

**SEWER SERVICE
FEASIBILITY STUDY**

TOWN OF RAYMOND
RACINE COUNTY, WISCONSIN

OCTOBER 2004

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INTRODUCTION

The purpose of this report is to summarize a preliminary investigation of the feasibility and potential benefits of providing sewer service to land located along the I-94 corridor in the Town of Raymond. Located between Milwaukee and Chicago on I-94, the Town of Raymond is situated in a prime location to attract business, commercial, and industrial development. The extension of sewer service will allow for increased development in the area. The addition of new commercial and industrial development is a compatible land use in the study area and consistent with the Town of Raymond Land Use Plan that was prepared in 2004 and is expected to be adopted in the fourth quarter of this year.

This study is intended as a preliminary analysis of the benefits of sewer service and the acquisition of wastewater treatment capacity to serve lands in the I-94 corridor. The issues of collector system infrastructure and interceptor conveyance capacity must be addressed in future studies. This study will address the following issues:

1. A projection of the fiscal benefits (increase in tax base and tax revenues) resulting from increased development
2. A determination of wastewater treatment capacity needs
3. An estimate of the cost of wastewater treatment capacity acquisition
4. Proposed methods for financing the necessary wastewater treatment capacity purchase

STUDY AREA

The study service area includes approximately 3,015 acres of currently unsewered property, as shown on Map 1. The land use plan for the study area includes a combination of business, commercial, and industrial development along the I-94 corridor in the Town of Raymond. The study area is divided into two phases of development. Phase 1, which includes 1,656 acres directly adjacent to I-94, will be developed first. Phase 2 consists of 1,359 acres directly west of Phase 1 and will be developed later. The anticipated build-out period for each phase is 30 years. It is assumed that all lands in the study area that are currently under-utilized or undeveloped will be redeveloped to their ultimate planned use during the build-out period.

EXISTING PROPERTY VALUATION

Table 1 shows the existing value of all lands located in the study service area. The 3,015 acres comprising the entire service areas have an existing equalized value of \$78,658,898. The Phase 1 area has an existing equalized value of \$58,153,068 or a value of \$35,112 per acre. The Phase 2 area has an existing equalized value of \$20,505,830 or a value per acre of \$15,089. The value per acre for both phases indicates that a majority of the lands in the study area are either undeveloped or underdeveloped. The existing value per acre is significantly lower than what the land would be worth if it were utilized to its maximum planned use.

PROJECTED DEVELOPMENT AND INCREASE IN PROPERTY VALUES

The extension of sewer service will allow for development of land at higher uses with a resulting increase in tax base. Studies have shown that the cost of providing services to the type of development planned for this area are small relative to the amount of tax revenue generated - so providing sewer service is likely to result in a large fiscal benefit to the Town of Raymond as well as other taxing jurisdictions, particularly the school district.

Projected land use assumptions were based on the 2004 Town of Raymond Land Use Plan for the I-94 corridor. Table 2 shows the gross acreage of lands in the study area by planned land use type for each phase of development. Existing vacant lands in the study area were assumed to be developed as 75 percent industrial and 25 percent commercial/retail. These percentages were based on typical land uses within newly developed business and industrial parks in southeastern Wisconsin. Existing commercial/retail, industrial, and residential lands in the study area are assumed to remain the same use and/or be redeveloped as the same use.

The study assumes that approximately 65% of lands in the total study area will be developed or redeveloped over a 60-year period. It is assumed that 35% of lands will be used for right-of-ways or contain undevelopable areas such as wetlands, woodlands, storm water detention areas or other non-developable area. Using these assumptions, as shown in Table 2, the net developable acreage is 920.9 acres for Phase 1 and 736.6 acres for Phase 2.

A projected value per acre was assigned to each land use type based on research of similar property values for new development located in the immediate area and other southeastern Wisconsin communities. Table 2 shows the value per acre as \$425,000 for new business park uses, \$375,000 for new industrial uses, \$500,000 for new commercial/retail uses, and \$375,000 for existing industrial uses. The ultimate projected value for Phase 1 is \$358,222,227, expressed in 2004 dollars, while the projected value for Phase 2 is \$285,424,750. The total projected build-out value of lands in the study area is \$643,646,977.

Table 3 shows the projected increase in equalized value of lands within the Town of Raymond sewer service area over the 60-year build-out period. The annual incremental value is the projected amount of additional tax base the Town can expect from new development and redevelopment resulting from extension of sewer service to the area. It is projected that land values in Phase 1 will increase by an average of \$10,002,305 per year during years 1 through 30. The value of lands in Phase 2 is projected to increase \$8,830,631 per year over years 31 through 60.

Since the ultimate build-out of the sewer service area is expected to occur over the next 60 years, a shorter time frame is examined for purposes of this study. Table 4 shows projected equalized values and tax revenues for the service area with and without sewer extension over a 30-year period. In the unsewered scenario, equalized value is assumed to increase at four percent per year. The sewerred scenario projects that land will increase by an incremental value of \$10,002,305 per year plus an increase for inflation. As shown in Table 4, by Year 5 the study area's equalized value under the sewerred scenario is projected to be \$149,164,287 compared to \$91,187,221 for the unsewered scenario. In Year 15, the value is \$356,296,986 versus \$122,548,000 if the area is unsewered. At the end of Phase 1 in Year 30, the projected sewerred

value is \$919,272,400 compared to \$190,925,791 if the area remains unsewered. Chart 1 illustrates the difference in property values under the sewered and unsewered scenarios.

PROJECTED INCREASE IN PROPERTY TAX REVENUES

An expanded tax base will translate into higher property tax revenues for the taxing jurisdictions in the service area. This study considered projected tax revenues for both the Town and the school district. Table 5 provides a summary of the property tax revenue data developed in Table 4. For purposes of this study it was assumed that the property tax rates will remain constant and that additional revenues will be used to pay for additional services to enhance the quality of life for town residents. An increased tax base could also be used to lower overall tax rates for the taxing jurisdictions.

