



Facilities Advisory Committee 2017

Recommendation to the Board of Education

November 20, 2017

Minooka CCSD 201

Facilities Advisory Committee

Recommendation to the Board of Education
November 20, 2017

Executive Summary

Recommendation:

The Facilities Advisory Committee of Minooka CCSD 201 recommends that the Board of Education propose a referendum question to the voters of the District to build a new Minooka Intermediate School to house some configuration of grades 5-8, a new elementary school and additions to existing elementary buildings. The Board should pose this question on the March 20, 2018 General Primary election date.

The term “Intermediate” as used in this recommendation refers to the prototype building floorplan constructed as Minooka Intermediate School and does not infer that the building would only be for grades 5-6. The new Intermediate School is an immediate need and the land for such a building is already owned by the District on the south side of Seil Rd in Shorewood, but the new elementary school and additions to existing elementary buildings are not an immediate need based on current projections. However, the Committee recognizes the political climate and does not think it prudent to ask the voters for multiple approvals in just a few years. The Committee recommends including the projects on the ballot question, but not issuing debt to begin those projects until the enrollment and projections warrant action.

Background on recommendation:

Minooka CCSD 201 has experienced steady enrollment growth over the past several years, growing from 3,789 K-8 students in the 2010-11 school year to 4,497 K-8 students in the 2017-18 school year. Our school buildings have absorbed this growth by utilizing all of the possible teaching spaces that are available, including using stages, music rooms and computer labs as regular classroom space. At Minooka Junior High School, some teachers have used a cart to travel from classroom to classroom as there are no additional rooms for them to use on a permanent basis. For 2017-18, Minooka Intermediate School ordered additional lockers for the first time as the school population followed projections and surpassed the 1,000 student mark. The Minooka Intermediate School enrollment is currently 1,059, up from 852 in 2010-11. Our current Minooka Junior High and Minooka Intermediate will exceed the available capacity by the 2019-20 school year.

Administration and the Board of Education have been following these enrollments and adjusting projections. To meet the needs of our rising student population, the Board of Education of Minooka CCSD 201 directed the Superintendent to form a Facilities Advisory Committee to study the enrollment growth and make a recommendation to the Board of Education to provide a solution for our District and communities that will ensure our schools have adequate classroom space for all of our learners. Superintendent Kris Monn

solicited volunteers from our staff and community and conducted a random selection process that ensured Committee membership from each of our school attendance areas. The first meeting of the Facilities Advisory Committee was held on April 19, 2017.

Throughout April, May and early June 2017 the Committee met several times to review our enrollment trends, current and proposed housing developments within our boundaries in the communities of Minooka, Shorewood, Joliet, and Channahon, our current facilities and the possible options for creating additional classroom space. Options discussed included portable or temporary classrooms, leasing space, building additions to current facilities and building new school buildings. Additional information was provided by Colby Lewis and Jan Tanaguchi from STR Partners, the Board's Architect, and Douglas Lim from Gilbane, a construction management company that partnered with the District during our last construction projects in 2008. STR and Gilbane were regular attendees of the Committee meetings.

The Committee reviewed various enrollment projections that used differing amounts of growth to project student populations. Greater detail on the enrollment projections can be found in Appendix D. The projections showed the following ranges of student enrollment totals through the 2021-22 school year:

Grade Level	Current Capacity	Low (Base) Model	<u>Medium Growth</u>	High Growth
Kindergarten – 4th Grade	3,000	3,060	<u>3,200</u>	3,537
5th – 6th Grade	1,000	1,221	<u>1,255</u>	1,191
7th – 8th Grade	1,000	1,179	<u>1,380</u>	1,311

That data led the Committee to agree that some amount of additional classroom space was needed at all of our grade levels over this period of time. For the purposes of the Committee's work, they decided upon the medium growth model as the most likely.

From the information the Committee developed criteria to evaluate the available options such as:

- Providing adequate space for current and future growth
- Does not over build
- Disruption to the current schools
- Can provide space by August 2019

More information on the evaluation criteria can be found in Appendix F – Committee's Evaluation of Options.

While the financial aspect of this recommendation was not part of the charge of this Committee, they still received cost estimates of the various options to weigh against the benefits. Once the options had been narrowed down, a summary of financing options was presented to the Committee. (Appendix I)

In September 2017 the Committee came back to discuss the final options but found that the enrollment and projections needed to be modified based on the actual August 2017 student counts. This reduced the

immediate need for elementary space and focused the immediate need on the upper grade levels. It also stressed how quickly projections can change as Kindergarten numbers fluctuate.

From that new enrollment data, the Committee was able to come to consensus on the recommendation to build a new Minooka Intermediate School to house some configuration of grades 5–8, a new elementary school and additions to existing elementary buildings. While many Committee Members valued the benefits of different options in different ways, each of the other options had aspects that would prove difficult to either complete or not suitable to the available land or school sites.

One final aspect of the Recommendation that the Committee struggled with was whether or not to attempt to draw boundaries of the new school. Many discussions were held that involved which grades would attend the new facility, where would the boundaries be drawn and if we would create a feeder system for our schools. In the end it was decided to make no recommendation on the specific boundaries or grade level configuration of the new intermediate school. Many Committee members had strong opinions in this area but recognized the changing nature of enrollments and housing developments that could negate any recommendation made two years ahead of the opening of any facility.

The remainder of this Recommendation includes many of the extensive supporting materials used by the Committee to develop this recommendation, organized as Appendices. The supporting documents are:

- Appendix A – Committee Members
- Appendix B – April 19, 2017 Committee Presentation – details Current Facilities, capacities of each
- Appendix C – Current housing developments within Minooka CCSD 201
- Appendix D – Enrollment Projections from May 2017 – low, middle and high models
- Appendix E – Enrollment Projections – updated October 16, 2017
- Appendix F – Committee’s List of Options, evaluated against criteria
- Appendix G – STR Summary of Classroom Space Options, Options with Capacity
- Appendix H – STR August 17, 2017 Summary of remaining options
- Appendix I – Summary of financing options

In summary, the Facilities Advisory Committee recommends that the Board of Education ask the voters of our District to approve a new Intermediate School to be built on Seil Road in Shorewood, and a new elementary school and/or additions to our elementary buildings to be built when the elementary enrollment is projected to exceed the capacity of our schools. The Committee believes the Board should structure any financing to support this construction in a way that is both financially responsible and protects the taxpayers of Minooka CCSD 201.

**Minooka CCSD 201 Facilities Advisory Committee
Recommendation to the Board of Education
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APPENDIX A: List of Committee Members

Community Representatives	Staff Representatives	Administration / Other
Julianne Bell	Amy Ellis	Dr. Kristopher Monn
Sarah Both	Jackie Harig	Lori Shanholtzer
Brandy Hill	Kyle Hasler	Colby Lewis, STR Architects
Laura Hrechko	Marissa Ortiz	Jan Tanaguchi, STR Architects
Sarah Igric	Mary Lou Romashko	Douglas Lim, Gilbane
Karen James	Robert Ruglio	
Kevin Kochaneck	Mike Siracusa	
Dr. Kimberly Larsen	Tammy Walsh	
Sara Piotrowski		
Erick Smith		
Kimberly Smith		
Ryan Sparrow		

**Minooka CCSD 201 Facilities Advisory Committee
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APPENDIX B: April 19, 2017 Committee Presentation

The following presentation was made at the initial meeting of the Facilities Advisory Committee. Background on the timelines and established norms of the Committee can be found within.

This presentation also details the seven current school buildings within Minooka CCSD 201 and outlines the 2016-17 enrollments and capacities of each building. It concludes with adding in the enrollment projections through the years 2021-22, where it showed the following Minooka 201 school buildings exceeding their capacity in that period of time (Slide 29):

Aux Sable Elementary - Projected enrollment of 754 in 2018-19 (750 cap)

Jones Elementary - Projection of 802 by 2019-20 (750 cap)

Minooka Intermediate - Projection of 1,059 by 2017-18 (1,000 cap)

Minooka Junior High - Projection of 1,112 by 2019-20 (1,000 cap)

District wide - Projected enrollment of 5,227 by 2019-20 (5,000 cap)

Note: The capacities are stated using all basic classrooms as available space. In reality, we utilize many rooms throughout the District for special programs such as rooms for the Grundy County Special Education Cooperative, which uses eleven (11) classrooms throughout our buildings.

The initial presentation concluded with the problem statement the Committee was formed to recommend a solution to:

Bottom Line:

Minooka CCSD 201 will need to have additional educational space ready for the start of the 2019-20 school year for grades K - 8.

Note: Subsequent enrollment projections from September and October 2017 using actual 2017-18 enrollment data have modified the figures above. Detailed information can be found in Appendix E - Enrollment Projections - updated October 16, 2017.

Facilities Advisory Committee 2017-18

Minooka CCSD 201
April 19, 2017

Agenda for 4/19/2017

1. Overview of purpose; goals for the Committee
2. Introductions
3. Establish our Committee norms, parameters
4. Establish our calendar of meetings
5. Review current state of enrollment, facilities

1. Rationale for Facilities Planning

Current enrollment projections show that:

- By the 2017-2018 school year, Minooka Intermediate School will exceed its educational capacity (1,000 students).
- By the 2019-2020 school year, both Minooka Junior High School and Minooka Intermediate School will exceed their educational capacities.
- By the 2019-20 school year, Aux Sable Elementary and Jones Elementary Schools will exceed their educational capacities (approx 750 students)

Rationale for Facilities Planning

Bottom Line:

Minooka CCSD 201 will need to have additional educational space ready for the start of the 2019-20 school year for grades K - 8.

Planning Issues

What factors need to be accounted for?

1. How do we find space?
 - a. Build new schools
 - b. Add more space at our existing schools
 - i. Additions
 - ii. Purchase temporary classrooms
 - c. Lease existing space within district

Planning Issues

What factors need to be accounted for?

2. How do we fund the new space?
 - a. Operating funds - current budget already has deficit
 - b. New debt from referendum -
 - i. Current debt structure set to escalate
 - ii. New bonds would need voter, legislative approval

Facilities Advisory Committee:

Purpose:

- Analyze enrollment trends, current facilities
 - Current space configuration
 - Project numbers of classrooms needed
- Generate options for additional space
 - Types of space
 - Locations
- Evaluate options

Finance and Operations Committee:

Purpose:

- Review current debt schedules
- Generate options for current debt
- Generate options for additional debt - using estimates from Facilities Subcommittee
- Evaluate options

Committee will recommend:

- How much (if any) space is needed for Minooka 201 over the next five years
- Where classroom space should be located
- Characteristics of classroom, school spaces to be added

Committee will NOT recommend:

- How to fund any additional space
- Class size, educational programming
- Boundary adjustments within our district

Timelines

One option that must be considered is to go for a referendum to build additions or new schools. In order to allow for adequate construction time, the likely election would be the March 20, 2018 General Primary Election.

To ensure the Board could act upon such a recommendation from the Facilities Advisory Committee, the proposed timeline for the Committee's work uses the deadlines from the 2018 General Primary Election as an endpoint.

2. Committee Introductions

3. Establishing Group Norms

“Having a set of norms—or ground rules—that a group follows encourages behaviors that will help a group do its work and discourages behaviors that interfere with a group’s effectiveness.” (Richardson, J. 1999. From Learning Forward’s Tools for Schools. Link Below.)

[Learning Forward - Tools for Schools](#)

Establishing Group Norms

WE WILL:

- Expect a committee member to make a commitment through October 2017.
- Meet only when there is a meaningful agenda.
- Start and end on time.
- Dress comfortably.
- Have refreshments.
- Participation is a right...and a responsibility.
- Initiate ideas.
- Support...challenge...counter. Differences resolved constructively lead to creative problem solving.
- Give others a chance to talk. Silence does not always mean agreement.
- Conduct group business in front of the group.
- Conduct personal business outside of the meeting.
- Develop alternative approaches to the solution of a problem.
- Differentiate between brainstorming and discussion.
- Express disagreement with ideas, not individuals.
- Feel responsible to express differing opinions within the meeting.
- Maintain confidentiality regarding disagreements expressed during the meeting.
- Reach decisions by consensus.
- Summarize what has been accomplished.
- Make decisions for the good of the whole, not individual parts

Facilities Advisory Committee:

Facilities Subcommittee

Timeline:

April - May 2017

- 2-3 meetings a month

June - August 2017

- 1 meeting per month

September 2017

- Finalize recommendation

October 2017 (NO LATER THAN)

- Submit recommendation to Board of Education

Calendar of Meetings (Tentative)

Questions for group:

- 7 PM Start time - too late, just right?
- Any known conflicts?

April:

- April 19
- April 26

May:

- May 3
- May 11 (TH)
- May 17
- May 31

June

- June 7
- June 14 (if needed)

Break

Current Facilities

As we look at our facilities, know that there is no official capacity of each area. For our purposes, the intended capacity of a building will normally be the number of regular classrooms with an assumed 25 students per class.

Minooka Primary Center (1925)

305 W Church St, Minooka

Last addition: 2009

Houses: Minooka 201 Preschool Programs, Grundy County Preschool Program, Grundy County Special Education (GCSEC), District Office

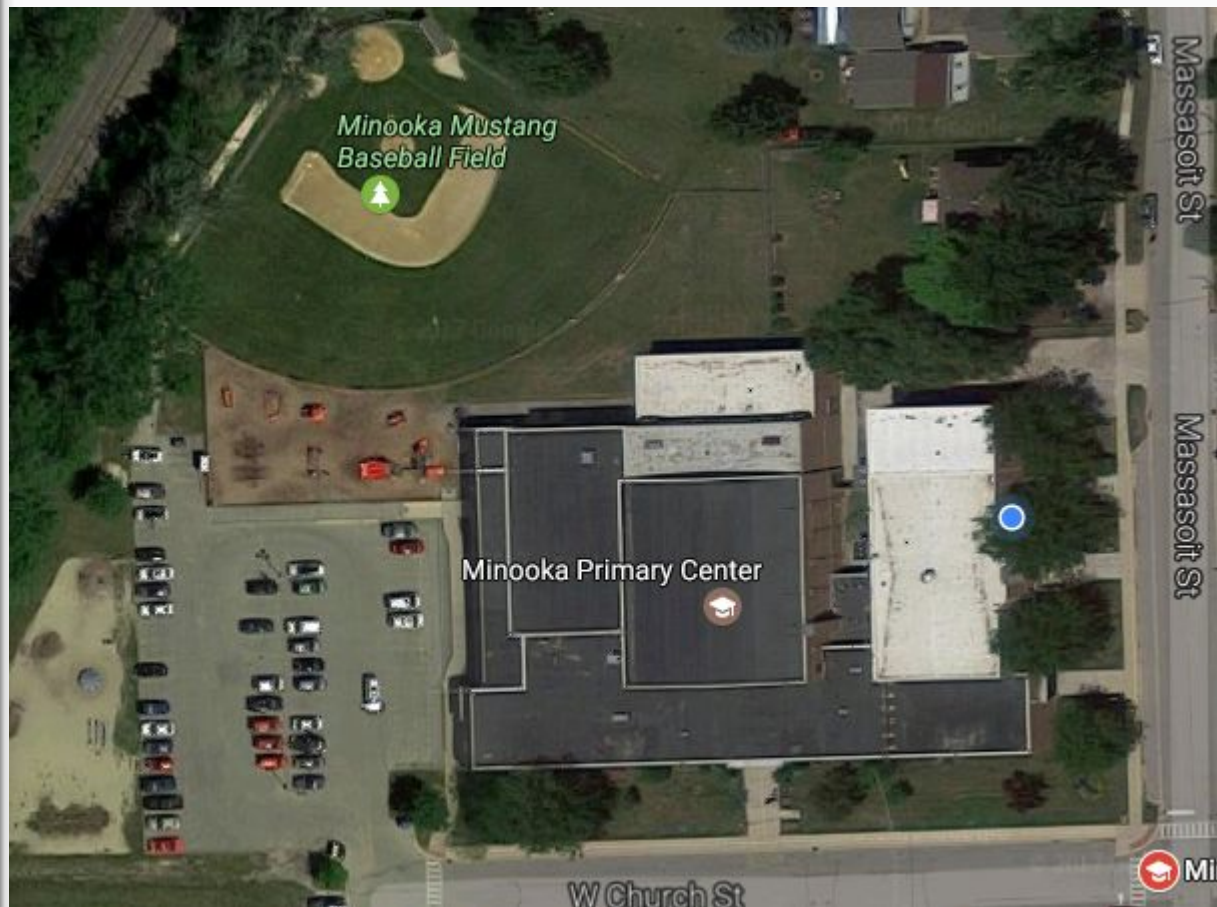
Reg Classrooms: 17

Other spaces: 2 (Gym, Library)

East wing occupied by District Office deemed unfit for students by Regional Office.

Student Capacity*: 425

Current Enrollment: 242



Preschool classes have much smaller class size requirements. 300-350 is the most we could envision.

Minooka Elementary School (1961)

400 W Coady Dr, Minooka

Last addition: 2008

Houses: Grades K - 4, GCSEC
Programs

Reg Classrooms: 30

Other Classrooms: 5

Common spaces: 4 (Gyms-2, Library,
Multipurpose)

Student Capacity: 750

Current Enrollment: 590



Minooka Junior High School (1997)

335 McEvily Rd, Minooka

Last improvement: 2006

Houses: Grades 7-8

Reg Classrooms: 40

Other Classrooms: 6

Common spaces: 4 (Gyms-2, Library, Multipurpose)

Student Capacity: 1,000

Current Enrollment: 990



Walnut Trails Elementary (2004)

301 Wynstone Dr, Shorewood

Last addition: None

Houses: Grades K - 4

Reg Classrooms: 30

Other Classrooms: 4

Common spaces: 3 (Gym, Library, Multipurpose)

Student Capacity: 750

Current Enrollment: 576



Aux Sable Elementary (2006)

1002 Misty Creek Dr, Minooka

Last addition: None

Houses: Grades K - 4

Reg Classrooms: 30

Other Classrooms: 4

Common spaces: 3 (Gym, Library,
Multipurpose)

Student Capacity: 750

Current Enrollment: 708



Aux Sable Elementary is currently our largest elementary school in student enrollment.

Minooka Intermediate School (2009)

335 McEvily Dr, Minooka

Last addition: None

Houses: Grades 5-6, GCSEC Programs

Reg Classrooms: 36

Other Classrooms: 13 (Many Special Education Classrooms that are approx 50-66% of regular size)

Common spaces: 4 (Gyms-2, Library, Multipurpose)

Student Capacity: 900 (1,000 is our assumed capacity due to the teaming of 6th grade)

Current Enrollment: 944



Jones Elementary School (2009)

800 Barberry Way, Joliet

Last addition: None

Houses: Grades K - 4, GCSEC
Programs

Reg Classrooms: 30

Other Classrooms: 4

Common spaces: 3 (Gym, Library,
Multipurpose)

Student Capacity: 750

Current Enrollment: 627



Jones is our fastest growing school as many of our Joliet subdivisions have continued to thrive.

K-8 Capacity vs Enrollment, Current (No MPC)

Total Capacity, K-4 - 3,000

- AUX - 750
- MES - 750
- JES - 750
- WTES - 750

Total Capacity, 5-8 - 2,000

- MIS - 1,000
- MJHS - 1,000

Total Enrollment, K-4 - 2,501

- AUX - 708
- MES - 590
- JES - 627
- WTES - 576

Total Enrollment, 5-8 - 1,934

- MIS - 944
- MJHS - 990

NOTE: Grundy County Special Education Classrooms also take up classroom space at JES, WTES, MIS and MJHS

66

Remaining Capacity with our current 5-8 configuration

Enrollment Projections

Cohort Retention Method:

The most recognized method for projecting enrollment shifts is called Cohort Retention. This method tracks grade level cohorts and measures the rate at which they fluctuate from year to year. This rate, or rates if multiple years are tracked, are applied to our enrollments going forward.

For example, if 100 1st graders in 2015-16 grew to 110 2nd graders in 2016-17, the rate would be 1.1. For Minooka 201, a 2 year average rate has been the best predictor over the past few years.

Buildings projected to exceed capacity within five years

Aux Sable Elementary - Projected enrollment of 754 in 2018-19 (750 cap)

Jones Elementary - Projection of 802 by 2019-20 (750 cap)

Minooka Intermediate - Projection of 1,059 by 2017-18 (1,000 cap)

Minooka Junior High - Projection of 1,112 by 2019-20 (1,000 cap)

District wide - Projected enrollment of 5,227 by 2019-20 (5,000 cap)

Rationale for Facilities Planning - again

Bottom Line:

Minooka CCSD 201 will need to have additional educational space ready for the start of the 2019-20 school year for grades K - 8.

Next meeting - April 26, 2017

- Recap information from 4/19/17
 - More info needed? Explore other projection methods?
- Explore current developments within Minooka 201 boundaries
- Create consensus on enrollment projections, classroom needs
- Explore options for creating new classroom space

Minooka CCSD 201 Facilities Advisory Committee

April 19, 2017

**Minooka CCSD 201 Facilities Advisory Committee
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APPENDIX C: Current housing developments within Minooka CCSD 201

Minooka CCSD 201 Administration solicits updates from our municipalities regarding the status of current and proposed housing and economic developments within our boundaries. The Committee reviewed the geographic boundaries of Minooka 201 and used the Comprehensive Plans from Channahon, Minooka, Shorewood and Joliet to detail the possible areas for housing growth to occur within Minooka 201.

The Comprehensive Plans themselves are large and detailed documents publicly available on the respective websites of our municipalities. See the websites below for detailed information:

- Village of Channahon -
<http://www.channahon.org/business/comprehensive-plan/>
- Village of Minooka -
<https://www.minooka.com/documents/2013-comprehensive-plan-land-use-map/>
- Village of Shorewood-
<http://vil.shorewood.il.us/departments/community-development/comprehensiveplan.aspx>
- City of Joliet - Kendall County Section -
<http://cityofjoliet.info/home/showdocument?id=1517>

The following documents details the subdivisions existing or currently under development within the boundaries of Minooka CCSD 201. Finally, projected student counts for the development are calculated using real data from the existing subdivision. The Committee used this data as supporting material as they came to consensus on the appropriate enrollment projections to be used in their efforts.

Appendix C - Current and Proposed Housing Developments

	COUNTY	EC	Kdgtn	1st	2nd	3rd	4th	5th	6th	7th	8th	TOTAL	Permits Issued	Total Permits	Permits Avail.	K-4 Density	5-8 Density	Add'l K-4	Add'l 5-8
Aux Sable Elementary																			
Amberleigh Estates	Grundy	7	12	22	19	21	23	21	25	19	25	194							
Arbor Lakes	Grundy	2	12	16	12	12	14	13	16	8	6	111							
Chestnut Ridge	Grundy	4	5	7	4	8	7	8	7	5	6	61							
Deer Ridge	Grundy	1	2	3	1	2	2	3	2	2	2	20	38	50	12	0.26316	0.23684	3.16	2.84
Dresden Acres	Grundy	0	0	1	2	2	2	3	3	3	3	19							
Eagles Approachway	Grundy	0	0	0	0	0	0	0	0	0	1	1							
Hunters Crossing	Grundy	3	10	17	9	12	8	15	15	17	14	120	197	350	153	0.28426	0.30964	43.49	47.38
Hunters West	Grundy	2	6	7	4	11	6	18	8	7	16	85							
Keating Pointe	Grundy	0	0	0	0	0	0	0	0	0	0	0							
Lakewood Trails West	Grundy	8	16	21	22	17	22	29	21	26	20	202							
Mallard Point	Grundy	0	3	1	3	4	4	3	2	1	1	22							
Misty Creek	Grundy	2	3	10	6	11	12	7	10	12	10	83							
Reflections	Grundy	0	6	4	7	5	4	4	2	6	4	42							
SE Country	Grundy	0	0	0	0	0	0	0	0	1	0	1							
SE Country	Will	0	0	0	0	1	0	1	0	0	0	2							
SW Country	Kendall	0	0	1	0	0	1	1	0	2	0	5							
SW Country	Grundy	0	0	2	1	1	2	2	2	1	1	12							
The Highlands	Grundy	6	7	15	13	20	18	23	14	13	20	149	228	250	22	0.32018	0.30702	7.04	6.75
Wedgewood Highlands	Grundy	0	0	2	1	0	0	1	0	1	0	5	16	79	63	0.18750	0.12500	11.81	7.88
Westwind Estates	Grundy	2	13	11	16	18	11	13	15	11	11	121	200	215	15	0.34500	0.25000	5.18	3.75
Whispering Oaks	Grundy	0	0	1	4	1	2	2	0	3	0	13	16	107	91	0.50000	0.31250	45.50	28.44
Woods of Aux Sable	Grundy	0	1	2	0	2	0	2	1	2	0	10	200	215	15	0.02500	0.02500	0.38	0.38
		37	96	143	124	148	138	169	143	140	140	1278	Available Units		371	Students	163.75	116.56	47.19
Jones Elementary																			
Hunters Ridge	Kendall	2	6	8	13	12	11	9	5	8	6	80							
Kearney Glen	Kendall	6	13	24	13	18	20	14	14	12	26	160	180	204	24	0.48889	0.36667	11.73	8.80
Lakewood Prairie	Kendall	5	20	30	33	28	41	23	30	24	26	260	915	945	30	0.16612	0.11257	4.98	3.38
Neustonshire	Kendall	1	5	12	5	7	3	9	7	8	10	67	123	411	288	0.26016	0.27642	74.93	79.61
NW Country	Kendall	0	2	7	3	7	5	9	8	9	6	56							
Sable Ridge	Kendall	7	11	29	29	27	35	21	26	18	27	230	850	1022	172	0.15412	0.10824	26.51	18.62
Summerfield	Kendall	5	19	34	19	23	16	23	21	22	25	207	489	489	0	0.22699	0.18609	0.00	0.00
		26	76	144	115	122	131	108	111	101	126	1060	Available Units		1069	Students	228.56	118.15	110.40
Minooka Elementary																			
Cumberland Estates	Grundy	0	1	0	1	0	2	1	0	0	1	6							
Eden Hills	Grundy	0	0	0	0	0	0	0	0	0	0	0							
Grand Ridge	Grundy	1	3	7	8	8	11	10	4	12	13	77	144	152	8	0.25694	0.27083	2.06	2.17
Heather Ridge	Grundy	1	6	1	5	7	7	6	5	7	10	55							
Indian Ridge	Grundy	0	4	4	4	3	5	7	14	3	8	52	150	200	50	0.13333	0.21333	6.67	10.67
Lakewood Trails East	Grundy	6	23	17	33	31	28	36	34	35	32	275							
Ninovan Lake Estates	Grundy	1	2	2	5	3	0	3	2	1	3	22							
Prairie Ridge	Grundy	3	12	22	20	22	18	27	31	19	25	199							
Shady Oaks	Grundy	0	7	7	11	17	18	17	16	12	13	118							
The Meadows	Grundy	0	0	0	2	1	1	1	0	1	3	9							
Town South	Grundy	1	5	6	14	7	14	10	14	10	5	86							
Town North	Grundy	5	9	15	23	17	22	12	11	16	10	140							

Appendix C - Current and Proposed Housing Developments

[illegible]

**Minooka CCSD 201 Facilities Advisory Committee
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APPENDIX D: Enrollment Projections from May 2017 – low, middle and high models

Minooka CCSD 201 prepares enrollment projections in the fall of each year and adjusts them periodically as new data becomes available. The projections initially used by the Committee were first shared with the Board of Education in November 2016. After early discussions with the Committee, new models were prepared for their consideration.

Each enrollment projection is prepared using the cohort retention model, a commonly used method throughout the field of education. In this method each grade level, referred to as “cohorts,” is tracked as it progresses through our schools, noting how the kindergarten class one year grows or shrinks as they become first grade students, how the first graders change as they move into second grade, etc. An average rate of retention is calculated for each cohort using data from the previous years, then that rate is used to project how our current enrollments will change going forward.

The following projections include both the historical data and the projections. A summary table is shown at the beginning of each projection. After studying the previous projections compared to actual data, we have used the 2 year average retention rate for our Elementary levels and a 4 year average rate for our Intermediate and Junior High levels. Kindergarten, always the most difficult grade to project, used the rate of growth seen the previous year. As shown in the Executive Summary, the range of enrollments studied are shown in the table below.

Grade Level	Current Capacity	Low (Base) Model	<u>Medium Growth</u>	High Growth
Kindergarten – 4th Grade	3,000	3,060	<u>3,200</u>	3,537
5th – 6th Grade	1,000	1,221	<u>1,255</u>	1,191
7th – 8th Grade	1,000	1,179	<u>1,380</u>	1,311

After consideration by the Committee, they requested additional projections that factored in more growth. We then created the Mid Model, which added slight growth in the Jones Elementary and Aux Sable Elementary schools. The High Model added additional growth to all schools. The growth rates can be seen in the blue shaded cells at the bottom of the summary table in each projection.

From there, the Committee came to consensus to utilize the Mid Model as the basis for their capacity and classroom space discussions. The projection yielded results that showed two elementary schools and our Intermediate and Junior High Schools exceeding their capacity in 2018-19. All options generated to create additional classroom space used these figures as its foundation.

