

**To:** Dan Werner, Town of Middlebury  
 Bob Wells, Town of Middlebury

**From:** Dexter Lefavour, PE

**Date:** October 14, 2021

**SUBJECT:** 5445 Middlebury WWTF – Phasing and Funding Study – Technical Memorandum No. 1

**Introduction**

The Middlebury Wastewater Treatment Facility, Final Preliminary Engineering Report, Rev 1, 3/15/2021 (PER) recommends a \$20.5M upgrade for the existing WWTF. Table No. 6-2 presents the project cost summary (PCS) and six major elements of the upgrade, based on assumed levels of USDA funding. The PCS assumes completing the entire project in a single step, using a USDA Rural Development (RD) grant and loan package to finance the project. The purpose of this memo is to assess various alternative means of project implementation including phasing the project in prioritized segments, and analyzing funding opportunities including State of Vermont State Grants, Vermont Clean Water State Revolving Fund (SRF) loans, local capital reserve funding, and combinations of these.

**Table No. 6-2  
 Estimated Project Cost Summary**

Town of Middlebury		
Wastewater Treatment Facility Upgrade Project 2020		
Preliminary Project Cost Summary		
<b>Construction Costs</b>		
Primary treatment		\$ 857,000
AO Process		\$ 2,175,000
Dewatering		\$ 786,000
Anerobic Disgeters		\$ 6,074,000
Disinfection		\$ 1,039,000
Miscellaneous		\$ 2,750,000
<b>Construction Subtotal</b>		\$ 13,681,000
<b>Contingency (15%)</b>		\$ 2,052,000
Engineering and other costs (30%)		\$ 4,720,000
<b>Project Total</b>		\$ 20,453,000
<b>USDA Grant</b>	25%	\$ 5,113,000
<b>Local Share</b>	75%	\$ 15,340,000
Loan payment factor		0.066
Annual bond payment		\$ 1,009,000
Equivalent Users (EDU)		8972
Added cost per EDU		\$ 112
First year O&M		\$ 2,049,500
Base cost per EDU		\$ 228
<b>Projected total cost per EDU</b>		<b>\$ 341</b>
<b>Affordabilty Analysis</b>		
Median Household Income		45,427
User Cost as % of MHI		0.750%

**Identification of Phases**

The major elements of the project identified in the PER of Primary Treatment, Anoxic/Oxic Treatment, Dewatering, Anaerobic Digestion, Disinfection and Miscellaneous are verified as discrete elements of the project.

Phase Name	Priority	Discussion
Primary Treatment	6	Primary treatment is non-essential to WWTF but enhances both the biological treatment and aerobic digester processes. This phase may be the last priority as other phases contain essential work.
Anoxic/Oxic Treatment	3	This phase upgrades the biological process from SBR to A/O. It is given its priority due the expected obsolescence of controls and modest needs for mechanical refurbishment.
Dewatering	4	The existing dewatering equipment is generally in good condition although performing poorly. The upgrades to anaerobic digestion and A/O biological treatment are expected to improve dewatering performance greatly. The equipment upgrade in this phase will further improve dewatering performance and improve the work environment within the dewatering facilities.
Anaerobic Digestion	1	This phase is given highest priority due to the array of difficulties and extent of wear and corrosion to the existing lime pasteurization equipment. The operators have identified the existing biosolids as most likely to fail, with a perception that complete failure is imminent.
Disinfection	2	Second priority is given to the upgrade from UV disinfection to chlorine disinfection because of the historical permit violations and current obsolescence of the existing UV system. The system is undersized and difficult to find parts for.
Miscellaneous	5	There are several elements of this phase that may need to be prioritized with other elements. For example, the obsolescence of the existing MCC equipment may escalate into a more serious concern. Other items, such as building painting, may be deferred as they are non-essential items.

