	162	14	1	4
Hancock	49	\$2,690.00	\$7,687.60	48	1	0	0
Hardy	117	\$7,575.00	\$17,049.25	106	9	0	2
Harrison	157	\$5,120.00	\$22,913.41	142	15	0	0
Jackson	119	\$3,235.00	\$14,025.60	84	35	0	0
Jefferson	169	\$6,111.00	\$22,728.85	137	3	0	29
Kanawha	130	\$1,256.95	\$9,668.10	45	81	0	4
Lewis	61	\$2,440.00	\$10,561.40	61	0	0	0
Lincoln	106	\$907.25	\$7,396.80	45	61	0	0
Logan	136	\$6,230.55	\$11,617.60	73	56	0	7
McDowell	141	\$5,230.00	\$19,640.00	116	25	0	0
Marion	41	\$1,351.00	\$4,923.81	31	10	0	0
Marshall	85	\$3,089.00	\$12,415.00	75	5	0	5
Mason	103	\$3,501.00	\$9,565.80	51	35	0	17
Mercer	65	\$1,541.00	\$6,710.40	40	10	0	15
Mineral	95	\$3,652.65	\$13,345.85	84	10	1	0
Mingo	91	\$1,770.00	\$9,326.40	58	33	0	0
Monongalia	122	\$3,638.24	\$18,031.72	114	8	0	0
Monroe	44	\$1,610.00	\$6,466.90	34	2	0	8
Morgan	25	\$866.60	\$3,476.80	21	1	0	3

COUNTY	NUMBER OF PROSECUTIONS	Amounts Assessed		Dispositions of Prosecutions			
		FINES	COSTS	CONVICTED	DISMISSED	ACQUITTED	FAILED TO APPEAR
Nicholas	245	\$15,455.00	\$28,281.30	163	76	0	6
Ohio	59	\$1,755.80	\$7,175.20	46	13	0	0
Pendleton	104	\$3,802.00	\$15,757.60	100	4	0	0
Pleasants	11	\$455.00	\$1,452.20	9	2	0	0
Pocahontas	72	\$3,110.00	\$11,380.20	69	3	0	0
Preston	168	\$8,943.46	\$22,752.12	152	16	0	0
Putnam	112	\$1,629.30	\$10,013.80	60	45	5	2
Raleigh	80	\$1,830.00	\$8,121.90	49	17	0	14
Randolph	46	\$1,815.00	\$6,592.80	42	4	0	0
Ritchie	94	\$1,220.00	\$4,341.60	25	68	0	1
Roane	84	\$2,690.00	\$13,264.20	66	18	0	0
Summers	136	\$4,090.00	\$16,646.20	103	16	0	17
Taylor	67	\$4,016.90	\$9,593.83	58	9	0	0
Tucker	24	\$660.00	\$3,803.40	23	1	0	0
Tyler	9	\$750.00	\$1,286.40	8	1	0	0
Upshur	53	\$2,800.00	\$8,534.40	53	0	0	0
Wayne	88	\$1,065.00	\$5,050.30	22	58	0	8
Webster	60	\$5,070.00	\$8,926.60	53	6	0	1
Wetzel	35	\$1,455.00	\$4,502.40	28	7	0	0
Wirt	32	\$765.00	\$4,325.00	26	6	0	0
Wood	294	\$8,246.80	\$40,163.40	243	48	0	3
Wyoming	118	\$4,060.00	\$13,185.30	84	30	0	4
<b>TOTALS</b>	<b>4,894</b>	<b>\$176,524.41</b>	<b>\$602,613.12</b>	<b>3,637</b>	<b>1051</b>	<b>7</b>	<b>199</b>

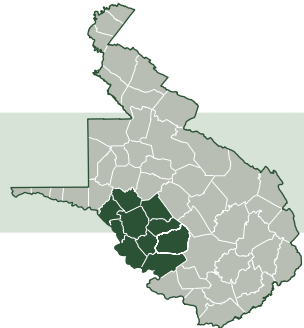
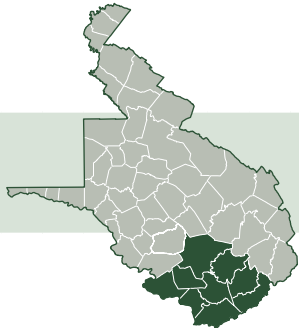
# PROSECUTION PROGRAM BY DISTRICT

FY 2012-2013

DISTRICT	TOTAL ARRESTS	TOTAL WARNINGS	COUNTY	NUMBER OF PROSECUTIONS	Amounts Assessed		Dispositions of Prosecutions				
					FINES	COSTS	CONVICTED	DISMISSED	ACQUITTED	FAILED TO APPEAR	
<b>ONE</b>		1,112	1,162	Barbour	99	\$4,319.20	\$13,356.14	89	10	0	0
				Brooke	51	\$3,462.76	\$7,122.44	48	3	0	0
				Hancock	49	\$2,690.00	\$7,687.60	48	1	0	0
				Harrison	157	\$5,120.00	\$22,913.41	142	15	0	0
				Marion	141	\$5,230.00	\$19,640.00	116	25	0	0
				Marshall	41	\$1,351.00	\$4,923.81	31	10	0	0
				Monongalia	122	\$3,638.24	\$18,031.72	114	8	0	0
				Ohio	59	\$1,755.80	\$7,175.20	46	13	0	0
				Preston	168	\$8,943.46	\$22,752.12	152	16	0	0
				Taylor	67	\$4,016.90	\$9,593.83	58	9	0	0
				Tucker	24	\$660.00	\$3,803.40	23	1	0	0
				Wetzel	35	\$1,455.00	\$4,502.40	28	7	0	0
				<b>TOTAL DISTRICT 1</b>	<b>1013</b>	<b>\$42,642.36</b>	<b>\$141,502.07</b>	<b>895</b>	<b>118</b>	<b>0</b>	<b>0</b>
				<b>TWO</b>		998	432	Berkeley	128	\$5,116.70	\$17,501.10
Doddridge	3	\$220.00	\$482.40					3	0	0	0
Grant	86	\$5,079.45	\$11,899.20					74	8	0	4
Hampshire	181	\$8,085.00	\$26,893.80					162	14	1	4
Hardy	117	\$7,575.00	\$17,049.25					106	9	0	2
Jefferson	169	\$6,111.00	\$22,728.85					137	3	0	29
Mineral	95	\$3,652.65	\$13,345.85					84	10	1	0
Morgan	25	\$866.60	\$3,476.80					21	1	0	3
Pendleton	104	\$3,802.00	\$15,757.60					100	4	0	0
<b>TOTAL DISTRICT 2</b>	<b>908</b>	<b>\$40,508.40</b>	<b>\$129,134.85</b>					<b>795</b>	<b>55</b>	<b>2</b>	<b>56</b>

DISTRICT	TOTAL ARRESTS	TOTAL WARNINGS	COUNTY	NUMBER OF PROSECUTIONS	Amounts Assessed		Dispositions of Prosecutions							
					FINES	COSTS	CONVICTED	DISMISSED	ACQUITTED	FAILED TO APPEAR				
<b>THREE</b>	1,040	847		Braxton	47	\$846.80	\$4,954.00	30	16	0	1			
				Clay	44	\$1,200.00	\$4,502.40	28	15	0	1			
				Lewis	61	\$2,440.00	\$10,561.40	61	0	0	0			
				Nicholas	245	\$15,455.00	\$28,281.30	163	76	0	6			
				Pocahontas	72	\$3,110.00	\$11,380.20	69	3	0	0			
				Randolph	46	\$1,815.00	\$6,592.80	42	4	0	0			
				Upshur	53	\$2,800.00	\$8,534.40	53	0	0	0			
				Webster	60	\$5,070.00	\$8,926.60	53	6	0	1			
				<b>TOTAL DISTRICT 3</b>			<b>628</b>		<b>\$32,736.80</b>	<b>\$83,733.10</b>	<b>499</b>	<b>120</b>	<b>0</b>	<b>9</b>
				<b>FOUR</b>	961	1,554		Fayette	72	\$1,545.00	\$5,888.80	38	12	0
Greenbrier	127	\$3,905.00	\$14,271.20					89	33	0	5			
McDowell	103	\$3,501.00	\$9,565.80					51	35	0	17			
Mercer	65	\$1,541.00	\$6,710.40					40	10	0	15			
Monroe	44	\$1,610.00	\$6,466.90					34	2	0	8			
Raleigh	80	\$1,830.00	\$8,121.90					49	17	0	14			
Summers	136	\$4,090.00	\$16,646.20					103	16	0	17			
Wyoming	118	\$4,060.00	\$13,185.30					84	30	0	4			
<b>TOTAL DISTRICT 4</b>			<b>745</b>						<b>\$22,082.00</b>	<b>\$80,856.50</b>	<b>488</b>	<b>155</b>	<b>0</b>	<b>102</b>

DISTRICT	TOTAL ARRESTS	TOTAL WARNINGS	COUNTY	NUMBER OF PROSECUTIONS	Amounts Assessed		Dispositions of Prosecutions			
					FINES	COSTS	CONVICTED	DISMISSED	ACQUITTED	FAILED TO APPEAR
<b>FIVE</b>	<b>1,388</b>	<b>1,206</b>	Boone	50	\$1,650.00	\$8,192.80	41	9	0	0
			Cabell	80	\$1,655.00	\$6,450.40	39	39	0	2
			Kanawha	130	\$1,256.95	\$9,668.10	45	81	0	4
			Lincoln	106	\$907.25	\$7,396.80	45	61	0	0
			Logan	136	\$6,230.55	\$11,617.60	73	56	0	7
			Mason	85	\$3,089.00	\$12,415.00	75	5	0	5
			Mingo	91	\$1,770.00	\$9,326.40	58	33	0	0
			Putnam	112	\$1,629.30	\$10,013.80	60	45	5	2
			Wayne	88	\$1,065.00	\$5,050.30	22	58	0	8
			<b>TOTAL DISTRICT 5</b>			<b>878</b>	<b>\$19,253.05</b>	<b>\$80,131.20</b>	<b>458</b>	<b>387</b>
<b>SIX</b>	<b>805</b>	<b>1,237</b>	Calhoun	72	\$1,770.00	\$7,914.60	38	34	0	0
			Gilmer	7	\$170.00	\$482.40	3	4	0	0
			Jackson	119	\$3,235.00	\$14,025.60	84	35	0	0
			Pleasants	11	\$455.00	\$1,452.20	9	2	0	0
			Ritchie	94	\$1,220.00	\$4,341.60	25	68	0	1
			Roane	84	\$2,690.00	\$13,264.20	66	18	0	0
			Tyler	9	\$750.00	\$1,286.40	8	1	0	0
			Wirt	32	\$765.00	\$4,325.00	26	6	0	0
			Wood	294	\$8,246.80	\$40,163.40	243	48	0	3
			<b>TOTAL DISTRICT 6</b>			<b>722</b>	<b>\$19,301.80</b>	<b>\$87,255.40</b>	<b>502</b>	<b>216</b>
<b>STATE TOTALS</b>	<b>6,304</b>	<b>6,438</b>		<b>4,894</b>	<b>\$176,524.41</b>	<b>\$602,613.12</b>	<b>3,637</b>	<b>1,051</b>	<b>7</b>	<b>199</b>





# Parks and Recreation Section



**Parks and Recreation  
Section**  
Kenneth Caplinger,  
Chief

## INTRODUCTION

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This report provides a review of the major programs, policy actions, and challenges being addressed as of June 30, 2013.

## OVERVIEW

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The mission of the DNR Parks and Recreation Section, as described in state code, is to “promote conservation by preserving and protecting natural areas of unique or exceptional scenic, scientific, cultural, archaeological, or historical significance and to provide outdoor recreational opportunities for the citizens of this state and its visitors.”

The system is composed of 35 state parks, seven state forests, five wildlife management areas, the Greenbrier River Trail, and the North Bend Rail Trail. The parks section manages or assists in managing more than 191,000 acres of public land and sees more than 7 million visitors annually in locations as diverse as undeveloped natural areas to multi-faceted resort parks. The park system manages 1,948 campsites, 795 lodge rooms, 354 cabins, six golf courses, an early 20th century era railroad and logging town, and an Ohio River sternwheeler. The system offers a tremendous variety of recreational and vacation opportunity and is a cornerstone of West Virginia’s very significant tourism industry. Use of state parks is free or low-cost and they are sources of employment and recreation that might not otherwise be available in rural areas. Our state’s visitors find West Virginia State Parks to be among the nation’s finest state park vacation destinations. According to the Outdoor Industry Association, outdoor recreation has grown by double digit percentages in recent years compared to an average two percent growth in other industries; outdoor recreation was responsible for \$300 billion in national sales, \$88 billion in tax production, and 6.5 million jobs. The West Virginia State Park system helps make the state a leader in outdoor recreation and the associated economic gain it provides.

Further, the benefits of a state park system cannot be weighed on economics alone. As former National Association of State Park Directors President Joe Elton stated, “Our state parks are not just a lifestyle, they’re something each American owns. We all have a stewardship responsibility. They are one of the few places where people of every economic class, race, religion, and ethnic background can enjoy life-enhancing experiences with family and friends. They are places worth fighting for and must be preserved.”

In addition, conservation values are modeled within and encouraged by the park system. State parks and state forests protect watersheds and wildlife habitat; provide hunting, fishing and natural education opportunities; and have numerous other environmental and cultural benefits.

## SYSTEM-WIDE GOALS, OBJECTIVES AND CHALLENGES

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### Self-sufficiency

Park managers endeavor to make the system as fiscally self sufficient as possible while at the same time protecting the overall mission and resources associated with the system. Indeed, the West Virginia state park system continues to be one of the more operationally self sufficient in the nation, even though it is one of the few not charging entry fees. However, it is proving challenging to maintain this performance due to factors beyond the control of system managers.

The impact of the two storm events in 2012 on business levels cannot be overemphasized as the derecho struck just prior to the busy July 4th Weekend, leaving many areas closed and resulting in

significant refunds. The October snowstorm impacted the usual fall cabin rental season severely as well. The lingering effects included ongoing reductions in attendance/occupancy due to the extended closures and the fact that many usual visitors were dealing with similar storm damage/effects at their own homes.

In addition, administrative fees paid to other state agencies have grown tremendously over the past six years. Likewise, employee benefit and utility costs have increased a great deal. Governmental group conference business has also suffered throughout the lodging industry as governments at all levels make cutbacks.

Due to the storms, fiscal year 2013 revenues decreased to \$21,203,560 compared to \$22,290,943 in fiscal year 2012. The expanded Twin Falls lodge, new Blackwater cabins, and the new campground at Little Beaver were all still building toward maximum revenue production when interrupted by the storm events of 2012. The long-needed \$36 million rehabilitation of Canaan Valley Resort State Park funded by a lottery revenue bond was well under way by the end of the reporting period and is expected to reenergize business at that park when complete in October 2013. All of these things together bode well for returning to, or perhaps exceeding, customary self-sufficiency results. The upcoming \$23.5 million Cacapon improvement and expansion is projected to be profitable and funding should also soon be in place for a new 75-room lodge at Beech Fork if the necessary Army Corps of Engineers land lease can be obtained. Lottery bonds remain to be sold for both Cacapon and Beech Fork to allow the projects to move ahead.

Of course, direct revenues do not measure the full economic benefit of the park system.

### **General Funding**

Funding sources for the park system include Account 0265 (General Revenue), Lottery Account 3267, Special Revenue Account 3265 (Park Operating Fund) and Lottery Account 3277 (Park Improvement Fund). The fiscal year 2014 total of all accounts will equal \$38,861,158. The General Revenue appropriation in fiscal year 2014 was \$9,797,306 and is used solely for classified service salaries and benefits for the majority of full time staff within Parks as well as a few DNR Administration Section personnel who are charged to Parks due to their role in support of park administrative efforts. Lottery Account 3267 funds in fiscal year 2014 were \$2,109,885 and are also used exclusively for Parks salaries and benefits. Special Revenue Account 3265 is projected to receive \$21,504,334 in fiscal year 2014 from park revenue producing operations (facility use fees, lodging rentals, golf greens fees, camping fees, swimming fees, etc.) and is primarily used to fund current expenses (vehicle expenses, utilities, items for resale, etc.), hourly employee expenditures, fees paid to other agencies as related to park operations (OT and DOP fees), a significant and growing number of full-time personnel plus benefits (growing due to being shifted to this account due to across the board cuts in the 0265 and 3267 accounts), and a few other miscellaneous categories of expenditures. \$676,881 in Lottery funds were also dedicated to park advertisement in fiscal year 2014. Lottery Account 3277 monies amount to \$5 million per year. Of this, some \$3,420,800 is used for routine repairs and the remaining \$1,579,200 for equipment replacement and major repair to aging infrastructure. The need for at least \$3 million in additional funding for major repairs and equipment replacement is the biggest need relative to the long-term viability of a large segment of the park system. Three-year budget plans for major R&A and equipment replacement are updated annually. Parks' Engineering Section has completed an assessment which details \$8.6 million in immediate repair needs, \$23.2 million in short-term (two to three year) repair needs and \$16.4 million in less critical maintenance items. Examples include McKeever Lodge water lines and plaza, the Pipestem Recreation Building, and the Twin Falls pool/Pro Shop building.

Parks Operating Fund (3265) has been rendered very unstable since fiscal year 2009 by a combined onslaught of administrative fees from other agencies, unfunded employee benefit cost increases for programs such as PEIA, and across-the-board cuts in 0265 and 3267 which were not accompanied by



any allowance of facility cutbacks. This has necessitated the shift of numerous full-time benefit earning employees to 3265 over the past five fiscal years. Restoration of \$2.87 million in General Revenue and Lottery Account 3267 to allow movement of up to 70 full time employees back to those accounts is needed to ease the burden on 3265 and restore its stability. A recently completed massive renovation of Canaan Valley Resort State Park (funded by Lottery Bond) and conversion to management contract rather than a concession contract along with other recently opened new facilities (Little Beaver Campground, Blackwater Falls Cabins, Twin Falls Lodge Expansion) and the planned expansion of Cacapon Lodge will help with this cash need, but will not fully address it. Further, these benefits will not fully develop until several more fiscal years have passed. There is also the proposed 75-room lodge for Beech Fork which is projected to be profitable, but this will be slower to develop due to the Army Corps of Engineers land lease approval process.

### **Sales and Revenue**


State Parks, like most tourism and vacation-oriented businesses, took a hard hit in calendar year 2012 and fiscal year 2013 from the effects of the two major storm events that pounded the state. These were the late June 2012 derecho windstorm and the late October snowstorm related to Hurricane Sandy. Revenue production from park facilities was down in excess of \$1 million in fiscal year 2013 compared to fiscal year 2012. Most of these losses were attributable directly to storm damage, area closure and a major reduction of disposable vacation spending output from the usual customer base. Many of the system's major revenue producing facilities were closed over extended periods of time during peak visitation season, with Holly River and Audra state parks most notably closed for many months due to storm damage and power outages. To date, business has still not fully rebounded.

Revenue production in state parks is led by five major sales centers. These are lodging (\$6.4 million), cabins (\$4.6 million), food and beverage (\$1.7 million), camping (\$1.6 million) and gift shop sales (\$1.6 million). Taken together, these facilities/services bring in approximately 75 percent of the park systems annual operating revenues each year. That being said, we challenge and incentivize facility managers to be aggressive and creative in developing new ideas for revenue production and refining and improving on old ones. During the past year, staff worked hard creating and implementing packages and value-added incentives to improve occupancy and revenue at our overnight facilities. Intense public relations and trade/no-cost advertising efforts have been made to keep facilities current in the public eye.

As lodging is by far the park system's number one revenue producer, special effort is always directed at these facilities, especially in the offseason. A group sales staffer working from Pipestem Resort State Park markets that park in particular as well as the system at large to various organizations throughout the state and country. Efforts include sales and telemarketing calls to corporations, state and federal government agencies, travel agencies, tour groups and the like. Direct mailings and travel shows are also used frequently. The challenge is to attract offseason, mid-week business to supplement typically brisk business at other times. The system's Chief Naturalist/Activity Programmer, who works from South Charleston, is also heavily involved in sales and promotions.

### **Infrastructure Improvements**

Projects complete or substantially complete in the reporting time frame included Berwind Lake dam modifications, Blackwater Sled Run Phase 1, Canaan storm drainage improvements, Canaan tube park and beginner ski area, Canaan lift and snow making improvements, Cacapon well, Cabwaylingo Group Camp dining hall, Hawks Nest lodge structural repairs, Holly River emergency electrical restoration, Pipestem McKeever Lodge emergency electrical repair and general storm cleanup in many areas. Projects under construction included Blackwater sled run snow making, Cacapon Old Inn exterior restoration, Cacapon Old Inn HVAC system, Canaan Valley lodge reconstruction, Twin Falls kitchen structural repair and Tygart beach and bathhouse renovations. Design projects awaiting construction included Blackwater exterior staircase renovation, Cacapon lodge expansion, Cacapon golf course



and water system improvements, Cacapon dam modifications, Hawks Nest CCC Museum renovations and picnic pavilion repairs, Twin Falls lodge structural repairs, and Tu-Endie-Wei Mansion House roof replacement.