Historical Enrollments										Total K-5	Total 5-6	Total 7-8	Total	Pre-KDG	Total Students
	KDG	1st	2nd	3rd	4th	5th	6th	7th	8th	5	5-6	7-8	Total		
2009-10	426	434	451	440	429	433	408	400	388	2180	841	788	3809		
2010-11	371	451	436	438	435	433	419	412	394	2131	852	806	3789		
2011-12	411	396	441	441	435	420	424	428	407	2124	844	835	3803		
2012-13	452	440	406	446	439	453	436	434	433	2183	889	867	3939		
2013-14	408	467	452	417	454	459	453	446	435	2198	912	881	3991		
2014-15	422	450	483	468	417	469	479	462	456	2240	948	918	4106		
2015-16	451	447	484	508	481	438	489	481	483	2371	927	964	4262	211	
2016-17	473	483	482	510	528	491	456	497	486	2476	947	983	4406	211	
11/15															
Projection	465	482	474	507	517	502	457	495	498	2445	959	993	4397		
+/-	8	1	8	3	11	-11	-1	2	-12	31	-12	-10	9	Total dif from projection	

Retention Rate:	Elementary		2 Year Rate		MIS/MJHS		4 Year Rate									
Kindergarten Rate	1 year										Total K-5	Total 5-6	Total 7-8	Total	Pre-KDG	Total Students
Projections																
2017-18	498	490	523	510	529	548	512	464	509	2550	1060	973	4583	211	4794	
2018-19	525	515	530	552	530	549	571	521	475	2652	1120	996	4768	211	4979	
2019-20	552	542	557	560	572	550	572	581	533	2783	1122	1114	5019	211	5230	
2020-21	581	571	586	588	581	593	573	582	595	2907	1166	1177	5250	211	5461	
2021-22	612	602	617	620	609	603	618	583	596	3060	1221	1179	5460	211	5671	

EL Building Projections													
AUX	KDG	1st	2nd	3rd	4th	Total	MES	KDG	1st	2nd	3rd	4th	Total
2016-17	138	121	144	135	170	708	2016-17	83	126	117	126	132	584
2017-18	145	143	131	152	140	711	2017-18	88	86	136	124	131	565
2018-19	153	150	155	138	158	754	2018-19	93	91	93	144	129	550
2019-20	161	158	162	164	143	788	2019-20	98	96	99	98	149	540
2020-21	169	166	171	171	170	847	2020-21	103	102	104	105	102	516
2021-22	178	175	179	181	177	890	2021-22	109	107	110	110	109	545

JES	KDG	1st	2nd	3rd	4th	Total	WT	KDG	1st	2nd	3rd	4th	Total
2016-17	142	119	116	131	110	618	2016-17	110	117	105	118	116	566
2017-18	149	147	129	123	136	684	2017-18	116	114	127	111	122	590
2018-19	157	154	159	136	128	734	2018-19	122	120	123	134	115	614
2019-20	165	162	166	168	141	802	2019-20	128	126	130	130	139	653
2020-21	174	171	175	175	174	869	2020-21	135	132	136	137	135	675
2021-22	183	180	185	185	181	914	2021-22	142	140	143	144	142	711

Add'l Growth Rate	AUX	JES	MES	WTES	MIS	MJHS
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix D-2, Mid Enrollment Model

Minooka CCSD 201 Enrollment Projection Summary

as of 5/11/17

Historical Enrollments

	KDG	1st	2nd	3rd	4th	5th	6th	7th	8th	Total K-5	Total 5-6	Total 7-8	Total	Pre-KDG	
2009-10	426	434	451	440	429	433	408	400	388	2180	841	788	3809		
2010-11	371	451	436	438	435	433	419	412	394	2131	852	806	3789		
2011-12	411	396	441	441	435	420	424	428	407	2124	844	835	3803		
2012-13	452	440	406	446	439	453	436	434	433	2183	889	867	3939		
2013-14	408	467	452	417	454	459	453	446	435	2198	912	881	3991		
2014-15	422	450	483	468	417	469	479	462	456	2240	948	918	4106		
2015-16	451	447	484	508	481	438	489	481	483	2371	927	964	4262	211	Total Students
2016-17	473	483	482	510	528	491	456	497	486	2476	947	983	4406	211	4617
11/15															
Projection	465	482	474	507	517	502	457	495	498	2445	959	993	4397		
+/-	8	1	8	3	11	-11	-1	2	-12	31	-12	-10	9	Total dif from projection	

Retention Rate:	Elementary	2 Year Rate	MIS/MJHS	4 Year Rate											
Kindergarten Rate	1 year														
Projections										Total K-5	Total 5-6	Total 7-8	Total	Pre-KDG	Total Students
2017-18	503	494	526	514	533	548	512	464	509	2570	1060	973	4603	211	4814
2018-19	534	525	538	560	537	553	571	521	475	2694	1124	996	4814	211	5025
2019-20	567	557	573	573	585	557	576	581	533	2855	1133	1114	5102	211	5313
2020-21	602	592	607	610	600	607	581	586	595	3011	1188	1181	5380	211	5591
2021-22	640	629	646	647	638	622	633	591	600	3200	1255	1191	5646	211	5857

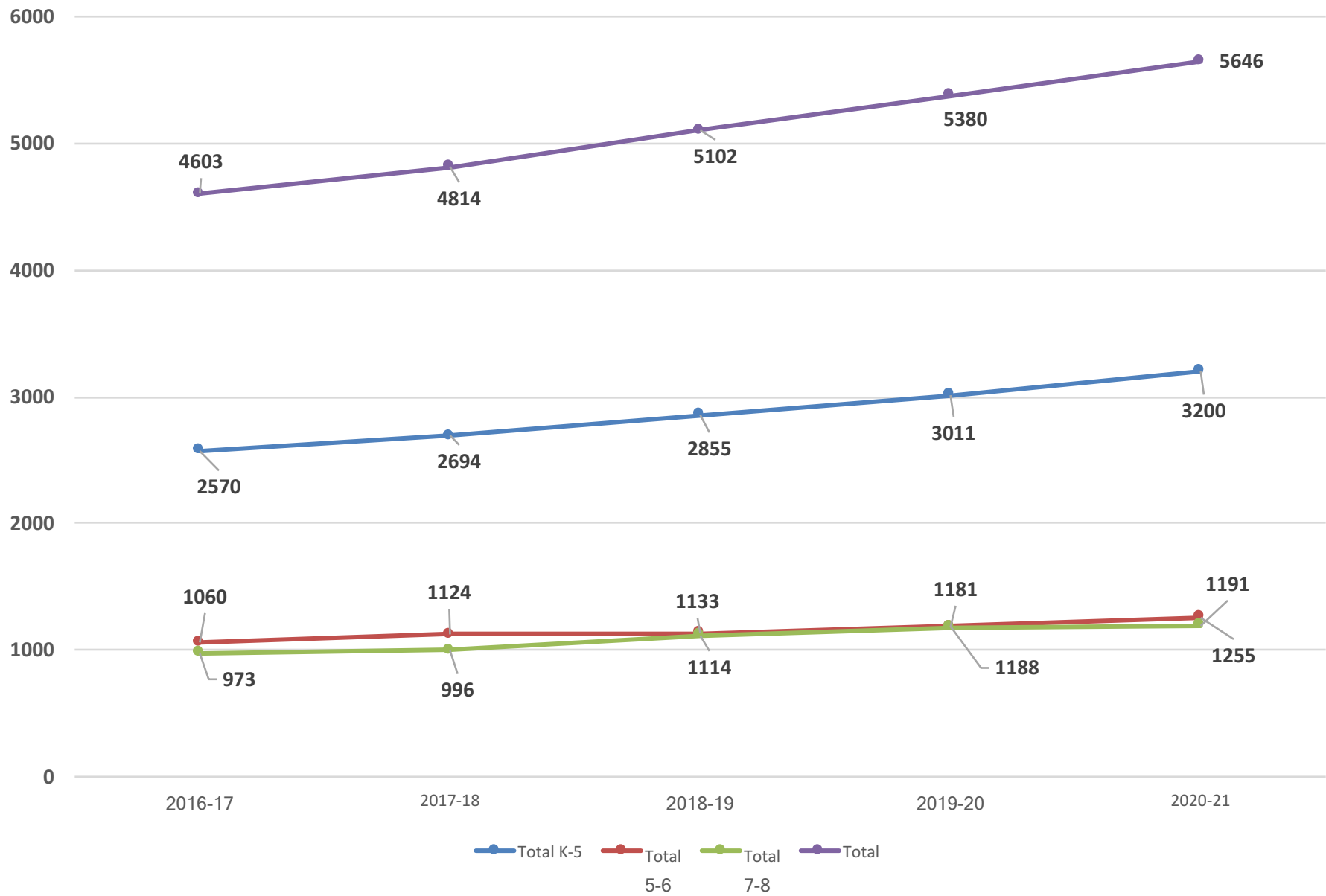
EL Building Projections

AUX	KDG	1st	2nd	3rd	4th	Total	MES	KDG	1st	2nd	3rd	4th	Total
2016-17	138	121	144	135	170	708	2016-17	83	126	117	126	132	584
2017-18	147	144	132	154	141	718	2017-18	88	86	136	124	131	565
2018-19	156	154	157	141	161	769	2018-19	93	91	93	144	129	550
2019-20	166	163	168	167	148	812	2019-20	98	96	99	98	149	540
2020-21	176	173	178	179	175	881	2020-21	103	102	104	105	102	516
2021-22	187	184	189	190	187	937	2021-22	109	107	110	110	109	545

JES	KDG	1st	2nd	3rd	4th	Total	WT	KDG	1st	2nd	3rd	4th	Total
2016-17	142	119	116	131	110	618	2016-17	110	117	105	118	116	566
2017-18	152	150	131	125	139	697	2017-18	116	114	127	111	122	590
2018-19	163	160	165	141	132	761	2018-19	122	120	123	134	115	614
2019-20	175	172	176	178	149	850	2019-20	128	126	130	130	139	653
2020-21	188	185	189	189	188	939	2020-21	135	132	136	137	135	675
2021-22	202	198	204	203	200	1007	2021-22	142	140	143	144	142	711

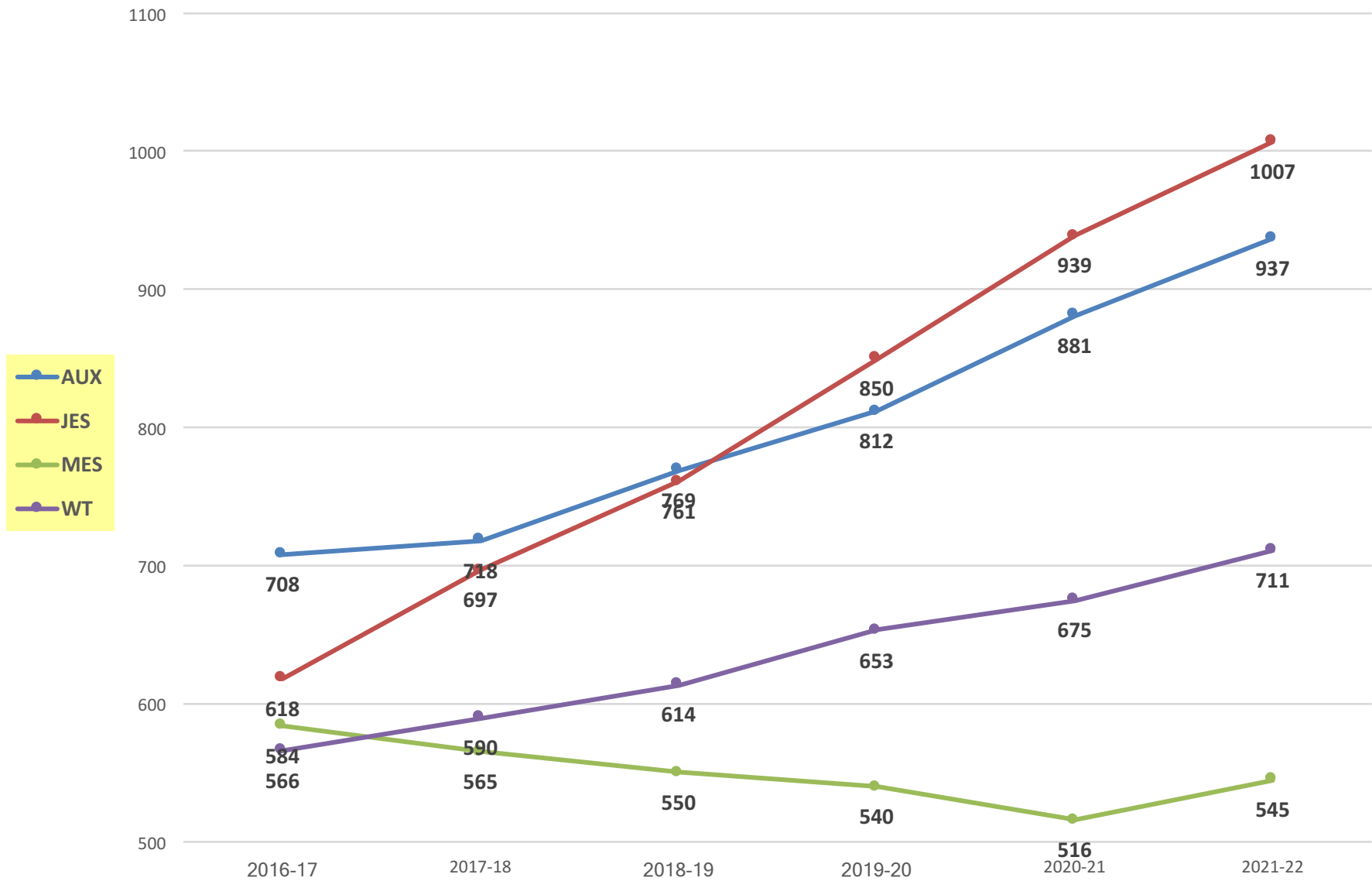
	AUX	JES	MES	WTES	MIS	MJHS
Add'l Growth Rate	1.0%	2.0%	0.0%	0.0%	0.0%	0.0%

Minooka CCSD 201 Enrollment Projections, K-8



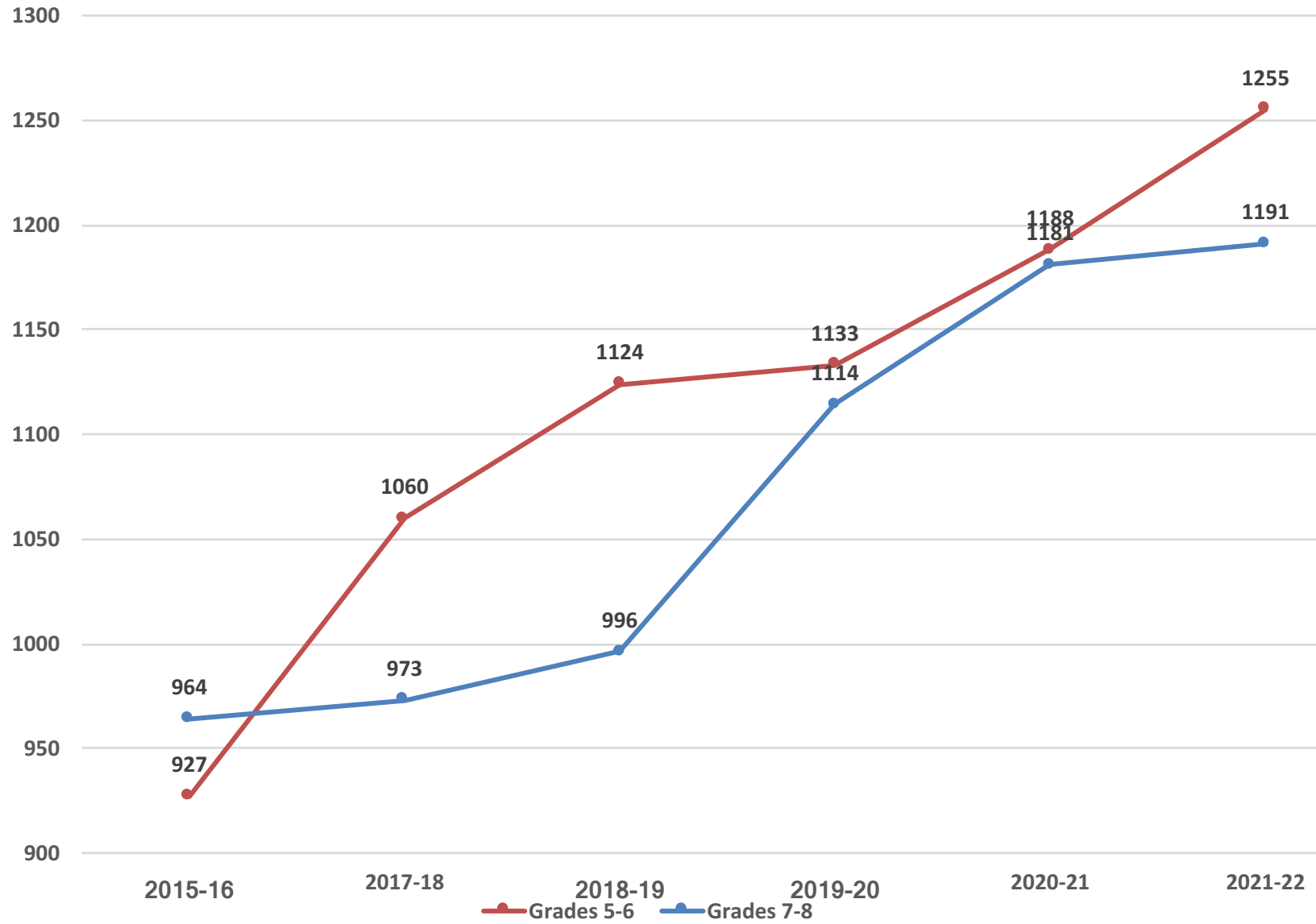
Projected K-4 Building Enrollments

Minooka CCSD 201



Projected 5-8 Enrollment

Minooka CCSD 201



AUX	K	1	2	3	4	K-4 Total
2009-10	125	174	149	170	148	766
2010-11	103	148	176	142	173	742
		18.40%	1.15%	-4.70%	1.76%	
2011-12	113	113	118	140	126	610
	9.71%	9.71%	-20.27%	-20.45%	-11.27%	
2012-13	138	104	117	117	140	616
	22.12%	-7.96%	3.54%	-0.85%	0.00%	
2013-14	118	156	118	123	123	638
	-14.49%	13.04%	13.46%	5.13%	5.13%	
2014-15	118	117	166	127	128	656
		-0.85%	6.41%	7.63%	4.07%	
2015-16	118	131	134	166	127	676
		11.02%	14.53%	0.00%	0.00%	
2016-17	138	121	144	135	170	708
1 year	0.00%	11.02%	14.53%	0.00%	0.00%	
2 Year Rate	0.00%	5.08%	10.47%	3.81%	2.03%	
3 Year Rate	-7.25%	7.74%	11.47%	4.25%	3.06%	
4 Year Rate	2.54%	3.81%	9.49%	2.98%	2.30%	

JES	K	1	2	3	4	K-4 Total
2009-10	97	86	86	88	75	432
2010-11	87	105	77	80	85	434
		8.25%	-10.47%	-6.98%	-3.41%	
2011-12	94	88	106	80	81	449
	8.05%	1.15%	0.95%	3.90%	1.25%	
2012-13	96	102	85	111	70	464
	2.13%	8.51%	-3.41%	4.72%	-12.50%	
2013-14	92	90	101	86	113	482
	-4.17%	-6.25%	-0.98%	1.18%	1.80%	
2014-15	96	102	95	107	79	479
	4.35%	10.87%	5.56%	5.94%	-8.14%	
2015-16	104	105	110	104	110	533
	8.33%	9.38%	7.84%	9.47%	2.80%	
2016-17	142	119	116	131	110	618
	8.33%	9.38%	7.84%	9.47%	2.80%	
	6.34%	10.12%	6.70%	7.71%	-2.67%	
	2.84%	4.66%	4.14%	5.53%	-1.18%	
	2.66%	5.63%	2.25%	5.33%	-4.01%	

EL Totals	K	1	2	3	4	K-4 Total
2009-10	426	434	451	440	429	2180
2010-11	371	451	436	438	435	2131
		1.05869	1.00461	0.97118	0.98864	
2011-12	411	396	441	441	435	2124
		1.06739	0.97783	1.01147	0.99315	
2012-13	452	440	406	446	439	2183

MES	K	1	2	3	4	K-4 Total
2009-10	124	79	96	91	98	488
2010-11	102	99	79	96	89	465
		-20.16%	0.00%	0.00%	-2.20%	
2011-12	112	111	118	118	107	566
	9.80%	8.82%	19.19%	49.37%	11.46%	
2012-13	138	132	115	117	125	627
	23.21%	17.86%	3.60%	-0.85%	5.93%	
2013-14	118	122	129	117	117	603
	-14.49%	-11.59%	-2.27%	1.74%	0.00%	
2014-15	118	129	119	126	111	603
	0.00%	9.32%	-2.46%	-2.33%	-5.13%	
2015-16	116	110	125	126	137	614
	-1.69%	-6.78%	-3.10%	5.88%	8.73%	
2016-17	83	126	117	126	132	584
Cohort	-1.69%	-6.78%	-3.10%	5.88%	8.73%	
	-0.85%	1.27%	-2.78%	1.78%	1.80%	
	-5.40%	-3.02%	-2.61%	1.77%	1.20%	
	1.76%	2.20%	-1.06%	1.11%	2.38%	

WTS	K	1	2	3	4	K-4 Total
2009-10	80	95	120	91	108	494
2010-11	79	99	104	120	88	490
		23.75%	9.47%	0.00%	-3.30%	
2011-12	92	84	99	103	121	499
	16.46%	6.33%	0.00%	-0.96%	0.83%	
2012-13	80	102	89	101	104	476
	-13.04%	10.87%	5.95%	2.02%	0.97%	
2013-14	80	99	104	91	101	475
	0.00%	23.75%	1.96%	2.25%	0.00%	
2014-15	90	102	103	108	99	502
	12.50%	27.50%	4.04%	3.85%	8.79%	
2015-16	113	101	115	112	107	548
	25.56%	12.22%	12.75%	8.74%	-0.93%	
2016-17	110	117	105	118	116	566
	25.56%	12.22%	12.75%	8.74%	-0.93%	
	19.03%	19.86%	8.39%	6.29%	3.93%	
	12.69%	21.16%	6.25%	4.94%	2.62%	
	6.25%	18.59%	6.17%	4.21%	2.21%	

MIN201	K-4	5-6	7-8	Total
2009-10	2180	841	788	3809
2010-11	2131	852	806	3789
			0	
2011-12	2124	844	835	3803
			0	
2012-13	2183	889	867	3939

		1.07056	1.02525	1.01134	0.99546	
2013-14	408	467	452	417	454	2198
		1.03319	1.02727	1.02709	1.01794	
2014-15	422	450	483	468	417	2240
		1.10294	1.03426	1.03540	1.00000	
2015-16	451	447	484	508	481	2371
		1.05924	1.07556	1.05176	1.02778	
2016-17	473	483	482	510	528	2476
Cohort	422	1.10294	1.03426	1.03540	1.00000	
	415	1.06806	1.03077	1.03125	1.00897	
	427	1.06890	1.02893	1.02461	1.00447	
	423	1.06852	1.01615	1.02132	1.00164	
Int/MJHS	5	6	MIS Tot	7	8	MJH Tot
2009-10	433	408	841	400	388	788
2010-11	433	419	852	412	394	806
	1.0093	0.9677		1.0098	0.9850	
2011-12	420	424	844	428	407	835
	0.9655	0.9792		1.0215	0.9879	
2012-13	453	436	889	434	433	867
	1.0414	1.0381		1.0236	1.0117	
2013-14	459	453	912	446	435	881
	1.0456	1.0000		1.0229	1.0023	
2014-15	469	479	948	462	456	918
	1.0330	1.0436		1.0199	1.0224	
2015-16	438	489	927	481	483	964
	1.0504	1.0426		1.0042	1.0455	
2016-17	491	456	947	497	486	983
Cohort	1.0208	1.0411		1.0164	1.0104	
	1.0356	1.0419		1.0103	1.0279	
	1.0347	1.0424		1.0135	1.0261	
	1.0364	1.0414		1.0160	1.0225	

		0	0	
2013-14	2198	912	881	3991
		0	0	
2014-15	2240	948	918	4106
		0	0	
2015-16	2371	927	964	4262
		0	0	
2016-17	2476	947	983	4406

Elementary School Projections

EL Totals	K	1	2	3	4	K-5 Total
2012-13	452	440	406	446	439	2183
		1.05342	0.99558	0.99567	1.00210	
2013-14	408	467	452	417	454	2198
	0.90265	1.18095	1.02637	0.99778	1.01739	
2014-15	422	450	483	468	417	2240
	1.03431	1.12195	0.96976	1.03953	1.02000	
2015-16	451	447	484	508	481	2371
	1.06872	0.99113	1.07556	1.05176	1.02778	
2016-17	473	483	482	510	528	2476
1 year	1.04878	1.07095	1.07830	1.05372	1.03937	
2 Year Rate	1.05875	1.03104	1.07693	1.05274	1.03357	
3 Year Rate	1.05060	1.06135	1.04120	1.04833	1.02905	
4 Year Rate	1.01362	1.09125	1.03750	1.03570	1.02613	

Retention Rate Used 2 Year Rate

Assumptions

KDG Rate 1 year

AUX	K	1	2	3	4	K-5 Total
2016-17	138	121	144	135	170	708
Increase	20	4	-22	8	42	52
2017-18	147	144	132	154	141	718
Increase	9	23	-12	19	-29	10
2018-19	156	154	157	141	161	769
Increase	9	10	25	-13	20	51
2019-20	166	163	168	167	148	812
Increase	10	9	11	26	-13	43
2020-21	176	173	178	179	175	881
Increase	10	10	10	12	27	69
2021-22	187	184	189	190	187	937
Increase	11	11	11	11	12	56

Assumptions

KDG +/- 1 year

JES	K	1	2	3	4	K-5 Total
2016-17	142	119	116	131	110	618
Increase	46	17	21	24	31	139
2017-18	152	150	131	125	139	697
Increase	10	31	15	-6	29	79
2018-19	163	160	165	141	132	761
Increase	11	10	34	16	-7	64
2019-20	175	172	176	178	149	850
Increase	12	12	11	37	17	89
2020-21	188	185	189	189	188	939
Increase	13	13	13	11	39	89
2021-22	202	198	204	203	200	1007
Increase	14	13	15	14	12	68

EL Totals	K	1	2	3	4	K-5 Total	
2016-17	473	483	482	510	528	2476	
2017-18	503	494	526	514	533	2570	3.80%
Increase	30	11	44	4	5	94	
2018-19	534	525	538	560	537	2694	4.82%
Increase	31	31	12	46	4	124	
2019-20	567	557	573	573	585	2855	5.98%
Increase	33	32	35	13	48	161	
2020-21	602	592	607	610	600	3011	5.46%
Increase	35	35	34	37	15	156	
2021-22	640	629	646	647	638	3200	6.28%
Increase	38	37	39	37	38	189	

Assumptions

KDG +/- 1 year

MES	K	1	2	3	4	K-5 Total
2016-17	83	126	117	126	132	584
Increase	-35	-3	-2	0	21	-19
2017-18	88	86	136	124	131	565
Increase	5	-40	19	-2	-1	-19
2018-19	93	91	93	144	129	550
Increase	5	5	-43	20	-2	-15
2019-20	98	96	99	98	149	540
Increase	5	5	6	-46	20	-10
2020-21	103	102	104	105	102	516
Increase	5	6	5	7	-47	-24
2021-22	109	107	110	110	109	545
Increase	6	5	6	5	7	29

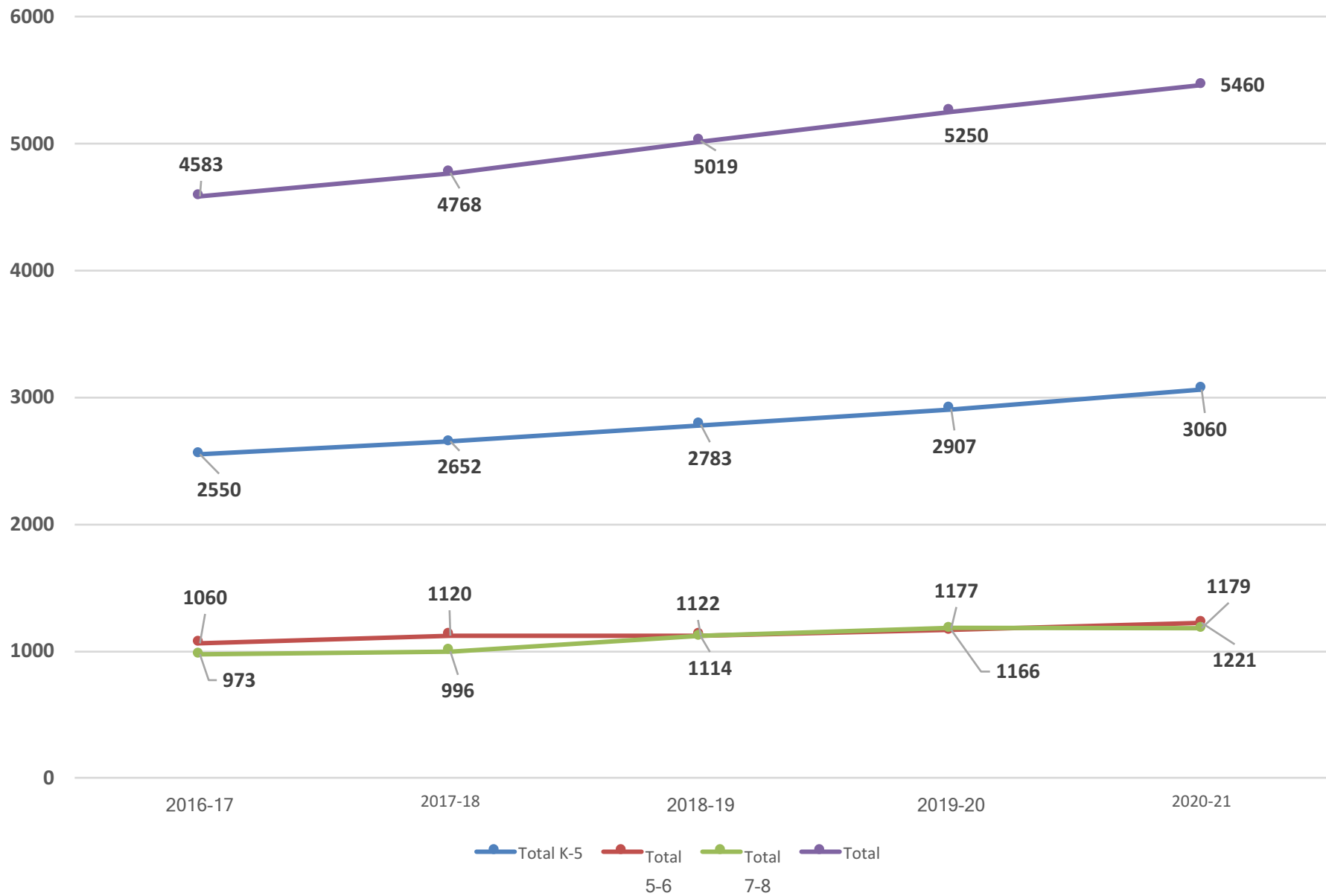
Assumptions

KDG +/- 1 year

WT	K	1	2	3	4	K-5 Total
2016-17	110	117	105	118	116	566
Increase	20	15	2	10	17	64
2017-18	116	114	127	111	122	590
Increase	6	-3	22	-7	6	24
2018-19	122	120	123	134	115	614
Increase	6	6	-4	23	-7	24
2019-20	128	126	130	130	139	653
Increase	6	6	7	-4	24	39
2020-21	135	132	136	137	135	675
Increase	7	6	6	7	-4	22
2021-22	142	140	143	144	142	711
Increase	7	8	7	7	7	36

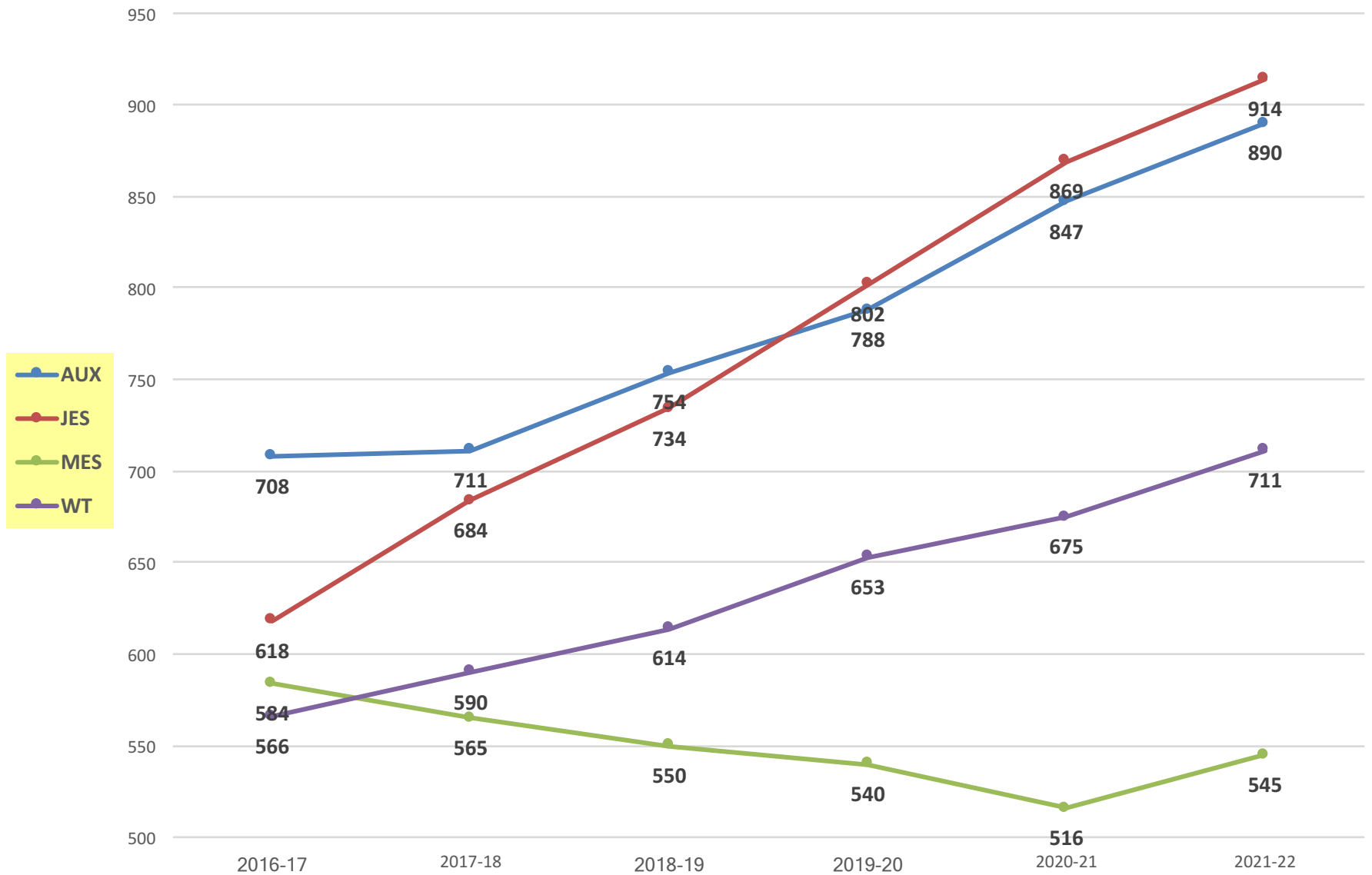
MIS/MJHS	5	6	MIS Tot	7	8	MJH Tot
2016-17	491	456	947	497	486	983
Increase	491	456	946	496	485	2873.89285
2017-18	548	512	1060	464	509	973
Increase	57	56	113	-33	23	-10
2018-19	553	571	1124	521	475	996
Increase	5	59	64	57	-34	23
2019-20	557	576	1133	581	533	1114
Increase	4	5	9	60	58	118
2020-21	607	581	1188	586	595	1181
Increase	50	5	55	5	62	67
2021-22	622	633	1255	591	600	1191
Increase	15	52	67	5	5	10