As shown in Table 5, if the study area is sewered, Town of Raymond tax revenues for the study area are projected to be \$340,095 per year in Year 5, versus \$207,907 if the area is unsewered. This represents an incremental increase of \$132,188. By year 15, the projected Town tax revenues from this area if sewered are \$812,357 versus \$279,409 if unsewered, representing an incremental increase of \$532,948 per year. Year 30 projects Town tax revenues of \$2,095,941 for this area if sewered versus \$435,311 if unsewered. The projected incremental increase in Town property tax revenues in Year 30 is \$1,660,630 per year. Charts 2 and 3 illustrate the difference in Town property revenues under the sewered and unsewered scenarios.

The Raymond School District will also benefit from an increased tax base resulting from sewer service and new development. Year 5 school district revenues are projected to be \$1,069,508 if the area is sewered versus \$653,812 if unsewered, for an incremental increase of \$415,696. Year 15 revenues are \$2,554,649 if sewered compared to \$878,669 if unsewered, for an incremental increase of \$1,675,980. In Year 30, representing full build-out of Phase 1, revenues from the area if sewered are projected to be \$6,591,183, compared to \$1,368,938 if unsewered. This represents an incremental increase of \$5,222,245 per year in tax revenues for the school district. Charts 4 and 5 illustrate the difference in school district tax revenues under the sewered and unsewered scenarios.

The impact of the increased tax base and revenues will benefit the Town of Raymond. The additional tax revenues generated by the I-94 corridor can be used to increase the quality of life in the Town of Raymond and reduce the portion of taxes paid by Town residents. New business and industry in the service area will create new job opportunities for local residents and wealth for the community. The Raymond School District will also benefit from additional tax revenues that can be used to improve educational opportunities for students. The addition of a sewer system will help the Town maintain and protect its borders from annexation and maintain and enhance the quality of life that Town residents currently enjoy.

WASTEWATER TREATMENT CAPACITY ISSUE

Wastewater generated from the proposed sewer service area will be conveyed to the Racine Wastewater Treatment Facility for treatment and disposal. In order to recognize the benefits that can be derived from sewer service, the Town of Raymond will need to secure capacity rights in the Racine Wastewater Treatment Facility (WTF). The City of Racine is currently completing

an upgrade and expansion of the WTF. This expansion will provide additional capacity to accommodate growth in the entire Racine sewer service area. An intermunicipal agreement involving the parties in the current sewer service area was signed in 2002. This agreement stipulates that all parties served by the WTF reserve a certain amount of wastewater treatment capacity upfront and pay upfront for the capital cost of providing that amount of capacity. In exchange, each party receives the right to discharge an amount of wastewater up to the amount reserved for that party. No party is allowed to discharge more than its reserved amount without first purchasing additional capacity from another party. The original facility plan and agreement provided for a capacity allocation of 0.15 million gallons per day (mgd) average daily flow for the Town of Raymond. The Town has not yet entered into an agreement with Racine and therefore has no reserved rights to treatment plant capacity. However, the 0.15 mgd of capacity is being held by the Racine Wastewater Utility to be sold on a first-come first-served basis to either the Town of Raymond or another party.

Planning for the acquisition of wastewater treatment capacity will require sound estimates for the amount and timing of projected wastewater flows. The amount of wastewater flows generated, and the resulting treatment capacity needs, for the Raymond service area are dependent upon the projected land use for the area. Based upon the projected land use as set forth in the land use plan, flow estimates were developed for Phase 1 and Phase 2. As shown in Table 6, the projected average day flow for Phase 1 at full build-out is 1.0 mgd, or 3,625 Residential Equivalent Connections (RECs). A REC is a unit of measure equal to the amount of wastewater generated by a typical single-family residence. The projected average day wastewater flow at full buildout for Phase 2 is 0.810 mgd or 2,995 RECs.

The Racine Wastewater Utility expansion and upgrade project is designed to accommodate growth in the sewer service area through 2020, or approximately 15 years from now. Given that Phase 1 has an anticipated buildout of 30 years, it can be expected that approximately half of the development in Phase 1 will occur within the planning period for the current Racine WTF expansion. Prior to 2020, it is expected that the Racine Wastewater Utility will again undertake facility planning and develop new flow projections and expansion plans for the next 20- to 30-year period.

Since only half of the Phase 1 development is expected to take place prior to 2020, it is recommended that the Town of Raymond acquire capacity to serve half of the total projected flows for Phase 1. Therefore, it is recommended that Raymond seek to acquire 0.5 mgd of treatment capacity in the Racine WTF. Additional capacity to serve the remainder of Phase 1 and Phase 2 can be reserved during the next facility planning process.

Since the Town currently has no reserved capacity, it will need to purchase capacity from Racine Wastewater Utility or one of the other parties to the Racine Sewer Service Agreement. Although only 0.15 mgd was anticipated for Raymond in the original agreement, it is recommended that Raymond purchase capacity from one or more of the other parties in order to obtain a total of 0.50 mgd of capacity. The Town of Yorkville was allocated 0.76 mgd of capacity in the WTF and has not yet reserved any of that capacity, so the Town may be able to purchase a portion of that capacity.

Table 7 shows the estimated cost of purchasing 0.50 mgd of treatment capacity. The original cost estimate for the capacity allocated to Yorkville was \$2,410,970, or \$3,172,329 per mgd. The cost estimate for the capacity allocated to Raymond was \$493,813, or \$3,292,087 per mgd. Purchase agreements for this capacity would be negotiated, and would likely include interest on the original costs. Assuming interest of 4 percent per year, the estimated cost to purchase 0.50 mgd of treatment capacity is \$1,735,025. Including financing, legal and consulting costs, the total amount to be financed is estimated at \$1,804,426. The annual debt service to finance this amount over 20 years is estimated at \$138,717 per year.

