Town of Apple Valley

Update of Feasibility Analysis of Acquisition of the Apple Valley Ranchos Water System

FINAL REPORT
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Added to the estimates of the various purchase prices are estimates of transaction costs for attorneys, appraisers, financial consultants, and consulting engineers. Total transaction costs are estimated to be $1.9 million if the purchases are negotiated, but if condemnation is required, the transaction costs are increased to $4.25 million. Total acquisition costs equal the estimated purchase prices plus the higher estimated transaction costs. Total acquisition costs could range from $52.2 million to $125.7 million.

Financing Alternatives

Four financing alternatives are examined: general obligation bonds, Mello-Roos (special tax) bonds, assessment bonds, and revenue-supported borrowing such as certificates of participation. Each financing method has its own costs and merits and complexities.

General obligation (GO) bonds are debt instruments secured by the full faith and credit of the borrower. The GO bond would be repaid through taxes levied at an equal percentage on all assessed property value within the Town of Apple Valley. GO bonds require approval by 2/3 of registered voters through a ballot measure. Of the financing options evaluated in this analysis, GO bonds are the lowest cost and are the easiest to administer. If a GO bond is used to finance the acquisition of AVR, the property tax rate is estimated to increase from $87 to $209 per $100,000 of assessed value.

Mello-Roos or "special tax" bonds may also be used for acquisition of facilities. Under a Mello-Roos, the Town could form a Community Facilities District (CFD), and once formed, the District can issue bonds upon 2/3 approval of registered voters within the District. Importantly, a CFD need not be co-terminus with the boundaries of the municipality forming the District. Instead, the Town could design the CFD boundary to be co-terminus with the boundary of the service area of the utility. Those within the CFD would be charged the tax based on a special formula of the CFD's design. BWA assumes that the tax formula would be based on customer equivalent meters and the special tax is estimated to range from $138 to $329 per year.

Assessment bonds are similar to the Mello Roos in that the Town can develop an assessment district that is co-terminus with the boundaries of the service area of the utility. Property owners within the district are charged the assessment based on the defined special benefits that they receive from the project. After the size of the assessment is determined, the assessment must be approved by a majority vote.

Certificates of Participation (COPs) would allow the Town to enter into a tax-exempt lease financing arrangement in lieu of issuing bonds. In the context of this proposed financing, a non-profit corporation or joint powers authority (like the Apple Valley Public Financing Authority) would purchase the utility and then subsequently lease or sell it on the basis of an installment sale to the Town of Apple Valley. The use of COPs would offer Apple Valley the ability to finance this acquisition with revenues generated solely from the customers receiving service from the publicly owned water utility. There would be no

BWA estimates the first year's operating costs, which includes operation and maintenance of the water facilities, administrative and general expenses, and an allocation of Town overhead, to be approximately $13.5 million. Also included in this cost is an estimated $2 million in annual cost for replacement of water mains.

Net operating revenues are simply operating revenues less operating costs. BWA estimates net revenues for the first year of public ownership would be approximately $6 million.

Revenues to local governments would be reduced under public ownership. The private water company pays property taxes and franchise fees; a public enterprise does not. BWA estimates that property taxes would be reduced by $425,000 and franchise fees by $192,000 due to public ownership.

Moreover, there are risks of public ownership, serious responsibilities, and uncertainties confronting the Town. The Town would be starting a new enterprise and identified issues include:

- GSWC and AVR service boundaries do not exactly coincide with the Town's boundaries and the two systems are not interconnected,
- adequacy of future water supply is uncertain,
- there could be bill delinquencies,
- advances of $31.1 million would need to be repaid,
- higher O&M costs could occur in the future,
- future capital improvements and replacements are necessary,
- higher water quality standards may occur,
- and, most importantly, the purchase prices are unknown.

Finally, while it is assumed for the purposes of this analysis, that water rights would transfer to the Town after acquiring the utilities, there is uncertainty as to the future costs of these water supplies.