Minooka CCSD 201 Enrollment Projections, K-8



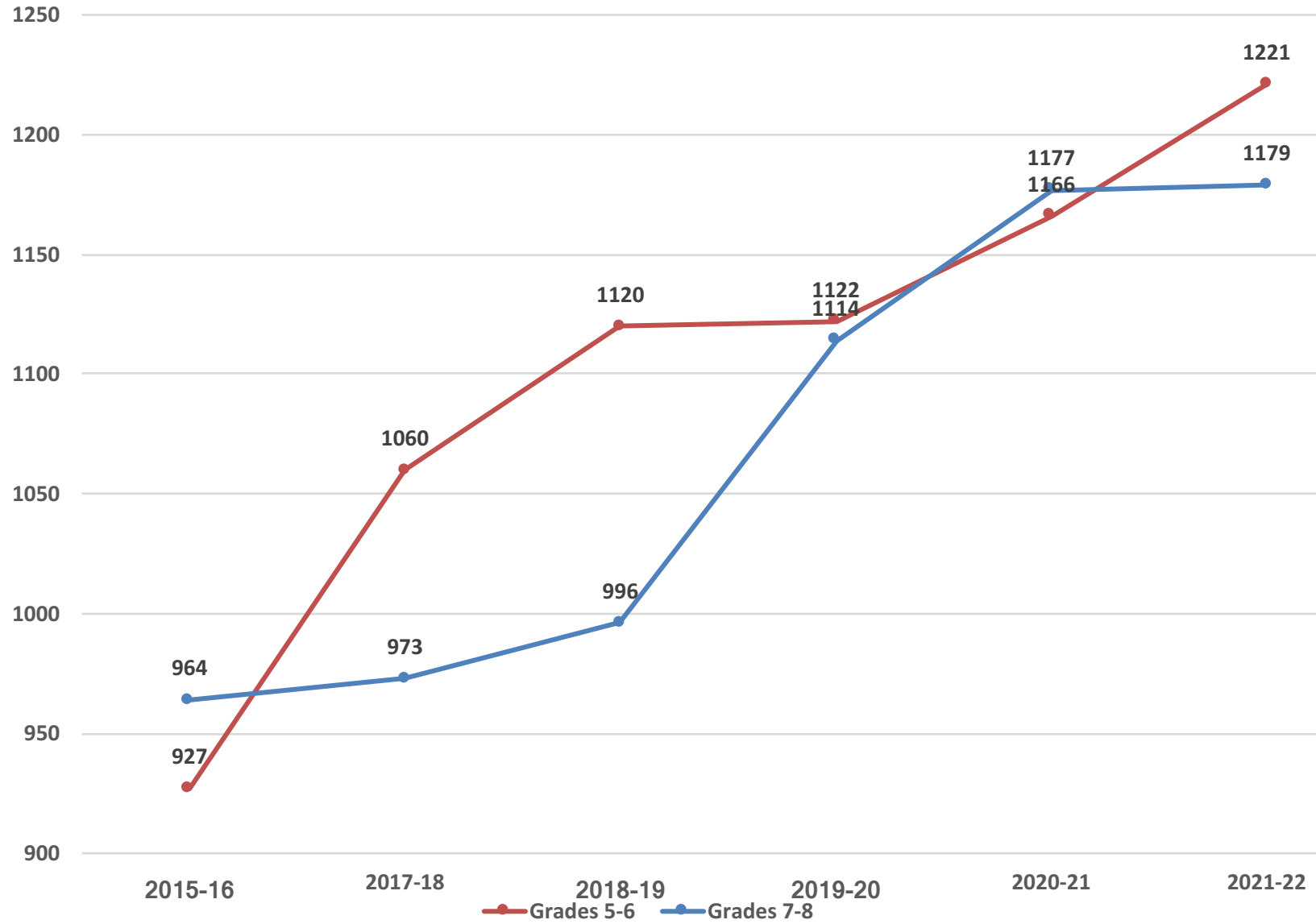
Projected K-4 Building Enrollments

Minooka CCSD 201



Projected 5-8 Enrollment

Minooka CCSD 201



AUX	K	1	2	3	4	K-4 Total
2009-10	125	174	149	170	148	766
2010-11	103	148	176	142	173	742
		18.40%	1.15%	-4.70%	1.76%	
2011-12	113	113	118	140	126	610
	9.71%	9.71%	-20.27%	-20.45%	-11.27%	
2012-13	138	104	117	117	140	616
	22.12%	-7.96%	3.54%	-0.85%	0.00%	
2013-14	118	156	118	123	123	638
	-14.49%	13.04%	13.46%	5.13%	5.13%	
2014-15	118	117	166	127	128	656
		-0.85%	6.41%	7.63%	4.07%	
2015-16	118	131	134	166	127	676
		11.02%	14.53%	0.00%	0.00%	
2016-17	138	121	144	135	170	708
1 year	0.00%	11.02%	14.53%	0.00%	0.00%	
2 Year Rate	0.00%	5.08%	10.47%	3.81%	2.03%	
3 Year Rate	-7.25%	7.74%	11.47%	4.25%	3.06%	
4 Year Rate	2.54%	3.81%	9.49%	2.98%	2.30%	

JES	K	1	2	3	4	K-4 Total
2009-10	97	86	86	88	75	432
2010-11	87	105	77	80	85	434
		8.25%	-10.47%	-6.98%	-3.41%	
2011-12	94	88	106	80	81	449
	8.05%	1.15%	0.95%	3.90%	1.25%	
2012-13	96	102	85	111	70	464
	2.13%	8.51%	-3.41%	4.72%	-12.50%	
2013-14	92	90	101	86	113	482
	-4.17%	-6.25%	-0.98%	1.18%	1.80%	
2014-15	96	102	95	107	79	479
	4.35%	10.87%	5.56%	5.94%	-8.14%	
2015-16	104	105	110	104	110	533
	8.33%	9.38%	7.84%	9.47%	2.80%	
2016-17	142	119	116	131	110	618
	8.33%	9.38%	7.84%	9.47%	2.80%	
	6.34%	10.12%	6.70%	7.71%	-2.67%	
	2.84%	4.66%	4.14%	5.53%	-1.18%	
	2.66%	5.63%	2.25%	5.33%	-4.01%	

EL Totals	K	1	2	3	4	K-4 Total
2009-10	426	434	451	440	429	2180
2010-11	371	451	436	438	435	2131
		1.05869	1.00461	0.97118	0.98864	
2011-12	411	396	441	441	435	2124
		1.06739	0.97783	1.01147	0.99315	
2012-13	452	440	406	446	439	2183

MES	K	1	2	3	4	K-4 Total
2009-10	124	79	96	91	98	488
2010-11	102	99	79	96	89	465
		-20.16%	0.00%	0.00%	-2.20%	
2011-12	112	111	118	118	107	566
	9.80%	8.82%	19.19%	49.37%	11.46%	
2012-13	138	132	115	117	125	627
	23.21%	17.86%	3.60%	-0.85%	5.93%	
2013-14	118	122	129	117	117	603
	-14.49%	-11.59%	-2.27%	1.74%	0.00%	
2014-15	118	129	119	126	111	603
	0.00%	9.32%	-2.46%	-2.33%	-5.13%	
2015-16	116	110	125	126	137	614
	-1.69%	-6.78%	-3.10%	5.88%	8.73%	
2016-17	83	126	117	126	132	584
Cohort	-1.69%	-6.78%	-3.10%	5.88%	8.73%	
	-0.85%	1.27%	-2.78%	1.78%	1.80%	
	-5.40%	-3.02%	-2.61%	1.77%	1.20%	
	1.76%	2.20%	-1.06%	1.11%	2.38%	

WTS	K	1	2	3	4	K-4 Total
2009-10	80	95	120	91	108	494
2010-11	79	99	104	120	88	490
		23.75%	9.47%	0.00%	-3.30%	
2011-12	92	84	99	103	121	499
	16.46%	6.33%	0.00%	-0.96%	0.83%	
2012-13	80	102	89	101	104	476
	-13.04%	10.87%	5.95%	2.02%	0.97%	
2013-14	80	99	104	91	101	475
	0.00%	23.75%	1.96%	2.25%	0.00%	
2014-15	90	102	103	108	99	502
	12.50%	27.50%	4.04%	3.85%	8.79%	
2015-16	113	101	115	112	107	548
	25.56%	12.22%	12.75%	8.74%	-0.93%	
2016-17	110	117	105	118	116	566
	25.56%	12.22%	12.75%	8.74%	-0.93%	
	19.03%	19.86%	8.39%	6.29%	3.93%	
	12.69%	21.16%	6.25%	4.94%	2.62%	
	6.25%	18.59%	6.17%	4.21%	2.21%	

MIN201	K-4	5-6	7-8	Total
2009-10	2180	841	788	3809
2010-11	2131	852	806	3789
			0	
2011-12	2124	844	835	3803
			0	
2012-13	2183	889	867	3939

		1.07056	1.02525	1.01134	0.99546	
2013-14	408	467	452	417	454	2198
		1.03319	1.02727	1.02709	1.01794	
2014-15	422	450	483	468	417	2240
		1.10294	1.03426	1.03540	1.00000	
2015-16	451	447	484	508	481	2371
		1.05924	1.07556	1.05176	1.02778	
2016-17	473	483	482	510	528	2476
Cohort	422	1.10294	1.03426	1.03540	1.00000	
	415	1.06806	1.03077	1.03125	1.00897	
	427	1.06890	1.02893	1.02461	1.00447	
	423	1.06852	1.01615	1.02132	1.00164	
Int/MJHS	5	6	MIS Tot	7	8	MJH Tot
2009-10	433	408	841	400	388	788
2010-11	433	419	852	412	394	806
	1.0093	0.9677		1.0098	0.9850	
2011-12	420	424	844	428	407	835
	0.9655	0.9792		1.0215	0.9879	
2012-13	453	436	889	434	433	867
	1.0414	1.0381		1.0236	1.0117	
2013-14	459	453	912	446	435	881
	1.0456	1.0000		1.0229	1.0023	
2014-15	469	479	948	462	456	918
	1.0330	1.0436		1.0199	1.0224	
2015-16	438	489	927	481	483	964
	1.0504	1.0426		1.0042	1.0455	
2016-17	491	456	947	497	486	983
Cohort	1.0208	1.0411		1.0164	1.0104	
	1.0356	1.0419		1.0103	1.0279	
	1.0347	1.0424		1.0135	1.0261	
	1.0364	1.0414		1.0160	1.0225	

		0	0	
2013-14	2198	912	881	3991
		0	0	
2014-15	2240	948	918	4106
		0	0	
2015-16	2371	927	964	4262
		0	0	
2016-17	2476	947	983	4406

Elementary School Projections

EL Totals	K	1	2	3	4	K-5 Total
2012-13	452	440	406	446	439	2183
		1.05342	0.99558	0.99567	1.00210	
2013-14	408	467	452	417	454	2198
	0.90265	1.18095	1.02637	0.99778	1.01739	
2014-15	422	450	483	468	417	2240
	1.03431	1.12195	0.96976	1.03953	1.02000	
2015-16	451	447	484	508	481	2371
	1.06872	0.99113	1.07556	1.05176	1.02778	
2016-17	473	483	482	510	528	2476
1 year	1.04878	1.07095	1.07830	1.05372	1.03937	
2 Year Rate	1.05875	1.03104	1.07693	1.05274	1.03357	
3 Year Rate	1.05060	1.06135	1.04120	1.04833	1.02905	
4 Year Rate	1.01362	1.09125	1.03750	1.03570	1.02613	

Retention Rate Used 2 Year Rate

Assumptions

KDG Rate 1 year

AUX	K	1	2	3	4	K-5 Total
2016-17	138	121	144	135	170	708
Increase	20	4	-22	8	42	52
2017-18	145	143	131	152	140	711
Increase	7	22	-13	17	-30	3
2018-19	153	150	155	138	158	754
Increase	8	7	24	-14	18	43
2019-20	161	158	162	164	143	788
Increase	8	8	7	26	-15	34
2020-21	169	166	171	171	170	847
Increase	8	8	9	7	27	59
2021-22	178	175	179	181	177	890
Increase	9	9	8	10	7	43

Assumptions

KDG +/- 1 year

JES	K	1	2	3	4	K-5 Total
2016-17	142	119	116	131	110	618
Increase	46	17	21	24	31	139
2017-18	149	147	129	123	136	684
Increase	7	28	13	-8	26	66
2018-19	157	154	159	136	128	734
Increase	8	7	30	13	-8	50
2019-20	165	162	166	168	141	802
Increase	8	8	7	32	13	68
2020-21	174	171	175	175	174	869
Increase	9	9	9	7	33	67
2021-22	183	180	185	185	181	914
Increase	9	9	10	10	7	45

EL Totals	K	1	2	3	4	K-5 Total	
2016-17	473	483	482	510	528	2476	
2017-18	498	490	523	510	529	2550	2.99%
Increase	25	7	41	0	1	74	
2018-19	525	515	530	552	530	2652	4.00%
Increase	27	25	7	42	1	102	
2019-20	552	542	557	560	572	2783	4.94%
Increase	27	27	27	8	42	131	
2020-21	581	571	586	588	581	2907	4.46%
Increase	29	29	29	28	9	124	
2021-22	612	602	617	620	609	3060	5.26%
Increase	31	31	31	32	28	153	

Assumptions

KDG +/- 1 year

MES	K	1	2	3	4	K-5 Total
2016-17	83	126	117	126	132	584
Increase	-35	-3	-2	0	21	-19
2017-18	88	86	136	124	131	565
Increase	5	-40	19	-2	-1	-19
2018-19	93	91	93	144	129	550
Increase	5	5	-43	20	-2	-15
2019-20	98	96	99	98	149	540
Increase	5	5	6	-46	20	-10
2020-21	103	102	104	105	102	516
Increase	5	6	5	7	-47	-24
2021-22	109	107	110	110	109	545
Increase	6	5	6	5	7	29

Assumptions

KDG +/- 1 year

WT	K	1	2	3	4	K-5 Total
2016-17	110	117	105	118	116	566
Increase	20	15	2	10	17	64
2017-18	116	114	127	111	122	590
Increase	6	-3	22	-7	6	24
2018-19	122	120	123	134	115	614
Increase	6	6	-4	23	-7	24
2019-20	128	126	130	130	139	653
Increase	6	6	7	-4	24	39
2020-21	135	132	136	137	135	675
Increase	7	6	6	7	-4	22
2021-22	142	140	143	144	142	711
Increase	7	8	7	7	7	36

	4 Year Rate					
MIS/MJHS	5	6	MIS Tot	7	8	MJH Tot
2016-17	491	456	947	497	486	983
Increase	491	456	946	496	485	2873.89285
2017-18	548	512	1060	464	509	973
Increase	57	56	113	-33	23	-10
2018-19	549	571	1120	521	475	996
Increase	1	59	60	57	-34	23
2019-20	550	572	1122	581	533	1114
Increase	1	1	2	60	58	118
2020-21	593	573	1166	582	595	1177
Increase	43	1	44	1	62	63
2021-22	603	618	1221	583	596	1179
Increase	10	45	55	1	1	2

**Minooka CCSD 201 Facilities Advisory Committee
Recommendation to the Board of Education
November 20, 2017**

Appendix E – Enrollment Projections – updated October 16, 2017

Administration updated the enrollment projections at the start of the 2017–18 school year to reflect actual data, then refined them further on October 15th for the official Fall Housing Report that is sent to the Illinois State Board of Education and acts as our official 2017–18 enrollment.

Most grade levels reflected enrollments within a general range of the 2016–17 projections. Our 2017–18 kindergarten enrollments dropped from the previous years figures, and in fact are below the 2015–16 kindergarten cohort as well. This was quite unexpected, as the model naturally assumed some level of growth in our kindergarten enrollments like we had experienced during the previous four years. Our second grade cohort was also lower than projections by 24 students. Looking closely at the numbers, our first to second grade history had seen a few years of larger than normal growth, going from 450 to 484 between 2014–15 into 2015–16 and from 447 to 482 between 2015–16 and 2016–17. These large jumps led to a calculated projection of 523 students, a jump of 40 from the 2016–17 first grade cohort of 483. The cohort still grew, but by a more modest 16 students for a cohort of 499.

These two anomalies led our elementary enrollments to be 79 students less than projected, a statistic that lowered all subsequent years as the smaller kindergarten cohort matriculates through the grade level projections. It also affects the new kindergarten cohorts projected for future years. Because of this, the projected need for new classroom space at the elementary levels was significantly reduced.

In discussion, the Committee expressed concern that this could be a one year “blip” in the kindergarten enrollments, as the number of new homes and young families moving into the area could quickly grow this number faster than the projections calculate. It was this caution that led the Committee to include the authority for a new elementary school and/or additions to existing elementary schools into the Recommendation, giving the Board the authority to respond quickly to changing conditions without having to go back to the voters for another referendum.

Appendix D-3, High Enrollment Model

Minooka CCSD 201 Enrollment Projection Summary

as of 5/11/17

Historical Enrollments

	KDG	1st	2nd	3rd	4th	5th	6th	7th	8th	Total K-5	Total 5-6	Total 7-8	Total	Pre-KDG	
2009-10	426	434	451	440	429	433	408	400	388	2180	841	788	3809		
2010-11	371	451	436	438	435	433	419	412	394	2131	852	806	3789		
2011-12	411	396	441	441	435	420	424	428	407	2124	844	835	3803		
2012-13	452	440	406	446	439	453	436	434	433	2183	889	867	3939		
2013-14	408	467	452	417	454	459	453	446	435	2198	912	881	3991		
2014-15	422	450	483	468	417	469	479	462	456	2240	948	918	4106		
2015-16	451	447	484	508	481	438	489	481	483	2371	927	964	4262	211	Total Students
2016-17	473	483	482	510	528	491	456	497	486	2476	947	983	4406	211	4617
11/15															
Projection	465	482	474	507	517	502	457	495	498	2445	959	993	4397		
+/-	8	1	8	3	11	-11	-1	2	-12	31	-12	-10	9	Total dif from projection	

Retention Rate:	Elementary	2 Year Rate	MIS/MJHS	4 Year Rate											
Kindergarten Rate	1 year														
Projections										Total K-5	Total 5-6	Total 7-8	Total	Pre-KDG	Total Students
2017-18	513	503	535	523	543	559	522	473	519	2617	1081	992	4690	211	4901
2018-19	556	546	560	580	557	575	594	541	494	2799	1169	1035	5003	211	5214
2019-20	602	592	608	608	616	589	611	616	565	3026	1200	1181	5407	211	5618
2020-21	652	641	659	662	649	652	626	634	643	3263	1278	1277	5818	211	6029
2021-22	707	694	713	716	707	687	693	649	662	3537	1380	1311	6228	211	6439

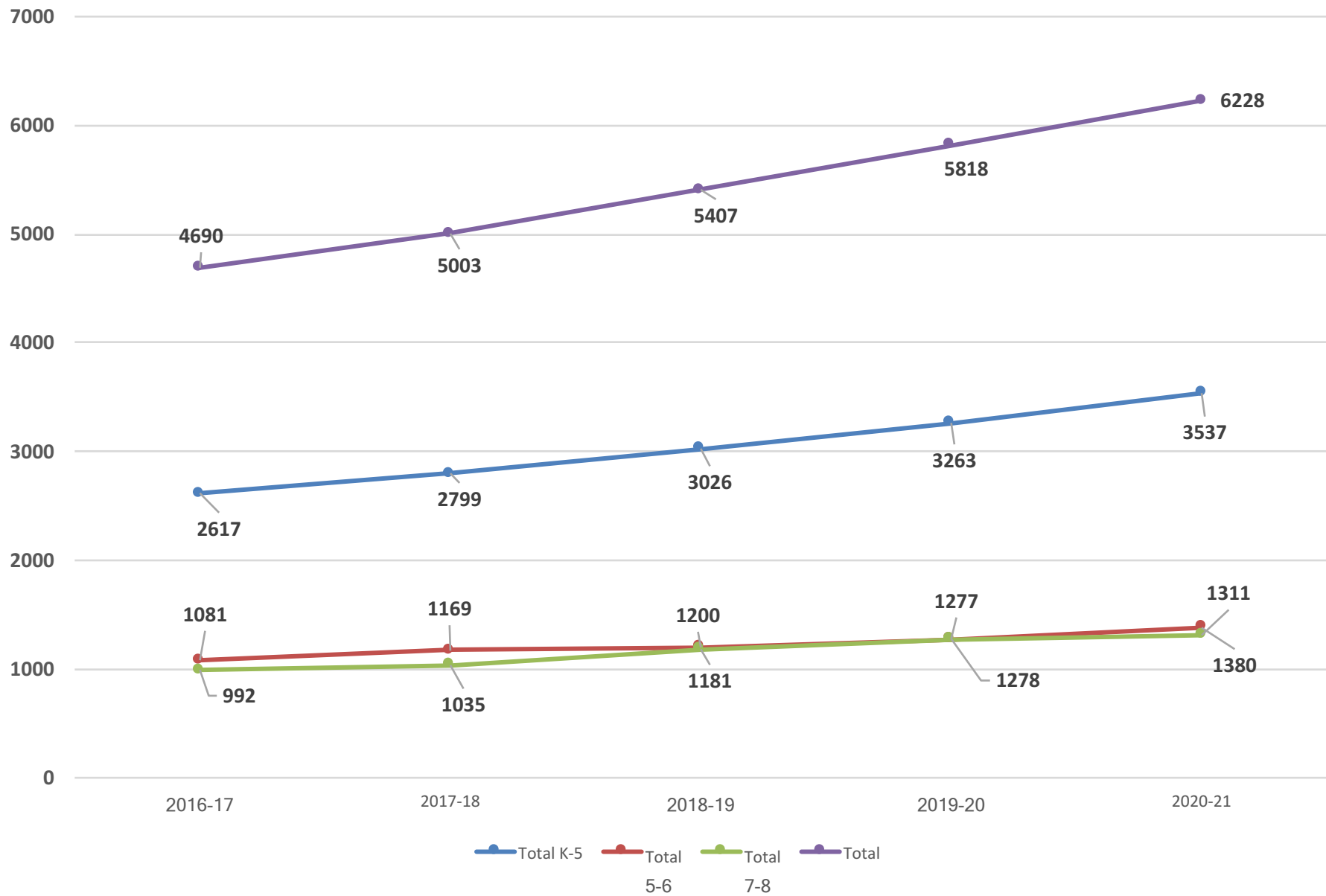
EL Building Projections

AUX	KDG	1st	2nd	3rd	4th	Total	MES	KDG	1st	2nd	3rd	4th	Total
2016-17	138	121	144	135	170	708	2016-17	83	126	117	126	132	584
2017-18	150	147	135	157	144	733	2017-18	88	86	136	124	131	565
2018-19	163	160	164	147	168	802	2018-19	93	91	93	144	129	550
2019-20	177	174	178	178	157	864	2019-20	98	96	99	98	149	540
2020-21	192	188	194	194	190	958	2020-21	103	102	104	105	102	516
2021-22	208	204	209	211	207	1039	2021-22	109	107	110	110	109	545

JES	KDG	1st	2nd	3rd	4th	Total	WT	KDG	1st	2nd	3rd	4th	Total
2016-17	142	119	116	131	110	618	2016-17	110	117	105	118	116	566
2017-18	157	154	135	129	143	718	2017-18	118	116	129	113	125	601
2018-19	173	170	175	150	140	808	2018-19	127	125	128	139	120	639
2019-20	191	188	193	194	163	929	2019-20	136	134	138	138	147	693
2020-21	211	207	213	214	211	1056	2020-21	146	144	148	149	146	733
2021-22	233	229	235	236	233	1166	2021-22	157	154	159	159	158	787

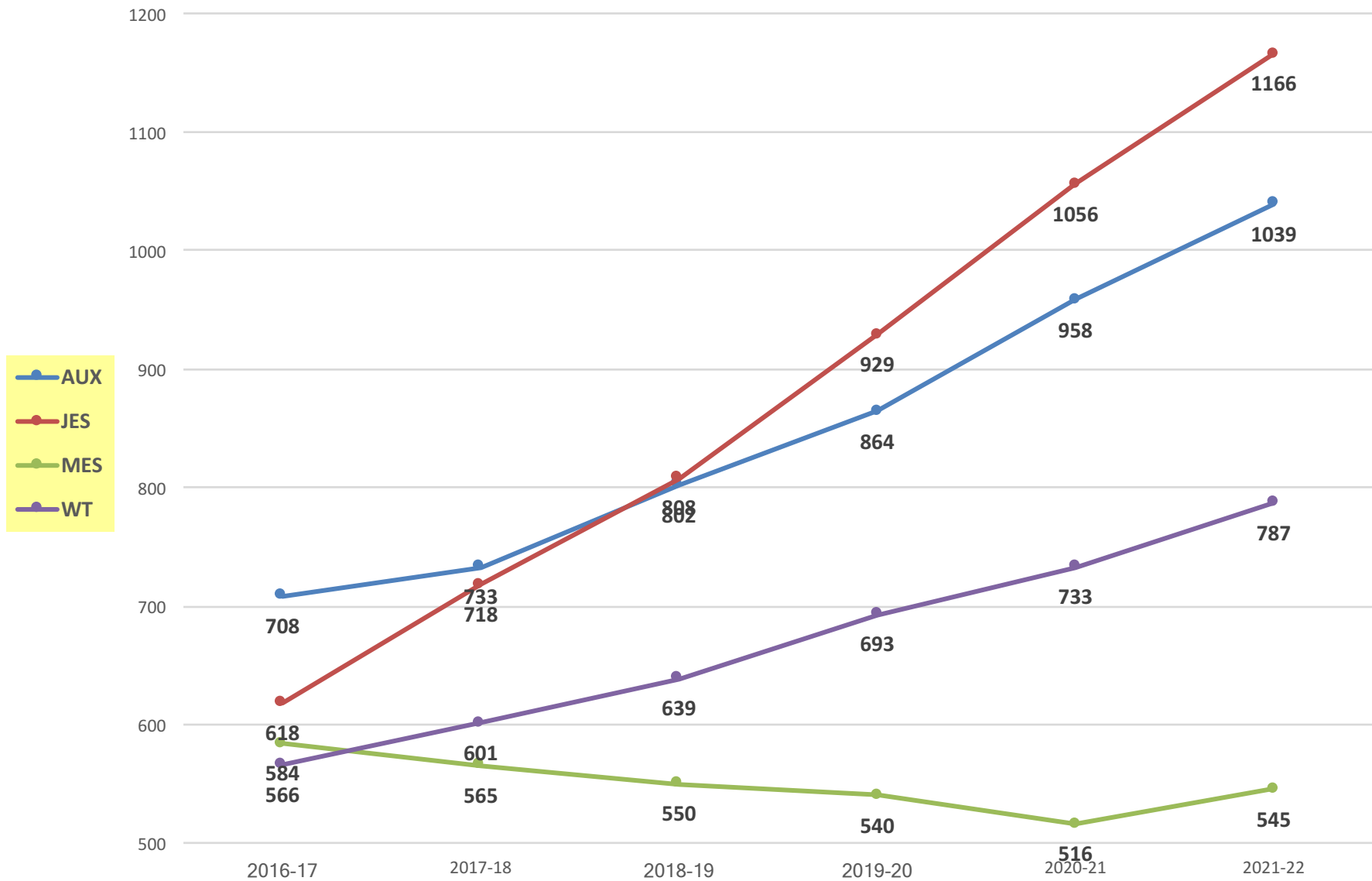
Add'l Growth Rate	AUX	JES	MES	WTES	MIS	MJHS
	3.0%	5.0%	0.0%	2.0%	2.0%	2.0%

Minooka CCSD 201 Enrollment Projections, K-8



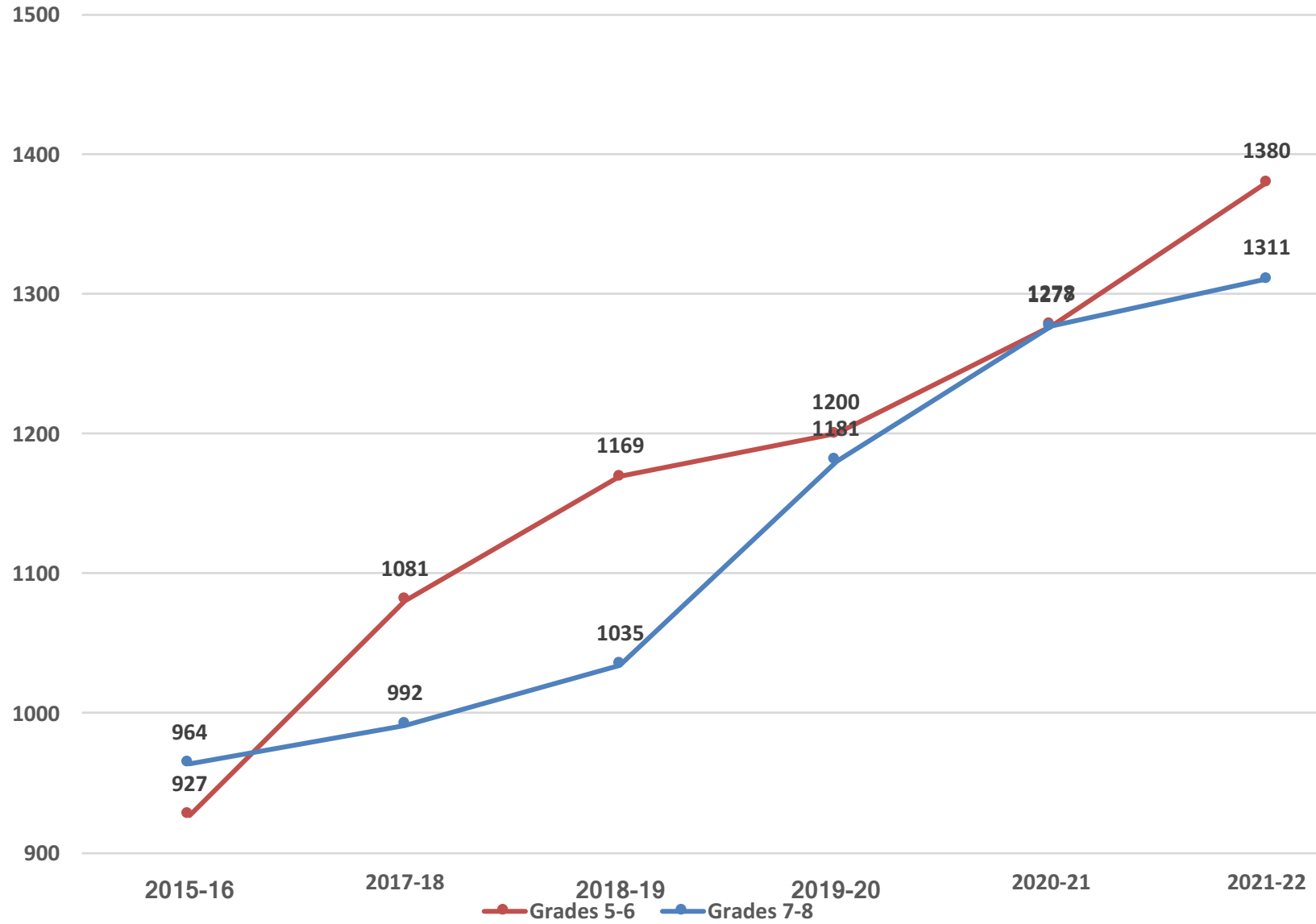
Projected K-4 Building Enrollments

Minooka CCSD 201



Projected 5-8 Enrollment

Minooka CCSD 201



AUX	K	1	2	3	4	K-4 Total
2009-10	125	174	149	170	148	766
2010-11	103	148	176	142	173	742
		18.40%	1.15%	-4.70%	1.76%	
2011-12	113	113	118	140	126	610
	9.71%	9.71%	-20.27%	-20.45%	-11.27%	
2012-13	138	104	117	117	140	616
	22.12%	-7.96%	3.54%	-0.85%	0.00%	
2013-14	118	156	118	123	123	638
	-14.49%	13.04%	13.46%	5.13%	5.13%	
2014-15	118	117	166	127	128	656
		-0.85%	6.41%	7.63%	4.07%	
2015-16	118	131	134	166	127	676
		11.02%	14.53%	0.00%	0.00%	
2016-17	138	121	144	135	170	708
1 year	0.00%	11.02%	14.53%	0.00%	0.00%	
2 Year Rate	0.00%	5.08%	10.47%	3.81%	2.03%	
3 Year Rate	-7.25%	7.74%	11.47%	4.25%	3.06%	
4 Year Rate	2.54%	3.81%	9.49%	2.98%	2.30%	