**Funding Analysis**

The funding analysis was completed using a spreadsheet prepared specifically for this project and purpose. The analysis is performed over a 20-year planning period, which matches the PER and is typical of projects of this nature. The parameters used in the analysis are listed below:


Grant level	This an assume grant level from project funding. 0% assumed for CWSRF funding and 25% assumed for USDA. CWSRF does offer loan forgiveness, which is effectively grant funding for the project. The amount of forgiveness is small in proportion to the whole project. CWSRF also offers larger grants for specific project types. At this time, it does not appear that any significant grants will be available from CWSRF for the project. USDA offers grants in varying amounts up to 75% depending on user fees and income. Middlebury has favorable income characteristics. However, the cost per EDU is roughly half of the threshold that activates USDA grant support (1% of Median Household Income (MHI))
User Fee Escalation	User fees are arbitrarily raised from \$283/yr to \$400/yr in year one, and then escalated at 3%, thereafter. \$400 per year is roughly 73% of the statewide average and 90% of 1% of MHI.
Cost Escalation	This rate is used to escalate the operating costs only.
Bond Finance Rate	This rate is used to calculate bond payments.
Loan Term	This is the term of the bond in years.
Year	This is the fiscal or calendar year.
# of EDUs	This is the # of EDUs calculated in the PER. For this analysis, the number of EDUs is held constant over the analysis period.
Total WW Revenue	Total WW Revenue is the product of multiplying the Cost per EDU times the # of EDUs.
Bond Plus Reserve Revenue	For the initial year, this is the current bond payment. The bond matures in 2022, so this bond payment is assumed to represent available funds moving forward. Additional funds in excess of operating costs are added into this amount. Annual bond payments are subtracted.
Non-capital operating expense	This is the escalated operating budget, exclusive of bond and capital expenditures.
Bond Plus Reserve Balance	This column represents the accumulation of reserves for the planning period after payment of annual bond and capital expenditures. It is assumed that the starting balance is as indicated for the initial year.
Reserve Payment	This represents a capital outlay from the reserve fund.
Improvement Project Name	This is the Phase name of the project.
Capital expenditure	This is the capital costs from the 2019 PER.
Escalated Capital Cost	These costs represent the capital cost escalated from a forecast based on 20 years of ENR Cost Indices.
Salvage Value in 2042	This is the remaining value of the improvement at the end of the planning period.
New Bond Payments	This is the annual bond payment.
Total Net Cost for Planning Period	This is the total cash outlay less the salvage value for the planning period.

Analyses were performed for two alternative funding programs: USDA and CWSRF. Typical funding levels and loan rates were used. For USDA, a 25% grant and 3% interest rate were used (Table No. 1). For CWSRF, a 0% grant and 0% interest rate were used (Table No. 2). The phased project and completion of the total project in a single phase were both considered for each funding option. For the phased project, it was assumed that grant funding is obtained for the first phase only and subsequent phases are locally funded with cash from reserves.

**CONCLUSION**

1. USDA funding yields higher reserves (\$2.5-5.7M) and lower costs (\$2.5-5.7M) than CWSRF funding.
2. Phasing costs \$0.9M more in outlay but provides \$7.4M more in reserves with USDA Funding.
3. Phasing costs \$2.3M less in outlay and provides \$10.6M more in reserves with CWSRF Funding.

<b>PROJECT</b>	<b>TOTAL COST</b>	<b>RESERVE IN 2042</b>
USDA – Phased Project	\$18.5M	\$29.0M
USDA – Single Project	\$17.6M	\$21.6M
CWSRF- Phased Project	\$21.0M	\$26.5M
CWSRF – Single Project	\$23.3M	\$15.9M

Signature: 

**TOWN OF MIDDLEBURY  
WASTEWATER TREATMENT FACILITY UPGRADE  
PHASE AND FUNDING COST ANALYSIS  
TABLE NO 1**

Phase name	Phase	
	Construction Cost	Phase Total Cost
Primary treatment	\$ 857,000	\$ 1,281,215.00
AO Process	\$ 2,175,000	\$ 3,251,625.00
Dewatering	\$ 786,000	\$ 1,175,070.00
Anaerobic Digester	\$ 6,074,000	\$ 9,080,630.00
Disinfection	\$ 1,039,000	\$ 1,553,305.00
Miscellaneous	\$ 2,750,000	\$ 4,111,250.00
<b>TOTAL</b>		<b>\$20,453,095.00</b>

