Comox Valley REGIONAL DISTRICT

Staff report

DATE: February 12, 2014

FILE: 1700-02/336

TO: Chair and Directors
Comox Valley Sewage Commission

FROM: Debra Oakman, CMA
Chief Administrative Officer

RE: Updated long term financial plan projections
Comox Valley sewerage system

Purpose
To present updated long term financial plan projections for the Comox Valley sewerage service.

Policy analysis
By supplementary letters patent dated January 11, 1979 and amended January 14, 1982 the regional district was empowered to provide sewer interception, treatment and disposal of sewage primarily for the benefit of the City of Courtenay, the Town of Comox and on a contract basis to the Department of National Defence (DND), and the K'ómoks First Nation Indian Reserve No. 1 (KFN).

Bylaw No. 2541, being the "Comox Valley Sewerage Service Establishment Bylaw No. 2451, 2003" was adopted to convert the function to a service as defined in the bylaw. This bylaw also determines cost recovery from the participants.

Bylaw No. 71, being the "Comox Valley Sewerage Service Regulations, Fees and Charges Bylaw No. 71, 2010" sets the fees and charges for septage and grey-water disposal and compost sales.

At the January 28, 2014 Comox Valley Regional District (CVRD) sewage commission meeting the commission approved the following recommendation related to updating the long term financial plan for the sewerage service:

> *THAT additional financial analysis be completed to develop a long term funding strategy to meet long term capital needs for the Comox Valley Sewerage Service;*
>
> *AND FURTHER THAT the above analysis be presented at the February 2014 Comox Valley Regional District Sewage Commission meeting.*

Executive summary
The Comox Valley sewerage service is entering a time of significant capital infrastructure spending requirements. The completion of the 10-year prioritized capital plan in 2011 has provided the capital project requirements to 2021. Capital project priorities and timing included in the 10-year prioritized capital plan are based on a combination of remaining plant capacity and historical community growth. In addition, capital project costs are shown to occur in a single year thereby creating large peaks in spending. In January 2014 it was recommended that additional financial analysis be completed to further develop a long term funding strategy for the sewerage service. By reviewing capital project timing and spreading project costs over a greater period of time, the analysis completed shows that total debt costs can be reduced from $52.7 million to $16.0 million and that the future municipal requisition can be reduced from $8.0 million to $7.0 million.

The 10-year prioritized capital plan is the best and most current planning information available to the sewerage service in developing financial plans, however it is a long term planning document and should be reviewed on a regular basis in order to incorporate the latest population growth information, project priorities and project timing within the plan. The 10-year prioritized capital plan is next scheduled to be reviewed in 2014 which will help to inform future long term financial plan analysis.

Recommendation from the chief administrative officer:
THAT the proposed 2014-2018 financial plan for the Comox Valley sewerage service 2014-2018 be updated to include capital project timing and costs based on Scenario C from this updated long term financial plan projections staff report dated February 12, 2014.

Respectfully:

D. Oakman

Debra Oakman, CMA
Chief Administrative Officer

History/background factors
The Comox Valley sewage service was commissioned in 1984 and some 30 years later, parts of the service are reaching the end of their original design capacity. In order to meet existing system demands, provide system capacity increases to accommodate growth, mitigate environmental risk and meet future Ministry of Environment (MOE) permit requirements, major system improvements are required over the next several years.

In 2011 the CVRD completed the sewer master plan (SMP) and the 10-year prioritized capital plan. This planning work provides a schedule of required capital infrastructure projects to be completed from 2012 to 2021. Since 2012 this schedule has been used to inform the CVRDs annual budgeting process and the 2014-2018 Comox Valley sewerage service proposed financial plan currently includes over
$31 million in capital project requirements, while the longer term 10-year list shows $74.8 million.

At the January 28, 2014 CVRD sewage commission meeting the commission approved the following recommendation related to updating the long term financial plan for the sewerage service:

> *THAT additional financial analysis be completed to develop a long term funding strategy to meet long term capital needs for the Comox Valley Sewerage Service;*
>
> *AND FURTHER THAT the above analysis be presented at the February 2014 Comox Valley Regional District Sewage Commission meeting.*

Additional financial analysis has been completed to further develop the sewerage services long term capital project requirements. The capital project priorities and timing identified in 2011 as part of the SMP and 10-year prioritized capital plan have been reviewed based on the following criteria:

1. System capacity – As stated above, the Comox Valley water pollution control centre (CVWPCC) and its associated pump stations and forcemain are approaching their maximum design capacity. Based mainly on a combination of remaining system capacity and historical community growth, the 10-year prioritized capital plan recommended several major treatment system capacity upgrades as part of this update. The year of need for these projects has been reviewed by staff and adjusted based on current plant capacity.