As referenced earlier, one of the challenges facing Parks for many years has been the lack of adequate recurring funding for major repairs and equipment replacement. This has been offset by irregular major capital funding but routine infusion of some \$3 million more is needed annually for major repair and equipment replacement. This was also identified as a priority in 2009 by a Legislative Performance Audit. Occasional special appropriations help immensely with the current backlog of needs but there needs to be a more routine, recurring investment. Parks PEM Section recently identified some \$47 million in critical/immediate, soon needed (two to three years) and longer term (three to five years) major repair needs.

### **Administrative Management**

To support the 49 units that comprise the system in fiscal year 2013, there were 433 full-time employees, approximately 950 hourly employees at the peak of seasonal employment, and several major park concessionaires. To meet administrative demands, Parks used five statewide general administrative personnel. These are a Chief, a Business Manager and three District Administrators. In addition, there are two technical program administrators in the form of an Assistant Chief in charge of Planning, Engineering and Maintenance (PEM), and a Coordinator in charge of Programming, Interpretive Services, Special Events, Gift Certificate Sales, Youth Programs and various other special functions.

Field-based park superintendents direct natural resources, business personnel, public relations, law enforcement, maintenance, guest and employee safety, and other programs essential to their areas of assignment. These hard working, well-educated individuals are the key factor to success of the systems overall mission.

### **Americans with Disabilities Act (ADA) Compliance**

Most of the items identified in the original systemwide assessment are complete while smaller additional and ever evolving needs remain. Cacapon lodge expansion will incorporate many ADA modifications. The same is true of the current rebuild of Canaan Lodge.

### **Minority Employment**

Parks desires to increase the representation of minority groups in the workforce. There is a commitment to add employment minorities within the Division of Personnel framework that governs the selections for the classified service.

### **Hazardous Dams**

The Dam Control Office of the Department of Environmental Protection has declared dams on several areas, including Blackwater Falls, Cacapon Resort and Tomlinson Run state parks as being potentially hazardous structures. Most will be remedied as part of \$54 million in lottery "East" bond funded projects that are now ongoing. As a state statutory requirement, a monitoring and evacuation plan is kept current for each major dam.

### **Storm Damage**

The fiscal year 2013 period began with an historic high wind event that devastated the state causing widespread damage and power outages the last days of June. The park system was not spared as most facilities were without power, some for as long as two weeks, and thousands of trees were downed systemwide. Cleanup began immediately and in most areas was nearly complete when a late October snowstorm dumped as much as 3 feet of heavy wet snow on many parks. The combination of wet snow

and trees still covered with leaves resulted in catastrophic damage in some parks. Recovery efforts lasted all winter, through the spring, and in some areas was still ongoing at the end of the fiscal year reporting period. Several areas were closed for many months due to the damage and loss of electrical service for extended periods of time.

### **Resource Management**

State park and forest superintendents are commissioned as Special Natural Resources Police Officers and possess full law enforcement authority on the areas they manage. Consequently, game and fish law enforcement, littering violations, and enforcement of other environmental laws are routinely conducted. All superintendents and key supervisory personnel are required to attend the West Virginia Division of Forestry's annual Wildfire Control Training school and suppression action is taken on any forest fires which occur on or threaten state lands. The Parks Section cooperates with the State Department of Agriculture and the Division of Forestry in controlling Gypsy moths, hemlock wooly adelgid, and other insects and diseases. Routine trail and boundary maintenance is carried on throughout the year.

### **Programs**

Park and forest programming focuses on the natural environment and history of the specific areas and West Virginia in general, as well as providing events that attract visitors for both day travel and overnight use, and ridership/admission to unique settings found within the park system.

Summer activities and events concentrate largely, but not exclusively, on interpretation of flora, fauna and natural history. Programmers and naturalists are charged with implementing summer programs to include hikes, water study, etc., and to engage visitors in discovering and understanding the outdoors through interpretative interaction. Energizing families to get outside continues to be a priority. Year-round programmers are on-site at six state parks with year-round lodges and include nature-based activities through hikes, nature center visitation and special weekends. Special summer programs also include entertainers or presenters. Seventeen parks or forests employ an employee on an hourly wage as a summer naturalist. These are front-line ambassadors with vacationing guests and often introduce visitors to West Virginia and the natural heritage and character of the state.

Special event and entertainment examples include Mansion by Candlelight and Island Frolic Evening Cruises at Blennerhassett Island, Murder Mystery Trains at Cass Scenic Railroad, eagle surveys at the Pipestem area, Hawks Nest dinner theaters, 18th century encampments, Civil War reenactments and others. Special events generally include an overnight lodging component. Most are scheduled on weekends and in the shoulder seasons or winter months to attract visitation and support revenue production.

## **INDIVIDUAL AREA AND SECTION ACTIVITY REPORTS**

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West Virginia parks, forests, and wildlife management areas differ from those in most other states because of their added role in filling a local recreational niche occupied elsewhere by local government. Local communities in West Virginia often cannot afford to provide recreational opportunities such as tennis courts, swimming pools, picnic areas, and similar items that are a primary responsibility of city and county government in other states; over the years this function has come to be expected from local state parks.

Because of this and other factors, requirements for maintaining the individual parks, forests, and wildlife management areas are quite varied. Facilities range from the modern development at parks like Canaan, Pipestem and Stonewall to historical structures dating from the Civilian Conservation

Corps days. Replacement and upkeep of aging infrastructure at various areas is a constant challenge. This section of the annual report will focus mainly on repair and improvement items since the common themes of self-sufficiency, compliance programs, and similar management challenges are described elsewhere.

### **Audra State Park**

Improvements in the campground included upgraded electrical services in the small bath house, a new coin-operated washer in the laundry facility, and six new concrete pads and four new benches on sites throughout the campground. Gutters were installed on the campground store. A motor pump had to be replaced at the campground sewer plant. In late October, snowfall related to Hurricane Sandy did significant damage to the park. All winter and spring was dedicated to clearing downed trees, debris removal, and rebuilding countless trash can holders and picnic tables. A contracted tree company was brought in to help with the removal of debris and hanging limbs in the campground and picnic area. Significant work was done to the Alum Cave Trail in the spring and summer. Work was done on the boardwalk itself along with some small rerouting of the trail due to the storm damage.

### **Babcock State Park**

Babcock State Park suffered major damages during the June derecho. The majority of the summer months were spent cleaning up the vast amount of fallen trees, limbs, and other debris around the park. Federal Emergency Management Agency representatives visited Babcock and several damage reports and claims were filed. All hiking trails, park roadways, and the recreation areas were cleared and made safe for park visitors' use. The fence around the tennis court and one of the sewage treatment plants were damaged by falling trees and were repaired. A professional tree trimming company was hired to cut and remove several downed trees and dangerous hanging limbs from the various areas of the park that the park staff couldn't safely take care of. Staff replaced and repaired many stone columns and pressure-treated rails in the Manns Creek area of the park. All cabin walkway steps were cleaned and painted with a non-skid latex paint to help with traction problems during wet conditions. A mainline water pressure reducing valve was replaced in the cabin area to help control the ongoing line pressure problem in that area of the water system. Several new park signs were replaced and the posts were stained or replaced as needed. Three new woodsheds were constructed in the cabin area this year. The snowstorm related to Hurricane Sandy dumped more than 30 inches of heavy, wet snow on Babcock State Park in October, which broke down many trees and park-owned power lines within the cabin areas. Several power poles, insulators, and power lines were replaced and reset in the cabin areas by park staff. Many walkways, handrails, and building roofs were also repaired due to damage from falling trees throughout the park. The park road bridge crossing Glade Creek adjacent to the Glade Creek Grist Mill was replaced by the WV DOH this year.

### **Beartown State Park**

Operations were mostly routine except for the derecho cleanup. Beartown was less impacted than other areas, including nearby Droop Mountain. Minor boardwalk repairs were made through the year and some painting was done. Numerous family and school groups were given guided tours. Several more hemlock trees died, but overall the damage from the woolly adelgid infestation seems to have slowed somewhat.

### **Beech Fork State Park**

Repairs at assistant superintendent residence included: plumbing and floor repairs, underneath insulation, and foundation and gutter drains. Cabin renovations included restoration or replacement of hardwood and tile floors, repairs to bathroom walls, refinishing living room furniture and installing new dishwashers in Cabins 2 and 3. The annual spring cleanup in April drew more than 100 volunteers who collected a total of 294 bags of trash and 79 tires. Safety surface at all playgrounds was improved with 100 cubic yards of mulch. Two new pool motors were installed at the swimming pool. More than

30 trees sized at 10 feet or larger were successfully transplanted to improve shade at certain campsites. The first full season of online campground reservations produced more than 400 reservations during the summer.

### **Berkeley Springs State Park**

The main story for Berkeley Springs in fiscal year 2013 was a major flood that occurred on Sept. 1, 2012, when the area received around 6 inches of rain in a three-hour period. The entire park was submerged under as much as 5 feet of water. The Old Roman Bathhouse had 5 feet of water in the facility while the Park Office had 4 feet. Floodwaters also damaged the parking area and entrance bridge road surface. Extensive cleanup and repairs were required to all facilities. The park also lost two large ash trees to the Emerald Ash Borer. The park hosted the 39th Annual Apple Butter Festival with an estimated attendance of 40,000 over the two-day period

### **Berwind Lake Wildlife Management Area**

The area was without power for a week after the June derecho wind storm. The long dam renovation project was completed and leftover rock and fill dirt were used to create a new parking area. The pool renovation was also completed and it was opened for business for the summer of 2013. The Ninth Annual Kids Fishing Day was a great success, and plans were in place for next year as well.

### **Blackwater Falls State Park**

The October snowstorm brought down several trees that fell across the falls boardwalk, damaging or destroying several sections. The boardwalk was closed for a time until repairs could be made. Staff and volunteers performed cleanup from storm, removing debris and repairing trail surface. Volunteers also worked on the trail improvements and tree planting throughout the park. Installation of new campfire ring benches at the Nature Center was completed to give an added attraction and replace the deteriorated wooden benches. Contractors completed installation of the Sled Run conveyor belt. New shower stalls were installed in Cabins 12 and 24. Insulation was installed in the Trading Post attic space for comfort and energy efficiency. Leaks on the spa and pool were repaired. The propane supply line to the lodge was replaced to provide adequate propane supply to the lodge facilities. A new roof was installed on the campground check-in station. Repairs were made to the upper falls path by improving drainage, installing new cross-ties and adding crusher run gravel. Staff completed roofing and painting along with installing guttering on the Lifeguard Quarters building. The maintenance crew fabricated eight sets of fireplace grates for the guest cabins. A new dishwasher was installed in the kitchen by in-house labor which involved extensive modifications and repairs to the grease traps, drains and plumbing.

### **Blennerhassett Island Historical State Park**

From July through October, a large portion of the staff's time was spent cleaning up debris left from the derecho windstorm. The 2012 managed deer hunt harvested 52 deer. The island continues to have a population of more than 130 deer per square mile, which is considered too many, so another hunt was planned for the fall of 2013. The tugboat "Gigi" was removed from the water and major repairs were done to the hull, propeller and drive shaft. This project was completed by parks staff, which saved thousands of dollars over having the vessel dry docked. The crew also completely renovated a pontoon boat to serve as a work boat. A new concessionaire for the food service on the island began in May 2013. Park staff completely renovated the former ticket booth located at Point Park in Parkersburg, which included the addition of water and sewer service to convert it into a second snack stand. Two employees were sent to Captains School and received their US Coast Guard Captains License. This enabled the park to have backup captains in the event of illness or absence as well as to add more special events. The park began offering numerous new events such as dinner cruises and nature programs this year. Overall, the park saw an increase in visitation, especially during May and June, when there was a 10 percent increase. There was also an increase in charters, weddings and group campers.

## **Bluestone State Park**

As with all areas, the park suffered through the derecho at the start of the fiscal year and the effects were felt through the remainder of the summer. This was followed by the heavy snows in October and several flood events over the winter and spring. Seventy-five tons of gravel was needed to repair campsites in the Old Mill Campground. The picnic shelter and pool bathhouse floor were painted. All trails received new plastic trail blazes and some park boundary marking was completed. The floor was replaced in Cabin 4, and carbon monoxide detectors were placed in all cabins. The WV DOH began the Lilly Bridge Project replacement project that will impact the area for some time. APBA Boat Races were held again at Bluestone Lake.

## **Bluestone Wildlife Management Area**

Most of the year was spent on routine maintenance in all area campgrounds and roads. Staff also spent much time cleaning up from the derecho and snowstorms. Several flood events required cleanup as well. The roof on the residence was replaced.

## **Cabwaylingo State Forest**

The new Group camp kitchen was built and opened in time for the season. All cabins were completely re-plumbed and other areas modified as needed to be connected to the new Kermit PSD water system. Renovations began at the superintendent's house to bring it up to current code. WV DOH began the planning process to replace the bridge at the Group camp. The Tank Hollow shelter received a new roof and sub roof.

## **Cacapon Resort State Park**

The park began to see devastation from the emerald ash borer as many ash trees were killed by the pest and had to be removed. Floors were refinished in 10 cabins, a stone fireplace hearth was replaced in one cabin, and fire damage was repaired in another. The renovation of the Old Inn continued a project that involves removal of the siding and restoration of the original structure. New furniture was installed in the Old Inn rooms. A new informational sign funded by the park foundation was installed at the overlook on Cacapon Mountain. New metal roofs were installed on the laundry and lumber storage buildings. The park potable water storage tank was cleaned. Steel posts were added to reinforce the loading area of the lodge.

## **Camp Creek State Park**

New signage was replaced throughout the park and forest. Staff worked with the DNR Wildlife Section and the WV Division of Forestry to build two new parking areas to improve access to the forest area. Staff cleaned up and repaired damage from both the derecho wind storm in June and snowstorm in October. WV DOH upgraded the roadway with off-road tar and gravel paving through the Blue Jay campground. Staff installed new headstalls on eight sites in the Double C horse campground as well as four heavy duty metal round pens. Several volunteer groups worked extensively on improving the 35 miles of trails. A new park and forest brochure and trail map was developed.

## **Canaan Valley Resort State Park**

Canaan Valley Resort State Park is in the final year of the major renovation project. The park received more than \$35 million in bond appropriations for the renovations that include two new 80-room wings to the north and south sides of the conference center, a facelift to the exterior of the conference center, and a new main lobby and portico. A new tube run with a magic carpet system to transport tubers back to the top of the run is included in the park improvements as well. There were also upgrades to the snow making capabilities and upgrades to A, B and C buildings at the ski area. A new five-stall sporting clay range was opened and dedicated this year. The clay range proved to be very popular and financially successful. Other significant accomplishments included a new outdoor deck at Quenchers Pub in the ski area and a new miniature golf course.



### **Carnifex Ferry Battlefield State Park**

The majority of the reporting period was spent cleaning up debris that was left behind by the June 29 derecho and snowstorm in October. Park staff had to replace the power supply to the museum but the park was very fortunate not to have any major damage to structures. All parking bumpers in the picnic area were replaced with concrete bumpers that were poured on site using reusable forms. New pedestal grills were designed, built and installed at all picnic shelters by park staff. A wood stove was installed in the park office building to take advantage of the abundance of firewood and to reduce the heating bill. Sign shop staff made a total of 1,387 signs in fiscal year 2013.

### **Cass Scenic Railroad State Park**

The Leatherbark Ford Shops were remodeled and converted into four separate units for vendors to rent. Roommaster was installed at the park office to allow for online reservations of the Company Houses for the first time. Shay #2 had a side sheet installed and tire job completed as part of its restoration. Mountain State Railroad & Logging Historical Association continued work on the Climax project by completing fabrication of the water tank and installation of the three trucks under the Climax frame. Two new offices were completed at the Locomotive Shop for the Assistant Superintendent and the Locomotive Supervisor. The park celebrated its 50th anniversary June 15, 2013, with a commemorative train ride to Whittaker Station. Special events hosted at the park this year included Rail Fan Weekend, Cass Homecoming, Cass Logging Days, Harvest Day Weekend, Great Train Race, New Moon Runs to Whittaker, Full Moon Runs to Bald Knob, Heisler-Old Spruce Runs, Double Headers to Bald Knob, and Dinner Trains.

### **Cathedral State Park**

Due to the extensive damage suffered from the snows related to Hurricane Sandy, much time was spent on restoring public safety and reopening park areas. With the help of Human Resource Development Foundation Inc., park staff cleared debris and repaired all trails. The HDRF also rebuilt two footbridges and repaired four more. The Parks Engineering Section rebuilt the picnic shelter and replaced the restroom roof. At the end of the reporting period, cleanup effort were still ongoing. The damage Cathedral sustained was mainly the younger generations of hemlocks either uprooting or tops breaking under the snow load. The larger hemlocks seemed to withstand the damaging snowfall better. With the loss of tree canopy, sunlight now penetrates to areas it did not reach before, which may lead to interesting changes in the park environment.

### **Cedar Creek State Park**

The park began negotiations with Mon Power for replacement of the primary electric line from the residence to the campground. Electrical upgrades continued in the campground with installation of conduit and wire to replace two outdated circuits. Nine new electric pedestals were installed during this process. Renovations were made to the park's general store including a new metal roof, fascia and gutters. A new aerator pump was installed in the sewage lagoon, new ventilation ducts were installed in the campground bathhouses, and animal resistant trash can holders were installed throughout the campground. Renovations at the pool bathhouse were completed. The park entered into an agreement with the Glenville State College Forestry program for trail design and maintenance.

### **Chief Logan State Park**

The park hosted the annual Sue Browning Wildflower Hike, the Aracoma Story, Inc. productions, the Aunt Jenny Wilson Music Festival, Civil War Re-enactment, West Virginia Independent Music Festival, Irish Road Bowling, the Third Annual Hunting and Fishing Expo, and Christmas in the Park. An Eagle Scout and Boy Scout Troop performed a service project at the park, painting the Mud Lick Hollow rest room and installing a bulletin board near the museum. Park staff installed a bench funded by the Women's Clubs of WV near the water fountain at the park office. Contractors installed a new water pump and pump motor at the booster station below the pool after the old system failed.

## **Chief Logan Lodge**

In its seventh year of operations, the economic slowdown and lower group business resulted in a drop in average occupancy to 54 percent and reduced revenue to \$1,676,290 with a net operating gain of \$35,290. Staff changes included a new assistant general manager and the filling of vacant maintenance supervisor and accounting positions. Seasonal staffing remained difficult, in particular for the restaurant, which complicated efforts to continue providing expected upper-scale guest services. The recreation center adjacent to the lodge continued to provide lodge guests and the community with activities. The nine-hole disc golf course proved popular with family reunions and was utilized by other team-building programs. The connector road between the lodge area and park was the subject of many meetings with a possible start date set for spring 2014. Package rates providing lodge room discounts combined with area attractions/events such as bikers in the park, Hatfield and McCoy Trail, and amphitheater tickets continued to be successful while other packages such as dinner theater saw a drop. A common complaint that reduces the attraction to business groups is insufficient cellphone access as well as the very limited bandwidth on the Wi-Fi systems that has trouble accommodating all the new technical gadgets now in use. The third Annual Chief Logan Hunting & Fishing Expo was a success.

## **Coopers Rock State Forest**

The Coopers Rock State Forest office interior was completely renovated. It also allows office staff to function more efficiently and included conversion of a storage room into much needed office space for the forest assistant superintendent. The copy and file room received new shelves, file cabinets, and a money drop safe for revenue deposits. The forest gift shop and grill were both renovated and new products made available for sale. A campers store was added to the check-in building at the McCollum Campground. The net result of the major changes was a significant increase in revenue. An ADA walkway was added from the Overlook parking lot to the rest room in that area. Hiking trails have been upgraded with new reflective trail markers are effective in low light situations.

## **Droop Mountain Battlefield State Park**

The first half of the fiscal year was spent cleaning up from the derecho wind storm, a labor-intensive effort complicated by staff shortages due to the retirement of a longtime maintenance worker. Dozens of fallen trees were removed after the storm and throughout the year as previously damaged trees fell in subsequent storms. The park benefited from a National Civilian Community Corps crew who worked for a week cleaning debris, assembling picnic tables and garbage can holders, and other tasks. Considerable time was spent preparing the area for the sesquicentennial of the Battle of Droop Mountain. Events included a series of hikes, a Civil War mural, historical plaque, re-enactment, special museum displays and a documentary. Numerous talks were given to local schools and other groups and the park hosted several weddings and many dozens of park tours. The aged water system required numerous repairs but was kept operational.

## **Greenbrier River Trail**

The windstorm of late June 2012 downed hundreds of trees along the trail, completely closing the trail for two weeks. The snowstorm of October caused additional damage, but not as severe. Other work included installation of composite benches and construction of a single table picnic shelter. Major repairs were made to six toilets, including new vent pipes and turbines, skylight repairs and fresh paint. Six additional bear-proof trash receptacles were installed at campsites along the trail. Two new campsites were built, complete with three-sided camping shelters. Five miles of trail were surfaced with limestone crusher run and a new mowing tractor with boom arm mower was acquired through the Recreational Trails grant program.