Grant level 25%  
User fee escalation rate 3%  
Cost escalation rate 3%  
Bond Finance rate 3%  
Loan term (years) 20

**PHASED PROJECT**

Year	#of EDUs	\$ per EDU	Total WW Revenue	Bond Plus Reserve Revenue	Non-capital operating costs	Bond Plus Reserve Balance	Reserve Payment	Improvement Project Name	Capital Expenditure	Escalated Capital Cost	Salvage Value in 2042	New Bond Payments	TOTAL COST
2022	8,972	\$ 283	\$ 2,539,076	\$ 890,000	\$ 1,649,076	\$ 500,000							
2023	8,972	\$ 400	\$ 3,588,800	\$ 1,890,252	\$ 1,698,548	\$ 1,999,043		Digesters	\$ 6,810,473	\$ 7,760,258	\$ -	\$ 391,208	
2024	8,972	\$ 412	\$ 3,696,464	\$ 1,946,959	\$ 1,749,505	\$ 1,744,840	\$ 1,809,954	Disinfection	\$ 1,553,305	\$ 1,809,954	\$ 90,498	\$ 391,208	
2025	8,972	\$ 424	\$ 3,807,358	\$ 2,005,368	\$ 1,801,990	\$ 3,359,000	\$ -			\$ -	\$ -	\$ 391,208	
2026	8,972	\$ 437	\$ 3,921,579	\$ 2,065,529	\$ 1,856,050	\$ 1,077,021	\$ 3,956,299	AO Process	\$ 3,251,625	\$ 3,956,299	\$ 593,445	\$ 391,208	
2027	8,972	\$ 450	\$ 4,039,226	\$ 2,127,495	\$ 1,911,731	\$ 2,813,307	\$ -			\$ -	\$ -	\$ 391,208	
2028	8,972	\$ 464	\$ 4,160,403	\$ 2,191,320	\$ 1,969,083	\$ 3,123,261	\$ 1,490,157	Dewatering	\$ 1,175,070	\$ 1,490,157	\$ 372,539	\$ 391,208	
2029	8,972	\$ 478	\$ 4,285,215	\$ 2,257,059	\$ 2,028,155	\$ 4,989,112	\$ -			\$ -	\$ -	\$ 391,208	
2030	8,972	\$ 492	\$ 4,413,771	\$ 2,324,771	\$ 2,089,000	\$ 1,497,788	\$ 5,424,887	Miscellaneous	\$ 4,111,250	\$ 5,424,887	\$ 1,898,711	\$ 391,208	
2031	8,972	\$ 507	\$ 4,546,184	\$ 2,394,514	\$ 2,151,670	\$ 3,501,093	\$ -			\$ -	\$ -	\$ 391,208	
2032	8,972	\$ 522	\$ 4,682,570	\$ 2,466,350	\$ 2,216,220	\$ 3,819,870	\$ 1,756,365	Primary treatment	\$ 1,281,215	\$ 1,756,365	\$ 790,364	\$ 391,208	
2033	8,972	\$ 538	\$ 4,823,047	\$ 2,540,340	\$ 2,282,707	\$ 5,969,002	\$ -			\$ -	\$ -	\$ 391,208	
2034	8,972	\$ 554	\$ 4,967,739	\$ 2,616,550	\$ 2,351,188	\$ 8,194,344	\$ -			\$ -	\$ -	\$ 391,208	
2035	8,972	\$ 570	\$ 5,116,771	\$ 2,695,047	\$ 2,421,724	\$ 10,498,182	\$ -			\$ 10,498,182	\$ -	\$ 391,208	
2036	8,972	\$ 587	\$ 5,270,274	\$ 2,775,898	\$ 2,494,375	\$ 12,882,872	\$ -			\$ -	\$ -	\$ 391,208	
2037	8,972	\$ 605	\$ 5,428,382	\$ 2,859,175	\$ 2,569,207	\$ 15,350,839	\$ -			\$ -	\$ -	\$ 391,208	
2038	8,972	\$ 623	\$ 5,591,233	\$ 2,944,951	\$ 2,646,283	\$ 17,904,581	\$ -			\$ -	\$ -	\$ 391,208	
2039	8,972	\$ 642	\$ 5,758,970	\$ 3,033,299	\$ 2,725,671	\$ 20,546,672	\$ -			\$ -	\$ -	\$ 391,208	
2040	8,972	\$ 661	\$ 5,931,740	\$ 3,124,298	\$ 2,807,442	\$ 23,279,762	\$ -			\$ -	\$ -	\$ 391,208	
2041	8,972	\$ 681	\$ 6,109,692	\$ 3,218,027	\$ 2,891,665	\$ 26,106,580	\$ -			\$ -	\$ -	\$ 391,208	
2042	8,972	\$ 701	\$ 6,292,983	\$ 3,314,568	\$ 2,978,415	\$ 29,029,940	\$ -			\$ -	\$ -	\$ 391,208	
<b>TOTAL</b>							\$ 14,437,663				\$ 3,745,557	\$ 7,824,169	\$ 18,516,275