JES	K	1	2	3	4	K-4 Total
2009-10	97	86	86	88	75	432
2010-11	87	105	77	80	85	434
		8.25%	-10.47%	-6.98%	-3.41%	
2011-12	94	88	106	80	81	449
	8.05%	1.15%	0.95%	3.90%	1.25%	
2012-13	96	102	85	111	70	464
	2.13%	8.51%	-3.41%	4.72%	-12.50%	
2013-14	92	90	101	86	113	482
	-4.17%	-6.25%	-0.98%	1.18%	1.80%	
2014-15	96	102	95	107	79	479
	4.35%	10.87%	5.56%	5.94%	-8.14%	
2015-16	104	105	110	104	110	533
	8.33%	9.38%	7.84%	9.47%	2.80%	
2016-17	142	119	116	131	110	618
	8.33%	9.38%	7.84%	9.47%	2.80%	
	6.34%	10.12%	6.70%	7.71%	-2.67%	
	2.84%	4.66%	4.14%	5.53%	-1.18%	
	2.66%	5.63%	2.25%	5.33%	-4.01%	

EL Totals	K	1	2	3	4	K-4 Total
2009-10	426	434	451	440	429	2180
2010-11	371	451	436	438	435	2131
		1.05869	1.00461	0.97118	0.98864	
2011-12	411	396	441	441	435	2124
		1.06739	0.97783	1.01147	0.99315	
2012-13	452	440	406	446	439	2183

MES	K	1	2	3	4	K-4 Total
2009-10	124	79	96	91	98	488
2010-11	102	99	79	96	89	465
		-20.16%	0.00%	0.00%	-2.20%	
2011-12	112	111	118	118	107	566
	9.80%	8.82%	19.19%	49.37%	11.46%	
2012-13	138	132	115	117	125	627
	23.21%	17.86%	3.60%	-0.85%	5.93%	
2013-14	118	122	129	117	117	603
	-14.49%	-11.59%	-2.27%	1.74%	0.00%	
2014-15	118	129	119	126	111	603
	0.00%	9.32%	-2.46%	-2.33%	-5.13%	
2015-16	116	110	125	126	137	614
	-1.69%	-6.78%	-3.10%	5.88%	8.73%	
2016-17	83	126	117	126	132	584
Cohort	-1.69%	-6.78%	-3.10%	5.88%	8.73%	
	-0.85%	1.27%	-2.78%	1.78%	1.80%	
	-5.40%	-3.02%	-2.61%	1.77%	1.20%	
	1.76%	2.20%	-1.06%	1.11%	2.38%	

WTS	K	1	2	3	4	K-4 Total
2009-10	80	95	120	91	108	494
2010-11	79	99	104	120	88	490
		23.75%	9.47%	0.00%	-3.30%	
2011-12	92	84	99	103	121	499
	16.46%	6.33%	0.00%	-0.96%	0.83%	
2012-13	80	102	89	101	104	476
	-13.04%	10.87%	5.95%	2.02%	0.97%	
2013-14	80	99	104	91	101	475
	0.00%	23.75%	1.96%	2.25%	0.00%	
2014-15	90	102	103	108	99	502
	12.50%	27.50%	4.04%	3.85%	8.79%	
2015-16	113	101	115	112	107	548
	25.56%	12.22%	12.75%	8.74%	-0.93%	
2016-17	110	117	105	118	116	566
	25.56%	12.22%	12.75%	8.74%	-0.93%	
	19.03%	19.86%	8.39%	6.29%	3.93%	
	12.69%	21.16%	6.25%	4.94%	2.62%	
	6.25%	18.59%	6.17%	4.21%	2.21%	

MIN201	K-4	5-6	7-8	Total
2009-10	2180	841	788	3809
2010-11	2131	852	806	3789
			0	
2011-12	2124	844	835	3803
			0	
2012-13	2183	889	867	3939

		1.07056	1.02525	1.01134	0.99546	
2013-14	408	467	452	417	454	2198
		1.03319	1.02727	1.02709	1.01794	
2014-15	422	450	483	468	417	2240
		1.10294	1.03426	1.03540	1.00000	
2015-16	451	447	484	508	481	2371
		1.05924	1.07556	1.05176	1.02778	
2016-17	473	483	482	510	528	2476
Cohort	422	1.10294	1.03426	1.03540	1.00000	
	415	1.06806	1.03077	1.03125	1.00897	
	427	1.06890	1.02893	1.02461	1.00447	
	423	1.06852	1.01615	1.02132	1.00164	
Int/MJHS	5	6	MIS Tot	7	8	MJH Tot
2009-10	433	408	841	400	388	788
2010-11	433	419	852	412	394	806
	1.0093	0.9677		1.0098	0.9850	
2011-12	420	424	844	428	407	835
	0.9655	0.9792		1.0215	0.9879	
2012-13	453	436	889	434	433	867
	1.0414	1.0381		1.0236	1.0117	
2013-14	459	453	912	446	435	881
	1.0456	1.0000		1.0229	1.0023	
2014-15	469	479	948	462	456	918
	1.0330	1.0436		1.0199	1.0224	
2015-16	438	489	927	481	483	964
	1.0504	1.0426		1.0042	1.0455	
2016-17	491	456	947	497	486	983
Cohort	1.0208	1.0411		1.0164	1.0104	
	1.0356	1.0419		1.0103	1.0279	
	1.0347	1.0424		1.0135	1.0261	
	1.0364	1.0414		1.0160	1.0225	

		0	0	
2013-14	2198	912	881	3991
		0	0	
2014-15	2240	948	918	4106
		0	0	
2015-16	2371	927	964	4262
		0	0	
2016-17	2476	947	983	4406

Elementary School Projections

EL Totals	K	1	2	3	4	K-5 Total
2012-13	452	440	406	446	439	2183
		1.05342	0.99558	0.99567	1.00210	
2013-14	408	467	452	417	454	2198
	0.90265	1.18095	1.02637	0.99778	1.01739	
2014-15	422	450	483	468	417	2240
	1.03431	1.12195	0.96976	1.03953	1.02000	
2015-16	451	447	484	508	481	2371
	1.06872	0.99113	1.07556	1.05176	1.02778	
2016-17	473	483	482	510	528	2476
1 year	1.04878	1.07095	1.07830	1.05372	1.03937	
2 Year Rate	1.05875	1.03104	1.07693	1.05274	1.03357	
3 Year Rate	1.05060	1.06135	1.04120	1.04833	1.02905	
4 Year Rate	1.01362	1.09125	1.03750	1.03570	1.02613	

Retention Rate Used 2 Year Rate

Assumptions

KDG Rate 1 year

AUX	K	1	2	3	4	K-5 Total
2016-17	138	121	144	135	170	708
Increase	20	4	-22	8	42	52
2017-18	150	147	135	157	144	733
Increase	12	26	-9	22	-26	25
2018-19	163	160	164	147	168	802
Increase	13	13	29	-10	24	69
2019-20	177	174	178	178	157	864
Increase	14	14	14	31	-11	62
2020-21	192	188	194	194	190	958
Increase	15	14	16	16	33	94
2021-22	208	204	209	211	207	1039
Increase	16	16	15	17	17	81

Assumptions

KDG +/- 1 year

JES	K	1	2	3	4	K-5 Total
2016-17	142	119	116	131	110	618
Increase	46	17	21	24	31	139
2017-18	157	154	135	129	143	718
Increase	15	35	19	-2	33	100
2018-19	173	170	175	150	140	808
Increase	16	16	40	21	-3	90
2019-20	191	188	193	194	163	929
Increase	18	18	18	44	23	121
2020-21	211	207	213	214	211	1056
Increase	20	19	20	20	48	127
2021-22	233	229	235	236	233	1166
Increase	22	22	22	22	22	110

EL Totals	K	1	2	3	4	K-5 Total	
2016-17	473	483	482	510	528	2476	
2017-18	513	503	535	523	543	2617	5.69%
Increase	40	20	53	13	15	141	
2018-19	556	546	560	580	557	2799	6.95%
Increase	43	43	25	57	14	182	
2019-20	602	592	608	608	616	3026	8.11%
Increase	46	46	48	28	59	227	
2020-21	652	641	659	662	649	3263	7.83%
Increase	50	49	51	54	33	237	
2021-22	707	694	713	716	707	3537	8.40%
Increase	55	53	54	54	58	274	

Assumptions

KDG +/- 1 year

MES	K	1	2	3	4	K-5 Total
2016-17	83	126	117	126	132	584
Increase	-35	-3	-2	0	21	-19
2017-18	88	86	136	124	131	565
Increase	5	-40	19	-2	-1	-19
2018-19	93	91	93	144	129	550
Increase	5	5	-43	20	-2	-15
2019-20	98	96	99	98	149	540
Increase	5	5	6	-46	20	-10
2020-21	103	102	104	105	102	516
Increase	5	6	5	7	-47	-24
2021-22	109	107	110	110	109	545
Increase	6	5	6	5	7	29

Assumptions

KDG +/- 1 year

WT	K	1	2	3	4	K-5 Total
2016-17	110	117	105	118	116	566
Increase	20	15	2	10	17	64
2017-18	118	116	129	113	125	601
Increase	8	-1	24	-5	9	35
2018-19	127	125	128	139	120	639
Increase	9	9	-1	26	-5	38
2019-20	136	134	138	138	147	693
Increase	9	9	10	-1	27	54
2020-21	146	144	148	149	146	733
Increase	10	10	10	11	-1	40
2021-22	157	154	159	159	158	787
Increase	11	10	11	10	12	54

MIS/MJHS	4 Year Rate		MIS Tot			MJH Tot
	5	6		7	8	
2016-17	491	456	947	497	486	983
Increase	491	456	946	496	485	2873.89285
2017-18	559	522	1081	473	519	992
Increase	68	66	134	-24	33	9
2018-19	575	594	1169	541	494	1035
Increase	16	72	88	68	-25	43
2019-20	589	611	1200	616	565	1181
Increase	14	17	31	75	71	146
2020-21	652	626	1278	634	643	1277
Increase	63	15	78	18	78	96
2021-22	687	693	1380	649	662	1311
Increase	35	67	102	15	19	34

**Minooka CCSD 201 Facilities Advisory Committee
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**Appendix F – Committee’s List of Options, evaluated against criteria
Appendix G – STR Summary of Classroom Space Options, Options with Capacity**

Once consensus on enrollment was reached, the Committee turned its efforts towards brainstorming various options for creating the necessary classroom space to meets the growing enrollments. The three areas initially explored by the Committee were:

1. Leasing space in an existing building
2. Installing temporary or portable classrooms
3. Creating or building new classrooms
 - a. Additions to existing facilities
 - b. Construct new school facilities

The Committee was able to agree quickly that leasing or installing temporary classrooms should be considered as a short-term solution that Administration and the Board could employ to rapidly respond to an unexpected change in enrollments. The probability of continued student enrollment growth pushed the Committee towards concentrating on a long-term solution that would provide additional classrooms for years to come.

From there, the Committee spent one of their meetings brainstorming various solutions. Such suggestions included new school buildings, additions to all existing facilities, building at some levels but reconfiguring grade levels to distribute our student population in different ways, building new facilities and converting existing facilities into elementary from intermediate, and many combinations of the above. A multitude of ideas were brought into the discussion for analysis.

At the following meeting we agreed upon a set of criteria with which to evaluate the options. Committee members worked in groups to analyze the space options, and then a subsequent group re-evaluated to ensure every option had at least two points of scrutiny.

The following documents are the results of the Committee’s brainstorming and evaluation session, along with supporting figures that show capacity and cost estimations. Areas coded green were seen to pass the criteria, yellow was a middle ground and red meant that the option did not meet the criteria. After two evaluations, the Committee narrowed the options down to four that seemed to rise to the top based upon the group consensus. The Committee then agreed that Administration would work with STR over the remainder of the summer to revise and bring back more detailed information on the top four options.

Appendix F - Committee List of Options with Criteria

Appendix F - Committee List of Options with Criteria		Option A			Option B			Option C			Option D					
		Option 1 - Add ES, New 5-8, Add ES	Option 2 - New ES, New 5-8, New ES	Option 3 - New ES, New 5-8, Add ES	Option 4A - New ES, New Prot IS, Add ES	Option 4B - New ES, New Prot 5-6, New Proto 7-8, Add ES	Option 5 - New ES, New 5-8, Add ES	Option 6A - New ES, New Prot 5-6, Add ES	Option 6B - New ES, New Prot 5-6, New Prot 7-8, Add ES	Option 7 - Add ES, New Prot 5-6, New Prot 7-8, Add ES	Option 8A - Add ES, Add MJHS, New Proto 5-6, Add ES	Option 8B - New ES, Add MJHS, New Prot 5-6, Add ES	Option 9A - Convert, Convert, New 6-8	Option 9B - Convert, Convert, New 4-5, New 6-8	Option 10 - Add ES, New Proto 5-8, Redistrict	
		1	2	2A	3	4A	4B	5	6A	6B	7	8A	8B	9A	9B	10
Provides adequate space for all immediate enrollment projections	A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provides space for future enrollment needs	B	Yes	Yes	Maybe	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is "Right-Sized" and does not over-build	C	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Allows for future expansion if growth continues	D	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Common school spaces are not overburdened	E	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Classroom space can be delivered by 2019-20 school year	F	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Addresses "Parity" between school facilities	G	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Has something for all tax payers	H	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Fiscally responsible - wise use of taxpayer funds	I	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Minimizes student transitions	J	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provides operational benefits	K	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Construction is disruptive to current school	L	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Yes

Maybe

No

Evaluation Legend

Evaluation Legend



PLANNING OPTIONS FOR GROWTH
Minooka Community Consolidated School District 201

Appendix G - Space Options with Capacity

Description	Location (N or S of 180)	Site	Size of Site (acres)	No. of Students Added	District Capacity in 2021-22	Projected need	Excess/Defi cite
Option 1 - Add ES, New 5-8, Add ES							
6 Classroom Addition to Jones ES	North	Jones ES	15	150			
New 5-8 Intermediate/Junior High School	North	Seil Road	40	1500			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				1800	6800	5646	1154
Option 2 - New ES, New 5-8, New ES							
New Elementary School	North	Sable Ridge	11	750			
New 5-8 Intermediate/Junior High School	North	Seil Road	40	1500			
New Elementary School	South	Select Site South	TBD	750			
				3000	8000	5646	2354
Option 3 - New ES, New 5-8, Add ES							
New Elementary School	North	Sable Ridge	11	750			
New 5-8 Intermediate/Junior High School	North	Seil Road	40	1500			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				2400	7400	5646	1754
Option 4A - New ES, New Prot IS, Add ES							
New Elementary School	North	Sable Ridge	11	750			
New Prototype Intermediate	North	Seil Road	40	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				1900	6900	5646	1254

Description	Location (N or S of I80)	Site	Size of Site (acres)	No. of Students Added	District Capacity in 2021-22	Projected need	Excess/Defi cite
Option 4B - New ES, New Prot 5-6, New Proto 7-8, Add ES							
New Elementary School	North	Sable Ridge	11	750			
New Prototype Intermediate for 5-6	North	Seil Road	30	1000			
New Prototype Intermediate for 7-8	North	Seil Road	10	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				2900	7900	5646	2254
Option 5 - New ES, New 5-8, Add ES							
New Elementary School	North	Seil Road	15	750			
New 5-8 Intermediate/Junior High School	North	Seil Road	25	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				1900	6900	5646	1254
Option 6A - New ES, New Prot 5-6, Add ES				750			
New Elementary School	North	Seil Road	15				
New Prototype Intermediate for 5-6	North	Seil Road	25	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				1900	6900	5646	1254
Option 6B - New ES, New Prot 5-6, New Prot 7-8, Add ES							
New Elementary School	North	Seil Road	15	750			
New Prototype Intermediate for 5-6	North	Seil Road	30	1000			
New Prototype Intermediate for 7-8	North	Seil Road	10	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				2900	7900	5646	2254
Option 7 - Add ES, New Prot 5-6, New Prot 7-8, Add ES							
6 Classroom Addition to Jones ES	North	Jones ES	15	150			
New Prototype Intermediate for 5-6	North	Seil Road	30	1000			
New Prototype Intermediate for 7-8	North	Seil Road	10	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				2300	7300	5646	1654

Description	Location (N or S of 180)	Site	Size of Site (acres)	No. of Students Added	District Capacity in 2021-22	Projected need	Excess/Defi cite
Option 8A - Add ES, Add MJHS, New Proto 5-6, Add ES							
6 Classroom Addition to Jones ES	North	Jones ES	15	150			
10 Classroom Additions at MJHS	Center	MJHS	25	250			
New Prototype Intermediate for 5-6	North	Seil Road	20	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				1550	6550	5646	904
Option 8B - New ES, Add MJHS, New Prot 5-6, Add ES							
New Elementary School	North	Seil Road	15	750			
10 Classroom Additions at MJHS	Central	MJHS	25	250			
New Prototype Intermediate for 5-6	North	Seil Road	20	1000			
6 Classroom Additon to Aux Sable	South	Aux Sable	11	150			
				2150	7150	5646	1504
Option 9A - Convert, Convert, Convert, New 6-8							
Convert to K-3 all Elementary Schools	Dist Wide	Aux, JES, MES,	NA	3000			
Convert MIS to 4-5 grade center	Central	MIS	NA	1000			
Convert MJHS to 6-8	Central	MJHS	NA	1000			
New 6-8 Junior High School	North	Seil Road	25	1000			
				6000	11000	5646	5354
Option 9B - Convert, Convert, Convert, New 4-5, New 6-8							
Convert to K-3 all Elementary Schools	Dist Wide	Aux, JES, MES,	NA	3000			
Convert MIS to 4-5 grade center	Central	MIS	NA	1000			
Convert MJHS to 6-8	Central	MJHS	NA	1000			
New 4-5 grade center (based on Prototype E:	TBD	TBD		750			
New 6-8 Junior High School	North	Seil Road	25	1000			
				6750	11750	5646	6104

Description	Location (N or S of I80)	Site	Size of Site (acres)	No. of Students Added	District Capacity in 2021-22	Projected need	Excess/Defi cite
Option 10 - Add ES, New Proto 5-8, Redistrict							
10 Classroom Addition to Jones ES	North	Jones ES	15	250			
New Prototype Intermediate	North	Seil Road	30	1000			
Redistrict Aux Sable to MES	South	Aux, MES,	NA	0			
				1250	6250	5646	604

**Minooka CCSD 201 Facilities Advisory Committee
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Appendix H – STR August 17, 2017 Summary of remaining options

When the Committee reconvened in August 2017, the remaining four options had been converted into both a financial analysis as well as a detailed timeline of the projects. The updated enrollments also caused a slight delay in reaching a consensus as the elementary projections had significantly changed.

The documents contained in this Appendix show the timelines for completing the various options presented to the Committee. From the information shown herein, the only option for creating adequate space for our Intermediate and Junior High grade levels by the 2019-20 school year was to replicate our Minooka Intermediate School prototype on the 40 acres owned by the District on Seil Rd in Shorewood. The design process for any other new facility would extend past the point in which construction would need to begin.

The remaining debate for the upper grade levels dealt with what grade levels and which geographic areas would attend these schools, and no consensus could be reached. There are logistical issues with simply dividing the District in half along a north/south boundary or having two elementary schools feed directly into the new facility. Identifying grade level configuration or attendance boundaries were not in the charge of this Committee, and while these issues were discussed at great length it was agreed that more time was needed to answer these questions.

The lower elementary enrollment data provided the Committee with an option not previously factored in: time. Based on the lowered projections, the Committee did not see the need to immediately break ground on elementary classroom space. Instead, they favored the Board designing a new elementary school when the numbers warrant action. If elementary growth occurs at a slower pace, additions to Aux Sable Elementary and Jones Elementary would be a lower cost option that would provide additional capacity of 150 students at each site.

The final recommendation was able to reach consensus from the Committee:

The Facilities Advisory Committee of Minooka CCSD 201 recommends that the Board of Education propose a referendum question to the voters of the District to build a new Minooka Intermediate School to house some configuration of grades 5-8, a new elementary school and additions to existing elementary buildings. The Board should pose this question on the March 20, 2018 General Primary election date.

The elementary classrooms and any bonds issued to fund such space should only be started if and when the student enrollments and projections show the need.

SUMMARY OF PLANNING OPTIONS FOR GROWTH
Minooka Community Consolidated School District 201

Appendix H-1 - August 2017 remaning options

Description	Location (N or S of 180)	Site	Size of Site (acres)	No. of Students Added	Estimated Cost	Comments	Current Capacity	Projected Capacity (Add + Cur)	Projected need	Excess/Defi cite
Option A New 5-8, New ES, Add ES										
New 5-8 Intermediate/Junior High School	North	Seil Road	40	1000	\$ 45,000,000	per Gilbane estimate 7/28/18				
New Elementary School	North	Sable Ridge	11	750	\$ 33,000,000	per Gilbane estimate 7/28/17				
6 Classroom Additon	South	Aux Sable	TBD	150	\$ 6,000,000	TBD				
				1900	\$ 84,000,000		5000	6900	5646	1254
Option B - New Proto 5-6, New Proto 7-8, New ES, Add ES										
New Prototype Intermediate for 5-6	North	Seil Road	30	1000	\$ 45,000,000	per Gilbane estimate 7/28/17				
New Prototype Intermediate for 7-8	North	Seil Road	10	1000	\$ 45,000,000	per Gilbane estimate 7/28/18				
New Elementary School	North	Sable Ridge	11	750	\$ 33,000,000	per Gilbane estimate 7/28/19				
6 Classroom Additon	South	Aux Sable	11	150	\$ 6,000,000	TBD				
				2900	\$ 129,000,000		5000	7900	5646	2254
Option C - Add ES, New Prot 5-6, New Prot 7-8, Add ES										
New 5-8 Intermediate/Junior High School	North	Seil Road	30	1000	\$ 45,000,000	per Gilbane estimate 7/28/17				
New Elementary School	North	Sable Ridge	15	150	\$ 33,000,000	per Gilbane estimate 7/28/18				
6 Classroom Additon	North	Jones ES	10	1000	\$ 6,000,000	TBD				
6 Classroom Additon	South	Aux Sable	11	150	\$ 6,000,000	TBD				
				2300	\$ 90,000,000		5000	7300	5646	1654
Option 9B - Convert, Convert, Convert, New 4-5, New 6-8										
Convert to K-3 all Elementary Schools	Dist Wide	Aux, JES, MES, WT	NA	3000	\$ 500,000	Note, 2021-22 proejected K-3 enrollment is 640 + 629 + 646 + 637 = 2,552 students				
Convert MIS to 4-5 grade center	Central	MIS	NA	1000	\$ 500,000	Note, 2021-22 proejected 4-5 enrollment is 638 + 622 = 1,260 students				
Convert MJHS to 6-8	Central	MJHS	NA	1000	\$ 500,000	Note, 2021-22 proejected 6-8 enrollment is 633 +629+591+600 = 1,820 students				
New 4-5 grade center (based on Prototype ES)	TBD	TBD		750	\$ 33,000,000	per Gilbane estimate 7/28/18				
New prototype 6-8 Junior High School	North	Seil Road	25	1000	\$ 45,000,000	per Gilbane estimate 7/28/18				
				1750	\$ 79,500,000		5000	6750	5646	1104

**Minooka CCSD 201 Facilities Advisory Committee
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Appendix I – Summary of financing options

The financial impact and structure of any debt necessary to complete school construction was not part of the charge of the Committee. However, the members of the Committee were very cognizant of the cost of the various options and requested information on how the various options could be financed.

The following slides were presented as information only and are not a part of the Recommendation of the Committee. The information was prepared by PMA Securities, whom Minooka CCSD 201 has used as Financial Advisor on our previous bond issues. The options include a range of debt scenarios that change the focus on overall debt burden, immediate tax impact, annual payments vs annual tax rate, etc.



Appendix I - Financing Options for Referendum Bonds



Minooka CCSD Number 201

TAMMIE BECKWITH SCHALLMO
SENIOR VICE PRESIDENT, MANAGING DIRECTOR
PMA SECURITIES, INC.

March 2018 Referendum Scenarios

September 11, 2017

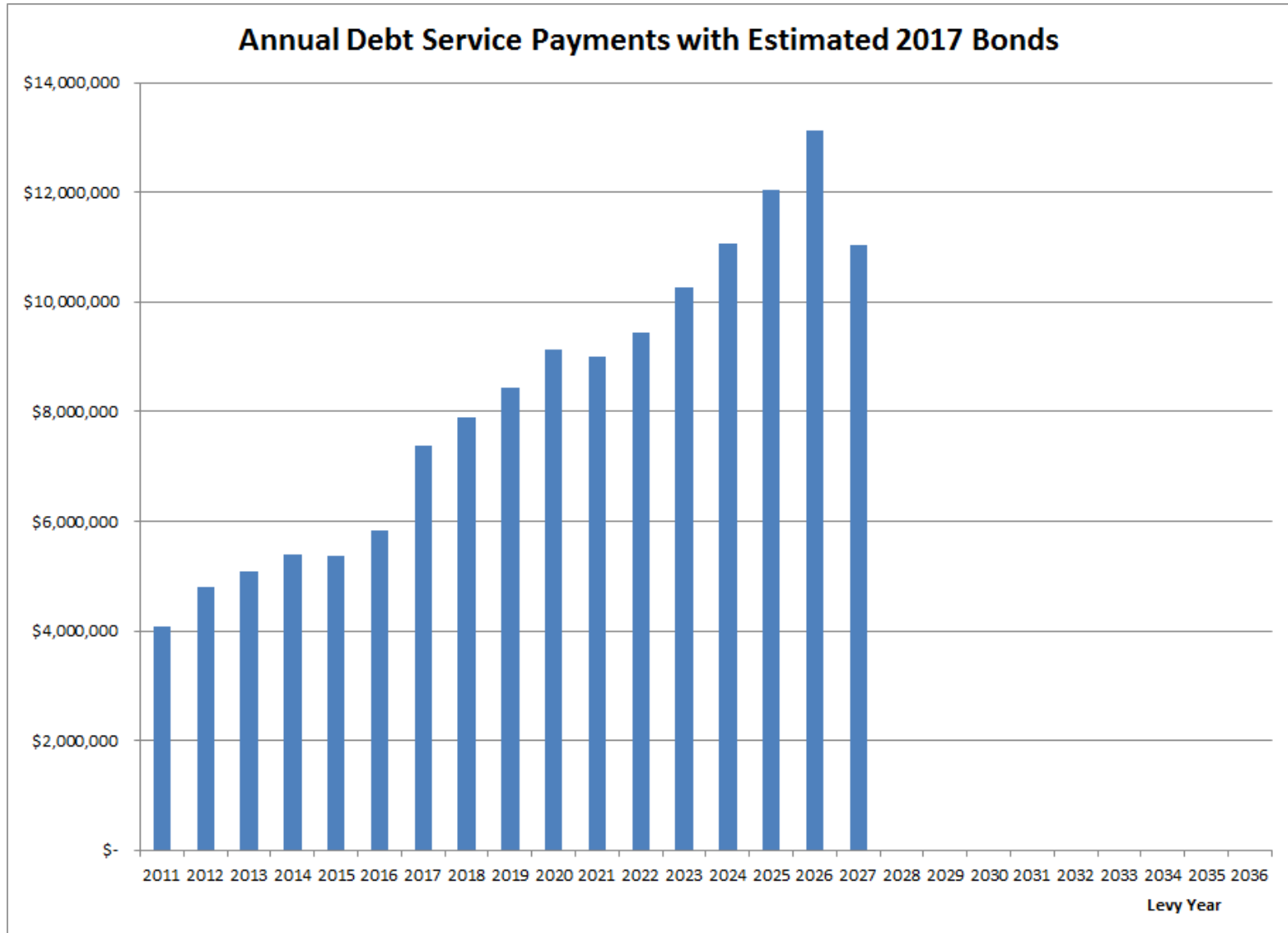
- **Current Interest Bond (CIB):**
 - A bond that pays periodic interest payments. These bonds typically pay interest semi-annually until maturity.
- **Zero-Coupon or Capital Appreciation Bond (CAB):**
 - A bond that does not have periodic interest payments. The investor receives one payment at maturity equal to the principal invested plus interest compounded semiannually at the original yield to maturity.
 - The interest cost for CABs is higher for two reasons: (1) the payment of interest is deferred and (ii) the yield demanded by investors is higher than it is for a current interest bond
 - The CAB premium can range from a low of 0.50% to 1.50% depending upon market conditions, credit quality and call feature (traditionally, CABs are sold without a call feature)
- **Capitalized Interest**
 - Bond proceeds set aside to pay future interest payments
 - Generally, the Federal tax code permits a maximum of three years

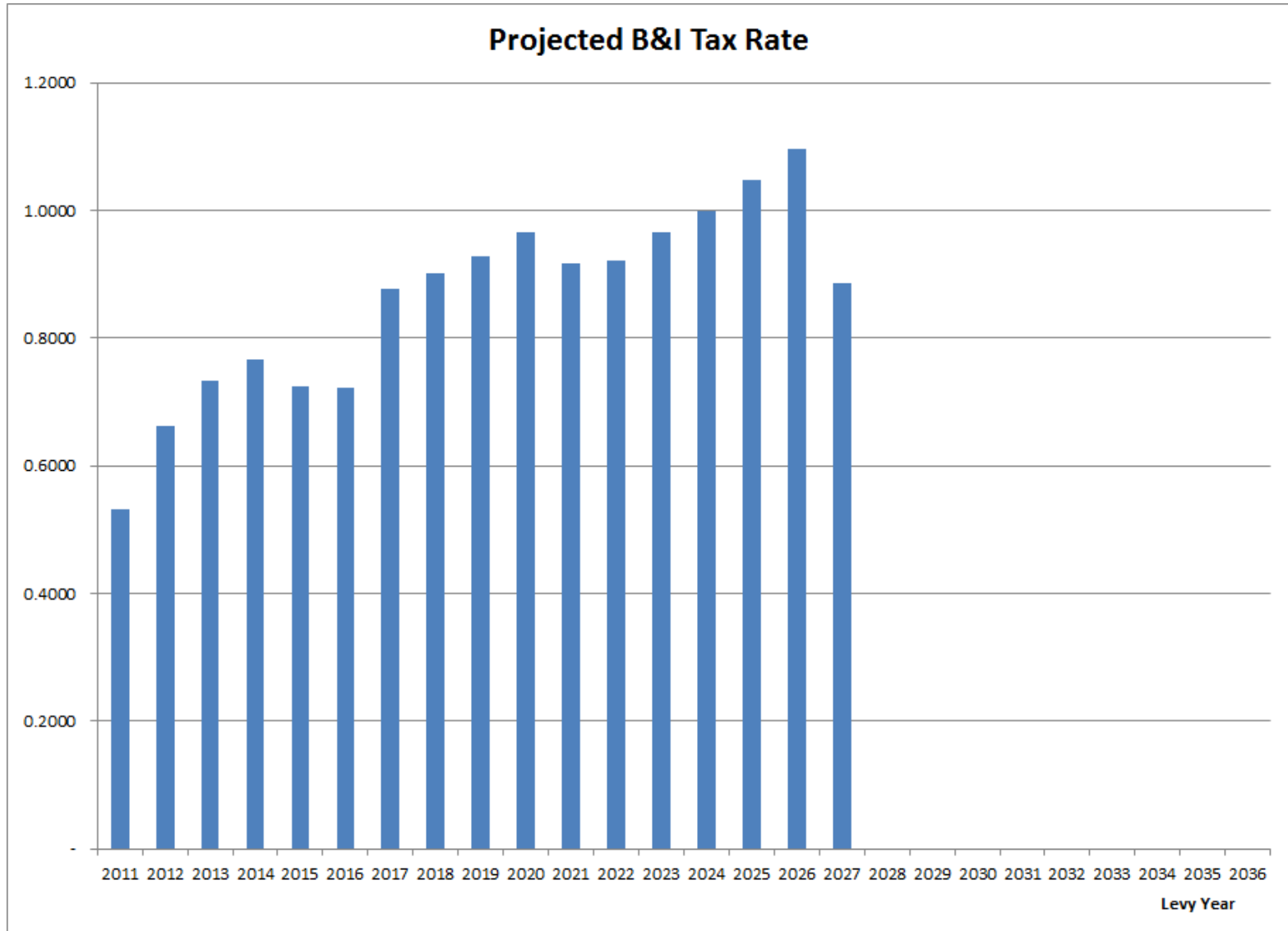
General Obligation Bonds Debt Service

Lvy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Series 2012	General Obligation School Refunding Series 2013	General Obligation School Refunding Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Supplemental Levy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year
2011	2013	\$ 518,209	\$ 1,070,744	\$ 2,206,650		\$ 292,748					\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.5319	
2012	2014	214,534	941,313	2,206,650		535,900	473,638			434,152	162	4,806,348	725,084,600	-5.71%	-0.6629	
2013	2015	213,971	1,271,913	2,206,650		534,700	421,325			434,152		5,082,711	693,125,434	-4.41%	-0.7333	
2014	2016		1,661,513	2,206,650		533,100	422,375	146,313		434,152	(5,000)	5,399,102	705,345,722	1.76%	-0.7655	
2015	2017		2,071,831	2,206,650		531,100	423,325	146,013				5,378,919	743,515,355	5.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	7,368,670	840,477,184	4.00%	0.8767	0.16
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	-	-	7,883,476	874,096,271	4.00%	0.9019	0.03
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	-	-	8,439,594	909,060,122	4.00%	0.9284	0.03
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	-	-	9,121,262	945,422,527	4.00%	0.9648	0.04
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	-	-	9,010,048	983,239,428	4.00%	0.9164	(0.05)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	-	-	9,431,400	1,022,569,005	4.00%	0.9223	0.01
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	-	-	10,267,894	1,063,471,765	4.00%	0.9655	0.04
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	-	-	11,059,319	1,106,010,636	4.00%	0.9999	0.03
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	-	-	12,045,450	1,150,251,061	4.00%	1.0472	0.05
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	-	13,116,575	1,196,261,103	4.00%	1.0965	0.05
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	-	11,034,375	1,244,111,548	4.00%	0.8869	(0.21)
2028	2030	-	-	-	-	-	-	-	-	-	-	-	1,293,876,009	4.00%	-	(0.89)
2029	2031	-	-	-	-	-	-	-	-	-	-	-	1,345,631,050	4.00%	-	0.00
2030	2032	-	-	-	-	-	-	-	-	-	-	-	1,399,456,292	4.00%	-	0.00
2031	2033	-	-	-	-	-	-	-	-	-	-	-	1,455,434,543	4.00%	-	0.00
2032	2034	-	-	-	-	-	-	-	-	-	-	-	1,513,651,925	4.00%	-	0.00
2033	2035	-	-	-	-	-	-	-	-	-	-	-	1,574,198,002	4.00%	-	0.00
2034	2036	-	-	-	-	-	-	-	-	-	-	-	1,637,165,922	4.00%	-	0.00
2035	2037	-	-	-	-	-	-	-	-	-	-	-	1,702,652,559	4.00%	-	0.00
2036	2038	-	-	-	-	-	-	-	-	-	-	-	1,770,758,662	4.00%	-	0.00
Total DS From																
Current FY:																
		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ -	\$ -	\$ 114,607,150				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.