Financial Feasibility

BWA evaluated the economic attractiveness of the water system acquisition by looking at payback and net present value analyses. BWA assumes net operating revenues (operating revenues less operating expenses) to be $6 million under public ownership. At the high acquisition cost estimate of $125.7 million, it would take 21 years to pay back the acquisition cost. However, at the low acquisition estimate of $52.2 million, it would take 9 years to pay back this acquisition cost – a more reasonable payback period.

Assuming a discount rate of 5.25%, the present value of net operating revenues over the 25 year life of the system is $82.7 million. The present value of net operating revenue is less than the high acquisition cost, but greater than 1.5 times the low cost estimate.

INTRODUCTION

The Town of Apple Valley (the Town) is considering the acquisition of two privately owned water companies, Apple Valley Ranchos Water Company (AVR) and the Apple Valley Customer Service Area (CSA) of the Mountain-Desert District of the Golden State Water Company (GSWC). This report provides a feasibility analysis of the acquisition of AVR. The acquisition of GSWC Apple Valley CSA is analyzed in separate feasibility analysis.

Bartle Wells Associates (BWA) developed an initial feasibility analysis of this acquisition in 2005, and presented that analysis to the Town Council in April 2006. In January of 2010 a draft update to the feasibility study was provided to the Town staff. There has been no official action taken on the acquisition since that time.

The Town has requested that BWA update its feasibility analysis, which is the subject of this report.

Town of Apple Valley

The Town is a general law municipal corporation, incorporated in November 1988. The Town operates under a Council-Manager form of government and currently provides the following services: public safety (police protection), streets, planning and zoning, waste management, and general administrative services. The Town has a public works department and owns and operates a sewer enterprise. The Town provides sewer services to the general public and collects user charges to recover the costs of the sewer services.

The Town does not currently own or operate a water system. The Apple Valley Water District was merged with the Town in 1989. In 1993 the District was dissolved and a special enterprise fund was created. In 1998 the water facilities were sold to the Apple Valley Ranchos Water Company involving an exchange of the Jess Ranch wastewater system which was sold to the Town in 1999.

Apple Valley Public Financing Authority was established to provide financing to the Town for specified capital improvement projects. The governing board of the financing authority is composed of the same members that serve as Town Council members.

Purpose of Feasibility Study

The study presents an updated financial analysis of the acquisition by the Town of the Apple Valley Ranchos water system. It re-evaluates the feasibility of the acquisition using updated financial information from the utility and the General Rate Case Application 11-01-001, filed with the California Public Utilities Commission in January 2011. The focus of the study is to examine the potential financial impact of the acquisition on the Town's taxpayers and water ratepayers.

PRIVATELY-OWNED WATER UTILITY

The Town of Apple Valley is served by two privately-owned water utilities within its incorporated boundaries: Apple Valley Ranchos Water Company (AVR) and Golden State Water Company Apple Valley Customer Service Area (Apple Valley CSA). The following section provides information on the AVR operations.

Ownership

Incorporated as a public utility in 1946, AVR is currently a wholly-owned subsidiary of Park Water Company (Park). Park Water Company is headquartered in Downey, California and owns and operates utilities in California and Montana. Currently, Park provides engineering, financial, regulatory, and other management services to all of its subsidiaries from its main office in Downey.

Regulation

As a private utility providing water service in California, AVR is regulated by the rules of the California Public Utilities Commission. Every three years, AVR applies to the CPUC for revenue increases through a General Rate Case (GRC) proceeding. The last GRC was in 2009 and the current GRC is for Test Year 2012. In the application for the GRC Test Year 2012, AVR has requested a 20% increase in revenues.

Throughout the GRC proceeding, the Town and other parties have the right to request intervenor status in the case and to submit testimony before the CPUC Administrative Law Judge in order to protest the revenue increase. AVR has the opportunity to settle the case with the parties, or if settlement cannot be reached, parties can present legal briefs before the judge. The Administrative Law Judge can then determine the merits of the GRC application and the testimony of the parties and make a ruling on the revenue increase. For the GRC Test Year 2012, intervenor testimony is due in May, evidentiary hearings are to be conducted in June, and briefs will be filed in July and August 2011.

