SANFORD LAW OFFICE, PLLC
Jo Anne Sanford, Attorney at Law

February 26, 2016

Ms. Gail L. Mount, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4325

Via Electronic Filing

Re: Aqua North Carolina, Inc. - Ongoing Three-Year WSIC/SSIC Plan
Docket No. W-218, Sub 363A

Dear Ms. Mount:

Attached please find for filing Aqua's Ongoing Three-Year WSIC/SSIC Plan.

Pursuant to the General Rate Case Order issued on May 2, 2014, in Docket No. W-218, Sub 363 and Commission Rules R7-39(m) and R10-26(m), respectively, Aqua North Carolina, Inc. ("Aqua" or "Company") is required to file an Ongoing Three-Year WSIC/SSIC Plan within 60 days of the end of each water system and sewer system improvement charge period containing the following information:

a. A detailed description of all proposed eligible water [sewer] system improvements expected to be completed in the WSIC [SSIC] Period and an estimate of the cost of the improvements and dates when the improvements will be placed into service; and

b. A brief description of the proposed eligible water [sewer] system improvements, estimated costs, and completion dates for improvements that the Company plans to complete during the two years following the WSIC [SSIC] Period.

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Aqua will continue to discuss its Ongoing Three-Year Plan with the Public Staff to clarify and revise, if and as necessary, specific WSIC and SSIC proposed improvements and any eligibility or other relevant issues.

As always, thank you and your staff for your assistance; please feel free to contact me if there are questions or suggestions.

Sincerely,

Electronically Submitted
s/Jo Anne Sanford
State Bar # 6831
Attorney for Aqua North Carolina, Inc.

c: Parties of Record

VERIFICATION

Thomas J. Roberts, being duly sworn, deposes and says: that he is the President and Chief Operating Officer of Aqua North Carolina, Inc. ("Aqua"); that he is familiar with the facts set out in Aqua's **ONGOING THREE-YEAR WSIC/SSIC PLAN PURSUANT TO G.S. 62-133.12** filed in Docket No. W-218, Sub 363A; that he has read the foregoing plan and knows the contents thereof; and that the same is true of his knowledge except as to those matters stated therein on information and belief, and as to those he believes them to be true.

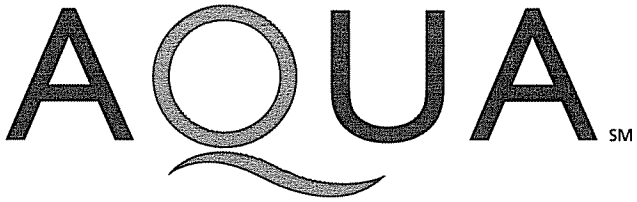
Thomas J. Roberts

Sworn to and subscribed before me this
the 25th day of February 2016.

Robyn E. Lambeth
Notary Public

My commission expires: May 13, 2016

ROBYN E. LAMBETH NOTARY PUBLIC WAKE COUNTY, NC



2016 Update
Three Year Plan WSIC/SSIC
Aqua North Carolina, Inc.

February 26, 2016

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I. EXECUTIVE SUMMARY

The following report provides an update to Aqua North Carolina, Inc.'s (Aqua or Company) ongoing three-year plan regarding the Company's authorized Water and Sewer System Improvement Charge ("WSIC/SSIC") mechanism. This ongoing three-year plan and annual updates are required by North Carolina Utilities Commission Rules R7-39(m) and R10-26(m).

Aqua's initial three-year WSIC/SSIC plan identified an expenditure of $26.1 million in capital improvements over five rate divisions for the period of January 2015 through December 2017; these capital improvements are defined in G.S. 62-133.12 (c) for water and G.S. 62-133.12 (d) for wastewater. The five rate divisions are:

1. ANC Water
2. Fairways Water
3. Brookwood Water
4. ANC Wastewater
5. Fairways Wastewater

Aqua made expenditures for WSIC/SSIC eligible projects during the calendar year 2015 totaling $8,882,528.59. The following update provides project-specific information for a total planned expenditure by Aqua of $32.6 million through December 31, 2017, on WSIC/SSIC projects.

TABLE 1: Total Reported and Planned WSIC/SSIC Expenditures

RATE DIVISION	2015 SPENT	2016 PLANNED	2017 PLANNED	TOTAL
ANC WATER	$ 4,988,389.03	$ 12,452,500.00	$ 7,880,000.00	$ 25,320,889.03
FAIRWAYS WATER	$ 3,856.77	$ 363,000.00	$ 630,000.00	$ 996,856.77
BROOKWOOD WATER	$ 1,083,344.26	$ 690,000.00	$ -	$ 1,773,344.26
ANC WW	$ 2,632,528.40	$ 1,664,090.00	$ -	$ 4,296,618.40
FAIRWAYS WW	$ 174,410.13	$ 450,000.00	$ -	$ 624,410.13
TOTAL	**$ 8,882,528.59**	**$ 15,619,590.00**	**$ 8,510,000.00**	**$ 33,012,118.59**

It is important to note that the above planned expenditures represent specific projects identified for the WSIC/SSIC mechanism. Due to changes in priorities, there is no guarantee that an identified project will move forward past the planning stages, unless it is identified as a high-priority project. Aqua continuously evaluates eligible WSIC/SSIC projects, and prioritizes projects based on the following: 1) Primary Water Quality Projects, 2) Secondary Water Quality Projects, 3) Distribution Replacements and Main Extensions, 4) Eligible Water and Wastewater Projects.

Therefore, Aqua is currently identifying primary and secondary water quality projects as high-priority.

II. WSIC PROGRAM

The following section identifies and summarizes the WSIC projects for the three-year period beginning January 2015 and ending December 2017. Appendix 1 provides a summary of all WSIC/SSIC eligible system improvements expected to be completed in the 2015-2017 on-going WSIC/SSIC three-year period. This includes project descriptions, estimates of probable costs, and expected completion dates. Appendix 2 provides a detailed overview of each proposed eligible 2016 project and includes project statements, previous actions, cost estimates, and schedules.

A. Subsection (c)(1): Main, Valve, Service, Meter, and Hydrant Replacement Projects

Aqua has increased planned expenditures in this category by $554,000 for a total of $7,680,264.31. The largest planned projects in this category include main replacements, specifically Camelot and Medfield main replacements, which account for approximately 50% of the planned expenditures. All main replacements to date were identified and selected based on substandard pipe materials, i.e. thin wall PVC pipe, galvanized iron pipe, or asbestos concrete pipe, and/or leak data suggesting that the leaks per mile were approaching or in excess of the industry average 25 to 30 leaks per 100 miles of pipe.

Expenditures for service line replacements were increased by nearly $693,000. Service line repairs were identified based on age, materials and leak history. Most services replaced were existing poly pipe, which has become brittle with age and is unrepairable. When such conditions were encountered and identified, whole system service replacements were performed, rather than waiting for individual service line failures.

B. Subsection (c)(2): Main Extension Capital Improvement Projects

Aqua has increased planned expenditures in this category by $811,463 for a total of $1,141,463. The majority of main extension projects completed to date were selected to improve potable water quality. The Hollywood Acres main extension project was performed to interconnect the existing potable water system with two (2) Aqua owned and operated systems to remove dependency of a methyl tertiary butyl ether (MTBE) contaminated well. The Snow's Cut water main extension was performed to create a water loop to eliminate dead ends to significantly reduce the possibility of disinfection by-product formation. Other planned projects include the River Road main extension project in Wilmington, which is required to promote water quality and system redundancy of the existing Fairways well network. Current planning indicates that because of the size of the project, it may be phased over two WSIC cycles.

C. Subsection (c)(3): Primary Drinking Water Quality Capital Improvements

Aqua has decreased planned expenditures in this category by $269,571.48 for a total of $3,099,869. Primary water quality projects are identified from compliance monitoring. Aqua has completed or is in the process of completing thirty one (31) primary water quality projects to significantly reduce and even eliminate contaminant concentrations of radionuclides, volatile organic compounds (VOCs), Total Organic Carbon (TOC), nitrates, arsenic, lead and copper. Radionuclide removal accounts for approximately 75% of the planned expenditures.

D. Subsection (c)(4): Secondary Drinking Water Quality Capital Improvements

Aqua has increased planned expenditures in this category by nearly $8 million for a total of $16,914,293. Aqua originally identified 34 secondary water quality filter projects to remove iron and manganese, and has since increased this number to 44 secondary water quality filter projects. It is important to note that the original 34 secondary water quality filter projects identified are not the same as the current 44 secondary water quality filter projects identified in this updated plan. Aqua has worked cooperatively with the Public Staff and the North Carolina Department of Environmental Water Quality (DEQ) to continuously reevaluate and identify systems requiring treatment. The basis for filter selection is a function of water quality, number of connections, customer complaints, well production and operational requirements.

Probable cost estimates for the procurement and installation of secondary water quality filter projects have increased from the previous plan report. Aqua currently utilizes the design-bid-build process and is observing increasing construction costs. For a typical filter, the cost of the required filter house is ranging from approximately $150 to $200 per square foot, which is nearly double Aqua's initial estimate of $100 per square foot. Cost increases are believed to be a direct result of building code requirements, inspections, complex electrical and controls, and labor costs. Contractors are reporting that labor costs are increasing proportionally with the recent reported growth in the utility and residential construction sector. Other factors increasing cost include the site topography and tree removal. Several of Aqua's well sites are located in heavily wooded areas with steep terrain requiring significant site clearing, slope stabilization, and grading.

Equipment and material costs have remained stable since the inception of the three-year plan. Aqua has developed a cooperative working relationship with AdEdge Technologies, the water treatment system vendor, to continuously identify ways to reduce treatment costs. Such savings identified to date include media selection, material selection, and bulk purchasing.

Currently, Aqua is reviewing the design process, construction materials, and construction methods to control project costs to increase construction timelines, which would directly benefit the impacted customers. Aqua's goal is to standardize filter

houses based on well flow rates and contaminate concentrations. Standardizing filter houses will allow Aqua to move towards a design-build schedule allowing cost plus contracts to better control contractor margins and control project costs. This process will also allow Aqua to investigate precast concrete filter houses, or other less labor intensive building methods to significantly reduce contract labor hours to better control costs.

E. Subsection (c)(5): North Carolina Department of Transportation (NCDOT) Utility Relocation Projects

Only two (2) NCDOT utility relocation projects of significant size were identified in the original three-year plan filed April 30, 2015. These include the River Road and Raeford Road projects located in Wilmington and Fayetteville, respectively. However, after coordinating efforts with NCDOT, neither of these projects will occur during the current WSIC cycle.

III. SSIC PROGRAM

The following section identifies and summarizes the SSIC projects for the three-year period beginning January 2015 and ending December 2017. Appendix 1 provides a summary of all WSIC/SSIC eligible system improvements expected to be completed in the 2015-2017 WSIC/SSIC Period. This includes project descriptions, estimates of probable costs, and expected completion dates. Appendix 2 provides a detailed overview of each proposed eligible 2016 project and includes project statements, previous actions, cost estimates, and schedules.

A. Subsection (d)(1): Collection Main Extension Projects to Implement Wastewater Solutions

Aqua has proposed two main extension projects to the Public Staff, Country Woods East main extension and the Dolphin Bay main extension. Both main extensions are required to convey collected wastewater from an aging treatment facility to a nearby treatment plant that has excess capacity. The revised three-year plan only includes $400,000 in planned expenditures for the Dolphin Bay main extension, as Aqua is still in discussion with the Public Staff concerning the Country Woods East main extension project .

B. Subsection (d)(2): Inflow and Infiltration (I&I) Projects

Aqua has decreased planned expenditures in this category by $254,396 for a total of $2,875,631. I&I projects were selected based on identifying wastewater plants with wet weather peaking factors greater than 3.0, or in the case of Neuse Colony, identifying wet weather peak flows greater than 100,000 gallons. Aqua has completed or is in the process of completing twenty (20) I&I projects to significantly reduce I&I.

C. Subsection (d)(3): NCDOT Utility Relocation Projects

Only one (1) NCDOT utility relocation project of significant size was identified in the original three-year plan filed April 30, 2015. This includes the River Road project located in Wilmington. However, after coordinating efforts with NCDOT, this project will not occur during the current SSIC cycle.

D. Subsection (d)(4): In-Kind Replacements of Pumps, Motors, Blowers and other Mechanical Equipment.

Aqua has decreased planned expenditures in this category by $666,271 for a total of $1,645,397. This category includes capital replacement projects for mechanical equipment used for the collection, conveyance and treatment of wastewater. Such equipment includes but is not limited to lift station pumps, air compressors, air blowers, pneumatic valves for efficient treatment plant operation, motors and other associated mechanical equipment.

IV. WSIC/SSIC 2018 PROGRAM

It is Aqua's expectation that investments on WSIC/SSIC projects will continue even after the 5% cap is met. Aqua also expects to request in its next general rate case the authority to request a reset of the current surcharge and the authority to file WSIC/SSIC going forward after the next general rate case order. To speculate what exact surcharge eligible projects will be undertaken in 2018 would be highly speculative, especially secondary water quality projects which require the approval of the North Carolina Utilities Commission.

Aqua's expectations for investment (by rate division) in 2018 are as follows:

- ANC Water:
  - Primary Water Quality - $300,000 - $500,000
  - Secondary Water Quality - $1,500,000 - $3,000,000
  - Distribution or Service Line Replacement - $1,500,000 - $1,750,000
  - Meter Replacement - $300,000 - $500,000
  - NCDOT Relocation - $150,000 - $250,000

- Fairways Water:
  - Primary Water Quality – None Expected
  - Secondary Water Quality – None Expected
  - Distribution or Service Line Replacement - $50,000 - $100,000
  - Meter Replacement - $25,000 - $50,000
  - NCDOT Relocation - $200,000 - $300,000

- Brookwood Water:
  - Primary Water Quality - $100,000 - $150,000
  - Secondary Water Quality – None Expected
  - Distribution or Service Line Replacement - $300,000 - $550,000
  - Meter Replacement - $50,000 - $80,000
  - NCDOT Relocation - $600,000 - $700,000

- ANC Wastewater:
  - Inflow and Infiltration Projects - $1,000,000 - $1,500,000
  - Mechanical Equipment - $300,000 - $500,000

- Fairways Wastewater:
  - Inflow and Infiltration Projects - $100,000 - $150,000
  - Mechanical Equipment - $25,000 - $50,000
  - NCDOT Relocation - $200,000 - $300,000

APPENDIX 1: WSIC/SSIC Three-Year Budget Plan

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WSIC/SSIC Projects - Aqua NC
Three-Year Plan

WSIC/SSIC Three Year Project Summary

Division	2015	2016	2017	Total
ANC Water	$ 4,988,389.03	$ 12,452,500.00	$ 7,880,000.00	$ 25,320,889.03
Fairways Water	$ 3,856.77	$ 363,000.00	$ 630,000.00	$ 996,856.77
Brookwood/LaGrange Water	$ 1,083,344.26	$ 690,000.00	$ -	$ 1,773,344.26
ANC WW	$ 2,632,528.40	$ 1,664,090.00	$ -	$ 4,296,618.40
Fairways WW	$ 174,410.13	$ 450,000.00	$ -	$ 624,410.13
Total	**$ 8,882,528.59**	**$ 15,619,590.00**	**$ 8,510,000.00**	**$ 33,012,118.59**

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WSIC - ANC Water Projects - Aqua NC
Three-Year Plan

ANC Water WSIC Project Summary

Description	2015	2016	2017	Total
Section C(1) - Distribution System Replacement Projects	**$ 749,122.72**	**$ 3,930,000.00**	**$ 2,140,000.00**	**$ 6,819,122.72**
8800 ANC Water - East Central	$ 501,712.90	$ 2,850,000.00	$ 1,950,000.00	$ 5,301,712.90
1010 ANC Water - Kernersville	$ 73,007.40	$ -	$ -	$ 73,007.40
8810 ANC Water - West	$ 134,543.93	$ 1,045,000.00	$ 190,000.00	$ 1,369,543.93
1015 ANC Water - Coast	$ 9,852.87	$ 35,000.00	$ -	$ 44,852.87
8830 ANC Water - Fayetteville	$ 30,005.62	$ -	$ -	$ 30,005.62
Section C(2) - Water Main Extensions	**$ 16,463.00**	**$ -**	**$ -**	**$ 16,463.00**
8000 ANC Water - East Central	$ 16,463.00	$ -	$ -	$ 16,463.00
Section C(3) - Primary Drinking Water Standards	**$ 876,009.53**	**$ 1,140,000.00**	**$ -**	**$ 2,016,009.53**
8800 ANC Water - East Central	$ 332,939.10	$ 850,000.00	$ -	$ 1,182,939.10
1010 ANC Water - Kernersville	$ 277,588.72	$ 290,000.00	$ -	$ 567,588.72
8810 ANC Water - West	$ -	$ -	$ -	$ -
1015 ANC Water - Coast	$ 265,481.71	$ -	$ -	$ 265,481.71
8830 ANC Water - Fayetteville	$ -	$ -	$ -	$ -
Section C(4) - Secondary Drinking Water Standards	**$ 3,346,793.78**	**$ 7,382,500.00**	**$ 5,740,000.00**	**$ 16,469,293.78**
8800 ANC Water - East Central	$ 3,326,586.93	$ 6,340,000.00	$ 5,740,000.00	$ 15,406,586.93
1010 ANC Water - Kernersville	$ 13,492.28	$ -	$ -	$ 13,492.28
8810 ANC Water - West	$ 6,714.57	$ 1,042,500.00	$ -	$ 1,049,214.57
1015 ANC Water - Coast	$ -	$ -	$ -	$ -
8830 ANC Water - Fayetteville	$ -	$ -	$ -	$ -
WSIC - ANC Total Projected Cost	**$ 4,988,389.03**	**$ 12,452,500.00**	**$ 7,880,000.00**	**$ 25,320,889.03**

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WSIC - ANC Water Projects - Aqua NC
Three-Year Plan

Section C(1) - Distribution System Replacement Projects

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8000 ANC Water - East Central								
1	FP35800016023	WSIC Meter/Meter Box Replacement	C.1 - Blanket	-	$ 15,782.07			$ 15,782.07
2	FP35800016486	WSIC Replace Services	C.1 - Blanket	-	$ 227,998.87			$ 227,998.87
3	**FP35800028906**	**WSIC Hydrant Replacement**	**C.1 - Blanket**	**-**	**$ 4,121.93**			**$ 4,121.93**
4	**FP35800055324**	**WSIC The Pointe Service Rplc**	**C.1**	**Complete**	**$ 66,133.44**			**$ 66,133.44**
5	**FP35800054722**	**WSIC Altice Estates Serv Rplc Proj**	**C.1**	**Complete**	**$ 83,762.04**			**$ 83,762.04**
6	**FP35800055325**	**WSIC Berkshire Downs Service Rplc**	**C.1**	**Complete**	**$ 54,611.05**			**$ 54,611.05**
7	**FP35800055323**	**WSIC Ponderosa Service Rplc**	**C.1**	**Complete**	**$ 49,303.50**			**$ 49,303.50**
8	FP35800052805	Emerald Village Main Replacement	C.1	March-16		$ 270,000.00		$ 270,000.00
9	FP35800052804	Royal Acres Main Replacement	C.1	March-16		$ 150,000.00		$ 150,000.00
10	FP35800052807	Medfield Estates Main Replacement	C.1	March-17		$ 1,000,000.00	$ 1,500,000.00	$ 2,500,000.00
11	FP35800052803	Heritage Springs Main Replacement	C.1	March-16		$ 115,000.00		$ 115,000.00
12	FP35800052806	Camelot Main Replacement	C.1	March-17		$ 900,000.00	$ 450,000.00	$ 1,350,000.00
13	**NEWFP358000**	**WSIC Birchfalls Service Replacements**	**C.1**	**March-16**		**$ 25,000.00**		**$ 25,000.00**
14	**FP3580057512**	**WSIC Cambridge Service Replacements**	**C.1**	**March-16**		**$ 60,000.00**		**$ 60,000.00**
15	**FP35800058284**	**WSIC Hunter's Landing Service Replacements**	**C.1**	**March-16**		**$ 100,000.00**		**$ 100,000.00**
16	**FP35800057514**	**WSIC Pine Country Service Replacements**	**C.1**	**March-16**		**$ 15,000.00**		**$ 15,000.00**
17	**FP3580005711**	**WSIC Riverview Estates North Service Replacemer**	**C.1**	**March-16**		**$ 55,000.00**		**$ 55,000.00**
18	**FP35800057513**	**WSIC Riverview Estates Service Replacements**	**C.1**	**March-16**		**$ 30,000.00**		**$ 30,000.00**
19	**FP35800058282**	**WSIC Sheffield Manor Service Replacements**	**C.1**	**March-16**		**$ 130,000.00**		**$ 130,000.00**
				SUBTOTAL	**$ 501,712.90**	**$ 2,850,000.00**	**$ 1,950,000.00**	**$ 5,301,712.90**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
1000 ANC Water - Kernersville								
20	FP35100015476	WSIC Meter/Meter Box Renovation	C.1 - Blanket	-	$ 8,450.29			$ 8,450.29
21	**FP35100039296**	**WSIC Meter Replacements - Kville**	**C.1 - Blanket**		**$ 11,751.75**			**$ 11,751.75**
22	FP35100016480	WSIC Replace Services	C.1 - Blanket	-	$ 25,483.76			$ 25,483.76
23	**FP35100039295**	**WSIC Main Replacement Crestwood**	**C.1**	**Complete**	**$ 12,594.04**			**$ 12,594.04**
24	**FP35100054388**	**WSIC Crestwood Service Replacement**	**C.1**	**Complete**	**$ 14,727.56**			**$ 14,727.56**
25	FP35100015475	WSIC Valve Replace Project	C.1 - Blanket	Omit				$ -
26	FP35100015466	WSIC Old Beau Water Main Replacement	C.1	Omit				$ -
				SUBTOTAL	**$ 73,007.40**	**$ -**	**$ -**	**$ 73,007.40**
8010 ANC Water - West								
27	FP35801016135	WSIC Meter/Meter Box Renovation	C.1 - Blanket	-	$ 30,811.34			$ 30,811.34
28	FP35801016487	WSIC Replace Services	C.1 - Blanket	-	$ 42,368.66			$ 42,368.66
29	FP35801016123	WSIC East Chestnut Meter Installation	C.1	Complete	$ 34,404.18			$ 34,404.18
30	FP35801016125	WSIC Quail Ridge Service Replacement	C.1	Complete	$ 26,959.75			$ 26,959.75
31	FP35801016104	WSIC Hill-n-Dale HDD Replacement	C.1	September-16		$ 250,000.00		$ 250,000.00
32	FP35801016105	WSIC Freemont Park Main Replacement	C.1	September-16		$ 360,000.00		$ 360,000.00
33	FP35801016106	WSIC Cedarwood Ac Main & Service Replacement	C.1	September-16		$ 110,000.00		$ 110,000.00
34	FP35801016107	WSIC Fallscrest Main Replacement	C.1	March-17		$ 75,000.00	$ 190,000.00	$ 265,000.00
35	FP35801016124	WSIC Oakly Park Valve Replacement Project	C.1	September-16		$ 25,000.00		$ 25,000.00
36	FP35801051921	WSIC Amy Acres Valve Replacement	C.1	September-16		$ 35,000.00		$ 35,000.00
37	FP35801051923	WSIC Brights Creek Main Replacement	C.1	September-16		$ 50,000.00		$ 50,000.00
38	**FP35801051920**	**WSIC Chipley Park Valve Replacement**	**C.1**	**September-16**		**$ 35,000.00**		**$ 35,000.00**
39	**FP35801052069**	**WSIC Fontain Village Valve Replacement**	**C.1**	**September-16**		**$ 40,000.00**		**$ 40,000.00**
40	**FP35801000000**	**WSIC East Chestnut Service 2**	**C.1**	**March-16**		**$ 65,000.00**		**$ 65,000.00**
41	FP35801094229	WSIC Southgate Main Replacement	C.1	Omit				$ -
42	FP35801016097	WSIC Malibu Point & Diamond Head Interconnect	C.4	Omit				$ -
43	FP35801016108	WSIC Murdock Main Replacement	C.1	Omit				$ -
				SUBTOTAL	**$ 134,543.93**	**$ 1,045,000.00**	**$ 190,000.00**	**$ 1,369,543.93**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
1003 ANC Water - Fayetteville								
44	FP35100315427	WSIC Meter/Meter Box Renovation	C.1 - Blanket	-	$ 377.50			$ 377.50
45	FP35100316481	WSIC Replace Services	C.1 - Blanket	-	$ 29,628.12			$ 29,628.12
46	FP35100315423	WSIC Woodlake Valve Replacement	C.1 - Blanket	-		$ 85,000.00		$ 85,000.00
				SUBTOTAL	**$ 30,005.62**	**$ -**	**$ -**	**$ 30,005.62**
1005 ANC Water - Coast								
47	FP35100516482	WSIC Replace Services	C.1 - Blanket	-	$ 2,205.28			$ 2,205.28
48	FP351005154878	WSIC Meter Rplc Harker's Village	C.1	Complete	$ 7,647.59			$ 7,647.59
49	FP35100515484	WSIC Seagate Valve Replacement	C.1	September-16		$ 35,000.00		$ 35,000.00
				SUBTOTAL	**$ 9,852.87**	**$ 35,000.00**	**$ -**	**$ 44,852.87**
Section C(1) - Distribution System Replacement Projects Totals				**TOTAL**	**$ 749,122.72**	**$ 3,930,000.00**	**$ 2,140,000.00**	**$ 6,819,122.72**

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WSIC - ANC Water Projects - Aqua NC
Three-Year Plan

Section C(2) - Water Main Extension Projects

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8000 ANC Water - East Central								
50	FP35800054482	WSIC Neuse River Vil Main Extension	C.2	Complete	$ 16,463.00			$ 16,463.00
				SUBTOTAL	$ 16,463.00	$ -	$ -	$ 16,463.00
8010 ANC Water - West								
51	FP35801053382	WSIC Hollywood Acres Interconnect	C.2	March-16		$ 145,000.00		$ 145,000.00
				SUBTOTAL	$ -	$ 145,000.00	$ -	$ 145,000.00
Section C(2) - Water Main Extension Project Totals				TOTAL	$ 16,463.00	$ 145,000.00	$ -	$ 161,463.00

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WSIC - ANC Water Projects - Aqua NC
Three-Year Plan

Section C(3) - Primary Drinking Water Standards

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8000 ANC Water - East Central								
52	FP35800016469	WSIC Timberline Shores Uranium Removal	C.3	Complete	$ 114,794.62			$ 114,794.62
53	FP35801016096	Country Acres Radium Removal	C.3	Complete	$ 85,929.94			$ 85,929.94
54	**FP35800015959**	**WSIC Tyler Farms VOC Removal**	**C.3**	**Complete**	**$ 63,876.33**			**$ 63,876.33**
55	**FP35800015957**	**WSIC Mountain Crk Nitrate Removal**	**C.3**	**Complete**	**$ 68,338.21**			**$ 68,338.21**
56	FP35800042130	WSIC Stonehenge #1&6 Radium & Fe/Mn Removal	C.3	September-16		$ 650,000.00		$ 650,000.00
57	FP35800060091	WSIC Broadhurst Well #2 Radium Removal	C.3	September-16		$ 200,000.00		$ 200,000.00
58	**FP35800053383**	**WSIC Thornburg Nitrate Filter**	**C.3**	**September-16**		**$ 100,000.00**		**$ 100,000.00**
59	FP35800015948	WSIC Primary WQ Marker - Future	C.3 - Blanket	Omit				$ -
60	FP35800016035	WSIC Crest of Carolina Radium Removal	C.3	Omit				$ -
61	FP35800016045	WSIC Rowland Pond Radium Removal	C.3	Omit				$ -
62	FP35800015954	WSIC Shannon Woods Radium Removal	C.3	Omit				$ -
63	FP35800015956	WSIC Silver Point VOC Removal	C.3	Omit				$ -
				SUBTOTAL	**$ 332,939.10**	**$ 850,000.00**	**$ -**	**$ 1,182,939.10**
1000 ANC Water - Kernersville								
64	FP35100016446	WSIC River Oaks Uranium Filters	C.3	Complete	$ 85,191.65			$ 85,191.65
65	FP35100016464	WSIC Collybrooke Arsenic Removal	C.3	Complete	$ 54,290.69			$ 54,290.69
66	FP35100016467	WSIC British Woods Nitrate Removal	C.3	Complete	$ 44,336.90			$ 44,336.90
67	**FP35100026923**	**WSIC Triple Lakes Filter Project**	**C.3**	**Complete**	**$ 93,769.48**			**$ 93,769.48**
68	**FP35100060527**	**WSIC Henson Farms #5 Radium Removal**	**C.3**	**September-16**		**$ 290,000.00**		**$ 290,000.00**
69	FP35100000000	WSIC Uranium Filter Bridalwood #1	C.3	Omit				$ -
70	FP35100000000	WSIC Uranium Filter Grayston #6	C.3	Omit				$ -
71	FP35100000000	WSIC Radium Filter Ridgecrest #2	C.3	Omit				$ -
				SUBTOTAL	**$ 277,588.72**	**$ 290,000.00**	**$ -**	**$ 567,588.72**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8010 ANC Water - West								
72	FP35801016109	WSIC Ashbrook Park Primary Removal	C.3	Omit				$ -
73	FP35801000000	WSIC Five Oaks#1 Rad & Fe/Mn Filter	C.3	Omit				$ -
74	FP35801000000	WSIC Uranium Filter Lamar Acres #1	C.3	Omit				$ -
75	FP35801000000	WSIC Uranium Filter Lamar Acres #2	C.3	Omit				$ -
76	FP35801000000	WSIC Radium Filter Beacon Point #1	C.3	Omit				$ -
				SUBTOTAL	**$ -**	**$ -**	**$ -**	**$ -**
1003 ANC Water - Fayetteville								
77	FP35100300000	WSIC Radium Filter Happy Valley	C.3	Omit				$ -
				SUBTOTAL	**$ -**	**$ -**	**$ -**	**$ -**
1005 ANC Water - Coast								
78	FP35100516668	WSIC Castle Bay TOC Filters	C.3	Complete	$ 265,481.71			$ 265,481.71
				SUBTOTAL	**$ 265,481.71**	**$ -**	**$ -**	**$ 265,481.71**
Section C(3) - Primary Drinking Water Standard Projects Totals				**TOTAL**	**$ 876,009.53**	**$ 1,140,000.00**	**$ -**	**$ 2,016,009.53**