OPTION 1A

LEVEL OVERALL DEBT SERVICE – CURRENT INTEREST BONDS

\$55M REFERENDUM WITH RESTRUCTURING IN 2018 AND 2019

General Obligation Bonds Debt Service

Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation Refunding Series 2012	General Obligation Refunding Series 2013	General Obligation Refunding Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed General Obligation Refunding Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Building Bonds, Series 2018 (2)	Proposed General Obligation Refunding Series 2019 [Est. Savings] (2)	Supplemental Levy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year
2011	2013	\$ 618,209	\$ 1,070,744	\$ 2,206,660	\$ -	\$ 292,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-	-0.5319
2012	2014	214,534	941,313	2,206,660	-	535,900	473,638	-	-	-	-	-	434,152	162	4,806,348	725,084,600	-5.71%	-	-0.6629
2013	2015	213,974	1,274,943	2,206,660	-	534,700	421,325	-	-	-	-	-	434,152	-	5,082,744	693,125,434	-4.41%	-	-0.7333
2014	2016	-	1,661,613	2,206,660	-	533,400	422,375	146,343	-	-	-	-	434,152	(5,000)	5,399,102	705,345,722	1.76%	-	-0.7655
2015	2017	-	2,071,834	2,206,660	-	531,400	423,325	146,043	-	-	-	-	-	-	5,378,949	743,645,365	5.41%	-	-0.7234
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213	-
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	1,884,150	-	-	(1,884,150)	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(175,219)	2,559,600	-	-	-	10,267,857	890,986,630	5.00%	1.1524	0.28
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(6)	2,559,600	(729,825)	-	-	10,269,363	935,535,961	5.00%	1.0977	(0.05)
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(206,888)	2,559,600	(729,825)	-	-	10,744,150	982,312,759	5.00%	1.0938	(0.00)
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	309,575	2,559,600	(1,611,275)	-	-	10,267,948	1,031,428,397	5.00%	0.9955	(0.10)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	-	2,559,600	(1,722,175)	-	-	10,268,825	1,082,999,817	5.00%	0.9482	(0.05)
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	-	2,559,600	(2,561,719)	-	-	10,265,775	1,137,149,808	5.00%	0.9028	(0.05)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	-	2,559,600	(3,349,294)	-	-	10,269,625	1,194,007,298	5.00%	0.8601	(0.04)
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	-	2,559,600	(4,335,250)	-	-	10,269,800	1,253,707,663	5.00%	0.8192	(0.04)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	2,559,600	(5,407,688)	-	-	10,268,488	1,316,393,046	5.00%	0.7800	(0.04)
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	2,559,600	(3,328,225)	-	-	10,265,750	1,382,212,699	5.00%	0.7427	(0.04)
2028	2030	-	-	-	-	-	-	-	-	-	2,559,600	7,709,700	-	-	10,269,300	1,451,323,334	5.00%	0.7076	(0.04)
2029	2031	-	-	-	-	-	-	-	-	-	2,559,600	7,708,000	-	-	10,267,600	1,523,889,500	5.00%	0.6738	(0.03)
2030	2032	-	-	-	-	-	-	-	-	-	3,848,300	6,420,900	-	-	10,269,200	1,600,083,975	5.00%	0.6418	(0.03)
2031	2033	-	-	-	-	-	-	-	-	-	10,268,600	-	-	-	10,268,600	1,680,088,174	5.00%	0.6112	(0.03)
2032	2034	-	-	-	-	-	-	-	-	-	10,269,238	-	-	-	10,269,238	1,764,092,583	5.00%	0.5821	(0.03)
2033	2035	-	-	-	-	-	-	-	-	-	10,268,763	-	-	-	10,268,763	1,852,297,212	5.00%	0.5544	(0.03)
2034	2036	-	-	-	-	-	-	-	-	-	10,267,625	-	-	-	10,267,625	1,944,912,072	5.00%	0.5279	(0.03)
2035	2037	-	-	-	-	-	-	-	-	-	10,267,750	-	-	-	10,267,750	2,042,157,676	5.00%	0.5028	(0.03)
2036	2038	-	-	-	-	-	-	-	-	-	10,239,750	-	-	-	10,239,750	2,144,265,560	5.00%	0.4775	(0.03)
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (72,538)	\$ 98,029,375	\$ (1,936,675)	\$ -	\$ (1,884,150)	\$ 208,743,163				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

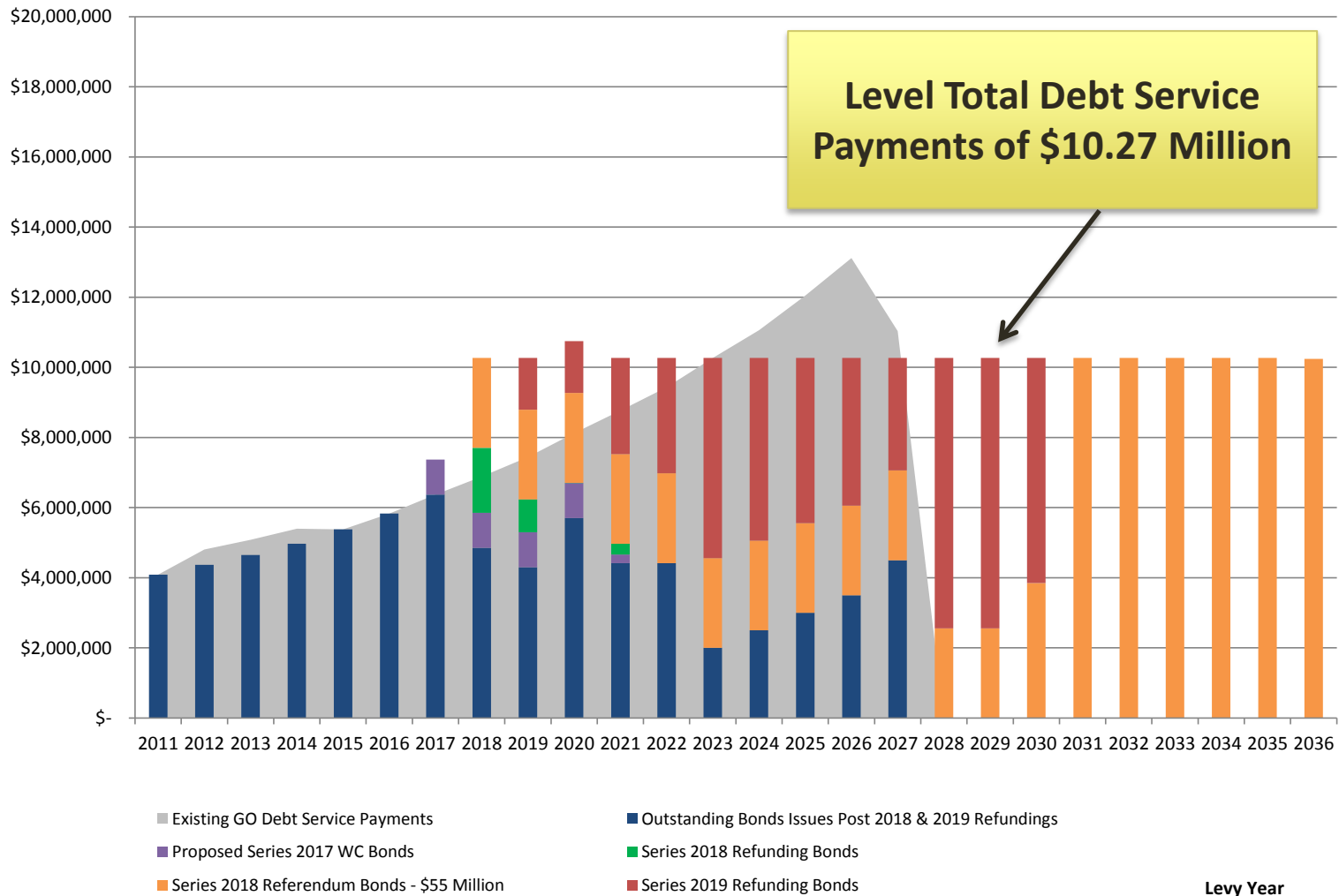
(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

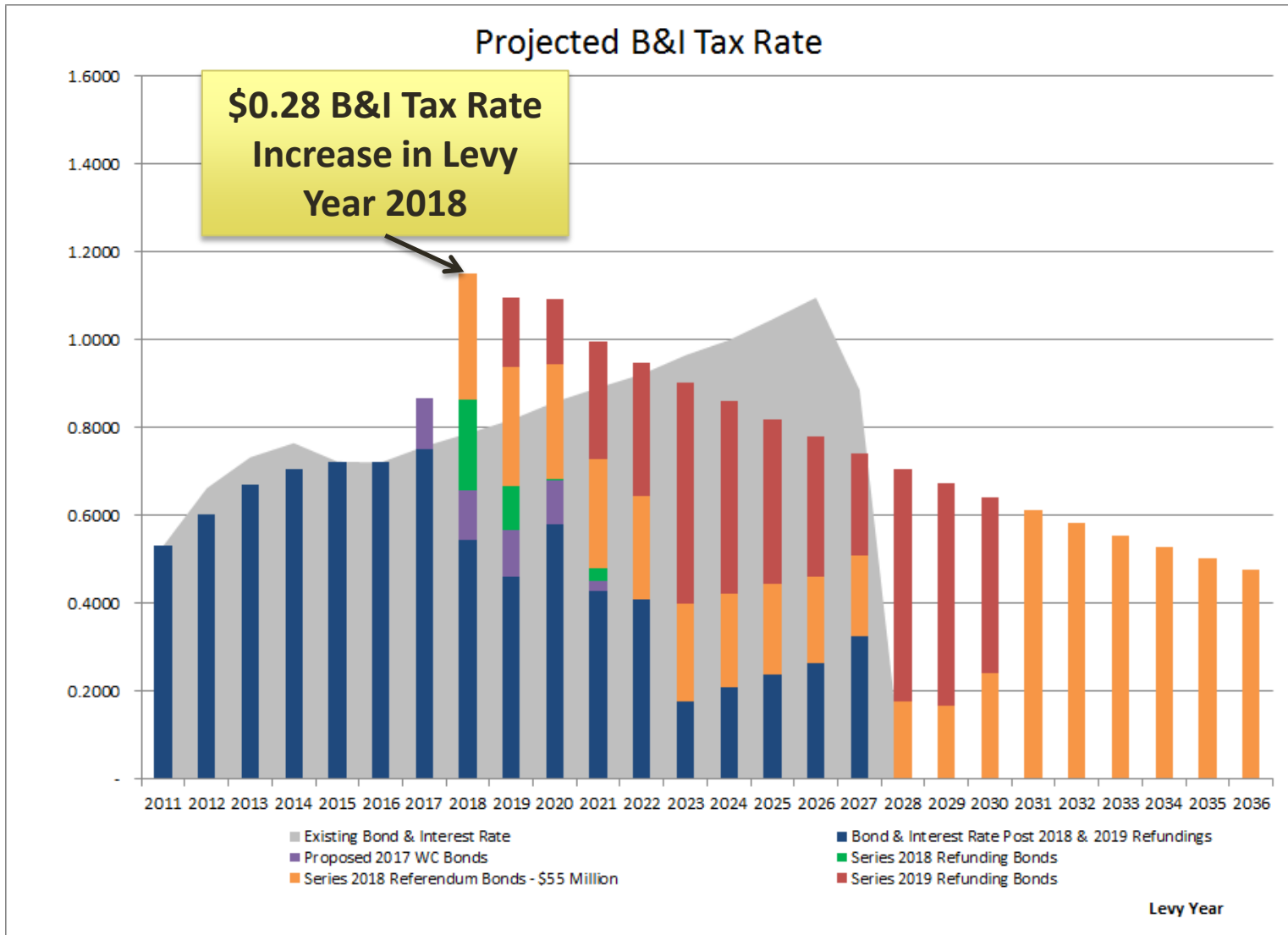
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	72,538	1,936,675
Present Value (PV) Savings	84,629	4,110,284
Estimated PV Savings as % of Refunded Bonds	2.80%	9.71%

Annual Debt Service Payments





OPTION 1B

LEVEL OVERALL DEBT SERVICE – CURRENT INTEREST BONDS

\$88M REFERENDUM WITH RESTRUCTURING IN 2018 AND 2019

General Obligation Bonds Debt Service

Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Bonds, Series 2012	General Obligation School Refunding Bonds, Series 2013	General Obligation School Refunding Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed General Refunding School Bonds, Series 2018 [Est. Savings]	Proposed General Refunding School Bonds, Series 2019 [Est. Savings]	Supplemental Lew	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in Rate over Prior Year
2011	2013	\$ 518,209	\$ 1,070,744	\$ 2,206,650	\$ 292,748	\$ 535,900	\$ 473,638	\$ 146,343	\$ 997,101	\$ 2,930,182	\$ -	\$ -	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.5319	
2012	2014	214,534	944,313	2,206,650	535,900	473,638	146,343	997,101	998,207	3,980,625	1,396,119	434,152	162	4,806,348	725,084,600	-5.71%	-0.6629	
2013	2015	213,974	1,271,913	2,206,650	534,790	421,325	146,343	998,988	998,988	3,980,625	1,318,450	434,152	(5,000)	6,082,711	693,126,434	-4.41%	-0.7333	
2014	2016	-	1,661,513	2,206,650	533,100	422,375	146,043	997,562	997,562	3,980,625	(138,800)	434,152	(5,000)	6,399,102	706,345,722	1.76%	-0.7655	
2015	2017	-	2,071,834	2,206,650	531,100	423,325	146,043	997,562	997,562	3,980,625	(138,800)	434,152	(5,000)	6,378,949	743,515,355	5.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	509,100	424,175	254,613	997,101	997,101	2,930,182	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	208,200	419,975	2,011,931	997,101	997,101	2,930,182	-	-	(2,930,182)	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	208,200	420,725	2,016,100	998,207	998,207	3,980,625	-	-	-	12,856,557	890,986,630	5.00%	1.4430	0.57
2019	2021	-	932,806	2,206,650	208,200	3,189,600	903,350	998,988	998,988	(887,131)	3,980,625	1,318,450	-	12,851,538	935,535,961	5.00%	1.3737	(0.07)
2020	2022	-	216,038	2,206,650	208,200	5,492,813	-	997,562	997,562	(216,038)	3,980,625	(33,125)	-	12,852,725	982,312,759	5.00%	1.3084	(0.07)
2021	2023	-	-	4,348,900	2,000,000	2,419,000	-	243,048	243,048	3,980,625	(138,800)	-	-	12,851,873	1,031,428,397	5.00%	1.2460	(0.06)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	3,980,625	(557,250)	-	-	12,854,775	1,082,999,817	5.00%	1.1870	(0.06)
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	3,980,625	(1,396,119)	-	-	12,852,400	1,137,149,808	5.00%	1.1302	(0.06)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	3,980,625	(2,184,369)	-	-	12,855,575	1,194,007,298	5.00%	1.0767	(0.05)
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	3,980,625	(3,172,350)	-	-	12,853,725	1,253,707,663	5.00%	1.0253	(0.05)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	3,980,625	(4,242,425)	-	-	12,854,775	1,316,393,046	5.00%	0.9765	(0.05)
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	3,980,625	(2,161,588)	-	-	12,853,413	1,382,212,699	5.00%	0.9299	(0.05)
2028	2030	-	-	-	-	-	-	-	-	6,298,325	6,553,500	-	-	12,851,825	1,451,323,334	5.00%	0.8855	(0.04)
2029	2031	-	-	-	-	-	-	-	-	12,853,025	-	-	-	12,853,025	1,523,889,500	5.00%	0.8434	(0.04)
2030	2032	-	-	-	-	-	-	-	-	12,854,525	-	-	-	12,854,525	1,600,083,975	5.00%	0.8034	(0.04)
2031	2033	-	-	-	-	-	-	-	-	12,855,725	-	-	-	12,855,725	1,680,088,174	5.00%	0.7652	(0.04)
2032	2034	-	-	-	-	-	-	-	-	12,854,663	-	-	-	12,854,663	1,764,092,583	5.00%	0.7287	(0.04)
2033	2035	-	-	-	-	-	-	-	-	12,853,450	-	-	-	12,853,450	1,852,297,212	5.00%	0.6939	(0.03)
2034	2036	-	-	-	-	-	-	-	-	12,851,375	-	-	-	12,851,375	1,944,912,072	5.00%	0.6608	(0.03)
2035	2037	-	-	-	-	-	-	-	-	12,854,500	-	-	-	12,854,500	2,042,157,676	5.00%	0.6295	(0.03)
2036	2038	-	-	-	-	-	-	-	-	12,838,125	-	-	-	12,838,125	2,144,265,560	5.00%	0.5987	(0.03)
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (110,713)	\$ 151,850,145	\$ (6,014,075)	\$ -	\$ (2,930,182)	\$ 257,402,325			

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

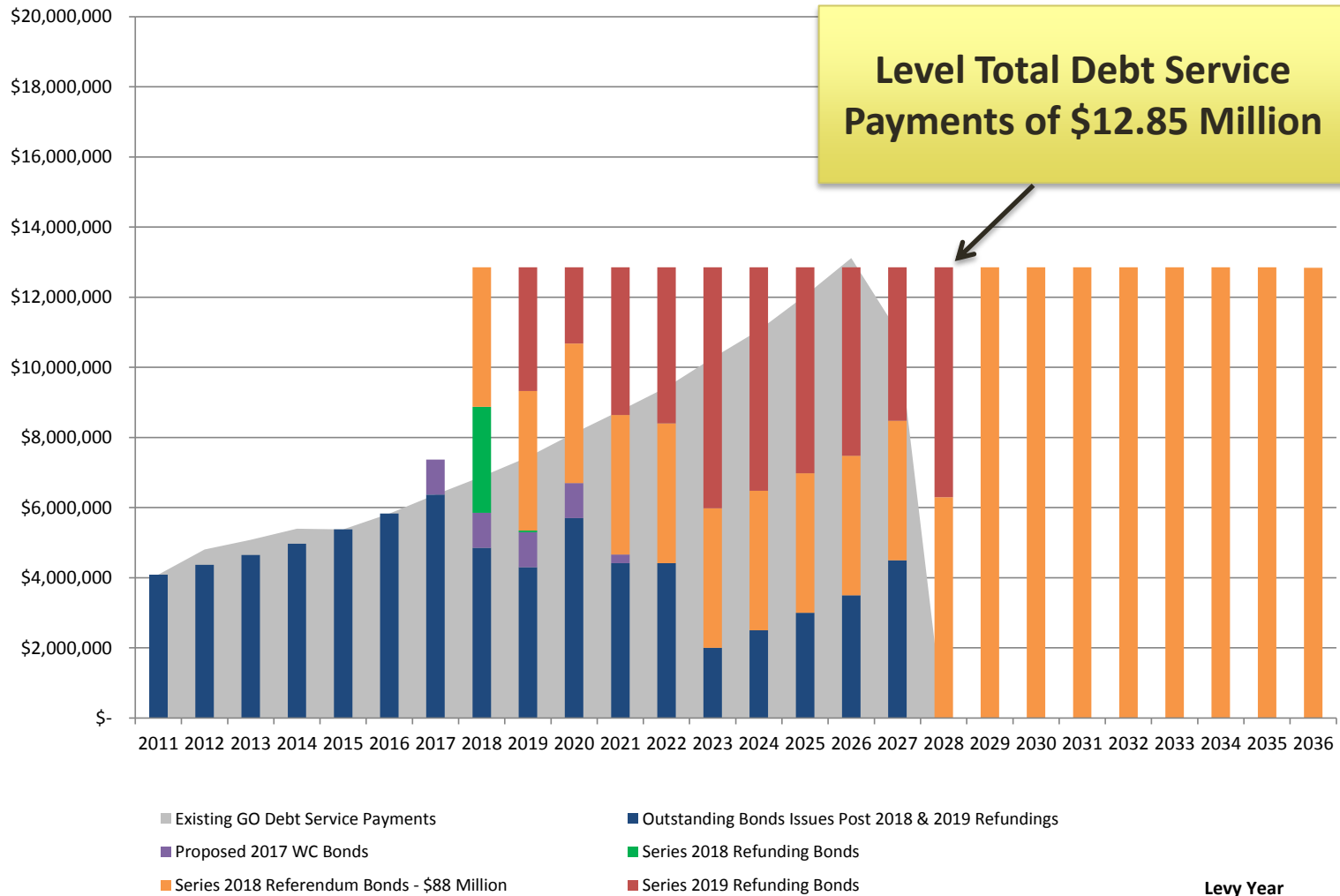
(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

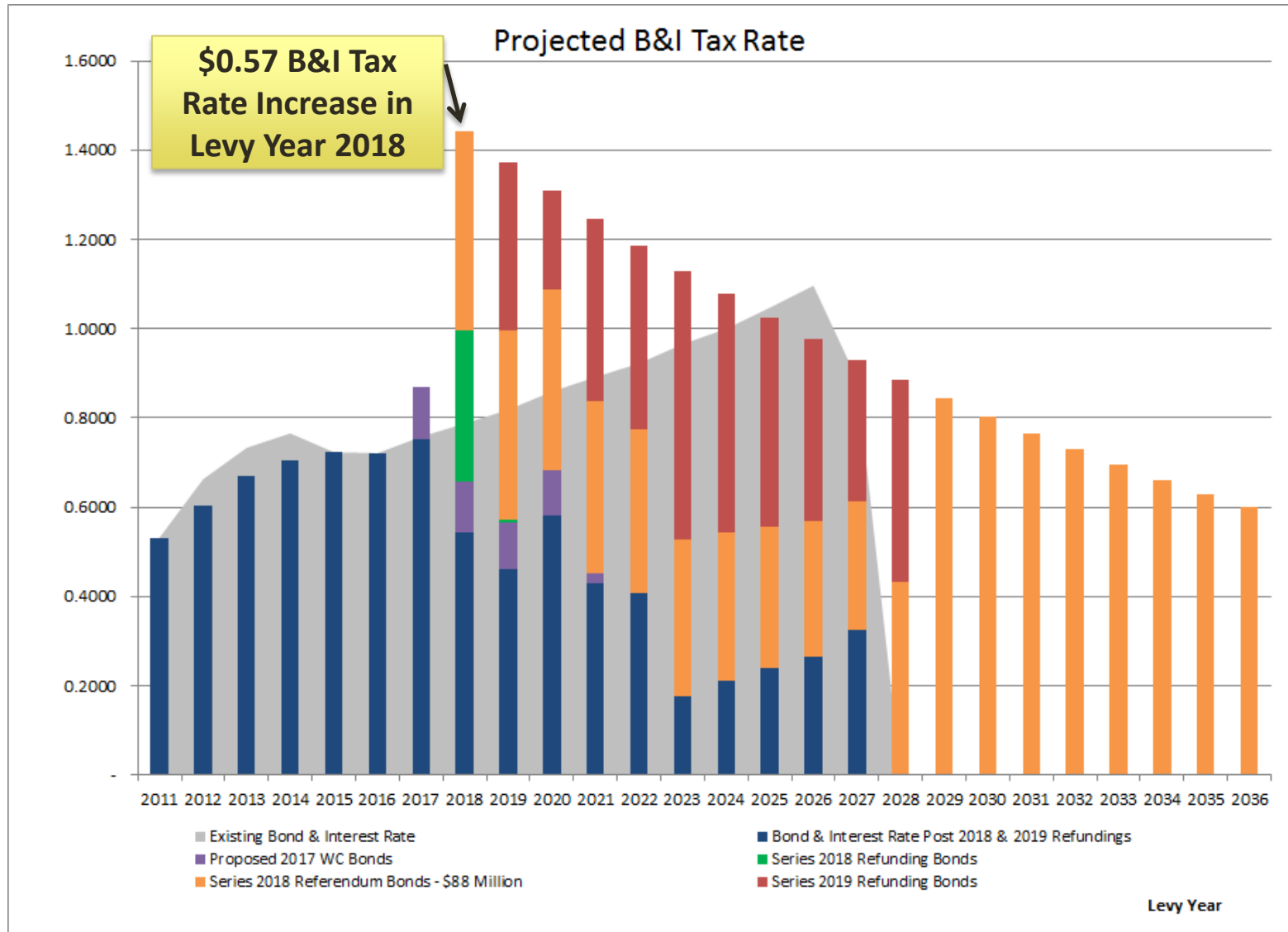
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	110,712	6,014,075
Present Value (PV) Savings	62,332	4,996,035
Estimated PV Savings as % of Refunded Bonds	2.06%	11.80%

Annual Debt Service Payments





OPTION 2A LEVEL BOND & INTEREST RATE – CURRENT INTEREST BONDS \$55M REFERENDUM WITH RESTRUCTURING IN 2018 AND 2019

General Obligation Bonds Debt Service

										Proposed Taxable General Obligation Refunding School Bonds, Series 2017 (1)	Proposed Taxable General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (3)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Bonds, Series 2019 [Est. Savings] (2)	Other, Difference Due to Refundings or Capitalized Interest			Projected Change in B&I Tax Rate over Prior Year		
Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Bonds, Series 2012	General Obligation School Refunding Bonds, Series 2013	General Obligation School Refunding Bonds, Series 2014	Proposed Taxable General Obligation Refunding School Bonds, Series 2017 (1)	Proposed Taxable General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (3)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Bonds, Series 2019 [Est. Savings] (2)	Supplemental Levy	Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year
2011	2013	\$ 518,209	\$ 1,070,744	\$ 2,206,650	\$ -	\$ 292,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.5319	
2012	2014	214,534	941,313	2,206,650	-	535,900	473,638	-	-	-	-	-	434,162	162	4,806,348	725,084,600	-6.71%	-0.6629	
2013	2015	213,971	1,271,913	2,206,650	-	534,700	421,326	-	-	-	-	-	434,162	-	6,082,714	893,126,434	-4.41%	-0.7333	
2014	2016	-	1,661,513	2,206,650	-	533,100	422,375	146,313	-	-	-	-	434,162	(5,000)	5,399,102	705,345,722	1.76%	-0.7655	
2015	2017	-	2,071,831	2,206,650	-	531,100	423,325	146,013	-	-	-	-	-	-	5,378,919	743,515,355	5.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	1,922,943	-	(1,922,943)	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(1,397,319)	(1,915,994)	2,612,300	-	-	7,182,463	890,986,630	5.00%	0.8061	(0.06)
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(2,212,336)	(815,206)	2,612,300	(543,900)	-	7,480,452	935,535,961	5.00%	0.7996	(0.01)
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(3,177,603)	(98,438)	2,612,300	(543,900)	-	7,913,622	982,312,759	5.00%	0.8056	0.01
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	(748,853)	117,600	2,612,300	(2,886,150)	-	8,304,945	1,031,428,397	5.00%	0.8052	(0.00)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	(133,853)	117,600	2,612,300	(3,349,650)	-	8,677,797	1,082,999,817	5.00%	0.8013	(0.00)
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	2,702,831	117,600	2,612,300	(6,605,144)	-	9,095,481	1,137,149,808	5.00%	0.7998	(0.00)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	2,658,440	117,600	2,612,300	(6,896,569)	-	9,551,090	1,194,007,298	5.00%	0.7999	0.00
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	2,632,465	117,600	2,612,300	(7,382,700)	-	10,025,115	1,253,707,663	5.00%	0.7996	(0.00)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	2,153,783	117,600	2,612,300	(7,472,400)	-	10,527,858	1,316,393,046	5.00%	0.7998	0.00
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	2,298,100	2,612,300	(4,888,775)	-	11,056,000	1,382,212,699	5.00%	0.7999	0.00
2028	2030	-	-	-	-	-	-	-	-	-	729,300	2,612,300	8,265,500	-	11,607,100	1,451,323,334	5.00%	0.7998	(0.00)
2029	2031	-	-	-	-	-	-	-	-	-	-	2,612,300	9,578,000	-	12,190,300	1,523,889,500	5.00%	0.7999	0.00
2030	2032	-	-	-	-	-	-	-	-	-	-	2,612,300	10,184,000	-	12,796,300	1,600,083,975	5.00%	0.7997	(0.00)
2031	2033	-	-	-	-	-	-	-	-	-	-	2,612,300	10,825,100	-	13,437,400	1,680,088,174	5.00%	0.7998	0.00
2032	2034	-	-	-	-	-	-	-	-	-	-	7,665,975	6,446,400	-	14,112,375	1,764,092,583	5.00%	0.8000	0.00
2033	2035	-	-	-	-	-	-	-	-	-	-	14,813,450	-	-	14,813,450	1,852,297,212	5.00%	0.7997	(0.00)
2034	2036	-	-	-	-	-	-	-	-	-	-	15,554,750	-	-	15,554,750	1,944,912,072	5.00%	0.7998	0.00
2035	2037	-	-	-	-	-	-	-	-	-	-	16,336,625	-	-	16,336,625	2,042,157,676	5.00%	0.8000	0.00
2036	2038	-	-	-	-	-	-	-	-	-	-	6,580,500	-	-	6,580,500	2,144,265,560	5.00%	0.3069	(0.49)
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ 2,477,555	\$ 903,363	\$ 99,446,443	\$ 4,929,813	\$ -	\$ (1,922,943)	\$ 220,441,380			