### **Greenbrier State Forest**

The derecho that struck the state at the end of June 2012 and the snowstorm of late October both caused extensive damage in several areas of the forest. Most activities since that time have revolved around reclamation and repair efforts. More than 3,000 downed and dangerous trees were removed. Of those, 800 were in the cabin area and 60 were around the pool parking area. The roofs on Cabins 2, 4 and 5 were repaired/replaced as a result of damage. The well house in the cabin area also had to be rebuilt. Many stumps were removed in the cabin and pool area. Cleanup in the cabin and pool areas was extensive. A new bike trail that connects the picnic area to the cabin area was completed by a group of local volunteers. The 49th Annual Show-Me Hike (spring wildflower hike), Greenbrier County Boy Scout/Girl Scout Day Camp, and the Civil War reenactment of the Battle of White Sulphur Springs took place on the forest.

### **Hawks Nest State Park**

The park saw substantial challenges over the fiscal year, not the least of which was the damage from the June and October storms. Cleanup lasted through the second half of 2012 and into the spring of 2013. The last area to be cleared was the Lovers Leap Trail which required a crane to remove a large fallen tree in March 2013. The lodge received a partial makeover with the addition of new curtains and drapes in guest rooms, the lobby and conference room. The lodge gift shop and tram office were also redesigned. Special events included a remote control airplane event and the West Virginia Sesquicentennial.

### **Holly River State Park**

Park staff started a roof replacement project on the office/restaurant building funded by the park foundation. Prior to completion, the Oct. 29 snowstorm dumped 3 feet of heavy, wet snow on the area. As a result of the snowfall, all state-owned electricity transmission lines and utility poles were destroyed. A tremendous amount of damage was also done to park timber, structures and trails. With help from the DNR Engineering Section and Miller Engineering consultants, the power grid was redesigned and placed underground. The park was without power for five months and overnight facilities were closed until mid-April. Contractors were brought in to remove hazardous trees from recreation areas and debris dams from Laurel Fork. Park staff cleared downed trees, tree tops and debris from recreation areas, roadways and hiking trails. The WV DOH, National Guard and crews from Workforce WV aided in cleanup efforts. Some debris still remains to be cleared.

### **Kanawha State Forest**

Most of the year was spent cleaning up from the derecho wind storm and the October snowstorm related to Hurricane Sandy. Several minor structures had to be repaired or demolished. After the cleanup from the larger storms, individual trees fell and damaged the roof and frame of Shelter 6 and the restroom at the pool parking lot. Repairs were made to those structures. A new, larger firewood storage building was built in the campground.

### **Kumbrabow State Forest**

The overlook project was completed at Mill Creek Falls. The new overlook provides easier access for viewing the falls and a new footbridge was built along the Mill Creek Falls Trail. Campsite # 7 was also completed with a foot trail leading down to the stream in an attempt to make the site more desirable. The park staff also relocated the playground from the cabin area to the picnic area. Plans were made for the picnic area to be turned into a group camping/overflow camping area. The Division of Forestry and the Wildlife Section completed a new overlook at the top of Potato Hole Trail that includes a small picnic shelter.

## **Laurel Lake Wildlife Management Area**

Two new playgrounds were installed at the picnic and pool area. The playgrounds were purchased with money donated by Consol Energy and Chad Pennington's First and 10 Foundation along with the help of the Laurel Lake Park Foundation. A new handicap accessible fishing pier was also installed at the dam area of the lake. The fishing pier was donated by the Mingo County Commission. The suspension bridge was also renovated because of safety concerns. Material for the new bridge was donated by the park foundation with the labor being completed by park staff.

## **Little Beaver State Park**

Improvements were made in the second loop of the campground during the spring of 2013, such as enhancement of the living areas and re-grading of the gravel road. A new group camping area opened in April 2013. A central water line was installed to the group area and portable toilets were supplied for the campers. The snowstorm in October caused significant natural damage throughout the park, but no park structures were damaged. Several trees and lots of debris needed to be cut and removed. The road to the campground and the park's hiking trails were impacted most by the storm. The annual haunted trail was also affected by the storm as it was closed for several days, resulting in lost revenue.

## **Lost River State Park**

The park staff was busy this past year completing several much-needed projects in the cabins. Ceiling fans were installed in the remaining standard cabins that had not received them. The exterior of Cabin 7 was painted and major landscaping was completed in front of the cabin. A dilapidated and collapsing culvert pipe leading to Cabin 19 was replaced with a larger plastic pipe. New vinyl windows were installed in Cabin 4 and the bathroom in the cabin was completely repainted. In Cabin 8, the kitchen and bathroom were remodeled and the plumbing and sewer lines underneath the cabin were replaced. New living room furniture was added to Cabins 25 and 26. Other cabin projects included re-roofing, window repairs, painting bathrooms, replacing screen doors and installing carbon monoxide detector/smoke alarm combination units. The fence at the riding stables was repaired. Several of the CCC-era retaining walls were carefully pressure washed throughout the park. Several hazardous trees were removed for safety. A small roof was built over the two exterior grills at Shelter 1 to eliminate rusting of the grills and to provide shelter for park visitors using the facility. A major portion of the roof was repaired at the park maintenance shop. The last of the old wood park signs were replaced with the new plastic laminate type.

## **Moncove Lake State Park**

The park began the fiscal year closed until July 13 due to damage from the derecho that struck the state in June 2012. Many days were spent clearing roads, campgrounds, picnic areas, and hiking trails from trees downed due to the storm. The pool was repainted and a section of the recirculation pipe was replaced. The upper bathhouse and the maintenance building were repainted. WV DOH resurfaced the road along the crest of the dam where the pavement had settled. Grass suppression efforts continued in the lake with two additional stockings of grass carp for submerged vegetation as well as a schedule for spraying the surface to control water shield lilies. The Union Lions Club held their Second Annual Kids Fishing Derby in April with approximately 100 children in attendance and, in September, the Eastern Divide Chapter of the National Wild Turkey Federation hosted the first J.A.K.E.S. day event for youth in the park with more than 100 participating youths.

## **North Bend Rail Trail**

The ongoing drainage improvement project continued along the entire length of the trail. The trail was resurfaced at Tunnel #2 using a \$1,500 grant from Pratt-Whitney. Several instances of severe weather brought down trees and filled ditches and culverts with debris and washed out soil and gravel. This required clearing the ditches and culverts as well as restoring the trail surface. Several areas along the trail were secured from vehicle encroachment by placing large boulders to block access.

### **North Bend State Park**

For fiscal year 2013, lodge and cabin occupancy were up 10 percent and 5 percent, respectively. Both were also well ahead of the five year average. Despite this, revenue was down by 1 percent compared to fiscal year 2012 and almost equal to the five-year average. This was due mostly to a change in the typical guest profile. For the past year or so, occupancy growth has been driven by the gas industry, with many guests involved in well development, pipeline construction, processing plant construction and all related deed searches and legal work. The number of traditional guests was down. Guests staying at the park while working in the area were eating less than one meal per day on the park and spending little of their waking hours there, which impacted the restaurant and other revenue centers. Improvements made over the fiscal year included upgrading the television system to a satellite system with a receiver in each room and cabin, which allows for more channels and better picture quality. Mini refrigerators were installed in each lodge room. The multi-year lodge renovation project was nearing completion and included new carpet, replacing paneling with drywall, new oak trim and new ceramic tile in bathrooms. A four-year outbuilding maintenance project was completed. This project included addressing the major maintenance needs of all outbuildings and involved replacing roofs, trusses, rafters and ceilings with foundations rebuilt as needed. All buildings were painted and skylights were removed and additional windows installed to provide adequate light. A new cabin remodel project began with some hardwood floors being refinished, bathrooms renovated and deck support posts and hand railings replaced. This will be a multi-year project as well, as much of the work will have to be done around cabin rentals.

### **Panther Wildlife Management Area**

The Group Camp window installation phase was completed and staff also replaced the outdoor lighting in the lawn area of the Group Camp with new posts and updated lights. The renovation at the Bunk House continued throughout the reporting period. An unusable bridge crossing Panther Creek was converted to a handicap fishing pier and a handicap accessible picnic area was established. Two trails were reopened, one between the office area service road and the Group Camp and one from the Group Camp to the Fire Tower. Two pump houses were rewired and 200 amp panel boxes installed.

### **Pinnacle Rock State Park**

The main entrance sign was repaired and put back into place after it was damaged by a falling tree. The playground received some minor repairs. New signs were installed in some areas of the park to help make the rules and regulations more visible, as well as to help visitors find trails and other areas easier. Falling Rock Trail received some much-needed maintenance by removing trees, weeds, and brush that had overgrown part of the trail. Maintaining the water level at Jimmy Lewis Lake is still challenging due to the water seeping out of the dam.

### **Pipestem Resort State Park**

Redecoration of McKeever Lodge continued with the installation of new interior signage as well as nearly 400 photographic prints and other decorative pieces in rooms and common areas. Trim painting was done in all staircases, hallways, and public areas to provide a fresh and warmer feel. New carpeting was put down in the lobby, dining room, all suites and guest room hallways. The lodge's Wi-Fi was upgraded to handle peak usage during major conferences. New electrical switching gear was installed in the lodge's third floor mechanical room.

The final phase of replacement of all park trash cans with animal-proof plastic cans was carried out. Attractive recycling bins were installed in each cottage area as well as the campground. The rail fence at Gatrell Point was rebuilt. Park staff used asphalt to repair deteriorating areas in driveways and walkways in the campground, cottage areas, recreation area and lake road. Two radio control racing tracks, a 450-foot dirt terrain track and 277-foot concrete oval, were created utilizing the long unusable skating rink and an adjacent small open lawn area. The rink's old concrete surface was patched and painted for

racings and the rink's benches and railings were repaired. Thirty-two trees were planted in various places on the 18 hole golf course. Protection from deer browsing was erected for each of them.

The Recreation Activity Pass, which includes one visit to each pool, mini-golf, disc golf, paddle boats and bicycles was developed and offered to guests this year. A season pass for disc golfers was created in response to strong local use of this new facility. In a little over a year, revenue from the disc golf course paid for the initial investment cost. The miniature golf course received new carpeting for the putting surfaces on all 18 holes thanks to funding from the Pipestem Foundation. Three cottages were provided with new membrane roofs. The historic Farley Cabin on the west side of the Bluestone Gorge was given a new wood shingle roof and a new outhouse. The third phase of the campground bathhouse tiling project was completed.

The Trout Wrangler package "went viral" following the winter airing of the Pipestem episode of Fly Rod Chronicles. The available slots for spring packages were booked nearly 100 percent. Filming of the Fly Rod Chronicles episode on Project Healing Waters was carried out at Pipestem May 21 through May 27.

### **Plum Orchard Wildlife Management Area**

Much time was spent cleaning up and repairing damage from the wind storm at the beginning of the reporting period as well as the late October 2012 snowstorm. The dam was cleared of vegetation for safety and compliance purposes. Bars were installed on the office window for security, the campground bathhouses were painted, and the last area signs were replaced with the new plastic laminate types. The Wildlife Section worked to establish wildlife plots in recently cleared areas.

### **Prickett's Fort State Park**

A new boat dock was installed at the boat launch area and the old dock was repaired and stained to match. A concrete ramp was poured in the amphitheater and a hazardous tree next to the Job Prickett House was removed. The old pottery kiln below the fort was removed and the Native American structure was relocated to that area. A new water line was installed to the maintenance area.

### **Seneca State Forest**

Cleanup after the derecho and October snowstorm consisted of the removal of downed trees blocking roads, trails and access to facilities. No structural damage resulted from these storms. Installation of new playground equipment at the picnic area was completed, including construction of an ADA accessible pathway. The lake spillway was pressure washed and surface cracks were grouted. Fire tower renovations continued with the replacement of two windows, stair treads, and painting the interior of the cabin. Replacement of decking boards began and walls for a new toilet/woodshed were constructed. Hand pumps serving Cabins 2 and 5 and the campground were repaired. New gas light fixtures were installed at Cabin 5. A new gate was constructed for Clover Lick Road at the intersection with Laurel Run Road near the Greenbrier River. A crew of AmeriCorps members helped clean up trails throughout the forest.

### **Stonewall Resort State Park**

The resort operator continues to operate the resort with a high level of guest satisfaction. The resort has once again been awarded the prestigious AAA Four Diamond Award for service excellence, quality facilities and memorable guest experiences. Guest comments continue to reveal satisfaction with quality experiences in lodging, camping, dining and other recreational amenities. Unfortunately, project revenues continue to be insufficient to cover bond debt repayment and the project is in technical bond default. Construction of a pedestrian and bicycle pathway from the park day use area, along the road past the lodge and ending at the cottage area, was funded through a Transportation Enhancement Program Grant. The grant total was for \$271,020 with the 20 percent matching funds coming from private donations to the Stonewall Resort State Park Foundation. The severe windstorm

in June and the snowstorm of Oct. 30 caused widespread power outage in the area, resulting in the closure of the resort facilities and damage to trees and the natural areas on the park. The most significant concern was the loss of revenue due to the closures. However, resort crews soon cleared downed trees and quickly restored the facilities to full operation.

### **Tomlinson Run State Park**

A new office for the superintendent staff was built onto the existing office. The foundation funded the repaving of the basketball court and it was sealed, painted and lined. The boat dock building was reroofed, new grills were installed at two shelters, and new wooden steps were installed leading to Shelter 1. The Group Camp rest rooms were painted, all buildings had new locks installed and a new kitchen stove ventilation system was installed in the dining hall. An information kiosk was built and installed at the disc golf course as an Eagle Scout project.

### **Tu-Endie-Wei State Park (Point Pleasant Battle Monument)**


The area suffered the loss of a very large walnut tree in the late June 2012 windstorm. The tree was estimated at close to 200 years old and was split apart by the storm and had to be removed. Other damage in the park included the loss of split rail fence sections damaged by falling limbs, but fortunately, no structures were damaged. Plans were finalized for the replacement of the Mansion House roof and the second year of operation for the park's small gift shop proved to be a success.

### **Twin Falls Resort State Park**

Twin Falls, like most other areas in the state park system, suffered the effects of the derecho storm. Countless trees had to be removed from roadways and from on top of buildings and cabins. The storm knocked out power at the lodge briefly but the rest of the park was without power for nearly a week. Fortunately, the extent of physical damage was minimal but the park suffered many guest cancellations for rooms, cabins and campsites. On Oct. 29, 2012, the snowstorm related to Hurricane Sandy brought from 12-24 inches of snow, depending on which end of the park you were on. Power was out at the lodge for two days and other areas of the park for four days. Twin Falls hosted the bi-annual SNRPO Academy February-March 2013, with 12 participants from State Parks and Wildlife attending the five-week program. Other projects at Twin Falls included replacing underground power line to Cabins 11 and 5 to restore service. Phone service was added to cabins. The cabin floor restoration project continued with the completion of four additional cabins. Park staff installed conduit and ran cable for Internet/phone service for the pro-shop, golf maintenance shop and building maintenance shop. Once installation is completed by the cable company all areas will have the ability to complete online orders of equipment and supplies and receive calls without having to come to the lodge and displace other workers for Internet and phone access.

### **Tygart Lake State Park**

Due to a summer drought, conditions forced the marina to close approximately two months early in 2012. The resulting loss of business for the concessionaire also caused a reduction in overnight stays, especially in the cabins, and a 50 percent reduction in mid-week business at the restaurant. Combined with effects of the derecho earlier in the summer, the park incurred a large reduction in revenue during what is typically peak season. With the assistance of inmate labor from Pruntytown Correctional Facility, park staff painted the entire lodge and replaced rotting sills on the lobby and restaurant windows. The lodge rooms received a face-lift to address scratched walls, bathroom water damage, faded paint, discolored paneling, and holes left from previous furnishings. These defects were easily seen after receiving new furniture last year.



As part of the renovations, the 50-year-old front desk top was replaced with a modern counter top which better matches the new interior of the lobby. The gift shops were remodeled to allow for better lighting and display of products as well as opening up more space to showcase additional West Virginia-oriented gifts. The entire lodge now provides guests with a new look, both inside and out. All slides were removed from our playgrounds due to BRIM requirements. With upgrades to several pieces of kitchen equipment in the restaurant, the ANSUL fire suppression system that covers the cooking equipment had to be replaced to provide proper coverage. A new lodge switchboard and phone system was installed which includes an auto attendant as well as on-hold messaging. This system has helped streamline front desk operation as well as provide a higher level of customer service.

The beach at Tygart Lake State Park was closed several years ago due to aging and deteriorating infrastructure. The long-awaited beach renovation project started this fiscal year and will address the bathhouse, swimming beach and all areas in between. With the exception of an early high-water event and summer pool, the contractor made excellent progress.

### **Valley Falls State Park**

A small wall was built around the historic information sign and another was built around a new flagpole that was installed by the footbridge. The restroom was completely re-plumbed and two major water leaks on the main water line in the park were located and repaired. A new water fountain was constructed at the rest room. The parking lot adjacent to the railroad bridge was expanded by six parking spaces. The playground equipment received new mulch safety surface underneath.

### **Watoga State Park (includes Calvin Price State Forest)**

Much time was spent in July, August and September 2012, cleaning up from the June derecho wind storm. Park buildings escaped major damage but roads, driveways, campsites, and trails were blocked in many areas. Clearing trails took nearly two months alone. A log skidder and crew were hired to assist in clearing fallen trees. Staff completed extensive interior improvements in two standard cabins, varnished floors in five modern and eight standard cabins, re-plumbed all drain lines in Cabin 21, rebuilt the flagstone porch on Cabin 31, and repainted the bathrooms in 15 cabins. Construction began on the new office complex to be located in the old restaurant area of the Administration Building. Floors and subfloors were demolished, leveled and replaced. A new restroom was plumbed; office walls were studded in and all wiring, outlets, and switches were installed. A new exterior door was installed as well. Bear-proof garbage cans were purchased and installed in the cabin and picnic areas. On Calvin Price State Forest, timber cutting continued on the Bond Place timber sale and the road to Spice Ridge was lengthened. The Forestry Division began work on a new timber sale known as the Yellow Gate sale.

### **Watters Smith Memorial State Park**

Renovations at the museum included painting, floor repairs, and construction of an information desk. The historic Smith Home was repainted and other exterior repairs were made. At the Oak Ridge facility, the women's bathroom was renovated. Several of the parks trails were repaired, contoured for erosion, and had encroaching brush cut back. New signs were placed at two trail heads and junctions. A large number of dead trees and brush were removed from various locations across the park and along Duck Creek Road. PEM assisted park staff with the installation of a new boiler in the Activity Building. A new refrigerator and stove were installed in the building as well. The park office was moved back upstairs in the Activity Building to better meet the needs of the public. .



## **PLANNING/ENGINEERING/MAINTENANCE SECTION**

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### **Substantially Complete Projects as of June 30, 2013**

- Berwind Lake WMA Dam Modifications
- Blackwater Falls Sled Run Phase 1
- Canaan Valley RSP Ski Area Parking Lot Storm Drainage Improvements
- Canaan Valley RSP Ski Area Tube Park and Beginners Ski Area
- Canaan Valley RSP Ski Area Lift Renovations
- Canaan Valley RSP Ski Area Snowmaking Improvements
- Canaan Valley RSP Ski Area General Building Renovations
- Canaan Valley RSP Ski Area Snow making Raw Water line Construction
- Cacapon Resort SP Well Construction
- Cabwaylingo Dining Hall
- Coopers Rock ADA Fishing Pier
- Hawks Nest Lodge Structural Repairs
- Holly River Emergency Electrical Restoration Project
- Holly River and Audra Emergency Debris Removal and Storm Cleanup
- Pipestem McKeever Lodge Emergency Electrical Repair

### **Design Projects completed as of June 30, 2013, pending construction**

- Blackwater Falls SP West Exterior Staircase Renovation
- Cacapon Lodge Expansion
- Cacapon Golf Course Improvements
- Cacapon Water System Improvements
- Cacapon Upper Dam Modifications
- Cacapon Lower Dam Modifications
- Hawks Nest CCC Museum Renovation
- Hawks Nest Picnic Pavilion Repairs
- Stonewall Pedestrian Pathways
- Twin Falls Lodge Structural Repairs
- Tu-Endie-Wei Museum Roof Replacement

### **Construction Projects in progress by June 30, 2013**

- Blackwater Falls Sled Run Snow Making System
- Blackwater Falls Sled Run Snow Making Well
- Cacapon Old Inn Exterior Restoration
- Cacapon Old Inn HVAC Renovation
- Camp Creek River Trail and Walkway Bridges
- Canaan Valley Resort SP Lodge Renovation and Guest Room Replacement
- Canaan Valley Resort Well Construction
- Twin Falls Kitchen Floor Structural Repair
- Tygart Lake SP Beach and Bathhouse Renovation

### **Design Projects in progress by June 30, 2013**

- Berkeley Springs Old Bath House HVAC Repair
- Beech Fork Lodge
- Pipestem McKeever Lodge Structural Repairs
- Pipestem McKeever Lodge HVAC Piping Replacement





# Wildlife Resources Section



**Wildlife Resources  
Section**  
Curtis I. Taylor, *Chief*

The Wildlife Resources Section (WRS) is responsible for the management of the state's wildlife resources for the use and enjoyment of its citizens. The primary objective of the section is to maintain and perpetuate fish and wildlife at levels compatible with the available habitat while providing maximum opportunities for recreation, research and education.