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WSIC - ANC Water Projects - Aqua NC
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Section C(4) - Secondary Drinking Water Standards

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8000 ANC Water - East								
79	FP35800015962	WSIC Meadow Ridge #1 & #2 Fe/Mn Filter	C.4	Complete	$ 251,262.56			$ 251,262.56
80	FP35800015967	WSIC Forest Glen #1&2 Fe/Mn Cartridge	C.4	Complete	$ 8,521.40			$ 8,521.40
81	FP35801053384	Hillsboro 2&3 Cartridge	C.5	Complete	$ 4,008.08			$ 4,008.08
82	FP35800015970	WSIC Holland Ridge #3 Fe/Mn Cartridge	C.4	Complete	$ 4,821.37			$ 4,821.37
83	FP35800053253	WSIC High Meadow # 2/3 Fe/Mn Cartridge	C.4	Complete	$ 4,538.84			$ 4,538.84
84	FP35800051850	WSIC Ogburn Farms 1&2 Cartridge	C.4	Complete	$ 7,905.97			$ 7,905.97
85	FP35800016047	WSIC Greymoss #3 Fe/Mn Cartridge	C.4	Complete	$ 11,030.92			$ 11,030.92
86	FP35800016039	WSIC Highland Trail #1 Fe/Mn Cartridge	C.4	Complete	$ 3,718.34			$ 448,718.34
87	FP35800053251	Cotesworth - Kimmon Pl 1&3 Cartridge	C.4	Complete	$ 8,525.18			$ 8,525.18
88	FP35800053252	Cotesworth - Kensington Manor 1&3 Cartridge	C.4	Complete	$ 4,622.38			$ 4,622.38
89	FP35800015987	WSIC Stonebridge #17 Fe/Mn Filter	C.4	Complete	$ 307,193.01			$ 307,193.01
90	FP35800015989	WSIC Devon #1&3 Fe/Mn Filter	C.4	Complete	$ 532,952.76			$ 532,952.76
91	FP35800053254	Rowland Pond Acres 1&2 Cartridge	C.4	Complete	$ 8,217.66			$ 8,217.66
92	FP35800016038	WSIC Westmoor #1 Fe/Mn Filter	C.4	Complete	$ 287,577.63			$ 287,577.63
93	FP35800016043	WSIC Coachman's Trail #4 Fe/Mn Filter	C.4	Complete	$ 1,166,998.24			$ 1,166,998.24
94	FP35800016081	WSIC Olde Mill Stream #3 Fe/Mn Filter	C.4	Complete	$ 196,872.49			$ 196,872.49
95	FP35800015984	WSIC Stone Creek 18 Fe/Mn Filter	C.4	Complete	$ 215,092.45			$ 215,092.45
96	FP35800042132	WSIC Lake Rand #3 Fe/Mn Filter	C.4	Complete	$ 299,948.93			$ 299,948.93
97	FP35800042133	WSIC Greenfield Manor #2 Fe/Mn Cartridge	C.4	Complete	$ 2,778.72			$ 2,778.72
98	FP35800015971	WSIC Stoney Creek #1&4 Fe/Mn Removal	C.4	March-16		$ 400,000.00		$ 400,000.00
99	FP35800015993	WSIC Bloomfield #1&3 Fe/Mn Removal	C.4	September-16		$ 525,000.00		$ 525,000.00
100	FP35800016036	WSIC Hallmark #2 Fe/Mn Removal	C.4	September-16		$ 325,000.00		$ 325,000.00
101	**FP35800016036**	**WSIC Hallmark #3 Fe/Mn Removal**	**C.4**	**September-16**		**$ 325,000.00**		**$ 325,000.00**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
102	FP35800042131	WSIC Crescent Ridge #5&6 Fe/Mn Removal	C.4	September-16		$ 400,000.00		$ 400,000.00
103	FP35800042128	WSIC Springfield N Well 2 & 3 Fe/Mn	C.4	September-16		$ 500,000.00		$ 500,000.00
104	FP35800051857	WSIC Waterfall Plantation #5 Fe/Mn Filter	C.4	September-16		$ 460,000.00		$ 460,000.00
105	**FP35800051782**	**WSIC Highland Trail #1 Fe/Mn Filter**	**C.4**	**September-16**		**$ 445,000.00**		**$ 445,000.00**
106	FP35800015965	WSIC Wynchstr #1 & Sedgmr #1 Fe/Mn Removal	C.4	September-16		$ 405,000.00		$ 405,000.00
107	FP35800042126	WSIC West Oaks 540 Well #1 Fe/Mn	C.4	September-16		$ 375,000.00		$ 375,000.00
108	**FP35800060543**	**WSIC Shadow Lakes #1 Fe/Mn Filter**	**C.4**	**September-16**		**$ 490,000.00**		**$ 490,000.00**
109	**FP3580000000**	**WSIC Surry Point #3 Fe/Mn Filter**	**C.4**	**September-16**		**$ 460,000.00**		**$ 460,000.00**
110	**FP35800094108**	**WSIC Greymoss #5 & #6 Fe/Mn Filter**	**C.4**	**September-16**		**$ 620,000.00**		**$ 620,000.00**
111	**FP35800060544**	**Wakefield #5 & #6 Fe/Mn Filter**	**C.4**	**September-16**		**$ 610,000.00**		**$ 610,000.00**
112	**FP35800000000**	**Northgate Well #1 Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
113	**FP35800000000**	**WSIC Hampton Park #6 Fe/Mn Filter**	**C.4**	**March-17**			**$ 280,000.00**	**$ 280,000.00**
114	**FP35800000000**	**WSIC Tyndrum 1 Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
115	**FP35800000000**	**WSIC Forest Glen #2 Fe/Mn Filter**	**C.4**	**March-17**			**$ 380,000.00**	**$ 380,000.00**
116	**FP35800000000**	**WSIC Galloway 2 Fe/Mn Filter**	**C.4**	**March-17**			**$ 330,000.00**	**$ 330,000.00**
117	**FP35800000000**	**WSIC Bayleaf NOD Fe/MN Filters (6)**	**C.4**	**March-17**			**$ 1,950,000.00**	**$ 1,950,000.00**
118	**FP35800000000**	**WSIC Cambridge NOD Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
119	**FP35800000000**	**WSIC Cotesworth NOD Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
120	**FP35800000000**	**WSIC Fairview Wooded Acres NOD Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
121	**FP35800000000**	**WSIC Fox Run NOD Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
122	**FP35800000000**	**WSIC Windhaven NOD Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
123	**FP35800000000**	**WSIC Woods of Ashbury NOD Fe/Mn Filter**	**C.4**	**March-17**			**$ 350,000.00**	**$ 350,000.00**
124	FP35800015964	WSIC Robinswood #1 Fe/Mn Cartridge	C.4	Omit				$ -
125	FP3580000000	WSIC Upchurch Place Cartridge	C.4	Omit				$ -
126	FP35800016034	WSIC Wilders Ridge #2 Fe/Mn Removal	C.4	Omit				$ -
127	FP35800015982	WSIC Whispering Pines #1&3 Fe/Mn Removal	C.4	Omit				$ -
128	FP35800042129	WSIC Kensington Manor Fe/Mn	C.4	Omit				$ -
129	FP3580000000	WSIC Keeneland Manor 2 WQ Cartridges	C.4	Omit				$ -

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
130	FP3580000000	WSIC Royal Senter Ridge Cartridge	C.4	Omit				$ -
131	FP3580000000	WSIC Paceville 2WQ Cartridge	C.4	Omit				$ -
132	FP3580000000	WSIC Galloway SeaQuest Implementation	C.4	Omit				$ -
133	FP3580000000	WSIC Wakefield 2WQ Cartridges (3 units)	C.4	Omit				$ -
134	FP3580000000	WSIC Greenfield Manor Fe/Mn Filter	C.4	Omit				$ -
135	FP3580000000	WSIC Holland Ridge Fe/Mn	C.4	Omit				$ -
				SUBTOTAL	**$ 3,326,586.93**	**$ 6,340,000.00**	**$ 5,740,000.00**	**$ 15,851,586.93**
1000 ANC Water - Kernersville								
136	FP35100015473	WSIC Belews Landing #2&3 Fe/Mn Removal	C.4	Complete	$ 6,806.13			$ 6,806.13
137	FP35100016671	WSIC Monticello #1&2 Fe/Mn Removal	C.4	Complete	$ 6,686.15			$ 6,686.15
138	FP35100015474	WSIC Meadow Ridge #1&2 Fe/Mn Removal	C.4	Omit				$ -
139	FP35100042102	WSIC Fleetwood Falls #5 Fe/Mn Removal	C.4	Omit				$ -
140	FP35100015472	WSIC Woodcreek Fe/MN Filters	C.4	Omit				$ -
141	FP35100016667	WSIC Twin Oaks Water Quality Proj	C.4	Omit				$ -
				SUBTOTAL	**$ 13,492.28**	**$ -**	**$ -**	**$ 13,492.28**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8010 ANC Water - West								
142	FP35801016114	WSIC Spencer Rd #3 Fe/Mn Removal	C.4	Complete	$ 1,729.73			$ 1,729.73
143	FP35801016115	WSIC Clearview Acres #2 Fe/Mn Removal	C.4	Complete	$ 4,984.84			$ 4,984.84
144	FP35801016110	WSIC Shiloh #1 Fe/Mn Removal	C.4	March-16		$ 275,000.00		$ 275,000.00
145	FP35801016118	WSIC Snow Creek Heights #1&2 Fe/Mn Removal	C.4	March-16		$ 260,000.00		$ 260,000.00
146	FP35801042106	WSIC Springdale #1&2 Fe/Mn Removal	C.4	September-16		$ 120,000.00		$ 120,000.00
147	**FP35801060542**	**WSIC Mallard Crossing #2 Fe/Mn Removal**	**C.4**	**September-16**		**$ 380,000.00**		**$ 380,000.00**
148	**FP35880016169**	**Landsdown #2 SeaQuest Addition**	**C.4**	**September-16**		**$ 7,500.00**		**$ 7,500.00**
149	FP35801042104	WSIC Pebble Bay #4&6 Fe/Mn Removal	C.4	Omit				$ -
150	FP35801042105	WSIC Holly Hills #1 Fe/Mn Removal	C.4	Omit				$ -
151	FP35801016100	WSIC Forest Ridge #2 Fe/Mn Removal	C.4	Omit				$ -
152	FP35801016120	WSIC Green Meadows #1 Fe/Mn Removal	C.4	Omit				$ -
153	FP35801016094	WSIC Forest Ridge #1 Fe/Mn Removal	C.4	Omit				$ -
154	FP35801051364	WSIC Hickory Creek #1 Fe/Mn Removal	C.4	Omit				$ -
155	FP35801042107	WSIC Crabtree #1 Fe/Mn Removal	C.4	Omit				$ -
156	FP35801042108	WSIC Cliftwood West #1 Fe/Mn Removal	C.4	Omit				$ -
157	FP35801042109	WSIC Winding Forest #1 Fe/Mn Removal	C.4	Omit				$ -
158	FP35801042110	WSIC Windemere #2 Fe/Mn Removal	C.4	Omit				$ -
				SUBTOTAL	**$ 6,714.57**	**$ 1,042,500.00**	**$ -**	**$ 1,049,214.57**
Section C(4) - Secondary Drinking Water Standards				**TOTAL**	**$ 3,346,793.78**	**$ 7,382,500.00**	**$ 5,740,000.00**	**$ 16,914,293.78**

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WSIC - Fairways Projects - Aqua NC
Three-Year Plan

Fairways Water WSIC Project Summary

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
Section C(1) - Distribution System Replacement Projects								
159	FP35681615545	WSIC Valve Replace Project	C.1 - Blanket	-		$ 8,000.00		$ 8,000.00
160	FP35681615548	WSIC Meter/Meter Box Renovation	C.1 - Blanket	-	$ 81.77	$ 5,000.00		$ 5,081.77
161	FP35681616483	WSIC Replace Services	C.1 - Blanket	-	$ 3,775.00			$ 3,775.00
				SUBTOTAL	**$ 3,856.77**	**$ 13,000.00**	**$ -**	**$ 16,856.77**
Section C(2) - Main Extensions								
162	FP35681651663	WSIC Snow's Cut Main Extension	C.2	March-16		$ 250,000.00		$ 250,000.00
163	**FP35681651667**	**River Road Main Extension**	**C.2**	**August-16**		**$ 100,000.00**	**$ 630,000.00**	**$ 730,000.00**
				SUBTOTAL	**$ -**	**$ 350,000.00**	**$ 630,000.00**	**$ 980,000.00**
Section C(3) - Primary Drinking Water Standards								
164	FP35681615546	WSIC The Cape TTHM Reduction	C.3	December-15				$ -
				SUBTOTAL	**$ -**	**$ -**	**$ -**	**$ -**
Section C(5) - Relocation for Highways								
165	FP35681600000	WSIC River Rd DOT Relocation	C.5	August-16				$ -
				SUBTOTAL	**$ -**	**$ -**	**$ -**	**$ -**
WSIC - Fairways Projects Total				**TOTAL**	**$ 3,856.77**	**$ 363,000.00**	**$ 630,000.00**	**$ 996,856.77**

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WSIC - Brookwood/LaGrange Projects - Aqua NC
Three-Year Plan

Brookwood/LaGrange Water Project Summary

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
Section C(1) - Distribution System Replacement Projects								
166	FP35740015566	WSIC Meter/Meter Box Renovation	C.1 - Blanket	-	$ 7,972.89	$ 20,000.00		$ 27,972.89
167	FP35740016484	WSIC Replace Services	C.1 - Blanket	-	$ 569,431.98			$ 569,431.98
168	FP35740015568	WSIC Aaran Hills Valve Replacement	C.1	Complete	$ 101,233.32			$ 101,233.32
169	**FP35740015551**	**WSIC Strickland Brdg Rd Main Relocation**	**C.1**	**Complete**	**$ 70,646.63**			**$ 70,646.63**
170	FP35740015570	WSIC Main/Service Replace Marker	C.1 - Blanket	-				$ -
171	FP35740015571	WSIC Cliffdale Main Replacement	C.1	December-15				$ -
172	New FP 357400	WSIC Middle Creek Main/Service Replacement	C.1	December-15				$ -
173	FP35740015569	WSIC Sunset Park Valve Replacement	C.1	August-15				$ -
174	FP35740041302	WSIC Hollywood Heights Main Replacement	C.1	August-16				$ -
175	New FP 357400	WSIC Hawthorne Main/Service Replacement	C.1	August-16				$ -
				SUBTOTAL	**$ 749,284.82**	**$ 20,000.00**	**$ -**	**$ 769,284.82**
Section C(2) - Main Extensions								
176	FP35740015558	WSIC Dandy Loop Main Extension	C.2	August-16				$ -
177	FP35740015560	WSIC Heights Dead End Extension	C.2	August-16				$ -
				SUBTOTAL	**$ -**	**$ -**	**$ -**	**$ -**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
Section C(3) - Primary Drinking Water Standards								
178	FP35740015572	WSIC Radium Filter Cliffdale/Middle Creek	C.3	Complete	$ 80,942.42			$ 80,942.42
179	FP35740042222	WSIC Install Phosphate Monitbello 422	C.3	Complete	$ 3,070.20			$ 3,070.20
180	FP35740042223	WSIC Install Phosphate CliffdaleW 411	C.3	Complete	$ 19,860.99			$ 19,860.99
181	FP35740042224	WSIC Install Phosphate Farmington 413	C.3	Complete	$ 7,323.07			$ 7,323.07
182	FP35740042225	WSIC Install Phosphate Oakland 424	C.3	Complete	$ 2,449.91			$ 2,449.91
183	FP35740042226	WSIC Install Phosphate Middle Crk 421	C.3	Complete	$ 14,161.69			$ 14,161.69
184	FP35740042227	WSIC Instl Phosphate Beaver Run 405	C.3	Complete	$ 6,131.82			$ 6,131.82
185	FP35740042228	WSIC Instl Phosphate Newton Pl 423	C.3	Complete	$ 5,426.51			$ 5,426.51
186	FP35740042229	WSIC Instl Phosphate Colony Vil 412	C.3	Complete	$ 7,954.64			$ 7,954.64
187	FP35740042230	WSIC Instl Phosphate Sunset Pk 425	C.3	Complete	$ 8,143.87			$ 8,143.87
188	FP35740042231	WSIC Instl Phosphate Harris Pl 414	C.3	Complete	$ 5,068.47			$ 5,068.47
189	FP35740042232	WSIC Instl Phosphate Cliffdale Est	C.3	Complete	$ 3,582.10			$ 3,582.10
190	FP35740042233	WSIC Instl Phosphate LkWm/Tunbridge	C.3	Complete	$ 4,240.18			$ 4,240.18
191	FP35740041303	WSIC Stoney Point #47 Radium Filter	C.3	Complete	$ 145,503.57			$ 145,503.57
192	FP35740015555	WSIC Colony Village #33 Radium Filter	C.3	March-16		$ 185,000.00		$ 185,000.00
193	**FP35740053465**	**WSIC Beaver Run #34 Radium Filter**	**C.3**	**March-16**		**$ 145,000.00**		**$ 145,000.00**
194	**FP35740015555**	**WSIC Farmington #12 Radium Filter**	**C.3**	**March-16**		**$ 175,000.00**		**$ 175,000.00**
195	**FP35740053466**	**WSIC Robinwood #67 Radium Filter**	**C.3**	**March-16**		**$ 165,000.00**		**$ 165,000.00**
					$ 313,859.44	**$ 670,000.00**	**$ -**	**$ 983,859.44**
Section C(5) - Relocation for Highways								
196	**FP35740015568**	**WSIC DOT Main Reloc Arran/Winter Pk**	**C.5**	**Complete**	**$ 20,200.00**			**$ 20,200.00**
				SUBTOTAL	**$ 20,200.00**	**$ -**	**$ -**	**$ 20,200.00**
WSIC - Brookwood/LaGrange Projects Total				**TOTAL**	**$ 1,083,344.26**	**$ 690,000.00**	**$ -**	**$ 1,773,344.26**

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SSIC - ANC WW Projects - Aqua NC
Three-Year Plan

Table 8

ANC WW SSIC Project Summary

Description	2015	2016	2017	Total
Section D(2) - Inflow and Infiltration Projects	**$ 1,834,679.01**	**$ 949,000.00**	**$ -**	**$ 2,783,679.01**
8800 ANC WW - East Central	$ 393,549.14	$ 154,000.00		$ 547,549.14
1010 ANC WW - Kernersville	$ 113,550.59	$ 75,000.00		$ 188,550.59
8810 ANC WW - West	$ 1,098,382.80	$ 300,000.00		$ 1,398,382.80
1015 ANC WW - Coast	$ 37,239.38	$ -		$ 37,239.38
8830 ANC WW - Fayetteville	$ 191,957.10	$ 420,000.00		$ 611,957.10
Section D(4) - Mechanical Equipment Projects	**$ 797,849.39**	**$ 715,090.00**	**$ -**	**$ 1,512,939.39**
8800 ANC WW - East Central	$ 468,796.26	$ 372,090.00	$ -	$ 840,886.26
1010 ANC WW - Kernersville	$ 33,364.31	$ 25,000.00		$ 58,364.31
8810 ANC WW - West	$ 231,258.40	$ 211,000.00		$ 442,258.40
1015 ANC WW - Coast	$ 33,037.34	$ 82,000.00		$ 115,037.34
8830 ANC WW - Fayetteville	$ 31,393.08	$ 25,000.00	$ -	$ 56,393.08
SSIC - ANC Total Projected Cost	**$ 2,632,528.40**	**$ 1,664,090.00**	**$ -**	**$ 4,296,618.40**

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SSIC - ANC WW Projects - Aqua NC
Three-Year Plan

Table 9

Section D(2) - Inflow & Infiltration Projects

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8800 ANC WW - East Central								
197	FP35880053246	SSIC SSES I&I Project Barclay Downs	D.2	Complete	$ 207,138.08			$ 207,138.08
198	FP35880053248	SSIC SSES I&I Project Beachwood	D.2	Complete	$ 21,123.79			$ 21,123.79
199	FP35880053247	SSIC SSES I&I Project Cross Creek	D.2	Complete	$ 165,287.27			$ 165,287.27
200	NEWFP358800	SSIC SSES Neuse Colony	D.2	September-16		$ 150,000.00		$ 150,000.00
201	NEWFP358800	SSIC Chapel Ridge Lift Station #3 I & I Reduction	D.2	September-16		$ 4,000.00		$ 4,000.00
202	FP35880016160	SSIC I & I Projects - Cary Region	D.2 - Blanket	Omit				$ -
				SUBTOTAL	$ 393,549.14	$ 154,000.00	$ -	$ 547,549.14
1010 ANC WW - Kernersville								
203	FP35101053245	SSIC SSES I&I Project Mikkola Downs	D.2	Complete	$ 66,804.38			$ 66,804.38
204	FP35101053243	SSIC SSES I&I Project Old Beau	D.2	Complete	$ 46,746.21			$ 46,746.21
205	FP35101059882	SSIC SSES Frye Bridge Estates	D.2	September-16		$ 75,000.00		$ 75,000.00
206	FP35101015528	SSIC - I & I Kernersville Area	D.2 - Blanket	Omit				$ -
				SUBTOTAL	$ 113,550.59	$ 75,000.00	$ -	$ 188,550.59
8810 ANC WW - West								
207	FP35900139245	SSIC - SSES I & I Project West	D.2 - Blanket	-	$ 659,345.67			$ 659,345.67
208	FP35900149569	SSIC - SSES I & I Crismark	D.2	Complete	$ 162,925.08			$ 162,925.08
209	FP35900139282	SSIC - SSES I & I Country Wds East	D.2	Complete	$ 276,112.05			$ 276,112.05
210	FP35881059806	SSIC SSES Bridgeport	D.2	September-16		$ 75,000.00		$ 75,000.00
211	FP35881059809	SSIC SSES Harbor Estates	D.2	September-16		$ 75,000.00		$ 75,000.00
212	FP35881059883	SSIC SSES Willowbrook	D.2	September-16		$ 75,000.00		$ 75,000.00
213	FP35881059808	SSIC SSES Country Valley	D.2	September-16		$ 75,000.00		$ 75,000.00
214	FP35881016217	SSIC I & I Projects - Denver	D.2 - Blanket	Omit				$ -
				SUBTOTAL	$ 1,098,382.80	$ 300,000.00	$ -	$ 1,398,382.80

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
1015 ANC WW - Coast								
215	FP35101528563	SSIC I & I Bogue Watch	D.2	Complete	$ 12,239.38			$ 12,239.38
216	FP35101030404	SSIC I & I Project - Willow Creek	D.2	Complete	$ 25,000.00			$ 25,000.00
217	FP35101515534	SSIC - I & I Projects - Wilmington	D.2 - Blanket	Omit				$ -
				SUBTOTAL	$ 37,239.38	$ -	$ -	$ 37,239.38
8830 ANC WW - Fayetteville								
218	FP35883016218	SSIC SSES I&I Project Woodlake Ph 1	D.2	Complete	$ 191,957.10			191957.1
219	FP35883016218	SSIC SSES I&I Project Woodlake Ph 2	D.2	Complete		$ 420,000.00		420000
220	FP35883016218	SSIC I & I Projects - Fayetteville	D.2 - Blanket	Omit				$ -
				SUBTOTAL	$ 191,957.10	$ 420,000.00	$ -	$ 611,957.10
Section D(2) - Inflow and Infiltration				TOTAL	$ 1,834,679.01	$ 949,000.00	$ -	$ 2,783,679.01

AQUA.

SSIC - ANC WW Projects - Aqua NC
Three-Year Plan

Table 10

Section D(4) - Mechanical Equipment Projects

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8800 ANC WW - East Central								
221	FP35880016166	SSIC Rplc WWTP Blowers & Motors	D.4 - Blanket	-	$ 67,768.99			$ 67,768.99
222	FP35880016168	SSIC Grinder Pump Replace	D.4 - Blanket	-	$ 132,770.53			$ 132,770.53
223	FP35880016169	SSIC Replace LS/WWTP Pumps	D.4 - Blanket	-	$ 183,568.13	$ 50,000.00		$ 233,568.13
224	**FP35880053467**	**SSIC Avocet Blower Replacement Proj**	**D.4**	**Complete**	**$ 24,050.00**			**$ 24,050.00**
225	**FP35880053323**	**SSIC Neuse Colony Lift Sta Pump Rpl**	**D.4**	**Complete**	**$ 60,638.61**			**$ 60,638.61**
226	**FP35880060065**	**SSIC Neuse Colony Tertiary Filter**	**D.4**	**Complete**		**$ 24,090.00**		**$ 24,090.00**
227	**FP35880052360**	**SSIC Hasentree WWTF Blower**	**D.4**	**August-16**		**$ 46,000.00**		**$ 46,000.00**
228	**FP35880058251**	**Mallards Crossing WWTF Blower**	**D.4**	**August-16**		**$ 20,000.00**		**$ 20,000.00**
229	**FP35880058250**	**SSIC Lake Ridge Aeropark Blower**	**D.4**	**August-16**		**$ 15,000.00**		**$ 15,000.00**
230	**FP35880052362**	**SSIC Preserve WWTF Blower Replacement**	**D.4**	**August-16**		**$ 85,000.00**		**$ 85,000.00**
231	**FP35101551945**	**SSIC Sterling WWTF Compressor Replacement**	**D.4**	**August-16**		**$ 32,000.00**		**$ 32,000.00**
232	**FP35880058264**	**SSIC Wildwood Green WWTF Blower**	**D.4**	**August-16**		**$ 60,000.00**		**$ 60,000.00**
233	FP35800000000	SSIC Crooked Creek WWTP Blower and Aeration R	D.4	August-16		$ 40,000.00		$ 40,000.00
234	New FP 358800	SSIC Barclay Downs SSES/CIPP	D.4	Omit				$ -
235	New FP 358800	SSIC Beachwood Influent Pump LS Replacement	D.4	Omit				$ -
236	New FP 358800	SSIC Briarwood Farms WWTP Blower Replacement	D.4	Omit				$ -
237	New FP 358800	SSIC Governors Club Grinder Pump Phase 1	D.4	Omit				$ -
				SUBTOTAL	**$ 468,796.26**	**$ 372,090.00**	**$ -**	**$ 840,886.26**
1010 ANC WW - Kernersville								
238	FP35101015527	SSIC Rplc WWTP Blowers & Motors	D.4 - Blanket	-	$ 7,517.56			$ 7,517.56
239	FP35101015524	SSIC Replace LS/WWTP Pumps	D.4 - Blanket	-	$ 25,846.75	$ 25,000.00		$ 50,846.75
240	FP35101015522	SSIC Grinder Pump Replace	D.4 - Blanket	Omit				$ -
				SUBTOTAL	**$ 33,364.31**	**$ 25,000.00**	**$ -**	**$ 58,364.31**

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
8810 ANC WW - West								
241	FP35881016208	SSIC Grinder Pump Replace	D.4 - Blanket	-	$ 4,403.79			$ 4,403.79
242	FP35881016212	SSIC Rplc WWTP Blowers & Motors	D.4 - Blanket	-	$ 29,600.64			$ 29,600.64
243	FP35881016213	SSIC Replace LS/WWTP Pumps	D.4 - Blanket	-	$ 197,253.97	$ 50,000.00		$ 247,253.97
244	FP35881016203	SSIC Bright's Creek Lift Station Pump	D.4	August-16		$ 26,000.00		$ 26,000.00
245	**FP35881058249**	**SSIC Bridgeport WWTF Blower**	**D.4**	**August-16**		**$ 105,000.00**		**$ 105,000.00**
246	**FP35880058264**	**SSIC Alexander Island Blower Replacement**	**D.4**	**August-16**		**$ 30,000.00**		**$ 30,000.00**
247	FP35881000000	SSIC Rplc WWTP Blowers Country Wds	D.4	Omit				$ -
				SUBTOTAL	**$ 231,258.40**	**$ 211,000.00**	**$ -**	**$ 442,258.40**
1015 ANC WW - Coast								
248	FP35101515535	SSIC Rplc WWTP Blowers & Motors	D.4 - Blanket	-	$ 4,849.19			$ 4,849.19
249	FP35101515536	SSIC Grinder Pump Replace	D.4 - Blanket	-	$ 7,165.04	$ 50,000.00		$ 57,165.04
250	FP35101515537	SSIC Replace LS/WWTP Pumps	D.4 - Blanket	-	$ 13,837.21			$ 13,837.21
251	New FP 351015	SSIC Replace Mixer At Grand Villas # 2 Train	D.4	August-16	$ 7,185.90			$ 7,185.90
252	New FP 351015	SSIC Replace Air Compressors At Sterling	D.4	August-16		$ 32,000.00		$ 32,000.00
				SUBTOTAL	**$ 33,037.34**	**$ 82,000.00**	**$ -**	**$ 115,037.34**
8830 ANC WW - Fayetteville								
253	FP35883016220	SSIC Replace LS/WWTP Pumps	D.4 - Blanket	-	$ 31,043.83	$ 25,000.00		$ 56,043.83
254	FP35883016219	SSIC Rplc WWTP Blowers & Motors	D.4 - Blanket	-	$ 349.25			$ 349.25
				SUBTOTAL	**$ 31,393.08**	**$ 25,000.00**	**$ -**	**$ 56,393.08**
Section D(4) - Mechanical Equipment Projects				**TOTAL**	**$ 797,849.39**	**$ 715,090.00**	**$ -**	**$ 1,512,939.39**

APPENDIX 2: 2016 Project Detail Sheets

AQUA

SSIC - Fairways WW Projects - Aqua NC
Three-Year Plan

Table 11

Fairways WW SSIC Project Summary

Item	Funding Project	Project Name	Description	Project Completion	2015	2016	2017	Total
Section D(1) - Collection Main Extension Projects								
255	FP35640151700	SSIC Cape to Dolphin Bay Sewer Extension	D.1	August-16		$ 400,000.00		$ 400,000.00
				SUBTOTAL	**$ -**	**$ 400,000.00**	**$ -**	**$ 400,000.00**
Section D(2) - Inflow & Infiltration Projects								
256	FP35640115540	SSIC SSES/I&I Dolphin Bay	D.2	Complete	$ 45,321.03			$ 45,321.03
257	**FP35640137628**	**SSIC I & I Beau Rivage**	**D.3**	**Complete**	**$ 46,631.01**			**$ 46,631.01**
				SUBTOTAL	**$ 91,952.04**	**$ -**	**$ -**	**$ 91,952.04**
Section D(3) - Relocation Projects								
258	FP35640100000	SSIC River Road Relocation	D.3	Omit				$ -
				SUBTOTAL	**$ -**	**$ -**	**$ -**	**$ -**
Section D(4) - Mechanical Equipment Projects								
259	FP35640115538	SSIC Replace LS/WWTP Pumps	D.4 - Blanket	-	$ 75,964.72	$ 50,000.00		$ 125,964.72
260	**FP35640115539**	**SSIC Rplc WWTP Blowers & Motors**	**D.4 - Blanket**	**-**	**$ 6,493.37**			**$ 6,493.37**
				SUBTOTAL	**$ 82,458.09**	**$ 50,000.00**	**$ -**	**$ 132,458.09**
SSIC - Fariways WW Projects Total				**TOTAL**	**$ 174,410.13**	**$ 450,000.00**	**$ -**	**$ 624,410.13**

AQUA

PROJECT TITLE:	Emerald Village Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

A. Project Purpose: Replace existing water main and related appurtenances with new to increase system reliability, reduce main breaks, and reduce legacy contaminants. Existing pipe material is substandard thin wall PVC pipe that is becoming brittle with age. The system consists of 5,500 LF of 4" main and appurtenances and has 49 service connections.