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

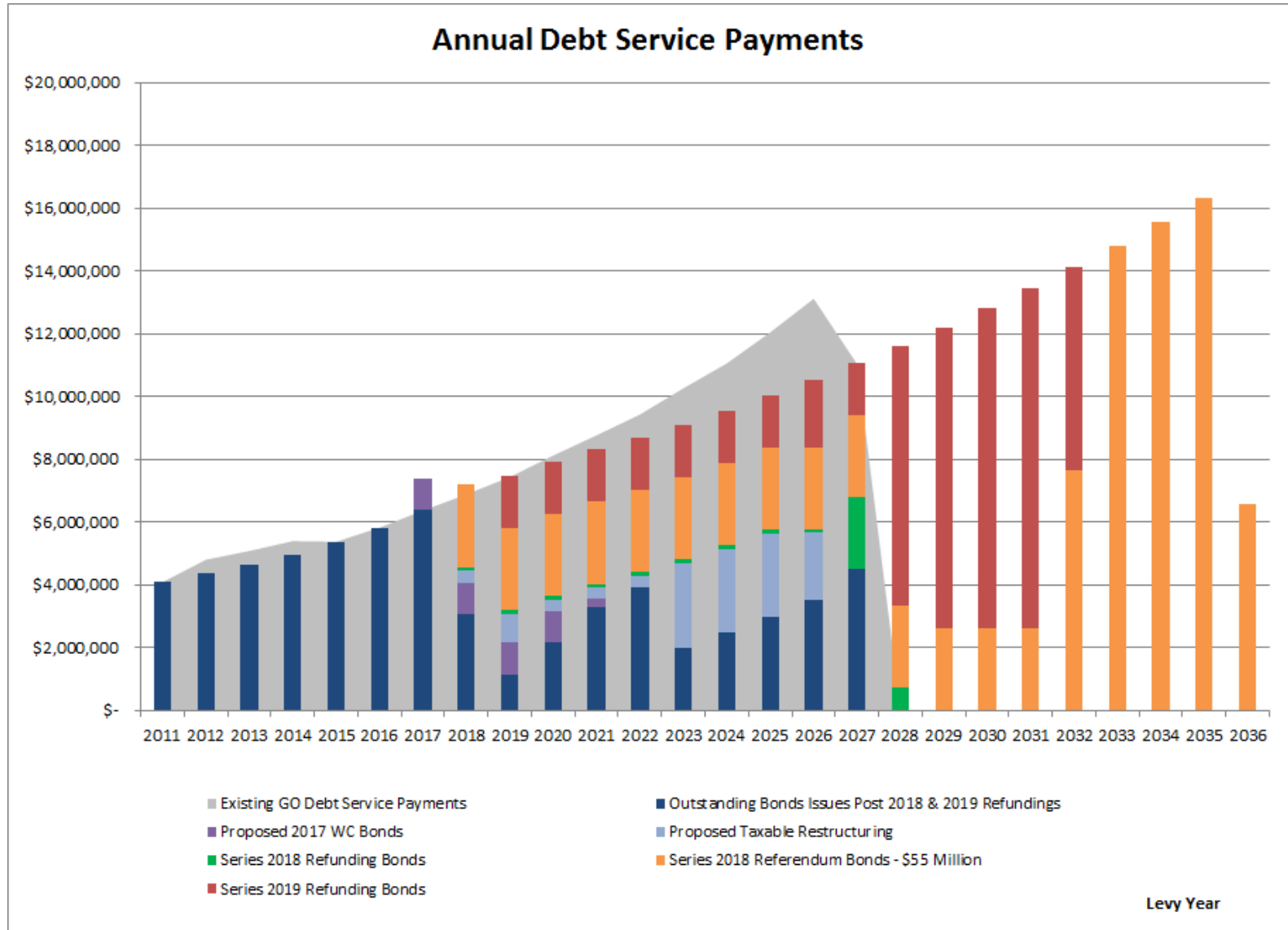
(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

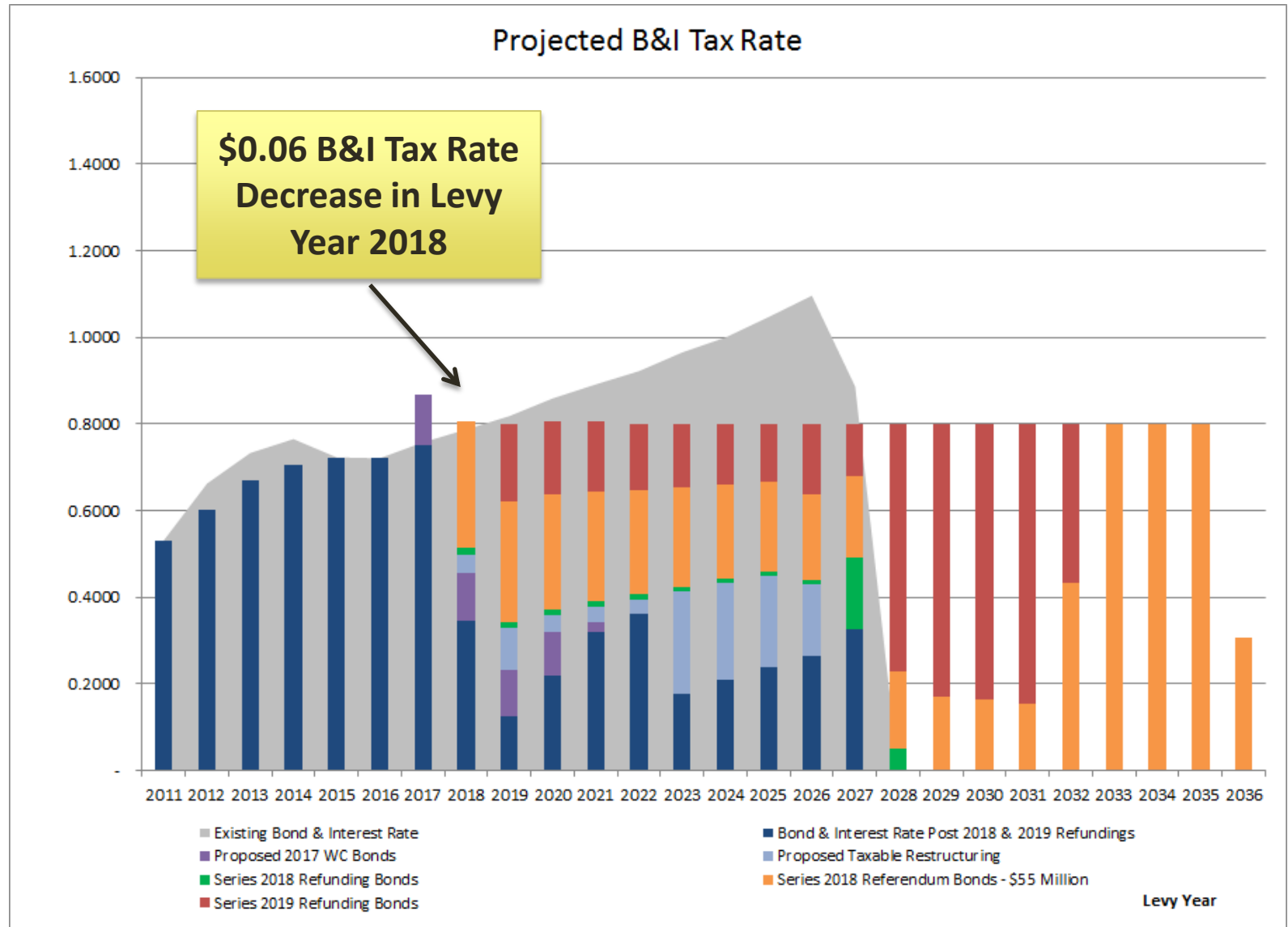
(3) Rates based upon U.S. Treasury yields for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%

NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds) Taxable Series 2018 (Refunds 2010B & 2013 Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000	\$9,416,846
Total Savings (Additional Cost)	(903,362)	(4,929,813)	(2,555,395)
Present Value (PV) Savings	62,163	3,061,282	(567,498)
Estimated PV Savings as % of Refunded Bonds	2.06%	7.23%	-6.03%





OPTION 2B

LEVEL BOND & INTEREST RATE – CURRENT INTEREST BONDS

\$88M REFERENDUM WITH RESTRUCTURING IN 2018 AND 2019

General Obligation Bonds Debt Service																				
Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Bonds, Series 2010A	General Obligation School Bonds, Series 2010B	General Obligation Refunding School Bonds, Series 2012	General Obligation Refunding School Bonds, Series 2013	General Obligation Refunding School Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed Taxable General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (3)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Bonds, Series 2019 [Est. Savings] (2)	Other, Difference Due to Refundings or Capitalized Interest	Supplemental Levy	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in Rate over Prior Year	
2011	2013	\$ 618,209	\$ 1,070,744	\$ 2,206,650	\$ 292,748	\$ 473,638	\$ 421,325	\$ 446,343	\$ 997,101	\$ -	\$ -	\$ -	\$ 2,142	\$ -	\$ 4,000,493	\$ 769,008,079	-8.76%	-0.5319		
2012	2014	214,534	941,313	2,206,650	535,900	473,638	421,325	446,343	998,207	(1,436,195)	(1,918,744)	4,176,650	162	434,152	4,806,348	725,084,600	-5.71%	-0.6629		
2013	2015	213,971	1,271,913	2,206,650	534,700	421,325	421,325	446,343	998,988	(2,061,601)	(817,956)	4,176,650	(569,650)	434,152	5,082,711	693,125,434	-4.41%	-0.7333		
2014	2016	-	1,661,513	2,206,650	533,100	422,375	446,343	446,013	997,562	(3,093,820)	(101,188)	4,176,650	(569,650)	434,152	(5,000)	5,399,102	705,345,722	1.76%	-0.7655	
2015	2017	-	2,071,831	2,206,650	531,100	423,326	446,013	446,013	243,048	(587,300)	114,850	4,176,650	(2,711,900)	-	5,378,919	743,616,365	6.41%	-0.7234		
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213		
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	3,074,478	-	-	(3,074,478)	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(1,436,195)	(1,918,744)	4,176,650	-	-	8,705,188	890,986,630	5.00%	0.9770	0.11	
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(2,061,601)	(817,956)	4,176,650	(569,650)	-	9,167,037	935,535,961	5.00%	0.9799	0.00	
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(3,093,820)	(101,188)	4,176,650	(569,650)	-	9,533,255	982,312,759	5.00%	0.9705	(0.01)	
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	(587,300)	114,850	4,176,650	(2,711,900)	-	10,002,348	1,031,428,397	5.00%	0.9698	(0.00)	
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	322,032	114,850	4,176,650	(3,375,400)	-	10,669,532	1,082,999,817	5.00%	0.9852	0.02	
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	3,100,526	114,850	4,176,650	(6,630,894)	-	11,029,026	1,137,149,808	5.00%	0.9699	(0.02)	
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	3,152,210	114,850	4,176,650	(6,922,319)	-	11,580,710	1,194,007,298	5.00%	0.9699	0.00	
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	2,687,700	655,225	4,176,650	(7,408,450)	-	12,156,575	1,253,707,663	5.00%	0.9696	(0.00)	
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	95,600	4,176,650	(4,624,338)	-	12,764,488	1,316,393,046	5.00%	0.9697	0.00	
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	2,437,800	4,176,650	(4,245,638)	-	13,403,188	1,382,212,699	5.00%	0.9697	0.00	
2028	2030	-	-	-	-	-	-	-	-	-	-	4,176,650	9,898,400	-	14,075,050	1,451,323,334	5.00%	0.9698	0.00	
2029	2031	-	-	-	-	-	-	-	-	-	-	4,176,650	10,603,800	-	14,780,450	1,523,889,500	5.00%	0.9699	0.00	
2030	2032	-	-	-	-	-	-	-	-	-	-	4,176,650	11,339,900	-	15,516,550	1,600,083,975	5.00%	0.9697	(0.00)	
2031	2033	-	-	-	-	-	-	-	-	-	-	7,905,550	8,389,500	-	16,295,050	1,680,088,174	5.00%	0.9699	0.00	
2032	2034	-	-	-	-	-	-	-	-	-	-	17,108,288	-	-	17,108,288	1,764,092,583	5.00%	0.9698	(0.00)	
2033	2035	-	-	-	-	-	-	-	-	-	-	17,962,438	-	-	17,962,438	1,852,297,212	5.00%	0.9697	(0.00)	
2034	2036	-	-	-	-	-	-	-	-	-	-	18,864,625	-	-	18,864,625	1,944,912,072	5.00%	0.9699	0.00	
2035	2037	-	-	-	-	-	-	-	-	-	-	19,808,000	-	-	19,808,000	2,042,157,676	5.00%	0.9700	0.00	
2036	2038	-	-	-	-	-	-	-	-	-	-	20,694,750	-	-	20,694,750	2,144,265,560	5.00%	0.9651	(0.00)	
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ 2,083,553	\$ 810,138	\$ 159,714,578	\$ 3,173,363	\$ -	\$ (3,074,478)	\$ 277,314,303				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

(3) Rates based upon U.S. Treasury yields for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Par Amount of Refunded Bonds

\$3,020,000

\$42,335,000

\$8,024,483

Total Savings (Additional Cost)

(810,137)

(3,173,362)

(2,138,026)

Present Value (PV) Savings

69,564

3,292,187

(490,432)

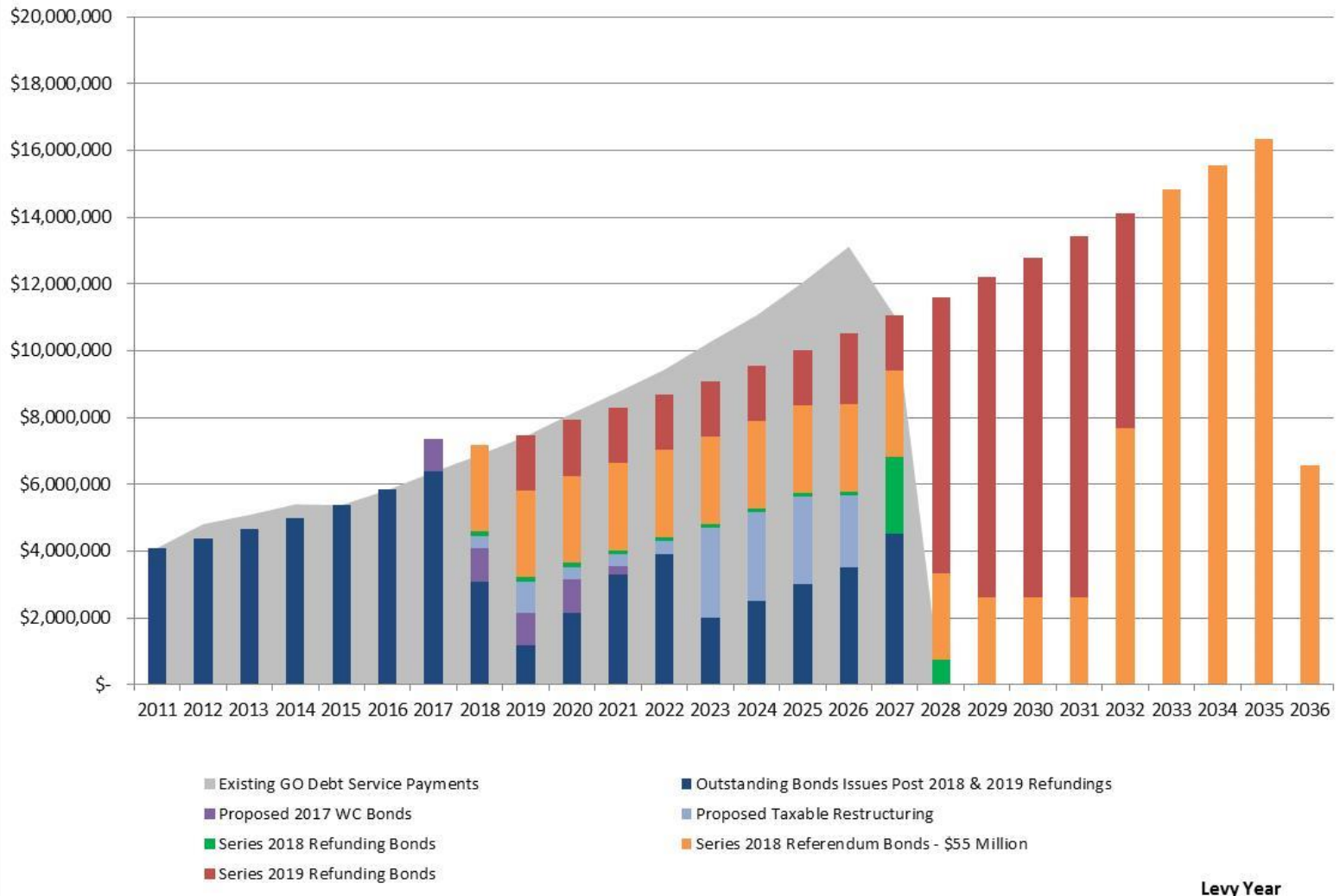
Estimated PV Savings as % of Refunded Bonds

2.30%

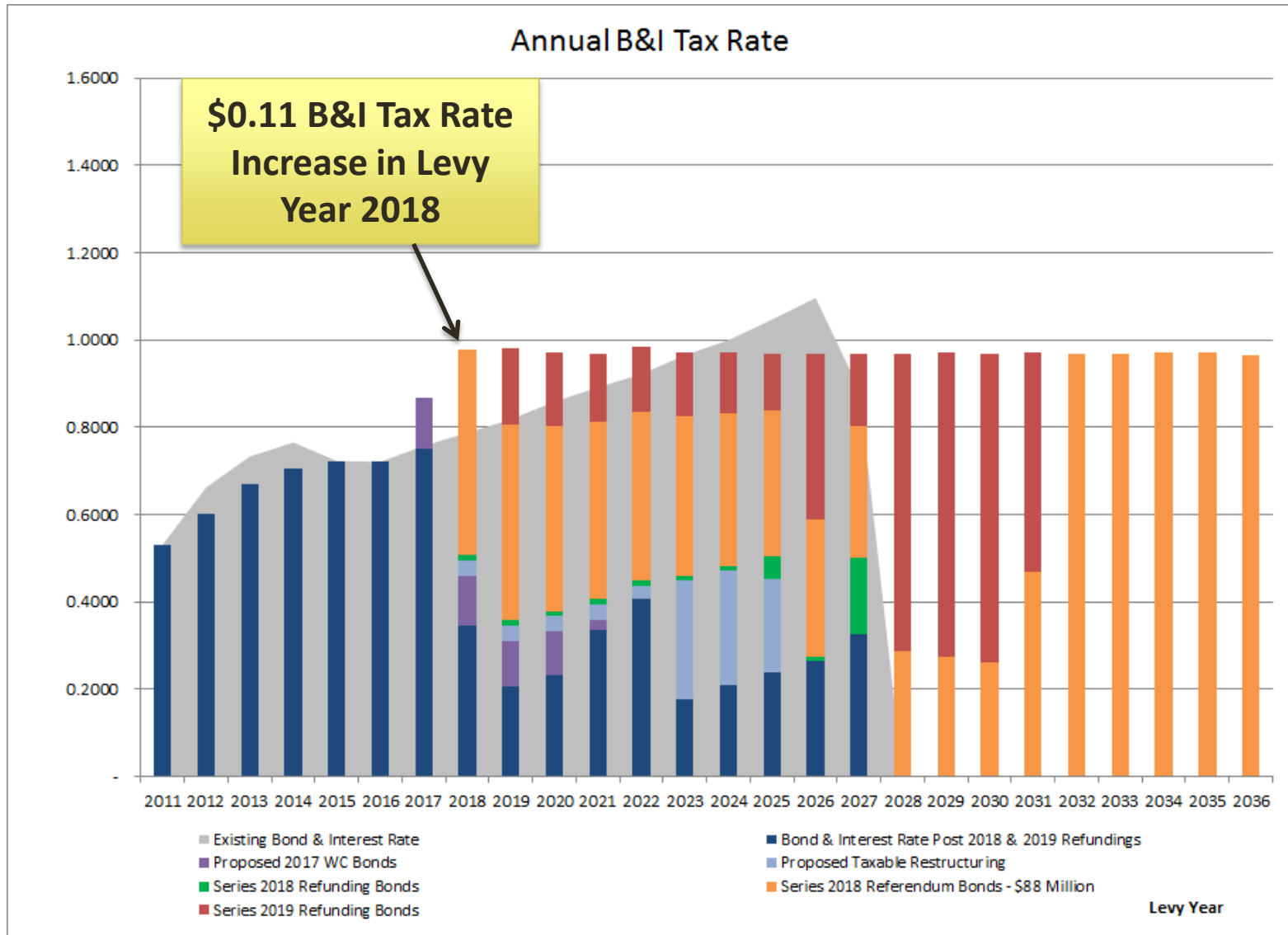
7.78%

-6.11%

Annual Debt Service Payments



Levy Year





OPTION 3A LEVEL OVERALL DEBT SERVICE – CAPITAL APPRECIATION BONDS \$55M REFERENDUM WITH REFUNDING IN 2018 AND 2019 FOR SAVINGS ONLY

General Obligation Bonds Debt Service

Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Bonds, Series 2012	General Obligation School Refunding Bonds, Series 2013	General Obligation School Refunding Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Building Capital Appreciation Bonds, Series 2019 [Est. Savings] (2)	Supplemental Lewy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year
2011	2013	\$ 518,209	\$ 4,070,744	\$ 2,206,650	\$ -	\$ 292,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,142	\$ 4,000,493	\$ 769,008,079	-8.76%	-0.5319	
2012	2014	214,534	941,313	2,206,650	-	535,909	473,638	-	-	-	-	434,152	162	4,806,348	725,084,600	-5.71%	-0.6629	
2013	2015	243,974	1,274,943	2,206,650	-	534,700	421,325	-	-	-	-	434,152	-	5,082,744	693,425,434	-4.41%	-0.7333	
2014	2016	-	1,661,543	2,206,650	-	533,100	422,375	146,343	-	-	-	434,152	(5,000)	5,399,102	705,345,722	1.76%	-0.7655	
2015	2017	-	2,071,831	2,206,650	-	531,100	423,325	146,043	-	-	-	-	-	5,378,949	743,645,365	6.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	-	-	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(27,319)	2,615,000	-	-	10,471,157	890,986,630	5.00%	1.1752	0.31
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(28,981)	2,265,000	(226,475)	-	10,449,138	935,535,961	5.00%	1.1169	(0.06)
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(28,263)	1,580,000	(227,175)	-	10,445,825	982,312,759	5.00%	1.0634	(0.05)
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	-	1,660,000	(223,425)	-	10,446,623	1,031,428,397	5.00%	1.0128	(0.05)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	-	1,240,000	(225,325)	-	10,446,075	1,082,999,817	5.00%	0.9646	(0.05)
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	-	405,000	(226,844)	-	10,446,050	1,137,149,808	5.00%	0.9186	(0.05)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	-	-	(607,394)	-	10,451,925	1,194,007,298	5.00%	0.8754	(0.04)
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	-	-	(1,595,175)	-	10,450,275	1,253,707,663	5.00%	0.8335	(0.04)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	-	(2,665,975)	-	10,450,600	1,316,393,046	5.00%	0.7939	(0.04)
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	-	(587,088)	-	10,447,288	1,382,212,699	5.00%	0.7558	(0.04)
2028	2030	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,451,323,334	5.00%	0.7200	(0.04)
2029	2031	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,523,889,500	5.00%	0.6857	(0.03)
2030	2032	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,600,083,975	5.00%	0.6531	(0.03)
2031	2033	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,680,088,174	5.00%	0.6220	(0.03)
2032	2034	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,764,092,583	5.00%	0.5924	(0.03)
2033	2035	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,852,297,212	5.00%	0.5642	(0.03)
2034	2036	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	1,944,912,072	5.00%	0.5373	(0.03)
2035	2037	-	-	-	-	-	-	-	-	-	10,450,000	-	-	10,450,000	2,042,157,676	5.00%	0.5117	(0.03)
2036	2038	-	-	-	-	-	-	-	-	-	10,225,000	-	-	10,225,000	2,144,265,560	5.00%	0.4769	(0.03)
Total DS From																		
Current FY:			\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (84,563)	\$ 103,590,000	\$ (6,584,875)	\$ -	\$ 211,527,713			

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

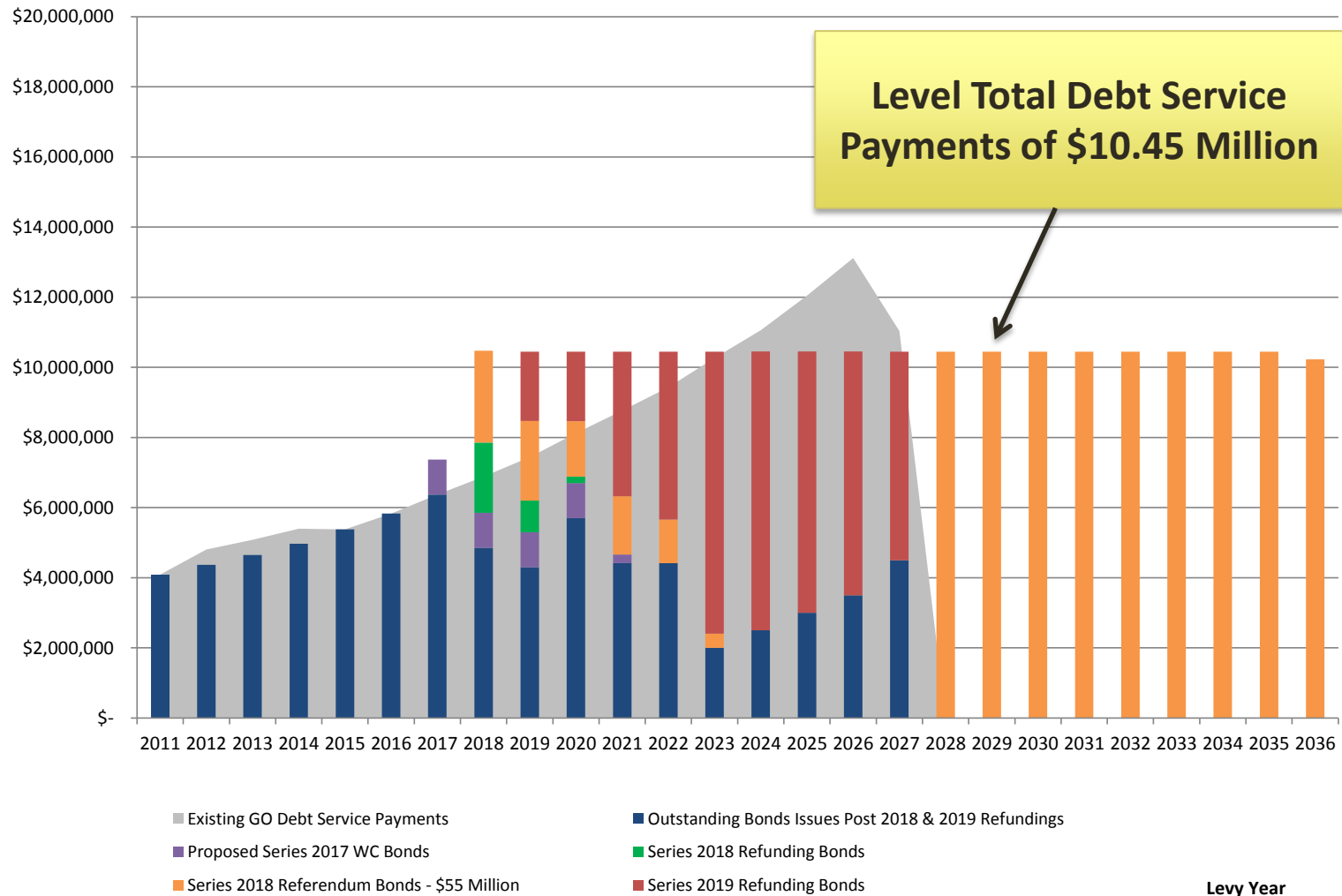
(3) Assumes additional 0.75% due to CAB premium.

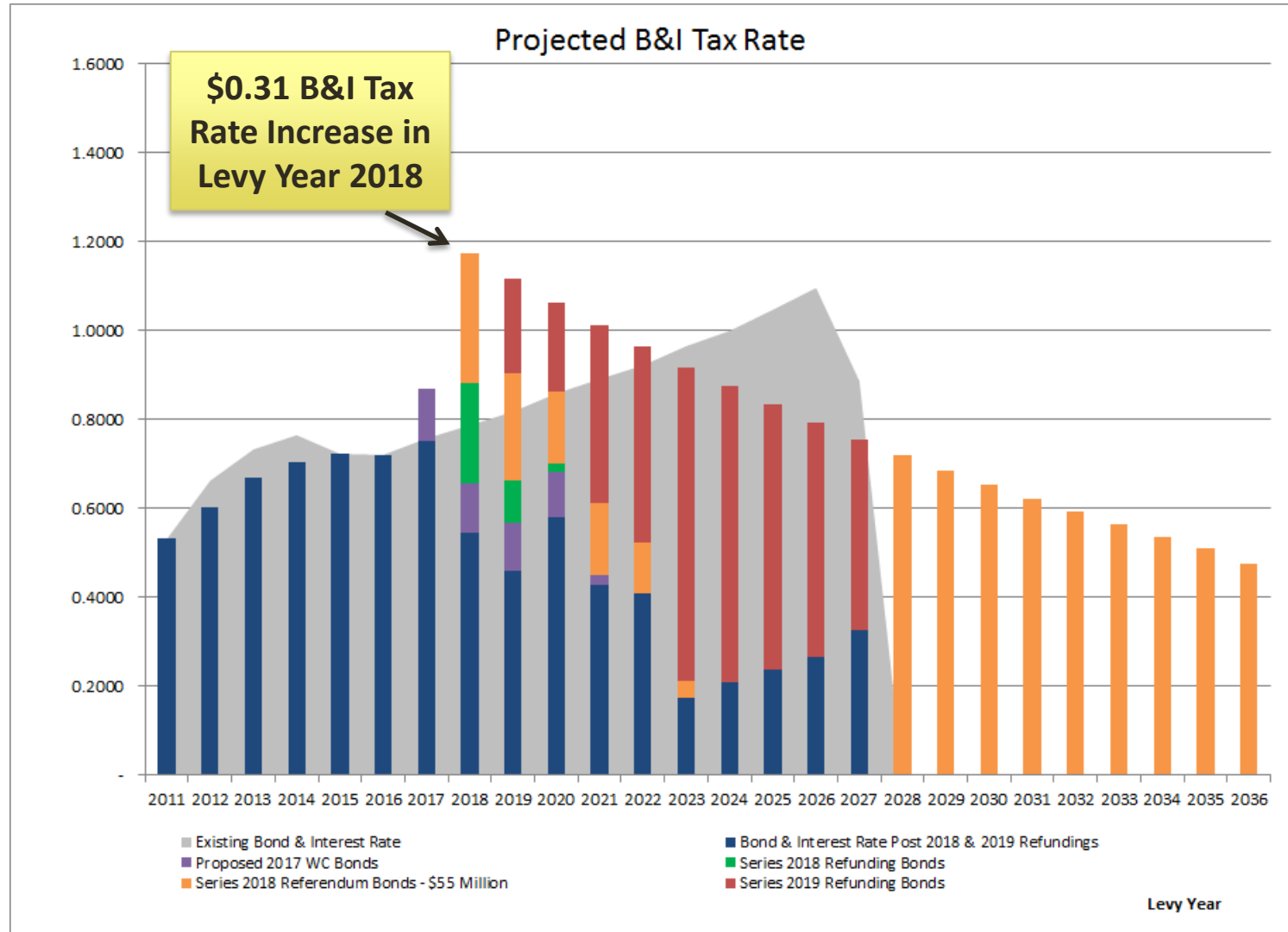
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	84,562	6,584,875
Present Value (PV) Savings	80,671	5,304,331
Estimated PV Savings as % of Refunded Bonds	2.67%	12.53%

Annual Debt Service Payments







OPTION 3B LEVEL OVERALL DEBT SERVICE – CAPITAL APPRECIATION BONDS \$88M REFERENDUM WITH REFUNDING IN 2018 AND 2018 FOR SAVINGS ONLY