**SINGLE PROJECT**

Year	#of EDUs	\$ per EDU	Total WW Revenue	Bond Plus Reserve Revenue	Non-capital operating costs	Bond Plus Reserve Balance	Reserve Payment	Improvement Project Name	Capital Expenditure	Escalated Capital Cost	Salvage Value in 2042	New Bond Payments	TOTAL COST
2022	8,972	\$ 283	\$ 2,539,076	\$ 890,000	\$ 1,649,076	\$ 500,000				\$ -			
2023	8,972	\$ 350	\$ 3,140,200	\$ 1,441,652	\$ 1,698,548	\$ 1,060,499	\$ -	Full Project	\$ 15,339,821	\$ 17,479,107		\$ 881,153	
2024	8,972	\$ 361	\$ 3,234,406	\$ 1,484,901	\$ 1,749,505	\$ 1,664,247	\$ -			\$ -		\$ 881,153	
2025	8,972	\$ 371	\$ 3,331,438	\$ 1,529,448	\$ 1,801,990	\$ 2,312,543	\$ -			\$ -		\$ 881,153	
2026	8,972	\$ 382	\$ 3,431,381	\$ 1,575,332	\$ 1,856,050	\$ 3,006,721	\$ -			\$ -		\$ 881,153	
2027	8,972	\$ 394	\$ 3,534,323	\$ 1,622,592	\$ 1,911,731	\$ 3,748,160	\$ -			\$ -		\$ 881,153	
2028	8,972	\$ 406	\$ 3,640,352	\$ 1,671,269	\$ 1,969,083	\$ 4,538,277	\$ -			\$ -		\$ 881,153	
2029	8,972	\$ 418	\$ 3,749,563	\$ 1,721,408	\$ 2,028,155	\$ 5,378,532	\$ -			\$ -		\$ 881,153	
2030	8,972	\$ 430	\$ 3,862,050	\$ 1,773,050	\$ 2,089,000	\$ 6,270,428	\$ -			\$ -		\$ 881,153	
2031	8,972	\$ 443	\$ 3,977,911	\$ 1,826,241	\$ 2,151,670	\$ 7,215,517	\$ -			\$ -		\$ 881,153	
2032	8,972	\$ 457	\$ 4,097,249	\$ 1,881,029	\$ 2,216,220	\$ 8,215,392	\$ -			\$ -		\$ 881,153	
2033	8,972	\$ 470	\$ 4,220,166	\$ 1,937,459	\$ 2,282,707	\$ 9,271,699	\$ -			\$ -		\$ 881,153	
2034	8,972	\$ 484	\$ 4,346,771	\$ 1,995,583	\$ 2,351,188	\$ 10,386,129	\$ -			\$ -		\$ 881,153	
2035	8,972	\$ 499	\$ 4,477,174	\$ 2,055,451	\$ 2,421,724	\$ 11,560,427	\$ -			\$ -		\$ 881,153	
2036	8,972	\$ 514	\$ 4,611,490	\$ 2,117,114	\$ 2,494,375	\$ 12,796,388	\$ -			\$ -		\$ 881,153	
2037	8,972	\$ 529	\$ 4,749,834	\$ 2,180,628	\$ 2,569,207	\$ 14,095,863	\$ -			\$ -		\$ 881,153	
2038	8,972	\$ 545	\$ 4,892,329	\$ 2,246,046	\$ 2,646,283	\$ 15,460,756	\$ -			\$ -		\$ 881,153	
2039	8,972	\$ 562	\$ 5,039,099	\$ 2,313,428	\$ 2,725,671	\$ 16,893,031	\$ -			\$ -		\$ 881,153	
2040	8,972	\$ 578	\$ 5,190,272	\$ 2,382,831	\$ 2,807,442	\$ 18,394,709	\$ -			\$ -		\$ 881,153	
2041	8,972	\$ 596	\$ 5,345,980	\$ 2,454,316	\$ 2,891,665	\$ 19,967,872	\$ -			\$ -		\$ 881,153	
2042	8,972	\$ 614	\$ 5,506,360	\$ 2,527,945	\$ 2,978,415	\$ 21,614,664	\$ -			\$ -		\$ 881,153	
<b>TOTAL</b>							\$ -			\$ -		\$ 17,623,058	\$ 17,623,058

