

Debt Management

Capital Expenditures vs. Current Expenditures

Local government expenditures can be broadly categorized as either current or capital. Generally, current expenditures are related to ongoing operations or purchases that are relatively inexpensive or short lived. Capital expenditures tend to be one-time, relatively high cost, or for long-lived assets. There is not a perfectly clear line separating current and capital expenditures, but current expenditures should be funded with current sources of revenue and it may be appropriate to fund capital expenditures with current revenue and/or debt financing. When debt financing is used, it is important that the useful life of the asset exceed the time necessary to pay for the asset. Carroll County's operating expenditures are entirely funded by current revenue. A mix of sources, such as bonds, grants, and paygo funding, is used to fund capital projects.

Paying for Capital Assets

There are two general approaches to paying for capital assets: paygo, or using current resources to pay as the expenditure occurs, and debt financing, paying over time as the asset is used. Paygo funding creates no long-term obligation, but may require years of saving, which delays addressing a need. Paygo funding places the entire burden on the existing taxpayer, even though a long-lived asset may benefit new taxpayers in future years. Debt financing commits the County to a long-term obligation and increases the cost of the funding, but allows timely filling of needs and spreads the cost of an asset over a larger number of taxpayers who will benefit from its use. To benefit from the advantages of each of these approaches, Carroll County uses a mix of paygo and debt funding in the Capital Budget.

Bonds

For local governments, financing with long-term debt usually means issuing bonds. A bond is like a mortgage; it is written evidence of the issuer's obligation to repay a specified principal amount on a certain date (maturity date), together with interest at a stated rate, or according to a formula for determining that rate.

General obligation bonds are used when the capital project is beneficial to the community. Examples would be expenditures for law enforcement, fire protection, education, community facilities, or roads and bridges. The payments are financed by the taxpayers of the issuing government because general obligation bonds are secured unconditionally by the full faith, credit, and taxing powers of the issuing government. These bonds typically carry high credit ratings with correspondingly low risk.

Serial bonds are a package of individual bonds with each bond potentially having a different maturity than the rest. Typically, a municipal serial bond issue has maturities ranging from one year to more than twenty years. General obligation bond issues are usually entirely in serial form.

Debt Retirement

As of June 30, 2017, 69.0% of long-term debt owed by the County will be retired within ten years and 40.6% will be retired in five years. No Consolidated Public Improvement Bonds were issued in November 2017.

Rating Agencies

There are currently three credit rating agencies used by Carroll County: Moody's, Fitch, and Standard & Poor's. These agencies tackle the difficult task of evaluating municipal bond issues in light of demographic, economic, financial, and debt factors. The result of the evaluation process is a "rating" that is assigned to the bond issue. Ratings generally measure the probability of the timely repayment of principal and interest on municipal bonds. The higher the credit rating assigned to the issue, the lower the interest rate the County will need to attract investors.

The following table displays the various rating categories used by the rating agencies:

Moody's ¹	Standard & Poor's ²	Fitch	Description
Aaa	AAA	AAA	Highest quality, extremely strong capacity to pay
Aa	AA	AA	High quality, very strong capacity to pay
A	A	A	Upper medium quality, strong capacity to pay
Baa	BBB	BBB	Medium quality, adequate capacity to pay
Ba	BB	BB	Questionable quality, low capacity to pay

¹Relative ranking within a range may be designated by a 1, 2, or 3.

²Relative ranking within a range may be designated by a + or -.

Credit evaluation, to some extent, is subjective which may result in different analysts looking at different data or assigning different weight to the same data. The rating agencies do not necessarily give the same credit ratings to the same bond issues.

Ratings are initially made before issuance and are continuously reviewed and amended as necessary to reflect change in the issuer's credit position. According to the rating agencies, Carroll County demonstrates very strong credit worthiness. Moody's has assigned Carroll County a rating of **Aa1**, Standard & Poor's **AAA**, and Fitch **AAA**. These high ratings allow Carroll County to lower interest rates on capital projects financed with long-term debt issues. The County's goal is to maintain or improve our current bond ratings in order to minimize borrowing costs.

Sale of Bonds

Bonds are sold to investors through the services of an underwriter. Underwriters buy the entire bond issue from the issuer and then resell the individual bonds to investors. Since they assume the responsibility of distributing the bonds, they risk having to sell the bonds at a price below the purchase price and thus realize a loss.