General Obligation Bonds Debt Service

Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Bonds, Series 2012	General Obligation School Refunding Bonds, Series 2013	General Obligation School Refunding Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Building Capital Appreciation Bonds, Series 2018 (3)	Proposed General Obligation Refunding School Bonds, Series 2019 [Est. Savings] (2)	Supplemental Levy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year
2011	2013	\$ 548,209	\$ 1,070,744	\$ 2,206,660	\$ 292,748	\$ 292,748	\$ 292,748	\$ 292,748	\$ 292,748	\$ 292,748	\$ 292,748	\$ 292,748	\$ 292,748	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.5319	
2012	2014	214,534	941,343	2,206,660	535,900	473,638	535,900	473,638	535,900	473,638	535,900	473,638	434,152	162	4,806,348	725,084,600	-5.71%	-0.6629	
2013	2015	213,971	1,274,913	2,206,660	534,700	421,325	534,700	421,325	534,700	421,325	534,700	421,325	434,152		5,082,711	693,125,434	-4.41%	-0.7333	
2014	2016		1,661,513	2,206,660	533,100	422,375	533,100	422,375	533,100	422,375	533,100	422,375	434,152	(5,000)	5,399,102	705,345,722	-1.76%	-0.7655	
2015	2017		2,071,831	2,206,660	531,100	423,325	531,100	423,325	531,100	423,325	531,100	423,325			5,378,919	743,545,355	5.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	-	-	-	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(27,319)	5,210,000	-	-	-	13,066,157	890,986,630	5.00%	1.4665	0.60
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(28,981)	5,340,000	(685,075)	-	-	13,065,538	935,535,961	5.00%	1.3966	(0.07)
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(28,263)	4,660,000	(686,300)	-	-	13,066,700	982,312,759	5.00%	1.3302	(0.07)
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	-	4,740,000	(682,625)	-	-	13,067,423	1,031,428,397	5.00%	1.2669	(0.06)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	-	4,320,000	(684,150)	-	-	13,067,250	1,082,999,817	5.00%	1.2066	(0.06)
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	-	3,480,000	(684,844)	-	-	13,063,050	1,137,149,808	5.00%	1.1488	(0.06)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	-	2,690,000	(684,894)	-	-	13,064,425	1,194,007,298	5.00%	1.0942	(0.05)
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	-	1,705,000	(682,725)	-	-	13,067,725	1,253,707,663	5.00%	1.0423	(0.05)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	635,000	(685,175)	-	-	13,066,400	1,316,393,046	5.00%	0.9926	(0.05)
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	2,715,000	(683,750)	-	-	13,065,625	1,382,212,699	5.00%	0.9453	(0.05)
2028	2030	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,451,323,334	5.00%	0.9002	(0.05)
2029	2031	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,523,889,500	5.00%	0.8573	(0.04)
2030	2032	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,600,083,975	5.00%	0.8165	(0.04)
2031	2033	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,680,088,174	5.00%	0.7776	(0.04)
2032	2034	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,764,092,583	5.00%	0.7406	(0.04)
2033	2035	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,852,297,212	5.00%	0.7053	(0.04)
2034	2036	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	1,944,912,072	5.00%	0.6718	(0.03)
2035	2037	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	2,042,157,676	5.00%	0.6398	(0.03)
2036	2038	-	-	-	-	-	-	-	-	-	13,065,000	-	-	-	13,065,000	2,144,265,560	5.00%	0.6093	(0.03)
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (84,563)	\$ 153,080,000	\$ (6,159,538)	\$ -	\$ -	\$ 261,443,050				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

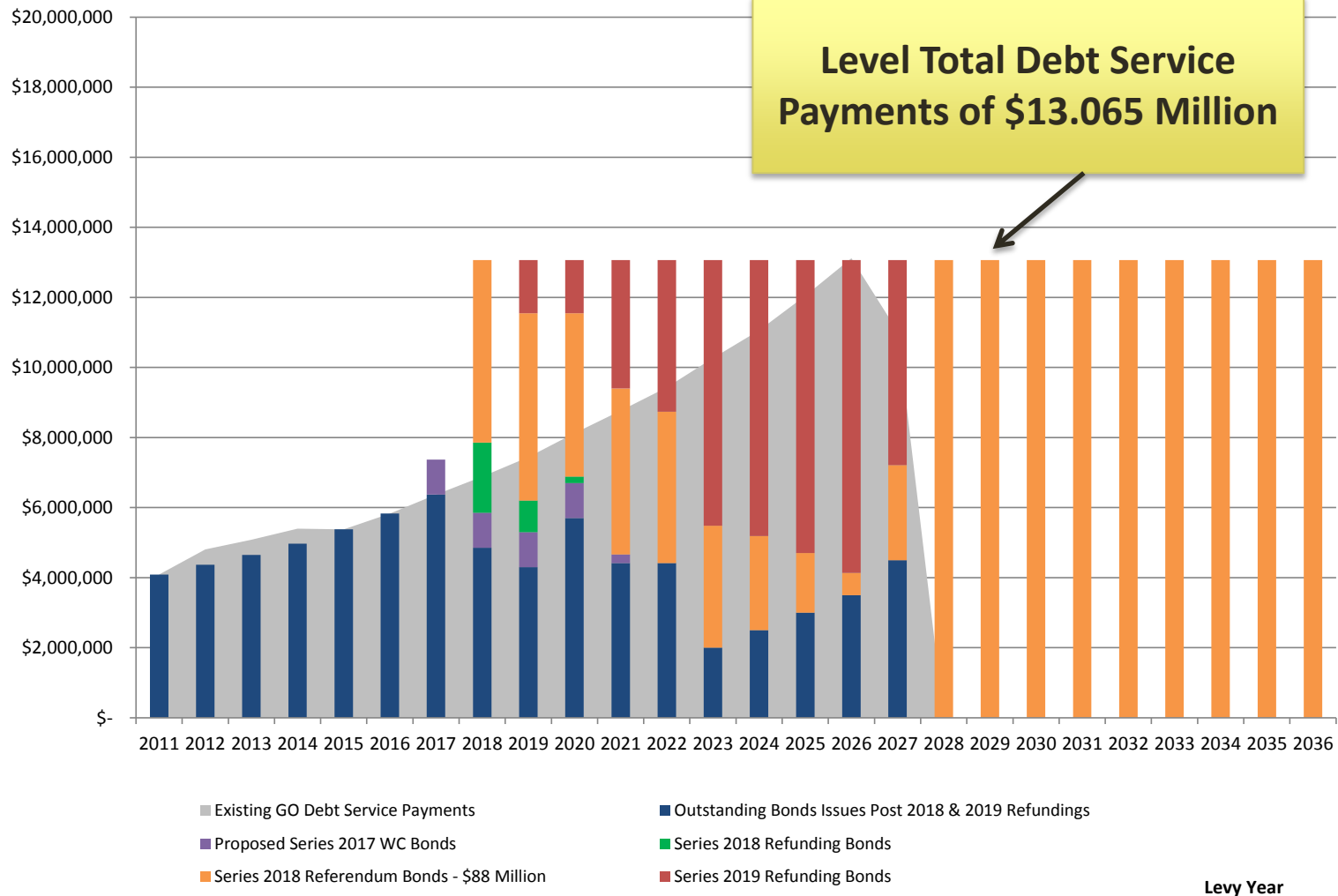
(3) Assumes additional 0.75% due to CAB premium.

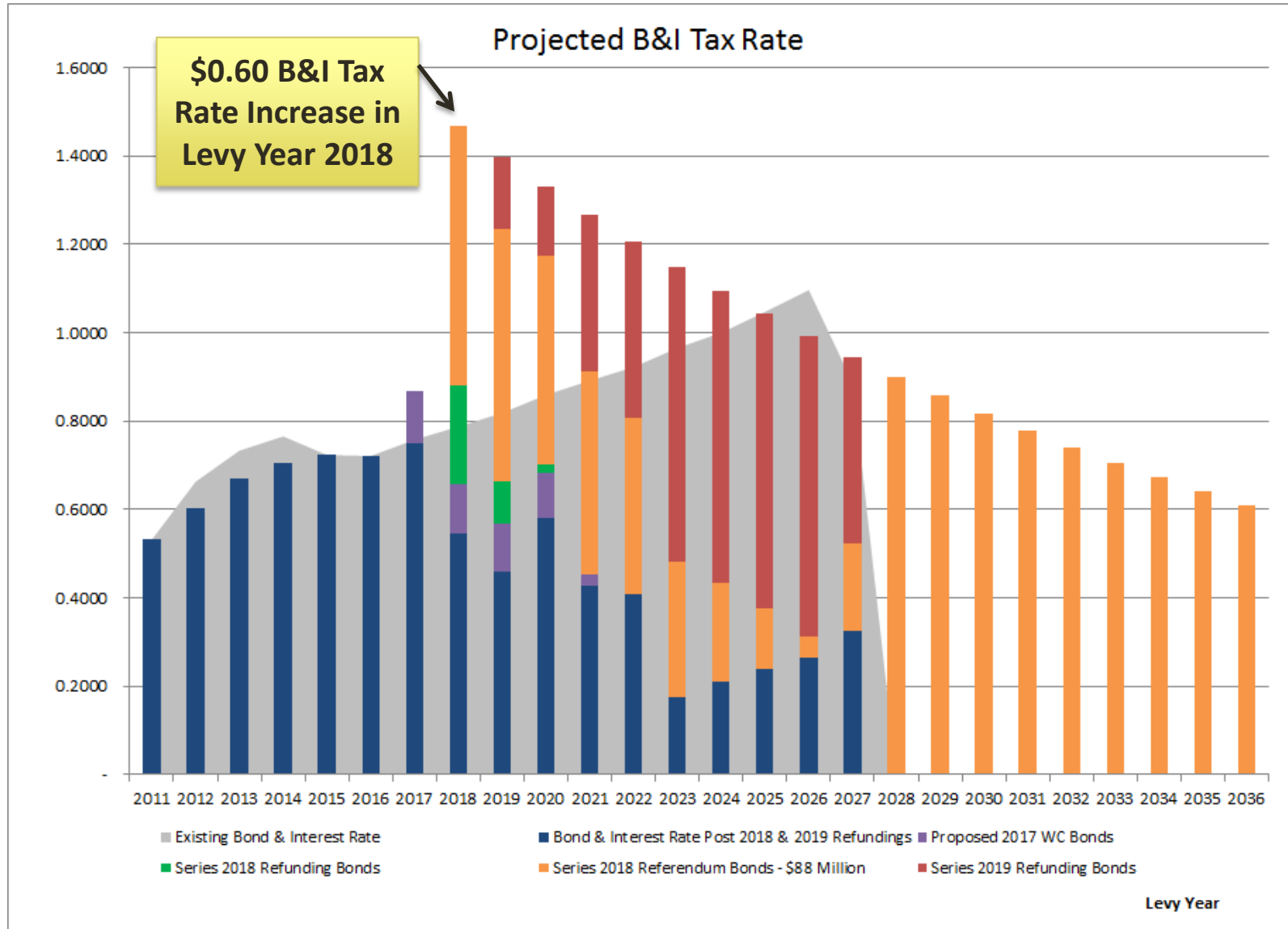
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	84,562	6,159,537
Present Value (PV) Savings	80,671	5,235,920
Estimated PV Savings as % of Refunded Bonds	2.67%	12.37%

Annual Debt Service Payments







OPTION 3C LEVEL BOND & INTEREST RATE – CAPITAL APPRECIATION BONDS \$55M REFERENDUM WITH REFUNDING IN 2018 AND 2019 FOR SAVINGS ONLY

General Obligation Bonds Debt Service

										Proposed General Obligation Refunding School Bonds, Series 2018	Proposed General Obligation School Building Capital Appreciation Bonds, Series 2019	Proposed General Obligation Refunding School Bonds, Series 2019							Projected Change in B&I Tax Rate over Prior Year
Levy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Series 2012	General Obligation School Refunding Series 2013	General Obligation School Refunding Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	[Est. Savings] (2)	Bonds, Series 2018 (3)	[Est. Savings] (2)	Supplemental Levy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Rate over Prior Year
2011	2013	\$ 618,299	\$ 1,070,744	\$ 2,206,650	\$	\$ 292,748	\$	\$	\$	\$	\$	\$	\$	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%		-0.5319
2012	2014	214,534	941,343	2,206,650		535,900	473,638						434,152	162	4,806,348	725,084,600	-5.71%		-0.6629
2013	2015	213,974	1,271,943	2,206,650		534,700	421,326						434,152		5,082,711	693,125,434	-4.41%		-0.7333
2014	2016		1,661,543	2,206,650		533,100	422,375	146,313					434,152	(5,000)	5,399,102	706,345,722	-1.76%		-0.7655
2015	2017		2,071,834	2,206,650		531,100	423,326	146,013							5,378,919	743,515,355	-6.41%		-0.7234
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	5,829,088	808,151,138	8.69%		0.7213
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	-	-	-	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020		2,033,594	2,206,650		208,200	420,725	2,016,100	998,207	(27,319)	-	-	-	-	7,856,157	890,986,630	5.00%	0.8817	0.01
2019	2021		932,806	2,206,650		208,200	3,189,600	903,350	998,988	(28,981)	(285,825)	-	-	-	8,124,788	935,535,961	5.00%	0.8685	(0.01)
2020	2022		216,038	2,206,650		208,200	5,492,813	-	997,562	(28,263)	(516,200)	-	-	-	8,576,800	982,312,759	5.00%	0.8731	0.00
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	-	(16,025)	-	-	-	8,994,023	1,031,428,397	5.00%	0.8720	(0.00)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	-	-	15,475	-	-	9,446,875	1,082,999,817	5.00%	0.8723	0.00
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	-	(283,819)	-	-	-	9,984,075	1,137,149,808	5.00%	0.8780	0.01
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	-	(623,319)	-	-	-	10,436,000	1,194,007,298	5.00%	0.8740	(0.00)
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	-	(1,595,875)	-	-	-	10,449,575	1,253,707,663	5.00%	0.8335	(0.04)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	(2,666,675)	-	-	-	10,449,900	1,316,393,046	5.00%	0.7938	(0.04)
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	-	(607,438)	-	-	10,426,938	1,382,212,699	5.00%	0.7544	(0.04)
2028	2030	-	-	-	-	-	-	-	-	-	10,360,000	-	-	-	10,360,000	1,451,323,334	5.00%	0.7138	(0.04)
2029	2031	-	-	-	-	-	-	-	-	-	10,880,000	-	-	-	10,880,000	1,523,889,500	5.00%	0.7140	0.00
2030	2032	-	-	-	-	-	-	-	-	-	11,420,000	-	-	-	11,420,000	1,600,083,975	5.00%	0.7137	(0.00)
2031	2033	-	-	-	-	-	-	-	-	-	11,995,000	-	-	-	11,995,000	1,680,088,174	5.00%	0.7140	0.00
2032	2034	-	-	-	-	-	-	-	-	-	12,595,000	-	-	-	12,595,000	1,764,092,583	5.00%	0.7140	0.00
2033	2035	-	-	-	-	-	-	-	-	-	13,225,000	-	-	-	13,225,000	1,852,297,212	5.00%	0.7140	0.00
2034	2036	-	-	-	-	-	-	-	-	-	13,885,000	-	-	-	13,885,000	1,944,912,072	5.00%	0.7139	(0.00)
2035	2037	-	-	-	-	-	-	-	-	-	14,580,000	-	-	-	14,580,000	2,042,157,676	5.00%	0.7140	0.00
2036	2038	-	-	-	-	-	-	-	-	-	15,035,000	-	-	-	15,035,000	2,144,265,560	5.00%	0.7012	(0.01)
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (84,563)	\$ 113,975,000	\$ (6,579,700)	\$ -	\$ -	\$ 221,917,888				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

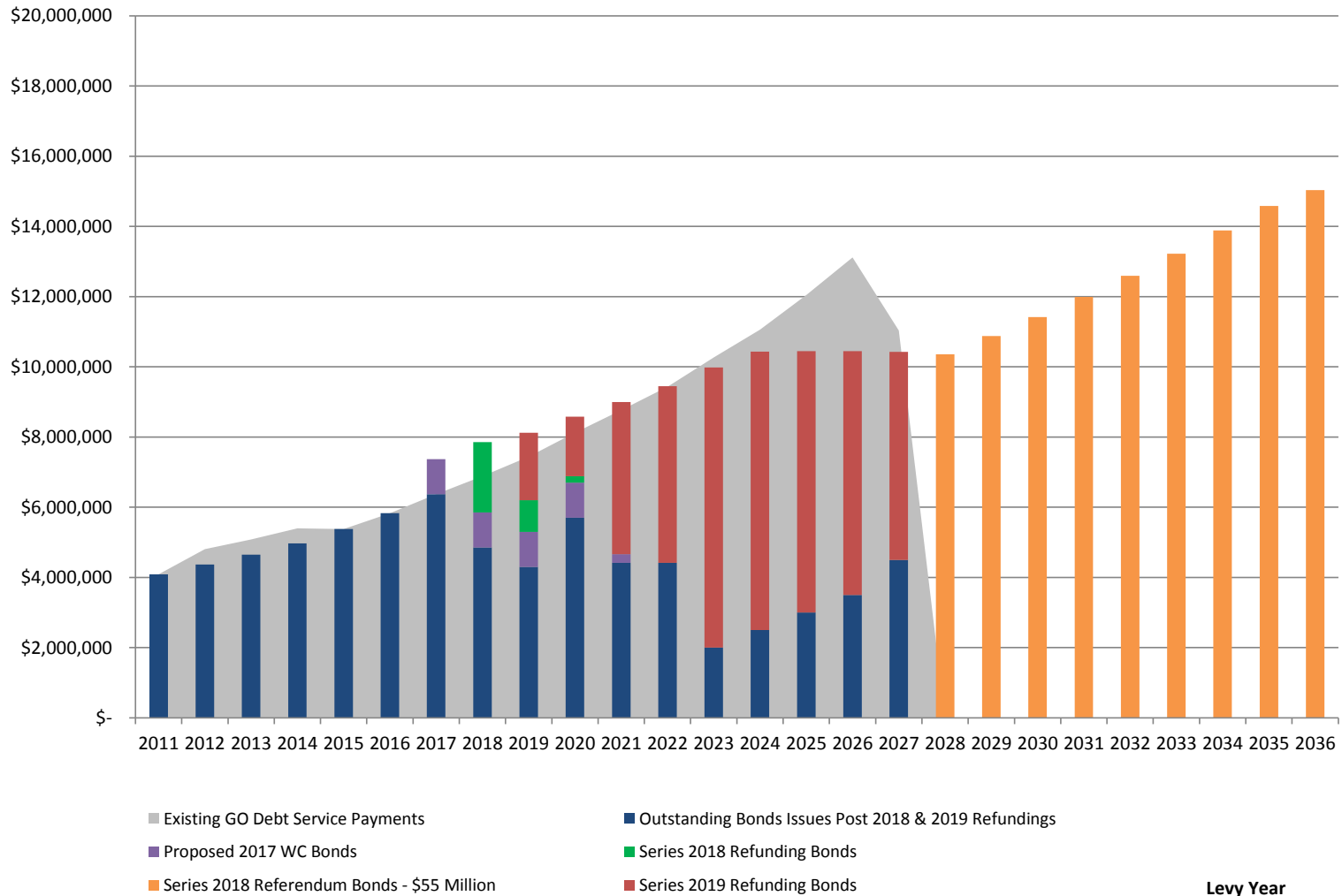
(3) Assumes additional 0.75% due to CAB premium.

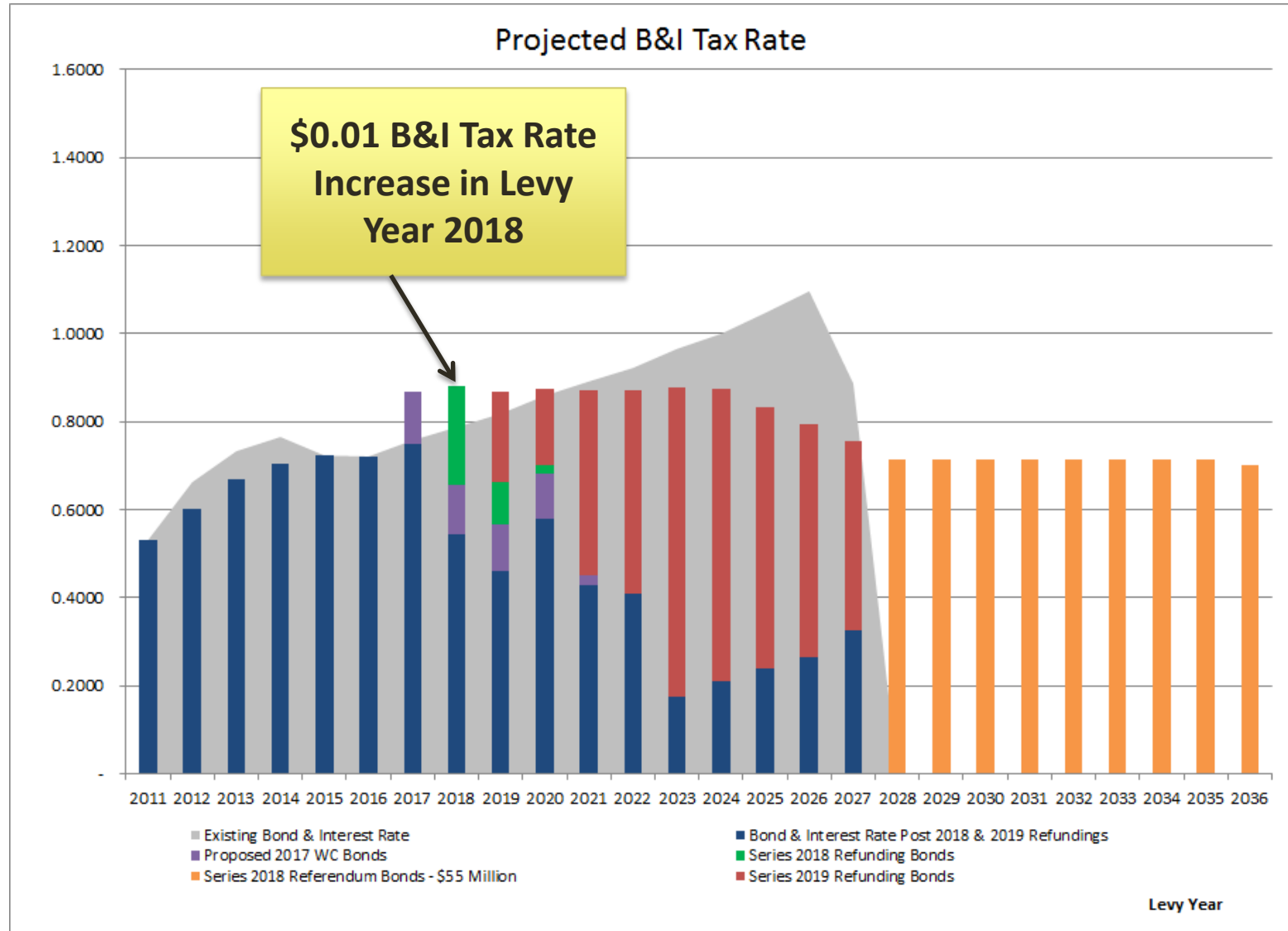
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	84,562	6,579,700
Present Value (PV) Savings	80,671	5,308,498
Estimated PV Savings as % of Refunded Bonds	2.67%	12.54%

Annual Debt Service Payments







OPTION 3D LEVEL BOND & INTEREST RATE – CAPITAL APPRECIATION BONDS \$88M REFERENDUM WITH REFUNDING IN 2018 AND 2019 FOR SAVINGS ONLY

General Obligation Bonds Debt Service

Lvy Year	Fiscal Year	Prior Debt Service	General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Refunding Bonds, Series 2012	General Obligation School Refunding Bonds, Series 2013	General Obligation School Refunding Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Building Capital Appreciation Bonds, Series 2018 (3)	Proposed General Obligation Refunding School Bonds, Series 2019 [Est. Savings] (2)	Supplemental Levy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year
2011	2013	\$ 618,209	\$ 1,070,744	\$ 2,206,650	\$ -	\$ 292,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.5319	
2012	2014	214,534	941,343	2,206,650	-	536,900	473,638	-	-	-	-	-	434,152	162	4,806,348	725,084,600	-5.71%	-0.6629	
2013	2015	213,971	1,271,913	2,206,650	-	534,700	421,325	-	-	-	-	-	434,152	-	5,082,711	693,125,434	-4.41%	-0.7333	
2014	2016	-	1,661,513	2,206,650	-	533,100	422,375	146,313	-	-	-	-	434,152	(5,000)	5,399,102	705,345,722	1.76%	-0.7655	
2015	2017	-	2,071,834	2,206,650	-	531,100	423,325	146,013	-	-	-	-	-	-	5,378,919	743,515,355	5.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	-	-	-	-	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(27,319)	925,000	-	-	-	8,781,157	890,986,630	5.00%	0.9856	0.12
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(28,981)	1,495,000	(685,075)	-	-	9,220,538	935,535,961	5.00%	0.9856	0.00
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(28,263)	1,275,000	(686,300)	-	-	9,681,700	982,312,759	5.00%	0.9856	0.00
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	-	1,840,000	(682,625)	-	-	10,167,423	1,031,428,397	5.00%	0.9858	0.00
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	-	1,930,000	(684,150)	-	-	10,677,250	1,082,999,817	5.00%	0.9859	0.00
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	-	1,625,000	(684,844)	-	-	11,208,050	1,137,149,808	5.00%	0.9856	(0.00)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	-	1,395,000	(684,894)	-	-	11,769,425	1,194,007,298	5.00%	0.9857	0.00
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	-	995,000	(682,725)	-	-	12,357,725	1,253,707,663	5.00%	0.9857	(0.00)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	-	545,000	(685,175)	-	-	12,976,400	1,316,393,046	5.00%	0.9858	0.00
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	-	3,275,000	(683,750)	-	-	13,625,625	1,382,212,699	5.00%	0.9858	0.00
2028	2030	-	-	-	-	-	-	-	-	-	14,310,000	-	-	-	14,310,000	1,451,323,334	5.00%	0.9860	0.00
2029	2031	-	-	-	-	-	-	-	-	-	15,025,000	-	-	-	15,025,000	1,523,889,500	5.00%	0.9860	(0.00)
2030	2032	-	-	-	-	-	-	-	-	-	15,775,000	-	-	-	15,775,000	1,600,083,975	5.00%	0.9859	(0.00)
2031	2033	-	-	-	-	-	-	-	-	-	16,565,000	-	-	-	16,565,000	1,680,088,174	5.00%	0.9860	0.00
2032	2034	-	-	-	-	-	-	-	-	-	17,390,000	-	-	-	17,390,000	1,764,092,583	5.00%	0.9858	(0.00)
2033	2035	-	-	-	-	-	-	-	-	-	18,260,000	-	-	-	18,260,000	1,852,297,212	5.00%	0.9858	0.00
2034	2036	-	-	-	-	-	-	-	-	-	19,175,000	-	-	-	19,175,000	1,944,912,072	5.00%	0.9859	0.00
2035	2037	-	-	-	-	-	-	-	-	-	20,135,000	-	-	-	20,135,000	2,042,157,676	5.00%	0.9860	0.00
2036	2038	-	-	-	-	-	-	-	-	-	20,235,000	-	-	-	20,235,000	2,144,265,560	5.00%	0.9437	(0.04)
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (84,563)	\$ 172,170,000	\$ (6,159,538)	\$ -	\$ -	\$ 280,533,050				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

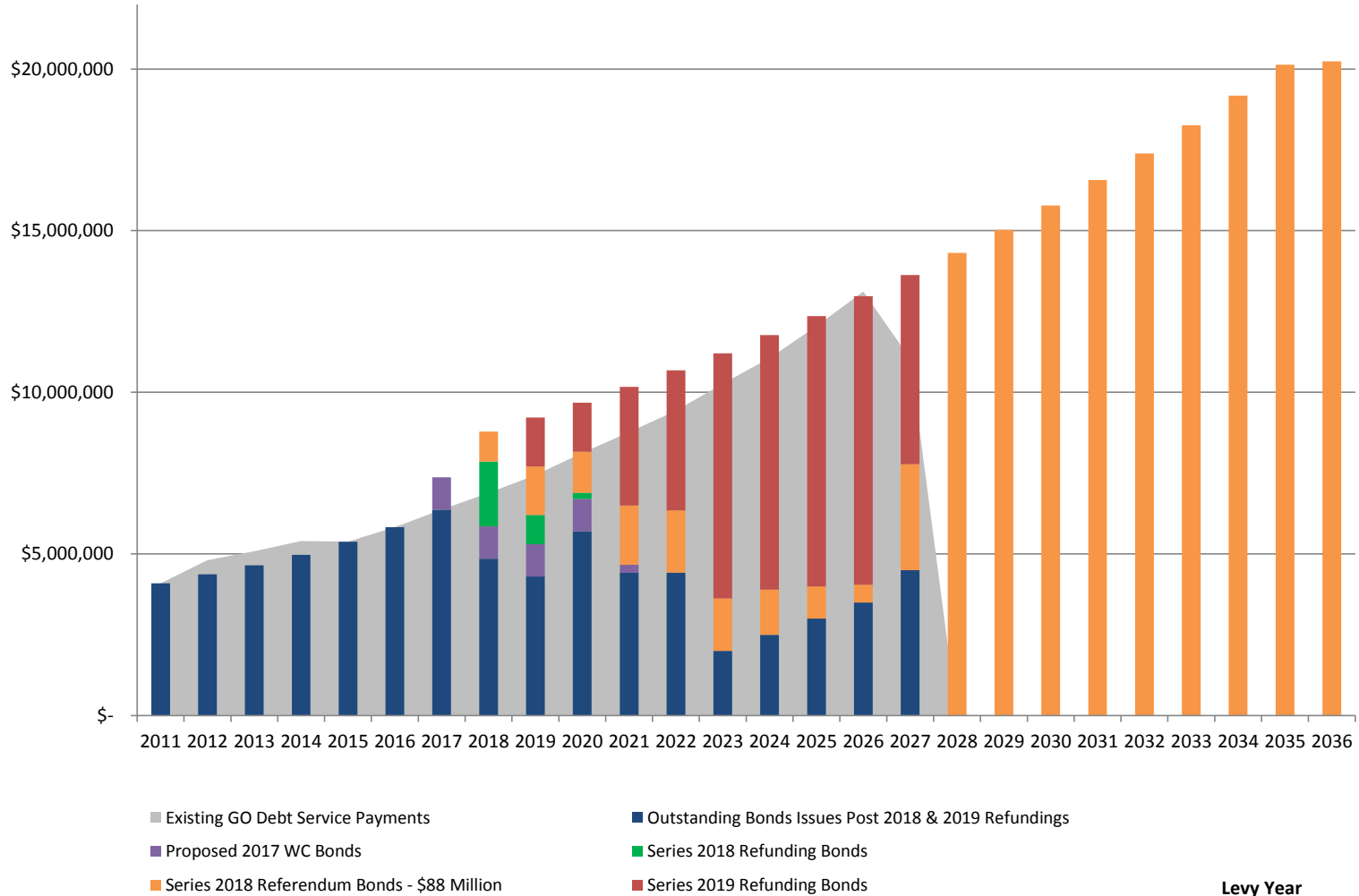
(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

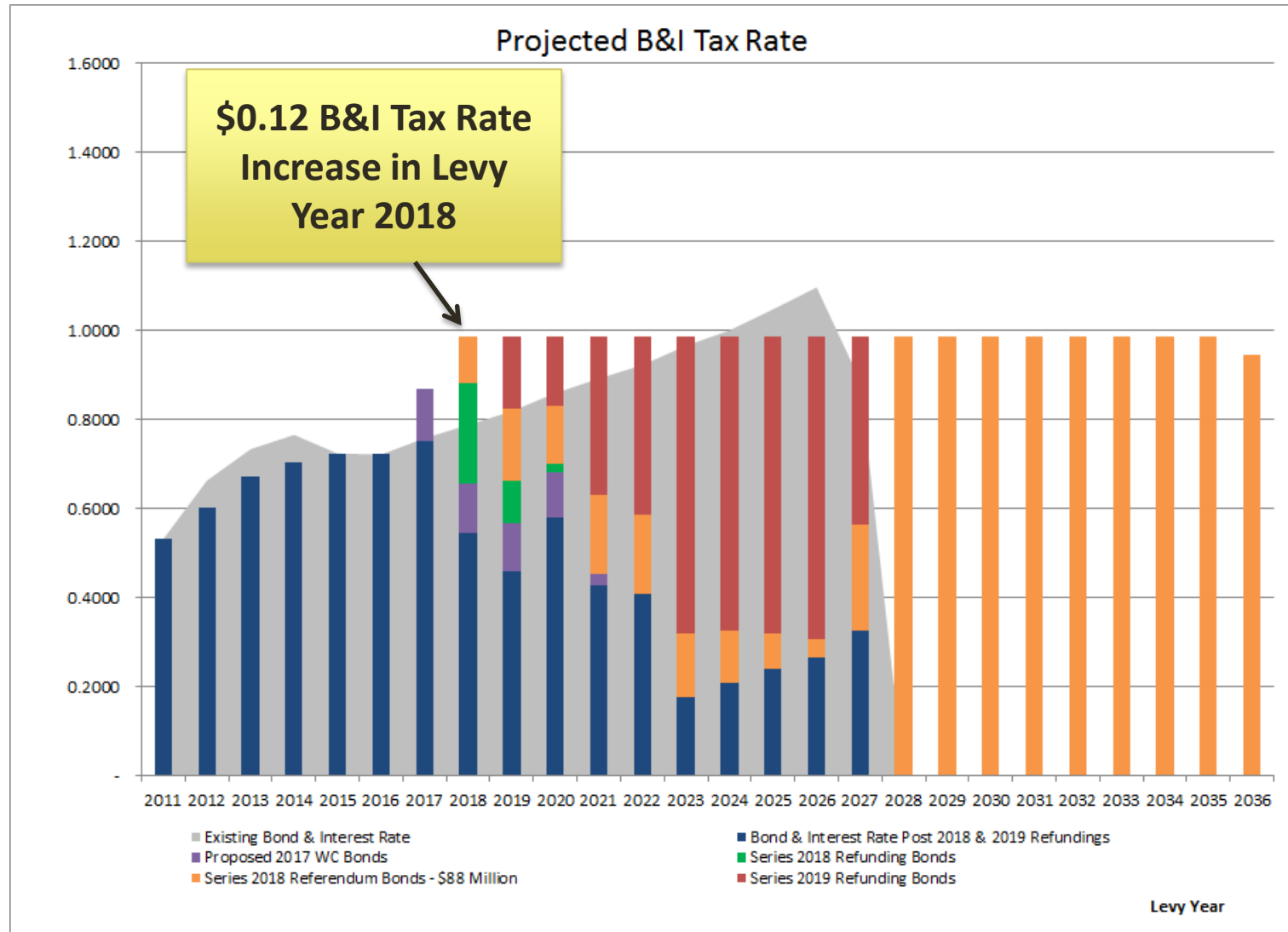
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	84,562	6,159,537
Present Value (PV) Savings	80,671	5,235,920
Estimated PV Savings as % of Refunded Bonds	2.67%	12.37%