## ADMINISTRATION

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### Outreach

Wildlife Resources staff devoted considerable time assisting conservation and civic clubs, schools, and communities with various wildlife related inquiries and informational needs. These activities included working with the following organizations and events: Boy Scouts, 4-H clubs, sportsmen's clubs, outdoor classrooms, nature tours, fairs, local sports shows, training schools, and the National Hunting and Fishing Days Celebration. Cooperation was given to universities and colleges by serving as guest lecturers. Numerous interviews were given to the TV, radio and print media.

Sectional meetings were conducted at 12 sites around the state in March 2013 to present proposed regulation changes to hunters and anglers. These meetings also provide the general public an opportunity to make recommendations and ask questions relating to our regulation proposals and our agency programs.

Game Management staff presented more than 150 classes and lectures and attended more than 100 sportsmen groups meetings. Special youth hunting opportunities were conducted for waterfowl, squirrel, turkey and white-tailed deer. The special youth hunts provide an excellent opportunity to introduce young people to the outdoors and the hunting tradition.

The WV State Wildlife Center continues to excel as an outdoor educational facility. More than 62,464 visitors and 192 group tours used the facilities and enjoyed viewing West Virginia wildlife.

Fisheries management staff conducted or assisted in 14 fishing education events involving more than 1,500 participants. These events included National Fishing and Boating Week, Hooked on Fishing Not on Drugs, and Becoming an Outdoors-Woman. Additionally, the agency participated in the Cabela's "Wanna Go Fishing for Millions" event by tagging fish in Burnsville, R.D. Bailey, and Tygart lakes as part of contest designed to promote fishing in West Virginia.

Information and Education staff gave 57 presentations to approximately 3,606 people. Staff also worked at Junior Conservation Camp, wrote and administered the Wildlife Exam for the West Virginia Envirothon, and conducted wildlife training for 30 teachers participating in the Envirothon. Staff presented at the annual WV Science Teachers Association Conference. Staff served as judge for the USFWS Junior Duck Stamp Contest. Personnel edited, proofed, and updated the hunting and fishing regulations in printed format and on the Web. Staff reviewed and coordinated web updates for the Wildlife Resources Section. They helped with writing, editing, and proofing the West Virginia Wildlife Calendar and legislative rules. Staff edited, approved, and coordinated with Department of Commerce Marketing and Communications for the publication of various brochures. Staff spent numerous hours planning and hosting the annual Association for Conservation Information conference at NCTC. Many hours were spent planning the DNR booth at the inaugural National Boy Scout Jamboree at Bechtel Summit Reserve. Staff worked DNR booth for the Sesquicentennial celebration at the Capitol Complex.

Lottery proceeds were used to publish and distribute the West Virginia Wildlife magazine. The 28-page publication is mailed to 42,000 subscribers with the remaining 2,000 copies distributed to district offices, fairs and schools. The articles are written by DNR employees about the state's wildlife, and the programs used to manage them wisely. Lottery proceeds were also used to place advertisements in both electronic media (TV and radio) and print media (magazines and newspapers). The ads promoted hunting, fishing, special events and the State Wildlife Center.



The WRS sponsored and provided ideas, technical assistance, and interviews for West Virginia Wildlife, a weekly 90-second TV segment shown on six newscasts on two stations in the Charleston-Huntington-Beckley market. The West Virginia Outdoors and DNR Report radio programs were broadcast more than 17 MetroNews affiliated stations located throughout the state.

Project WILD provides training for formal and nonformal educators across the state. In the past year, 308 educators attended 14 workshops for Project WILD, Aquatic Project WILD, Growing Up WILD and Flying WILD.

The West Virginia Becoming an Outdoors-Woman (BOW) program is continuing to introduce women to outdoor activities. The spring workshop is always well-attended with more than 70 participants, and the fall workshop had more than 50 participants. The women attended hands-on classes in hunting, fishing, backpacking, canoeing and other outdoor-related skills.

Wildlife Diversity staff conducted a number of education programs related to plants in West Virginia, including Master Naturalist Program workshops on trees, shrubs and woody vines; wildflowers and weeds; recording, sharing and preserving natural history data; and nature interpretation and teaching with a focus on plants, invasive plants, nature in winter and classification. Other presentations completed in 2012 included poisonous plants, federally threatened and endangered plants, and collecting and documenting vascular plants.

Staff hosted three Diversified Cooperative Training high school students, providing them an opportunity to learn about the kinds of work done by our program in a mentoring and internship program coordinated by the Randolph County School system.

Other program participation included the Blackwater Wildflower Pilgrimage and National Hunting and Fishing Days.

### **West Virginia Wildlife Endowment Fund**

The total market value of the fund at the close of FY 2013 was \$45,714,656.39. During Calendar Year 2012, there were 289 Adult Lifetime Licenses sold, 1,246 Infant Lifetime Licenses sold, and 3,512 Senior Lifetime Licenses sold for a total dollar amount of \$679,904.

### **Hunting and Fishing License Unit**

The Hunting and Fishing License Unit is responsible for administering all aspects of the hunting and fishing license operations. In 2012, there were 911,219 annual license privileges sold resulting in license revenue of \$15,408,211.

The goWILD! online license sales and the agent electronic point of sale system continue to grow in popularity and the two methods for purchasing a license accounted for approximately 76 percent of license revenues for the 2012 license year.

## Hunting and Fishing License Sales By Residency and Class—Calendar Year 2012

### Total License Sales

<b>RESIDENT</b>				
<b>Class</b>	<b>Description</b>	<b>Price</b>	<b>Number</b>	<b>Amount</b>
A	Hunting and Trapping	\$19.00	27,322	\$519,118.00
AH	Apprentice Hunt & Trapp	\$19.00	2	\$38.00
AHJ	Apprentice Junior Hunt & Trapp	\$16.00	5	\$80.00
B	Fishing	\$19.00	87,056	\$1,654,064.00
N	Antlerless Deer Hunting	\$10.00	73,113	\$731,130.00
BG	Big Game	\$10.00	3,338	\$33,380.00
RG	Additional Deer - Firearms	\$21.00	24,719	\$519,099.00
RB	Additional Deer - Archery	\$21.00	19,368	\$406,728.00
RM	Additional Deer - Muzzleloader	\$16.00	1,720	\$27,520.00
X*	Sportsman Hunting/Trapping/Fishing	\$30.00	101,009	\$3,030,270.00
XJ**	Junior Sportsman Hunting/Trapping/ Fishing	\$11.00	7,826	\$86,086.00
A-1	Small Arms Hunting	\$8.00	8,824	\$70,589.47
DS	Bear Damage Stamp	\$10.00	23,874	\$238,740.00
O	Trout Fishing	\$10.00	101,761	\$1,017,610.00
CS***	Conservation Stamp	\$5.00	219,810	\$1,099,050.00
<b>Resident Subtotal</b>			<b>699,747</b>	<b>\$9,433,502.47</b>

\*The listed price of X (\$30) does not include the price of the CS (\$5). Total price of X is \$35.

\*\*The listed price of XJ (\$11) does not include the price of the CS (\$5). Total price of XJ is \$16.

\*\*\*CS includes the CS stamps sold on X and XJ licenses.

<b>NON-RESIDENT</b>				
<b>Class</b>	<b>Description</b>	<b>Price</b>	<b>Number</b>	<b>Amount</b>
I	National Forest Hunting/Trapping/ Fishing	\$2.00	14,466	\$28,932.00
E	Non-resident Hunting/Trapping	\$119.00	25,886	\$3,080,434.00
EE	Non-resident Bear Hunting	\$162.00	1,132	\$183,384.00
AAH	Non-resident Apprentice Hunt & Trapping	\$119.00	1	119.00
AAHJ	Non-resident Apprentice Junior Hunt & Trapping	\$16.00	2	32.00
F	Non-resident Fishing	\$37.00	11,891	\$439,967.00
H	Non-resident Small Game Hunting - 6 day	\$27.00	826	\$22,302.00
LL	Non-resident Fishing - 1 day	\$3.00	46,992	\$140,976.00
NN	Non-resident Antlerless Deer	\$27.00	14,499	\$391,473.00
RRG	Non-resident Additional Deer - Firearms	\$43.00	4,649	\$199,907.00
RRB	Non-resident Additional Deer - Archery	\$37.00	1,952	\$72,224.00
RRM	Non-resident Additional Deer - Muzzleloader	\$37.00	264	\$9,768.00
UU	Non-resident Archery Deer	\$32.00	5,823	\$186,336.00
VV	Non-resident Muzzleloader Deer	\$32.00	1,990	\$63,680.00
WW	Non-resident Turkey	\$32.00	3,447	\$110,304.00
XXJ	Non-resident Junior Sportsman	\$16.00	2,335	\$37,360.00
A-1	Small Arms Hunting	\$8.00	1,279	\$10,234.53
DS****	Bear Damage Stamp	\$10.00	1,222	\$12,220.00
OO	Trout Fishing	\$16.00	13,924	\$222,784.00
J *****	Small Game Shooting Preserve Hunting - 6 day	\$10.00	1,108	\$11,080.00
CS/LE	Non-resident Conservation / Law Enforcement	\$13.00	57,784	\$751,192.00
<b>Non-resident Subtotal</b>			<b>211,472</b>	<b>\$5,974,708.53</b>

\*\*\*\* Non-resident DS is equal to EE purchases.

\*\*\*\*\* Available through goWILD! Online only

<b>Grand Total Resident + Non-resident Sales</b>	<b>911,219</b>	<b>\$15,408,211.00</b>
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## Hunting and Fishing License Sales By Class — Calendar Year 2012

### Lifetime Agent License Sales

<b>ADULT</b>				
Class	Description	Price	Number	Amount
	<b>Adult</b>			
A-L	Hunting and Trapping	\$782.00	-	-
AB-L	Hunting, Trapping, and Fishing	\$805.00	201	\$161,805.00
A-1-L	Small Arms Hunting	\$75.00	14	\$1,050.00
B-L	Fishing	\$552.00	12	\$6,624.00
O-L	Trout	\$230.00	62	\$14,260.00
<b>Adult Subtotal</b>			<b>289</b>	<b>\$183,739.00</b>

<b>INFANT</b>				
Class	Description	Price	Number	Amount
	<b>Infant</b>			
A-L-I	Hunting and Trapping	\$391.00	1	\$391.00
AB-L-I	Hunting, Trapping, and Fishing	\$402.50	916	\$368,690.00
B-L-I	Fishing	\$276.00	9	\$2,484.00
O-L-I	Trout	\$115.00	320	\$36,800.00
<b>Infant Subtotal</b>			<b>1,246</b>	<b>\$408,365.00</b>

<b>SENIOR</b>				
Class	Description	Price	Number	Amount
	<b>Senior</b>			
XS	Hunting and Trapping	\$25.00	3,512	\$87,800.00
<b>Senior Subtotal</b>			<b>3,512</b>	<b>\$87,800.00</b>

<b>Grand Total Lifetime Sales</b>			<b>1,535</b>	<b>\$679,904.00</b>
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## Capital Improvements

The Wildlife Resources Section continued its successful capital improvements program to enhance opportunities for hunters, anglers and other wildlife recreationists. Funds for capital improvements are primarily derived from 10 percent of the hunting and fishing license revenues and from the purchase of the Conservation Stamp by licensed hunters and anglers. This program is one of the most visible efforts of the agency providing facilities such as wildlife management areas, shooting ranges, fishing and boating access sites, physically challenged accessible hunting and fishing facilities, and fish hatchery and dam improvements.

During the fiscal year, more than \$1.5 million was spent on capital improvements. New land acquisition for wildlife management areas and boating access accounted for more than \$700,000.

The year's major projects were:

1. Purchased 590 acres to increase the size of Cross Creek Wildlife Management Area in Brooke County.
2. Purchased 550 acres to increase the size of Amherst/Plymouth Wildlife Management Area in Wetzel County.
3. Purchased 190 acres to increase the size of Wallback Wildlife Management Area in Clay County.
4. Completed construction of a District 6 storage building near Palestine in Wirt County.
5. Completed construction of new public boating access facilities on the Elk River at Tate Creek, Braxton County.
6. Completed construction of new public boating access facilities on Bluestone Lake, Summers County.
7. Completed construction of new public boating access facilities on Cheat Lake at Ice's Ferry in Monongalia County.
8. Completed the installation of a universally accessible fishing pier at Laurel Lake, Mingo County.

## West Virginia's Archery in the Schools Program

When the school year begins in the fall of 2013, students from 286 schools around the state will be participating in the Division of Natural Resources (DNR) West Virginia Archery in the Schools (AIS) Program. The DNR began the pilot program in the fall of 2004 with 19 schools and in the eight years has exceeded all expectations. In fact, this interest has allowed DNR to host trainings in every region of the state, reaching more than 630 physical education teachers. The WRS has received an increasing demand of certifying additional instructors so we have developed a one day training specifically designed for college physical education majors. Because of the Program's success, the DNR has hosted eight annual state archery tournaments. This year the Annual Archery in the Schools State Qualifying Virtual Tournament was held with more than 858 from 45 schools participating. Of these students, 395 students from 25 schools participated in the state tournament and many advanced to the National Tournament.

The AIS Program has become the DNR's largest and fastest growing educational programs – reaching an estimated 80,000 students in the past eight years. The DNR, along with the Department of Education, wildlife organizations, and teachers, has been able to introduce student's grades 4-12 (no matter size or ability) to the life skill of archery.

West Virginia is one of 46 states participating in this national program, with similar success being experienced by state wildlife agencies throughout the country. West Virginia's DNR received national attention when the West Virginia School for the Deaf and Blind became the first school in the nation for the hearing and sight impaired to participate in this program.

A lot of work has gone into reaching this point, and a lot of credit goes to the teachers and volunteers who believe in the AIS Program. Special thanks goes to organizations such as: Appalachian Bowhunters Association, West Virginia Bowhunters Association, West Virginia Trophy Hunters Association, West Virginia Chapter of the Wild Turkey Federation, West Virginia Hunter Education Association, and Beyond the Backyard. Without these organizations, the DNR wouldn't have been able to reach as many schools.

### **Hunters Helping the Hungry**

The Hunters Helping the Hungry (HHH) Program is a cooperative effort involving the DNR, the Mountaineer and Huntington Area Food Banks, and a network of local food pantries, shelters, churches and children's homes. Since its inception in 1992, the HHH Program has provided over a million family-style meals to the state's hungry. In 2011, generous hunters donated a total of 1051 deer (40,673 pounds of nutritious meat providing more than 61,000 family-style meals). Deer processing and transport costs for the HHH Program in 2010 was \$68,197.00, which was offset largely in part with donations from the West Virginia Department of Health and Human Resources, the Greater Kanawha Valley Foundation, Share the Harvest Sunday fundraiser, Governor's One Shot Deer Hunt fundraiser, wildlife organizations, and the generosity of private individuals. Federal and State Laws prohibit the use of license revenue to fund this program and the DNR must rely upon the generosity of others through donations to continue.

### **National Hunting and Fishing Days — Stonewall Resort State Park**

West Virginia's Celebration of National Hunting and Fishing Days is like no other event held in West Virginia, with hands-on learning opportunities for youngsters and families in the area of wildlife and outdoor recreation. In fact, the objective of the event is to educate the non-hunting/fishing public on the benefits of these recreational activities and how they support the DNR's efforts in wildlife conservation. The DNR teams with the West Virginia Wildlife Federation to promote this important event. Nearly 20,000 wildlife enthusiasts are in attendance to try their hand at everything from archery, shooting, fly-fishing and kids fishing derby. In addition, attendees also have the opportunities to sit in on several wildlife demonstrations or visit one of the hundred-plus vendors on hand.

### **Outdoor Youth Challenge**

The Outdoor Youth Challenge (OYC) is one of, and arguably the most important, event held annually at West Virginia's Celebration of National Hunting and Fishing Days (NH&FD). The OYC is both a youth expo and competition. Young people are exposed to a multitude of activities and displays with real hands-on learning and instructional opportunities that encourage them to gain important knowledge and experience about wildlife, hunting, fishing, firearms safety and outdoor recreation. Young folks can choose only to participate or they can compete. For some youngsters, this may be the only opportunity they will have to be exposed to these outdoor activities.

## **GAME MANAGEMENT**

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The Wildlife Resources Section, Game Management Unit, conducts management activities on 88 Wildlife Management Areas (WMAs) and eight state forests totaling 435,937 acres. Acquisition of public land and wetlands is a high priority of the Section. Additions were made to three WMAs totaling 808 acres and one new WMA, Little Canaan – 3,041 acres – was established in 2012-2013.

An extensive wildlife management program is conducted on nearly 1.1 million acres of national forest land located in West Virginia through a cooperative agreement with the U.S. Forest Service and West Virginia Division of Natural Resources. State wildlife biologists and managers devote a significant portion of their time reviewing national forest opportunity areas, overseeing timber sales, and

providing technical input in the development of national forest plans. Management issues are closely reviewed to ensure that our fish and wildlife resources receive the maximum possible benefit.

Management on the 88 WMAs is directed toward improving wildlife habitat. Timber management was conducted on 1,760 acres with additional timber sales in the planning stage. Mitigation for oil and gas exploration on WMAs consumed a large amount of personnel time.

Management activities on state and national forest lands included planting 2,804 trees and shrubs for food and cover and pruning, releasing and/or grafting more than 600 individual trees and shrubs.

More than 2,664 acres of wildlife clearings were mowed and 60 acres of new clearings were established. Lime and/or fertilizer were applied to 460 acres, and 524 acres were seeded to herbaceous vegetation including dove fields. Prescribed burning was used to retard vegetation succession and improve the diversity and abundance of desirable plants on 48 acres. Herbicide was used on 189 acres to control undesirable/invasive vegetation. Sharecropping agreements with local farmers were executed on 1,581 acres to maintain open land habitat. Fifty-four (54) waterholes were maintained and eight developed to provide a year-round water supply for wildlife.

Water levels on 197 acres of wetlands were manipulated to encourage waterfowl utilization. Three hundred twenty-seven (327) waterfowl nest structures were maintained. Thirty-two (32) nest structures were maintained for other wildlife species.

More than 723 miles of roads and trails and 15 bridges were maintained. Road closures were installed or maintained at 531 sites to prevent disturbance to wildlife and to protect wildlife habitat.

Numerous information and regulation signs were erected or maintained. Four hundred and 50 campsites, 21 boat ramps, 23 shooting ranges, 20 physically-challenged hunter access roads, seven angler access sites, and 164 parking areas were maintained.

The highly successful controlled waterfowl hunting program at McClintic WMA continued to provide quality waterfowl hunting for West Virginia hunters. Approximately 41 waterfowl ponds and 22 shooting stations are maintained on the area including two shooting stations for the physically challenged.

### **Wildlife Damage and Nuisance Activities**

Forty (40) nuisance bears were destroyed, six were relocated and one was trapped and released on site. Hundreds of other bear complaints were resolved with harassment measures and/or removal of edible attractions.

Thousands of additional calls regarding sick, injured, or nuisance wildlife are handled annually. Calls about nuisance wildlife are often resolved by providing technical advice and recommendations but many require capture and relocation or euthanasia of the offending animal.

### **Environmental Reviews**

Wildlife biologists reviewed numerous projects that potentially impact wildlife and its respective habitat. Primary concerns are road construction, stream alteration, hydropower projects, power line rights-of-way, gas line construction, oil/gas well sites, surface mines and other construction projects. In numerous cases, recommendations have been made to alter projects, thus reducing detrimental impacts on wildlife.



## **Wildlife Population Surveys and Research**

Waterfowl surveys (7) and census routes for woodcock (22) and mourning doves (10) were conducted in cooperation with the U.S. Fish and Wildlife Service. Surveys were also conducted for bald eagles (7) and song birds. Three hundred and three doves (303) and 647 Canada geese were banded.

Harvest and biological data were compiled for hunter-killed turkey, beaver, bobcat, fisher, deer, bear and wild boar.

## **Technical Assistance**

Interest in managing private lands for wildlife continues to increase, and biologists are frequently contacted for technical assistance. Assistance ranges from general advice over the telephone to providing specific management recommendations to actually completing detailed site specific management plans. Approximately 1,400 staff days were spent providing technical assistance to private individuals and landowners in 2012-2013.

## **Regional, National and International Coordination**

Many of the challenges and issues facing the Wildlife Resources Section's Game Management Unit are shared by other states and agencies. A number of regional, national, and international organizations exist to promote information exchange and multi-jurisdictional coordination. The Wildlife Resources Section is an active member/participant in many of these organizations and their various committees. Notable organizations include: Association of Fish and Wildlife Agencies, Southeastern Association of Fish and Wildlife Agencies, Northeast Association of Fish and Wildlife Agencies, The Wildlife Society, Atlantic Flyway Council and Technical Sections, Southeast Deer Study Group, Southeastern Cooperative Wildlife Disease Study, and Eastern Management Unit Dove Technical Committee.

