



# 2007 ANNUAL REPORT

## Ashland County Engineer's Office & Highway Department



Ashland County Commissioners  
Ashland, Ohio 44805

March 27, 2008

Your Honorable Body:

This report from the Ashland County Engineer is in accordance with Section 5543.02 of the Ohio Revised Code and provides information as to the condition of Ashland County's roads, bridges, and culverts. This report outlines the work performed in 2007 to maintain safe roadways and the associated costs. This report also estimates the probable amount of funds required to maintain, repair and/or construct any roads, bridges, or culverts for calendar year 2008.

Respectfully submitted,

Edward J. Meixner, P.E., P.S.  
Ashland County Engineer

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## Foreword

The purpose of this report is to provide information to the Ashland County Board of Commissioners in accordance with Section 5543.02 of the Ohio Revised Code. Additionally, it becomes a public statement on the functions and duties of the office of the Ashland County Engineer. All monetary figures are rounded to the nearest dollar. The Ashland County Engineer will clarify or provide any additional information that may be requested.



## Bridges

2007 Expenditures = \$ 171,552

2007 Projected Expenditures = \$ 250,000

All bridges on county and township roads within Ashland County fall under the jurisdiction of the Ashland County Engineer. Bridges on state or federal highways or bridges owned by railroads are maintained by other entities.

### Bridges—Completed Projects

Bridge Work Completed 2007				
Structure #	Township	Type of Work	Description of replacement	Cost
175-544	Jackson	Replacement	Composite concrete box beam replaced a steel beam structure.	Information from ODOT not complete at this time
2175-2020	Vermillion	Rehabilitation	Main girders were removed, galvanized, and replaced. All remaining steel was replaced with new galvanized steel. New wood deck was added	\$ 76,062

Along with the large construction projects listed above we performed routine maintenance and repair work on 48 bridges throughout the county. That work consisted of beam patching, deck repair, debris removal, washing, erosion control, and scour countermeasures. The cost of this work done by force account was \$ 95,490.



## Bridges—Status

Bridges that are the responsibility of the Ashland County Engineer are inspected each year as required by Section 5543.20 of the Ohio Revised Code. In 2007, 237 bridges were inspected and given a condition rating. The chart below summarizes these ratings.

Bridge Condition 2007			
Rating	Description	# of Bridges	% of Bridges
9	New Condition	47	20%
8	Very good condition - no repairs needed.	50	21%
7	Generally good condition - potential exists for minor maintenance.	31	13%
6	Satisfactory condition - potential exists for maintenance	51	22%
5	Fair condition - potential exists for minor rehabilitation.	34	14%
4	Poor condition - potential exists for major rehabilitation.	20	8%
3	Serious condition - repair or rehabilitation required immediately.	2	< 1%
2	Critical condition - should be closed or closely monitored.	1	< .5%
1-0	Imminent failure or out of service	1	< .5%

As you can see, there are currently four structures in serious condition or worse. They are listed in the chart below.

Bridge Status 2007			
Structure	Township	Posting	Plan
1601-20	Ruggles	4 ton	Removed from service in 2007. Design drawings and estimates are near completion. Construction anticipated in 2008.
1688-1455	Milton	Not posted	Rehabilitate in 2008
1275-535	Montgomery	Not posted	Develop plans to replace beginning in 2008
500-1411	Ruggles	16 ton	Develop plans to replace beginning in 2008

## Bridges—Proposed Work

The majority of our problem bridge structures will be replaced using federal and state funds. These replacements will occur over the next several years as these structures work through their respective review “pipelines” and are let out to bid. Current plans are to rehabilitate the following structures in 2008.

Bridge Work Proposed 2008				
Structure #	Township	Description of existing	Description of replacement	Estimated Cost
1688-1455	Milton	Steel beam	Galvanized steel and wood	\$ 216,000
2175-1870	Mohican	Steel girder	Galvanized steel and wood	\$ 80,000

## Bridges—Special Projects

Special Bridge Projects are defined as those funded with money from sources outside of Ashland County. The following table summarizes information concerning these projects.