The financial advisor helps the issuer design the bond issue in terms of maturity dates, maturity amounts, and calls provisions; prepares the official statement; selects an appropriate time to mark the issue; and complies with legal requirements.

Carroll County historically uses a competitive bid process to sell its bonds. This means that at a specified date and time, bids are accepted from various underwriters. The underwriter submitting the lowest bid (interest rate) is selected to purchase the bonds. Within a few days of the bond purchase, the underwriter sells the bonds to various investors.

Debt Affordability

Carroll County does not have a legal debt limit. The County uses a debt affordability model to evaluate the county's ability to support debt. The model establishes guidelines for the amount of debt the County can initiate each year, and projects the effects of that financing through six years of the CIP.

Debt affordability measures a number of criteria such as total debt to assessable base, and debt service to General Fund revenue, and compares the projected ratios to guideline ratios. The model takes into account potential changes in revenue and interest. The model distinguishes between direct debt (i.e. debt to be paid with General Fund revenue) and indirect debt (i.e. debt that is backed by the government but with an associated revenue stream separate from the General Fund.)

Schedule of Debt Service Requirements on Direct County Debt

The following table sets forth the schedule of debt service requirements for the County's direct general obligation bonded debt, State of Maryland Loans, Promissory Notes, Capital Leases, and Enterprise Fund bonded debt, projected as of the year ended June 30, 2018.

Schedule of Debt Service Requirements (1)

Fiscal Year Ending June 30	G.O. Bonds (2)		Watershed Bonds		Notes, Capital Leases, and Other Debt		General Obligation Debt			Total General Fund			Enterprise Funds			Grand Total Debt Service (1)	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal		Interest
2019	\$25,045,935	\$9,794,643	\$603,505	\$376,069	\$316,017	\$126,594	\$1,201,211	\$1,818,826	\$27,166,668	\$12,116,132	\$39,282,800	\$1,746,175	\$489,680	\$1,746,175	\$489,680	\$2,235,855	\$41,518,655
2020	23,624,964	7,912,155	598,790	348,901	336,498	114,513	-	1,746,753	24,560,252	10,122,322	34,682,574	1,784,826	408,377	1,784,826	408,377	2,193,203	36,875,777
2021	20,552,031	6,930,866	602,340	321,476	391,244	101,461	-	1,746,753	21,545,615	9,100,556	30,646,171	1,494,575	327,933	1,494,575	327,933	1,822,508	32,468,679
2022	17,050,661	6,061,007	605,218	293,594	344,966	91,064	246,000	1,746,753	18,246,845	8,192,418	26,439,263	1,436,831	263,544	1,436,831	263,544	1,700,375	28,139,638
2023	16,148,952	5,295,235	609,263	265,538	391,972	82,329	680,930	1,715,308	17,831,117	7,358,410	25,189,527	1,326,984	178,590	1,326,984	178,590	1,505,574	26,695,101
2024	15,362,630	4,567,705	610,822	235,600	401,975	73,026	1,006,624	1,694,994	17,382,051	6,571,325	23,953,376	700,303	134,268	700,303	134,268	834,571	24,787,947
2025	13,449,472	3,915,415	577,789	207,193	411,505	63,496	2,179,934	1,585,027	16,618,700	5,771,131	22,389,831	513,515	82,973	513,515	82,973	596,488	22,986,319
2026	13,791,033	3,553,192	580,305	183,086	421,261	53,740	1,346,000	1,516,802	16,138,599	5,106,820	21,245,419	537,648	60,918	537,648	60,918	598,566	21,843,985
2027	14,051,946	2,819,696	583,123	161,405	431,248	43,752	2,584,000	1,469,915	17,650,317	4,494,768	22,145,085	559,793	41,873	559,793	41,873	601,666	22,746,751
2028	14,407,510	2,269,840	586,156	141,162	441,472	33,528	-	1,332,935	15,435,138	3,777,465	19,212,603	582,103	21,909	582,103	21,909	604,012	19,816,615
2029	14,777,160	1,695,827	588,900	120,807	451,938	23,062	107,290	1,332,935	15,925,288	3,172,631	19,097,919	605,649	1,150	605,649	1,150	606,799	19,704,718
2030	10,978,081	1,163,276	592,217	100,230	462,653	12,347	4,662,430	1,251,807	16,695,381	2,527,660	19,223,041	127,385	3,708	127,385	3,708	131,093	19,354,134
2031	7,216,832	787,084	538,660	80,837	235,424	2,077	13,115,500	878,826	21,106,416	1,748,824	22,855,240	2,771	68	2,771	68	2,839	22,858,079
2032	5,918,883	545,883	531,117	62,874	-	-	-	295,866	6,450,000	904,623	7,354,623	-	-	-	-	-	7,354,623
2033	4,638,927	362,722	501,073	45,572	-	-	445,320	284,176	5,585,320	692,470	6,277,790	-	-	-	-	-	6,277,790
2034	3,614,402	221,390	50,597	29,563	-	-	3,475,344	272,487	7,540,343	523,440	8,063,783	-	-	-	-	-	8,063,783
2035	2,452,895	118,649	52,105	16,239	-	-	-	90,031	2,805,000	224,919	3,029,919	-	-	-	-	-	3,029,919
2036	1,809,860	48,766	45,140	6,446	-	-	473,924	77,590	2,528,924	132,802	2,661,726	-	-	-	-	-	2,661,726
2037	621,580	9,324	78,420	1,176	-	-	1,303,000	32,575	2,003,000	43,075	2,046,075	-	-	-	-	-	2,046,075
Total	\$225,513,754	\$57,872,675	9,835,540	2,997,768	5,038,173	\$820,989	\$32,827,507	\$20,890,359	\$273,214,974	\$82,581,791	\$355,796,765	\$11,418,558	\$2,014,991	\$11,418,558	\$2,014,991	\$13,433,549	\$369,230,314