**TOWN OF MIDDLEBURY  
WASTEWATER TREATMENT FACILITY UPGRADE  
PHASE AND FUNDING COST ANALYSIS  
TABLE NO 2**

Phase		Construction	Phase Total
Phase name	Cost	Cost	
Primary treatment	\$ 857,000	\$ 1,281,215.00	
AO Process	\$ 2,175,000	\$ 3,251,625.00	
Dewatering	\$ 786,000	\$ 1,175,070.00	
Anaerobic Digester	\$ 6,074,000	\$ 9,080,630.00	
Disinfection	\$ 1,039,000	\$ 1,553,305.00	
Miscellaneous	\$ 2,750,000	\$ 4,111,250.00	
<b>TOTAL</b>		<b>\$20,453,095.00</b>	

Grant level 0%  
User fee escalation rate 3%  
Cost escalation rate 3%  
Bond Finance rate 0%  
Loan term (years) 20

**PHASED PROJECT**

Year	#of EDUs	\$ per EDU	Total WW Revenue	Bond Plus Reserve Revenue	Non-capital operating costs	Bond Plus Reserve Balance	Reserve Payment	Improvement Project Name	Capital Expenditure	Escalated Capital Cost	Salvage Value in 2042	New Bond Payments	TOTAL COST
2022	8,972	\$ 283	\$ 2,539,076	\$ 890,000	\$ 1,649,076	\$ 500,000							
2023	8,972	\$ 400	\$ 3,588,800	\$ 1,890,252	\$ 1,698,548	\$ 1,872,901		Digesters	\$ 9,080,630	\$ 10,347,011	\$ -	\$ 517,351	
2024	8,972	\$ 412	\$ 3,696,464	\$ 1,946,959	\$ 1,749,505	\$ 1,492,556	\$ 1,809,954	Disinfection	\$ 1,553,305	\$ 1,809,954	\$ 90,498	\$ 517,351	
2025	8,972	\$ 424	\$ 3,807,358	\$ 2,005,368	\$ 1,801,990	\$ 2,980,573	\$ -			\$ -	\$ -	\$ 517,351	
2026	8,972	\$ 437	\$ 3,921,579	\$ 2,065,529	\$ 1,856,050	\$ 572,452	\$ 3,956,299	AO Process	\$ 3,251,625	\$ 3,956,299	\$ 593,445	\$ 517,351	
2027	8,972	\$ 450	\$ 4,039,226	\$ 2,127,495	\$ 1,911,731	\$ 2,182,597	\$ -			\$ -	\$ -	\$ 517,351	
2028	8,972	\$ 464	\$ 4,160,403	\$ 2,191,320	\$ 1,969,083	\$ 2,366,409	\$ 1,490,157	Dewatering	\$ 1,175,070	\$ 1,490,157	\$ 372,539	\$ 517,351	