<b>STRUCTURE</b>		
Number	#175-544	#30-A-390
Township	Jackson	Mohican
<b>FUNDING PROGRAM</b>		
	Federal Aid LBR	OPWC
Date applied	1/16/2002	9/30/2005
Type of funding	Grant	Grant
Amount of funding	\$ 362,500 max	\$ 100,000
<b>PROJECT STATUS</b>		
	Completed	
Actual/projected completion	October 2007	
<b>CONSULTANTS</b>		
Firm	Shaffer, Johnston	
Consultant cost in 2007	\$ 0	
Consultant cost to date	\$ 47,000	
<b>CONTRACTOR</b>		
Firm	Beclir	
Bid Amount	\$ 265,253	
<b>MISCELLANEOUS WORK</b>		
Type of work	Soil Borings	
Firm	Resource Int.	
Cost of work	\$ 3,750	
Type of work	Asbestos Study	
Firm	Affiliated Environ.	
Cost of work	\$ 175.00	
Miscellaneous work cost in 2007	\$ 0	
Miscellaneous work cost to date	\$ 3,925	
<b>RIGHT OF WAY</b>		
Permanent easement acreage/cost	.23/\$ 1,793	NA
Temporary easement acreage/cost	NA	NA
Right-of-way status	Completed	NA
Right-of-way cost to date	\$ 3,093	\$ 0
<b>PROJECT COST TO DATE</b>		
Total	\$ 54,018	
Amount paid by County		
Amount paid by outside sources	Information from ODOT not complete at this time	



# Culverts

2007 Expenditures = \$70,687

2008 Projected Expenses = \$100,000.00

A culvert is described as being any structure with a span less than ten feet. Ashland County currently maintains 1422 culverts.



Culvert Repair by County Work Force

## Culverts – Completed Projects

Culvert work done in 2007 included replacements, extensions, and general repair. A total of 52 culverts were worked on. The major culvert projects of 2007 and their costs are listed below:

Major Culvert Work 2007			
Culvert #	Township	Description	Cost
658-3A	Clear Creek	60' of 18" N12	\$ 2,085
2704-4	Green	50' of 24" N12	\$ 2,638
3286-1	Hanover	60' of 18" N12	\$ 2,154
620-64	Jackson	50' of 18" N12	\$ 2,207
175-11	Lake	60' of 12" N12	\$ 2,461
995-35	Montgomery	40' of 15" N12	\$ 2,027
1600-44A	Montgomery	70' of steel	\$ 2,167
175-74	Perry	40' of 24" N12	\$ 2,431
40-20	Troy	40' of 36" N12	\$ 2,969
500-22	Troy	40' of 24" N12	\$ 2,154
1035-22	Vermillion	80' of 24" N12 & 20' of 12" N12	\$ 3,350
1754-21	Vermillion	40' of 24" N12	\$ 2,060

## Culverts—Proposed Work

In recent years we have been able to place a priority on replacing culverts because of the general good health of our bridges. In determining which culverts to replace, condition and/or length (short lengths create narrow roads) are considered. Currently, there are plans to replace approximately 30 culverts in 2008. Three of the major culvert projects and their estimated costs are listed below.

Major Culvert Replacements Proposed 2008				
Culvert #	Township	Description of existing	Description of replacement	Estimated Cost
377-14	Mohican	54" x 72" corrugated metal arch & 45" x 58" concrete box	48" plastic	\$ 10,857
175-66	Mohican	58" corrugated metal	60" plastic	\$ 12,242
995-33	Montgomery	8' x 5' concrete box	8' x 4' concrete box	\$ 48,909



The maintenance of our roads consumes the greatest amount of time and money by both the administrative personnel and the maintenance department. The existence of Ashland County Roads is why we plow snow, use salt, paint centerlines, etc. It is why we have the equipment we do, why we pave, seal, patch, erect signs, issue permits and do roadside maintenance. The sections that follow address our activities in these areas during the past year and our plans for 2008.