(1) Totals may not add due to rounding.

(2) Loans paid from revenues or by repayments by others:

(a) Promissory Notes.....	\$0
(b) Capital Lease Agreements.....	\$5,038,173

Source: Carroll County Department of the Comptroller.

**Projected Statement of Direct and Enterprise Fund Bonded
Debt Issued and Outstanding
As of June 30, 2018 ⁽¹⁾**

Direct Bonded Debt	Principal Date of Issue	Issued	Outstanding
Volunteer Fire Dept. Project Bonds	11/01/03	2,100,000	175,000
Volunteer Fire Dept Project Bonds	09/22/04	2,065,000	352,019
Volunteer Fire Dept Project Bonds	12/01/05	2,900,000	570,000
Consolidated Public Improvement & Refunding	11/13/07	27,100,000	2,020,000
Consolidated Public Improvement	11/13/08	72,088,000	4,172,328
Consolidated Public Improvement & Refunding-Series A	11/12/09	30,931,089	5,443,878
Consolidated Public Improvement Series B	11/12/09	33,577,761	33,577,759
Consolidated Public Improvement Refunding Series A	10/21/10	12,480,329	0
Consolidated Public Improvement Refunding Fire Company Series B	10/21/10	2,210,000	0
Consolidated Public Improvement Series D	10/21/10	19,649,128	14,809,195
Consolidated Public Improvements and Refunding	11/10/11	28,623,957	17,797,563
Consolidated Public Improvement and Refunding	11/08/12	37,680,345	27,486,059
Consolidated Public Improvement	11/14/13	26,000,000	20,645,000
Taxable Pension Refunding Bonds	12/23/13	4,524,000	1,753,000
Consolidated Public Improvement and Refunding	11/13/14	67,576,682	57,620,123
Consolidated Public Improvement and Refunding	11/19/15	34,015,081	31,125,083
Consolidated Public Improvement and Refunding	11/10/16	20,138,285	17,297,135
Installment Purchase Agreements:			
Installment Purchase Agreements Issued Fiscal Year 2002	7/1/01-6/30/02	396,000	396,000
Installment Purchase Agreements Issued Fiscal Year 2003	7/1/02-6/30/03	530,930	530,930
Installment Purchase Agreements Issued Fiscal Year 2004	7/1/03-6/30/04	100,000	100,000
Installment Purchase Agreements Issued Fiscal Year 2005	7/1/04-6/30/05	2,179,934	2,179,934
Installment Purchase Agreements Issued Fiscal Year 2006	7/1/05-6/30/06	1,346,000	1,346,000
Installment Purchase Agreements Issued Fiscal Year 2007	7/1/06-6/30/07	2,584,000	2,584,000
Installment Purchase Agreements Issued Fiscal Year 2009	7/1/08-6/30/09	2,215,126	2,215,126
Installment Purchase Agreements Issued Fiscal Year 2010	7/1/09-6/30/10	4,662,430	4,662,430
Installment Purchase Agreements Issued Fiscal Year 2011	7/1/10-6/30/11	13,115,500	13,115,500
Installment Purchase Agreements Issued Fiscal Year 2013	7/1/12-6/30/13	445,320	445,320
Installment Purchase Agreements Issued Fiscal Year 2014	7/1/13-6/30/14	3,475,344	3,475,344