B. Project Budget **$270,000**

C. Previous Actions: Routine operation and maintenance of system. Repair of main breaks, system currently at 81.65 breaks /mile. Pipe material thin wall PVC experiencing lateral splintering.

D. Proposed Actions: Approx 5,500 LF 4" main and all related appurtenances to be replaced. New material shall be 4" C900 and services.

E. Project Timeline

		Jun-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Feb-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Emerald Village Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 193,634.00	$ 193,634.00
				SUBTOTAL A:	**$ 193,634.00**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$ 19,954.48
3	Engineering & Construction Administration Costs	1	LS	$ 30,000.00	$ 30,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	7%	$ 13,554.38
				TOTAL CAPITAL COSTS:	**$ 257,142.86**
5	AFUDC		Percent	5%	$ 12,857
				TOTAL ESTIMATED PROJECT COSTS:	**$ 270,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Royal Acres Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

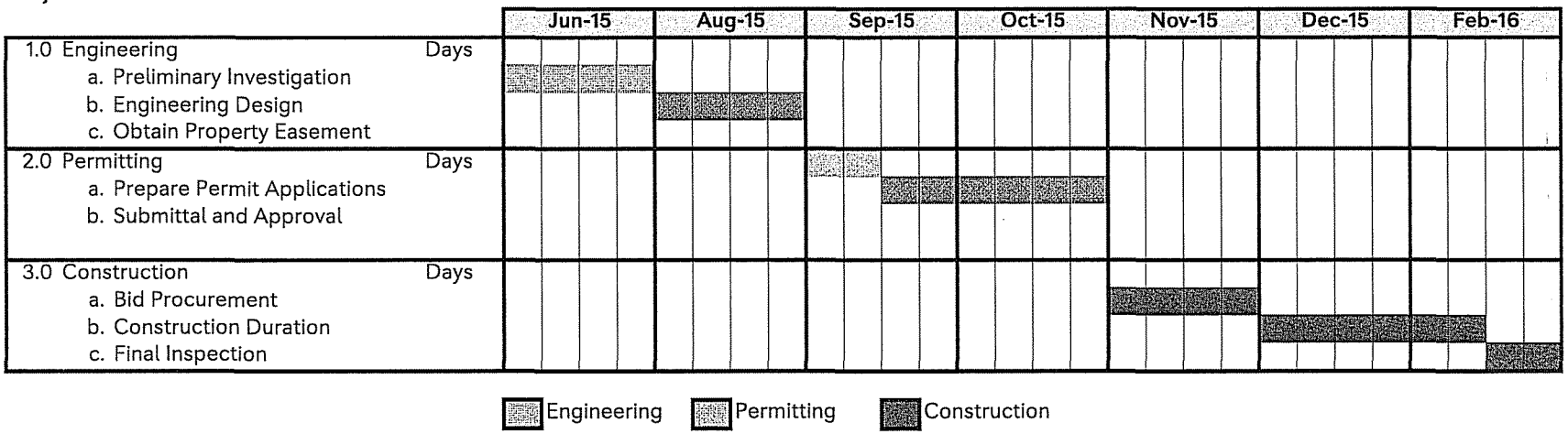
A. Project Purpose: Royal Acres contains 2,300 LF of 6" thin wall PVC water main with 26 services. It has registered 23 leaks from 1997 to 2014, 52.75 leaks per mile equivalent. The system was originally constructed in 1970. This system will be recommended for replacement due to age, leaks, and substandard materials to increase system reliability and ultimately reduce water main breaks.

B. Project Budget **$150,000**

C. Previous Actions: Routine operation and maintenance of system. Repair of main breaks, system currently at 52.75 breaks /mile. Pipe material thin wall PVC experiencing lateral splintering.

D. Proposed Actions: Approx. 2,300 LF 6" main and all related appurtenances to be replaced. New material shall be 6" C900 and services.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Royal Acres Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 106,191.00	$ 106,191.00
				SUBTOTAL A:	**$ 106,191.00**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$ 10,619.10
3	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	10%	$ 11,047.04
				TOTAL CAPITAL COSTS:	**$ 142,857.14**
5	AFUDC		Percent	5%	$ 7,143
				TOTAL ESTIMATED PROJECT COSTS:	**$ 150,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Medfield Estates
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

A. Project Purpose: Medfield has registered 32.16 leaks per mile since 1997.The system includes 28,331 LF of 2" through 6" asbestos concrete pipe. This system will be recommended for replacement due to age, leaks, and substandard materials to increase system reliability and ultimately reduce water main breaks.

B. Project Budget **$2,500,000**

C. Previous Actions: Routine operation and maintenance of system. Repair of main breaks, system currently at 32.16 breaks /mile. Pipe material asbestos concrete entering end of useful life.

D. Proposed Actions: Abandon in place 28,331 lf water main. Replace with 6,427 LF 2" PVC and 21,904 LF 6" C900 PVC water main and 306 services. New main to be installed in utility easement.

E. Project Timeline

		Jun-15	Aug-15	Sep-15	Nov-15	Dec-15	Apr-16	Nov-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Medfield Estates

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 2,114,425.00	$ 2,114,425.00
				SUBTOTAL A:	**$ 2,114,425.00**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$ 211,442.50
3	Engineering & Construction Administration Costs	1	LS	$ 75,000.00	$ 75,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	1%	$ 26,316.97
				TOTAL CAPITAL COSTS:	**$ 2,427,184.47**
5	AFUDC		Percent	3%	$ 72,816
				TOTAL ESTIMATED PROJECT COSTS:	**$ 2,500,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Heritage Spring Acres Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

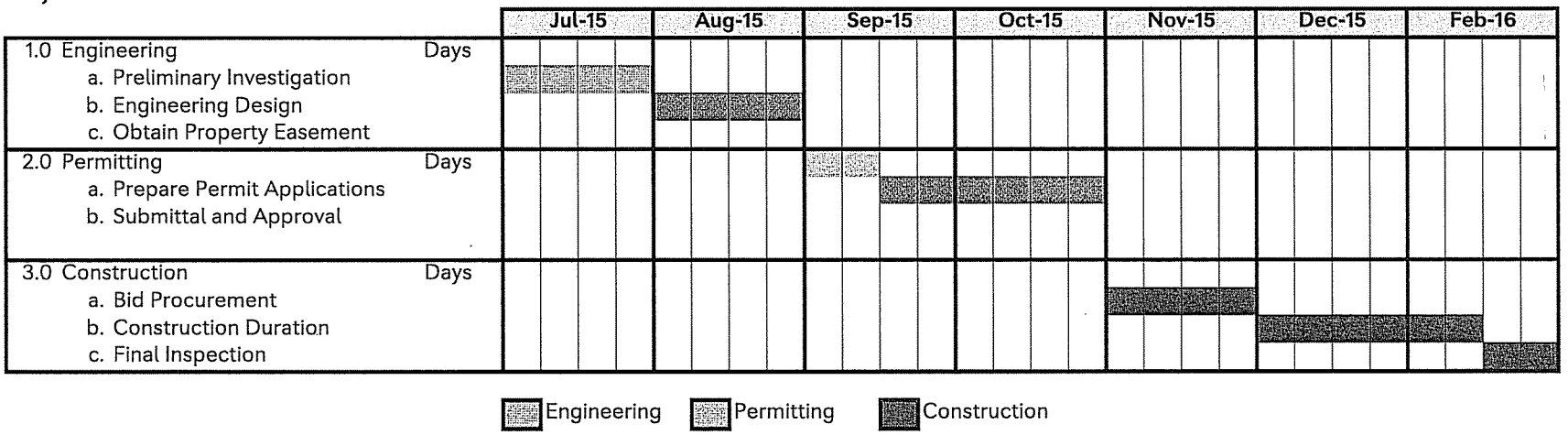
A. Project Purpose: Heritage has registered 34.09 leaks per mile since 1997. The system includes 1,860 LF of 4" electrical conduit main. This system will be recommended for replacement due to age, leaks, and substandard materials to increase system reliability and ultimately reduce water main breaks.

B. Project Budget **$115,000**

C. Previous Actions: Routine operation and maintenance of system. Repair of main breaks, system currently at 34.90 breaks /mile. Pipe material thin wall PVC experiencing failure and entering end of useful life.

D. Proposed Actions: Abandon in place 1,860 LF of electrical conduit water main. Replace with 1,860 LF 4" C900 PVC water main and 26 services. New main to be installed in utility easement.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Heritage Spring Acres Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 68,545.00	$ 68,545.00
				SUBTOTAL A:	**$ 68,545.00**
2	Contingencies, as percentage of Subtotal A		Percent	20%	$ 13,709.00
3	Engineering & Construction Administration Costs	1	LS	$ 17,000.00	$ 17,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	15%	$ 10,269.81
				TOTAL CAPITAL COSTS:	**$ 109,523.81**
5	AFUDC		Percent	5%	$ 5,476
				TOTAL ESTIMATED PROJECT COSTS:	**$ 115,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Camelot Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

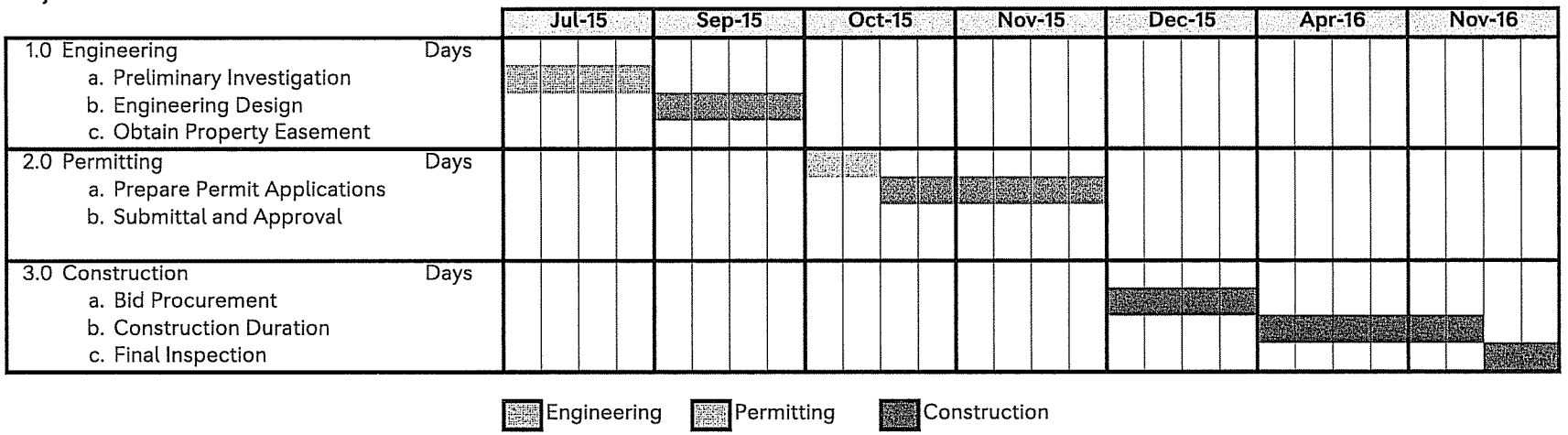
A. Project Purpose: Camelot has registered 46.8 leaks per mile since 1997.The system includes 19,521 LF of 2" through 6" asbestos concrete pipe and galvanized metal pipe and 244 services. This system will be recommended for replacement due to age, leaks, and substandard materials to increase system reliability and ultimately reduce water main breaks.

B. Project Budget **$1,350,000**

C. Previous Actions: Routine operation and maintenance of system. Repair of main breaks, system currently at 46.8 breaks /mile. Pipe material asbestos concrete experiencing failure and entering end of useful life.

D. Proposed Actions: Abandon in place 19,521 LF water main. Replace with 3,394 LF 2" PVC, 3,081 LF 4" PVC C900, and 12,506 LF 6" PVC C900 water main and 244 services. New main to be installed in utility easement.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Camelot Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 1,133,582.00	$ 1,133,582.00
				SUBTOTAL A:	**$ 1,133,582.00**
2	Contingencies, as percentage of Subtotal A		Percent	5%	$ 56,754.33
3	Engineering & Construction Administration Costs	1	LS	$ 75,000.00	$ 75,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	4%	$ 45,343.28
				TOTAL CAPITAL COSTS:	**$ 1,310,679.61**
5	AFUDC		Percent	3%	$ 39,320
				TOTAL ESTIMATED PROJECT COSTS:	**$ 1,350,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Birchfalls Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

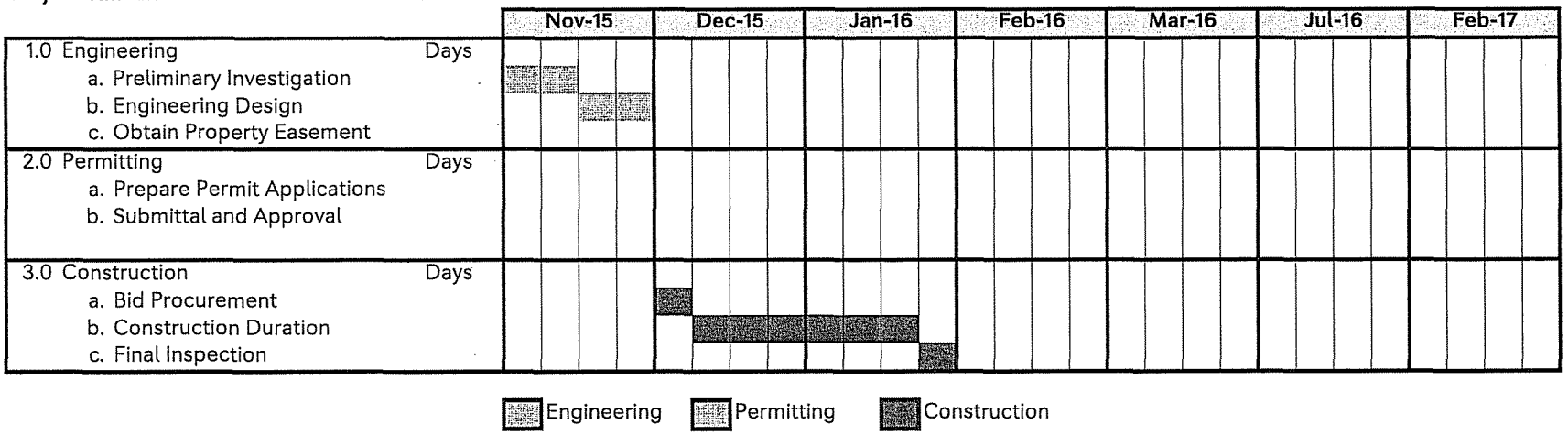
A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$25,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 29 residential water service connections located within the proposed subdivision.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Birchfalls Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	29	EA	$ 700.00	$ 20,300.00
				SUBTOTAL A:	**$ 20,300.00**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$ 2,088.49
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	7%	$ 1,421.00
				TOTAL CAPITAL COSTS:	**$ 23,809.49**
5	AFUDC		Percent	5%	$ 1,190
				TOTAL ESTIMATED PROJECT COSTS:	**$ 25,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Cambridge Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

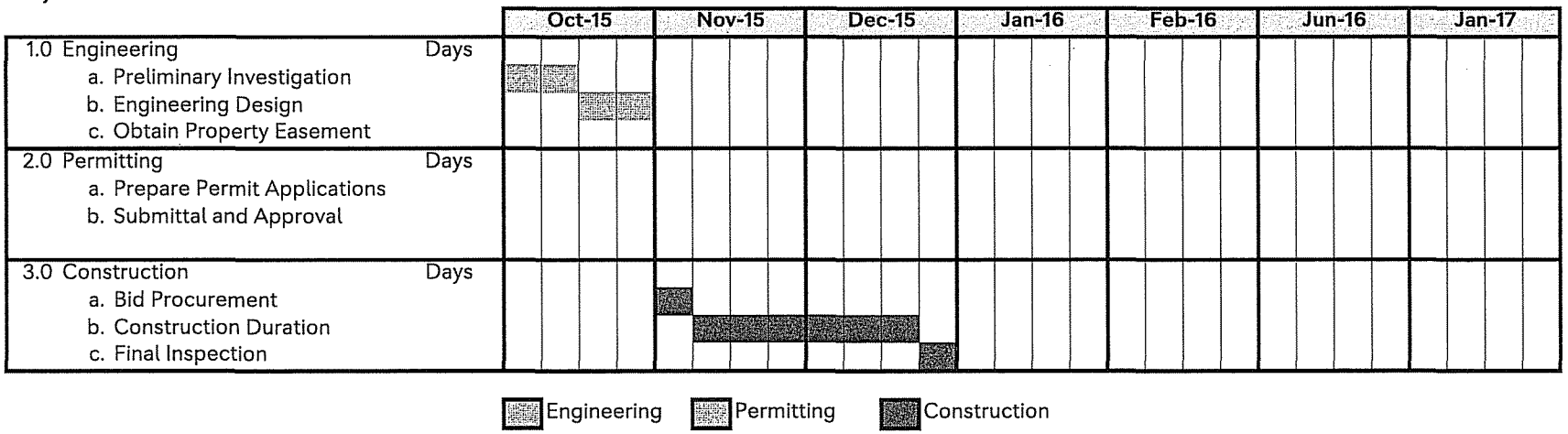
A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$60,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 74 residential water service connections located within the proposed subdivision.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Cambridge Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	74	EA	$ 700.00	$ 51,800.00
				SUBTOTAL A:	**$ 51,800.00**
2	Contingencies, as percentage of Subtotal A		Percent	5%	$ 2,751.98
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$ 2,590.00
				TOTAL CAPITAL COSTS:	**$ 57,141.98**
5	AFUDC		Percent	5%	$ 2,857
				TOTAL ESTIMATED PROJECT COSTS:	**$ 60,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Hunters Landing Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

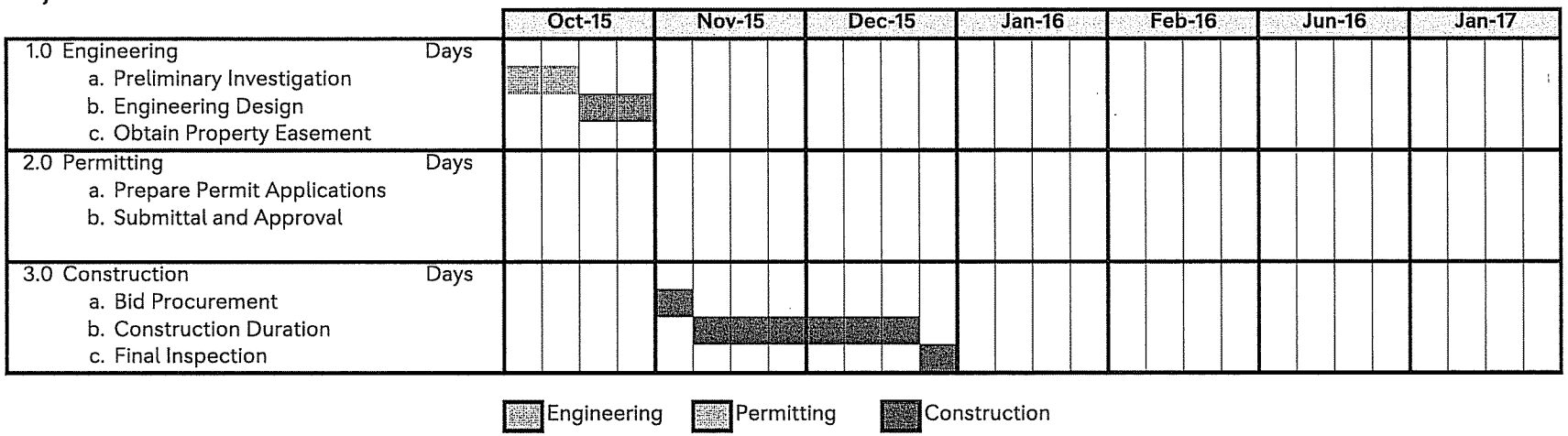
A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$100,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 126 residential water service connections located within the proposed subdivision.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Hunters Landing Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	126	EA	$ 700.00	$ 88,200.00
				SUBTOTAL A:	**$ 88,200.00**
2	Contingencies, as percentage of Subtotal A		Percent	5%	$ 4,410.00
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$ 4,410.00
				TOTAL CAPITAL COSTS:	**$ 97,020.00**
5	AFUDC		Percent	3%	$ 2,979
				TOTAL ESTIMATED PROJECT COSTS:	**$ 100,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Pine Country Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$15,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 17 residential water service connections located within the proposed subdivision.

E. Project Timeline

		Jan-15	Feb-15	Mar-15	Apr-15	May-15	Sep-15	Apr-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Pine Country Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	17	EA	$ 700.00	$ 11,900.00
				SUBTOTAL A:	**$ 11,900.00**
2	Contingencies, as percentage of Subtotal A		Percent	15%	$ 1,790.12
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$ 595.00
				TOTAL CAPITAL COSTS:	**$ 14,285.12**
5	AFUDC		Percent	5%	$ 714
				TOTAL ESTIMATED PROJECT COSTS:	**$ 15,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

PROJECT TITLE:	Riverview Estates North Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

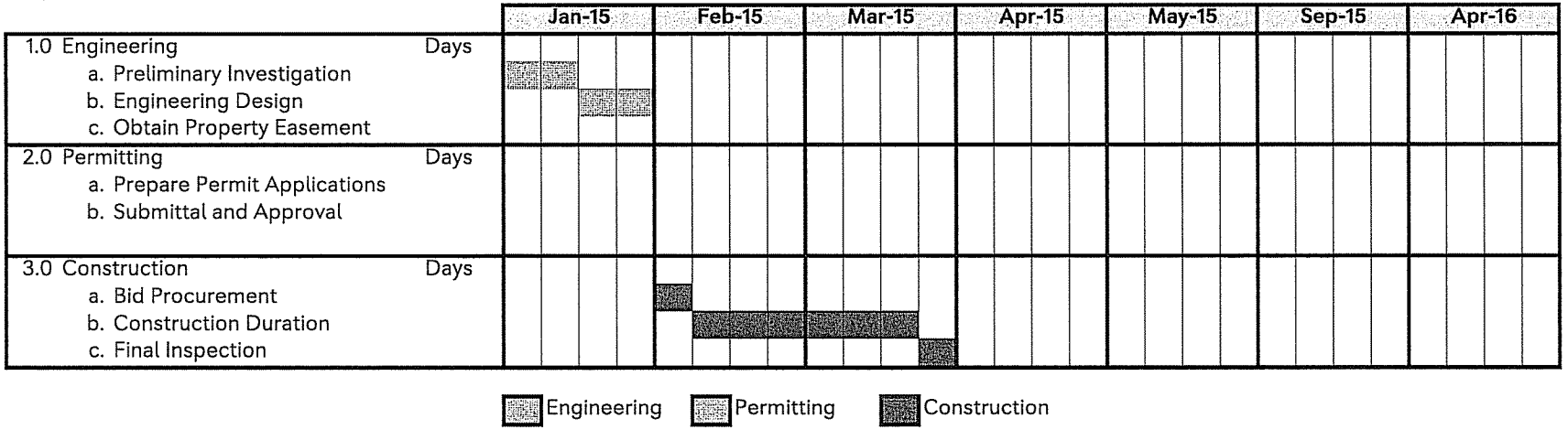
A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$55,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 71 residential water service connections located within the proposed subdivision.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Riverview Estates North Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	71	EA	$ 700.00	$ 49,700.00
				SUBTOTAL A:	**$ 49,700.00**
2	Contingencies, as percentage of Subtotal A		Percent	3%	$ 1,709.86
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	4%	$ 1,988.00
				TOTAL CAPITAL COSTS:	**$ 53,397.86**
5	AFUDC		Percent	3%	$ 1,602
				TOTAL ESTIMATED PROJECT COSTS:	**$ 55,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Riverview Estates Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

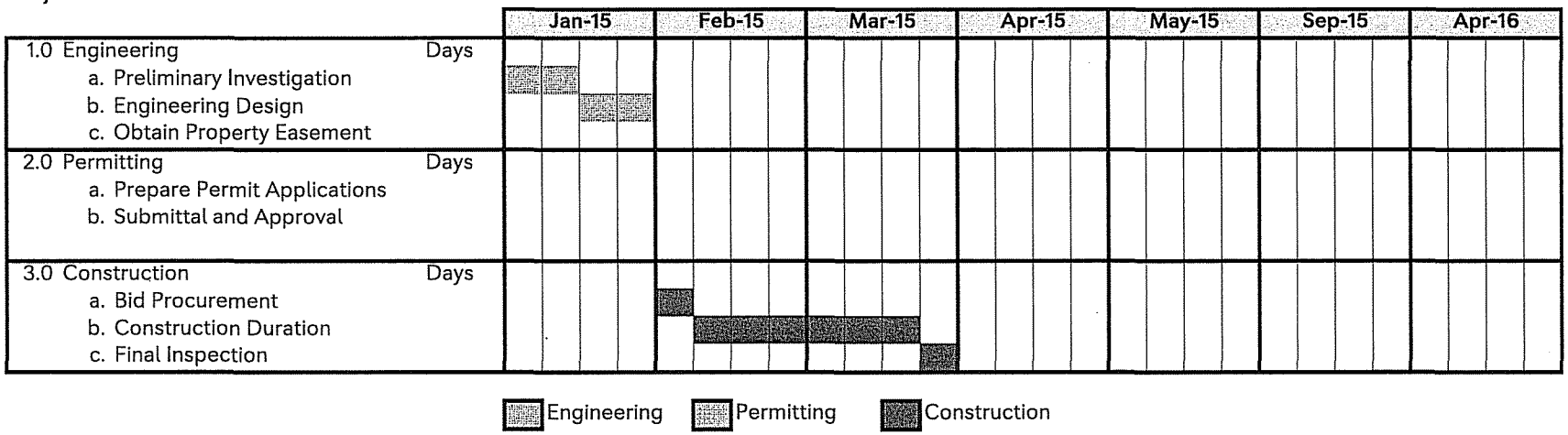
A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$30,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 37 residential water service connections located within the proposed subdivision.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Riverview Estates Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	37	EA	$ 700.00	$ 25,900.00
				SUBTOTAL A:	**$ 25,900.00**
2	Contingencies, as percentage of Subtotal A		Percent	5%	$ 1,375.53
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$ 1,295.00
				TOTAL CAPITAL COSTS:	**$ 28,570.53**
5	AFUDC		Percent	5%	$ 1,429
				TOTAL ESTIMATED PROJECT COSTS:	**$ 30,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Sheffield Manor Service Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

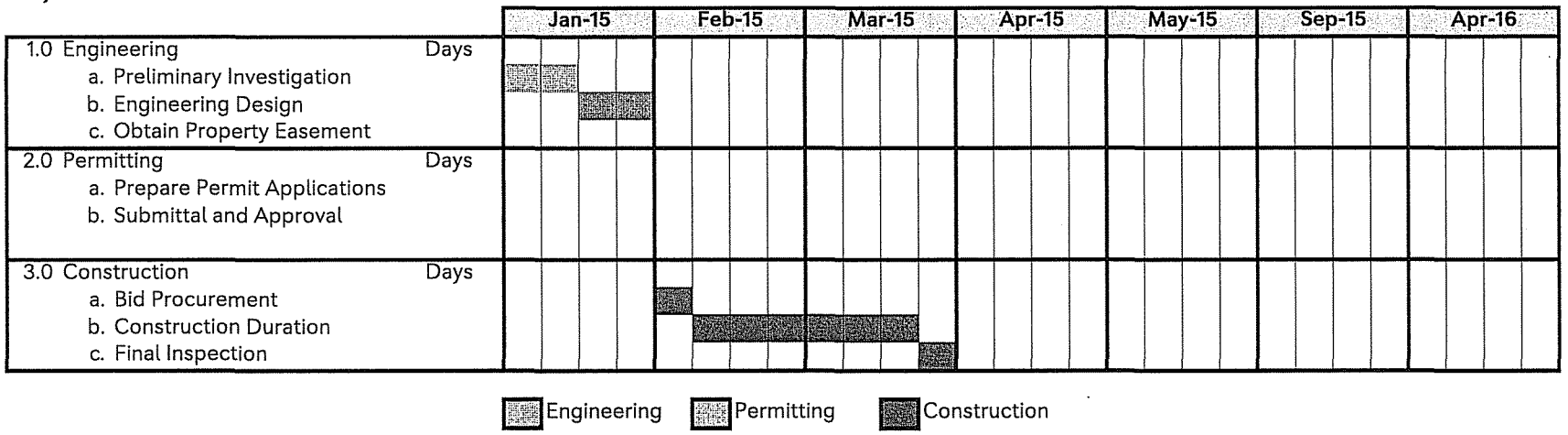
A. Project Purpose: Service replacement to improve reliability and reduce operational maintenance.