## Roads—Surface—Paving

The cost of asphalt again rose significantly in 2007, as a result we opted to pave two roads with cold mix in 2007. The contract for this work was awarded to Lytle Construction at an expenditure of \$ 784,777.

County Road 500 from State Route 511 to County Road 175 and County Road 681 from County Road 500 to the Huron County Line were both paved with 2 inches of cold mix asphalt and chip sealed. Lytle also installed berms and was required to paint temporary centerlines of the roads as part of this project.

A spring assessment will determine the paving to be done in 2008.



## Roads—Surface—Maintenance

During 2007, about 50 miles of roads throughout the County Road system were chip sealed by Melway Paving using Ashland County materials. A total of 160,641 gallons of liquid asphalt and 5,734.40 tons of limestone were used at a cost of \$ 383,025. Melway Paving Company was paid \$ 65,542 for their labor. The total cost of the sealing program was therefore \$ 448,567, providing a unit cost of about \$ 9,049 per mile for a 20-foot wide road. For 2008, we estimate we will contract to seal 50- 60 miles of road.

Our own workforce spent 4,860 man hours patching or sealing various road sections at a cost of \$ 244,128.

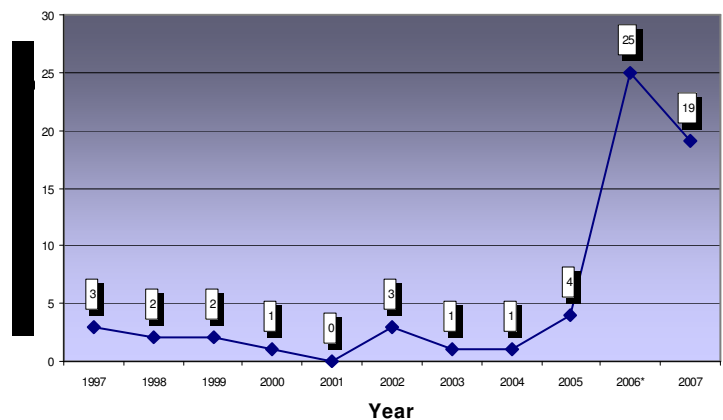
## Roads—Surface—Marking

During 2007 we contracted with Aero-Mark Inc. in the amount of \$ 185,711 to apply pavement markings on various county roads. Aero-Mark applied centerlines on 281 miles of roadway, edgeline and channelizing on 69.5 miles of roadway, 20 railroad crossing markings, and 31 school zone markings. We plan to repeat this marking program in 2008 and expect to spend as much as \$200,000.

## Roads—Surface—Permits

Special hauling permits are issued by the Engineer’s Office pursuant to Section 4513.34 of the Ohio Revised Code. These permits make us aware of unusual loads that our roads have to bear and allow us to restrict the movement of such loads that could result in failure of our infrastructure. All individuals, firms, partnerships, companies or corporations wishing to operate or move a vehicle or combination of vehicles of a size or weight exceeding the maximum specified in Sections 5577.01 to 5577.09 of the Ohio Revised Code on any Ashland County maintained highway is required to obtain such a permit. Using portable scales the Sheriff’s Department provides enforcement of this regulation. In 2007 our office issued 8 trip and return overwidth permits, 4 trip and return overwidth/overweight permits, 1 annual overweight permit, 4 annual overwidth permits, and 2 construction equipment permits. Currently the Engineer does not assess any fees associated with the permitting process.

Special Hauling Permits Assigned



\*Portable scales allowing enforcement of permit requirements were purchased for the Ashland County Sheriff .