Installment Purchase Agreements Issued Fiscal Year 2016	7/1/15-6/30/16	473,924	473,924
Installment Purchase Agreements Issued Fiscal Year 2017	7/1/16-6/30/17	1,303,000	1,303,000
Farmers Home Administration:			
Watershed Bond — 1972	06/01/72	769,700	131,581
Watershed Bond — 1974	07/01/74	253,000	70,446
Watershed Bond — 1979	09/02/80	<u>678,800</u>	<u>303,124</u>
		<u>\$458,188,665</u>	<u>\$268,176,801</u>
Enterprise Fund Bonded Debt			
Consolidated Public Improvement & Refunding	11/13/07	9,401,000	0
Consolidated Public Improvements	11/13/08	7,616,000	419,423
Consolidated Public Improvement & Refunding Series A	11/12/09	745,461	173,910
Consolidated Public Improvement Series B	11/12/09	1,072,239	1,072,240
Consolidated Public Improvement Refunding Series A	10/21/10	6,371	0
Consolidated Public Improvement D	10/21/10	13,742	10,357
Consolidated Public Improvements and Refunding	11/10/11	484,429	128,596
Consolidated Public Improvement and Refunding	11/08/12	198,549	144,990
Consolidated Public Improvement and Refunding	11/13/14	5,446,058	4,925,791
Consolidated Public Improvement and Refunding	11/19/15	2,978,549	2,978,548
Consolidated Public Improvement and Refunding Bonds	11/10/16	56,307	36,666
Water Quality Loan — MD Dept. of the Environment	03/22/00	532,680	97,682
Solid Waste	11/13/07	604,000	0
Solid Waste	11/13/08	296,000	23,248
Solid Waste Series A	11/12/09	203,450	2,211
Solid Waste	11/10/11	789,648	316,927
Solid Waste	11/13/14	406,860	165,683
Solid Waste	11/19/15	191,370	191,370
Solid Waste	11/10/16	91,589	59,641
Septage	11/08/12	62,391	52,420

Airport.....	11/13/01	2,200,000	440,000
Airport Series A	10/21/10	93,300	0
Airport Series D.....	10/21/10	27,130	20,447
Airport.....	11/10/11	286,966	86,913
Airport.....	11/08/12	18,715	11,530
Airport.....	11/13/14	85,400	18,407
Airport.....	11/10/16	63,819	41,558
		<u>\$ 33,972,023</u>	<u>\$ 11,418,558</u>
		<u>\$492,160,688</u>	<u>\$279,595,359</u>

(1) This table reflects indebtedness of the County exclusive of the following obligations:

(a) Promissory Notes.....	\$0
(b) Capital Lease Agreements.....	\$5,038,173

Note: This subtotal reflects the direct bonded indebtedness of the County exclusive of those items in Note (1) of this table and Enterprise Fund Bonded Debt and is exclusive of any related bond premiums/discounts or other unamortized charges.

Source: Carroll County Department of the Comptroller.

The following tables set forth the County's long-term debt per capita and ratios of debt to assessed value for the six most recent fiscal years ended June 30 and a projection for the fiscal year ended June 30, 2018.