Annual Debt Service Payments





OPTION 4A

LEVEL OVERALL DEBT SERVICE – CURRENT INTEREST BONDS

\$88M REFERENDUM – ISSUED IN 2018 (\$45M), 2020 (\$25M) AND 2022 (\$18M)

WITH RESTRUCTURING IN 2018 AND 2019

General Obligation Bonds Debt Service																					
		General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Bonds, Series 2010A	General Obligation School Bonds, Series 2010B	General Obligation Refunding School Bonds, Series 2012	General Obligation Refunding School Bonds, Series 2013	General Obligation Refunding School Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings] (2)	Proposed General Obligation Refunding School Building Bonds, Series 2018 (2)	Proposed General Obligation Refunding School Bonds, Series 2019 [Est. Savings] (2)	Proposed General Obligation Refunding School Building Bonds, Series 2020 (2)	Proposed General Obligation Refunding School Building Bonds, Series 2022 (2)	Supplemental Lew	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year	
Lew Year	Fiscal Year	Prior Debt Service																			
2011	2013	\$ 618,209	\$ 1,070,744	\$ 2,206,650	\$ 292,748	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 473,638	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.6319	
2012	2014	214,534	941,313	2,206,650	535,900	535,900	535,900	535,900	535,900	535,900	535,900	535,900	535,900	535,900	434,162	162	4,806,348	725,084,600	-5.71%	-0.6629	
2013	2015	213,971	1,271,913	2,206,650	534,709	421,325	421,325	421,325	421,325	421,325	421,325	421,325	421,325	421,325	434,162		5,082,711	693,126,434	-4.41%	-0.7333	
2014	2016		1,661,613	2,206,650	533,100	422,375	146,313	146,313	146,313	146,313	146,313	146,313	146,313	146,313	434,162	(5,000)	5,399,102	706,346,722	-1.76%	-0.7666	
2015	2017		2,071,831	2,206,650	531,100	423,326	146,013	146,013	146,013	146,013	146,013	146,013	146,013	146,013			5,378,919	743,616,366	6.41%	-0.7234	
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213	
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	1,532,363	-	-	-	-	-	(1,532,363)	7,368,670	848,558,695	5.00%	0.8684	0.15
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	2,081,700	-	-	-	-	-	-	10,957,632	890,986,630	5.00%	1.2298	0.36
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(887,131)	2,958,350	849,775	893,713	-	-	(893,713)	11,360,588	935,535,961	5.00%	1.2143	(0.02)
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(216,038)	(769,150)	1,214,100	-	-	-	-	11,405,175	982,312,759	5.00%	1.1611	(0.05)
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	243,048	-	2,055,000	(1,557,025)	1,849,425	649,250	-	-	(649,250)	11,357,448	1,031,428,397	5.00%	1.1011	(0.06)
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	2,055,000	(2,202,675)	1,194,750	882,000	-	-	-	11,360,475	1,082,999,817	5.00%	1.0490	(0.05)
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	2,055,000	(3,038,719)	1,194,750	882,000	-	-	-	11,360,925	1,137,149,808	5.00%	0.9991	(0.05)
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	2,055,000	(3,827,419)	1,194,750	882,000	-	-	-	11,363,650	1,194,007,298	5.00%	0.9517	(0.05)
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	2,055,000	(4,814,050)	1,194,750	882,000	-	-	-	11,363,150	1,253,707,663	5.00%	0.9064	(0.05)
2026	2028	-	-	9,616,575	3,500,000	-	-	-	-	2,055,000	(5,885,463)	1,194,750	882,000	-	-	-	11,362,863	1,316,393,046	5.00%	0.8632	(0.04)
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	2,055,000	(3,803,238)	1,194,750	882,000	-	-	-	11,362,888	1,382,212,699	5.00%	0.8221	(0.04)
2028	2030	-	-	-	-	-	-	-	-	2,055,000	7,229,500	1,194,750	882,000	-	-	-	11,361,250	1,451,323,334	5.00%	0.7828	(0.04)
2029	2031	-	-	-	-	-	-	-	-	2,055,000	7,229,800	1,194,750	882,000	-	-	-	11,361,550	1,523,889,500	5.00%	0.7456	(0.04)
2030	2032	-	-	-	-	-	-	-	-	2,055,000	7,229,300	1,194,750	882,000	-	-	-	11,361,050	1,600,083,975	5.00%	0.7100	(0.04)
2031	2033	-	-	-	-	-	-	-	-	7,660,600	1,626,900	1,194,750	882,000	-	-	-	11,364,250	1,680,088,174	5.00%	0.6764	(0.03)
2032	2034	-	-	-	-	-	-	-	-	9,284,525	-	1,194,750	882,000	-	-	-	11,361,275	1,764,092,583	5.00%	0.6440	(0.03)
2033	2035	-	-	-	-	-	-	-	-	9,283,300	-	1,194,750	882,000	-	-	-	11,360,050	1,852,297,212	5.00%	0.6133	(0.03)
2034	2036	-	-	-	-	-	-	-	-	9,284,500	-	1,194,750	882,000	-	-	-	11,361,250	1,944,912,072	5.00%	0.5842	(0.03)
2035	2037	-	-	-	-	-	-	-	-	9,285,250	-	1,194,750	882,000	-	-	-	11,362,000	2,042,157,676	5.00%	0.5564	(0.03)
2036	2038	-	-	-	-	-	-	-	-	5,437,625	-	5,041,125	882,000	-	-	-	11,360,750	2,144,265,560	5.00%	0.5298	(0.03)
2037	2039	-	-	-	-	-	-	-	-	-	-	10,479,375	882,000	-	-	-	11,361,375	2,251,478,838	5.00%	0.5046	
2038	2040	-	-	-	-	-	-	-	-	-	-	10,480,625	882,000	-	-	-	11,362,625	2,364,052,780	5.00%	0.4806	
2039	2041	-	-	-	-	-	-	-	-	-	-	-	11,363,250	-	-	-	11,363,250	2,482,255,419	5.00%	0.4578	
2040	2042	-	-	-	-	-	-	-	-	-	-	-	7,062,250	-	-	-	7,062,250	2,606,368,190	5.00%	0.2710	
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ (110,713)	\$ 79,413,213	\$ (1,732,463)	\$ 46,684,863	\$ 34,068,750	\$ -	\$ (3,075,325)	\$ 269,855,475				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

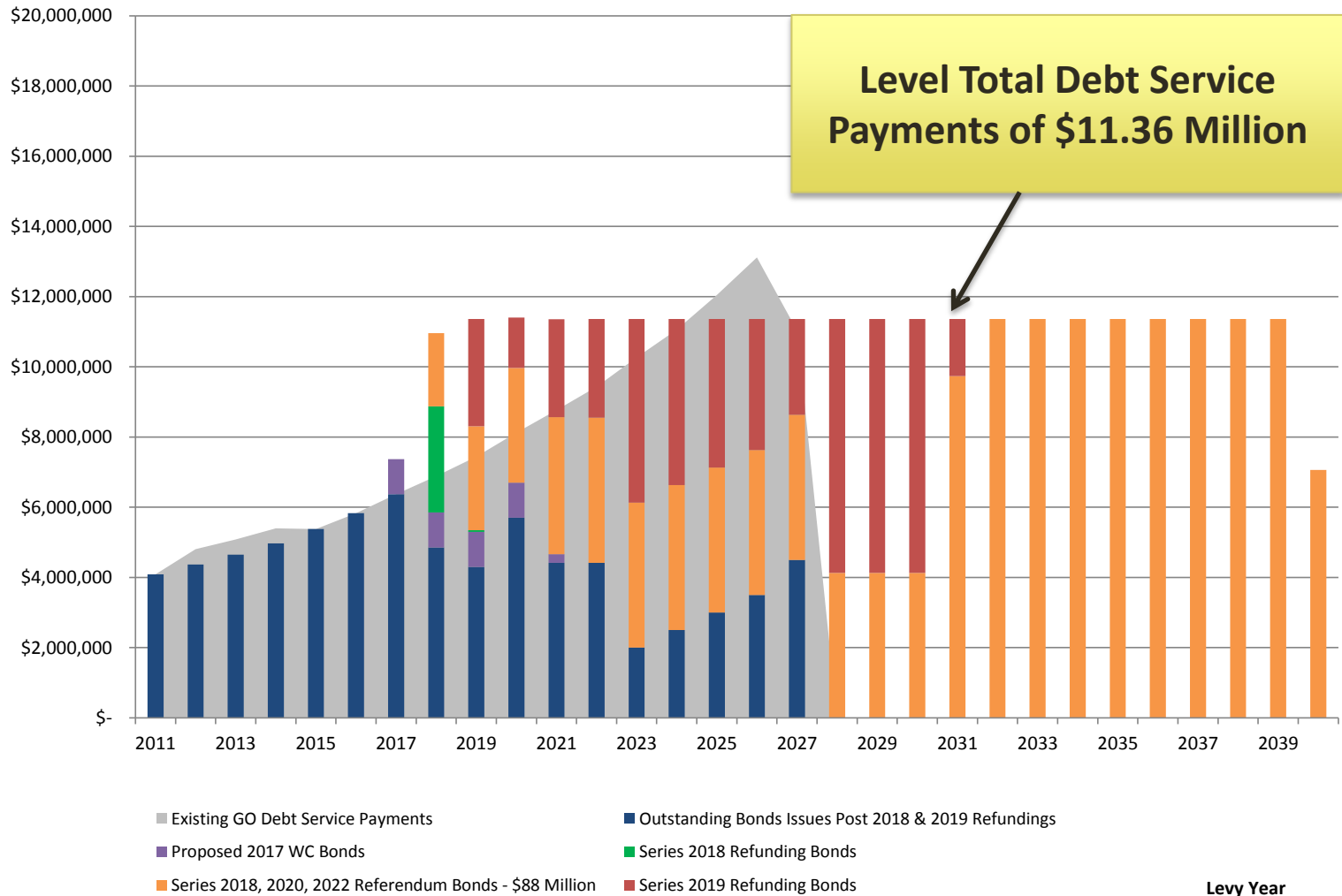
(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

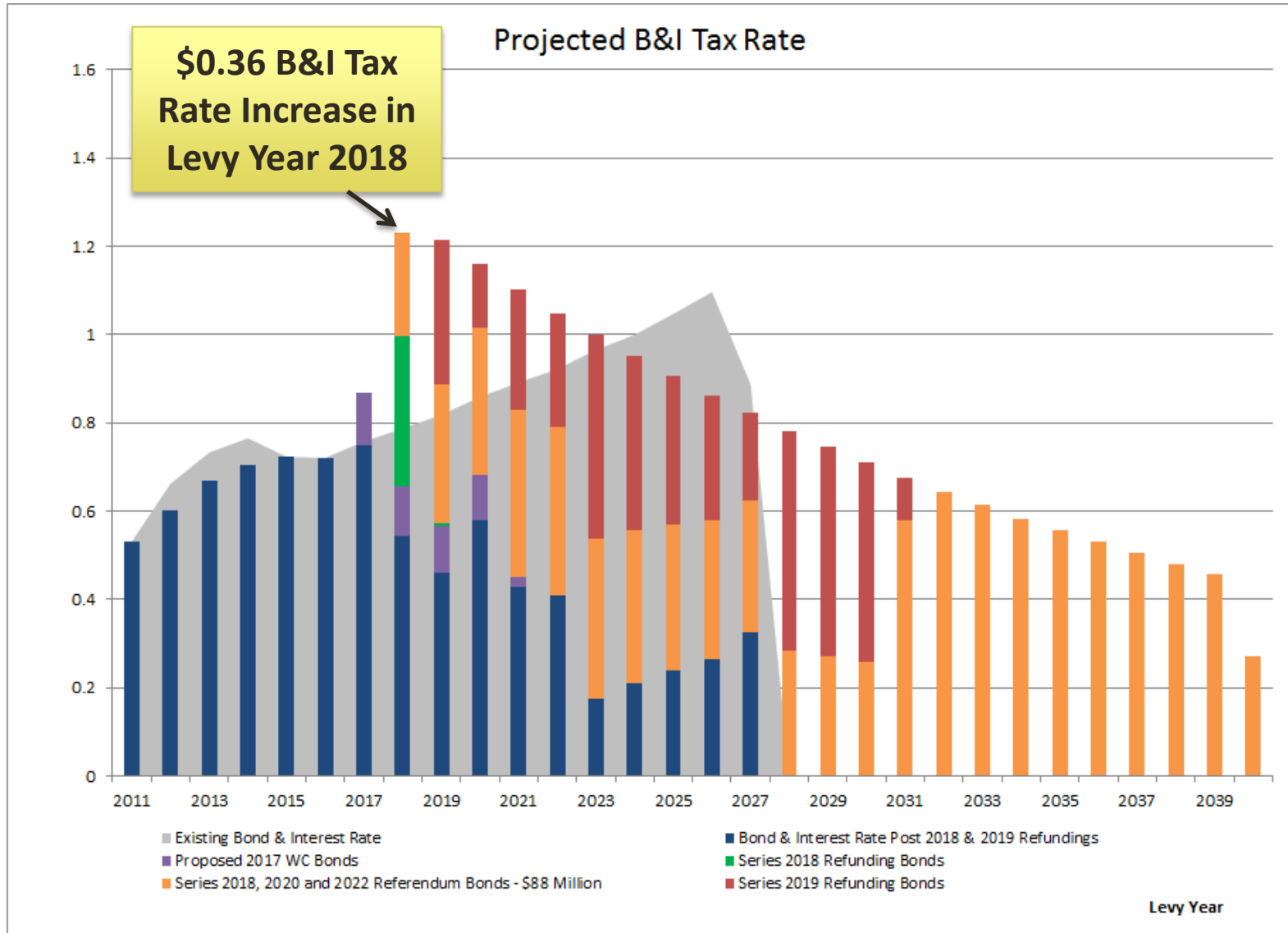
NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds	\$3,020,000	\$42,335,000
Total Savings (Additional Cost)	110,712	1,732,463
Present Value (PV) Savings	62,332	3,984,205
Estimated PV Savings as % of Refunded Bonds	2.06%	9.41%

Annual Debt Service Payments





OPTION 4B LEVEL BOND & INTEREST TAX RATE – CURRENT INTEREST BONDS \$88M REFERENDUM – ISSUED IN 2018 (\$45M), 2020 (\$25M) AND 2022 (\$18M) WITH RESTRUCTURING IN 2018 AND 2019

General Obligation Bonds Debt Service																						
		General Obligation School Bonds, Series 2008 (Net of Capitalized Interest)	General Obligation School Refunding Bonds, Series 2010A	General Obligation School Refunding Bonds, Series 2010B	General Obligation School Bonds, Series 2012	General Obligation School Bonds, Series 2013	General Obligation School Bonds, Series 2014	Proposed Taxable General Obligation School Bonds, Series 2017 (1)	Taxable General Obligation Refunding School Bonds, Series 2018 [Est. Savings]	Proposed General Obligation Refunding School Bonds, Series 2018 [Est. Savings]	Proposed General Obligation School Building Bonds, Series 2019 [Est. Savings]	Proposed General Obligation Refunding School Bonds, Series 2020 (2)	Proposed General Obligation School Building Bonds, Series 2022 (2)	Supplemental Levy	Other, Difference Due to Refundings or Capitalized Interest	Total	EAV	Growth Rate	B&I Tax Rate	Projected Change in B&I Tax Rate over Prior Year		
Lvy Year	Fiscal Year	Prior Debt Service																				
2011	2013	\$ 618,209	\$ 1,070,744	\$ 2,206,650	\$ -	\$ 292,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,142	\$ 4,090,493	\$ 769,008,079	-8.76%	-0.6319		
2012	2014	214,834	941,313	2,206,650	-	636,900	473,638	-	-	-	-	-	-	-	434,162	162	4,806,348	726,084,609	-8.71%	-0.6629		
2013	2015	213,971	1,271,813	2,206,650	-	534,700	421,325	-	-	-	-	-	-	-	434,152	-	5,082,711	693,125,434	-4.41%	-0.7333		
2014	2016	-	1,661,613	2,206,650	-	633,100	422,375	146,313	-	-	-	-	-	-	434,152	(5,000)	6,399,102	705,345,722	1.76%	-0.7655		
2015	2017	-	2,071,831	2,206,650	-	631,100	423,326	146,013	-	-	-	-	-	-	-	-	6,376,056	743,616,056	6.41%	-0.7324		
2016	2018	-	2,434,550	2,206,650	-	509,100	424,175	254,613	-	-	-	-	-	-	-	-	5,829,088	808,151,138	8.69%	0.7213		
2017	2019	-	1,524,813	2,206,650	-	208,200	419,975	2,011,931	997,101	-	1,601,759	-	-	-	-	(1,601,759)	7,368,670	848,558,695	5.00%	0.8684	0.15	
2018	2020	-	2,033,594	2,206,650	-	208,200	420,725	2,016,100	998,207	(606,190)	(1,914,194)	2,175,975	-	-	-	-	7,539,068	890,986,630	5.00%	0.8461	(0.02)	
2019	2021	-	932,806	2,206,650	-	208,200	3,189,600	903,350	998,988	(2,263,440)	(813,406)	3,052,625	(481,700)	888,376	-	(888,376)	7,933,674	935,535,961	5.00%	0.8480	0.00	
2020	2022	-	216,038	2,206,650	-	208,200	5,492,813	-	997,562	(3,485,440)	(96,638)	2,149,275	(481,700)	1,206,850	-	-	8,413,610	982,312,759	5.00%	0.8565	0.01	
2021	2023	-	-	4,348,900	2,000,000	2,418,100	-	-	243,048	(1,536,690)	119,400	2,149,275	(2,623,950)	1,842,175	639,865	(639,865)	8,960,259	1,031,428,397	5.00%	0.8687	0.01	
2022	2024	-	-	5,012,400	2,000,000	2,419,000	-	-	-	(1,267,911)	119,400	2,149,275	(3,287,450)	1,187,500	869,250	-	9,201,464	1,082,999,817	5.00%	0.8496	(0.02)	
2023	2025	-	-	8,267,894	2,000,000	-	-	-	-	1,614,483	119,400	2,149,275	(6,542,944)	1,187,500	869,250	-	9,664,858	1,137,149,808	5.00%	0.8499	0.00	
2024	2026	-	-	8,559,319	2,500,000	-	-	-	-	1,595,298	119,400	2,149,275	(6,834,369)	1,187,500	869,250	-	10,145,673	1,194,007,298	5.00%	0.8497	(0.00)	
2025	2027	-	-	9,045,450	3,000,000	-	-	-	-	1,602,398	119,400	2,149,275	(7,320,500)	1,187,500	869,250	-	10,652,773	1,253,707,663	5.00%	0.8497	(0.00)	
2026	2028	-	-	9,616,375	3,500,000	-	-	-	-	1,634,493	119,400	2,149,275	(7,891,625)	1,187,500	869,250	-	11,184,868	1,316,393,046	5.00%	0.8497	(0.00)	
2027	2029	-	-	6,534,375	4,500,000	-	-	-	-	1,196,263	119,400	2,149,275	(4,809,425)	1,187,500	869,250	-	11,746,638	1,382,212,699	5.00%	0.8498	0.00	
2028	2030	-	-	-	-	-	-	-	-	5,187,919	-	2,149,275	1,724,950	1,187,500	869,250	-	12,335,894	1,451,323,334	5.00%	0.8500	0.00	
2029	2031	-	-	-	-	-	-	-	-	-	-	2,149,275	6,840,550	1,187,500	869,250	-	12,948,875	1,523,889,500	5.00%	0.8497	(0.00)	
2030	2032	-	-	-	-	-	-	-	-	-	-	2,149,275	9,390,450	1,187,500	869,250	-	13,596,475	1,600,083,975	5.00%	0.8497	0.00	
2031	2033	-	-	-	-	-	-	-	-	-	-	2,149,275	10,073,550	1,187,500	869,250	-	14,279,575	1,680,088,174	5.00%	0.8499	0.00	
2032	2034	-	-	-	-	-	-	-	-	-	-	2,149,275	10,784,250	1,187,500	869,250	-	14,990,275	1,764,092,583	5.00%	0.8497	(0.00)	
2033	2035	-	-	-	-	-	-	-	-	-	-	4,001,638	9,683,075	1,187,500	869,250	-	15,741,463	1,852,297,212	5.00%	0.8498	0.00	
2034	2036	-	-	-	-	-	-	-	-	-	-	14,470,875	-	1,187,500	869,250	-	16,527,625	1,944,912,072	5.00%	0.8498	(0.00)	
2035	2037	-	-	-	-	-	-	-	-	-	-	15,297,125	-	1,187,500	869,250	-	17,353,875	2,042,157,676	5.00%	0.8498	(0.00)	
2036	2038	-	-	-	-	-	-	-	-	-	-	14,688,250	-	2,664,625	869,250	-	18,222,125	2,144,265,560	5.00%	0.8498	0.00	
2037	2039	-	-	-	-	-	-	-	-	-	-	-	-	17,355,250	869,250	-	18,224,500	2,251,478,838	5.00%	0.8094		
2038	2040	-	-	-	-	-	-	-	-	-	-	-	-	5,714,375	12,510,750	-	18,225,125	2,364,052,780	5.00%	0.7709		
2039	2041	-	-	-	-	-	-	-	-	-	-	-	-	-	5,581,125	-	5,581,125	2,482,255,419	5.00%	0.2248		
2040	2042	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,606,368,190	-	5.00%	-	
Total DS From Current FY:		\$ -	\$ 7,141,800	\$ 62,418,163	\$ 19,500,000	\$ 6,179,000	\$ 9,947,288	\$ 5,185,994	\$ 4,234,906	\$ 3,671,182	\$ 1,130,863	\$ 83,228,822	\$ 8,223,163	\$ 46,296,651	\$ 32,639,740	\$ -	\$ (3,130,000)	\$ 286,667,570				

(1) Rates based upon U.S. Treasury yields for July 14, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.25%. Estimated TIC = 2.57%.

(2) Rates based upon the "AAA" MMD index for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%.

(3) Rates based upon U.S. Treasury yields for September 5, 2017 and recent bond sales which PMA believes to be accurate and reliable, plus 0.75%

NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the manager of the debt proceeds.

Series 2018 (Refunds 2008 Bonds) Series 2019 (Refunds 2010A Bonds)

Par Amount of Refunded Bonds

\$3,020,000

\$42,335,000

Total Savings (Additional Cost)

(1,160,863)

(8,223,162)

Present Value (PV) Savings

55,554

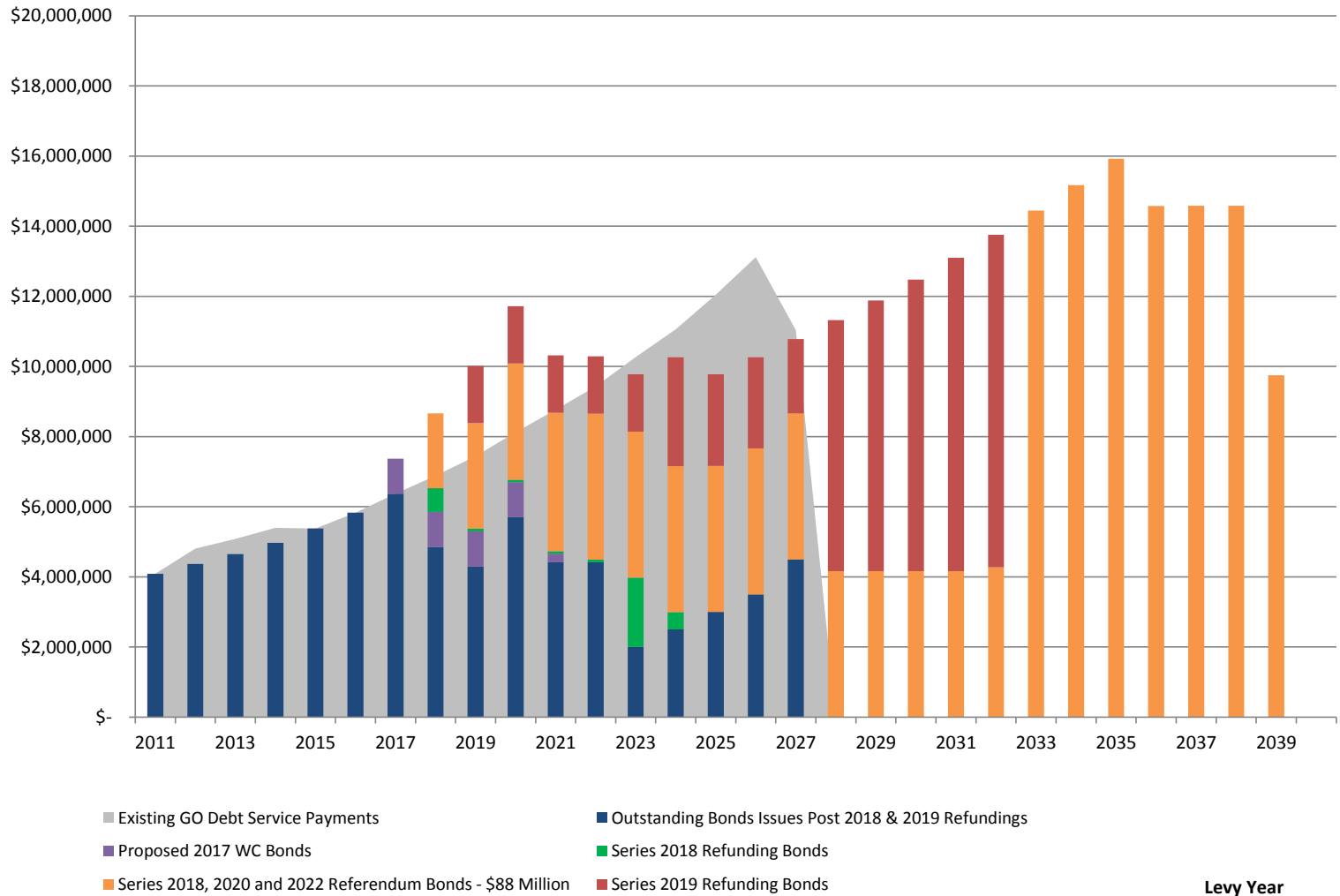
2,533,978

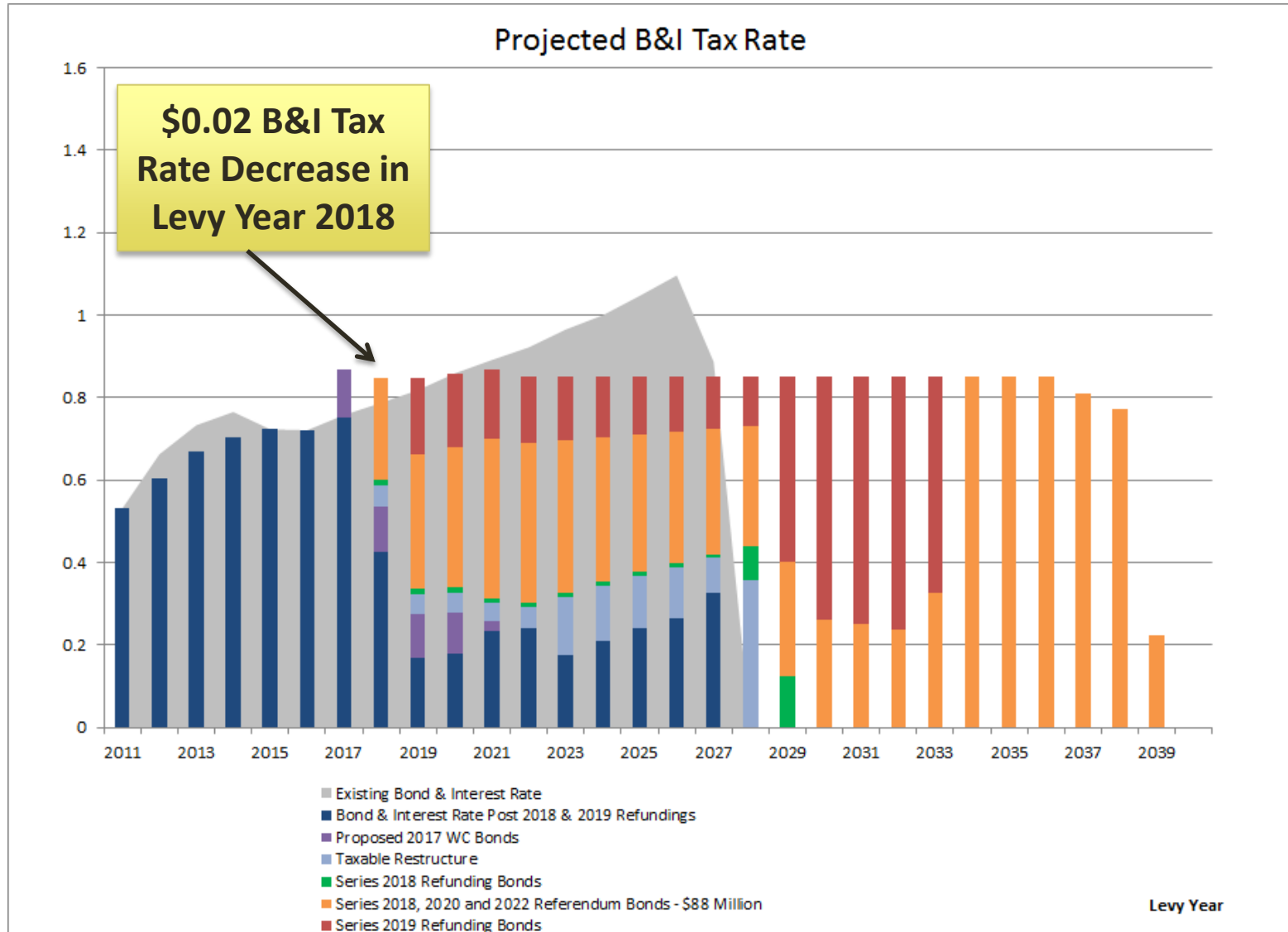
Estimated PV Savings as % of Refunded Bonds

1.84%

5.99%

Annual Debt Service Payments





	Existing Debt Service	\$55 Million Referendum Scenarios Option				\$88 Million Referendum Scenarios Option					
		1A	2A	3A	3C	1B	2B	3B	3D	4A	4B
		Level Total Debt Service	Level B&I Rate	Level Total Debt Service	Level B&I Rate	Level Total Debt Service	Level B&I Rate	Level Total Debt Service	Level B&I Rate	Level Total Debt Service	Level B&I Rate
Debt Structure											
Capital Appreciation Bonds		No	No	Yes	Yes	No	No	Yes	Yes	No	No
Final Maturity (Levy Year)	2027	2036	2036	2036	2036	2036	2036	2036	2036	2040	2039
Total Debt Service Cost	\$114,607,150	\$ 208,743,163	\$ 220,441,380	\$ 211,527,713	\$ 221,917,888	\$ 257,402,325	\$ 277,314,303	\$ 261,443,050	\$ 280,533,050	\$ 269,855,475	\$ 286,667,570
Change in Tax Rate in Levy Year 2018	0.03	0.28	(0.06)	0.31	0.01	0.57	0.11	0.60	0.12	0.36	(0.02)
Impact on \$200,000 Market Value Home	15.27	172.32	(37.77)	186.16	8.11	348.58	65.92	362.85	71.09	219.28	(13.48)



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