## Roads—Surface—Snow & Ice Control

	2004-05		2005-06		2006-07	
<b>Salt &amp; Grits</b>	10,501 tons	\$ 299,437	4,978 tons	\$ 144,468	6,067 tons	\$ 212,844
<b>Labor</b>	4,131 hours	\$ 57,451	2,466 hours	\$ 37,011	3,335 hours	\$ 54,146
<b>Equipment</b>	3,826 hours	\$ 53,405	2,545 hours	\$ 37,968	3,419 hours	\$ 49,401
		\$ 410,293		\$ 219,447		\$ 316,391



## Roads—Right-of-Way—Maintenance

During 2007 the County Highway Department spent the following amounts to have our workforce do the following work:  
 Ditching/Sloping—\$ 52,520      Erosion Protection—\$ 2,143      Roadside Cleaning—\$ 1,154

## Roads—Right-of-Way—Vegetation Control

During 2007 the County Highway Department contracted with DeAngelo Brothers, Inc. to apply weed control to 87,120 linear feet of guardrail. Cost of this project was \$ 5,924.

The following additional amounts were spent to have our workforce control vegetation:  
 Mowing — \$ 59,800      Brush Cutting — \$ 47,918

## Roads—Right-of-Way—Permits

Right-of-way permits are issued by the County Engineer for work within county road rights-of-way. Such work includes enclosing ditches, performing utility work, and installing residential driveways and farm field entrances. Driveway entrance construction and maintenance are the responsibility of the property owner in accordance with Section 5543.16 of the Ohio Revised Code. During 2007 permits were issued for 24 residential driveways, 3 commercial driveways, 5 field drives, 13 ditch enclosures, and 26 utility work projects.

## Roads—Right-of-Way—Guardrail

Most of the guardrail work done by the Ashland County Highway Department is to maintain existing guardrail and install new guardrail in conjunction with paving, widening, or bridge projects. During 2007 we spent \$ 4,379 for guardrail maintenance and installation. Guardrailing cost in 2008 is estimated at \$10,000.



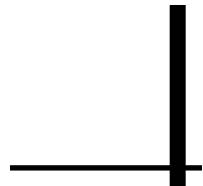
## Roads—Right-of-Way—Signs

Our Superintendent relies on direct observation and reports from work crews in the field and the public to determine what signs need to be cleaned, reset, or replaced. Additionally, the Highway Department performs an annual night inspection of all signs along county roads which provides an excellent record of the signs' conditions.

When signs need to be installed or replaced it has been our policy to use "diamond" grade sign faces. This grade of sign is the most highly reflective and has the longest life currently available. Due to this policy we are already in compliance with regulations recently established by the Federal Highway Administration.

In 2007 red reflective strips were added to the posts of all stops signs to increase visibility.

The cost for sign work in 2007 was \$ 41,676. We anticipate spending \$50,000 for sign work in 2008.



## Roads—Special Projects

In 1996, former County Engineer, Larry Chamberlain first voiced concerns about the congestion and road degradation occurring at the intersection of County Road 1575 and US 250 in an annual report. Successive annual reports have mentioned the progress that has occurred in the plans to rebuild this intersection. In 2007 these plans were implemented and completed when .16 miles of County Road 1575 including the intersection with US 250 were rebuilt, widened and realigned. The resulting configuration provides a safer environment for the traveling public. Coordinating with Goasis and the Ashland City Schools we were able to maintain access to their properties throughout the construction period by building temporary roads and constructing a new driveway for Montgomery School. The construction project also improved the roadway drainage and involved work on the traffic signal control.



CR 1575 and US 250 Intersection—2003

Kokosing Construction was awarded the construction contract at an expenditure of \$ 439,907. The total cost of this project which included consultant fees and the purchase of right-of-way has been \$522,056. OPWC funds totaled \$ 158,555.



