### **EAST LYME WATER & SEWER COMMISSION SPECIAL MEETING MINUTES** Thursday, FEBRUARY 11th, 2016

Present:

Mark Nickerson, Chairman, Dave Bond, Steve DiGiovanna, David Jacques, Dave

Murphy, Carol Russell, Roger Spencer

Also Present: Joe Bragaw, Public Works Director

Brad Kargl, Municipal Utility Engineer

Anna Johnson, Finance Director

FILED IN EAST LYME CONNECTICUT EAST LYME TOWN CLERK

Absent:

Dave Zoller, Joe Mingo

### 1. Call to Order

Chairman Nickerson called this Special Meeting of the East Lyme Water & Sewer Commission to order at 6:30 PM and led the assembly in the Pledge of Allegiance.

### 2. Review of Water Capital Improvement Plan

Mr. Nickerson turned the meeting over to Mr. Kargl to explain the information that he had given them and what he is looking for. (Attachments)

Mr. Kargl said that he would explain the items that he is looking for authorization on and that would use up to \$429,304 from the \$808,177.64 that is in the Water department Capital Budget. He said that he is looking for authorization on the short term project items 1 through 13.

Mr. Kargl went through the various items and noted that they could barely do one of the larger projects and that he does not think that they can do the meter replacement program that they have been talking about here. He suggested doing it incrementally within the budget. He also noted that the CT DPH is on board with the Well 1A & 2A treatment study (Item #1 on the list)

Mr. Bragaw explained that they have around \$50,000 in the budget each year that could be used for the new meters with the object being to do the older meters that are having trouble and that have perhaps slowed down over time and really need to be changed. New installations would also get the new meters.

Mr. Bond said that they should have a set plan each year on how many and where they will be replacing meters rather than always kicking this item down the road all the time. And – new projects coming on line should always have the new meter system.

Mr. Bond also asked about Item #4 - the Society Road Bridge at \$35,000 as he had thought that they discussed it being a lot cheaper.

Mr. Kargl said that the worst case is the \$35,000 and that he has Mr. Scheer working with the DOT on it to try to get the costs down.

Ms. Russell said that she is concerned with the Well 6 project under the long term projects. Mr. Kargl said that he is waiting for the Tighe & Bond study to come back before anything is done. He noted that they are discussing the short term projects this evening. He continued that items 4 and 5 relating to the bridge work need to be done at this time as the bridge work is being done now. He also explained the booster pump station work and how it would be done.

Mr. Jacques asked how much it was to re-line versus the installation of the VFD's.

Mr. Kargl said that it would probably be in the \$8000 to \$12,000 range.

Mr. Jacques questioned if – for instance on King Arthur Drive – they could install 2 VFD's for less than the \$8,000 to \$12,000.

Mr. Kargl said that would be something that they would have to look at before doing the work. He continued that Well 5 needs to be cleaned and surged every 2 years due to iron and he recently found that we had lost 14% capacity after that work when it should have come back up. He said that he thinks that is a red flag that they need to start thinking of a replacement Well 5 within the 250' radius of the current well.

Mr. Bond asked what a new well would cost.

Mr. Kargl said that worst case – within the 250' radius - \$500,000 and it may be cheaper with the new technology that is out there today. He continued that the Roxbury Road tank has some sediment that will be removed under the operational budget while the work listed here for \$10,000 is for rusted anchor bolts and the concrete pad. The last item - #13 – the Chesterfield Pump Station - \$33,000 is for the installation of the materials that have already been purchased – 1 pump and 1 VFD

Mr. Nickerson said that they are looking for a motion to authorize spending for the 13 short term projects.

### \*\*MOTION (1)

Mr. DiGiovanna moved to approve up to \$429,304 from the Water Construction Account, for short term projects listed 1 through 13 in the attached spreadsheet entitled, "Proposed and/or Ongoing Capital Projects, \$6.5 Million Authorization," dated February 11, 2016. Mr. Murphy seconded the motion.

Vote: 7 - 0 - 0. Motion passed.

Ms. Johnson reviewed the debt amortization schedules (\$6M) for Well 1A and Well 2A Treatment Improvements. She noted that Mr. Kargl has said that they are ready to move forward with this project and as indicated in the schedules (attached) the year 2019 would represent nearly a \$1M debt service payment. If it were delayed a bit, it could be reduced. (Attachments)

Mr. Nickerson said that ideally moving this out two years would greatly help.