## **White-tailed Deer**

West Virginia continues to be one of the favorite deer hunting grounds in the eastern United States. In 2012, deer hunters harvested a total of 132,261 deer in the combined deer seasons. This is a 2.5 percent decrease from the 2011 harvest and 6.5 percent less than the previous five-year harvest average of 141,390. The combined deer season harvest for 2012 is the 23rd largest total deer harvest on record for West Virginia. The 2012 total deer harvest represents one deer killed for every 111 acres of deer habitat in the state, and a 48 percent harvest decrease from the record harvest of 255,356 deer in 2002. From 1945 through 2012, a total of 5,740,153 deer have been recorded as harvested in West Virginia. Sixty-two percent (3,533,162) of the total recorded deer harvest of the past 67 years has occurred in the past 20 years.

Hunters took 931 deer in the special urban deer season in 2012. This special archery deer hunting season is available to incorporated cities and homeowner associations, which may open the second Saturday of September and close Dec. 31. During this special season, seven deer may be taken which do not count toward the regular archery deer season bag limit. In 2012, 12 cities (Barboursville, Bethlehem, Bridgeport, Charleston, Harpers Ferry, Harrisville, North Hills, Parkersburg, Morgantown, Ronceverte, Weirton and Wheeling) reported harvesting 713 deer. In addition, 218 deer were harvested during urban deer archery hunts conducted by nine homeowner associations.

Efforts to control the spread of chronic wasting disease (CWD) in free-ranging deer in Hampshire County by DNR, landowners and hunters are ongoing. In the 2012 deer seasons, samples from 672 hunter-harvested deer brought to game checking stations in Hampshire County, two stations in northern Hardy County and one station in northern Morgan County were tested for CWD. Sixteen samples were found to have the abnormal protein associated with CWD. CWD has now been detected in a total of 131 deer in Hampshire County and two deer in Hardy County. Lowering encounter rates between infected and non-infected animals by prohibiting artificial supplemental feeding and baiting

are generally accepted management practices for slowing the spread of an infectious disease among wildlife and initiating these prohibitions on a statewide or regional basis for deer is a major tool used by other states combating CWD.

A bowhunter survey has been conducted annually since 1995. This cooperative venture with the West Virginia Bowhunters Association is an excellent means of monitoring populations of game animals and furbearers as well as providing a method for bowhunters to report their observations. The wild turkey fall harvest has been measured accurately by the survey.

### **Elk**

An elk population monitoring plan was developed using salt blocks and trail cameras. Monitoring stations in the elk management area were randomly selected from best elk habitat available. Best available habitat was determined through GIS analysis based in part on Kentucky elk habitat use.

### **Black Bear**

West Virginia hunters harvested a record 2,691 black bears during the combined 2012 archery and firearms seasons. This is the fourth time the kill has topped 2,000 in the past five years. The harvest of 2012 was 34 percent higher than the 2011 harvest of 2,009 bears and is 13 percent higher than the previous record harvest of 2,392 set in 2010.

One-hundred eighty-three (183) bears were killed on highways, died as a result of illegal or marauder activities, or succumbed from other non-hunting causes (electrocution, accidental poisoning, etc.). This is down 13 percent from the 206 non-hunting mortalities recorded in 2011.

A new black bear research project was initiated in 2011. West Virginia is participating in a study with Pennsylvania and New Jersey to examine movements, home range, survival, and harvest vulnerability of bears that live in and around urban areas. Data collection was completed in 2012–2013. The data collected by all three states will be analyzed by a student at West Virginia University to complete a doctoral dissertation (Ph.D.).

### **Wild Turkey**

The 2012 spring gobbler harvest was 8,303. The total was 9.6 percent lower than the kill in 2011 (9,190). Total turkey brood observations were 42.6 percent less than 2011, 26.7 percent less than 2010 and 38.8 percent less than the 5-year average. There is a direct correlation between turkey brood observations and the spring turkey harvest two years later.

The survey of wild turkey broods is an important aid in forecasting the statewide harvests and changes in the wild turkey population. Brood reports in 2012 were 43 percent less than counts in 2011.

The spring gobbler survey was conducted jointly by the Wildlife Resources Section and the West Virginia Chapter of the Wild Turkey Federation. The survey serves as a means for hunters to report their observations and opinions about wild turkey management. During 2012, results were compiled from 238 hunters, representing a 42 percent increase in hunter participation from last year. Cooperators took 1,822 hunting trips and heard 2,398 gobblers. Interestingly, the addition of 70 cooperators only added 376 trips to the total this year. The gobbling rate (34.8 gobblers heard per 100 hours) was 17 percent lower than 2011 (42 per 100 hours) and down 34 percent from the 30-year average (52.6 gobblers heard/100 hours).

## **Wild Boar**

Boar were introduced in 1971 to supplement big game populations and did well enough to accommodate a hunting season in 1979. Harvests have ranged from three that year to 158 in 1995. The decline in the population since the late '90s led to the removal of the December season in 2003. The October firearms season is designed to reduce the harvest and allow numbers to improve and move into unoccupied habitats. Traditionally, hunters have been less successful during October when weather conditions are warm and dry and leaf fall makes boar sign more difficult to find.

Hunters killed 62 European wild boars during the 2012 season. This is a significant increase from the harvest of 32 in 2011 and is the highest harvest since 1999. The early snowstorm brought on from Hurricane Sandy dropped 4 inches or more of snow in southern West Virginia in October, making it easier for hunters to spot and track wild boars. This is the primary reason the harvest increased in 2012. In addition, mast was good but spotty in the boar area which resulted in concentrations of boars in good mast producing areas, making it easier for hunters to hunt these elusive creatures.

## **Ruffed Grouse**

A total of 20 cooperators participated in the collection of samples and submission of data and envelopes. These grouse hunter's reported on 340 hunting trips, which represents a 13 percent decline from the 392 hunts recorded in 2010. While their numbers declined, their average individual effort per hunt increased (3.65 hours per hunt in 2011 versus 3.48 hours in 2010).

Cooperators averaged shooting three shots for every grouse put in the bag, which is an improvement over last year's 28 percent shooting success. Flushing rates, calculated as a cumulative average per hour were highest in the Southern Region, with 1.72 flushes per hour; the Mountain Region had 1.68 flushes per hour followed by the Eastern and Western Region. The overall statewide average was 1.59, the highest since 2001.

## **Annual Mast Survey**

Annually during August, cooperating personnel in the Division of Natural Resources rate the abundance of mast produced by selected tree and shrub species. Mast indices are then formulated for each species on a statewide and ecological region basis. This survey has been conducted annually since 1970 and is important information often requested by hunters. Mast abundance is also an important tool to forecast the annual big game harvests.

Compared to the 2011 survey, mast this year increased slightly. All hard mast species except walnut and beech increased from last year's estimate. Several soft mast species were also monitored. The apple index decreased considerably (28 percent), greenbrier essentially remained the same and sassafras increased the most. Compared to the 42-year average, the 2012 mast index for all species combined increased 5 percent above the long term average. The statewide index for combined hard mast species (beech, hickory and oaks) and black cherry was 9 percent above the 42-year average.

While the overall relative abundance of mast increased, the distribution of it was inconsistent across and within ecological regions. This year's crop was best described as consistently inconsistent. Some areas were similar to the bumper crop of 2010, while other areas mast was virtually lacking as in 2009. Given this spotty distribution, hunters may have had to change hunting techniques and areas to be successful.

## **WARMWATER FISH MANAGEMENT**

The Warmwater Fish Management Unit is responsible for providing maximum fishing opportunity to meet increasing recreational demand and for protecting and managing approximately 98,000 acres of warmwater streams and more than 22,000 acres of public impoundments.

To meet this challenge, the warmwater program is divided into five areas:

- 1) surveys and inventories of existing fishery resources, providing essential data to assess and develop management programs;
- 2) protection of fish habitat, placing intensive efforts toward review and comment on various state and federal permits for proposed activities that could possibly impact public fishing waters;
- 3) enhancement and development of fisheries, increasing production and use of fisheries through stream and lake improvements, and providing additional opportunities by stocking desirable fish species;
- 4) development of public access to fishery resources, ensuring adequate public access to existing streams and lakes, and acquisition and/or development of new lakes; and
- 5) outreach and information development, providing the public with material concerning fishing and fish management programs.

### **2012–2013 Warmwater Stocking**

#### **Muskellunge**

More than 1,400 fingerling muskies were stocked the Monongahela and West Fork rivers and the Tygart backwater. More than 1,000 advanced fingerling muskies were stocked in five lakes and one river. West Virginia's musky fishery is enhanced by this annual stocking program. Almost 58 percent of the reported musky catches and those qualifying for trophy citations were caught from stocked streams or lakes in 2012.

#### **Walleye**

More than 155,000 walleye fingerlings were stocked in two lakes and two rivers, and three lakes received more than 2,300 advanced fingerling walleye. The walleye stocking program is designed to establish reproducing populations of this fine sport species in suitable waters throughout the state. Approximately 40 percent of all trophy catches since 1976 are from stocked waters. Cooperative research efforts continue with the Virginia Department of Game and Inland Fisheries and Ohio Department of Natural Resources to enhance native walleye populations, especially in the New and Ohio rivers.

#### **Channel Catfish**

More than 129,000 channel catfish fingerlings reared at Palestine and Apple Grove hatcheries were stocked in 34 waters. Twenty-nine small impoundments were stocked with more than 11,000 catchable-size channel catfish in 2013 to provide enhanced family recreational fishing opportunities at many community, state park and wildlife management area lakes. Fishable populations are established in the majority of these waters with excellent catfishing found in Anawalt, Barboursville, Berwind, Cacapon, Cedar Creek, Chief Logan, Conaway Run, Coopers Rock, Edwards Run, Fort Ashby, French Creek, Handley, Hurricane, Indian Rock, Krodel, Laurel, Little Beaver, Mason, Mountwood, North Bend, Pendleton, Pipestem, Tomlinson Run, Turkey Run, Wallback, and Wirt County lakes.

#### **Hybrid Striped Bass**

More than 144,000 hybrid striped bass fingerlings were released in the Ohio River and three lakes. Hybrids over five pounds are regularly being caught from stocked waters. The New and Kanawha rivers also are providing excellent opportunities to land trophy hybrids.

### **Striped Bass**

More than 98,000 striped bass fingerlings were stocked into Bluestone Lake and the Ohio River. Additionally, Mount Storm Lake received more than 8,100 advanced fingerling striped bass.

### **Black Bass**

More than 12,000 largemouth bass fingerlings were stocked into the Ohio River. These stockings represented one component of a fisheries management plan for the Ohio River. More than 2,800 smallmouth bass were stocked into the Tug Fork River.

### **Blue Catfish**

More than 139,000 blue catfish fingerlings were stocked into the Kanawha and Ohio rivers and R.D. Bailey Lake as part of restoration efforts of this native species.

### **Hatchery Improvements**

Hatchery renovation plans are being developed with a contractor to address a number of priority operational issues, including: water supply and treatment; water quality monitoring; and pond liner replacement. These improvements are needed to maintain fish production levels. These plans are the result of recommendations through a statewide hatchery study completed in 2009.

## **WARMWATER PROJECTS**

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### **Reservoir Management**

Fishery surveys were conducted on six large reservoirs in the state. Surveys focused on black bass at East Lynn, Mount Storm, R.D. Bailey and Stonewall Jackson lakes. Walleye assessment continues at Summersville Lake to better understand growth and size structure of this popular species. Crappie surveys were conducted at Beech Fork Lake for age and growth assessments. These inventories provide the basis for determining management needs and evaluating management measures.

Annual operational changes by the U.S. Army Corps of Engineers and owners of other large reservoirs require coordination between the WRS and agencies responsible for these reservoir projects to minimize impacts to fish and wildlife and recreational opportunities during such operational changes. Information upon which to base these fish and wildlife considerations is available as a result of the section's reservoir monitoring program.

### **River, Stream and Lake Research and Surveys**

Stream and lake fisheries management activities continued in 2012. Fish population assessments were conducted on a number of rivers and small impoundments. Highlights include: muskellunge movement research on the Elk River and North Bend Lake; walleye movement and population assessments on the New River and at Charles Fork and Moncove lakes for broodstock source assessment; catfish research on the Ohio River and South Branch of the Potomac to assess age and growth; sauger and walleye surveys at navigation dam tailwaters on the Ohio and Kanawha rivers; and black bass monitoring at 13 small impoundments.

### **Fish Health Surveys**

Fish health assessments are increasingly important components of fisheries management. Fish health surveys were conducted for largemouth bass and sauger from the Belleville, Hannibal, Racine and Willow Island pools of the Ohio River. Largemouth bass virus was detected in largemouth bass collected from all the pools sampled. Health surveys conducted at nine small impoundments and the South Branch of the Potomac River did not indicate the presence of deleterious pathogens in important recreational species.

## Ohio River Coordination

Fisheries management staff is coordinating fisheries research and management activities on the Ohio River. These efforts include habitat and fish population assessments through the interstate Ohio River Fish Management Team. Fisheries biologists are also participating in the Mississippi Interstate Cooperative Resource Association's aquatic nuisance species planning efforts to minimize impacts upon West Virginia's aquatic resources.

Cooperative efforts among Ohio River states continued through "fishing the leading edge" concept to assess and monitor the movement of Asian carp species in the Ohio River. This activity consists of intensive fish collections in the Greenup Pool to determine how far these species have moved and to remove substantial numbers of fish in an effort to slow or contain the upriver movement of these fish.

## Habitat Enhancement

Fisheries management staff continued habitat enhancement projects in 2012. The agency continued the long-running and successful fish attractor project in large lakes. Recycled Christmas trees were placed as attractor structures in Burnsville, East Lynn, Mount Storm, Summersville, Sutton and Stonecoal lakes.

Catfish spawning boxes were installed at Burnsville, East Lynn and Tygart lakes. Spawning boxes were evaluated for use by catfish by underwater video at Burnsville, East Lynn and Tygart lakes. Maintenance of native aquatic vegetation planting sites was conducted at Beech Fork, Burnsville, East Lynn, Stonewall Jackson and Sutton lakes. Staff also installed fish spawning and nursery habitat structures in New Creek and Parker Hollow lakes.

## Fishing Tournament Coordination

Data on 2012 catch rates and fishing effort during 566 organized fishing tournaments were collected from 19 bass clubs and 91 open tournament sponsors. Tournaments were held at 33 West Virginia water bodies, including 377 on lakes, 37 on the Kanawha River, 33 on the Monongahela River, and 114 on the Ohio River. Tournament fishing pressure at 138,157 hours was 15% higher than in 2011. When comparing 2012 results to 2011, average tournament catch rates were the same, 0.20 fish per angler hour, the highest in 38 years of tournament record keeping. This is noteworthy since the number of tournament hours were also the highest yet recorded.

## Trophy Fish Citation Program

The Trophy Fish Citation program recognized anglers who caught 684 fish, representing 25 species that qualified as trophies in 2012. Of 16 waters (private lakes are counted as one water) yielding 10 or more fish citations, 75 percent were from streams and rivers, 5 percent from small public fishing lakes, 8 percent from private lakes and ponds and 12 percent from large public lakes. The trophy citation program began in 1976 and has recognized 57,776 anglers for their outstanding catches. The 2004 trophy citation program marked the first year of issuing length only citations in addition to the certified weight citation. This allows anglers to practice catch-and-release and still receive a trophy citation. In 2012, 438 length only citations were issued.

The First Fish Certificate program was established in 2008 to recognize young anglers' first catches. The online certificate is a colorful, tangible way to record a youngster's first fish. The certificate can be completed with the angler's name, species of fish, date and place of catch. The certificate can then be printed at home at no cost. The First Fish Certificate can be found online at [www.wvdnr.gov/Fishing/First\\_Fish.shtm](http://www.wvdnr.gov/Fishing/First_Fish.shtm).

## 2012–2013 Warmwater Stockings

Species and Hatchery/Source	Number	Size	Location
Blue Catfish	139,504	fg	R.D. Bailey Lake; Kanawha and Ohio rivers
Muskellunge	42,000	fy	Monongahela and West Fork rivers
Muskellunge	1,441	fg	Monongahela and West Fork rivers, Tygart backwaters
Muskellunge	1,020	af	East Lynn, Kimsey Run, North Bend, Stonecoal and Woodrum lakes; Monongahela River
Channel Catfish	11,607	ad	Anawalt, Barboursville, Berwind, Cacapon S.P., Cedar Creek, Chief Logan, Conaway Run, Coonskin, Edwards Run, Elkwater, Fort Ashby, French Creek, Handley, Krodel, Little Beaver, Mason, Mountwood, Newburg, North Bend SP., Pendleton, Pipestem, Poorhouse, Rockhouse, Teter Creek, Tomlinson Run, Turkey Run, Wallback, Watoga S.P. and Wirt Co. Farm lakes
Channel Catfish	78,685	fg	Anawalt, Anderson, Barboursville, Bear Rocks, Brushy Fork, Burnsville, Camp Run, Castleman Run, Fort Ashby, Hurricane, Indian Rock, Krodel, Larenim, Little Beaver, Saltlick # 9, and Upper Cove lakes; Ohio River
Channel Catfish	50,719	af	Anawalt, Anderson, Barboursville, Big Ditch, Brushy Fork, Cacapon S.P., Camp Run, Castleman Run, Conaway Run, Dunkard Fork, Elk Fork, Fort Ashby, Hurricane, Indian Rock, Krodel, Larenim, Laurel, Little Beaver, Middle Wheeling Creek, Mineral County Tech Center, Mountwood, North Bend, Plum Orchard, Right Fork Frozen Camp, Saltlick # 9, Tracy, Upper Cove, Upper Mud, Wallback and Wirt Co. Farm lakes
Walleye	500,000	fy	Burnsville Lake
Walleye	2,313	af	Charles Fork, Stonecoal and Stephens lakes
Walleye	155,063	fg	New and Ohio rivers, Stephens and Stonecoal lakes
Hybrid Striped Bass	144,847	fg	Beech Fork, Bluestone and R. D. Bailey lakes; Ohio River
Hybrid Striped Bass	1,214	af	Curtisville and Rollins lakes
Largemouth Bass	12,000	fg	Ohio River
Smallmouth Bass	<u>2,800</u>	<u>fg</u>	<u>Tug Fork River</u>
Striped Bass	8,177	af	Mount Storm Lake
Striped Bass	98,080	fg	Bluestone Lake; Ohio River

ad = adult  
af = advanced fingerling  
fg = fingerling  
fy = fry



## COLDWATER FISH MANAGEMENT

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In 2012-13, selected waters in West Virginia were stocked with 1,072,447 trout weighing 718,647 pounds. Adequate rainfall during fall 2012 allowed normal transfers to occur from Reeds Creek and Spring Run Hatcheries to other state hatcheries, resulting in good growth rates at all hatcheries. As a result the overall size of trout stocked in 2012-13 was 1.5 fish per pound. A breakdown of trout production by facility follows.

The seven state-owned hatcheries produced 713,682 pounds of trout in 2012-13. Except in years when production is affected by conditions such as drought and disease outbreaks, normal production averages 750,000 pounds per year. Given the present state of hatchery facilities available, this level of production is considered near capacity. Production greater or lesser than this reflects unusual situations.

The federal hatchery at White Sulphur Springs provided 4,965 pounds of trout during 2012-13. This is the only federal hatchery remaining in West Virginia. The poundage of trout currently being provided is less than has been provided historically from this facility, but is representative of expected trout poundage because of changes in hatchery operations at White Sulphur Springs. Other anticipated operational changes at the hatchery may further reduce the poundage available for stocking.

The 2012 fall stocking totaled 38,997 pounds. This is within the targeted poundage range of normal fall stockings. Thirty-three waters received two stockings each during a two-week period in October. The fall trout stockings are very popular and provide fishing opportunities through the fall and winter months until the regular spring stocking schedule begins.

Wild trout management continues to receive special attention in West Virginia. The two major parts of this program involve protecting and enhancing native brook trout populations and stocking fingerling trout to establish and maintain wild trout populations in streams that will not support stream reproduction. In 2012-13, a total of 315,295 fingerling trout were stocked in 54 waters. Of these, 141,075 were brown trout stocked in 50 waters around the state. This program has resulted in considerable expansion of wild trout populations in West Virginia, particularly in southern West Virginia waters, where traditional trout waters are not present. Many of these southern trout fisheries are dependent on cold, unpolluted discharges from underground mines. Additionally, nearly 105,200 surplus rainbow fingerlings were stocked in Stephens Lake of Raleigh County in an attempt to establish a two story fishery. The wild trout program provides thousands of anglers with year-round recreational opportunities in areas of West Virginia previously lacking such angling opportunities.