ADDITIONAL COSTS

In addition to purchasing wastewater treatment capacity, the Town will incur some additional costs to provide sewer service to the study area. A local collector sewer system will be needed to collect the wastewater from individual properties. In addition, the Town will need to negotiate with the Village of Mount Pleasant or the Town of Caledonia to obtain conveyance of it wastewater to the Racine WTF. In order to estimate the costs of these items, a more detailed study would be required in order to determine the planned layout of the collector system and the most efficient and cost effective route for conveyance to the WTF. In addition, the Town would need to contact Mount Pleasant or Caledonia to discuss the potential terms of a wastewater conveyance agreement. It is expected that a significant share of the costs of a collector system could be financed by developer contributions. For all of these reasons, estimating these costs was not included as part of this initial feasibility study.

As part of the Racine sewer service agreement, the Town would also be required to share a portion of the town property tax revenues generated within the service area. The exact amount of the revenue sharing payments would depend on a complex formula with many variables, including the amount of increased tax base and equalized value per capita of the 5 other communities already party to the agreement. However, based on the 2004 revenue sharing computations, it is estimated that Raymond would be required to pay approximately \$20,000 per year plus share approximately 7.6 percent of the additional tax revenues from any new development within the proposed sewer service area. Revenue sharing would only apply to the sewer service area and would not be required for development in any other areas of the Town.

FINANCING

Since the Town does not have an established base of sewer customers, and since the costs to purchase wastewater treatment capacity will be substantial, it is assumed that the Town will need to issue debt to finance the capacity purchase. It is recommended that, to the extent possible, the costs should be recovered only from those properties benefiting directly from sewer service. The cost of the annual debt service could be funded in several different ways, including taxation, special assessments, or connection charges.

Special assessments are a common method of recovering the capital costs of extending sewer service to unsewered areas. However, it was determined that special assessments would not be a reasonable method of recovering the costs of wastewater treatment capacity in this case. The recommended purchase of wastewater treatment capacity would only be sufficient to serve approximately half of the development expected for Phase 1 of the study area. It is not known at

this time which properties would develop prior to 2020 and would therefore use the treatment capacity. Therefore, it would be unfair to assess the costs to the entire Phase 1 area if the capacity is only intended to serve half of the area.

The Town could adopt a connection fee that would be charged to properties as they connect to the sewer system, and would be based on the proportionate share of the flow that the property is expected to generate. This would be a fair method of allocating the costs of treatment capacity and would result in costs being borne only by those properties that use the capacity. However, since the Town would have to purchase the treatment capacity prior to constructing the collector system and connecting any customers, it is likely that there would be a shortage of revenues to cover the debt service in the initial years.

A third option is that the Town could create a special district, such as a Town utility district or sanitary district, to provide sewer service to the proposed area. This would allow the Town to recover all or a portion of the costs of sewer service through a property tax levied on only those properties in the district. This would have the advantage of allowing the Town to tax only those properties that are or could be provided with sewer service. Properties that are developed would pay for a larger portion of the costs than properties that are not developed. It would also provide the Town with a secure revenue source to cover the costs of the treatment capacity purchase. If the Town recovers all of the costs through taxation, however, it would result in properties that do not receive sewer service prior to 2020 paying for a benefit that they did not use.

It is recommended that the Town recover the capital costs through a combination of taxation and connection charges. The imposition of connection charges will ensure that the majority of the costs are recovered from only those properties receiving sewer service, while the creation of a taxation district will ensure that the Town has the ability to cover any shortfall in connection charge revenues through property taxes.

Table 9 shows a 20-year projection of connection charge revenues and taxes, assuming a connection charge of \$1,000 per REC is imposed on new connections. It was assumed that in the initial year of the district, there would be no connection charge revenues and that taxes would cover the entire cost of debt service. The initial tax rate is projected to be \$2.395 per \$1,000 of equalized value, but would decrease as more properties develop. By year 6, it is expected that the debt service would be funded entirely by connection charge revenues.

RECOMMENDATIONS

It has been demonstrated that the proposed sewer service area is consistent with the Town's land use plans and would provide significant fiscal benefits to both the Town and the School District. There is currently sufficient available capacity in the Racine WTF to accommodate the anticipated development and wastewater flows from the area through 2020. However, this capacity could be purchased and reserved by the Town of Yorkville or other communities served by the Racine WTF at any time. The cost of acquiring this capacity could be recovered from the area served with a combination of modest connection charges to new customers and property taxation in the initial years of the service district.

It is therefore recommended that the Town of Raymond proceed with creating a utility district or sanitary district for the proposed Phase 1 area and negotiate purchase of the necessary wastewater treatment capacity. In addition, it is recommended that the Town also proceed with facility planning for the construction of a local collector system with the study area, and begin discussions with Mount Pleasant or Caledonia regarding interceptor sewer capacity to convey its wastewater to the Racine WTF.

Table 1
Town of Raymond Sewer Service Area
Existing Property Valuations

Projected Land Use Type	Gross Acreage	Assessed Value ⁽¹⁾	Equalized Value ⁽²⁾	Ave. Value/Acre
Phase 1				
Business	1,288.1	\$23,014,890	\$26,153,284	\$20,304
Commercial/Retail	33.5	\$5,298,200	\$6,020,682	\$179,722
Industrial	54.6	\$14,425,400	\$16,392,500	\$300,229
Residential	31.0	\$8,435,400	\$9,585,682	\$309,216
Wetland/Woodlands/Other	249.0	\$810	\$920	n.a.
Subtotal	1,656.2	\$51,174,700	\$58,153,068	\$35,112
Phase 2				
Business	1,133.2	\$16,145,980	\$18,347,705	\$16,191
Commercial/Retail	-	\$0	\$0	
Industrial	-	\$0	\$0	
Residential	-	\$0	\$0	
Wetland/Woodlands/Other	225.8	\$1,899,150	\$2,158,125	\$9,559
Subtotal	1,359.0	\$18,045,130	\$20,505,830	\$15,089
Total	3,015.2	\$69,219,830	\$78,658,898	\$26,088