**Projected County Debt
Exclusive of Enterprise Fund Debt ⁽¹⁾**

	<u>Bonded Debt</u>	<u>Estimated Population</u>	<u>Assessed Value</u>	<u>Bonded Debt Per Capita</u>	<u>Bonded Debt to Assessed Value</u>
2018.....	\$268,176,801	173,852	\$19,484,199,000	\$1,542.56	1.38%
2017.....	259,668,445	173,015	19,057,823,000	1,708.92	1.55
2016.....	309,180,611	172,703	18,733,020,866	1,790.24	1.65
2015.....	308,973,068	171,702	18,495,548,665	1,799.47	1.67
2014.....	322,300,607	170,643	18,549,381,425	1,888.74	1.74
2013.....	319,294,954	169,519	18,808,823,173	1,883.53	1.70

**Projected County Debt
Inclusive of Enterprise Fund Debt ⁽¹⁾**

	<u>Bonded Debt (2)</u>	<u>Estimated Population</u>	<u>Assessed Value</u>	<u>Bonded Debt Per Capita</u>	<u>Bonded Debt to Assessed Value</u>
2018	\$279,595,359	173,852	\$19,484,199,000	\$1,608.24	1.43%
2017.....	309,048,384	173,015	19,057,823,000	1,786.25	1.62
2016.....	324,624,173	172,703	18,733,020,866	1,879.67	1.73
2015.....	326,345,144	171,702	18,495,548,665	1,898.53	1.76
2014.....	342,092,417	170,643	18,549,381,425	2,004.72	1.84
2013.....	341,226,838	169,519	18,808,823,173	2,012.91	1.81

(1) These tables reflect indebtedness of the County exclusive of MD Industrial Land Act and MD Industrial Commercial Redevelopment Fund Loans, Promissory Notes, Capital Lease Agreements, and any related bond premiums/discounts or other unamortized charges. They include, among other things, the bonded indebtedness originally incurred by the Carroll County Sanitary Commission, which indebtedness is to be paid first from various charges which the County is authorized to levy together with State and Federal monies received, but which indebtedness is ultimately secured by the full faith and credit of the County.

Source: Carroll County Department of the Comptroller.

THE COUNTY COMMISSIONERS OF CARROLL COUNTY
Westminster, Maryland

Computation of the Projected Legal Debt Margin
As of June 30, 2018

Net assessed value- Real Property	\$ 18,879,193,000	
Debt limit - 6% of net total assessed value (1)		\$ 1,132,751,580
Assessed Value-Personal Property	605,006,000	
Debt limit- 15% of Net Assessed Value		90,750,900
Total Debt Limit		1,223,502,481
Amount of debt applicable to debt limit:		
Total Bonded Debt	\$ 279,497,677	
Less- Agricultural Preservation Program Self Supporting Debt	32,827,508	
Less- Fire Company Loans- Self Supporting Debt	1,097,019	
Less - Bureau of Utilities bonds and loans payable	9,890,521	
Less - Septage bonds payable	52,420	
Total amount of debt applicable to debt limit		235,630,209
Legal debt margin		\$ 987,872,272

Note: (1) Recommended limit - Carroll County does not have a legal debt limit.
Source: Carroll County Department of the Comptroller.

Schedule of Legal Debt Margin
2009-2018

Fiscal Year	Assessed Value	Legal Debt Limitation	Legal Borrowing Limitation	Debt Subject to Limitation	Legal Debt Margin	Ratio of Debt Subject to Limitation To Legal Borrowing Limitation
2009	20,409,412,280	6%/15%	1,274,735,894	268,496,244	1,006,239,650	21.06%
2010	22,066,168,625	6%/15%	1,373,814,980	303,156,906	1,070,658,074	22.07%
2011	20,895,165,478	6%/15%	1,302,726,361	301,960,750	1,000,765,611	23.18%
2012	19,813,576,019	6%/15%	1,248,709,194	292,937,714	955,771,480	23.46%
2013	18,789,765,921	6%/15%	1,175,305,137	287,113,093	888,192,044	24.43%
2014	18,514,343,538	6%/15%	1,158,193,261	286,486,025	871,707,236	24.74%
2015	18,495,548,665	6%/15%	1,159,503,407	273,161,300	886,342,107	23.56%
2016	18,733,020,866	6%/15%	1,174,512,828	272,857,221	901,655,607	23.23%
2017	19,098,609,701	6%/15%	1,199,599,196	258,522,314	941,076,882	21.55%
2018	19,484,199,000	6%/15%	1,223,502,481	235,630,209	987,872,272	19.26%