## 2012-13 Year Trout Stocking

Time Period & Hatchery	Rainbow Trout		Golden Trout		Brook Trout		Brown Trout		Total	
	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number
Spring Run	9,558	12,178							9,558	12,178
Petersburg	11,720	17,351	397	117					12,117	17,468
Bowden	9,380	5,221					1,290	911	11,022	6,301
Edray	500	350							500	350
Reeds Creek	5,800	4,704							5,800	4,704
*White Sulphur	2,200	880							2,200	880
Sub-Total	36,958	39,804	397	117			1,290	911	38,997	41,001

Spring 2013	Rainbow Trout		Golden Trout		Brook Trout		Brown Trout		Total	
	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number
Spring Run	133,039	186,984	11,055	15,205	23,083	29,949			167,186	232,149
Petersburg	21,317	29,973	2,247	2,785					23,564	32,758
Edray	13,340	52,062	8,655	13,340	7,155	12,137	3,055	5,535	72,927	122,020
Ridge	22,598	38,575	2,426	4,091	22,355	38,814			47,379	81,480
Tate Lohr	15,528	30,194	3,754	7,423					19,282	37,617
Reeds Creek	122,704	180,998	7,547	12,008	43,690	69,362	5,097	8,820	179,038	271,188
Bowden	130,400	194,011	5,733	8,657	16,730	25,165	14,646	25,402	167,509	253,235
*White Sulphur	2,765	999							2,765	999
Sub-Total	500,413	752,742	41,417	63,509	113,013	175,427	24,798	39,757	679,650	1,031,446
<b>TOTAL</b>	<b>537,371</b>	<b>792,546</b>	<b>41,814</b>	<b>63,626</b>	<b>113,365</b>	<b>175,596</b>	<b>26,088</b>	<b>40,668</b>	<b>718,647</b>	<b>1,072,447</b>

\*Federal Hatchery

## WILDLIFE DIVERSITY PROGRAM

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### Endangered Species Program

#### West Virginia Northern Flying Squirrel

West Virginia northern flying squirrel nest boxes were monitored by Program biologists at 12 sites to obtain data on the distribution and population trends of this rare mammal. During this fiscal year, no northern flying squirrels were captured in fall 2012 and eight squirrels were captured at four sites in spring 2013. Tissue samples for genetic analyses (blood samples preserved on FTA cards) were collected from several of the animals handled this year. Trail cameras were also deployed to document the presence of this species at a small number of sites; this survey method will be investigated further in the future. Assistance was provided to a graduate student working with northern flying squirrels in West Virginia, Virginia and North Carolina. Genetic analyses of blood samples collected in previous years was completed by personnel at the University of North Carolina, and the results of this work should be published soon. All capture data on this species, including captures by other state and federal agencies and other researchers, were entered into the program's database and map files. During this fiscal year, in addition to squirrels captured by WVDNR personnel, a total of 17 northern flying squirrels were captured at seven additional sites by consultants, U.S. Forest Service biologists, and the graduate student.

Although the U.S. Fish and Wildlife Service (USFWS) previously removed this squirrel from the federal list of threatened and endangered species, this decision was challenged in court and overturned. This resulted in the squirrel being once again placed on the endangered species list. This court decision was appealed by the USFWS, and the judge ruled in the Service's favor. Following this decision, the West Virginia northern flying squirrel was officially removed from the federal list of threatened and endangered species. It is still considered a Forest Sensitive Species on the National Forest and the WVDNR considers it a Species of Greatest Conservation Need.

#### Endangered Bats

White-nose Syndrome (WNS), a condition that has killed more than 5,000,000 cave bats in the eastern United States and Canada, was first observed in West Virginia in January 2009. By the end of winter 2009-2010, WNS was documented in six counties: Greenbrier, Hardy, Jefferson, Mercer, Monroe and Pocahontas. By the end of winter 2011-2012, WNS had been observed in 14 counties in West Virginia including nearly all counties with significant cave resources.

During winter 2012-13, winter bat surveys were conducted in 26 caves to monitor populations of hibernating endangered bats (Indiana bat and Virginia big-eared bat). While at these sites, Program personnel assisted researchers from several institutions with White-nose Syndrome studies by collecting samples needed for their research projects. Because WNS can possibly be spread by people visiting caves, biologists conducting bat surveys followed disinfection protocols developed by the USFWS to clean gear and clothing between cave trips. All sites visited were WNS positive. Numbers of Indiana bats in these caves showed declines of more than 80 percent from the pre-WNS numbers. Little brown bats (a non-endangered species), previously one of the most common bats in the State, exhibited declines of up to 97 percent from pre-WNS levels. However, Virginia big-eared bats, which occur in caves where other species of bats are declining, do not appear to be affected by WNS. To date, no Virginia big-eared bat has been observed exhibiting the classic symptoms of WNS. To learn of the most recent findings relating to WNS, Program personnel participated in numerous state/federal/tribal conference calls dealing with WNS.

In June 2013, female Virginia big-eared bats were censused at the 10 known maternity colonies. Night vision equipment was used to count these cave-dwelling bats as they left their roost to feed in the evening. The number of bats counted this June (7,934 individuals) was up 5.4 percent over the 2012 count and is the highest count on record. This also suggests that, unlike other cave bat species, Virginia big-eared bats are not being impacted by White-nose Syndrome.

To gather data on the distribution and abundance of bats across the state and to document mortalities caused by WNS, the WVDNR and US Forest Service (USFS) began establishing bat monitoring routes across the state in 2009. In summer 2010, a total of 85 routes were run, most of these were run multiple times to determine variability and support statistical analyses. Routes covered a total of approximately 5,425 miles. In summer 2011, 81 of these routes were selected to be run again, and some routes were run more times than in 2010 resulting in 5,990 miles of surveys in 2011. In summer 2012, 77 routes were run, most three times, for 5,842 mi of surveys. Effort in 2013 will be less than in previous years because, starting in 2013, several routes will be run every-other-year rather than annually. Assistance in conducting acoustic surveys has been provided by USFWS, WV Division of Highways, Olgebay Institute, The Freshwater Institute, National Park Service, and the caving community and other volunteers. In 2013, Myotisoft, LLC was contracted to analyze the first four years of acoustic survey data; this work is ongoing at this time. Data gathered from this project will allow biologists to track changes in bat populations over time as WNS progresses.

WVDNR and USFWS personnel worked with Greer Limestone, Inc., to establish a monitoring plan to ensure that quarry expansion in Germany Valley will not negatively impact important bat caves, including the state's most important hibernaculum, Hellhole. Temperature and barometric pressure monitors were placed in Hellhole and Schoolhouse Cave, and a weekly report of the results of this monitoring is sent to the WVDNR and USFWS. A meeting was held in early 2013 to review data collected in 2012 and to revise reporting criteria.

In summer 2011, a bachelor roost (all males) of Indiana bats was found under a bridge on the West Virginia Turnpike. This is the largest summer colony of this bat known in the state. These bats were monitored to determine seasonal activity patterns at this site to assist with planning bridge maintenance. In early 2013, WVDNR, USFWS, WV Division of Highways, and WV Turnpike Commission met to develop a plan for bridge maintenance that would minimize disturbance to the bats roosting under the bridge. Bridge maintenance was completed in early June 2013 with little disturbance to the roosting bats. In August 2012, 47 little brown bats roosting under the bridge were banded as part of a large study trying to identify bats that are surviving WNS.

Program biologists continued to work with wind power developers to reduce bird and bat mortalities at wind farms. The program project leader currently serves on three technical advisory committees established by the Public Service Commission for projects in Greenbrier, Mineral and Randolph counties. A facility in Mineral County had extremely high bat mortalities in 2012 (highest recorded anywhere), and WVDNR and USFWS biologists have been working with project personnel to test a curtailment strategy in 2013 that may reduce bat mortality at this site.

#### **Cheat Mountain Salamander**

In summer 2012, under a contract with the WVDNR, Dr. Thomas Pauley of Marshall University conducted field investigations into the connectivity of known populations of this rare salamander found only in West Virginia. This work was completed in September 2012. These data will be used to map potential Cheat Mountain salamander conservation areas. Pauley has been conducting annual monitoring of a Cheat Mountain salamander population at Timberline Four Seasons Resort to look at impacts of ski slopes passing through a population of this salamander; data from this study were shared with the WVDNR. The WVDNR plans to fund a study of the genetics of this salamander species,

and paperwork for this cooperative project with the University of North Carolina was completed in spring 2013; the project will begin fall semester 2013.

#### **Flat-spired Three-toothed Land Snail**

Biologists assisted the West Virginia Division of Forestry (WVDOF) in developing a timber sale on Coopers Rock State Forest that would protect the threatened flat-spired three-toothed land snail which occurs in the area (i.e., buffer zones around known and potential habitat). Data loggers were placed in the proposed timber sale area to collect pre-treatment data to evaluate the impacts of timber harvest buffer zones on the snail's habitat. Logging was conducted in early 2012 and, to collect two years of post-treatment data, temperature loggers were deployed in May 2012 and again in May 2013 to gather temperature data following the timber harvest. A study to assess the genetic variability in populations of this snail was completed, and the final report for this grant has been received by the WVDNR. A consulting firm was hired, using a grant from the USFWS, to map potential habitat for this snail on Coopers Rock State Forest. This work was completed in fall 2012 and the maps of potential habitat for this species were provided to the WVDNR and have been shared with the WVDOF.

#### **Diamond Darter**

The diamond darter is a rare fish extant only in a portion of the lower Elk River in West Virginia. This federal candidate was added to the federal endangered species list in July 2013. During the current year, a federal grant was used to contract West Virginia University personnel to conduct distribution surveys and investigations into habitat use by this fish. The final report for a captive propagation study of the diamond darter conducted last year was received.

#### **Allegheny Woodrats**

Under a cooperative grant from the WVDNR, Allegheny woodrats were monitored using a standard trapping protocol at seven long-term monitoring sites. In addition, signs of woodrats noted during bat surveys in caves were compiled. Genetic analysis of the West Virginia woodrat populations by personnel at the University of North Carolina was completed and the report was submitted to the WVDNR.

#### **Miscellaneous**

Numerous information requests from the public were answered and popular articles were written on the state's threatened and endangered animal species. Program personnel reviewed WVDNR projects to assure compliance with the federal Endangered Species Act. Private landowners were assisted with the management and conservation of rare species on their lands. Television spots, newsletter articles, and other outreach projects were undertaken to promote awareness of the state's rare, threatened, and endangered species and of White Nose Syndrome.

### **Ornithology**

#### **American Kestrel**

American kestrels, though common range-wide, occur locally in West Virginia and appear to be limited by a lack of available nest cavities. Much highly suitable habitat is likely unoccupied during the breeding season due to this constraint. In partnership with WVU and the Avian Conservation Center of Appalachia, WVDNR Wildlife Resources Section staff constructed 100 American kestrel nest boxes for deployment in suitable habitat in the north/central region of the state. Of these 100 boxes, 40 have now been deployed and a monitoring report is forthcoming. WVDNR staff and partners will continue to deploy boxes during winter 2013/2014 and monitor for occupancy during the 2014 field season. This pilot project will hopefully expand to other regions of the state if successful.

### **Bald Eagle**

Staff and volunteers monitored 34 bald eagle nest sites in 2013 in Cabell, Grant, Hampshire, Hancock, Hardy, Jackson, Jefferson, Mineral, Monongalia, Morgan, Pendleton, Pocahontas, Raleigh, Taylor, Tucker, Tyler and Wood counties. Due to staff turnover and other constraints, some nests were not monitored, and others did not receive follow-up visits to assess productivity. For these reasons, numbers provided below should not be considered complete. There is every reason to believe that bald eagles are continuing their range expansion in the state.

Ten nests fledged at least one young, with an additional 21 nests with possible/probable success. Five nest sites were not active. Four new nests were located in 2013 in Cabell, Hampshire and Wood counties.

In addition, reports received by staff suggest the existence of at least five additional breeding pairs/nests in the Greenbrier River watershed (3 in the upper and two in the lower reaches of the river). WVDNR staff will follow up on these reports during the 2014 field season.

There were numerous reports in 2013 of non-breeding birds in the state.

Bald eagles continue to recover and recent breeding season observations in the Greenbrier, Bluestone, and New river watersheds suggest a larger breeding population than is currently known. The species continues to expand as a breeder along the Ohio River as well. It is unknown whether there is a breeding population in the southwestern counties, and survey of impoundments/lakes in February and March is recommended. A midsummer 2013 report of a pair at R.D. Bailey Lake might be indicative.

### **Christmas Bird Counts**

Staff coordinated and supported three counts and participated in local counts statewide.

### **Golden Eagle**

Personnel representing the WVDNR Wildlife Resources Section, West Virginia State Parks, West Virginia State Forests, the Monongahela National Forest, the U.S Army, West Virginia University, and private citizens maintained 29 trail camera locations established to assess the wintering golden eagle population in West Virginia.

During 829 camera-trap days, more than 85,000 images were recorded in the 2013 field season. Image analysis is ongoing in cooperation with West Virginia University. Golden eagles were recorded at 25 trail camera locations. Trail cameras recorded 12 additional avian species and 15 mammal species. This project again contributed information that expanded the known distribution of spotted skunks (*Spilogale putorius*) in West Virginia.

The ultimate goal is to conduct a non-invasive mark-recapture (using digital imagery analysis) study to determine the population size, density and distribution in West Virginia. This project also provides the opportunity to estimate golden eagle population age structure and density. Information developed from this project will contribute to a larger trail camera assessment involving 14 states in the eastern U.S. and two Canadian provinces (Figure 1).

WVDNR Wildlife Resources Section Wildlife Diversity Unit is a founding member of the Eastern Golden Eagle Working Group. This is an interstate, international, and interagency effort dedicated to identifying, prioritizing, coordinating, and supporting research and research efforts that address conservation needs for eastern golden eagles; to effectively conserve the eastern golden eagle population on breeding and wintering grounds and on its migratory pathways; and raise conservation awareness about the golden eagle population in eastern North America.

In 2013 the group submitted two manuscripts for publication in *Conservation Biology*, “Threats to Avian Scavengers” and “Assessing Threats to Birds from Wind Energy.” In 2013 the group received the Wings Across America Award from the United States Forest Service for its research and conservation efforts.

#### **Eurasian Collared-dove**

Eurasian collared-dove is a non-native bird rapidly colonizing the southern and central U.S. WV WRS staff responded to reports and confirmed the presence of this species in Union, Monroe County. Evidence strongly suggests breeding activity. Staff will conduct further monitoring visits during the 2014 field season.

#### **Golden-winged Warbler**

WVDNR Wildlife Resources Section staff and partners worked to implement the USDA-sponsored “Working Lands for Wildlife” program. This program targets small landowners for creation of early-successional habitat suitable for the fast-declining species. Staff attended meetings and provided comments and input on development of the ICT tool, screening tool, priority map, ranking and guidance documents, and overall strategy.

In addition, staff submitted a letter of support for an upcoming project: “State-focused Conservation Strategies and Action Plans for Golden-winged Warbler in the Northeast,” which is funded by the Northeast Association of Fish and Wildlife Agencies and administered by the Cornell Lab of Ornithology, Cornell University, Ithaca, NY. If implemented, this project will facilitate the creation of state conservation action plans in partner states.

Finally, staff provided ongoing assistance as-needed to research being conducted by WVU staff and graduate students.

#### **Loggerhead Shrike**

Staff monitored 17 historic/recently-active and two new loggerhead shrike sites in 2013 in Grant, Greenbrier, Hardy, Jefferson, Monroe and Pocahontas counties. Shrikes were observed at 10 of these sites. Breeding pairs were located at five sites, and produced a minimum of six fledged young at four of these sites. In 2012, successful breeding was only confirmed at a single site in Pocahontas County. Productivity remains very low, with no pair fledging more than two young. Single birds were observed during breeding season near Pickaway in Monroe County and Alderson in Greenbrier County, but staff were unable to confirm breeding activity.

In addition, personnel conducted a breeding season loggerhead shrike-specific point-count survey in Berkeley, Grant, Hardy, Jefferson and Pendleton counties. A total of 463 points were completed in Grant and Hardy counties (see map below) with additional surveys conducted in Berkeley, Jefferson and Pendleton counties. No birds were detected. Each point received a habitat score based on a 100-point scale. Given the results of work completed in 2012 and 2013, future surveys will likely target specific sites with seemingly suitable habitat.

Non-breeding birds (late winter, early spring and late summer) were detected in 2013 in the Petersburg, Maysville, and Old Fields areas of Grant and Hardy counties. A single bird was also detected in Jefferson County in late winter. This suggests the possibility that the species might still persist as a breeder in the eastern panhandle region of West Virginia, but is in urgent need of conservation and management action. Birds also overwintered at three of five breeding sites in the Greenbrier Valley.

Finally, staff worked to partner with nearby states and Ontario, Canada in the creation of an informal loggerhead shrike working group. A conference call was conducted in spring 2013 and follow-up work has focused on identifying common goals and potential funding of a project coordinator. Initial goals include standardizing monitoring and survey protocols, trapping and banding birds in winter and development of a BMP document for private landowners.

#### **Olive-sided Flycatcher**

Olive-sided flycatchers have always been rare and local breeders in open, high-elevation wetlands in West Virginia. In recent years this species has been considered extirpated. The first West Virginia Breeding Bird Atlas, 1983 - 1989, noted birds at only three sites, and successful breeding was never confirmed. In May 2013, two birds, ostensibly a pair, were located at the Cranberry Glades boardwalk in Pocahontas County. WVDNR Wildlife Resources Section staff monitored these birds on three separate dates. Despite significant effort, no breeding activity was noted. The birds were still present in mid-July. Staff will conduct follow-up visits during the 2014 field season.

#### **Swainson's Warbler**

Swainson's warbler is a habitat specialist found in dense woody thickets with abundant leaf litter under a mostly-closed to closed canopy. Those occurring in West Virginia are part of a larger disjunct population occurring in the southern Appalachian plateau region. Habitat most-frequently consists of a thick rhododendron understory with an eastern hemlock overstory. However, interesting exceptions to this have been noted. Swainson's warbler is potentially highly vulnerable to large-scale habitat alteration due to mining and other activities within the core of its range in West Virginia. Better understanding of its distribution and abundance will help inform management and conservation decisions.

WVDNR Wildlife Resources Section staff initiated a two-year survey to better-understand the distribution of this secretive species in the state. The first field season, just completed, focused on an eight-county area, including Braxton, Clay, Nicholas, Kanawha, Fayette, Raleigh, Webster and Wyoming counties. Survey work focused on identifying and visiting suitable habitat. Infrared aerial photography was used to identify possible habitat. On-site, personnel located birds by sight and sound, using song and call playback as an aid. Vegetation and structure were also quantified. The effort significantly increased understanding of distribution within the target area:

- 189 locations were visited within the eight-county survey area between 5/15/13 and 7/15/13
- The species was detected at 42 of these sites
- 23 percent of detections occurred prior to song/call playback
- 77 percent of detections occurred during playback, suggesting that this could be an important tool for further survey

Year two of the survey will focus on McDowell, Mingo, Logan, Boone, Lincoln and Wayne counties.

#### **Upland Sandpiper**

Staff monitored a site (active in 2012) near Cabins, WV, in Grant County on multiple dates during the 2013 breeding season. No birds were detected. As with loggerhead shrike, roadside bias likely significantly limits detection of this species.

#### **WV Breeding Bird Atlas II**

The fifth field season of the six-year atlas project was successfully completed. Staff coordinated agency activities, volunteer efforts and contracts and grants to assist the project and completed numerous days of field work to gather atlas data for breeding confirmations and abundance counts. Priorities have now shifted to mop-up work in specific blocks and completing abundance point-count sampling.



Staff and volunteers are on-schedule to successfully complete the data-acquisition phase of the project in fall 2014.

2013 highlights:

- Abundance point-count surveys completed on 170 priority blocks, exceeding 2012 by 62 blocks
- 12,277 individual bird observations submitted in 2013 to-date
- Targeted atlasing efforts in coalfield counties and other difficult-access areas continued
- A WVDNR news release seeking observations of eastern whip-poor-will from the public was hugely successful, with nearly 1,000 responses.

Work has also commenced on preparation and writing of the atlas book. Staff and volunteers worked to compile guidelines and materials, began the writing process, and are in the process of negotiating a contract with WVU press. The analysis and writing phase of the atlas project is expected to conclude in early 2017.

#### **WV Bird Records Committee**

Staff represented WVDNR Wildlife Resources Section on the committee.

#### **Winter Backyard Bird Survey**

The survey was continued, and fall 2013 marks the beginning of the 25th year of the count..

## **ECOLOGY PROGRAM**

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The Ecology group continued work to characterize, classify, map, and protect the natural terrestrial communities in West Virginia. During the fiscal year, DNR ecologists sampled 149 vegetation plots across the state, concentrating on specialized community types including lithomorphic and limestone habitats across the state and more common upland forest types in poorly sampled areas of the state. An additional 23 wetland plots in the eastern panhandle contributed by WVU researcher Patricia Faulkner were added to the WVDNR vegetation plots database. Our database now includes data from more than 4,200 plots well distributed across the state's geography and ecosystems. They form a strong foundation for completing a vegetation classification for the state. This year we completed the classification and conservation status ranking of wetland and floodplain vegetation for the entire state and analyzed statewide data for several upland ecosystems, including oak/heath forests and northern hardwoods forests. A map of exemplary wetlands of West Virginia was created based on wetland site biodiversity rankings. Seven site assessment reports were written in areas with significant natural heritage resources to inform land managers and private landowners.