Mr. Bragaw suggested that they try to have \$125,000 in the budget in capital to try to offset the spike. He said that the biggest issue that he sees is getting over the spike.

Mr. Bond asked about doing one at a time.

Mr. Jacques asked if their timing is realistic that it would be in a year.

Mr. Karol said that the State thinks so – with the design being done by the end of the year.

Mr. Nickerson went back to Mr. Bond's question about doing them one at a time –

Mr. Bond asked where the money comes from for this - the ratepayers.

Mr. Kargl said yes, the money comes from the ratepayers.

Mr. Bond said that is a 40% increase and asked if they have looked for any grants or other money that is available to help with this.

Mr. Kargl said that he would keep on top of looking for funding.

Mr. Bond noted that they are getting ahead of themselves here until they see the study results.

Ms. Johnson said to answer Mr. Bond and Mr. Nickerson's question, that the State expects that the projects would be done together rather than one at a time.

Mr. Nickerson thanked everyone for coming for this Special Meeting.

### 3. Adjournment

\*\*MOTION (2)

Mr. DiGiovanna moved to adjourn this Special Meeting of the East Lyme Water & Sewer Commission at 7:42 PM.

Mr. Bond seconded the motion.

Vote: 7 - 0 - 0. Motion passed.

Respectfully submitted,

Karen Zmitruk, Recording Secretary

	Water Departm	ent (	Capital Budget S	Statu	IS	
		26-	Jan-16			
	İ	202	Jan-10		N.	Project
	Project		Budget		Balance	% Complete
1	Shore Road/Water Main Replacement	\$	198,000.00	\$	23,021.53	100
2	Replacement Well 2A	\$	500,000.00	\$	177,046.00	100
				_	44.054.00	
3	Replacement Well 3B	\$	1,000,000.00	\$	11,051.00	99
_	On a side AAA all languages and a	\$	400,000,00	\$	85,034.16	5
4	Security/Well Improvements	<b>D</b>	100,000.00	-	65,034.10	3
- 5	Emergency Power Generators	\$	225,000.00	\$	109,976.00	50
- 3	Emergency Fower Generators	Ψ	223,000.00	۳	100,070.00	- 50
6	Aquifer Mapping	\$	225,000.00	\$	5,682.00	100
Ť	riquier mapping	<u> </u>		Ť	-,	
7	Water Storage Tank	\$	400,000.00	\$	_	100
8	Regional Development	\$	25,000.00	\$	(2,954.00)	100
9	Chlorination/Bulk Chemical Storage	\$	1,650,000.00	\$	37,675.00	100
				_		
10	Well 4A Improvements	\$	50,000.00	\$	50,000.00	0
44	De level Mell Development		200 000 00		0.279.20	100
11	Bedrock Well Development	\$	380,000.00	\$	9,278.39	100
12	Regional Interconnection Project	\$	500,000.00	\$	33,827.75	93
- 12	Regional Interconnection Project	۳	300,000.00	۳	00,021.10	- 50
13	Stream Augmentation	\$	125,000.00	\$	10,048.81	100
-	on oan ragineriation	Ť		Ť		
14	Corey Lane Water Main Replacement	\$	100,000.00	\$	R	100
			**			
15	Pine Grove Water Main Replacement	\$	170,000.00	\$	-	100
16	Replacement Well 1A	\$	500,000.00	\$	-	100
				_	4.750.00	07
17	Booster Station Upgrades	\$	50,000.00	\$	1,758.00	97
40	Markon Marin Inspire Control	•	0.000.00	4	2 200 00	75
18	Water Main Improvements	\$	9,200.00	\$	2,300.00	/5
10	Columbus Ave Bridge Water Main	\$	70,000.00	\$		100
19	Columbus Ave Bridge vvaler iviail	Ψ	70,000.00	Ψ		100
20	Well 5 Roof Replacement		\$10,000.00	\$	3,200.00	100
20	Won o Roof Replacement		ψ.ο,οοο.οο	_	0,200.00	
21	Unallocated (undesignated)	\$	251,233.00	\$	251,233.00	0
			,			
	Total	\$	6,538,433.00	\$	808,177.64	