B. Project Budget **$135,000**

C. Previous Actions: Subdivisions identified for service replacement based on age and service material useful life. All areas identified 40+ years old.

D. Proposed Actions: Replace 177 residential water service connections located within the proposed subdivision.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Sheffield Manor Service Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Service Replacements	177	EA	$ 700.00	$ 123,900.00
				SUBTOTAL A:	**$ 123,900.00**
2	Contingencies, as percentage of Subtotal A		Percent	3%	$ 3,717.00
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	2%	$ 2,478.00
				TOTAL CAPITAL COSTS:	**$ 130,095.00**
5	AFUDC		Percent	4%	$ 4,904
				TOTAL ESTIMATED PROJECT COSTS:	**$ 135,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Hill-n-Dale HDD Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

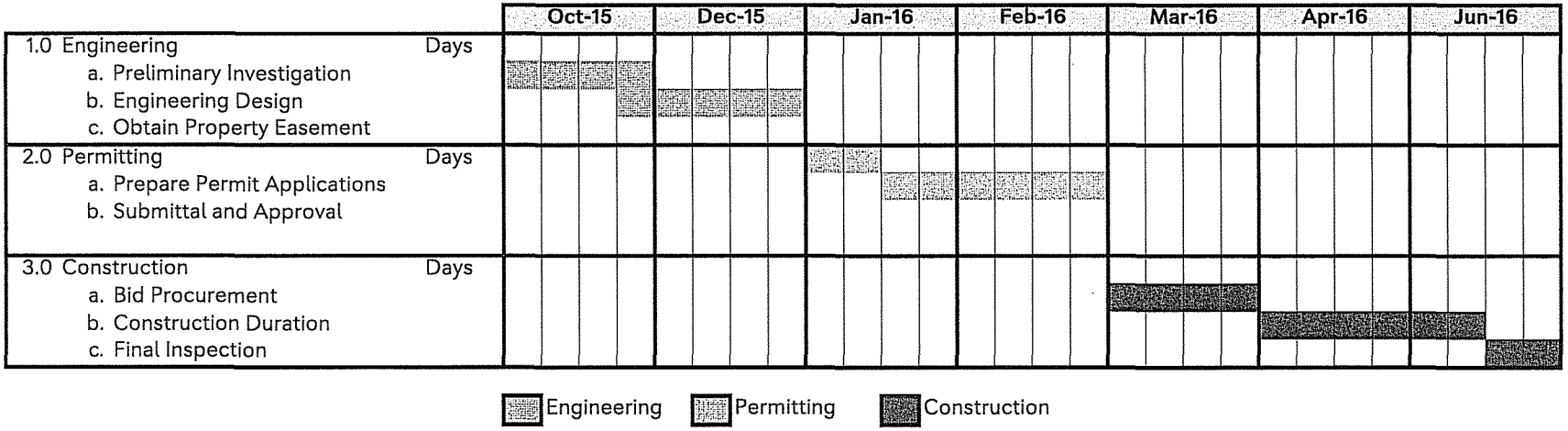
A. Project Purpose: Existing ball and joint pipe located beneath the South Forks River has been identified for replacement due to age and system integrity. This section of pipe has been identified as leaking and needs to be replaced. This project will require a new directional drill underneath the South Forks River.

B. Project Budget **$250,000**

C. Previous Actions: None, unable to maintain.

D. Proposed Actions: Replace approximately 1,200 LF of 6" diameter pipe with new 6" HDD.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Hill-n-Dale HDD Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST		TOTAL
1	8" HDD DR9 HDPE	500	LF	$ 160.00	$	80,000.00
2	6" PVC DR18 C900	700	LF	$ 30.00	$	21,000.00
3	Related Fittings and Connections	1	LS	$12,000.00	$	12,000.00
4	Related Earthwork and Site Restoration	1	LS	$12,000.00	$	12,000.00
				SUBTOTAL A:	**$**	**125,000.00**
5	Contingencies, as percentage of Subtotal A		Percent	10%	$	12,744.62
6	Engineering & Construction Administration Costs	1	LS	$90,140.00	$	90,140.00
7	Aqua Direct Cost, as percentage of Subtotal A		Percent	10%	$	12,500.00
				TOTAL CAPITAL COSTS:	**$**	**240,384.62**
8	AFUDC		Percent	4%	$	9,615
				TOTAL ESTIMATED PROJECT COSTS:	**$**	**250,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Freemont Park Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

A. Project Purpose:

Existing water system consisting of 50 services and 3,800 linear feet of 3" diameter galvanized steel and PVC water main. Historical records indicate 41 leaks over 3 years, or 57 leaks/mile. Main repairs are difficult as water mains are located adjacent to the rear of houses, making accessibility difficult and increasing repair costs. This system will be recommended for replacement due to age, leaks, and substandard materials to increase system reliability and ultimately reduce water main breaks.

B. Project Budget

$360,000

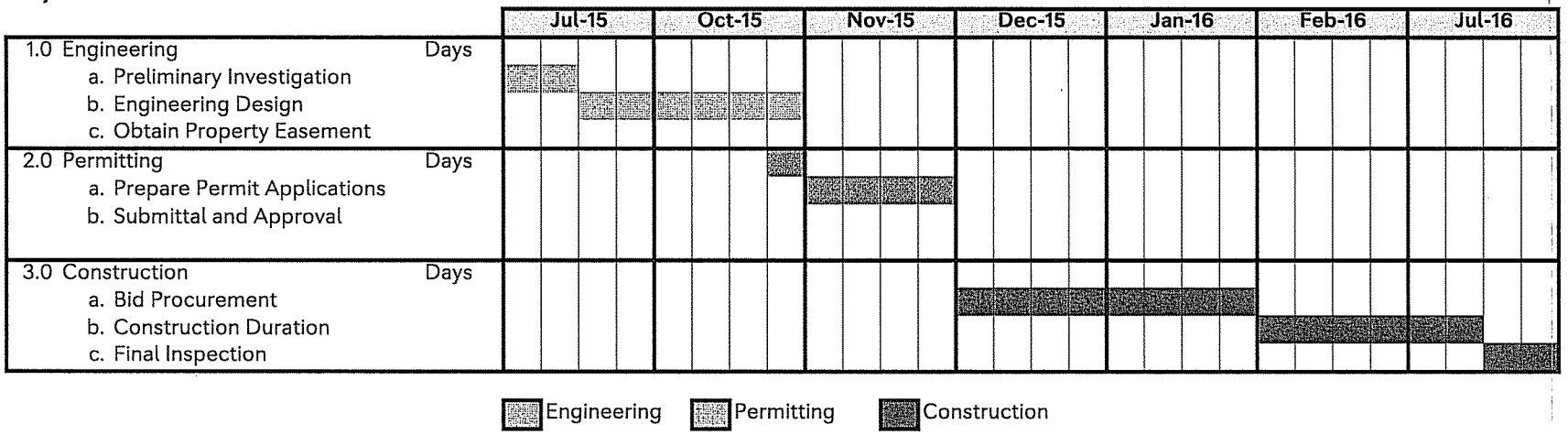
C. Previous Actions:

System has experienced 57 leaks per mile since 2012, when data collection began.

D. Proposed Actions:

Abandon in place 3,800 LF of existing water main and associated service lines. Provide new PVC water main and service lines. Install new main and services within utility easements located adjacent to the front of homes to reduce future operations and maintenance costs.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Freemont Park Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST		TOTAL
1	Contractor Estimate	1	LS	$ 267,428.00	$	267,428.00
				SUBTOTAL A:	**$**	**267,428.00**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$	20,612.91
3	Engineering & Construction Administration Costs	1	LS	$ 38,000.00	$	38,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$	17,211.52
				TOTAL CAPITAL COSTS:	**$**	**343,252.43**
5	AFUDC		Percent	5%	$	16,748
				TOTAL ESTIMATED PROJECT COSTS:	**$**	**360,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Cedarwood Acres Main & Service Replacements
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

A. Project Purpose:

Existing water system consisting of 16 services and 1,200 LF of 2" diameter galvanized steel and PVC water main. Historical records indicate 45 leaks over 3 years, or 198 leaks/mile. Main repairs are difficult as water mains are located underneath road making accessibility difficult and increasing repair costs. This system will be recommended for replacement due to age, leaks, and substandard materials to increase system reliability and ultimately reduce water main breaks.

B. Project Budget

$110,000

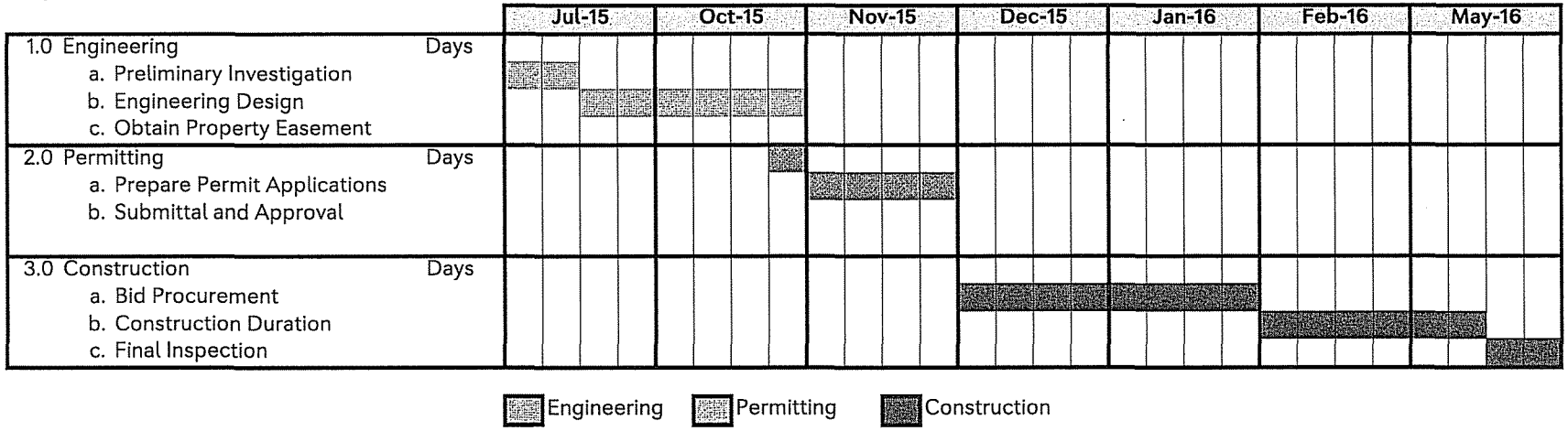
C. Previous Actions:

System has experienced 198 leaks per mile. Main repairs are located under paved surfaces increasing repair costs.

D. Proposed Actions:

Abandon in place 1,200 LF of existing water main and associated service lines. Provide new PVC water main and service lines. Install new main and services within utility easements located adjacent to the front of homes to reduce future operations and maintenance costs.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Cedarwood Acres Main & Service Replacements

TASK	DESCRIPTION	QTY	UNIT	UNIT COST		TOTAL
1	Contractor Estimate	1	LS	$ 64,212.50	$	64,212.50
				SUBTOTAL A:	**$**	**64,212.50**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$	6,421.25
3	Engineering & Construction Administration Costs	1	LS	$ 29,400.00	$	29,400.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	9%	$	5,735.48
				TOTAL CAPITAL COSTS:	**$**	**105,769.23**
5	AFUDC		Percent	4%	$	4,231
				TOTAL ESTIMATED PROJECT COSTS:	**$**	**110,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Fallscrest Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

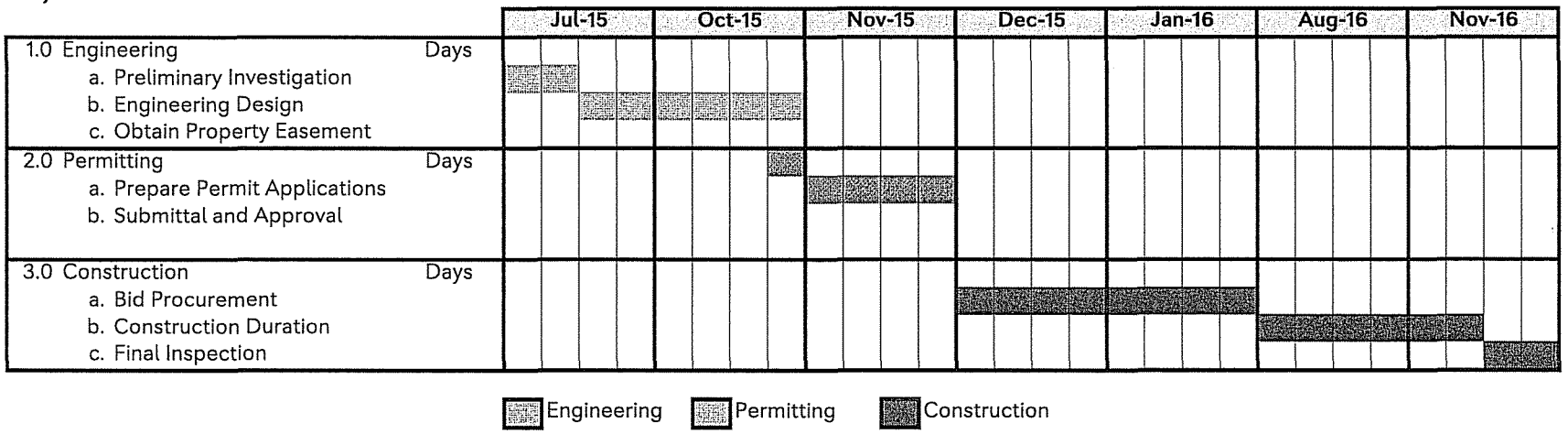
A. Project Purpose: Existing water system consisting of 30 services and 2,100 linear feet of 2" diameter galvanized steel and PVC water main. Historical records indicate 32 leaks over 3 years or 80 leaks/mile.

B. Project Budget **$265,000**

C. Previous Actions: System has experienced 80 leaks per mile. Existing pipe reaching end of useful service life.

D. Proposed Actions: Abandon in place 2,100 LF of existing water main and associated service lines. Provide new PVC water main and service lines. Install new main and services within utility easements located adjacent to the front of homes to reduce future operations and maintenance costs.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Fallscrest Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 180,400.79	$ 180,400.79
				SUBTOTAL A:	**$ 180,400.79**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$ 18,040.08
3	Engineering & Construction Administration Costs	1	LS	$ 35,900.00	$ 35,900.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	10%	$ 18,040.08
				TOTAL CAPITAL COSTS:	**$ 252,380.95**
5	AFUDC		Percent	5%	$ 12,619
				TOTAL ESTIMATED PROJECT COSTS:	**$ 265,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Oakley Park Valve Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

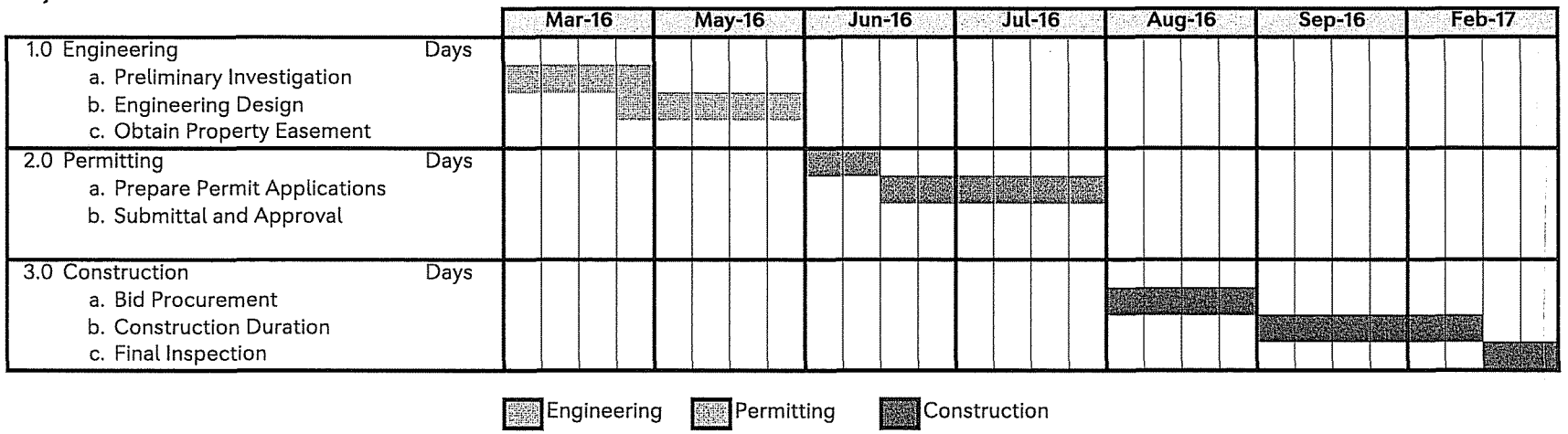
A. Project Purpose: Replace existing valves within the Oakley Park distribution system. An estimated five (5) 6" gate valves to be replaced.

B. Project Budget **$25,000**

C. Previous Actions: Operation and maintenance within existing system.

D. Proposed Actions: Installation of approximately five (5) 6" gate valves within existing Oakley Park distribution system.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Oakley Park Valve Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST		TOTAL
1	6" Gate Valve Cut In	5	LF	$ 3,500.00	$	17,500.00
				SUBTOTAL A:	**$**	**17,500.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	20%	$	3,500.00
3	Engineering & Construction Administration Costs		PERCENT	10%	$	1,750.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	13%	$	2,250.00
				TOTAL CAPITAL COSTS:	**$**	**25,000.00**
5	AFUDC		PERCENT	0%	$	-
				TOTAL ESTIMATED PROJECT COSTS:	**$**	**25,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Amy Acres Valve Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

A. Project Purpose: Replace existing valves within the Amy Acres distribution system. An estimated six (6) 6" gate valves to be replaced.

B. Project Budget **$35,000**

C. Previous Actions: Operation and maintenance within existing system.

D. Proposed Actions: Installation of approximately six (6) 6" gate valves within existing Amy Acres distribution system.

E. Project Timeline

		Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Amy Acres Valve Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST		TOTAL
1	6" Gate Valve Cut In	6	LF	$ 4,000.00	$	24,000.00
				SUBTOTAL A:	**$**	**24,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	20%	$	4,800.00
3	Engineering & Construction Administration Costs		PERCENT	10%	$	2,400.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	16%	$	3,800.00
				TOTAL CAPITAL COSTS:	**$**	**35,000.00**
5	AFUDC		PERCENT	0%	$	-
				TOTAL ESTIMATED PROJECT COSTS:	**$**	**35,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Bright's Creek Main Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

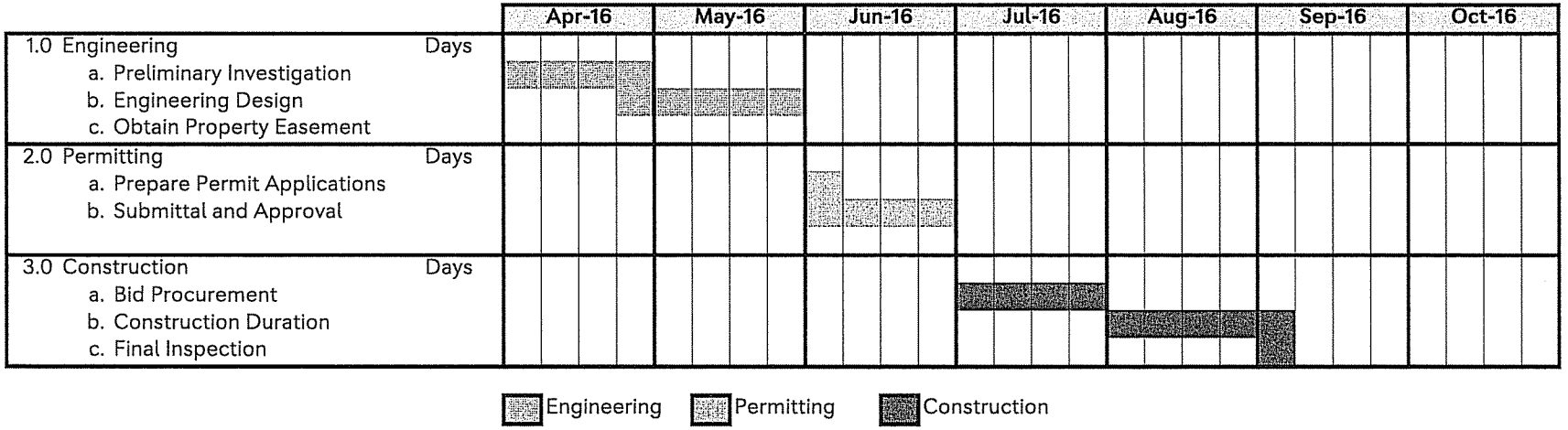
A. Project Purpose: Replace failed mains at Bright's Creek subdivision. Approx. 1,200 LF of 6" PVC located within right of way to be abandoned in place and replace with C900 PVC.

B. Project Budget **$50,000**

C. Previous Actions: Operation and maintenance within existing system.

D. Proposed Actions: Abandon and replace approx. 1,200 LF of 6" PVC water main.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Bright's Creek Main Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST		TOTAL
1	Replace 6" PVC	1,200	LF	$ 30.00	$	36,000.00
				SUBTOTAL A:	**$**	**36,000.00**
2	Contingencies, as percentage of Subtotal A		Percent	10%	$	3,600.00
3	Engineering & Construction Administration Costs		Percent	10%	$	3,600.00
4	Aqua Direct Cost, as percentage of Subtotal A		Percent	14%	$	4,876.92
				TOTAL CAPITAL COSTS:	**$**	**48,076.92**
5	AFUDC		Percent	4%	$	1,923
				TOTAL ESTIMATED PROJECT COSTS:	**$**	**50,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Chipley Park Valve Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

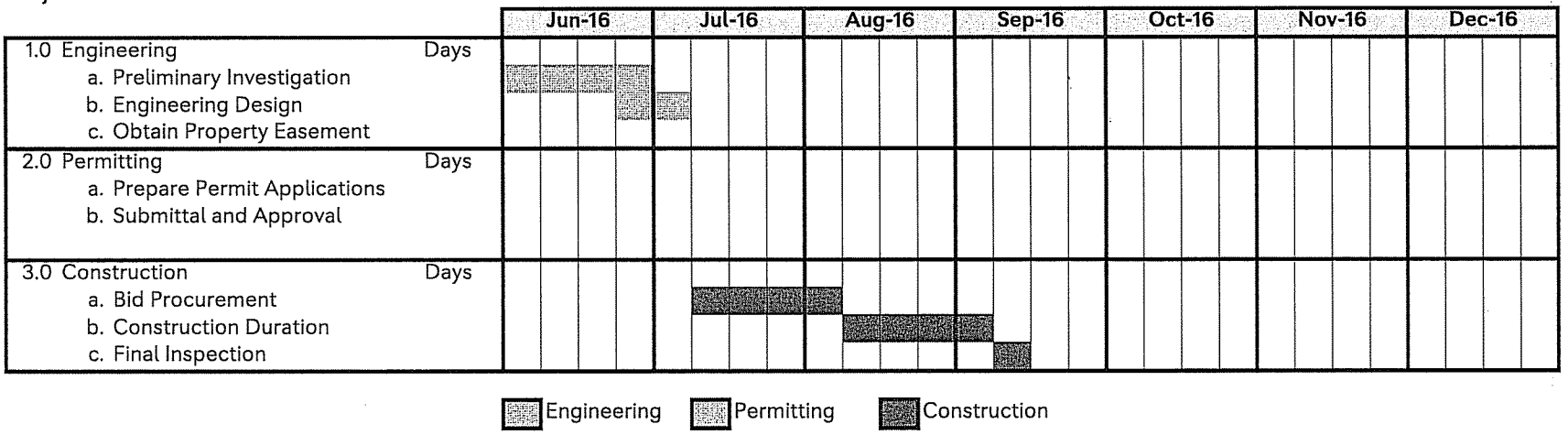
A. Project Purpose: Replace existing valves within the Chipley Park distribution system. An estimated six (6) 6" gate valves to be replaced.