Ecology staff also made significant contributions to knowledge of rare plant species in West Virginia. Numerous rare plant species were documented by vegetation surveys and information on these occurrences are regularly screened and added to the Biotics database maintained by the Natural Heritage Program. Ecology staff coauthored a noteworthy collections article in the journal *Castanea* which listed state record collections of five vascular plant species. Following this publication, another state record sedge, *Carex kraliana*, was collected in Putnam County. Collections from plots also yielded several state record nonvascular plant species including two lichens, four mosses and two liverworts. Ecology staff responded to numerous requests from within our agency, from other government agencies, and from the public to identify plants, usually from digital photographs. Ecology staff continued to supervise volunteers who contributed substantially to GIS mapping, data entry, and field inventory of rare plants.

Expertise in vegetation management and restoration was shared within WVDNR Wildlife Resources



Section to help develop right-of-way revegetation guidelines for the oil and gas industries, assess trail routes and recreational facility plans for state parks and wildlife management areas, and restore wetlands and streams. At the request of WVDNR in-lieu fee mitigation staff, the ecology group developed a restoration planting software tool in cooperation with the Carolina Vegetation Survey. The tool harnesses the power of our statewide vegetation plots database to recommend site-specific planting lists for restoration sites. Training in the use of the software was provided to WVDNR, West Virginia Department of Environmental Protection and private consultants.

Ecology staff participated in numerous cooperative projects with partners. Ecology staff helped NPS ecologists establish long term monitoring plots in riverscours prairies along the New River. Data sharing with federal, state, and private partners is a regular and critical part of the connection between ecological work at WVDNR and on-the-ground conservation. Staff worked with The Nature Conservancy to improve the northeast regional map of ecological systems for West Virginia. Three surveys in support of the Outdoor Heritage Conservation Fund were completed. Natural heritage data and habitat restoration recommendations were provided to The Nature Conservancy, Potomac Conservancy, Trout Unlimited, Monongahela National Forest, Canaan Valley National Wildlife Refuge, and the Natural Resources Conservation Service. Ecology staff continued to provide technical assistance to the Central Appalachian Spruce Restoration Initiative, including completion of a detailed map of the red spruce ecosystem and implementation of a spruce-fir wetland restoration project at Blister Swamp. Vegetation expertise for wetland delineation was provided to the National Resource Conservation Service at seven Food Security Act sites. Staff served on the Technical Oversight Team for the Appalachian Landscape Conservation Cooperative, providing guidance regarding climate change, research needs and species-habitat associations. Four Ph.D. students and two faculty members were advised regarding research on high elevation and limestone habitats.

Ecology staff participated in numerous outreach and educational events including leading field trips for the Wildflower Pilgrimage, Brooks Bird Club, West Virginia-Virginia Native Plant Societies, AmeriCorps volunteers, West Virginia University and University of North Carolina; teaching Master Naturalist classes on wetlands, non-native invasive species and plant identification; speaking at the Mountaineer Audubon Annual Meeting; presenting the WV vegetation classification at NatureServe's Biodiversity Without Boundaries conference in Baltimore and at the WVDNR/USFS stamp meeting at the Greenbank Observatory; co-teaching a weeklong course on vegetation mapping at the National Conservation Training Center; and presenting climate change assessments at the nationwide State Wildlife Action Plan conference.

## **Scientific Collecting Permits, Environmental Review and Data Management**

### **Scientific Collecting Permits**

Staff issued 275 Scientific Collecting Permits for a variety of projects including T&E species monitoring/surveys, graduate student research, stream monitoring and falconry. One Scientific Collecting Permit was denied, and another was revoked. Fees for collecting permits during the fiscal year totaled \$33,150.

### **Data Requests**

Staff responded in writing to 727 requests (table following) and many other requests by e-mail and telephone.

Type of request	Number
Coal Mining Lands inquiries	156
Abandoned Mine Land reviews	69
Natural gas projects	263
Division of Highways	161
Other	195
<b>Total</b>	<b>844</b>

Staff attended several meetings and conducted site visits with private consultants and state agencies regarding natural gas and highway projects.

#### Rare Species Database

Rare species and plant community data continue to be entered into the Biotics database with records for threatened and endangered species being the priority. A total of 321 records were entered or updated (99 animal records, 195 plant records, 27 plant community records).

#### Miscellaneous

Staff attended and presented at the NatureServe Biodiversity Without Boundaries Conference in Baltimore, MD, in April 2013. Staff also attended the Southeast Association of Fish and Wildlife Agencies Wildlife Diversity Committee (WDC) meeting in Georgia, and has participated in numerous WDC conference calls.

In April 2013, the Division of Natural Resources Commissioners passed the West Virginia Reptile and Amphibian Regulations, which will go into effect Jan. 1, 2014.

### Botany

#### Endangered Plants

Throughout the growing season of 2013, monitoring surveys for four federally-listed endangered and two federally-listed threatened plant species (T&E) were conducted.

Botanical staff continue to consult with all federal agencies in West Virginia concerning the location, identification, and conservation action needed to comply with the federal Endangered Species Act in their projects and on their managed landscapes. We responded to requests for an update and redistribution of the current list of approved surveyors for federally listed T&E plant species, and continue to train people in the identification and conservation and management of those species to enhance the skills of those potential surveyors.

#### Running buffalo clover (*Trifolium stoloniferum*)

WRS personnel accompanied a representative of Brookfield Renewable Power to conduct a monitoring assessment of the Cotton Hill site of running buffalo clover. The site is located along the New River, downstream of the Hawks Nest Hydroelectric facility. This site was the first occurrence of running buffalo clover discovered in West Virginia, and at one time had nearly 100 rooted crowns present.

As of a few years ago, no running buffalo clover could be found at the site, until one plant was seen in 2012 and again in 2013 during our survey. WRS and Brookfield personnel weeded and day-lighted the site to potentially provide an advantage to the clover.

The only other population of running buffalo clover examined in 2013 is the one on Cheat Mountain called the McGee Run / Back Fork Tributary site. Wildlife Resources personnel are investigating the results of logging practices on nearby Department of Agriculture property on a population of running buffalo clover there. To date, only a qualitative assessment has been made of the largest population within the logging operation conducted in 2011, but staff saw an abundance of running buffalo clover at the site. Some concerns were expressed about the potential impact of a growing population of the native plant, wingstem, where the canopy has been thinned.

#### **Shale Barren Rockcress (*Arabis serotina*)**

Shale barren rockcress (SBR) continues to be threatened by the consequences of climate change and invasion by non-native invasive plant species, such as spotted knap weed, Japanese stilt grass and garlic mustard. WRS personnel continue to consult with U.S. Navy Information Operations Command personnel regarding the management of the largest population in West Virginia of SBR, located on the Little Fork Shale Barren. We continue to assist their personnel in the control of the invasive species Japanese stiltgrass above and below the Little Fork shale barren.

Staff began a pilot study funded by the US Navy to use time lapse cameras to document the development of the facultative biennial, shale barren rockcress.

#### **Harperella (*Harperella nodosum*; = *Ptilimnium nodosum*)**

Over the past 10 years, WRS personnel have documented the decline of harperella on three streams in Morgan County (Cacapon River, Sleepy Creek and Back Creek). Data indicates that sometimes dramatic changes in the structure of the streams, likely due to changes in the “flashiness” and intensity of floods, and perhaps the effects of freezing-thawing is altering or removing the principal type of habitat in those streams, silt/sand/cobble bars. Fortunately, harperella also thrives on cracks in bedrock, silt accumulations between boulders along the stream, and sometimes even clay banks along the streams. Limited success has been achieved in attempts to transplant harperella plants in the rivers.

Monitoring surveys were completed in 2013 on part of Sleepy Creek. Staff consulted West Virginia Technical University on hydrologic issues that are sweeping large amounts of silt, sand, and gravel from subpopulations that have been relatively stable until recent years and continue to consult with researchers from across the range of harperella to coordinate our efforts and to exchange data and experiences.

#### **Small Whorled Pogonia (*Isotria medeoloides*)**

The small whorled pogonia (SWP), an orchid, was added to the U.S. List of Endangered and Threatened Wildlife and Plants in 1982. For more than a decade, the single known occurrence was visited by Natural Heritage staff, but was not re-discovered again. On 20 May 2002, another occurrence of a single plant was discovered elsewhere in Greenbrier County, W.Va.

In August 2012, a consulting botanist discovered a new population of SWP in Randolph County, on the Monongahela National Forest, and within the path of a segment of a planned federal highway. Staff revisited the site and found another 11 vegetative plants. WRS personnel are consulting with U. S. Fish & Wildlife Service, as well Natural Resource Conservation Service (NRCS) and the Monongahela National Forest to better define potential habitat for SWP using GIS and modeling technology.

The botanist is working with the WRS GIS coordinator and GIS personnel from the Virginia Division of Natural Heritage to access a model of likely habitat for small whorled pogonia in Virginia that may be helpful in us developing a similar model in West Virginia, to identify potential occurrences in the Mountain State.

### **Virginia spiraea (*Spiraea virginiana*)**

Virginia spiraea, a federally threatened species, is found on four rivers in West Virginia: Bluestone, Gauley, Greenbrier and Meadow. There is also one site at Glen Daniel and another in the town of Eccles.

It was decided to evaluate the monitoring methodology in 2012. That evaluation was completed, but no additional development of an alternative monitoring methodology has been developed in 2013 in part due to lack of funds.

We evaluated whether the plant could be surveyed for in winter as well as during growing season as the USFWS has been receiving requests to authorize surveys in winter.

We agreed to visit selected sites in the winter, summer, and late fall to review how one might differentiate among the various species of Spiraea in West Virginia, with special notes about how to distinguish them from *S. virginiana*.

It was concluded that Virginia spiraea can be identified only with difficulty by professional staff in winter condition and decided that surveys for this species will only be permitted during May through the end of September.

### **Rare Plant Surveys**

Of the more than 430 rare plant elements in West Virginia, few of them have been surveyed for by botanical staff of our program directly. However, a number of new occurrences have been discovered by our ecology staff as they conduct plant community surveys throughout the state. In the second half of the 2012 growing season, staff visited known occurrences of Canby's Mountain Lover (*Paxistima canbyi*), to evaluate spread of the Euonymous Scale among populations of this very rare limestone outcrop endemic plant species.

### **Information and Education**

Numerous educational programs were presented to community, youth and master naturalist groups. Numerous phone calls were taken for wildlife technical assistance, nuisance wildlife, hunting and other issues.

A number of information and education programs related to plants in West Virginia were conducted by WRS personnel, including Master Naturalist Program workshops on such topics as trees shrubs and woody vines in West Virginia; wildflowers and weeds; recording, sharing and preserving natural history data; nature interpretation/teaching with a focus on plants; invasive plants; and navigating with map and compass. Other presentations completed in 2013 included such topics as federally threatened and endangered plants of West Virginia, invasive plants of riparian habitats, and collecting and documenting vascular plants.

WRS staff participated in the Blackwater Wildflower Pilgrimage held annually at Blackwater Falls State Park and the annual West Virginia Celebration of the National Hunting and Fishing Days event at Stonewall State Park.

WRS staff prepared and presented a workshop on invasive plant species found in riparian situations for the Association of Mid-Atlantic Aquatic Biologists in the spring of 2013.

### **Media**

Three newspaper phone interviews to the media were given on general wildlife subjects.

Staff participated in leading two forest stewardship tours at Coopers Rock SF illustrating ecological advantages to silvicultural timber harvesting on the forest and in sectional meetings in District one to explain new herp regulations.

### **Coordination and Cooperation with State Botanists**

In an essential partnership that keeps critical data flowing into Natural Heritage databases, WRS botanical personnel continued to work with curators of herbaria throughout the state. Curators of plant collections at West Virginia University, Marshall University, West Virginia Wesleyan University, and Davis and Elkins College continue to work closely with WRS staff in updating, correcting, and cooperatively distributing botanical voucher specimen data and distribution data as requested. The Botanist attended meetings at the Association of Southeastern Biologists (ASB) meeting held this spring participated in an iDigBio digitization workshop.

Curators from around the state met to involve all small herbaria in the state and to eventually gather all botanical data to a common system that will be accessible online.

### **Zoology Program**

Thirteen cooperative research grants totaling \$105,656 were awarded this year. These grants included new projects, extensions and continuations, and solicited analyses. Projects included development of novel conservation techniques for the eastern hellbender, intensive surveys for the loggerhead shrike in two eastern panhandle counties where historical populations existed, and surveys to determine assemblages of Lepidoptera and Odonata in high-elevation bog habitats. Other research focused on a genetic assessment of red spruce in high-elevation forest ecosystems, freshwater mussel surveys in Elk River and Monongahela River tributaries, and coverage of breeding bird assemblages in underrepresented counties for inclusion in the ongoing West Virginia Breeding Bird Atlas. Multi-year projects were begun to determine the range of Swainson's warbler within its known habitat within the state, and to determine the response of avian communities to increasing pressure from shale gas development. Additionally, one cooperative education grant totaling \$7,800 was awarded this year supporting a project to develop Web-based, rare species and natural community fact sheets for public distribution.

Staff served on the steering committee for a northeast regional Competitive State Wildlife Grant project to determine the extent of, and develop a response to, the prevalence of Ranavirus in amphibian populations in the region. Staff attended a USFWS Northeast Region workshop to provide feedback on the Service's draft technical guidance for selecting and using surrogate species for conservation planning within the region. Staff provided data and input to both the Appalachian and the North Atlantic Landscape Conservation Cooperatives for use in various stages of their development and implementation. Staff hosted a seminar at the Elkins Operations Center to provide updates on the results of a statewide survey to document the status and distribution of all West Virginia crayfish species, and to gather input on agency response to new information concerning endemic species.

Staff engaged in surveys for Cheat Mountain salamanders on USFWS property, green salamanders on West Virginia State Forests and WMAs, and salamander assemblages at selected cave entrances. Staff provided assistance in other program projects including summer bat acoustic surveys, bird species surveys in junction with the USGS Patuxent Wildlife Research Center, and collection of data for the ongoing West Virginia Breeding Bird Atlas.

### **Spotted Skunk (*Spilogale putorius*)**

In 2013, Wildlife Diversity staff used trail cameras to survey for spotted skunks. Trail cameras were operated at 12 locations for a total of 231 camera trap nights. Surveys occurred in Pendleton, Hardy and Berkeley counties. Spotted skunks were recorded at three camera locations in Pendleton County. At the Ant Hill camera site, two spotted skunks were photographed together. The camera traps recorded seven mammal species (including spotted skunks) and three avian species.

This project continues to better describe the known population in Pendleton County and explore areas around known locations in Hardy County. Sleepy Creek Wildlife Management Area in Berkeley County was surveyed because it contains suitable habitat and associated species (Allegheny woodrats, timber rattlesnakes, etc.).

### **West Virginia Butterfly Atlas**

Work continued on the West Virginia Butterfly Atlas. Two formal trainings (Canaan Valley and Marion County) were conducted, as well as numerous one-on-ones with interested citizen scientists. As of 30 June 2013, 47 volunteers and cooperators were trained to participate in the atlas. For the 2012 field season, 18 volunteers and cooperators submitted 603 vouchers from 34 counties, consisting of 78 species of butterflies and 92 species of moths (including 16 species of target moths). One confirmed state butterfly record was documented, with two still pending, and one pending state moth record. All counties in the Monongahela National Forest were surveyed, with work to continue in 2013. A report was generated for the USFS regarding work on the atlas.

A week was spent at Carnegie Museum of Natural History, Pittsburgh, PA to review their curated collection for historical records of butterflies and targeted moths. We documented 58 species of butterflies and 23 species of targeted moths; most of the moths were county records.

All vouchers from the 2012 field season were entered into a database. All locations were confirmed and coordinates generated if needed. A newsletter was written and distributed to participants and other interested parties. All participants received copies of their data and additional materials for the 2013 field season if needed. A website has been designed and implemented that will both provide information to participants and allow them to enter data from photographic vouchers directly into a database, saving staff considerable data entry time.

Occurrence models for four butterfly species of concern were edited for the GIS program. Numerous butterfly programs were presented to interested groups – several attendees were later trained to participate in the atlas.

## **Aquatic Community Assessment and Restoration Program**

### **Fishes**

Small stream work continued as well as the development of standardized protocols for fish sampling in large non-commercial rivers. Methods for larger rivers will be based on modified Environmental Protection Agency protocols for the National Rivers and Streams Assessment. An initiative to target potential Marcellus Shale extraction sites was also continued; surveys to collect baseline fish, mussel, and water quality data were conducted with District 1 and EPA personnel in Buffalo, Wheeling and Fish Creeks; and conductivity loggers were re-deployed in four streams in the Middle Island Creek drainage to monitor possible effects of this gas development (EPA is collecting conductivity data in northern panhandle streams within the Marcellus Shale area). Work continues on refining the classification of fish communities with data collected and work on a published document was initiated. Work continued in partnership with WVU and WVDEP on establishment of a fish Index of Biotic Integrity (IBI) for the wadeable streams of West Virginia.

One hundred-three (103) stream surveys were completed in 21 subwatersheds, fulfilling the needs for monitoring and assessment. Among those surveys, assistance was provided to the Environmental Coordination, Coldwater Fisheries, Warmwater Management units (Districts 1 and 6) of the WVDNR, the Morris Creek Watershed Association, West Virginia Wesleyan College, West Virginia University, Army Corps of Engineers, and Friends of Deckers Creek Clean Creek Program. In addition, eight boat surveys were completed to establish and test a protocol for non-wadeable stream assessments and a monitoring plan to be implemented in succeeding years.

### Mussels

Two new long-term monitoring sites were established at Middle Island Creek at Falls Mills and North Fork Hughes River. Monitoring was conducted at four previously established sites. These included Little Kanawha River at Burning Springs, Kanawha River at Kanawha Falls, the Ohio River at Site 11 and Muskingum Island.

A long-term monitoring site was established on Middle Island Creek at Falls Mills, Pleasants County in September 2013. A quantitative survey observed 116 live individuals of 14 species. Data extrapolations estimated more than 1200 individuals of the federally endangered snuffbox at this location. Additionally several other timed search surveys were conducted throughout the watershed including tributary sites (Meathouse Fork, McElroy Creek, Indian Fork and Bluestone Creek).

A long-term monitoring site was established on the Little Kanawha River at Burning Springs, Wirt County, in 2011. Quantitative sampling identified 13 species and an estimated mussel density of 6/m<sup>2</sup> while qualitative sampling produced 16 species and 1006 mussels. A total of 17 species were observed at this site. The snuffbox, a federally endangered species, had a population estimate of 1400 individuals. In September 2012, a five by 10 meter area was established for monitoring using mark/recapture methodology. This initial effort found 282 individuals of 15 species which were tagged and re-buried. Additionally, several other timed search surveys were conducted throughout the watershed including tributary sites (Cedar Creek, Saltlick, Oil Creek, Sand Fork and North Fork Hughes River). In September 2013, a long-term monitoring site was established on the North Fork Hughes River. A total of 17 species were observed during the quantitative and qualitative assessment of this site including one individual of the federally endangered snuffbox mussel.

In August 2013, the long-term monitoring site at Kanawha Falls was re-assessed. It has been seven years since the previous random/quantitative survey at this site. Mussel densities have remained fairly stable but species composition as slightly changed.

In September 2010, federally endangered fanshells, *Cyprogenia stegaria*, were stocked into the Kanawha River (201) at Kanawha Falls and at Muskingum Island (203) on the Ohio River in Wood County. All mussels were uniquely tagged on both valves prior to being "planted" within a permanent mark/recapture site. The mussels were from the Licking River in Kentucky. In September 2012, these populations were again assessed and survival continues to be good. At Kanawha Falls, a total of 162 tagged individuals have been observed at least once over the last two years with one confirmed death. At Muskingum Island, a total of 144 individuals have been seen at least once over the last two years with 54 of these having been observed both years. A total of three confirmed deaths have been recorded.

In August 2012, federally endangered northern riffleshell mussels were collected from the Allegheny River, PA within an area scheduled for a bridge demolition. These mussels underwent quarantine prior to being stocked in the Elk River at Queen Shoals. This is part of a multistate species restoration effort. Of the 196 riffleshell stocked, at least 48 were later confirmed dead. Most deaths can be attributed to predation by river otter. Since the initial predation, mussels appear to be surviving.



In June 2013, 2,000 federally endangered clubshell were collected from the Allegheny River in Pennsylvania. These animals underwent quarantine at the Belleville Complex. Stocking was delayed due to high water but eventually were stocked into three locations, two on the Ohio River and one on the Little Kanawha River. As a precursor to this stocking effort, surveys were conducted at the Greenup Pool site on the Ohio River and the Annamoriah site on the Little Kanawha to ensure suitable habitat for the introductions. The Ohio River Restoration Project for mussels continued. This project is funded from a settlement for the 1999 mussel and fish kill allegedly caused by the Eramet/Elkem chemical spill near Parkersburg.