CR 1575 and US 250 Intersection—2007



## Equipment

2007 Expenditures = \$ 281,858

2008 Projected Expenses = \$ 161,000

We retired several pieces of equipment in 2007 and for the first time took advantage of the GovDeals website. Tapping competitive bidders scattered across the eastern United States enabled us to receive a total of \$ 33,227 for a dump truck, truck tractor, trailer, a backhoe and 2 pickups. The following equipment was purchased in 2007:

Quantity	Description	Amount	Quantity	Description	Amount
2	Remote-control flagger units	\$ 25,000	2	Ford F-250 pickups	\$ 43,687
1	Caterpillar 420E-IT backhoe	\$ 74,009	1	GMC C-3500 bucket truck (used)	\$ 35,900
1	Trailing 20 ton trailer	\$ 18,382	6	Hydraulic systems for dump trucks	\$ 82,080
2	Shorelander trailers	\$ 2,800			

In 2008 we have already purchased a bucket truck at a cost of \$ 36,000. Other anticipated purchases include a sign truck, mowing tractor, berm mower and wheeled excavator.



## Buildings & Grounds

In 2007 the parking lots at the Ashland Garage and the Perrysville Outpost were chip sealed by Melway Paving using Ashland County materials. The cost of this project was \$ 7,815.

We also paid \$ 76,540 as the County Highway Department's share of the bond payment for the garage building. The final payment of \$ 76,723 will be paid in 2008.





## Personnel

The relative stability of our work force continued in 2007. In the fall, Tim Cooper left the position of Lead Draftsman in the Tax Map Office to accept the position of Director of Regional Planning. The vacancy created by his departure was filled in December by LynAnn Spoerr.

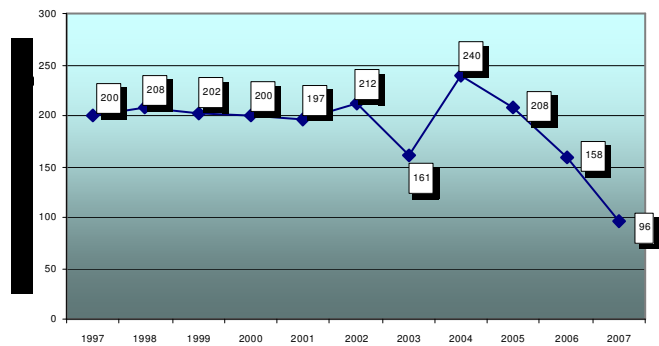
In the past two years two highway workers have left our ranks and in March 2008 Jim Beattie is planning to retire. At the time of this report we have hired three new highway workers, Sam Adams, Chris Glasener, and Scott Mowry to fill the vacancies and prepare for Jim's retirement.



## Tax Map and House Numbers

TAX MAP DATA	
Deed Transfers	2036
New Parcels transferred by deeds	327
Surveys Reviewed	320
Surveys fully processed	294

House numbers assigned in Ashland County



## Aid to Townships

Since 1968 the county and the townships have had an agreement whereby the county provides financial assistance to each township primarily based on the miles of roadway contained within that township. Due to this agreement we provided some \$ 60,804 to the fifteen townships of Ashland County in 2007. We anticipate continuing this practice for 2008.



## Items of Recommended Change

**GIS Project** In 1998 the Engineer's Office in conjunction with the County Auditor, the County Commissioners, and other entities began the process of developing a GIS system by deciding to digitize the tax maps. In 2004 new computers were purchased with a grant based on developing a GIS system that would be beneficial during emergency situations. We either possess or have access to information that can be layered into an interactive GIS system (aerial photos, digital orthophotos, elevation data, centerline data, house number points, Census Bureau data.) What we lack is a final tax map layer and the hardware/software to make the map available online.