B. Project Budget **$35,000**

C. Previous Actions: Operation and maintenance within existing system.

D. Proposed Actions: Installation of approximately six (6) 6" gate valves within existing Chipley Park distribution system.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Chipley Park Valve Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	6" Gate Valve Cut In	6	LF	$ 4,000.00	$ 24,000.00
				SUBTOTAL A:	**$ 24,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	20%	$ 4,800.00
3	Engineering & Construction Administration Costs		PERCENT	10%	$ 2,400.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	16%	$ 3,800.00
				TOTAL CAPITAL COSTS:	**$ 35,000.00**
5	AFUDC		PERCENT	0%	$ -
				TOTAL ESTIMATED PROJECT COSTS:	**$ 35,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Fontain Village Valve Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

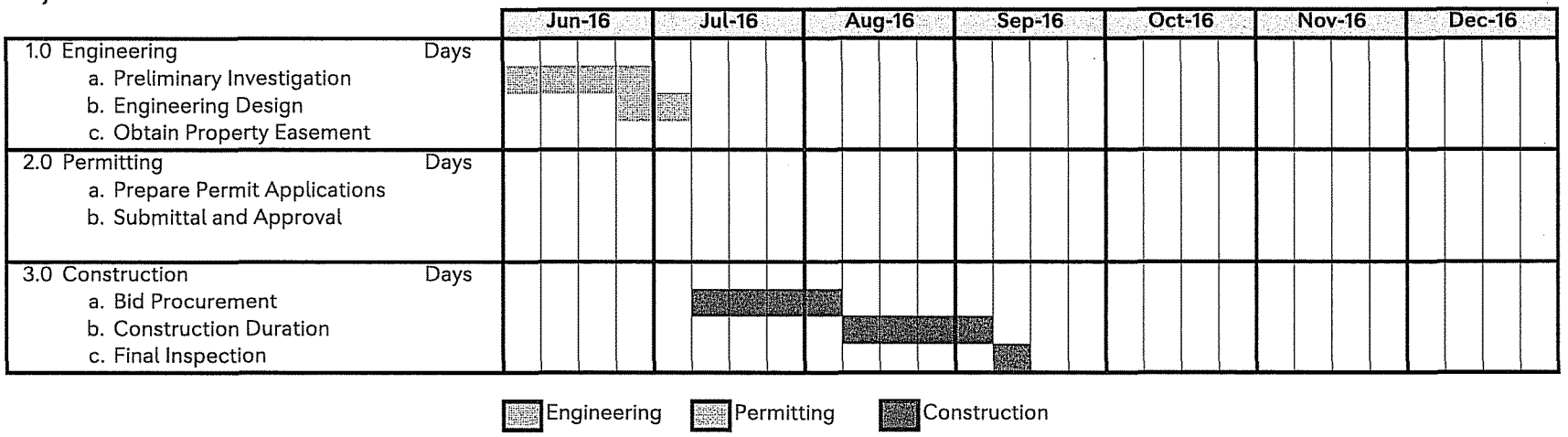
A. Project Purpose: Replace existing valves within the Fontain Village distribution system. An estimated six (6) 8" gate valves to be replaced.

B. Project Budget **$40,000**

C. Previous Actions: Operation and maintenance within existing system.

D. Proposed Actions: Installation of approximately six (6) 8" gate valves within existing Fontain Village distribution system.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Fontain Village Valve Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	8" Gate Valve Cut In	6	LF	$ 5,000.00	$ 30,000.00
				SUBTOTAL A:	**$ 30,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 3,000.00
3	Engineering & Construction Administration Costs		PERCENT	7%	$ 2,095.24
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	10%	$ 3,000.00
				TOTAL CAPITAL COSTS:	**$ 38,095.24**
5	AFUDC		PERCENT	5%	$ 1,905
				TOTAL ESTIMATED PROJECT COSTS:	**$ 40,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

PROJECT TITLE:	Woodlake Valve Replacement
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

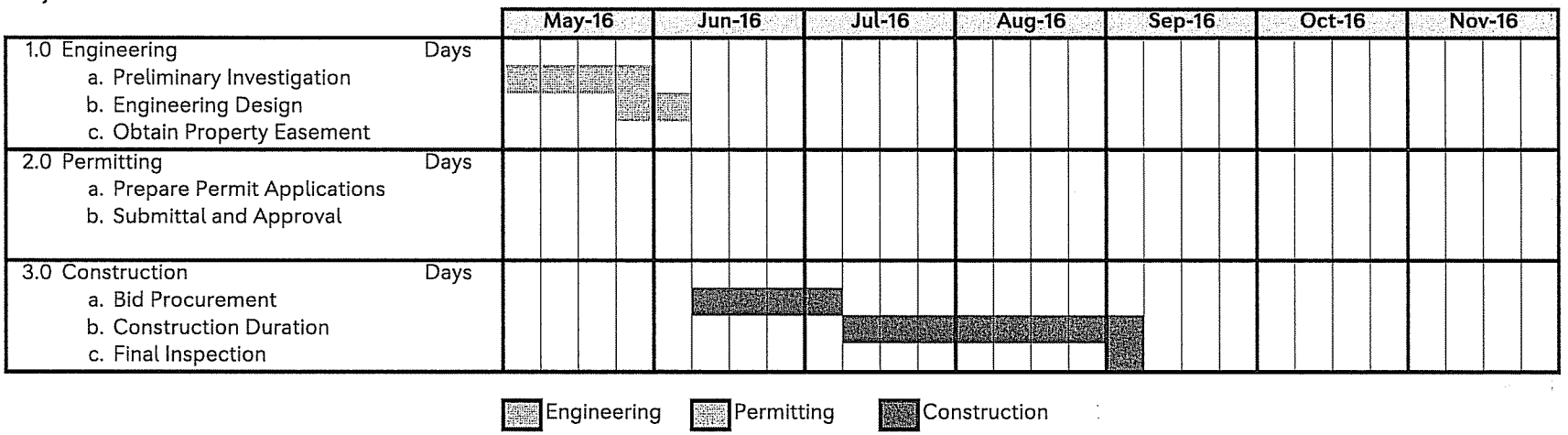
A. Project Purpose: Replace existing valves within the Woodlake distribution system. An estimated thirteen (13) 8" gate valves to be replaced.

B. Project Budget **$80,000**

C. Previous Actions: Operation and maintenance within existing system.

D. Proposed Actions: Installation of approximately thirteen (13) 8" gate valves within existing Woodlake distribution system.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Woodlake Valve Replacement

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	8" Gate Valve Cut In	13	LF	$ 4,500.00	$ 58,500.00
				SUBTOTAL A:	**$ 58,500.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	13%	$ 7,754.76
3	Engineering & Construction Administration Costs		PERCENT	7%	$ 4,085.71
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	10%	$ 5,850.00
				TOTAL CAPITAL COSTS:	**$ 76,190.48**
5	AFUDC		PERCENT	5%	$ 3,810
				TOTAL ESTIMATED PROJECT COSTS:	**$ 80,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Seagate Valve Replacements
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Dist. System Replacements

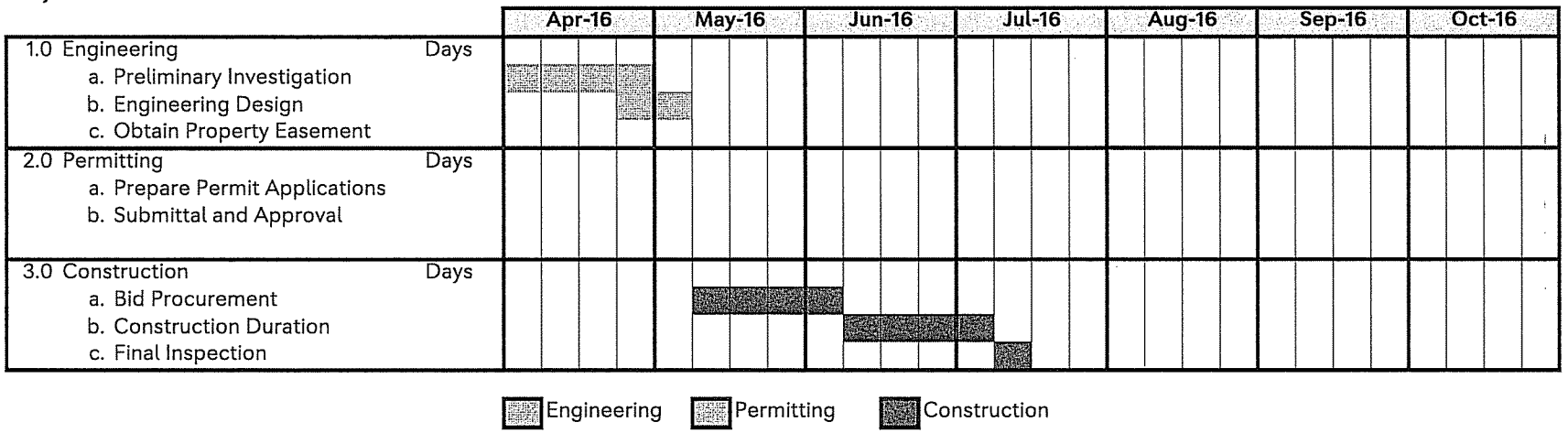
A. Project Purpose: The existing Seagate I water system currently contains 8 inoperable valves which need to be inspected and replaced. Replacing inoperable valves will allow system isolation, flushing, line repairs, and other water quality issues to be addressed.

B. Project Budget **$35,000**

C. Previous Actions: Exercise and inspect valves regularly. Inspection results identified 8 valves that require further inspection and/or replacement.

D. Proposed Actions: Replacement of 8 valves that are ineffective/inoperable within the Seagate I water system.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Seagate Valve Replacements

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	6" Gate Valve Cut In	8	LF	$ 3,500.00	$ 28,000.00
				SUBTOTAL A:	**$ 28,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 2,800.00
3	Engineering & Construction Administration Costs		PERCENT	5%	$ 1,453.85
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 1,400.00
				TOTAL CAPITAL COSTS:	**$ 33,653.85**
5	AFUDC		PERCENT	4%	$ 1,346
				TOTAL ESTIMATED PROJECT COSTS:	**$ 35,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Hollywood Acres Interconnect
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	C.2 - Main Extensions

A. Project Purpose: Interconnect existing Hollywood Acres water system to adjacent Starland Park and Hickory Woods systems. Current Hollywood Acres system in need of second source due to water quality in existing Well #1.

B. Project Budget **$145,000**

C. Previous Actions: Required water quality monitoring, inactivation of Hollywood Acres Well #1.

D. Proposed Actions: Installation of main extension connecting Hollywood Acres system to adjacent systems. This will allow Well #1 to become permanently abandoned.

E. Project Timeline

		Apr-16	May-16	Jun-16	Jul-16	Aug-16	Mar-17	Jul-17
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Hollywood Acres Interconnect

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Meter Installs Contractor Estimate	1	LS	$ 100,000.00	$ 100,000.00
				SUBTOTAL A:	**$ 100,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 10,000.00
3	Engineering & Construction Administration Costs	1	LS	$ 15,400.00	$ 15,400.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	13%	$ 12,695.24
				TOTAL CAPITAL COSTS:	**$ 138,095.24**
5	AFUDC		PERCENT	5%	$ 6,905
				TOTAL ESTIMATED PROJECT COSTS:	**$ 145,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Stonehenge Wells #1 & #6 Radium and Fe/Mn Removal
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

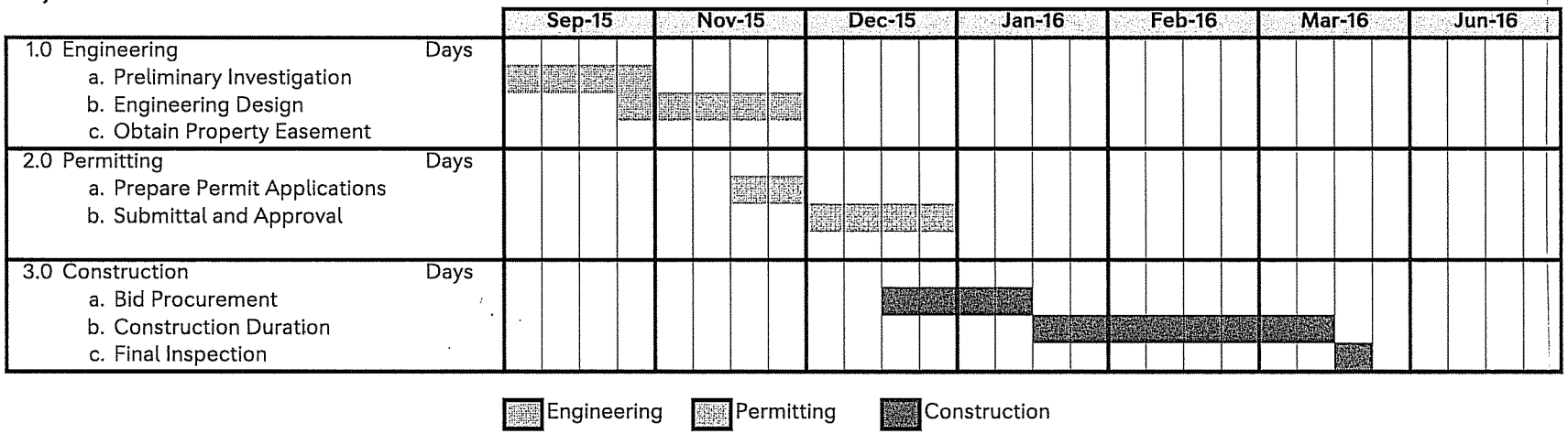
A. Project Purpose: The Stonehenge wells #1 & #6 have experienced combined radium levels of 13.6 pCi/L and elevated levels of iron, 1.1 mg/L, and manganese, 1.1 mg/L. Currently this 110 gpm source is inactive due to water quality.

B. Project Budget **$650,000**

C. Previous Actions: Required sampling schedule and sampling review.

D. Proposed Actions: Installation of manganese dioxide, recycled backwash filter followed by selective Ion Exchange filter.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Stonehenge Wells #1 & #6 Radium and Fe/Mn Removal

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 340,000.00	$ 340,000.00
2	AdEdge Filter	1	EA	$ 180,000.00	$ 180,000.00
				SUBTOTAL A:	**$ 520,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 52,000.00
4	Engineering & Construction Administration Costs	1	LS	$ 22,500.00	$ 22,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 26,000.00
				TOTAL CAPITAL COSTS:	**$ 620,500.00**
6	AFUDC		PERCENT	5%	$ 29,500
				TOTAL ESTIMATED PROJECT COSTS:	**$ 650,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA.

PROJECT TITLE:	Broadhurst Well #2 Radium Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

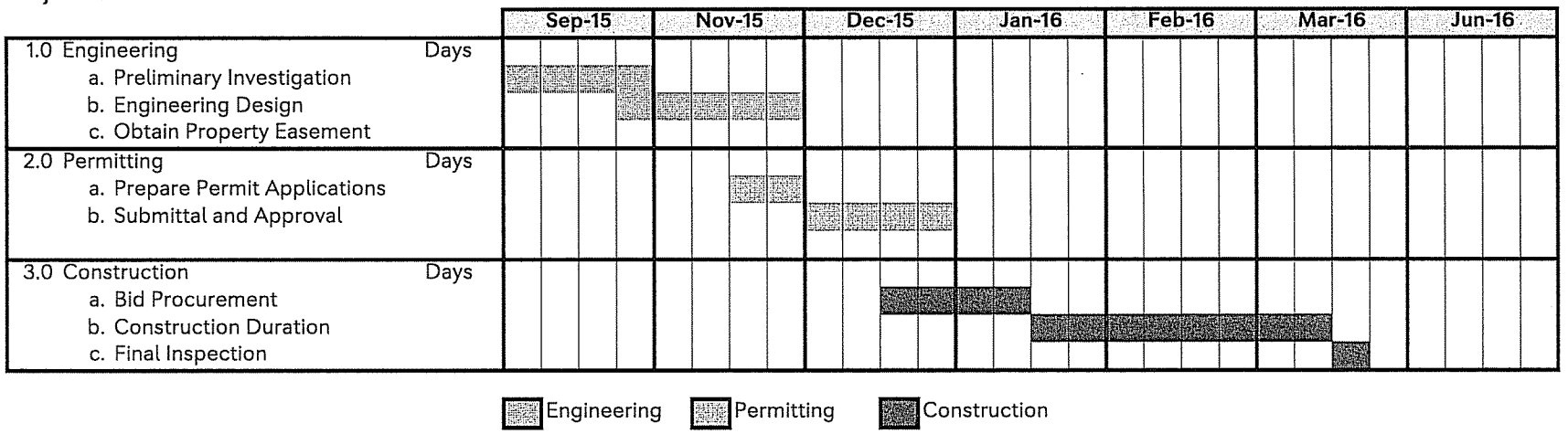
A. Project Purpose: The Broadhurst well #2 entry point has reported radium levels at 2.3 pCi/L Ra226 and 2.2 pCi/L Ra228, a combined value of 4.5 pCi/L. This is above the MCL and treatment is necessary.

B. Project Budget **$200,000**

C. Previous Actions: Required sampling schedule and sampling review.

D. Proposed Actions: Installation of single pass ion exchange filters specified by AdEdge.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Broadhurst Well #2 Radium Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 80,000.00	$ 80,000.00
2	AdEdge Filter	1	EA	$ 65,000.00	$ 65,000.00
				SUBTOTAL A:	**$ 145,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 14,500.00
4	Engineering & Construction Administration Costs	1	LS	$ 22,500.00	$ 22,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	6%	$ 8,476.19
				TOTAL CAPITAL COSTS:	**$ 190,476.19**
6	AFUDC		PERCENT	5%	$ 9,524
				TOTAL ESTIMATED PROJECT COSTS:	**$ 200,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Thornburg Nitrate Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

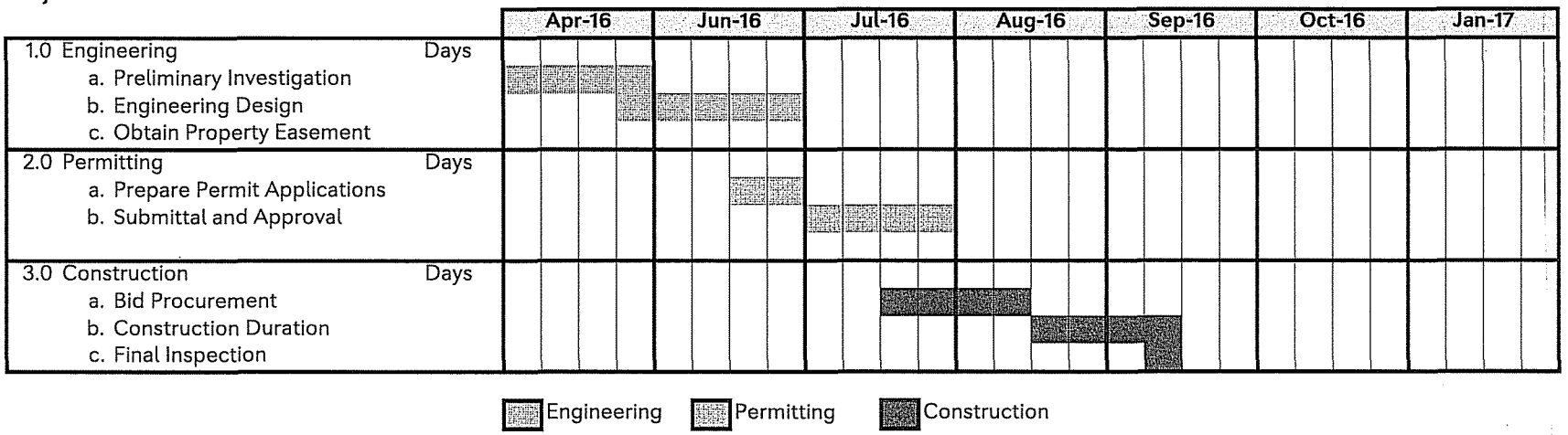
A. Project Purpose: The Thornburg Well #1 entry point has reported nitrate levels at 7.6 mg/L. This is approaching the MCL of 10 mg/L and necessitates treatment to avoid an exceedance.

B. Project Budget **$100,000**

C. Previous Actions: Required sampling schedule and sampling review.

D. Proposed Actions: Installation of nitrate filter at Thornburg Well #1

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Thornburg Nitrate Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 50,000.00	$ 50,000.00
2	AdEdge Filter	1	EA	$ 30,000.00	$ 30,000.00
				SUBTOTAL A:	**$ 80,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 6,087.38
4	Engineering & Construction Administration Costs	1	LS	$ 7,000.00	$ 7,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 4,000.00
				TOTAL CAPITAL COSTS:	**$ 97,087.38**
6	AFUDC		PERCENT	3%	$ 2,913
				TOTAL ESTIMATED PROJECT COSTS:	**$ 100,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Henson Farms Well #5 Radium Filter System
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality Projects

A. Project Purpose:

Installation of proposed AdEdge radionuclide ion-exchange filtration unit. Existing radionuclide sampling indicates that current combined radium levels are above MCLs and a Public Notice is likely to be required as a result of March 2016 sampling. Filtration of source water to near non-detect levels is required to curtail public notice and return to 3-year sampling schedule. The proposed project will reduce operational stress and achieve compliance requirements.

B. Project Budget **$290,000**

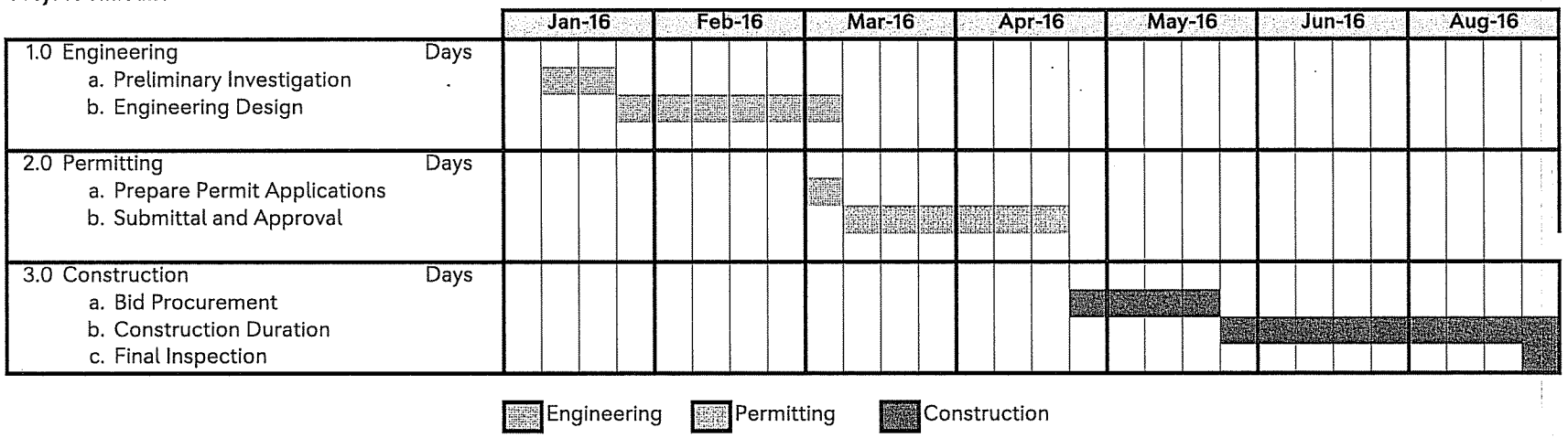
C. Previous Actions:

Compliance has monitored the asset through regulated sampling schedule. Site inspections were performed to verify existing conditions and confirm compliance recommendation.

D. Proposed Actions:

Provide well water test data to Dewberry, obtain preliminary filter design from AdEdge, obtain all the required permits from city of Summerfield, Guilford County as well as PWS. Design and construct filter building with wooden structure and shingles roof, design and construction of AdEdge radium removal filters.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Henson Farms Well #5 Radium Removal Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	AdEdge Filter Equipment and Delivery	1	LS	$ 65,000.00	$ 50,000.00
2	Bonding and Mobilization	1	LS	$ 7,500.00	$ 7,500.00
3	Site Clearing grubbing, grading, seeding	1	LS	$ 20,000.00	$ 20,000.00
4	Filter Building construction (10X12)	1	LS	$ 60,000.00	$ 60,000.00
5	Electricals	1	LS	$ 17,500.00	$ 17,500.00
6	Erosion & Sedimentation Control	1	LS	$ 5,000.00	$ 5,000.00
7	Modification of existing well house	1	LS	$ 10,000.00	$ 10,000.00
8	Installation of Filter	1	LS	$ 25,000.00	$ 25,000.00
				SUBTOTAL A:	**$ 195,000.00**
9	Contingencies, as percentage of Subtotal A		Percent	20%	$ 38,121.25
10	Engineering & Construction Administration Costs (Dewberry**)	1	LS	$ 24,900.00	$ 24,900.00
11	Aqua Direct Cost, as percentage of Subtotal A		Percent	10%	$ 19,500.00
				TOTAL CAPITAL COSTS:	**$ 277,521.25**
12	AFUDC		Percent	4%	$ 12,479
				TOTAL ESTIMATED PROJECT COSTS:	**$ 290,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

PROJECT TITLE:	Stoney Creek Wells #1 & #4 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

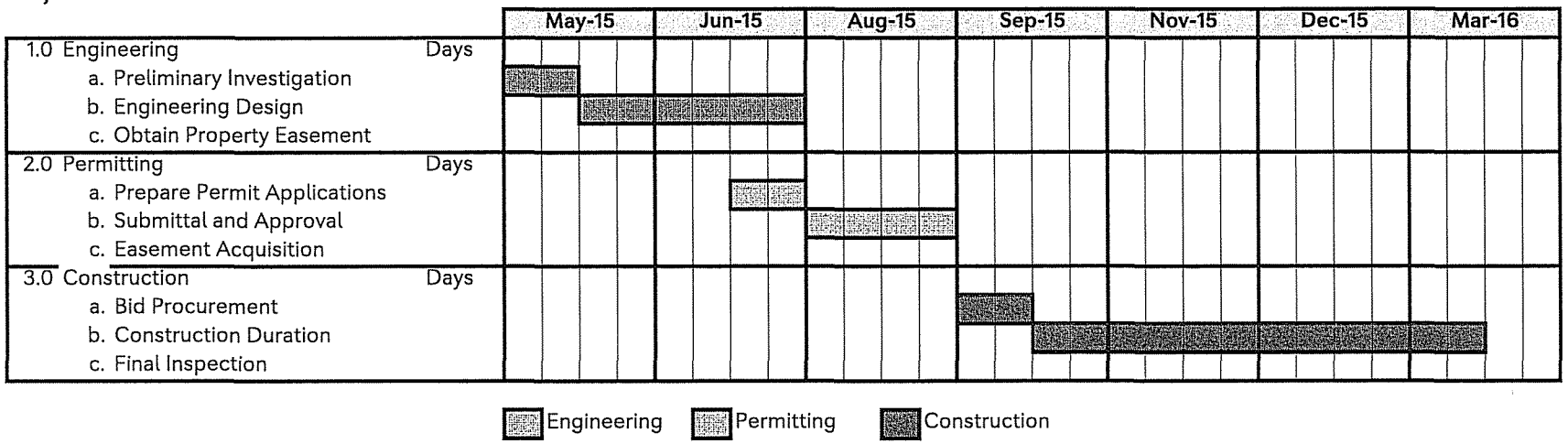
A. Project Purpose: Stoney Creek Wells #1 and #4 are a combined entry point system producing 94 GPM and serving 99 customers. This location is experiencing high iron and manganese (Fe/Mn levels) above secondary water quality MCLs of 0.3 mg/L and 0.05 mg/L.

B. Project Budget **$400,000**

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Stoney Creek Wells #1 & #4 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 190,000.00	$ 190,000.00
2	AdEdge Filter	1	LS	$ 145,000.00	$ 145,000.00
				SUBTOTAL A:	**$ 335,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	7%	$ 23,288.42
4	Engineering & Construction Administration Costs	1	LS	$ 12,500.00	$ 12,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 17,561.09
				TOTAL CAPITAL COSTS:	**$ 388,349.51**
6	AFUDC		PERCENT	3%	$ 11,650
				TOTAL ESTIMATED PROJECT COSTS:	**$ 400,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Bloomfield Wells #1 & #3 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

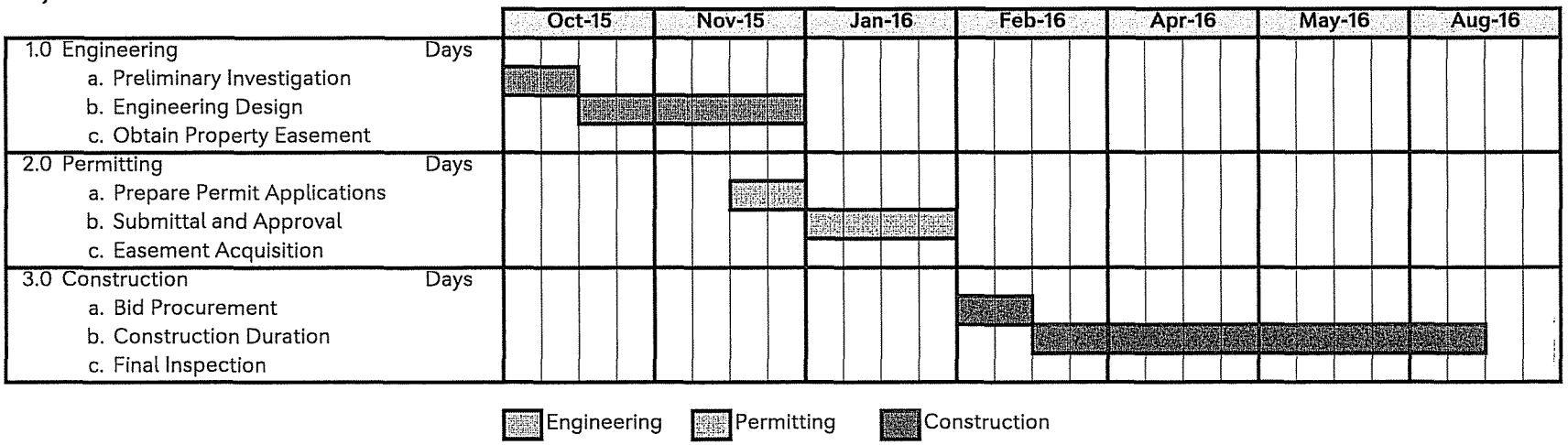
A. Project Purpose: Bloomfield Wells #1 and #3 serve the Myatt Mill/Bloomfield water system. Combined these wells produce 250 GPM serving 230 customers. This location is experiencing high Iron and Manganese (Fe/Mn levels) above secondary water quality MCLs of 0.3 mg/L and 0.05 mg/L.