2. Cash flow – The 10-year prioritized capital plan did not include a project cash flow analysis. Rather the full cost of each project identified in the plan was shown to be required in the year the project was recommended. This created peak years in capital spending and the need for large amounts of new debt to accommodate these peaks. A high level project cash flow analysis has been completed for each major project in the plan with a focus on spreading both the costs, and the flow of costs over the following main categories:

   a. preliminary engineering
   b. detailed engineering
   c. construction
   d. construction management

   This provides a more realistic cash flow analysis for the time required to complete larger capital infrastructure project and helps to reduce peaks in spending.

3. Work plan constraints – Internal CVRD resources are tasked with providing ongoing service as well as completing major capital infrastructure upgrades when required. The fluctuating needs of capital project priorities can create a higher than normal demand on staff resources at peak times. Spreading capital project work over a longer period of time can help to optimize the use of existing resources.

The following Table No. 1 shows major projects, previously identified as part of the 10-year prioritized capital plan, that have been reviewed based on the above criteria. The comments section describes how project timing has been affected.

Table No. 1: Major project review

Project Title	Cost ($)	Requirement	Comments
Expanded Compost Facility	$3,676,650	Capacity	Existing facility at 95% capacity. Engineering required in 2014 followed by construction in 2015
Docliddle Pump Station and forcemain	$10,700,550	Capacity/ Environmental	Project extended over 3 years instead of 2. Land procurement and preliminary engineering in 2014, detailed engineering in 2015 followed by construction in 2015 and 2016.
Greenwood Trunk	$3,822,000	New growth	Project extended over 3 years instead of 2. DND agreement and ROW's in 2014, detailed engineering in 2015 followed by construction in 2015 and 2016.
Hudson Trunk	$1,374,750	New growth	No change. Engineering in 2015 followed by construction in 2016.
CVWPCC – Phase 1	$6,500,000	Capacity/ MOE regulations	Project extended over 4 years instead of 2 and moved to begin in 2018 instead of 2015. Preliminary engineering in 2018 followed by detailed engineering in 2019 and construction spread over years in 2020 and 2021.
CVWPCC – Phase 2	$24,000,000[1]	Capacity/ MOE regulations	Project extended over 4 years instead of 2 and moved to begin in 2024 after the completion of the phase 1 upgrade. Preliminary engineering in 2024 followed by detailed engineering in 2025 and construction spread over years in 2026 and 2027.
New Courtenay Pump Station	$19,000,000[1]	Capacity	Project extended over 4 years instead of 2 and moved to begin in 2026 instead of 2021. Preliminary engineering in 2016 followed by detailed engineering in 2027 and construction spread over years in 2028 and 2029.

Note: includes 30 per cent engineering and contingency as per DCC update study

[1] 30 per cent contingency not included on this item

The net effect of the above review is that capital spending planned between 2014-2018 drops from $31 million to $21.4 million and the 10-year planned capital spending between 2014-2023 drops from $74.8 million to $30.7 million. The original list of required projects has now been spread over 16 years rather than the original 10 years. Appendix A provides a high level, long term (16-year) capital project cash flow for the Comox Valley sewerage service. These changes have created an opportunity for the service to accumulate additional capital works reserves, utilize greater transfers to capital and to reduce the overall future debt load requirement. These items will be presented in detail in the financial factors section below.

It can be seen above in Table No. 1 that the capital spending requirement over the next 16 years remains significant. The 10-year prioritized capital plan is the best planning information available to the sewerage service in developing financial plans, however it is a long term planning document and should be reviewed on a regular basis in order to incorporate the latest population growth information, project priorities and project timing within the plan. A sewerage system capacity analysis has been included in the proposed 2014-2018 financial plan which will further inform capital project timing and validate the above analysis. In addition, a development cost charge (DCC) update study will also be completed in 2014 which will incorporate updated community growth information as well as utilize the results of the system capacity analysis for the prioritization of capital projects.