2029	8,972	\$ 478	\$ 4,285,215	\$ 2,257,059	\$ 2,028,155	\$ 4,106,117	\$ -			\$ -	\$ -	\$ 517,351	
2030	8,972	\$ 492	\$ 4,413,771	\$ 2,324,771	\$ 2,089,000	\$ 488,651	\$ 5,424,887	Miscellaneous	\$ 4,111,250	\$ 5,424,887	\$ 1,898,711	\$ 517,351	
2031	8,972	\$ 507	\$ 4,546,184	\$ 2,394,514	\$ 2,151,670	\$ 2,365,814	\$ -			\$ -	\$ -	\$ 517,351	
2032	8,972	\$ 522	\$ 4,682,570	\$ 2,466,350	\$ 2,216,220	\$ 2,558,449	\$ 1,756,365	Primary treatment	\$ 1,281,215	\$ 1,756,365	\$ 790,364	\$ 517,351	
2033	8,972	\$ 538	\$ 4,823,047	\$ 2,540,340	\$ 2,282,707	\$ 4,581,439	\$ -			\$ -	\$ -	\$ 517,351	
2034	8,972	\$ 554	\$ 4,967,739	\$ 2,616,550	\$ 2,351,188	\$ 6,680,638	\$ -			\$ -	\$ -	\$ 517,351	
2035	8,972	\$ 570	\$ 5,116,771	\$ 2,695,047	\$ 2,421,724	\$ 8,858,335	\$ -			\$ -	\$ -	\$ 517,351	
2036	8,972	\$ 587	\$ 5,270,274	\$ 2,775,898	\$ 2,494,375	\$ 11,116,883	\$ -			\$ -	\$ -	\$ 517,351	
2037	8,972	\$ 605	\$ 5,428,382	\$ 2,859,175	\$ 2,569,207	\$ 13,458,707	\$ -			\$ -	\$ -	\$ 517,351	
2038	8,972	\$ 623	\$ 5,591,233	\$ 2,944,951	\$ 2,646,283	\$ 15,886,308	\$ -			\$ -	\$ -	\$ 517,351	
2039	8,972	\$ 642	\$ 5,758,970	\$ 3,033,299	\$ 2,725,671	\$ 18,402,256	\$ -			\$ -	\$ -	\$ 517,351	
2040	8,972	\$ 661	\$ 5,931,740	\$ 3,124,298	\$ 2,807,442	\$ 21,009,204	\$ -			\$ -	\$ -	\$ 517,351	
2041	8,972	\$ 681	\$ 6,109,692	\$ 3,218,027	\$ 2,891,665	\$ 23,709,880	\$ -			\$ -	\$ -	\$ 517,351	
2042	8,972	\$ 701	\$ 6,292,983	\$ 3,314,568	\$ 2,978,415	\$ 26,507,097	\$ -			\$ -	\$ -	\$ 517,351	
<b>TOTAL</b>							\$ 14,437,663				\$ 3,745,557	\$ 10,347,011	\$ 21,039,118