& most current

Jucochment WAS 2/11/16

East Lyme Water Department Capital Improvement Program February 11, 2016

THE PROPERTY OF THE PROPERTY O								
Designation of the second of t							1 1 2020	2021-2020
Replacement Well 1A	1,000,000				4			1
Replacement Well 2A	\$ 1,000,000.00							
Replacement Wells 3A, 3B, 4A & 6		·						\$ 1,000,000.00
Replacement Well 5		-	0					
Regional Interconnection	\$ 8213 465 00	_	25,000	,	\$ 500,000,000		5	\$ 1,000,000.00
Stream Augmentation (Well 5 and 6)		-				9		П
Darrow Pond Bedrock Well Development		9 6	4			9		S
Four Mile River Well Development (Rt. 1)	0	9 6			S		69	S
Well Development /Datt Biver An Morth of Loss	3,500,000,00					9		
DO Treatment (   Count	3,500		8	9	49	S		2 500 000 00
Other County of Sound	\$ 15,000,000.00	$\rightarrow$			69			- 1
Ouigi	1	69	S					- 1
Water Treatment Plant Improvements						,	9	,
System-wide Chlorine Disinf. & Chem. Storage	60	65						
Bride Lake Treatment Plant Fe/Mn Filter Rebed	570,000,00	00,000,00	000000		30			
Well 5 Treatment Plant Fe/Mn Filter Rebed		20,000	20,000,00	3	٠		•	\$ 300,000.00
Well 4A Treatment Plant FeMin Filter Debad		-	*	45,000.00	45,000.00	\$ 45,000.00	49	
Well & Treatment Dient Eiler Daked	\$ 285,000.00	_	*	•		60	S 45.009.0B	\$ 240,000,00
Mol 444 CAD III		_						
Well I/IA GAC Opgrades (Inc. In Well TA Fe/Mn Filtr Pt.)		_	0.9					200
well IA re/Mn Filtr. Plant w/upgrade to Well 6 Tr. Pl.		_	37,500.00	3 500 000 00				
Well ZA Fe/Mn Fiftr. Plant w/upgrade to BrLk. Tr Pl.	2,537	_	37 500 00	2 500 000 000			9	
Backwash Lagoons/Basins (Wells 3A/3B/5 & 6)	\$ 100,000,00	S		40,000,00				69
Water Distribution/Storage Improvements				and and a				\$ 90,000.00
Water Main Improvements	\$ 2,038,000,00	U	30,000,00					
Water Storage Tank Painting and Refurbishment	4		30,000,00		2	200,000,000		\$
Booster StationHydropneumatic Tank Relining	\$ 125,000,00		00.000	-			\$ 600,000.00	\$ 1,350,000.00
Booster Station Pump Refurbishment	957	900		OU OUNCE		15,000.00		s
Other	400	-	72,000,00	20,000,00	10,000.00	10,000.00		69
Controls/ Instr./SCADA/ Emergency Power			-					
SCADA Improvements								
Emergency Generator Wall 1A	ľ	-	8,000.00	Ce I	\$ 10,000,00	\$ 10,000.00	\$ 10,000.00	\$ 50,000,00
Emergency Generatore Rocetar Stations	00.000,001			\$ 100,000,00				
Cietomer Capicol Domest Manager		-4					\$ 50,000,00	\$ 50.000.00
Mater Deplacement Department								
Commonly Man A Common	2.2		9	20,090,00	\$ 50,000.00	50 000 00	S. Kn non no	200000000000000000000000000000000000000
Complementation and Audit	10,000.00		i de			SP. ARR CE		ı
Leak Detection Surveys and Mitigation	\$ 132,000.00	•		12,008.00		12 000 00		400,000,00
media continuincations Program			59					00.000.00
Permitting/Planning								
Well 3A Diversion Permit Renewal (Exp. 8/26/23)		69	M.	100				
Well 5 Diversion Permit Renewal (Exp. 8/21/33)	\$ 100,000.00			t				
Well 6 Diversion Permit Renewal (Exp. 10/30/22)	•	_						100,000,00
Reg. Int. Diversion Permit Renewal (Exp. (3/29/17)		1000		S OND ON				
Water Supply Plan Update (Appr. 2/16/07)	\$ 255,000,00		\$ 6.000.00	+				00.000,000
Water Treatment Wastewater General Permits		-		i i				00.000.007
Source Water Protection								
Level A Aquifer Mapping		69	69	t di				
Well 1A and 6 Groundwater Monitoring Network	\$ 75,000.00				75.000.00	,		
Other	S		t		13,000,00			
Security								A
Security Fencing/Cameras	\$ 45,000.00	\$ 5,000.00	S		40,000,00	40,000,00		
Miscellaneous					00:000	מייסמיים!	00'000'07	
Well 4A Air Gap	\$ 25,000.00			\$ 25,000,00				
Hydraulic Model			is.	200000	6 000 00			
Building Ugrades / Rehabilitation	\$ 516,800,00		S GRIDONI	30,000,00	100	E 000000	2,000.00	90,000.00
Columbus Ave Water Main Bridge Crossing	70,000	\$ 70,000.00	d		-	CO'COO'C	00'000'00	430,000,00
Other								