In cooperation with the USFWS, much time was spent collecting mussel broodstock for propagation which was made difficult this spring due to the higher than normal flows. Staff also cooperates with the stocking of juvenile mussels produced by all project cooperators. The WRS propagates mussels by inoculating host fish with larval mussels and holding them in cages until the juvenile mussels detach and can be harvested from the bottoms of the cages. Cages were being held in racks at the Stonewall Jackson Lake Resort State Park Marina and at the French Creek embayment of the Ohio River.

In October, the Corps of Engineers drew down Stonewall Jackson Lake to below normal winter pool. In preparation for this, all propagation cage racks had to be removed from the marina. The remaining five cages were tied directly to the dock to prevent crushing. A mussel kill investigation was also conducted at Stonewall when numerous resident mussels were found being stranded due to the excessive drawdown. Eighty-three percent of the 800 mussels (three species) handled were found dead.

In May and June 2013, all 2012 propagation cages were removed from the French Creek embayment of the Ohio River. No juveniles were produced. In June all remaining cages were also removed from the Stonewall Jackson Lake Resort State Park Marina. The 2012 propagation cages produced no juveniles; however, all the 2011 juveniles in grow out status survived. These individuals representing three species were delivered to the USFWS for tagging and stocking in 2013.

Limited propagation activities occurred in 2013. Wild-collected sauger, creek chubs, and stonerollers were used for host infestations with black sandshell, Ohio River pigtoe and sheepsnose mussels, respectively. Other broodstock were collected but did not produce viable juveniles.

In April 2013, a new mussel propagation effort began using floating baskets. Twelve floating baskets were built and reconnaissance surveys were conducted to find suitable areas for deployment. Four sites were selected and three floating baskets were placed in each of the sites. Three sites were selected in Randolph County and one in Pleasants County. Juveniles produced will be used for both the Ohio River and Dunkard Creek Restoration.

The five-year restoration monitoring was conducted at the Site 11 restoration area in July 2013. From nearly 100 percent mortality of 25 species observed in 2000, 21 species (two of which were not included in the original 25) were observed. While many of the individuals collected were obviously from stocking of adult mussels over the past five years, new recruitment was observed, including one live individual of the federally endangered fanshell. Monitoring was also conducted just upstream at Muskingum Island which is the control site representing natural conditions in the river. A total of 21 species were observed including the federally endangered fanshell and sheepsnose mussels.

The Dunkard Creek Restoration Project was initiated in 2012. This project resulted from settlement of the fish and mussel kill by Consol Energy in Monongalia County. By August 2011 four of the six planned long-term monitoring sites were established. No live native mussels were found. The exotic Asiatic clam was found to be recovering along with a few native fingernail clams. Broodstock for 2013 mussel restoration work was collected during the fall of 2012 and held over-winter at the WVDNR Belleville Complex. This broodstock was used during the spring of 2013 to inoculate host fish which were subsequently stocked into Dunkard Creek. Bluegill were used to host larvae of fat mucket and pocketbook and plain pocketbook mussels and were stocked at two locations on Dunkard Creek. Freshwater drum were electro-fished from the Monongahela River and used to host larvae of pink heelsplitter and fragile papershell mussels and were subsequently stocked at two additional locations on Dunkard Creek. Mussels salvaged from the North Fork Hughes River at North Bend were relocated to Dunkard Creek upstream of the Mason Dixon Park. A few common species were collected from the Allegheny River in PA and relocated to Dunkard Creek at Blacksville following quarantine at the Belleville Complex.



In 2006 and 2007, mussels salvaged from the Allegheny River in PA were used to re-establish mussel populations at two locations in the Monongahela River which were historically decimated by acid mine drainage. In August 2011, a quantitative assessment was conducted at these two locations which was followed with a qualitative survey at the Opekiska site in July 2012. No reproduction of the stocked species has been observed though they appear to be doing well.

Additional mussel surveys were conducted on the following streams: West Fork River and tributaries (Leading Creek, Stonecoal Creek, Hackers Creek and Right Fork), Tygart Valley River and tributaries, Elk River and Elk River tributaries (Strange Creek), Guyan Creek, Big Ugly Creek, Eighteen Mile Creek, Bull Creek, Potomac River, and South Fork South Branch Potomac River.

NRCS was required to conduct a mussel survey on the North Fork Hughes River downstream of the North Bend Dam prior to conducting bank restoration activities. Diversity staff assisted by volunteers conducted this survey in May 2013.

Staff assisted the WVDOH with a mussel genetics study by collecting tissue samples of the mucket mussel from the New River, Elk River, and the Allegheny River in PA. This study was used to aid in site selection for a large relocation project to be conducted by DOH prior to demolition and construction of the Pugh Bridge on the New River at Prince. Staff also cooperated in a genetics study being conducted by the USFWS on the federally endangered clubshell. Tissue samples were collected from Hackers Creek and Meathouse Fork of Middle Island Creek.

Other Mussel Staff Activities:

- Reviewed and commented on mussel issues on stream activity requests.
- Revised the West Virginia Mussel Survey Protocol.
- Began development of a Statewide Scientific Dive Safety Plan.
- Completed updates and revisions to the federally endangered mussel fact sheets.
- Began review and revision of the conservation status rankings of WV mussel species.
- Prepared a magazine article for West Virginia Wildlife outlining the mussel restoration activities of the Mussel Program.
- Attended the Ohio River Valley Mollusk Group and annual COE maintenance dredging meetings.
- Assisted with the White Sulphur Springs National Fish Hatchery's Freshwater Folk Festival.
- Attended the bi-annual symposium of the Freshwater Mollusk Conservation Society where a platform presentation and a poster were presented.
- Attended computer training on Excel.
- Assisted with the Becoming an Outdoors Woman Program.
- Judged eastern regional science fair.
- Received Emergency First Responder training.
- Attended Division of Forestry sediment control presentation.

## **TECHNICAL SUPPORT UNIT**

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### **West Virginia Stream Restoration and Enhancement Program Physical Habitat Restoration**

Personnel from the Technical Support Unit were active during the year coordinating and participating in efforts to assess and restore aquatic habitats in the state. Staff participated in the field reconnaissance of degraded streams, developed and submitted grant applications for inventory and research projects, and coordinated the implementation of such projects. The West Virginia Division of Natural Resources (WVDNR) has continued the cooperative agreement with the Natural Resources Analysis Center at West Virginia University to assist in the development and implementation of the

West Virginia Stream Restoration Program. Program staff coordinated a major fish passage restoration project on Oats Run of Upper Shavers Fork. Pre-construction planning and coordination continued to establish new fish habitat on Beaver Creek of Blackwater. Construction on this project will occur in the next fiscal year. Other streams were assessed as potential sites for additional future work.

### **Acid Stream Restoration Program**

Management of the Division's Acid Stream Restoration Program continued. This nationally recognized, publicly visible, and highly popular program has restored and now annually maintains water quality and sport fisheries in more than 392 miles of 85 streams and five lakes impacted by acid precipitation. Restoration has been accomplished through annual, direct application of limestone sand to acid-impacted streams and through the operation of two self-feeding limestone drum stations. The total program budget is approximately \$350,000 annually. Seventy-five percent of program support accrues from the Sport Fish Restoration and Boating Trust Fund administered by the US Fish and Wildlife Service (USFWS). The remaining 25 percent accrues from nonfederal sources including investment income from the West Virginia Wildlife Endowment Fund administered by the WVDNR and additional financial support from Trout Unlimited, Plum Creek Timber Company, and MeadWestVaCo. Without the Acid Stream Restoration Program, sport fisheries would be lost in these waters. Public fisheries in these restored waters sustain an additional 341,000 days of sport fishing and \$24 million of associated economic impact annually.

### **Planning Program**

The fish and wildlife planner coordinated with WVU staff to continue the update to the Wildlife Resources Section Capital Improvements Strategic Plan. Assistance was provided in developing the Division's annual Budget Narrative. Fiscal notes were prepared and submitted on legislation during the 2013 legislative session.

### **Coordination Program**

Field and/or office coordination continued on the U.S. Army Corps of Engineers' (COE) Bluestone Dam Hydropower Development Study.

Continued action (e.g., compliance coordination with currently licensed hydropower projects, impact analysis, development of mitigation plans, and document review associated with relicensing activities) was taken on each of the following proposed or licensed hydropower projects at reservoirs or river locks and dams: London/Marmet Dams, Winfield Dam on the Kanawha River, Millville Dam on the Shenandoah River, Lake Lynn Dam on the Cheat River, Hawks Nest Dam on the New River, Willow Island Dam on the Ohio River, Tygart Dam on the Tygart Valley River, Sutton Dam on the Elk River, Jennings Randolph Dam on the North Fork of the Potomac River, Robert C. Byrd, New Cumberland Dam, Pike Island Dam on the Ohio River, Hildebrand, Opekiska Dam, Morgantown Dam on the Monongahela River, Mount Storm Pump Storage Project on an Unnamed Tributary of the North Fork of Patterson Creek, Stonewall Jackson Dam on the West Fork River, Cass Hydropower Project on Deer Creek, and Glen Ferris Dam on the New River. An unused, existing hydrogenerator installed at Stonewall Jackson Dam has been proposed for commercial use. A preliminary permit was issued for that project. A pump-storage hydropower project has been proposed for an unnamed tributary of the North Fork of Patterson Creek in Grant County near Mount Storm, and a preliminary permit has been issued for the proposed project. The Cass Hydroelectric Project proposed for Deer Creek of the Greenbrier River is currently on hold after the Federal Energy Regulatory Commission refused to accept the applicant's Draft License Application due to numerous deficiencies. The final license for the Jennings Randolph Hydroelectric Project was completed and construction is anticipated to begin in 2014. The license contains articles for environmental safety and habitat enhancements for the North Fork of the Potomac River. The Willow Island Project is under construction and due to be completed during 2014. During this reporting period, 13 projects were in some stage of the licensing or relicensing process. Thirteen projects (14 developments) are currently licensed and are operating within West Virginia.

West Virginia continues to receive wind project inquiries. Presently there are five functioning wind projects operating in West Virginia. These projects generate 580 megawatts of power.

The Coordination Program continued participation in the National Environmental Policy Act mitigation process for several major highway projects and numerous smaller highway, bridge and culvert improvement projects. Adoption of more environmentally sound design standards for culvert sizing and installation will significantly reduce the impacts of road crossings on West Virginia streams. Field reviews were conducted to evaluate the monitoring reports for the constructed wetland mitigation site for the US Route 10 upgrade in Logan County and Corridor H in Tucker County.

State Clean Water Act (CWA) certifications continue to be reviewed under the Memorandum of Understanding (MOU) with WV Department of Environmental Protection (WVDEP). Additional reviews were conducted and comments provided relative to Section 10 of the Rivers and Harbors Act. Considerable mitigation in the form of avoidance, reduction, re-creation, enhancement, and compensation has been secured as a result of these efforts. Individual CWA, Section 404/10 permit actions were reviewed and coordinated. They include highway reviews, wetland and stream permit reviews and Natural Resources Conservation Service (NRCS) and WV Conservation Agency (WVCA) project reviews. Of considerable interest to us has been the Summit Bechtel Family National Boy Scout Reserve in Raleigh and Fayette counties. The development of this National Jamboree and High Adventure camp has impacted significant wetland acreage which is being mitigated through on-site creation, banks and a significant educational program. The educational program was successfully implemented during the National Jamboree. Several restoration projects were reviewed under Nationwide Permit #27 which are not included in the aforementioned number. The Tygart Valley Conservation District, with the cooperation of NRCS, completed a significant compensatory mitigation habitat improvement project on Upper Shavers Fork in the fall of 2012. Staff has dedicated considerable time and effort in office and field reviews to this compensatory mitigation project and is working closely with West Virginia University and the Conservation District to implement a comprehensive, science-based monitoring and evaluation study for this project.

Significant time continues to be spent working with the WVDEP and the COE evaluating and refining the science-based assessment protocol (West Virginia Stream and Wetland Valuation Metric) for stream and wetland disturbance activities. A CWA In-Lieu Fee Mitigation Program for the state has been officially certified and staff spends considerable time assisting the ILF coordinator. Staff serves on the Interagency Review Team (IRT). The IRT reviews and evaluates mitigation banking proposals and mitigation projects submitted by the In-Lieu Fee program. Staff were involved in the review of the validation report of the "Functional Assessment Approach for High Gradient Streams" developed by the COE. We negotiated \$7,414,402.05 for wetland and stream mitigation to be added to the West Virginia In-Lieu Fee Fund, related to a proposed ash disposal site in Marshall County, owned and used by American Electric Power Company.

Staff responded to requests from the West Virginia Division of Highways (WVDOH) and numerous watershed groups for information on permitting issues relating to wetland disturbance, mitigation obligations, permit compliance, Natural Stream Design and other issues. Working with WVDOH, staff negotiated a new mitigation plan for Corridor H, which included acceptance of 132 acres of pre-existing wetlands as credit, the establishment of truck pull-offs for limestone fines placement for treatment of tributaries of acid impacted Beaver Creek, creation of public access and parking areas as well as fee simple purchase of the west bank which will streamline future enhancement projects.

Staff attended field reviews and provided design input for the development of a mitigation enhancement project on Edwards Run WMA. The goal of the enhancement is to create additional spotted turtle (state species of concern) habitat and stabilize stream banks. Work continues with NRCS

on Wildlife Habitat Incentive Program Plans for private farms as requested by district staff. The NRCS' Conservation Reserve Enhancement Program is much reduced. Staff assisted NRCS in the development of their "conservation practice" sheets and review of WRP projects across the state. Coordination continued on proposed flood control/water supply impoundments in Hardy County.

Significant time continues to be spent implementing the CWA Regional Permit to assist landowners with small stream restoration and management activities. Approximately 75 landowner stream plans were received and reviewed during this reporting period.

Staff has committed significant resources reviewing and commenting on re-issuance of Nationwide Permits (NWP). Several meetings were held to discuss proposed modifications to the NWP and suggestions were made to the COE, EPA and WVDEP for proposed regional conditions to protect aquatic resources. State certification of the NWPs occurred in March 2012.

Staff worked with the NRCS on three dam removals on the West Fork River. It is the goal to return approximately 25 miles of the river to a free-flowing state.

Staff coordinated with the WVCA on several small Natural Stream Restoration projects using principles of NSD to resolve significant bank stability issues on private lands. These projects involved implementing minor modifications to channel dimensions and in-stream structures in place of traditional hard armor engineering (riprap).

Technical assistance relative to fish and wildlife continues to be provided to the WVDEP's mitigation development program and biologists continue to review surface mine permit applications; approximately 156 mine pre-plans were reviewed.

Significant time was spent working on stream restoration plans and coordinating mitigation plans for mine impacts to aquatic ecosystems. Assistance was provided to WVDEP in identifying potential aquatic improvement projects that could be completed by mining companies in-lieu of administrative penalties for violations. Staff participated in field reviews and provided comments for the Regional Permit for Abandoned Mine Lands.

Significant time was spent working on wetland mitigation banking. The state currently has four operational banks with several others in various stages of development.

Work was directed to validating data collected earlier, developing additional landscape-level data, establishing a wetland database and developing a web-based tool to utilize these data.

Staff served on steering committees for several conferences on habitat restoration and water quality. Staff serves on several inter-agency committees including the Inter-agency Review Team (mitigation banking, in-lieu fee), the Water Gaging Council, West Virginia Water Research Institute, State Association of Wetland Managers, and the NRCS State Technical Committee for Farm Bill programs.

Staff is active in providing coordination with the Marcellus Shale Gas industry in an attempt to mitigate impacts to our charge resources. Staff reviewed various applications for oil and gas related activities including well locations, pipeline activities and midstream plant construction. Technical support was provided to DEP Office of Oil and Gas and to Waste and Water concerning impacts to fish and wildlife associated with oil and gas production and transmission. Support was also provided to Warmwater Fish and Game Management Units for oil and gas activities on Lewis Wetzel WMA.

Technical assistance continues with DEP concerning stream impacts at midstream gas processing facilities and the associated stream restoration projects required as mitigation. Assistance was also provided to the Warmwater Fish Unit in addressing industry related stream crossing activities. Staff provided continued support to the US Fish and Wildlife Service in protecting their charge resources potentially impacted by the oil and gas industry.

Staff offers assistance to other sections and participates in numerous game and fish management activities including but not limited to National Hunting and Fishing Day, chronic wasting disease check stations, fish surveys and deer counts. Staff participates in various programs such as Randolph County Outdoor Education, Jake's Days and 4-H. Staff informs participants of the success and importance of wetlands and the CWA.

Significant time was spent hiring and training new staff.

### **Biometrics/Geographic Information System (GIS) Program**

Technical Support Unit staff provided routine installation; maintenance; and support of computer hardware, software, and peripherals for the WRS as funded by traditional sources including grants and contracts (USFWS and USEPA).


Staff continued assisting with new and ongoing WRS projects and activities. Activities included performing data processing, project design and analysis, consulting, conducting data analysis, preparing paper and electronic map products, technical training, computer maintenance and support for WRS budgeting, personnel and inventory.

Annual routine projects supported included managing the WRS's work report system, producing game harvest and trout stocking summaries, summarizing spring gobbler survey results, summarizing responses from the grouse cooperator survey, summarizing bow hunter survey results, processing antlerless deer applications for eligibility, summarizing statewide hunter prospects and mast surveys, summarizing accomplishments for the Game Management Unit and preparing federal aid vouchers and monthly summaries for all projects. Maintaining and managing hunter and boater databases and providing time and cost reporting services to the Law Enforcement Section were continued.

A Web-based tool was deployed in cooperation with NRCS and USFWS to provide rare species data to assist District Conservationists in protecting these species as they install NRCS conservation practices.

GIS staff provided training and technical assistance to WRS staff on GIS and Global Positioning Systems (GPS) data acquisition and dataset development, GPS data management, GIS application use, cartography, large-format printing and spatial data analysis. Existing GPS collection, processing, and organization procedures were further refined to help streamline the tracking of GPS data collection activities. These geospatial services were provided for WRS projects operating statewide to ensure the collection of well-documented and accurate locations of field survey data. GIS staff have deployed GIS capabilities in district offices and with cooperating agencies and provided ongoing staff instruction as requested.

GIS staff is maintaining and managing more than three terabytes of natural resource base mapping information ranging from statewide aerial photography, satellite imagery, topographic maps, soil surveys, geology, elevation models for visualization and watershed modeling, streams, wetlands, public fishing lakes, demographics, political boundaries, land use/land cover, and other miscellaneous natural resource datasets. Use of these GIS datasets by agency staff continues to grow and become incorporated into the daily workflow and basic analysis of project data for management of state lands.



All of this natural resource GIS data are maintained in a central database server used to store and share data and project management information throughout the agency. This secure central database server is available to agency staff and cooperating agencies across the Internet, enabling data processing, spatial analysis and cartographic expertise at a central office to be available cost effectively throughout the agency. Database management and application development progressed in a continually evolving GIS program.

GIS staff responds to requests for data from engineering firms, contractors, partners and other federal/state organizations as needed. Staff provides data, as appropriate, to support WRS projects, activities and interests.

Following are some additional highlights of the Biometrics/GIS Program:

#### **Game Management Plan Revisions**

Biometrics staff continued to provide assistance to Game Management staff with data development, spatial analysis, and cartography as part of a series of ongoing Game Management plans.

#### **Chronic Wasting Disease**

Data analysis and mapping services supported the ongoing Chronic Wasting Disease monitoring efforts.

#### **Wildlife Management Area Mapping**

GIS staff continued development of spatial databases for mapping WMA boundaries and facilities. These data are used for natural resource planning and producing maps for the public. Many of these maps were provided to the public in September 2012.

#### **White-Nose Syndrome**

Biometrics staff assisted Wildlife Diversity staff with the implementation of an expanded fourth year of a statewide bat surveys. Laptop computers fitted with ultrasonic acoustic receivers and GPS units were used by staff and volunteers to increase statewide acoustic route coverage. Acoustic bat call recordings are analyzed to help determine changes in bat populations and habitat use.

#### **National Hunting and Fishing Days**

GIS staff helped develop Stonewall Resort State Park maps, brochures, and displays for National Hunting and Fishing Days.

#### **Rare Species Distribution Models**

Work continued to expand the number of species and validate species distribution models to estimate the statewide distribution of 250 species and 25 habitats in the West Virginia Wildlife Conservation Action Plan.

#### **Recreational Resources Mapping**

Staff initiated work to develop/enhance a web-tool to provide the public increased access to Wildlife Resources Section facilities including WMAs, stream access, float trips, check stations, licensed agents, trout stocking information, physically challenged or Class Q opportunities, district office contact information, and links to online resources for license purchases and regulations. Although most of the information can be found at the WVDNR website, the web-tool provides a geographic representation of opportunities/resources in a map interface, which is visually appealing, familiar, and will be scalable as use and demand grow. .

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