B. Project Budget **$525,000**

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Combine wells to single entry point and provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Bloomfield Wells #1 & #3 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 240,000.00	$ 240,000.00
2	AdEdge Filter	1	LS	$ 175,000.00	$ 175,000.00
				SUBTOTAL A:	**$ 415,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 41,500.00
4	Engineering & Construction Administration Costs	1	LS	$ 25,000.00	$ 25,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	6%	$ 23,307.69
				TOTAL CAPITAL COSTS:	**$ 504,807.69**
6	AFUDC		PERCENT	4%	$ 20,192
				TOTAL ESTIMATED PROJECT COSTS:	**$ 525,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Hallmark Well #2 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

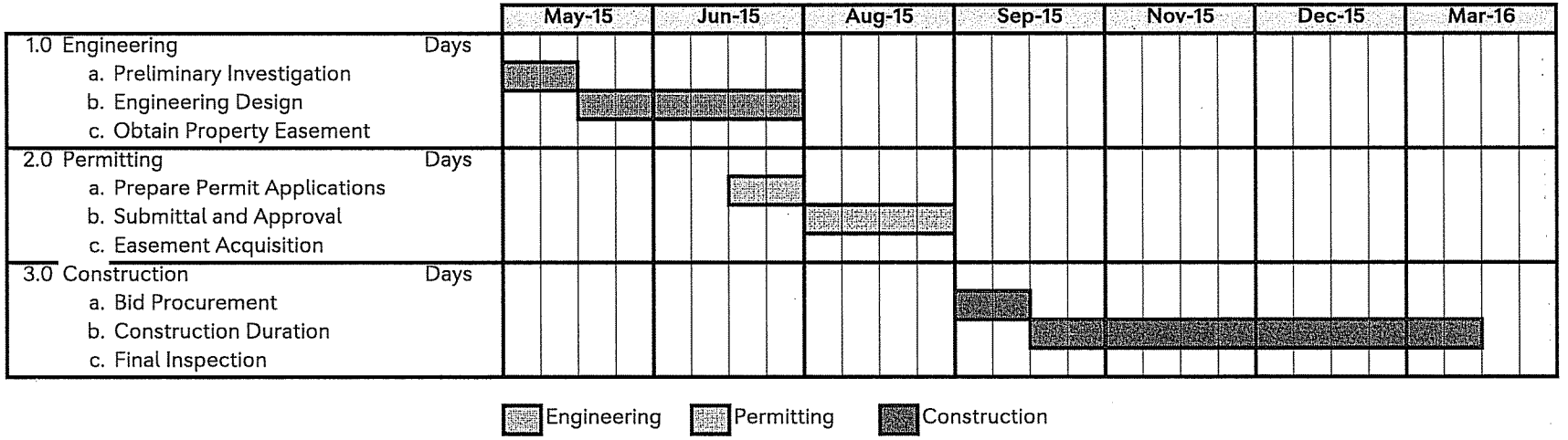
A. Project Purpose: Hallmark Well #2 is part of the Swift Creek Master System serving 280 customers. Hallmark Well #2 produces 35 GPM. This location is experiencing high Iron and Manganese (Fe/Mn levels) above secondary water quality MCLs of 0.3 mg/L and 0.05 mg/L.

B. Project Budget **$325,000**

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Hallmark Well #2 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 155,000.00	$ 155,000.00
2	AdEdge Filter	1	LS	$ 105,000.00	$ 105,000.00
				SUBTOTAL A:	**$ 260,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	9%	$ 23,870.49
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 13,629.51
				TOTAL CAPITAL COSTS:	**$ 312,500.00**
6	AFUDC		PERCENT	4%	$ 12,500
				TOTAL ESTIMATED PROJECT COSTS:	**$ 325,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Hallmark Well #3 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

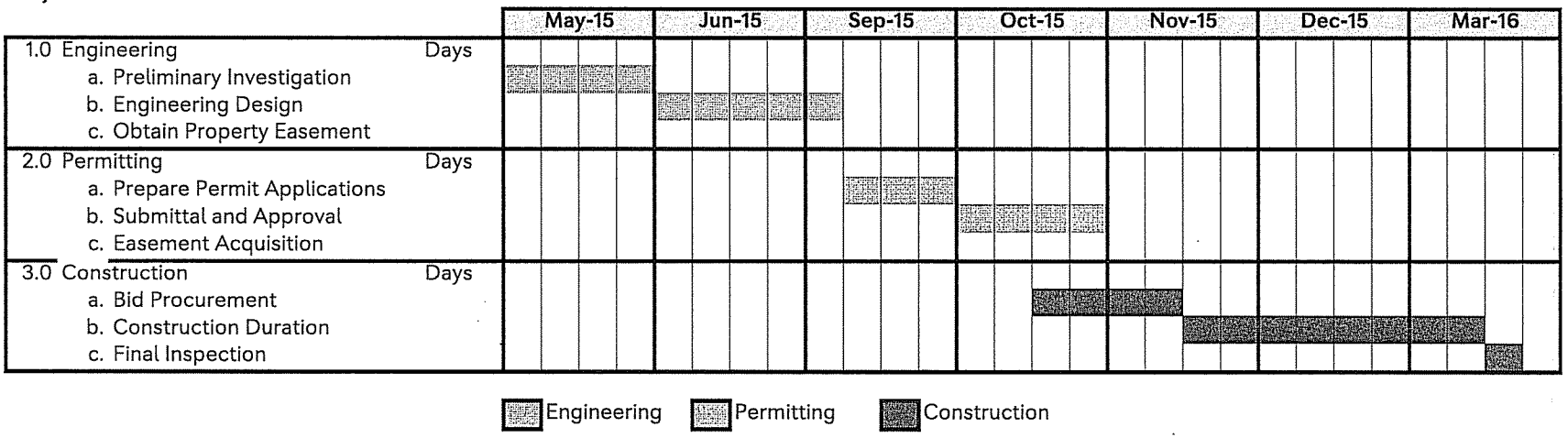
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 1.0 mg/L for Iron and 0.72 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data.

B. Project Budget **$325,000**

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide funding for Fe/Mn filtration.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Hallmark Well #3 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 152,200.00	$ 152,200.00
2	AdEdge Filter	1	LS	$ 120,987.00	$ 120,987.00
				SUBTOTAL A:	**$ 273,187.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 13,659.35
4	Engineering & Construction Administration Costs	1	LS	$ 12,500.00	$ 12,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 13,153.65
				TOTAL CAPITAL COSTS:	**$ 312,500.00**
6	AFUDC		PERCENT	4%	$ 12,500
				TOTAL ESTIMATED PROJECT COSTS:	**$ 325,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Crescent Ridge Wells #5 & #6 Fe/Mn Removal
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

A. Project Purpose:

Crescent Ridge Wells #5 and #6 produce 80 gpm serving 97 customers. This location is experiencing high Iron and Manganese (Fe/Mn levels) above secondary water quality MCLs of 0.3 mg/L and 0.05 mg/L. Combining these locations to a single entry point and installing treatment will address secondary water quality concerns.

B. Project Budget **$400,000**

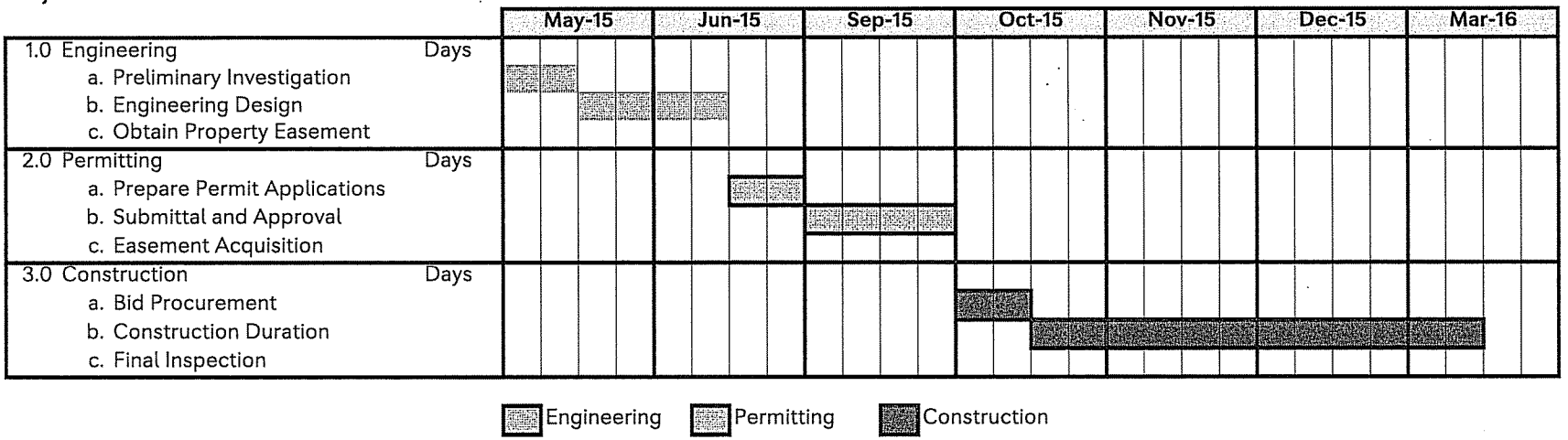
C. Previous Actions:

Harmsco 2-micron cartridge filters and SeaQuest sequestering agent were introduced to these wells and found to be inappropriate due to high contaminate loads.

D. Proposed Actions:

Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Crescent Ridge Wells #5 & #6 Fe/Mn Removal

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 200,000.00	$ 200,000.00
2	AdEdge Filter	1	LS	$ 125,000.00	$ 125,000.00
				SUBTOTAL A:	**$ 325,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 16,250.00
4	Engineering & Construction Administration Costs	1	LS	$ 25,500.00	$ 25,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 15,648.39
				TOTAL CAPITAL COSTS:	**$ 382,398.39**
6	AFUDC		PERCENT	5%	$ 17,602
				TOTAL ESTIMATED PROJECT COSTS:	**$ 400,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Springfield N Wells #2 & #3 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

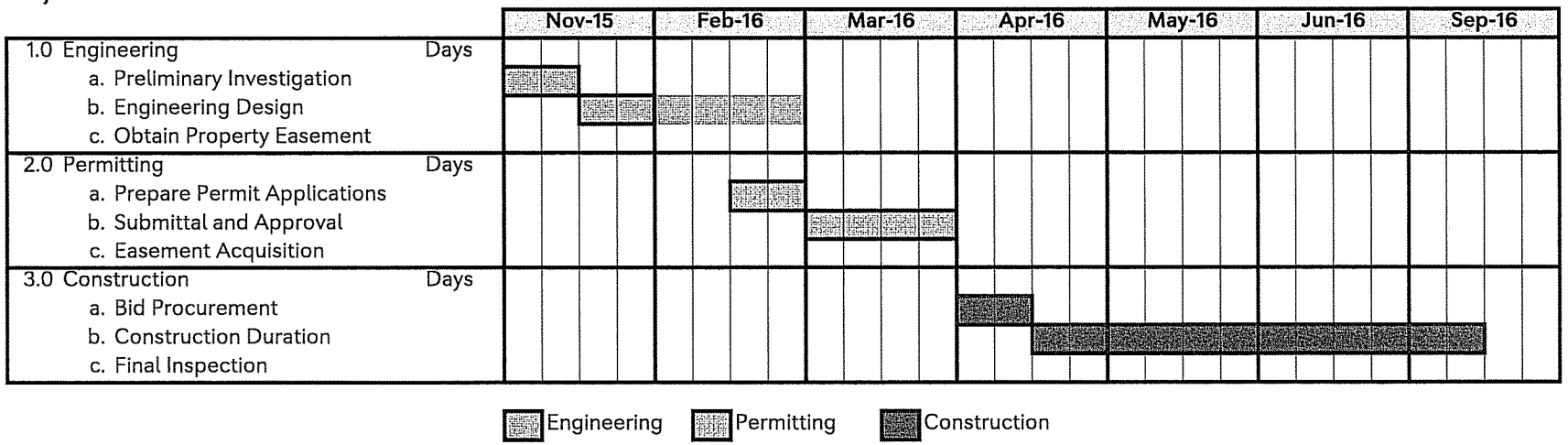
A. Project Purpose: Through compliance monitoring, it was discovered the combined entry point of Springdale Wells #3 & #4 have iron and/or manganese (Fe/Mn) concentrations above the secondary maximum contaminant level of MCLs of 0.3 mg/L and 0.05 mg/L, respectively. This system has a water withdrawal capacity of 72 gpm.

B. Project Budget **$500,000**

C. Previous Actions: Harmsco 2-micron cartridge filters and SeaQuest sequestering agent were introduced to these wells and found to be inappropriate due to high contaminate loads.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Springfield N Wells #2 & #3 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 250,000.00	$ 250,000.00
2	AdEdge Filter	1	LS	$ 160,000.00	$ 160,000.00
				SUBTOTAL A:	**$ 410,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	6%	$ 22,756.94
4	Engineering & Construction Administration Costs	1	LS	$ 25,500.00	$ 25,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 19,741.04
				TOTAL CAPITAL COSTS:	**$ 477,997.99**
6	AFUDC		PERCENT	5%	$ 22,002
				TOTAL ESTIMATED PROJECT COSTS:	**$ 500,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Waterfall Well #5 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

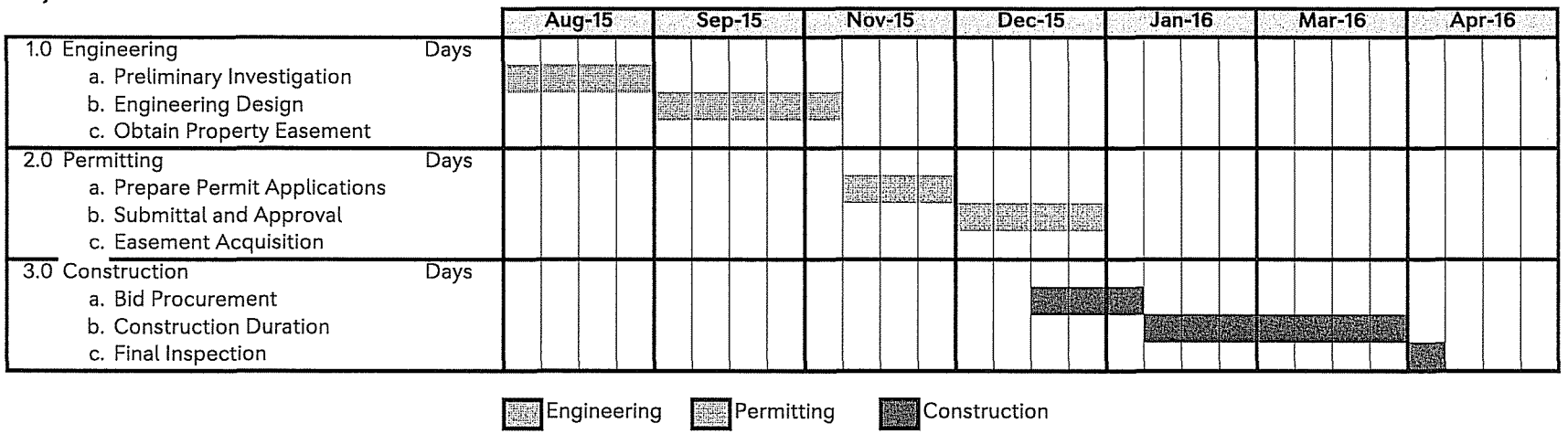
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 0.7 mg/L for Iron and 0.18 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data.

B. Project Budget $460,000.00

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide funding for Fe/Mn filtration.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Waterfall Well #5 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 225,000.00	$ 225,000.00
2	AdEdge Filter	1	LS	$ 160,000.00	$ 160,000.00
				SUBTOTAL A:	**$ 385,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	6%	$ 23,057.69
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 19,250.00
				TOTAL CAPITAL COSTS:	**$ 442,307.69**
6	AFUDC		PERCENT	4%	$ 17,692
				TOTAL ESTIMATED PROJECT COSTS:	**$ 460,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Highland Trail Well #1 Fe/MN Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

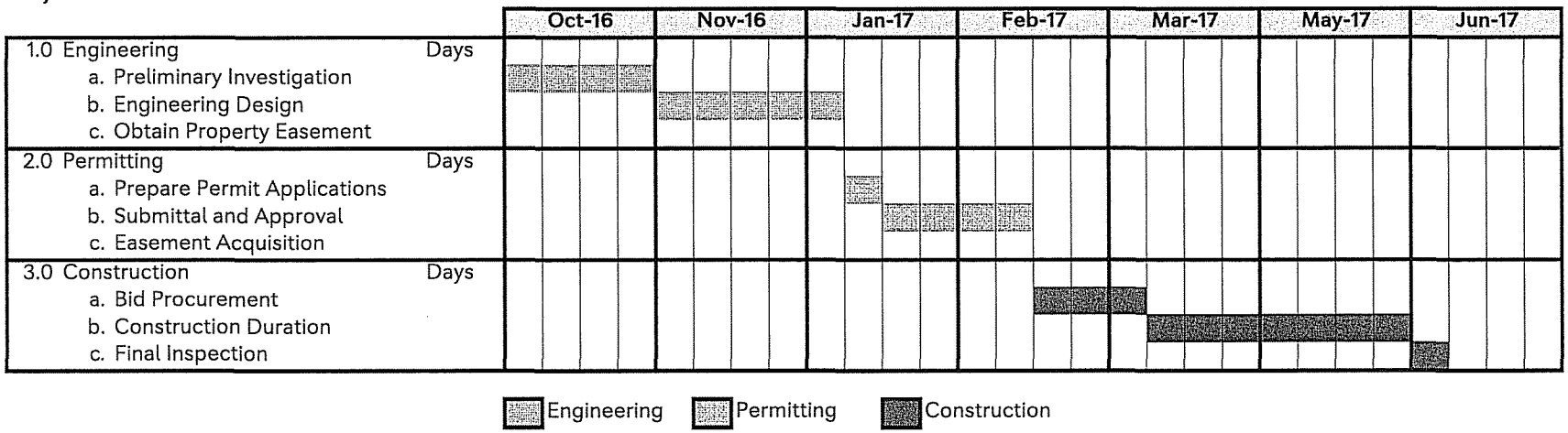
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 3.2 mg/L for Iron and 0.19 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data.

B. Project Budget $445,000

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Highland Trail Well #1 Fe/MN Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 225,000.00	$ 225,000.00
2	AdEdge Filter	1	LS	$ 140,000.00	$ 140,000.00
				SUBTOTAL A:	**$ 365,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 29,634.62
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 18,250.00
				TOTAL CAPITAL COSTS:	**$ 427,884.62**
6	AFUDC		PERCENT	4%	$ 17,115
				TOTAL ESTIMATED PROJECT COSTS:	**$ 445,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Sedgemoor Well #1 & Wynchester Well #1 Fe & Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

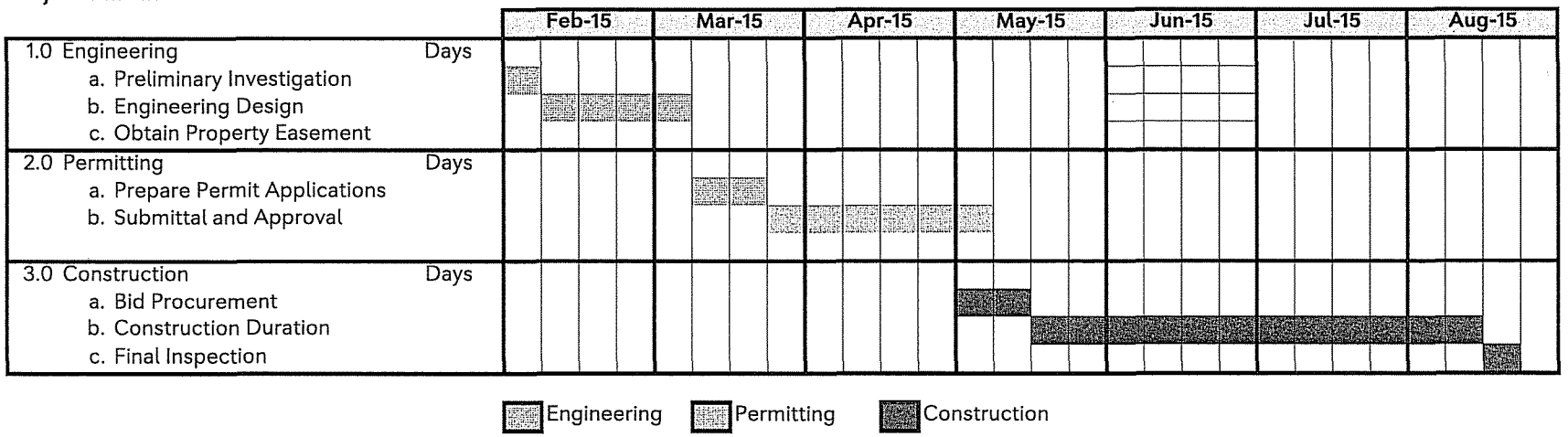
A. Project Purpose: Installation of Fe/Mn filtration unit on combined entry Sedgemoor Well #1 & Wynchester Well #1. Current samples show approx. 1.50 mg/L Fe and 0.30 mg/L Mn. Flow rates at the well site 108 gpm.

B. Project Budget **$405,000**

C. Previous Actions: SeaQuest addition was found ineffective.

D. Proposed Actions: Installation of AdEdge Greensand filtration unit and interconnection of wells.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Sedgemoor Well #1 & Wynchester Well #1 Fe & Mn Filters
ANC Water

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	AdEdge Filtration Unit, 108 GPM w/ 1.5 mg/L Fe and 0.30 mg/L Mn w/ Both Tanks	1	LS	$ 190,000.00	$ 190,000.00
2	Well Interconnection (4" C900 @ 4.08 fps)	400	LF	$ 50.00	$ 20,000.00
3	Filter Building Construction	1	EA	$ 105,000.00	$ 105,000.00
4	Filter Installation	1	EA	$ 85,000.00	$ 85,000.00
				SUBTOTAL A:	**$ 315,000.00**
5	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 31,420.99
6	Engineering & Construction Administration Costs (Dewberry**)	1	LS	$ 24,175.00	$ 24,175.00
7	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 15,118.30
				TOTAL CAPITAL COSTS:	**$ 385,714.29**
8	AFUDC		PERCENT	5%	$ 19,286
				TOTAL ESTIMATED PROJECT COSTS:	**$ 405,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	West Oaks Well #1 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

A. Project Purpose: West Oaks Well #1 currently has a production of 67 gpm contributing to 241 customers. This location is experiencing high iron and manganese (Fe/Mn) levels above secondary water quality MCLs of 0.3 mg/L and 0.05 mg/L.

B. Project Budget **$375,000**

C. Previous Actions: SeaQuest addition was found ineffective.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline

		Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
WEST OAKS WELL #1 FE/MN FILTER

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	AdEdge Filtration Unit	1	LS	$ 115,000.00	$ 115,000.00
2	Construction Costs	1	LS	$ 175,000.00	$ 175,000.00
				SUBTOTAL A:	**$ 290,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 28,927.26
4	Engineering & Construction Administration Costs	1	LS	$ 25,500.00	$ 25,500.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 13,918.43
				TOTAL CAPITAL COSTS:	**$ 358,345.69**
6	AFUDC		PERCENT	5%	$ 16,654
				TOTAL ESTIMATED PROJECT COSTS:	**$ 375,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Shadow Lake Well #1 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

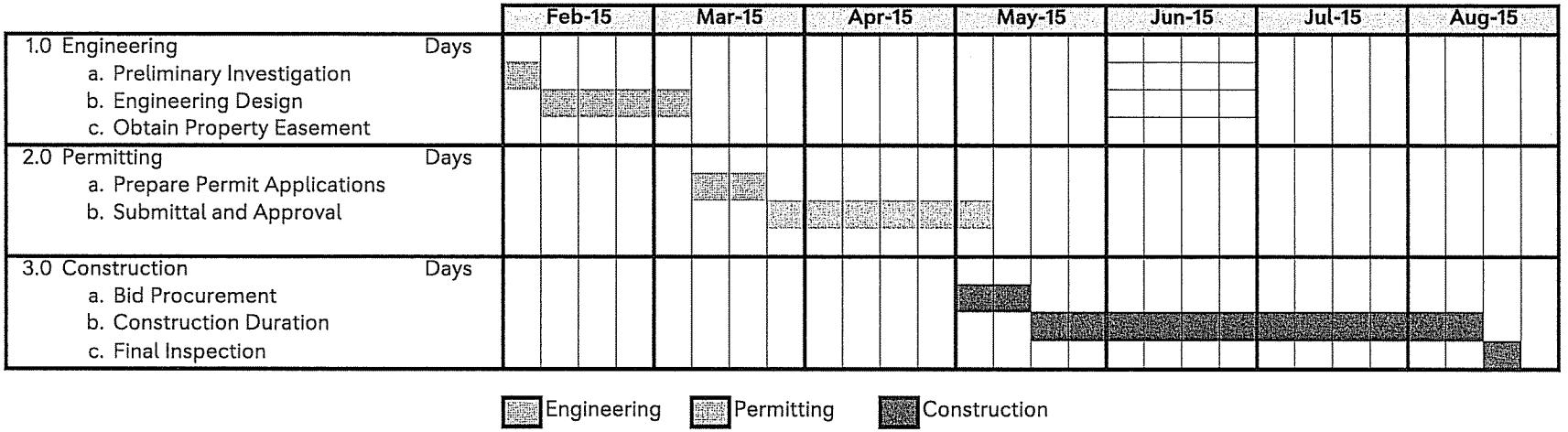
A. Project Purpose: Installation of Fe/Mn filtration unit on Shadow Lake Well #1. Current samples show approx. 1.43mg/L Fe and 0.268 and 0.31mg/L Mn. Permitted flow rates at the well site 68 gpm. However, current pumping data indicates flow rate of 55 gpm

B. Project Budget **$490,000**

C. Previous Actions: SeaQuest addition (started in August 2015) was found ineffective. The system is being flushed for 8 minutes before pumping water to the distribution system.

D. Proposed Actions: Installation of AdEdge Greensand filtration unit

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Shadow Lake Well #1 Fe & Mn Filters

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	AdEdge Filtration Unit, 68 GPM w/ 1.5 mg/L Fe and 0.30 mg/L Mn w/ Both Tanks	1	LS	$ 165,000.00	$ 165,000.00
2	Pipe connection to and from filter house to distribution line	200	LF	$ 80.00	$ 16,000.00
3	Valves and Appurtenances	1	LS	$ 10,000.00	$ 10,000.00
4	Filter Building Construction	1	EA	$ 105,000.00	$ 105,000.00
5	Filter Installation	1	EA	$ 80,000.00	$ 80,000.00
				SUBTOTAL A:	**$ 376,000.00**
6	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 37,600.00
7	Engineering & Construction Administration Costs (Dewberry**)	1	LS	$ 33,600.00	$ 33,600.00
8	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 18,800
				TOTAL CAPITAL COSTS:	**$ 466,000**
9	AFUDC		PERCENT	5%	$ 23,300
				TOTAL ESTIMATED PROJECT COSTS:	**$ 490,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

PROJECT TITLE:	Surry Point Well #3 Fe/Mn Removal Filter Installation
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

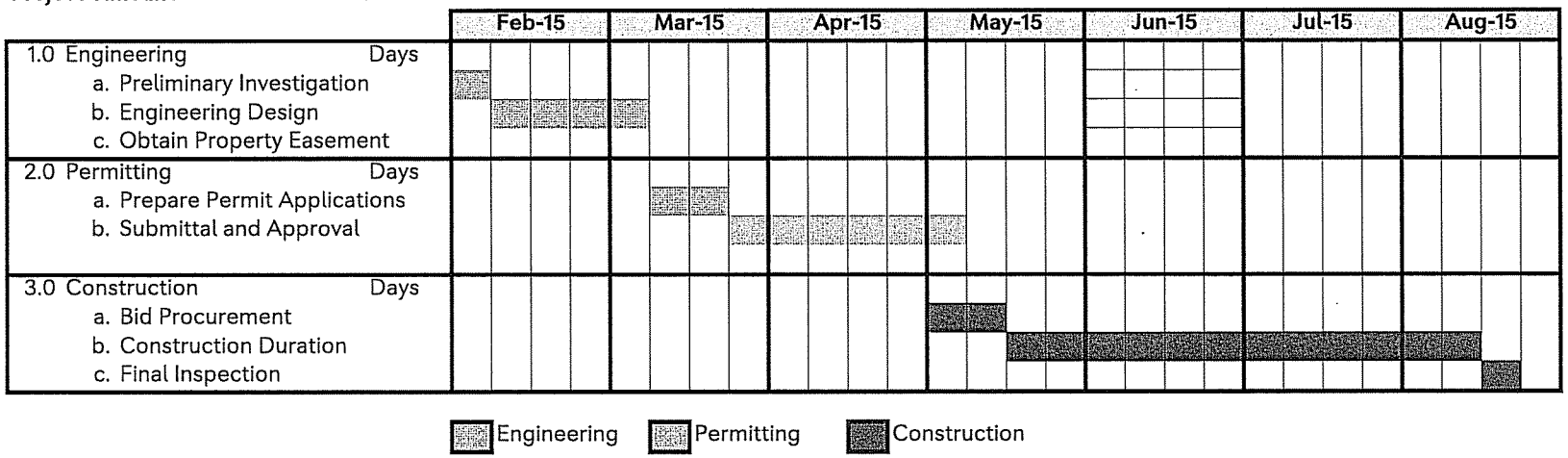
A. Project Purpose: Installation of Fe/Mn filtration unit on Surry Point Well #3. Current samples show approx. 1.41 mg/L Fe and 0.268 and 0.22 mg/L Mn. Permitted flow rates at the well site 85 gpm.