1

Treferenced in larger spreadsheet

2011 Authorization - Reg. Inter.

Operations \$6.5 Million Auth.

¥

2/11/18

Attachneux

SAM

### 11-Feb-16 \$6.5 Million Authorization Proposed and/or Ongoing Capital Projects

	£78,8 \$	\$ 166°30¢	\$ 130,000	000,295 \$	\$ 304,304	TOTALS
	£78,8 \$	000,075 \$	\$ 130,000	\$ 240,000	- \$	Long Term Projects Subtotals
Saluate after treatment study findings	£ <b>∠8</b> ′8 \$	000'07 \$	\$	\$ 20,000	\$	8 Building Upgrades - Well IA GAC Filter Building
	£78,873 <b>\$</b>	\$ 25,000	- \$	\$ 25,000	- \$	qsg riA A4 IləW 7
	£78,£2 \$	000'07 \$	000'07 \$	- \$	- \$	6 Security Fencing, Cameras
	£78,£9 \$	000'001 \$	- \$	\$ 100,000	- \$	5 Emergency Generator Well 1A
	£78,£91 \$	000'05 \$	- \$	000'0\$ \$	- \$	4 Ancient HWY Booster Station Upgrade
sanibrit ybuts treatment study findings		ن	ن	ن	S	3 Well IA GAC and Well 6 Fe/Mn Filter Refurb.
Spend over 3 years	\$ 243,873	\$ 132,000	000'06 \$	000'57 \$	- \$	2 Well 5 Filter Refurbishment
						LONG TERM PROJECTS
	£78,87£ \$	\$ 429,304	- \$	\$ 125,000	\$ 304,304	Short Term Projects Subtotals
And object to the sint - have do end a sold of of the thought	EL8'8LE \$	000, 8	- \$	- \$	000, 85 \$	3 Chesterfield PS Jockey Pump/VFD Install
Anchor bolt and conc crack repair and valve chamber access hatch repl.; complete by 7/1/16		000'01 \$	- \$	- \$	000'01 \$	2 Roxbury Road Water Storage Tank Improvements
The last two of six filters to be refurbished by 3/17		000'06 \$	- \$	000'06 \$		Bride Lake Filter Refurbishment (Filters 1 & 6)
Complete by 2/16 ( Cult Lace And X-Coot Alo Br. Och Disch	\$ 211,873	000'8 \$	- \$	- \$	000,8 \$	0 SCADA Control Imp. for Chemical Feed Lockouts
Well 5 is losing capacity; 26 years old, complete preliminary investigation by 12/31/16	£78,912 \$	\$ 25,000	- \$	- \$	\$ 22,000	9 Well 5 Replacement Well Investigation
Secommend that pumps and controls be ordered now due to 6 week lead time; complete by 6/1/16	£18'77S \$	000'98 \$	- \$	- \$	000'98 \$	8 Jean Drive Booster Station Upgrade
Secommend that pumps and controls be ordered now due to 6 week lead time; complete by 5/1/16	£78,082 \$	000'98 \$	- \$	- \$	000'98 \$	7 MacKinnon Place Booster Station Upgrade/
TDOT watermain relocation; reimbursable cost; purchase materials now; 4/1/16 start date	£78,873 \$	\$ 50,000	- \$	- \$	\$ 50,000	dridge over Pattagansett River (State Reimb.)
Betterment" work to coincide with CTDOT water main relocation; purchase mat. now; 4/1/16 start date	£78,8F3 \$	000,81 \$	- \$	- \$	000'81 \$	5 Route 1 Bridge over Pattagansett River
Approx. \$6,000 spent to date on bridge modifications; review options, worst case cost		000,25 \$	- \$	000,25 \$	- \$	4 Society Road Bridge
Completed 11/15; original estimate was \$7,000	£48'689 \$	\$ 11,304	- \$	\$	\$ 11,304	3 Clarks Hollow Blow-off Installation
Materials ship next week; install 2/16 or 3/16	LL1'10L \$	32,000	- \$	- \$	\$ 32,000	2 Bride Lake Filter Refurb. (Filters 2 & 5) - Install
Study initiated; complete 5/16 Was Quellor; 28d to be complete 5/16	LL1'EEL \$	000°SL \$	- \$	- \$	000,27 &	I Well 1A & 2A Treatment Study
	LLI'808 \$					I'M St VI BY GOPUSIC
Suita??	Balance	JunomA	later	EX 17	EX 16	SHOKT TERM PROJECTS
	Capital	Total	FY18 and			
	~		II			HP