1. As of 1/1/04.

2. Based on assessment ratio of 0.88.

Table 2
Town of Raymond Sewer Service Area
Projected Build-out Valuations

Projected Land Use Type	Gross Acreage	Net Acreage ⁽¹⁾	Projected Value/ Acre	Projected Value
Phase 1				
Business Park	322.0	209.3	\$425,000	\$88,952,500
Industrial Park	966.1	628.0	\$375,000	\$235,486,875
Commercial/Retail	33.5	21.8	\$500,000	\$10,887,500
Industrial	54.6	35.5	\$375,000	\$13,308,750
Residential	31.0	26.4	(2)	\$9,585,682
Wetland/Woodlands/Other	249.0	0.0	\$0	\$920
Subtotal	1,656.2	920.9		\$358,222,227
Phase 2				
Business Park	283.3	184.1	\$425,000	\$78,261,625
Industrial Park	849.9	552.4	\$375,000	\$207,163,125
Commercial/Retail		0.0	\$375,000	\$0
Wetland/Woodlands/Other	225.8	0.0	(2)	\$0
Subtotal	1,359.0	736.6		\$285,424,750
Total	3,015.2	1,657.5		\$643,646,977

1. Net developable acreage after reduction of 35% for right of ways and other non-developable areas.
2. Residential value assumed to remain constant at current value (see Table 1).

Table 3
Town of Raymond Sewer Service Area
Projected Incremental Property Value

	Build Out		Projected Build-		
	Period	Existing Value	Out Value	Increase	Increase/Year
Phase 1	30 years	\$58,153,068	\$358,222,227	\$300,069,159	\$10,002,305
Phase 2	30 years	\$20,505,830	\$285,424,750	\$264,918,920	\$8,830,631

Table 4
Town of Raymond Sewer Service Area
Projected Increase in Equalized Property Values, Town Tax Revenues and School District Tax Revenues

Year	Equalized Value		Annual Town Revenues			Annual School District Revenues		
	Unsewered ⁽¹⁾	Sewered	Unsewered	Sewered	Incremental	Unsewered	Sewered	Incremental
0	\$78,658,898	\$78,658,898	\$179,342	\$179,342	\$0	\$563,984	\$563,984	\$0
1	\$81,018,665	\$91,321,039	\$184,723	\$208,212	\$23,489	\$580,904	\$654,772	\$73,868
2	\$83,449,225	\$104,672,116	\$190,264	\$238,652	\$48,388	\$598,331	\$750,499	\$152,168
3	\$85,952,702	\$118,742,069	\$195,972	\$270,732	\$74,760	\$616,281	\$851,381	\$235,100
4	\$88,531,283	\$133,562,014	\$201,851	\$304,521	\$102,670	\$634,769	\$957,640	\$322,870
5	\$91,187,221	\$149,164,287	\$207,907	\$340,095	\$132,188	\$653,812	\$1,069,508	\$415,696
6	\$93,922,838	\$165,582,491	\$214,144	\$377,528	\$163,384	\$673,427	\$1,187,226	\$513,800
7	\$96,740,523	\$182,851,540	\$220,568	\$416,902	\$196,333	\$693,630	\$1,311,046	\$617,416
8	\$99,642,739	\$201,007,707	\$227,185	\$458,298	\$231,112	\$714,438	\$1,441,225	\$726,787
9	\$102,632,021	\$220,088,678	\$234,001	\$501,802	\$267,801	\$735,872	\$1,578,036	\$842,164
10	\$105,710,981	\$240,133,601	\$241,021	\$547,505	\$306,484	\$757,948	\$1,721,758	\$963,810
11	\$108,882,311	\$261,183,138	\$248,252	\$595,498	\$347,246	\$780,686	\$1,872,683	\$1,091,997
12	\$112,148,780	\$283,279,528	\$255,699	\$645,877	\$390,178	\$804,107	\$2,031,114	\$1,227,007
13	\$115,513,244	\$306,466,637	\$263,370	\$698,744	\$435,374	\$828,230	\$2,197,366	\$1,369,136
14	\$118,978,641	\$330,790,020	\$271,271	\$754,201	\$482,930	\$853,077	\$2,371,764	\$1,518,688
15	\$122,548,000	\$356,296,986	\$279,409	\$812,357	\$532,948	\$878,669	\$2,554,649	\$1,675,980
16	\$126,224,440	\$383,036,660	\$287,792	\$873,324	\$585,532	\$905,029	\$2,746,373	\$1,841,344
17	\$130,011,173	\$411,060,046	\$296,425	\$937,217	\$640,791	\$932,180	\$2,947,301	\$2,015,120
18	\$133,911,509	\$440,420,103	\$305,318	\$1,004,158	\$698,840	\$960,146	\$3,157,812	\$2,197,667
19	\$137,928,854	\$471,171,809	\$314,478	\$1,074,272	\$759,794	\$988,950	\$3,378,302	\$2,389,352
20	\$142,066,719	\$503,372,239	\$323,912	\$1,147,689	\$823,777	\$1,018,618	\$3,609,179	\$2,590,561
21	\$146,328,721	\$537,080,640	\$333,629	\$1,224,544	\$890,914	\$1,049,177	\$3,850,868	\$2,801,691
22	\$150,718,583	\$572,358,511	\$343,638	\$1,304,977	\$961,339	\$1,080,652	\$4,103,811	\$3,023,158
23	\$155,240,140	\$609,269,681	\$353,948	\$1,389,135	\$1,035,187	\$1,113,072	\$4,368,464	\$3,255,392
24	\$159,897,344	\$647,880,399	\$364,566	\$1,477,167	\$1,112,601	\$1,146,464	\$4,645,302	\$3,498,838
25	\$164,694,265	\$688,259,417	\$375,503	\$1,569,231	\$1,193,729	\$1,180,858	\$4,934,820	\$3,753,962
26	\$169,635,093	\$730,478,083	\$386,768	\$1,665,490	\$1,278,722	\$1,216,284	\$5,237,528	\$4,021,244
27	\$174,724,145	\$774,610,437	\$398,371	\$1,766,112	\$1,367,741	\$1,252,772	\$5,553,957	\$4,301,185
28	\$179,965,870	\$820,733,301	\$410,322	\$1,871,272	\$1,460,950	\$1,290,355	\$5,884,658	\$4,594,302
29	\$185,364,846	\$868,926,388	\$422,632	\$1,981,152	\$1,558,520	\$1,329,066	\$6,230,202	\$4,901,136
30	\$190,925,791	\$919,272,400	\$435,311	\$2,095,941	\$1,660,630	\$1,368,938	\$6,591,183	\$5,222,245
Total			\$8,967,595	\$28,731,946	\$19,764,352	\$28,200,725	\$90,354,410	\$62,153,685