B. Project Budget **$460,000**

C. Previous Actions: None, current well undeveloped.

D. Proposed Actions: Installation of AdEdge Greensand filtration unit

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Surry Point Well #3 Fe & Mn Filters
ANC Water

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
A	**Well House Modification**				
1	New 85 gpm Well Pump and Controls	1	LS	$ 10,000.00	$ 10,000.00
2	Required Valves, Bladder Tank, Pressure Control Switches and Other appurtenances	1	LS	$ 5,000.00	$ 5,000.00
3	PVC Pipe connection to and from filter house to distribution line	200	LF	$ 40.00	$ 8,000.00
4	Well House Foundation	1	LS	$ 10,000.00	$ 10,000.00
5	Move and Erect Existing Well house	1	LS	$ 7,500.00	$ 7,500.00
6	Chemical Feed Facilities	1	LS	$ 5,000.00	$ 5,000.00
				SUBTOTAL A:	**$ 45,500.00**
B	**New Fe/Mn Filter House Installation**				
1	AdEdge Filtration Unit, 85 GPM w/ 1.5 mg/L Fe and 0.30 mg/L Mn w/ Back wash tank and Sludge and Backwash Pumps	1	LS	$ 120,000.00	$ 120,000.00
2	New Sludge Holding Tank	1	LS	$ 25,000.00	$ 25,000.00
3	Filter house Construction	1	LS	$ 45,500.00	$ 45,500.00
4	Back wash Tank and Sludge Holding tank installations with Concrete Foundation	1	LS	$ 23,500.00	$ 23,500.00
5	Pipe Connection from Well house to Filter House	200	LF	$ 40.00	$ 8,000.00
6	Required Valves, Control Switches and other appurtenances	1	LS	$ 5,000.00	$ 5,000.00
7	Site Improvements	1	LS	$ 50,000.00	$ 50,000.00
8	Filter Installation	1	EA	$ 15,000.00	$ 15,000.00
9	Electricals and Controls	1	LS	$ 20,000.00	$ 20,000.00
				SUBTOTAL B:	**$ 312,000.00**
				Total A+B	**$ 357,500.00**
	Contingencies, as percentage of Subtotal A		Percent	10%	$ 35,000
	Engineering & Construction Administration Costs (Dewberry updated propos	1	LS	$ 43,500.00	$ 43,500.00
	Aqua Direct Cost, as percentage of Subtotal A		Percent	4%	$ 14,250
				TOTAL CAPITAL COSTS:	**$ 450,250**
	AFUDC		Percent	2%	$ 10,000
				TOTAL ESTIMATED PROJECT COSTS:	**$ 460,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Greymoss Wells #5 & #6 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

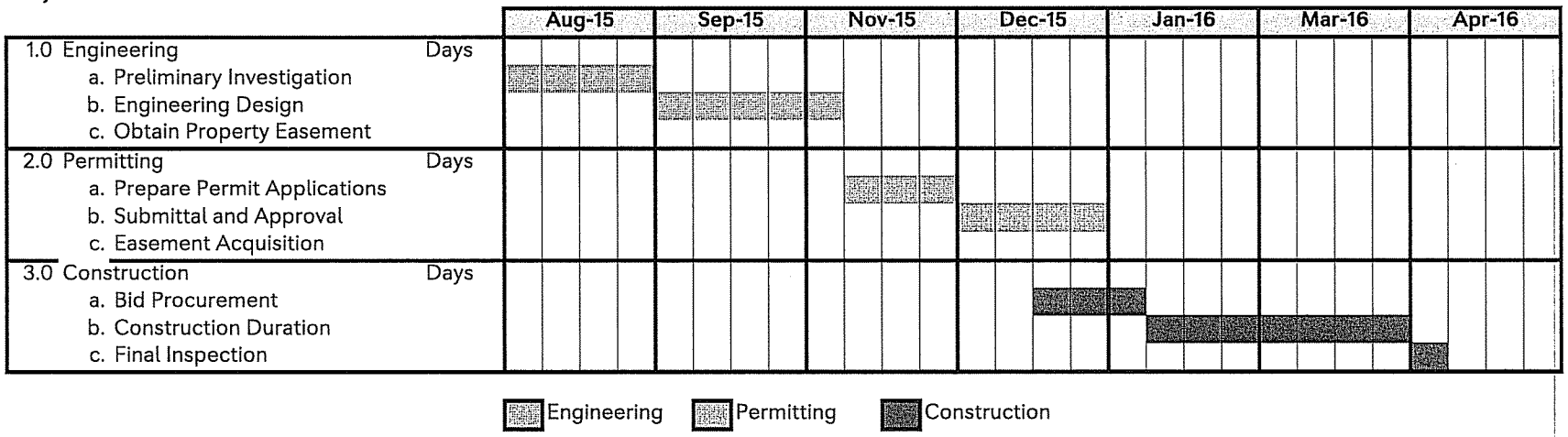
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 0.92 mg/L for iron and 1.03 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data. Permitted flow at 115 gpm.

B. Project Budget $620,000

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide funding for Fe/Mn filtration.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Greymoss Wells #5 & #6 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 388,900.00	$ 388,900.00
2	AdEdge Filter	1	LS	$ 150,000.00	$ 150,000.00
				SUBTOTAL A:	**$ 538,900.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 26,945.00
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	4%	$ 21,096.75
				TOTAL CAPITAL COSTS:	**$ 601,941.75**
6	AFUDC		PERCENT	3%	$ 18,058
				TOTAL ESTIMATED PROJECT COSTS:	**$ 620,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Wakefield Wells #6 & #8 Fe & Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

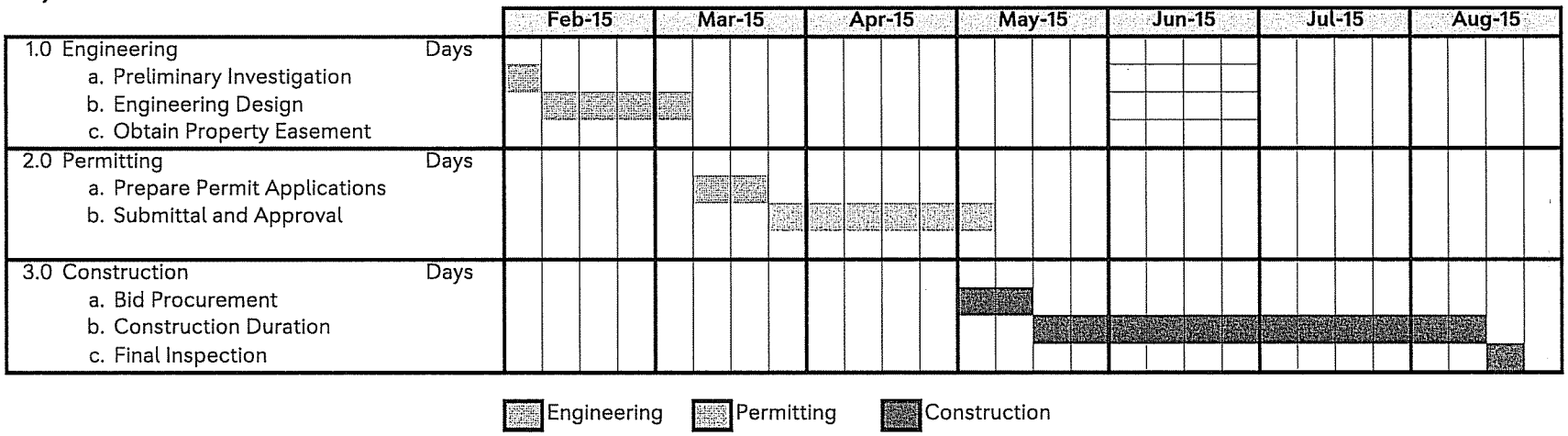
A. Project Purpose: Installation of Fe/Mn filtration unit on combined entry wells 6 & 8 at Wakefield. Total production is 248 gpm. Iron levels near 2.0 mg/L and manganese levels at 0.3 mg/L.

B. Project Budget **$610,000**

C. Previous Actions: SeaQuest addition was found ineffective.

D. Proposed Actions: Installation of AdEdge Greensand filtration unit and interconnection of wells.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Wakefield Wells #6 & #8 Fe & Mn Filter
ANC Water

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	AdEdge Filtration Unit, 250 GPM w/ 2.00 mg/L Fe and 0.30 mg/L Mn w/ Both Tanks	1	LS	$ 290,000.00	$ 290,000.00
2	Well Interconnection (4" C900 @ 4.08 fps)	1800	LF	$ 50.00	$ 90,000.00
3	Filter Building Construction	1	EA	$ 105,000.00	$ 105,000.00
4	Filter Installation	1	EA	$ 85,000.00	$ 85,000.00
				SUBTOTAL A:	**$ 485,000.00**
5	Contingencies, as percentage of Subtotal A		Percent	10%	$ 48,500.00
6	Engineering & Construction Administration Costs (Dewberry**)	1	LS	$ 24,175.00	$ 24,175.00
7	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$ 23,277.38
				TOTAL CAPITAL COSTS:	**$ 580,952.38**
8	AFUDC		Percent	5%	$ 29,048
				TOTAL ESTIMATED PROJECT COSTS:	**$ 610,000**

**** Devon Final Cost $532,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Shiloh Well #1 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

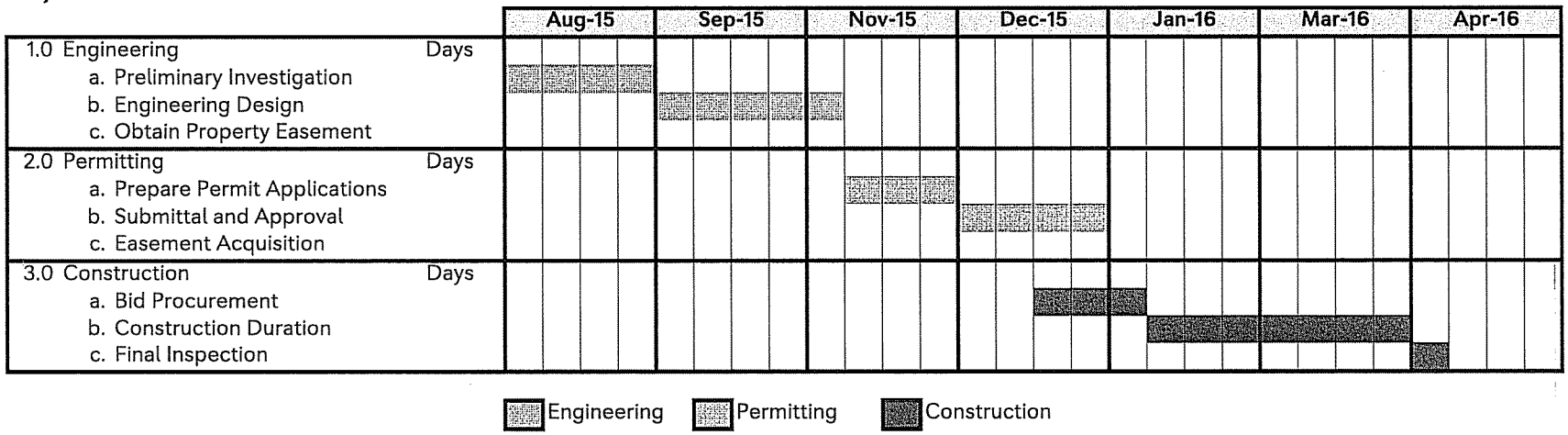
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 2.00 mg/L for Iron and 0.05 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data. Permitted flow at 53 gpm.

B. Project Budget $275,000

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Shiloh Well #1 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 120,000.00	$ 120,000.00
2	AdEdge Filter	1	LS	$ 100,000.00	$ 100,000.00
				SUBTOTAL A:	**$ 220,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	7%	$ 15,904.76
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 11,000.00
				TOTAL CAPITAL COSTS:	**$ 261,904.76**
6	AFUDC		PERCENT	5%	$ 13,095
				TOTAL ESTIMATED PROJECT COSTS:	**$ 275,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Snow Creek Heights Wells #1 & #2 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

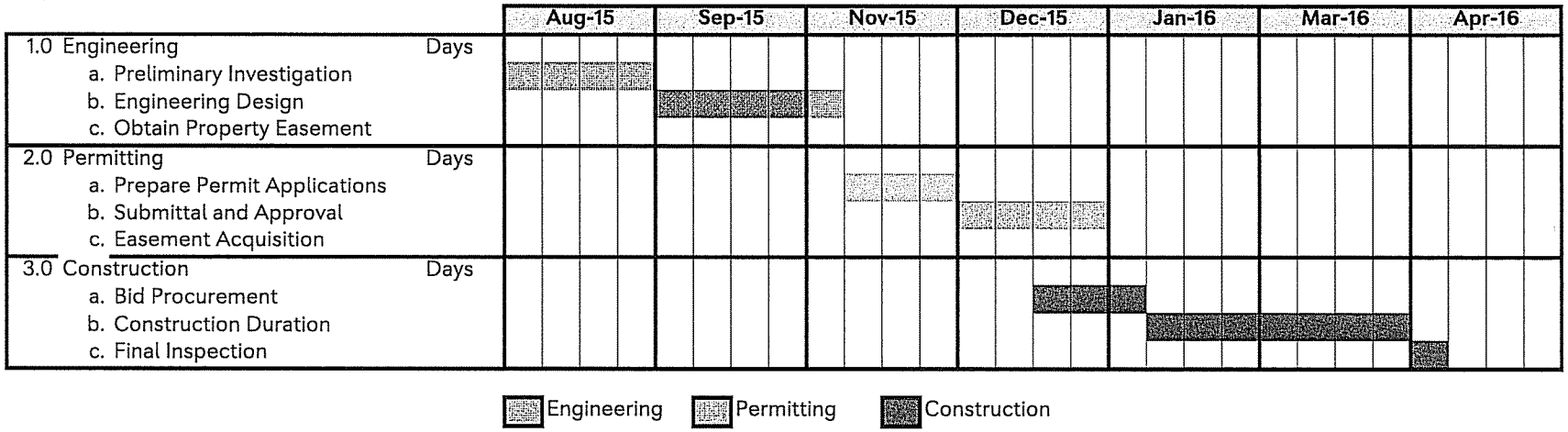
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 2.00 mg/L for iron and 0.05 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data. Permitted flow at 53 gpm.

B. Project Budget $260,000

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Snow Creek Heights Wells #1 & #2 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 115,000.00	$ 115,000.00
2	AdEdge Filter	1	LS	$ 90,000.00	$ 90,000.00
				SUBTOTAL A:	**$ 205,000.00**
3	Contingencies, as percentage of Subtotal A		Percent	8%	$ 17,369.05
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		Percent	5%	$ 10,250.00
				TOTAL CAPITAL COSTS:	**$ 247,619.05**
6	AFUDC		Percent	5%	$ 12,381
				TOTAL ESTIMATED PROJECT COSTS:	**$ 260,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Springdale Wells #1 & #2 Chem Free Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Improvement of secondary water quality required based of customer feedback and quantitative data. Permitted flow at 53 gpm.

B. Project Budget $120,000

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide Chem-Free system.

E. Project Timeline

		Jan-16	Feb-16	Apr-16	May-16	Jun-16	Aug-16	Sep-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Springdale Wells #1 & #2 Chem Free Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 65,000.00	$ 65,000.00
2	Chem Free System	1	LS	$ 25,000.00	$ 25,000.00
				SUBTOTAL A:	**$ 90,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 4,785.71
4	Engineering & Construction Administration Costs	1	LS	$ 15,000.00	$ 15,000.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 4,500.00
				TOTAL CAPITAL COSTS:	**$ 114,285.71**
6	AFUDC		PERCENT	5%	$ 5,714
				TOTAL ESTIMATED PROJECT COSTS:	**$ 120,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Mallard Crossing Well #2 Fe/Mn Filter
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

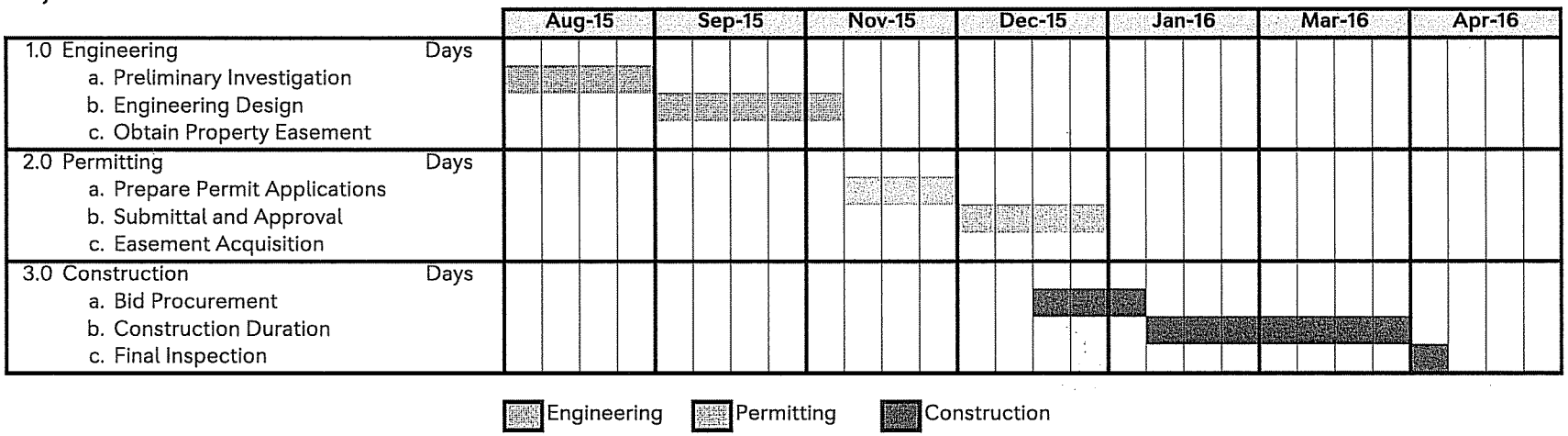
A. Project Purpose: Reduction of iron and manganese levels at entry point below 1/2 secondary MCL values. Current values are 1.03 mg/L for Iron and 0.27 mg/L for manganese. Improvement of secondary water quality required based of customer feedback and quantitative data. Permitted flow at 107 gpm.

B. Project Budget $380,000

C. Previous Actions: Installation of SeaQuest and pilot testing of cartridge filters.

D. Proposed Actions: Provide pre-engineered, skid mounted, packaged treatment system for the removal of iron and manganese using manganese dioxide media contained in pressure vessels. This media is a solid phase oxidation mineral with high catalytic activity for oxidation and removal of target contaminants.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Mallard Crossing Well #2 Fe/Mn Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 180,000.00	$ 165,000.00
2	AdEdge Filter	1	LS	$ 140,000.00	$ 140,000.00
				SUBTOTAL A:	**$ 305,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 15,082.04
4	Engineering & Construction Administration Costs	1	LS	$ 33,600.00	$ 33,600.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 15,250.00
				TOTAL CAPITAL COSTS:	**$ 368,932.04**
6	AFUDC		PERCENT	3%	$ 11,068
				TOTAL ESTIMATED PROJECT COSTS:	**$ 380,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Landsdown Well #2 Fe/Mn Sequestration
RATE DIVISION:	ANC Water
WSIC/SSIC CATEGORY:	Secondary Water Quality

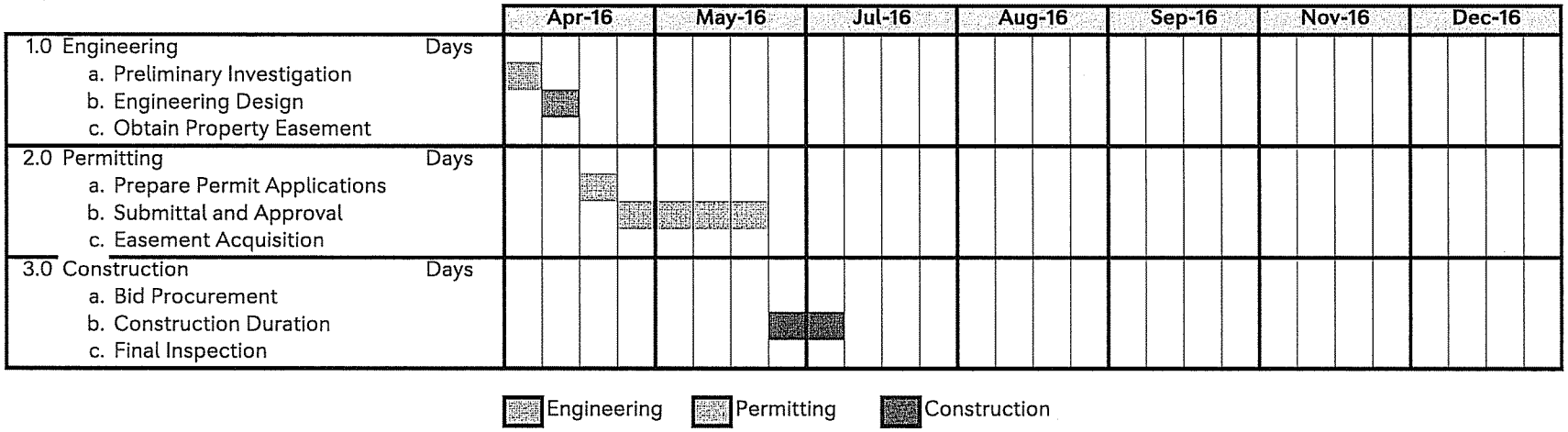
A. Project Purpose: Sequester iron and managese levels at entry point to reduce aesthetic effects in water supply. Improvement of secondary water quality required based of customer feedback and quantitative data.

B. Project Budget $7,500

C. Previous Actions: Regular operations and maintenance.

D. Proposed Actions: Provide chemical sequestrant feed at entry point.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Landsdown Well #2 Fe/Mn Sequestration

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 5,000.00	$ 5,000.00
				SUBTOTAL A:	**$ 5,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	11%	$ 531.55
3	Engineering & Construction Administration Costs	1	LS	$ 1,500.00	$ 1,500.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 250.00
				TOTAL CAPITAL COSTS:	**$ 7,281.55**
5	AFUDC		PERCENT	3%	$ 218
				TOTAL ESTIMATED PROJECT COSTS:	**$ 7,500**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Snow's Cut Main Extension
RATE DIVISION:	Fairways Water
WSIC/SSIC CATEGORY:	C.2 - Main Extensions

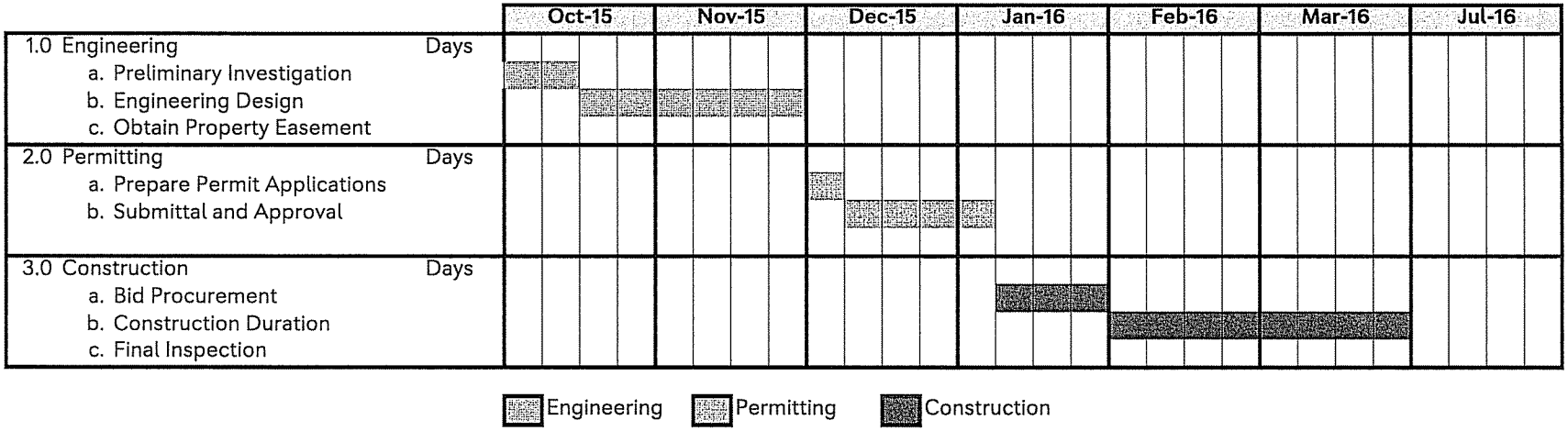
A. Project Purpose: Reduce water age and resulting Total Trihalomethane (TTHM) formation potential and provide additional operational flexibility for The Cape water system.

B. Project Budget **$250,000**

C. Previous Actions: Regular maintenance and preliminary water modeling.

D. Proposed Actions: Extend approximately 4,400 LF of water main along the River Road at Snow's Cut to connect West and East Cape water system.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Snow's Cut Main Extension

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 165,000.00	$ 165,000.00
				SUBTOTAL A:	**$ 165,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 16,500.00
3	Engineering & Construction Administration Costs	1	LS	$ 50,000.00	$ 50,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 8,250.00
				TOTAL CAPITAL COSTS:	**$ 239,750.00**
5	AFUDC		PERCENT	4%	$ 10,250
				TOTAL ESTIMATED PROJECT COSTS:	**$ 250,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	River Road Main Extension
RATE DIVISION:	Fairways
WSIC/SSIC CATEGORY:	Main Extension

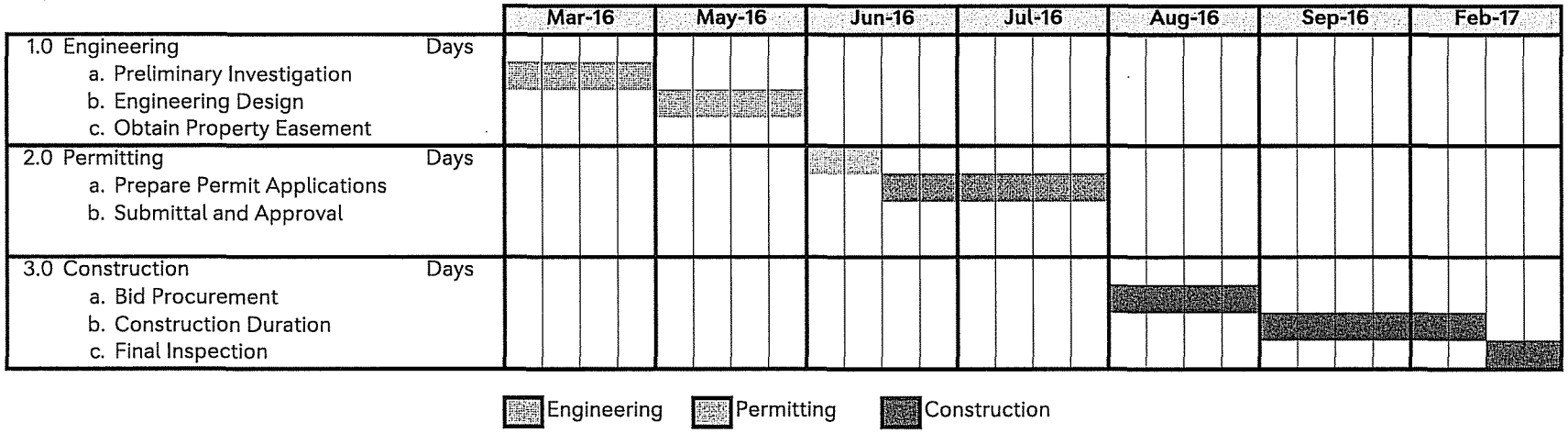
A. Project Purpose: Extend approximately 3,500 LF of water line along River Road main trunk to loop the lines at Cathay Drive and Lipscomb Road. Project would add redundancy to SE Cape peninsula service.