**SINGLE PROJECT**

Year	#of EDUs	\$ per EDU	Total WW Revenue	Bond Plus Reserve Revenue	Non-capital operating costs	Bond Plus Reserve Balance	Reserve Payment	Improvement Project Name	Capital Expenditure	Escalated Capital Cost	Salvage Value in 2042	New Bond Payments	TOTAL COST
2022	8,972	\$ 283	\$ 2,539,076	\$ 890,000	\$ 1,649,076	\$ 500,000				\$ -			
2023	8,972	\$ 350	\$ 3,140,200	\$ 1,441,652	\$ 1,698,548	\$ 776,378	\$ -	Full Project	\$ 20,453,095	\$ 23,305,476		\$ 1,165,274	
2024	8,972	\$ 361	\$ 3,234,406	\$ 1,484,901	\$ 1,749,505	\$ 1,096,005	\$ -			\$ -		\$ 1,165,274	
2025	8,972	\$ 371	\$ 3,331,438	\$ 1,529,448	\$ 1,801,990	\$ 1,460,180	\$ -			\$ -		\$ 1,165,274	
2026	8,972	\$ 382	\$ 3,431,381	\$ 1,575,332	\$ 1,856,050	\$ 1,870,238	\$ -			\$ -		\$ 1,165,274	
2027	8,972	\$ 394	\$ 3,534,323	\$ 1,622,592	\$ 1,911,731	\$ 2,327,552	\$ -			\$ -		\$ 1,165,274	
2028	8,972	\$ 406	\$ 3,640,352	\$ 1,671,269	\$ 1,969,083	\$ 2,833,552	\$ -			\$ -		\$ 1,165,274	
2029	8,972	\$ 418	\$ 3,749,563	\$ 1,721,408	\$ 2,028,155	\$ 3,389,685	\$ -			\$ -		\$ 1,165,274	
2030	8,972	\$ 430	\$ 3,862,050	\$ 1,773,050	\$ 2,089,000	\$ 3,997,461	\$ -			\$ -		\$ 1,165,274	
2031	8,972	\$ 443	\$ 3,977,911	\$ 1,826,241	\$ 2,151,670	\$ 4,658,429	\$ -			\$ -		\$ 1,165,274	
2032	8,972	\$ 457	\$ 4,097,249	\$ 1,881,029	\$ 2,216,220	\$ 5,374,183	\$ -			\$ -		\$ 1,165,274	
2033	8,972	\$ 470	\$ 4,220,166	\$ 1,937,459	\$ 2,282,707	\$ 6,146,369	\$ -			\$ -		\$ 1,165,274	
2034	8,972	\$ 484	\$ 4,346,771	\$ 1,995,583	\$ 2,351,188	\$ 6,976,678	\$ -			\$ -		\$ 1,165,274	
2035	8,972	\$ 499	\$ 4,477,174	\$ 2,055,451	\$ 2,421,724	\$ 7,866,855	\$ -			\$ -		\$ 1,165,274	
2036	8,972	\$ 514	\$ 4,611,490	\$ 2,117,114	\$ 2,494,375	\$ 8,818,696	\$ -			\$ -		\$ 1,165,274	
2037	8,972	\$ 529	\$ 4,749,834	\$ 2,180,628	\$ 2,569,207	\$ 9,834,049	\$ -			\$ -		\$ 1,165,274	
2038	8,972	\$ 545	\$ 4,892,329	\$ 2,246,046	\$ 2,646,283	\$ 10,914,822	\$ -			\$ -		\$ 1,165,274	
2039	8,972	\$ 562	\$ 5,039,099	\$ 2,313,428	\$ 2,725,671	\$ 12,062,976	\$ -			\$ -		\$ 1,165,274	
2040	8,972	\$ 578	\$ 5,190,272	\$ 2,382,831	\$ 2,807,442	\$ 13,280,533	\$ -			\$ -		\$ 1,165,274	
2041	8,972	\$ 596	\$ 5,345,980	\$ 2,454,316	\$ 2,891,665	\$ 14,569,575	\$ -			\$ -		\$ 1,165,274	
2042	8,972	\$ 614	\$ 5,506,360	\$ 2,527,945	\$ 2,978,415	\$ 15,932,246	\$ -			\$ -		\$ 1,165,274	
<b>TOTAL</b>							\$ -			\$ -		\$ 23,305,476	\$ 23,305,476