1. Annual increase of 4%.

Table 5
Town of Raymond Sewer Service Area
Summary of Projected Annual Tax Revenues
Phase 1

Town of Raymond				School District			
Year	Unsewered	Sewered	Incremental	Year	Unsewered	Sewered	Incremental
0	\$179,342	\$179,342	\$0	0	\$563,984	\$563,984	\$0
5	\$207,907	\$340,095	\$132,188	5	\$653,812	\$1,069,508	\$415,696
10	\$241,021	\$547,505	\$306,484	10	\$757,948	\$1,721,758	\$963,810
15	\$279,409	\$812,357	\$532,948	15	\$878,669	\$2,554,649	\$1,675,980
20	\$323,912	\$1,147,689	\$823,777	20	\$1,018,618	\$3,609,179	\$2,590,561
25	\$375,503	\$1,569,231	\$1,193,729	25	\$1,180,858	\$4,934,820	\$3,753,962
30	\$435,311	\$2,095,941	\$1,660,630	30	\$1,368,938	\$6,591,183	\$5,222,245

**Table 6
Town of Raymond Sewer Service Area
Projected Wastewater Flows**

Land Use Type	Gross Acreage	Net Acreage ⁽¹⁾	Projected Flow mgd ⁽²⁾	RECs ⁽³⁾
Phase 1				
Business Park	322.0	209.3	0.230	834.8
Industrial Park	966.1	628.0	0.691	2,504.6
Commercial/Retail	33.5	21.8	0.024	86.8
Industrial	54.6	35.5	0.039	141.5
Residential	31.0	26.4	0.016	57.0
Wetland/Woodlands/Other	249.0	0.0	0.000	-
Subtotal	1,656.2	920.9	1.000	3,624.7
Phase 2				
Business Park	283.3	184.1	0.203	734.4
Industrial Park	849.9	552.4	0.608	2,203.3
Commercial/Retail	0.0	0.0	0.0	57.0
Wetland/Woodlands/Other	225.8	0.0	0.0	-
Subtotal	1,359.0	736.6	0.810	2,994.8
Total	3,015.2	1,657.5	1.810	6,619.5

1. After reduction of 35% for other non-developable areas (right-of-way, wetlands, woodlands and storm water detention areas)
2. Average daily flow
3. Residential Equivalent Connections (RECs). A REC is defined as a unit of measure equal to the volume of wastewater produced by a typical single-family residence.

Table 7
Town of Raymond Sewer Service Area
Financing of Capacity Purchase

	Capacity <u>Ave. mgd ⁽¹⁾</u>	<u>Cost ⁽¹⁾</u>	<u>Cost/mgd</u>
Yorkville Original Allocation	0.76	\$2,410,970	\$3,172,329
Raymond Original Allocation	0.15	\$493,813	\$3,292,087
Recommended Capacity Purchase	0.5	\$1,735,025 ⁽²⁾	\$3,470,050 ⁽²⁾
 Financing			
Capacity Purchase		\$1,735,025	
Financing/Legal/Consulting Costs		\$69,401	
Total		<u>\$1,804,426</u>	
Annual Debt Service ⁽³⁾	20 year	\$138,717	

1. From Exhibit C of Sewer Service Agreement, cost estimate from initial agreement, final costs to be determined
2. Original cost estimate plus 2 years inflation at 4%
3. Assumes 4.5 percent interest rate.

Table 8
Town of Raymond Sewer Service Area
Financing of Capacity Purchase

	Year 0	Year 5	Year 10	Year 15
Part 1 - Property Tax				
Tax Rate per \$1,000 Equalized Value	\$2.395	\$0.530	\$0.000	\$0.000
Part 2 - Connection Fee				
Connection Fee per REC	\$1,000	\$1,117	\$1,282	\$1,472

Table 9
Town of Raymond Sewer Service Area
Financing Model for Repayment of Debt Service