Nine years into the project a few things have become apparent:

- Based on the amount of mapping accomplished thus far the project will take at least another 10 years if we rely on our staff to digitize. As you know, funding to outsource this work became unavailable in 2007 due to the current budget situation. The tax map staff is willing and able to continue with this project but does so hampered by a lack of reliable equipment.
- Industry standards have shifted making a switch in software desirable if not inevitable. If this project continues at its current pace it is likely software choices will need to be revisited. Regardless of platform the reality of such technical software is that it pays to subscribe for technical support and upgrades on a yearly basis which requires planning and continued financial commitment.
- As implied in the first item some hardware necessary for the tax map office to function sorely needs to be replaced. We are again faced with the reality that digital equipment changes constantly. To ensure that the tax map office staff is productive and efficient there is a need to plan for and fund periodic hardware and software replacement. Correctly working equipment would improve the overall workflow of the tax map office freeing more time to devote to mapping.

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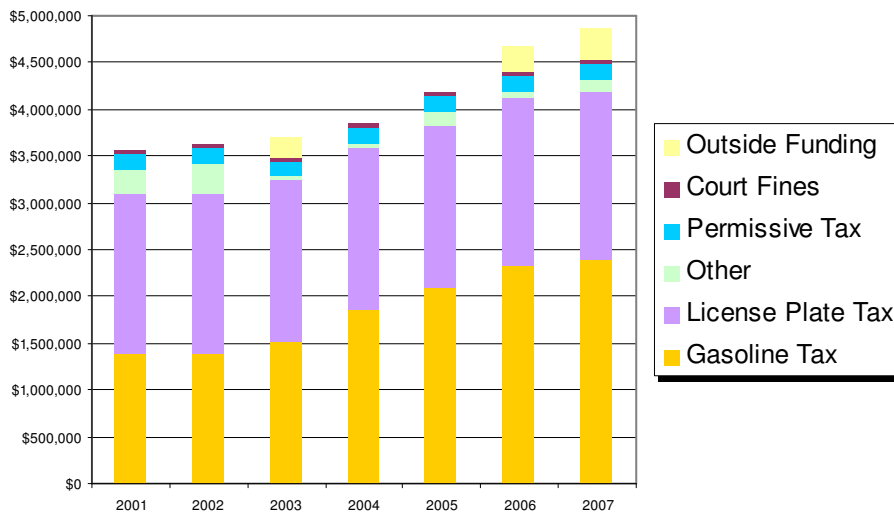
**Growth Issues** Growth issues that affect our office are usually one of three types. First, we see road access problems of the type where driveways are located in areas that have sight distance problems. We attempt to dissuade the owners from situating driveways in dangerous locations through our right-of-way permit process, but we usually have little success. Second, we see situations where storm water runoff from newly developed lots cause runoff problems for neighbors and residents further downstream. Finally, we see water quality problems from outflows from septic tanks that outlet into ditches and slow moving watercourses. I have no authority to resolve the storm water runoff or septic outflow concerns that come to our attention. This causes the public great frustration, as they do not know whom to turn to resolve their problems. A county building department and a sewer district could help to solve many of these concerns. Changes to the County's subdivision regulations as permitted by Senate Bill 115 would also provide some relief.

**House Numbering System** As stated previously, for many years the Ashland County Engineer's Office has provided house numbers for new residences for the commissioners. This numbering system is slowly becoming obsolete and will have to eventually be changed. It is my opinion that this work is more appropriately provided by the Sheriff's 911 Department. A new system tied into a GIS program could allow us to eliminate our involvement and reduce a level of bureaucracy that is unneeded.