Currently the CVWPCC operates under a MOE permit that sets a maximum daily flow of 18,500 cubic meters. Although this flow is sometimes exceeded during wet weather storm conditions (due to increased inflow and infiltration), treatment plant capacity surpasses this permit condition and wastewater quality levels are not exceeded.

Options

The commission has the following options:

1. Continue to utilize the existing 10-year prioritized capital plan for long term financial plan projections for the sewerage service.
2. Utilize the updated financial analysis completed as part of scenario B in which the capital project requirements are spread over 16 years and the municipal requisition is increased over time to $8.0 million.
3. Utilize the updated financial analysis completed as part of scenario C in which the capital project requirements are spread over 16 years and the municipal requisition is increased over time to $7.0 million in an effort to reduce future user rates.

The 2011 10-year prioritized capital plan is based on remaining system capacity and historical community growth. Projects identified in the plan are shown to be required in a single year thereby creating large peaks in capital spending. By reviewing project timing and spreading capital spending over a greater period of time, and into the future, an opportunity is created to fund a greater portion of capital spending with reserves and transfers to capital, rather than with new debt. This helps to significantly reduce future debt costs from $52.7 million to $16 million. In addition, limiting the future municipal requisition to $7 million (as opposed to $8 million) helps to reduce future service costs over the other two scenarios analyzed. As such, only option three above is recommended.

Financial factors

Previously completed long term 10-year financial planning shows that significant increases in the municipal requisition are required to fund increased debt servicing costs associated with capital project work. The analysis shows that the municipal requisition must increase from $4.3 million in 2014 up to $8 million in 2020 and then remain at that level going forward.

With the understanding that significant increases in the requisition are required to fund the service and the fact that total project requirements have not changed, addition financial analysis has been completed to better understand how spreading the capital project work over a greater period of time affects the services overall financial condition. The following three long term financial planning scenarios have been completed.

1. Scenario A – original base-case 10-year prioritized capital plan utilizing the recommended project timing form the 10-year prioritized capital plan. Future municipal requisition requirement of $8 million per year as previously determined.

2. Scenario B – revised 16-year capital plan utilizing updated year of need and cash flow requirements as described above. Future municipal requisition requirement held at $8 million as per the base case.

3. Scenario C - revised 16-year capital plan utilizing updated year of need and cash flow requirements as described above. Future municipal requisition requirement held at $7 million in an effort to reduce future user rates when compared to scenarios A and B above.

In order to complete the above analysis a summarized financial plan for each of the above scenarios has been prepared. Within each of these plans a unique set of capital funding opportunities are presented consisting mainly of transfers to capital, capital works reserves and debt proceeds. In addition, requisition requirements and the rate of requisition increases also vary between the three scenarios.

Appendix B provides a set of tables that summarize how each of the above factors varies between the three scenarios. The following section provides an explanation of these differences:

a) Municipal requisition – Regardless of the scenario, major increases in the requisition are required in order to fund capital project requirements going forward. Both scenario A and B reach a future requisition requirement of $8 million, although in scenario B an additional two years is required to reach this level. In scenario C the future requisition requirement is held at $7 million in an effort to reduce future costs over scenario A and B. The following Table No. 2 shows how the municipal requisition increases under each scenario.

Table No. 2: Municipal requisition increases

Year	Scenario A		Scenario B		Scenario C	
	Municipal Requisition	% increase	Municipal Requisition	% increase	Municipal Requisition	% increase
2014	$4,303,482		$4,257,800		$4,303,482	
2015	$4,819,796	12.0%	$4,673,600	9.8%	$4,776,865	11.0%
2016	$5,398,073	12.0%	$5,089,400	8.9%	$5,254,552	10.0%
2017	$6,045,882	12.0%	$5,505,200	8.2%	$5,727,461	9.0%
2018	$6,650,470	10.0%	$5,921,000	7.6%	$6,185,658	8.0%
2019	$7,315,517	10.0%	$6,336,800	7.0%	$6,618,654	7.0%
2020	$8,047,069	10.0%	$6,752,600	6.6%	$7,015,773	6.0%
2021	$8,047,069	0.0%	$7,168,400	6.2%	$7,015,773	0.0%
2022	$8,120,680	0.9%	$7,584,200	5.8%	$7,015,773	0.0%
2023	$8,120,680	0.0%	$8,000,000	5.5%	$7,015,773	0.0%

b) Transfer to capital – When a service collects revenue that exceeds its requirements for operations and maintenance, some of the excess revenue may be available to fund capital work. Under scenario A, transfers to capital are available in years 2019 and 2020 however in future years excess revenue is used to fund additional debt costs and is not available as a transfer to capital. In scenarios B and C, with project costs spread over a longer period of time, transfers to capital are available in a greater number of years, especially in future years when debt costs are not as high. The following Table No. 3 shows how total transfers to capital over the 16 years are impacted under each scenario.