Year	New RECs	Connection Fee / REC ⁽¹⁾	Fee Revenues	Equalized Value	Tax Rate ⁽²⁾	Tax Revenues	Total Revenues	Debt Service	Net Income	Balance
0		\$1,000		\$58,153,068	\$2.395	\$139,277	\$139,277	\$138,717	\$559	\$559
1	90	\$1,000	\$90,000	\$70,200,034	\$1.677	\$117,690	\$207,690	\$138,717	\$68,973	\$69,532
2	90	\$1,028	\$92,520	\$82,917,481	\$1.257	\$104,258	\$196,778	\$138,717	\$58,061	\$127,593
3	90	\$1,057	\$95,130	\$96,334,795	\$0.943	\$90,847	\$185,977	\$138,717	\$47,259	\$174,853
4	90	\$1,087	\$97,830	\$110,482,521	\$0.707	\$78,141	\$175,971	\$138,717	\$37,254	\$212,107
5	90	\$1,117	\$100,530	\$125,392,410	\$0.530	\$66,515	\$167,045	\$138,717	\$28,328	\$240,435
6	90	\$1,148	\$103,320	\$141,097,458	\$0.000	\$0	\$103,320	\$138,717	(\$35,397)	\$205,037
7	90	\$1,180	\$106,200	\$157,631,956	\$0.000	\$0	\$106,200	\$138,717	(\$32,517)	\$172,520
8	90	\$1,213	\$109,170	\$175,031,535	\$0.000	\$0	\$109,170	\$138,717	(\$29,547)	\$142,973
9	90	\$1,247	\$112,230	\$193,333,221	\$0.000	\$0	\$112,230	\$138,717	(\$26,487)	\$116,485
10	90	\$1,282	\$115,380	\$212,575,480	\$0.000	\$0	\$115,380	\$138,717	(\$23,337)	\$93,148
11	90	\$1,318	\$118,620	\$232,798,274	\$0.000	\$0	\$118,620	\$138,717	(\$20,097)	\$73,051
12	90	\$1,355	\$121,950	\$254,043,118	\$0.000	\$0	\$121,950	\$138,717	(\$16,767)	\$56,283
13	90	\$1,393	\$125,370	\$276,353,134	\$0.000	\$0	\$125,370	\$138,717	(\$13,347)	\$42,936
14	90	\$1,432	\$128,880	\$299,773,112	\$0.000	\$0	\$128,880	\$138,717	(\$9,837)	\$33,099
15	90	\$1,472	\$132,480	\$324,349,571	\$0.000	\$0	\$132,480	\$138,717	(\$6,237)	\$26,861
16	90	\$1,513	\$136,170	\$350,130,822	\$0.000	\$0	\$136,170	\$138,717	(\$2,547)	\$24,314
17	90	\$1,555	\$139,950	\$377,167,034	\$0.000	\$0	\$139,950	\$138,717	\$1,233	\$25,547
18	90	\$1,599	\$143,910	\$405,510,300	\$0.000	\$0	\$143,910	\$138,717	\$5,193	\$30,740
19	96	\$1,644	\$157,824	\$435,214,712	\$0.000	\$0	\$157,824	\$138,717	\$19,107	\$49,846
20	96	\$1,690	\$162,240	\$466,336,429	\$0.000	\$0	\$162,240		\$162,240	\$212,086
	1812	\$1,317	\$2,389,704		\$0.000	\$596,728	\$2,986,432	\$2,774,346		\$212,086