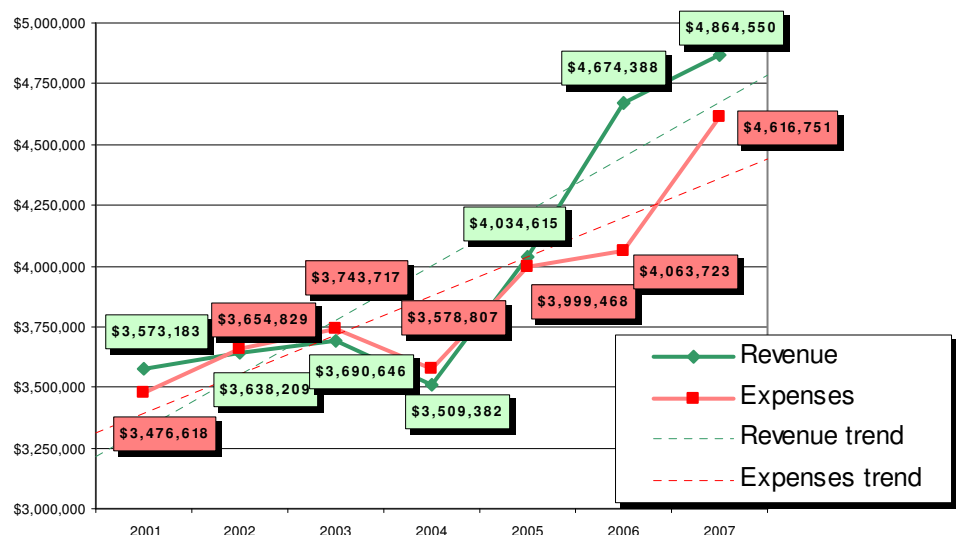


## Financial Charts

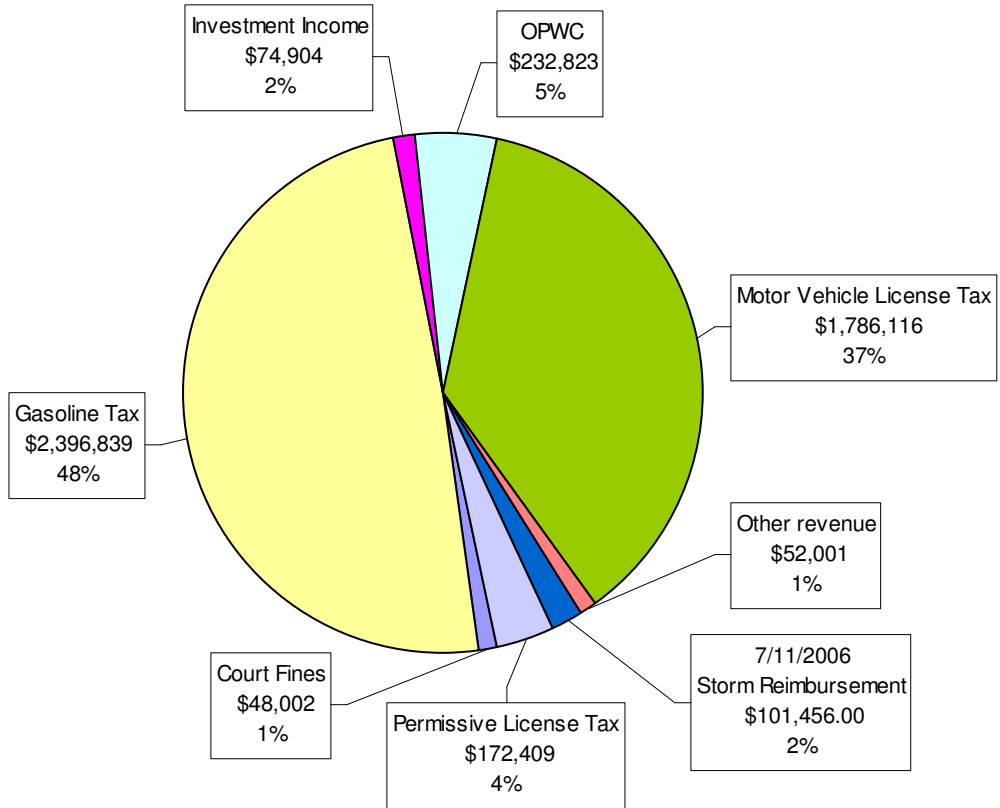
Revenue Trends



Expenses and Revenue Trends



**Revenue**  
\$4,864,550



**Expenses**  
\$4,616,750