ab of pulsed subset

Already completed

Due for reimbursement - most likely will not need to be taken from the bond

In the process of being done

\*\* Heading & Mas 2/11/16

Basic operational duties associated with the booster pump stations include maintaining the equipment, recording flow data on a weekly basis, and performing emergency shut down tests.

2005 TOWN OF EAST LYME WATER SUPPLY PLAN UPDATE													
			BLE IV	·									
	I	BOOSTER 1	PUMP FA	CILITIES									
Location Scaled	Installation Date 50,000 wi	Customer Services	Pump HP	Pumping Capacity  Lelied	100% Emergency Power	Hydro- pneumatic Storage (gal)							
Ancient Highway	1973	40	10	2 @ 177 gpm	Yes	1500							
Sunrise Trail (OVCACIO	) 1977	13	3	2 @ 25 gpm	No	1810							
Village Drive updated	_ 1986	45	3	2 @ 25 gpm	Yes	1800							
Jean Drive	1987	14	3	2 @ 25 gpm	Yes	1800							
MacKinnon Place	1987	14	3	2 @ 25 gpm	Yes	1750							
King Arthur Drive	1992	120	2	2 @ 25 gpm	Yes	3300							
Cedar Brook /KU	1993	14	2	2 @ 38 gpm	Yes	1500							
Chapman Woods Newer	1995	112	3	2 @ 25 gpm	Yes	1750							
Sleepy Hollow 1	2005	32	5	2 @ 40 gpm	Yes	1,000							

Sleepy Hollow will be on line approximately April 28, 2005 pending DPH final approval. Pump TDH of 90 Feet.

3@

gpm

Yes

161

for these Z. would like to order malerials later This year

2006

Orchards @ East Lyme

There is currently approximately 102 miles of underground pipe in the Town's municipal water distribution system. The distribution and transmission mains are as shown on Figure IV-1, the Water Supply and Distribution System Map, Existing Service Area.

The pipe sizes vary from 4-inch water mains to 16-inch transmission lines. An analysis of the Town's water distribution system was completed, indicating the following:

- 1. There is approximately 262,540 feet of 4-inch, 6-inch, 8-inch, 10-inch, 12-inch **CAST IRON** piping.
- 2. There is approximately 204,700 feet of **DUCTILE IRON** piping, ranging from 4-inch to 16-inch.
- 3. There is approximately 70,760 feet of 4-inch, 8-inch, 10-inch and 12-inch **ASBESTOS CEMENT** piping.

2005 East Lyme Water Supply Plan Update

IV-5

5/26/2005

1.000

Attachment Mes 2/11/16

## TOWN OF EAST LYME, CONNECTICUT

## PRO FORMA DEBT AMORTIZATION SCHEDULES

\$6,000,000

# WELL 1A AND WELL 2A TREATMENT IMPROVEMENTS

PREPARED BY:



February 10, 2016

Wes 2/11/16 Attachment

### **TOWN OF EAST LYME**

\$6,000,000 - WELL 1A & WELL 2A TREATMENT IMPROVEMENTS PRO FORMA DEBT AMORTIZATION TOTAL DEBT SERVICE ENTERPRISE FUND

### EXISTING PRINCIPAL & INTEREST

TOTAL

	EXICTING	į
SCAL VEAD		
TISCAL TEAK	DEBT SERVICE	RVICE
2016	₩	485,423
2017		504,903
2018		506,913
2019		631,343
2020		419,613
2021		408,948
2022		401,198
2023		409,208
2024		397.007
2025		466.618
2026		455,950
2027		437,340
2028		426,725
2029		358,855
2030		330,155
2031		45,955
2032		21,682
> 2033		10,841
TOTAL	es.	6,718,678