1. Inflated by 2.8% per year.
2. Per \$1,000 of equalized value.

Chart 1
Town of Raymond Sewer Service Area
Projected Equalized Property Values

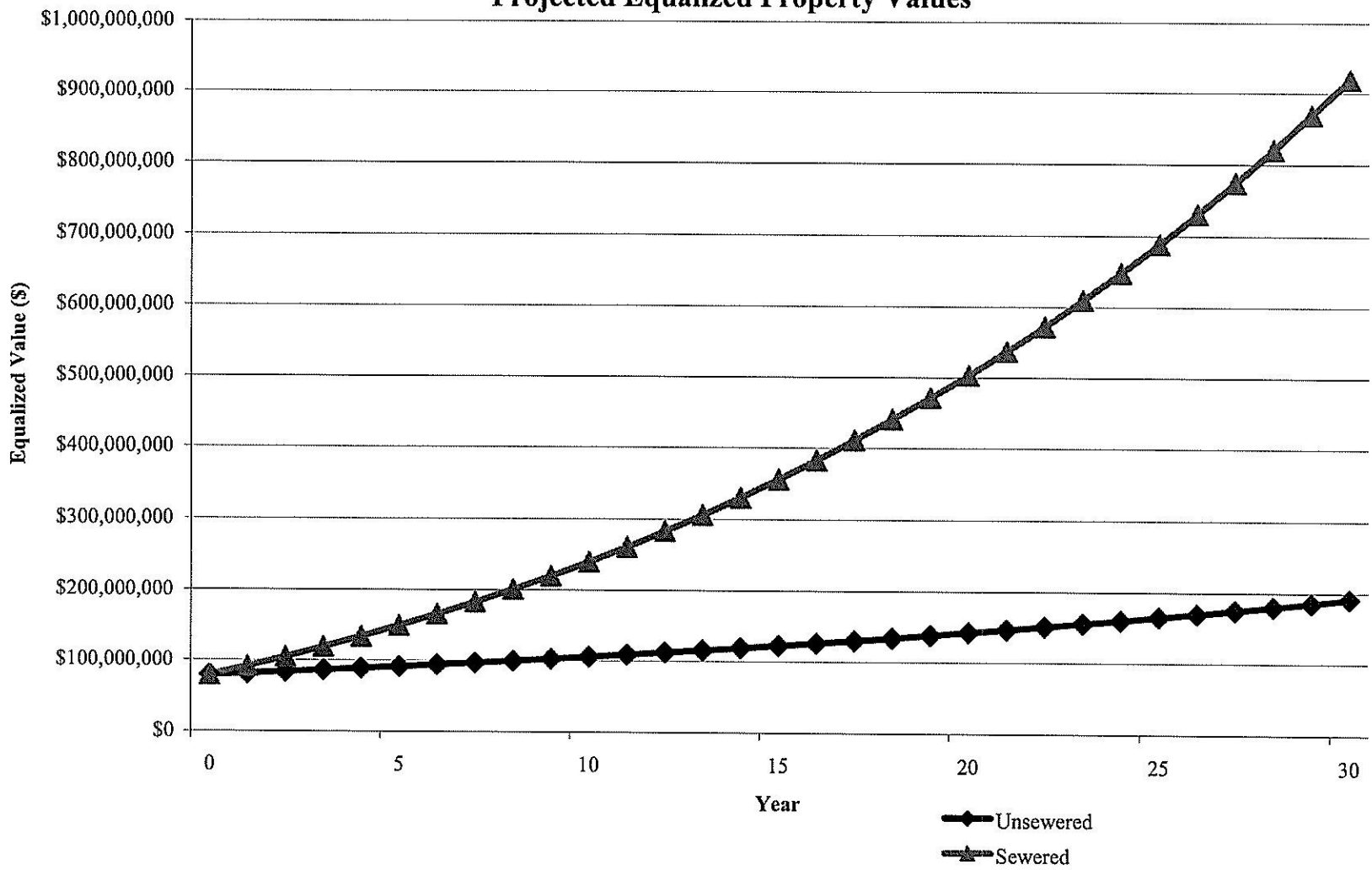


Chart 2
Projected Annual Town Property Tax
Revenues from Service Area

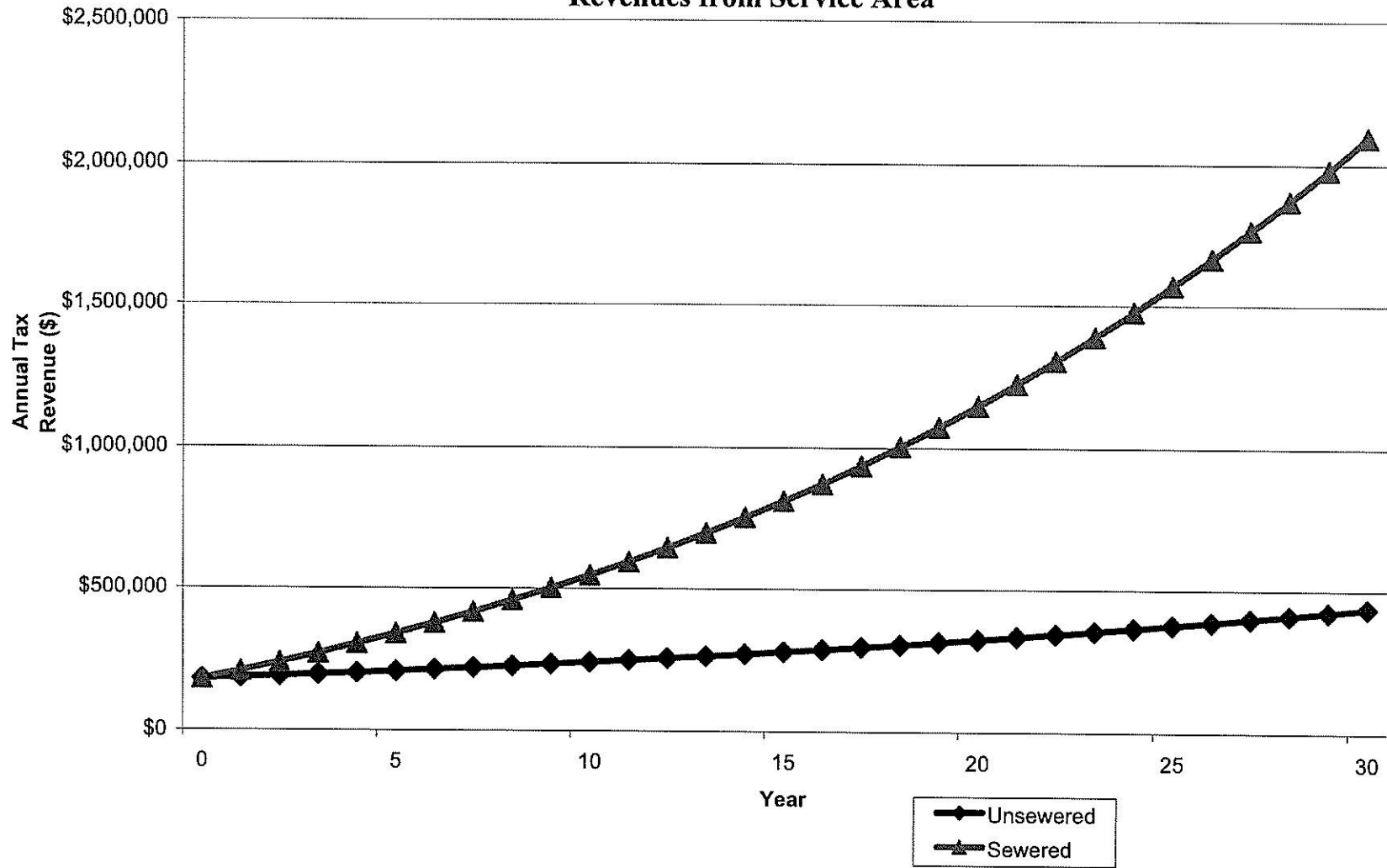