Table No. 3: Transfers to capital

	Scenario A	Scenario B	Scenario C
Transfer to Capital	$9,714,874	$27,111,981	$22,242,148

c) Reserve contributions – Similar to transfers to capital, when a service collects revenue that exceeds its requirements for operational and maintenance purposes, the excess revenue can be deposited into a capital works reserve fund in years when transfers to capital are not required. In this way a service can accumulate reserve funds to put towards large future capital infrastructure requirements. Under scenario A reserve contributions are available in year 2018 however in future years any excess revenue is used to fund additional debt costs and is not available as a reserve contribution. In scenario B and C reserve contributions can be made in years 2017–2020 and also in years 2022–2025 thereby accumulating much larger reserves to fund future capital. The following Table No. 4 shows how total reserve contributions over the 16 years are impacted under each scenario.

Table No. 4: Reserve contributions

	Scenario A	Scenario B	Scenario C
Reserve Contributions	$5,296,818	$20,940,286	$19,133,731

d) New debt – Debt is utilized to fund capital projects in years when funding is not available from other sources like reserves or transfers to capital. Under scenario A debt requirements are significant as much of the capital work is focused in years 2015, 2016, 2020 and 2021 with over $52.9 million in new debt required. Under scenarios B and C, capital projects are spread over a greater time period allowing for greater reserve contributions and transfers to capital as described above. This significantly reduces the debt requirement which falls to $12 million under scenario B and $16 million under scenario C. The following Table No. 5 shows how total debt proceeds required over the 16 years are impacted under each scenario.

Table No. 5: Debt proceeds required

	Scenario A	Scenario B	Scenario C
Debt Proceeds	$52,697,713	$12,000,000	$16,000,000

In summary, spreading capital project costs over a longer period of time provides an opportunity for the sewerage service to accumulate capital works reserves, reduce debt requirements and utilize transfers to capital. However all of these opportunities remain contingent on increasing the municipal requisition in order to provide greater revenue to the service.

Although scenario C above requires an additional $4 million in future debt, it is recommend that this scenario be used for the sewerage service long term financial plan as it helps to reduce the future 2020 municipal requisition from $8 million to $7 million. The increase in the required municipal requisition has an impact on the annual municipal sewer charge in the City of Courtenay and Town of Comox. The following Table No. 6 shows how rates are projected to change over the first five years of the sewerage service financial plan based on scenario C.

Table No. 6: Projected annual municipal sewer charge (Courtenay and Comox)

Municipality	Annual Sewer User Rates					
	2013	2014	2015	2016	2017	2018
[2]Courtenay	$201	$225	$254	$285	$316	$348
[3]Comox	$294	$321	$354	$390	$426	$459

For the new debt proceeds included in the above long term financial planning work, the CVRD used a 20-year financing term and a five per cent interest rate. Long-term borrowing costs could be reduced by utilizing a shorter 15-year term. This shorter term equates to savings over the life of the borrowing but increases the required annual repayment amount. An analysis and comparison of shorter term debt has not been completed at this time as it is felt that that the requisition increase based on a 20-year term is already significant and reducing the term will further increase the requisition requirement. At the actual time of borrowing the CVRD will investigate various debt terms and interest rates and will select the most cost effective combination.

Legal factors
None

Sustainability implications
The Comox Valley sustainability strategy contains several targets applicable to the installation, operation and upgrade of the Comox Valley sewerage service. This includes reducing energy consumption and greenhouse gas emissions and considering waste flows as a resource. These targets will be incorporated into future operation and improvements of the Comox Valley sewerage service.

Intergovernmental factors
The Comox Valley sewerage service is governed by the sewage commission whose membership includes representatives from the Town of Comox, the City of Courtenay and the DND.