B. Project Budget **$730,000**

C. Previous Actions:

D. Proposed Actions: Install approximately 3,500 LF of water line to complete the River Road Loop.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
River Road Main Extension

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Contractor Estimate	1	LS	$ 505,000.00	$ 505,000.00
				SUBTOTAL A:	**$ 505,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 50,500.00
3	Engineering & Construction Administration Costs	1	LS	$ 104,388.10	$ 104,388.10
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	7%	$ 35,350.00
				TOTAL CAPITAL COSTS:	**$ 695,238.10**
5	AFUDC		PERCENT	5%	$ 34,762
				TOTAL ESTIMATED PROJECT COSTS:	**$ 730,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Colony Village Well #33 Radium Filter
RATE DIVISION:	Brookwood Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

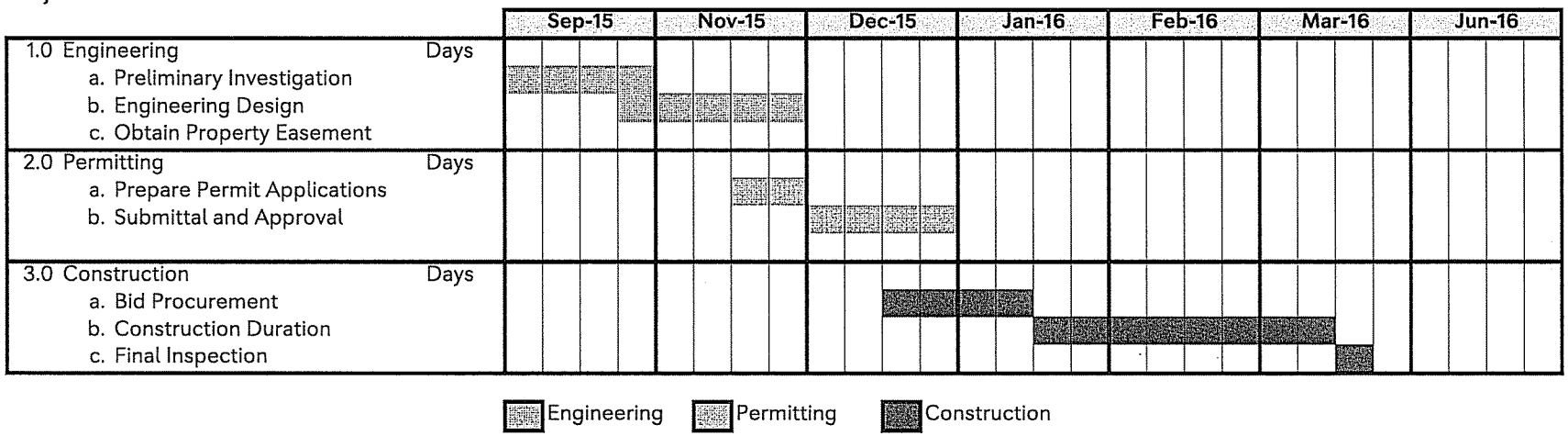
A. Project Purpose: Colony Village well #33 has reported radium levels at 3.5 pCi/L Ra226 and 1.3 pCi/L Ra228, a combined value of 4.8 pCi/L. This is approaching the MCL and treatment is necessary.

B. Project Budget **$185,000**

C. Previous Actions: Required monitoring and regular site maintenance.

D. Proposed Actions: Installation of a single pass ion exchange filters specified by AdEdge.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Colony Village Well #33 Radium Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Construction of a filtration building and Installation of Filter	1	LS	$ 87,500.00	$ 87,500.00
2	AdEdge Filter	1	EA	$ 52,000.00	$ 52,000.00
				SUBTOTAL A:	**$ 139,500.00**
4	Contingencies, as percentage of Subtotal A		PERCENT	7%	$ 9,415.48
5	Engineering & Construction Administration Costs	1	LS	$ 17,510.00	$ 17,510.00
6	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	7%	$ 9,765.00
				TOTAL CAPITAL COSTS:	**$ 176,190.48**
7	AFUDC		PERCENT	5%	$ 8,810
				TOTAL ESTIMATED PROJECT COSTS:	**$ 185,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Beaver Run Well #34 Radium Filter
RATE DIVISION:	Brookwood Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

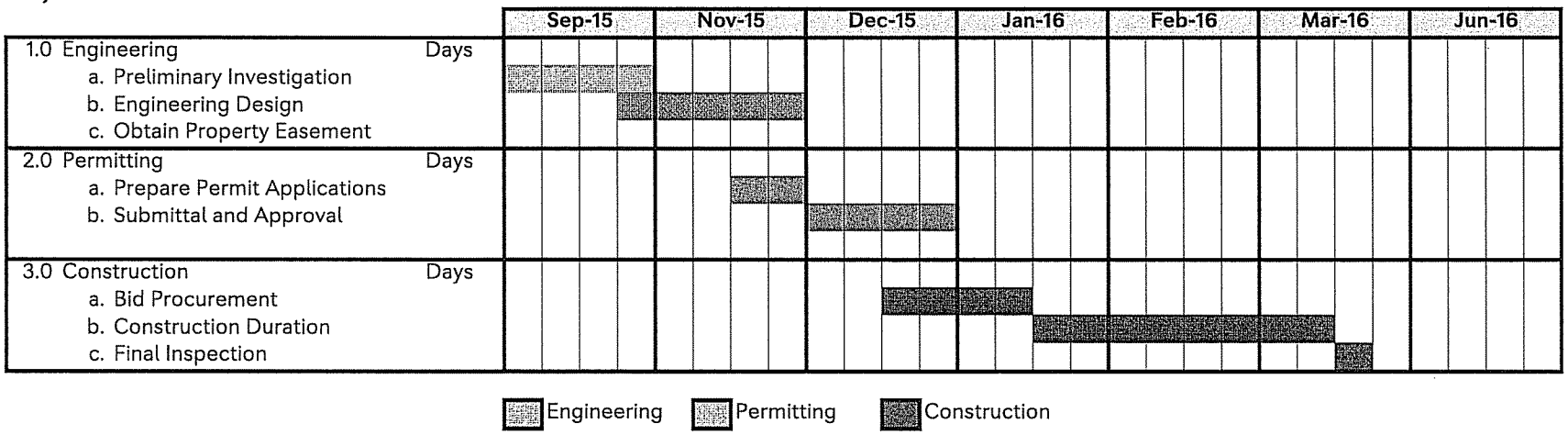
A. Project Purpose: The Beaver Run Well #34 has reported radium levels at 4.1 pCi Ra226 and 0.4 pCi Ra228, a combined value of 4.5 pCi at the entry point. This is approaching the MCL and treatment is necessary.

B. Project Budget **$145,000**

C. Previous Actions: Revised required sampling schedule.

D. Proposed Actions: Installation of single pass ion exchange filters specified by AdEdge.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Beaver Run Well #34 Radium Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Construction of a filter Building and installation of Filter vessels	1	LS	$ 60,487.70	$ 60,487.70
2	AdEdge Filter	1	EA	$ 40,000.00	$ 40,000.00
				SUBTOTAL A:	**$ 100,487.70**
3	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 10,048.77
4	Engineering & Construction Administration Costs	1	LS	$ 17,510.00	$ 17,510.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	10%	$ 10,048.77
				TOTAL CAPITAL COSTS:	**$ 138,095.24**
6	AFUDC		PERCENT	5%	$ 6,905
				TOTAL ESTIMATED PROJECT COSTS:	**$ 145,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Farmington Well #12 Radium Filter
RATE DIVISION:	Brookwood Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

A. Project Purpose: The Farmington Well #12 has reported radium levels at 2.5 pCi/L Ra226 and 2.1 pCi/L Ra228, a combined value of 4.6 pCi/L. This is approaching the MCL and treatment is necessary.

B. Project Budget **$175,000**

C. Previous Actions: Water quality monitoring through required sampling schedule.

D. Proposed Actions: Installation of a single pass ion exchange filters specified by AdEdge.

E. Project Timeline

		Sep-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Jun-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Farmington Well #12 Radium Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Construction of a filter building and installation of filter vessels	1	LS	$ 67,000.00	$ 67,000.00
2	AdEdge Filter	1	EA	$ 60,000.00	$ 60,000.00
				SUBTOTAL A:	**$ 127,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 9,876.67
4	Engineering & Construction Administration Costs	1	LS	$ 20,900.00	$ 20,900.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	7%	$ 8,890.00
				TOTAL CAPITAL COSTS:	**$ 166,666.67**
6	AFUDC		PERCENT	5%	$ 8,333
				TOTAL ESTIMATED PROJECT COSTS:	**$ 175,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Robinswood Well #67 Radium Filter
RATE DIVISION:	Brookwood Water
WSIC/SSIC CATEGORY:	C.3 Primary Drinking Water Standard Projects

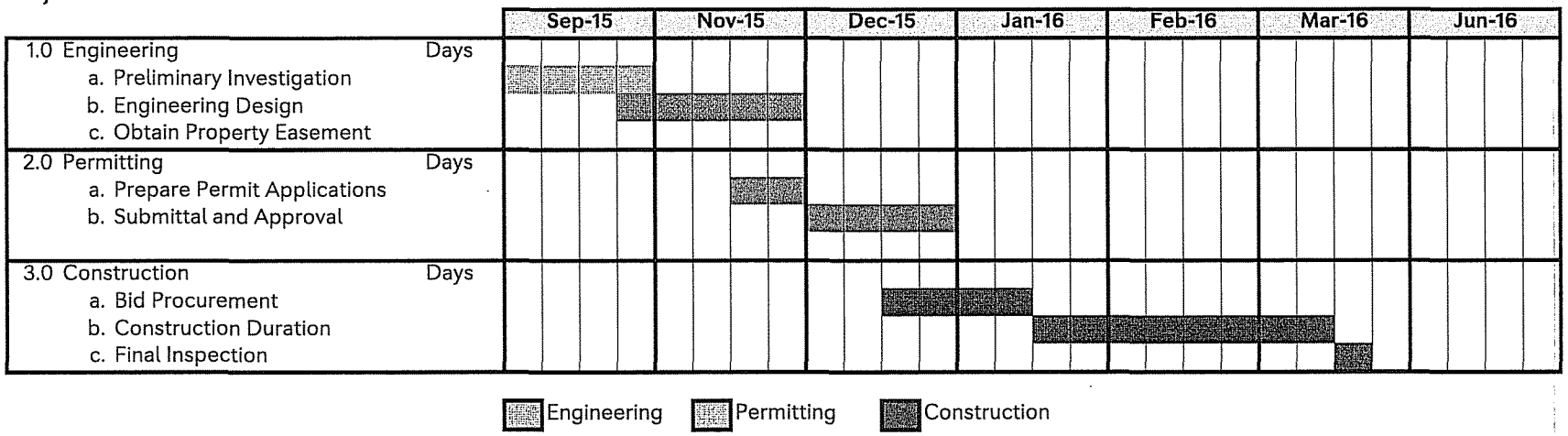
A. Project Purpose: The Robinswood Well #67 has reported radium levels at 3.8 pCi/L Ra226 and 1.4 pCi/L Ra228, a combined value of 5.2 pCi/L at the entry point. This is above the MCL and treatment is necessary.

B. Project Budget **$165,000**

C. Previous Actions: Revised required sampling schedule.

D. Proposed Actions: Installation of single pass ion exchange filters specified by AdEdge.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Robinswood Well #67 Radium Filter

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Construction of a filter building and Installation of Filter vessels	1	LS	$ 67,000.00	$ 67,000.00
2	AdEdge Filter	1	EA	$ 50,000.00	$ 50,000.00
				SUBTOTAL A:	**$ 117,000.00**
3	Contingencies, as percentage of Subtotal A		PERCENT	9%	$ 11,052.86
4	Engineering & Construction Administration Costs	1	LS	$ 20,900.00	$ 20,900.00
5	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	7%	$ 8,190.00
				TOTAL CAPITAL COSTS:	**$ 157,142.86**
6	AFUDC		PERCENT	5%	$ 7,857
				TOTAL ESTIMATED PROJECT COSTS:	**$ 165,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	SSES Neuse Colony
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Perform limited sanitary sewer evaluation survey and associated repairs to significantly reduce wet weather flows to the wastewater treatment plant. All areas identified for SSES have peaking factors greater than 3.0 or I&I flows of 100,000 or greater.

B. Project Budget $150,000

C. Previous Actions: Flow monitoring at WWTF.

D. Proposed Actions: Provide limited SSES including manhole inspections, CCTV inspections, and smoke testing. At completion of SSES recommended repairs will be made. Aqua shall continue monitoring flow to determine if a complete study is required.

E. Project Timeline

		Mar-16	Apr-16	Jun-16	Jul-16	Aug-16	Oct-16	Nov-16
1.0 Engineering	Days							
a. Preliminary Investigation	45							
b. Engineering Design	15							
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement	15							
b. Construction Duration	75							
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
SSES Neuse Colony

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Sanitary Sewer Evaluation Survey and Repairs	1	LS	$ 108,000.00	$ 108,000.00
				SUBTOTAL A:	**$ 108,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	10%	$ 10,800.00
3	Engineering & Construction Administration Costs	1	LS	$ 20,000.00	$ 20,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 5,400.00
				TOTAL CAPITAL COSTS:	**$ 144,200.00**
5	AFUDC		PERCENT	4%	$ 5,800
				TOTAL ESTIMATED PROJECT COSTS:	**$ 150,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Chapel Ridge Lift Station Repair
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Perform lift station repairs to Chapel Ridge lift station #3 structure including patching existing structure.

B. Project Budget $4,000

C. Previous Actions: Lift station inspection identifying source of inflow.

D. Proposed Actions: Patch and repair lift station structure eliminating inflow.

E. Project Timeline

		Apr-16	May-16	Jul-16	Aug-16	Sep-16	Nov-16	Dec-16
1.0 Engineering	Days							
a. Preliminary Investigation								
b. Engineering Design								
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement								
b. Construction Duration								
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
Chapel Ridge Lift Station Repair

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Lift Station Repair	1	LS	$ 3,500.00	$ 3,500.00
				SUBTOTAL A:	**$ 3,500.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	9%	$ 325.00
3	Engineering & Construction Administration Costs	1	LS	$ -	$ -
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 175.00
				TOTAL CAPITAL COSTS:	**$ 4,000.00**
5	AFUDC		PERCENT	0%	$ -
				TOTAL ESTIMATED PROJECT COSTS:	**$ 4,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	SSES Frye Bridge
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

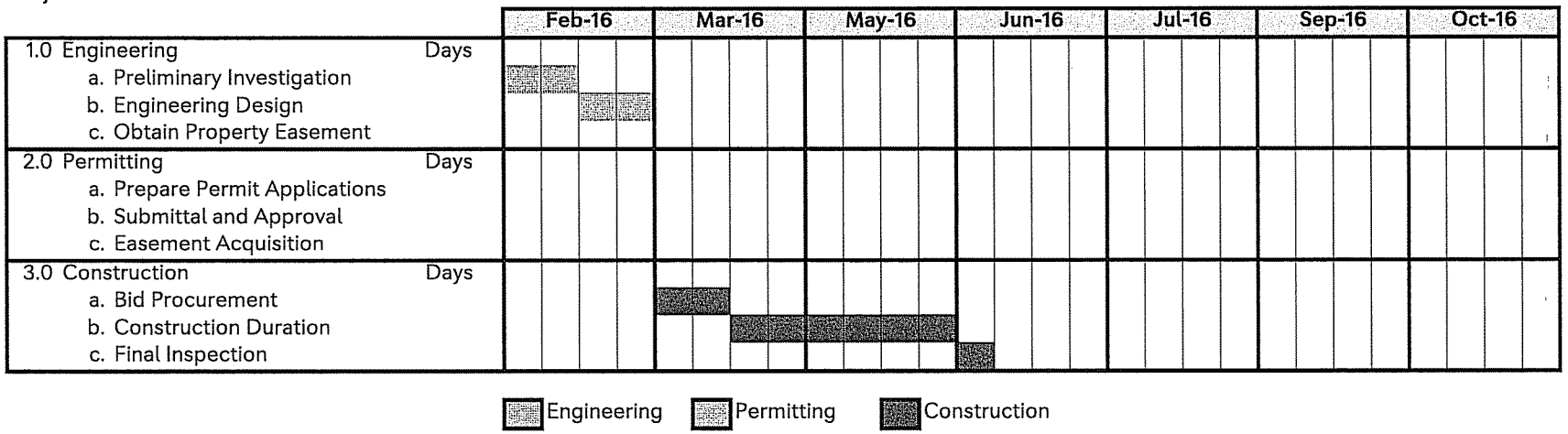
A. Project Purpose: Perform limited sanitary sewer evaluation survey to identify inflow and infiltration and perform repairs. Current peaking factor is estimated to be 3.5. After successful completion of the SSES recommended repairs will be made.

B. Project Budget $75,000

C. Previous Actions: Flow monitoring at WWTF.

D. Proposed Actions: Provide limited SSES including manhole inspections, CCTV inspections, and smoke testing. After successful completion of SSES recommended repairs will be made. Aqua shall continue monitoring flow to determine if a complete study is required.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
SSES Frye Bridge

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Sanitary Sewer Evaluation Survey and Repairs	1	LS	$ 60,000.00	$ 60,000.00
				SUBTOTAL A:	**$ 60,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 4,815.53
3	Engineering & Construction Administration Costs	1	LS	$ 5,000.00	$ 5,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 3,000.00
				TOTAL CAPITAL COSTS:	**$ 72,815.53**
5	AFUDC		PERCENT	3%	$ 2,184
				TOTAL ESTIMATED PROJECT COSTS:	**$ 75,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	SSES Bridgeport
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Perform limited sanitary sewer evaluation survey to identify inflow and infiltration and perform repairs. Current peaking factor is estimated to be around 3.0. After successful completion of SSES recommended repairs will be made.

B. Project Budget $75,000

C. Previous Actions: Flow monitoring at WWTF.

D. Proposed Actions: Provide limited SSES including manhole inspections, CCTV inspections, and smoke testing. After successful completion of SSES recommended repairs will be made. Aqua shall continue monitoring flow to determine if a complete study is required.

E. Project Timeline

		Feb-16	Mar-16	May-16	Jun-16	Jul-16	Sep-16	Oct-16
1.0 Engineering	Days							
a. Preliminary Investigation	15							
b. Engineering Design	15							
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement	15							
b. Construction Duration	45							
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
SSES Bridgeport

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Sanitary Sewer Evaluation Survey and Repairs	1	LS	$ 60,000.00	$ 60,000.00
				SUBTOTAL A:	**$ 60,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 4,815.53
3	Engineering & Construction Administration Costs	1	LS	$ 5,000.00	$ 5,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 3,000.00
				TOTAL CAPITAL COSTS:	**$ 72,815.53**
5	AFUDC		PERCENT	3%	$ 2,184
				TOTAL ESTIMATED PROJECT COSTS:	**$ 75,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

PROJECT TITLE:	SSES Harbor Estates
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Perform limited sanitary sewer evaluation survey to identify inflow and infiltration and perform repairs. Current peaking factor is estimated to be around 3.3. After successful completion of SSES recommended repairs will be made.

B. Project Budget $75,000

C. Previous Actions: Flow monitoring at WWTF.

D. Proposed Actions: Provide limited SSES including manhole inspections, CCTV inspections, and smoke testing. After successful completion of SSES, recommended repairs will be made. Aqua shall continue flow monitoring to determine if a complete study is required.

E. Project Timeline

		May-16	Jun-16	Aug-16	Sep-16	Oct-16	Dec-16	Jan-17
1.0 Engineering	Days							
a. Preliminary Investigation	15							
b. Engineering Design	15							
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement	15							
b. Construction Duration	45							
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
SSES Harbor Estates

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Sanitary Sewer Evaluation Survey and Repairs	1	LS	$ 60,000.00	$ 60,000.00
				SUBTOTAL A:	**$ 60,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 4,815.53
3	Engineering & Construction Administration Costs	1	LS	$ 5,000.00	$ 5,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 3,000.00
				TOTAL CAPITAL COSTS:	**$ 72,815.53**
5	AFUDC		PERCENT	3%	$ 2,184
				TOTAL ESTIMATED PROJECT COSTS:	**$ 75,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	SSES Willowbrook Estates
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Perform limited sanitary sewer evaluation survey to identify inflow and infiltration and perform repairs. Current peaking factor is estimated to be closer to 3.6. After successful completion of SSES recommended repairs will be made.

B. Project Budget $75,000

C. Previous Actions: Flow monitoring at WWTF.

D. Proposed Actions: Provide limited SSES including manhole inspections, CCTV inspections, and smoke testing. After successful completion of SSES recommended repairs will be made.. Aqua shall continue monitoring flow to determine if a complete study is required.

E. Project Timeline

		Mar-16	Apr-16	Jun-16	Jul-16	Aug-16	Oct-16	Nov-16
1.0 Engineering	Days							
a. Preliminary Investigation	15							
b. Engineering Design	15							
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement	15							
b. Construction Duration	45							
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
SSES Willowbrook Estates

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Sanitary Sewer Evaluation Survey and Repairs	1	LS	$ 60,000.00	$ 60,000.00
				SUBTOTAL A:	**$ 60,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 4,815.53
3	Engineering & Construction Administration Costs	1	LS	$ 5,000.00	$ 5,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 3,000.00
				TOTAL CAPITAL COSTS:	**$ 72,815.53**
5	AFUDC		PERCENT	3%	$ 2,184
				TOTAL ESTIMATED PROJECT COSTS:	**$ 75,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	SSES Country Valley
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Perform limited sanitary sewer evaluation survey to identify inflow and infiltration and perform repairs. Current peaking factor is estimated to be around 4.5. After successful completion of SSES recommended repairs will be made.

B. Project Budget $75,000

C. Previous Actions: Flow monitoring at WWTF.

D. Proposed Actions: Provide limited SSES including manhole inspections, CCTV inspections, and smoke testing. After successful completion of SSES recommended repairs will be made. Aqua shall continue monitoring flow to determine if a complete study is required.

E. Project Timeline

		Apr-16	May-16	Jul-16	Aug-16	Sep-16	Nov-16	Dec-16
1.0 Engineering	Days							
a. Preliminary Investigation	15							
b. Engineering Design	15							
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement	15							
b. Construction Duration	45							
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
SSES Country Valley

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Sanitary Sewer Evaluation Survey and Repairs	1	LS	$ 60,000.00	$ 60,000.00
				SUBTOTAL A:	**$ 60,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	8%	$ 4,815.53
3	Engineering & Construction Administration Costs	1	LS	$ 5,000.00	$ 5,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 3,000.00
				TOTAL CAPITAL COSTS:	**$ 72,815.53**
5	AFUDC		PERCENT	3%	$ 2,184
				TOTAL ESTIMATED PROJECT COSTS:	**$ 75,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	SSES Woodlake Phase 2
RATE DIVISION:	ANC Wastewater
WSIC/SSIC CATEGORY:	D(2) - Inflow and Infiltration

A. Project Purpose: Conduct line repairs as identified by the Sanitary Sewer Evaluation Survey. Historical flow analysis indicates constant infiltration and high peaking factors. Solids washout is also affecting Plant performance.

B. Project Budget $420,000

C. Previous Actions: Performed limited SSES and flow monitoring at WWTF to identify lateral, manhole, and sewer line needing rehabilitation or replacement.

D. Proposed Actions: Perform sewer line and manhole rehabilitation or replacement as identified by the SSES report.

E. Project Timeline

		Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
1.0 Engineering	Days							
a. Preliminary Investigation	14							
b. Engineering Design	14							
c. Obtain Property Easement								
2.0 Permitting	Days							
a. Prepare Permit Applications								
b. Submittal and Approval								
c. Easement Acquisition								
3.0 Construction	Days							
a. Bid Procurement	14							
b. Construction Duration	105							
c. Final Inspection								

Engineering Permitting Construction

ENGINEER'S CONTRACT ESTIMATE
SSES Woodlake Phase 2

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Perform Sanitary Sewer Evaluation Survey Line Repairs	1	LS	$ 355,000.00	$ 355,000.00
				SUBTOTAL A:	**$ 355,000.00**
2	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 17,750.00
3	Engineering & Construction Administration Costs	1	LS	$ 26,000.00	$ 26,000.00
4	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	3%	$ 8,875.00
				TOTAL CAPITAL COSTS:	**$ 407,625.00**
5	AFUDC		PERCENT	3%	$ 12,375
				TOTAL ESTIMATED PROJECT COSTS:	**$ 420,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

AQUA

PROJECT TITLE:	Cape to Dolphin Bay Sewer Extension
RATE DIVISION:	Fairways wastewater
WSIC/SSIC CATEGORY:	D(1) - Collection Main Extension Projects

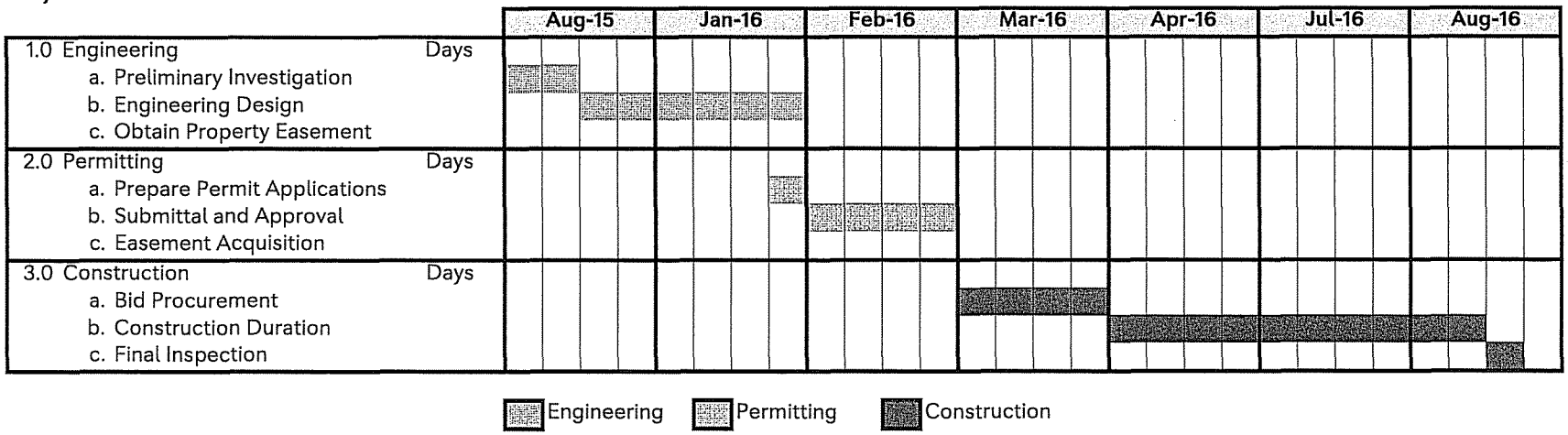
A. Project Purpose: Extend sanitary sewer line to interconnect Dolphin Bay WWTF to The Cape collection systems. Upon completion of interconnect the Dolphin Bay WWTF can be abandoned.

B. Project Budget $291,000

C. Previous Actions: Plant inspections of Dolphin Bay WWTF and sewer modeling.

D. Proposed Actions: Install 3,700 LF of 8-inch force main, upgrade Dolphin Bay pump station including new pumps and a installation of a standby generator.

E. Project Timeline



ENGINEER'S CONTRACT ESTIMATE
Cape to Dolphin Bay Sewer Extension

TASK	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Mobilization	1	LS	$ 8,000.00	$ 8,000.00
2	Site Preparation and Erosion Control and Seeding/Mulching	1	LS	$ 10,000.00	$ 10,000.00
3	6" PVC C900	3100	LF	$ 35.00	$ 108,500.00
4	8-inch HDPE Directional Drill	600	LF	$ 110.00	$ 66,000.00
5	Lift Station Pumps	2	EA	$ 6,000.00	$ 12,000.00
6	Generator	1	EA	$ 15,000.00	$ 15,000.00
8	Lift Station Renovation and Control Upgrades	1	LS	$ 10,000.00	$ 10,000.00
				SUBTOTAL A:	**$ 229,500.00**
9	Contingencies, as percentage of Subtotal A		PERCENT	5%	$ 11,475.00
10	Engineering & Construction Administration Costs	1	LS	$ 27,500.00	$ 27,500.00
11	Aqua Direct Cost, as percentage of Subtotal A		PERCENT	5%	$ 11,475.00
				TOTAL CAPITAL COSTS:	**$ 279,950.00**
12	AFUDC		PERCENT	4%	$ 11,198.00
				TOTAL ESTIMATED PROJECT COSTS:	**$ 291,000**

Note: The above information is for planning purposes only and is subject to change based on further engineering evaluations, water quality analyses, site conditions, and other site specific discoveries and information

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the attached **ONGOING THREE-YEAR WSIC/SSIC PLAN PURSUANT TO G.S. 62-133.12** filed by Aqua North Carolina, Inc., in Docket No. W-218 Sub 363A, on the parties of record, in accordance with North Carolina Utilities Commission Rule R1-39, either by: United States mail, first class postage pre-paid; by hand delivery; or by means of electronic delivery upon agreement of the receiving party.

This the 26th day of February 2016.

Electronically Submitted
/s/Jo Anne Sanford
State Bar No. 6831

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ATTORNEY FOR AQUA NORTH CAROLINA, INC.