Existing Debt Service East Lyme Well 1A & 2A\_Pro Forma Financing Plan\_2\_10\_16.xlsx

Page 1

Stachment 2/11/14

Prepared by IBIC LLC 2/10/2016

### \$6,000,000 - WELL 1A AND WELL 2A TREATMENT IMPROVEMENTS PRO FORMA DEBT AMORTIZATION **TOWN OF EAST LYME**

## DEBT SERVICE SCHEDULE - PRINCIPAL & INTEREST

			١	V	8	Т																	
FISCAL	2016	2017	2018	- 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	TOTAL
ENTERPRISE FUND TOTAL ESTIMATED DEBT SERVICE	\$ 485,423	529,903	811,984	992,191	780,461	962'69/	762,046	770,056	757,855	827,466	816,799	798,189	787,574	719,704	691,004	406,804	382,530	371,689	360,848	360,848	360,848	330,778	\$ 13,874,796
Estimated Debt Service DWSRF @ 2.00% Well 2A \$5,500,000			\$ 275,000	330,778	330,770	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	330,778	\$ 6,559,774
6 ()					_	_					_	_	_	_	_	_	_	_	_	_	_	_	
Estimated Debt Service DWSRF @ 2.00% Well 1A Control \$500,000 Control 6/30/2017		25,000	30,071	30,00	30 074	30,02	0000	170,08	30,071	30,071	30,071	30,071	30,071	30,071	30,071	30,074	30,074	30,071	30,071	30,071	30,071		\$ 596,343
NTERPRIS EXISTII DEBT SEF	485,423	506,903	-631,343	419.613	408.948	401.198	409 208	397 007	000,000	460,010	400,800	437,340	420,725	200,000	330,155	10,000	7,007	10,841				1	6,718,678
FISCAL	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2022	2028	2020	2020	2034	2032	2033	2033	2035	2036	203	TOTAL	2

Prepared by IBIC LLC 2/10/2016

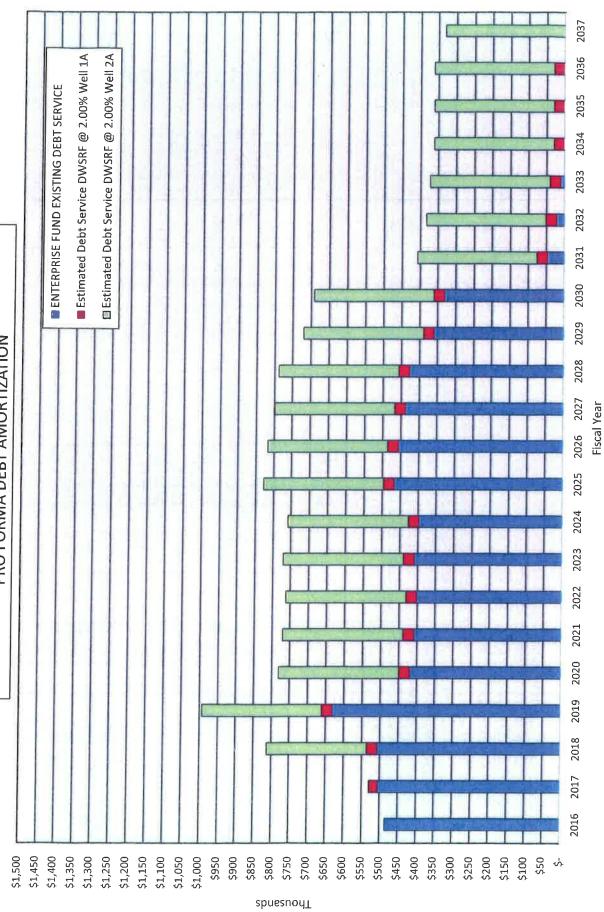
Page 2

Bonds - Estimated - P&I East Lyme Well 1A & 2A\_Pro Forma Financing Plan\_2\_10\_16.xlsx

91/11/2 S7 PM

Atachnea





Prepared by IBIC LLC 2/10/2016

Page 3

21/10/2 snn

Astachness

Chart Lyme Well 1A & 2A\_Pro Forma Financing Plan\_2\_10\_16.xlsx