The sewerage service updated long term financial plan projects were reviewed at the January 30, 2014 sewage advisory committee meeting. Both the Town of Comox and City of Courtenay provided comments at the meeting which have been incorporated into the staff report and into the current revision of the plan. Both the City and Town supported moving forward with scenario C as recommended in this report.

Interdepartmental involvement
The financial services department works closely with the property services branch in the preparation of the financial plan by completing all budget calculations including the cost of the long-term debt financing.

Citizen/public relations
The 2014–2018 financial plan includes increases in the municipal requisition across four of the five years of the plan. These increases will impact users within the City of Courtenay and Town of Comox.

[2] City of Courtenay estimated annual sewer user rate provided by City of Courtenay
[3] Town of Comox estimated annual sewer user rate provided by Town of Comox

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Attachment: Appendix A– "Updated capital project cash flow"
Appendix B - "Scenario comparison highlight tables"

Project Description	10 Year Plan										Future Years						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Primary Clarifier B Drive/Motor	66,000																not a DCC project
Grit Tank B relining	30,000																not a DCC project
Expand compost facility (Detailed Engr)	367,665																DCC project
Dewatering Upgrade	760,000																DCC project
Docliddle PS and Forcemain (Land and Def Engr)	749,035																DCC project (18% funded by DCC's)
2nd DAF Unit - DCC project (cfw to 2014)	50,000																DCC project
Greenwood Trunk (DND Agreement, ROW, Land)	100,000																DCC project
Primary Clarifier C Drive/Motor		66,000															not a DCC project
Grit tank C relining		50,000															not a DCC project
Expand compost facility (Construction Mngt)		367,665															DCC project
Expand compost facility (Construction)		2,941,320															DCC project (100% funded by DCC's)
Docliddle PS and Forcemain (Detailed Engr)		1,070,050															DCC project (18% funded by DCC's)
Greenwood Trunk (Detailed Engr)		382,200															DCC project
Hudson Trunk (Detailed Engr)		137,475															DCC project
Docliddle PS and Forcemain (Construction Mngt)			321,015														DCC project (18% funded by DCC's)
Docliddle PS and Forcemain (Construction)			8,560,400														DCC project (18% funded by DCC's)
Greenwood Trunk (Construction Mngt)			382,200														DCC project
Greenwood Trunk (Construction)			2,957,600														DCC project
Hudson Trunk (Construction Mngt)			137,475														DCC project
Hudson Trunk (Construction)			1,099,800														DCC project
Switchboard replacement (AMP)				116,500													DCC project
Motor Control Centre (MCC) "B" (AMP)				97,000													DCC project
Motor Control Centre (MCC) "C" (AMP)				71,000													DCC project
Motor Control Centre (MCC) "D" (AMP)				103,500													DCC project
Motor Control Centre (MCC) "E" (AMP)				90,500													DCC project
Treatment Plant Upgrade - Ph. 1 (Definition Engr)					195,000												DCC project
CFB Comox PS Upgrade (Detailed Engr)					52,000												DCC project
Treatment Plant Upgrade - Ph. 1 (Detailed Engr)						650,000											DCC project
CFB Comox PS Upgrade (Construction)						468,000											DCC project
Treatment Plant Upgrade - Ph. 1 (Construction Mngt)							152,000	303,000									DCC project
Treatment Plant Upgrade - Ph. 1 (Construction)							1,700,000	3,500,000									DCC project
New primary clarifier (engineering)								250,900									DCC project
New primary clarifier									2,256,800								DCC project
Treatment Plant Upgrade - Ph. 2 (Definition Engr)											720,000						DCC project
Treatment Plant Upgrade - Ph. 2 (Detailed Engr)												1,600,000	800,000				DCC project
Replace Courtenay PS and FM (Definition Engr)													570,000				DCC porject (70% funded by DCC's)
Treatment Plant Upgrade - Ph. 2 (Construction Mngt)													560,000	1,120,000			DCC project
Treatment Plant Upgrade - Ph. 2 (Construction)													6,400,000	12,800,000			DCC project
Replace Courtenay PS and FM (Detailed Engr)														1,266,667	633,333		DCC porject (70% funded by DCC's)
Replace Courtenay PS and FM (Construction Mngt)															443,333	886,667	DCC porject (70% funded by DCC's)
Replace Courtenay PS and FM (Construction)															5,066,667	10,133,333	DCC porject (70% funded by DCC's)
Allowance										100,000							
	2,122,700	**5,014,710**	**13,458,490**	**478,500**	**247,000**	**1,118,000**	**1,852,000**	**4,053,900**	**2,256,800**	**100,000**	**720,000**	**1,600,000**	**8,330,000**	**15,186,667**	**6,143,333**	**11,020,000**	$ 73,702,100