Chart 3
Projected Annual Tax Revenues
Town of Raymond Revenues

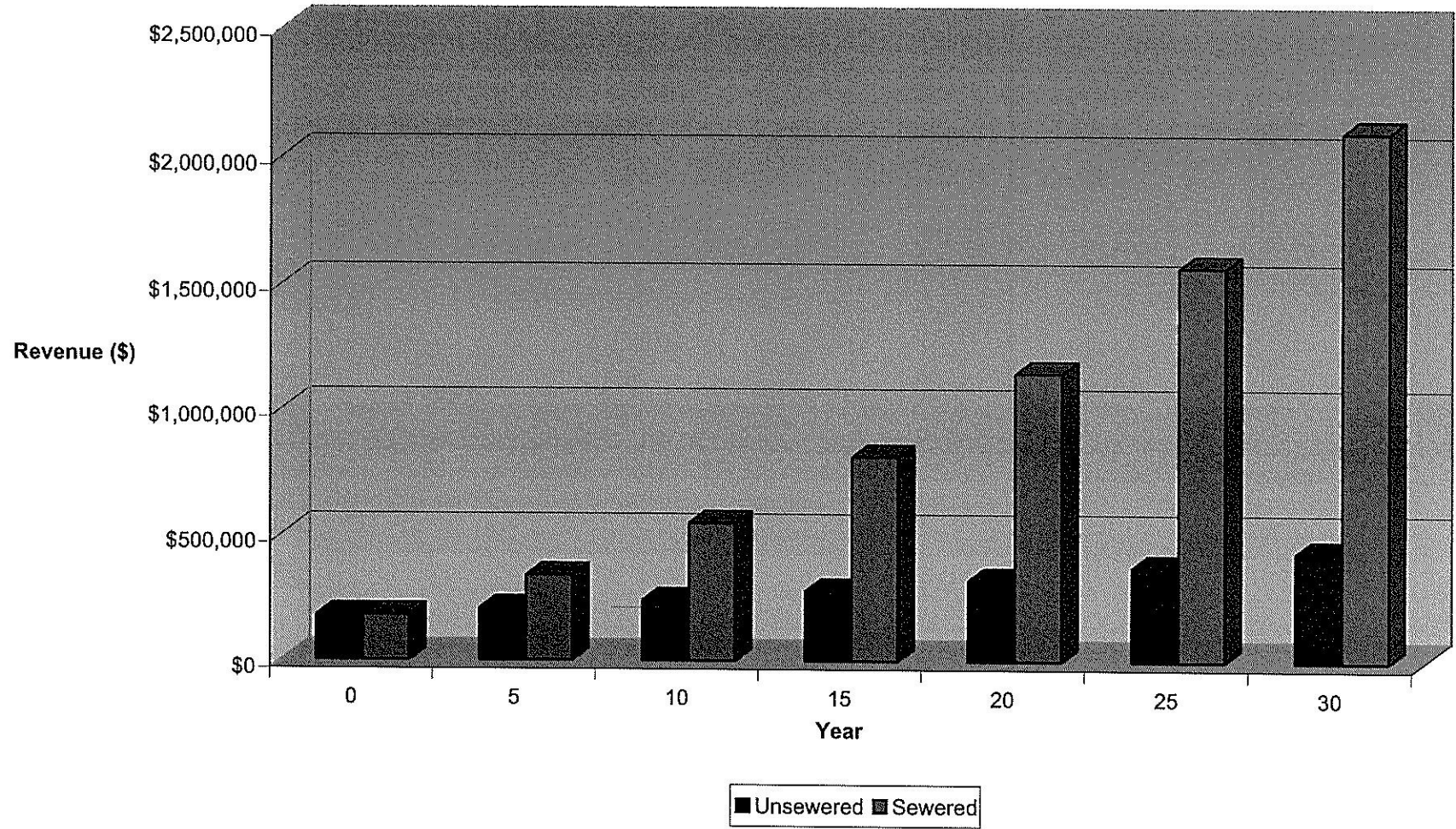


Chart 4
Projected Annual Tax Revenues
School District Revenues

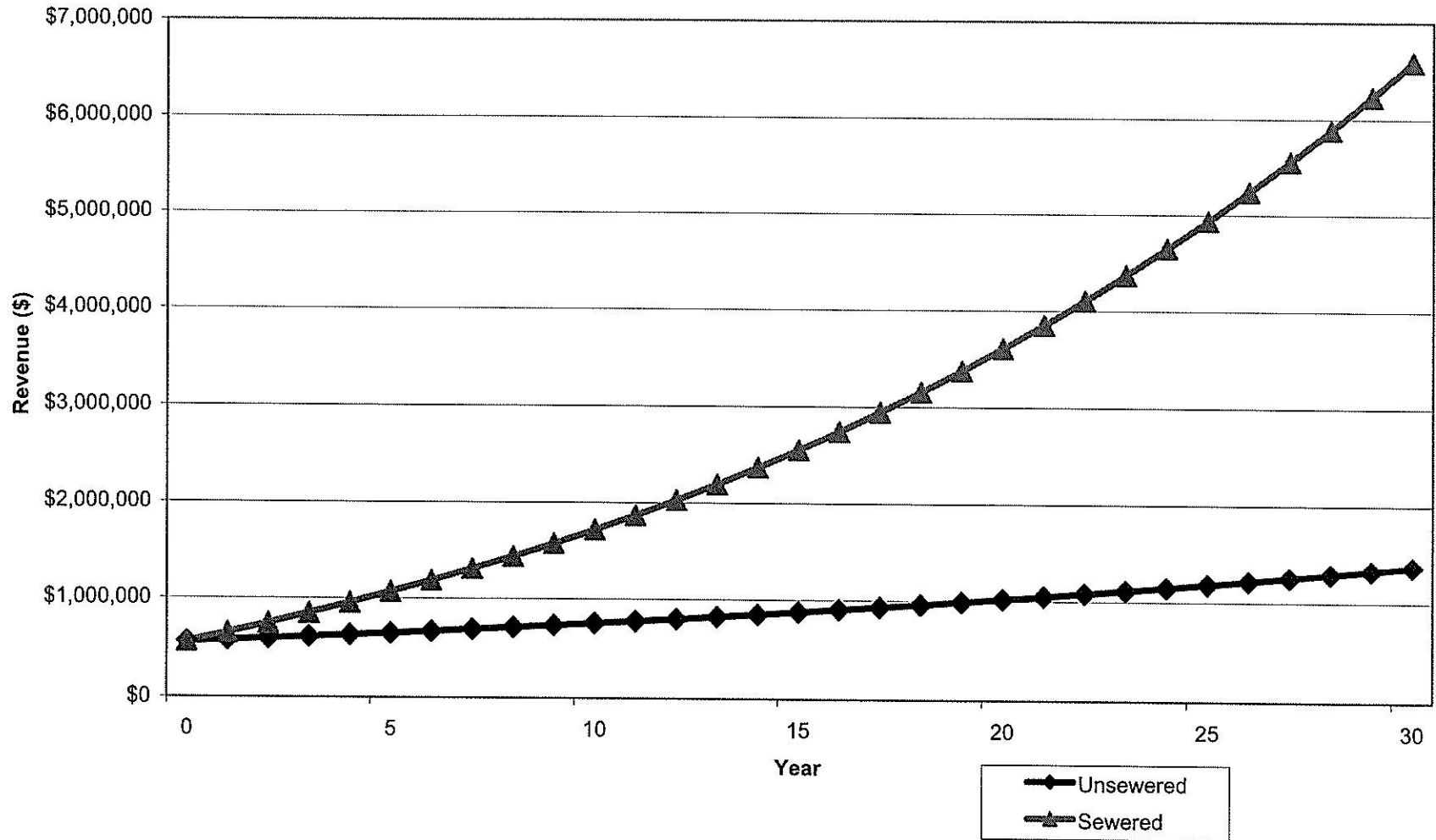


Chart 5
Projected Annual Tax Revenues
School District Revenues