Appendix B:

Each of the following tables summarizes a key element of the financial analysis and displays the results for each of the three scenarios analyzed.

a) Municipal Requisition:

Year	Scenario A		Scenario B		Scenario C	
	Municipal Requisition	% increase	Municipal Requisition	% increase	Municipal Requisition	% increase
2014	4,303,482		4,257,800		4,303,482	
2015	4,819,796	12.0%	4,673,600	9.8%	4,776,865	11.0%
2016	5,398,073	12.0%	5,089,400	8.9%	5,254,552	10.0%
2017	6,045,882	12.0%	5,505,200	8.2%	5,727,461	9.0%
2018	6,650,470	10.0%	5,921,000	7.6%	6,185,658	8.0%
2019	7,315,517	10.0%	6,336,800	7.0%	6,618,654	7.0%
2020	8,047,069	10.0%	6,752,600	6.6%	7,015,773	6.0%
2021	8,047,069	0.0%	7,168,400	6.2%	7,015,773	0.0%
2022	8,120,680	0.9%	7,584,200	5.8%	7,015,773	0.0%
2023	8,120,680	0.0%	8,000,000	5.5%	7,015,773	0.0%
2024	8,120,680	0.0%	8,000,000	0.0%	7,015,773	0.0%
2025	8,120,680	0.0%	8,000,000	0.0%	7,015,773	0.0%
2026	8,120,680	0.0%	8,000,000	0.0%	7,015,773	0.0%
2027	8,120,680	0.0%	8,000,000	0.0%	7,015,773	0.0%
2028	8,120,680	0.0%	8,000,000	0.0%	7,015,773	0.0%
2029	8,120,680	0.0%	8,000,000	0.0%	7,015,773	0.0%

b) Transfer to Capital:

Year	Scenario A	Scenario B	Scenario C
2014	1,343,470	1,245,869	1,166,700
2015	805,000	943,563	1,046,774
2016	465,000	1,112,929	1,277,999
2017	578,500	0	0
2018	100,000	247,000	247,000
2019	2,148,848	618,000	618,000
2020	2,474,528	1,352,000	1,352,000
2021	999,528	2,769,288	2,614,925
2022	100,000	1,756,800	1,186,602
2023	100,000	0	0
2024	100,000	220,000	220,000
2025	100,000	600,000	600,000
2026	100,000	4,060,766	3,074,622
2027	100,000	4,003,179	3,016,997
2028	100,000	4,183,750	3,172,529
2029	100,000	3,998,837	2,648,000
Totals	**9,714,874**	**27,111,981**	**22,242,148**

c) Reserve Contributions:

Year	Scenario A	Scenario B	Scenario C
2014	235,500	235,500	360,329
2015	235,500	235,500	235,500
2016	235,500	235,500	235,500
2017	380,517	1,355,432	1,577,579
2018	1,619,301	1,660,807	1,923,829
2019	235,500	1,656,457	1,936,642
2020	235,500	1,288,124	1,549,595
2021	235,500	235,500	235,500
2022	235,500	1,611,630	1,611,630
2023	235,500	3,731,029	2,744,995
2024	235,500	4,020,840	3,034,771
2025	235,500	3,731,967	2,745,861
2026	235,500	235,500	235,500
2027	235,500	235,500	235,500
2028	235,500	235,500	235,500
2029	235,500	235,500	235,500
Totals	**5,296,818**	**20,940,286**	**19,133,731**

d) New Debt:

Year	Scenario A	Scenario B	Scenario C
2014	0	0	0
2015	11,707,597	0	0
2016	6,729,954	7,000,000	7,000,000
2017	0	0	0
2018	0	0	0
2019	0	0	0
2020	18,000,000	0	0
2021	16,260,162	0	0
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	0	0
2027	0	0	0
2028	0	0	1,000,000
2029	0	5,000,000	8,000,000
Totals	**52,697,713**	**12,000,000**	**16,000,000**