Operation

AVR maintains a small office in Apple Valley where company administrative, customer service, and accounting functions are based. According to its "Revenue Requirements" report for Test Year 2012, AVR requested authorization for 48 regular full-time employees and two temporary employees for a total of 50 in the Apple Valley office (main office staff providing support to AVR are not included in this number).

Water Supply and Consumption

AVR produces domestic water from 24 different wells, with a total combined well capacity of 41.9 million gallons per day. The company produced 14,758 acre feet of water in 2009 for domestic use and sold 13,503 acre feet to metered customers. System-wide unaccounted for water is projected at 9%.

Table 1
2011 Update of Potential Water System Acquisition of AVR
AVR Current Rate Schedule - Residential

Schedule 1 - General Metered Service - Residential	
Quantity Rates (1)	
Tier 1: 0 - 14 hundred cubic feet (ccf)	$2.157
Tier 2: 15 - 29 ccf	2.277
Tier 3: Over 29 ccf	2.397
Service Charge	
Meter Size	
5/8" x 3/4"	20.75
3/4"	31.13
1"	51.88
1 1/2"	103.75
2"	166.00
3"	311.25
4"	518.75
6"	1,037.50
8"	1,660.00
10"	3,008.75

Source: Cal. P.U.C. Sheet 616-W
(1) The quantity rates shown include an offset increase of $0.095 per ccf to account for increases in leased water rights

Table 3
2011 Update of Potential Water System Acquisition of AVR
Current and Proposed Monthly Water Rates - Residential

Schedule 1 - General Metered Service - Residential

Quantity Rates	Current	Current	Proposed	Proposed	% Increase
Tier 1	0 - 14 ccf	$2.157	0 - 13 ccf	$2.538	17.66%
Tier 2	14 - 29 ccf	2.277	13 - 26 ccf	2.855	25.38%
Tier 3	> 29 ccf	2.397	> 26 ccf	3.172	32.33%
Service Charge					
Meter Size					
5/8" x 3/4"		$20.75		$22.94	10.55%
3/4"		31.13		34.41	10.54%
1"		51.88		57.35	10.54%
1 1/2"		103.75		114.70	10.55%
2"		166.00		183.52	10.55%
3"		311.25		344.10	10.55%
4"		518.75		573.50	10.55%
6"		1,037.50		1,147.00	10.55%
8"		1,660.00		1,835.00	10.54%
10"		3,008.75		3,326.30	10.55%

Table 4
2011 Update of Potential Water System Acquisition of AVR
Current and Proposed Monthly Water Rates - Non-residential

Schedule 3 - General Metered Service - Non-residential

Quantity Rates	Current	Proposed	% Increase
All water delivered	$2.257	$2.810	24.50%
Service Charge			
Meter Size			
5/8" x 3/4"	$20.75	$22.94	10.55%
3/4"	31.13	34.41	10.54%
1"	51.88	57.35	10.54%
1 1/2"	103.75	114.70	10.55%
2"	166.00	183.52	10.55%
3"	311.25	344.10	10.55%
4"	518.75	573.50	10.55%
6"	1,037.50	1,147.00	10.55%
8"	1,660.00	1,835.00	10.54%
10"	3,008.75	3,326.30	10.55%

Table 5
2011 Update of Potential Water System Acquisition of AVR
Apple Valley Ranchos Water Company - Projected Customers 2012

Customers By Class (1)	
Residential	17,742
Business	1,320
Industrial	2
Public authority	42
Private fire service	189
Irrigation - Public Authority	5
Irrigation - Pressure	189
Irrigation - Gravity	1
Temporary Construction	8
Total	19,498
Connections By Meter Size (1)	
5/8" x 3/4"	17,300
3/4"	253
1"	1,324
1 1/2"	171
2"	210
3"	32
4"	58
6"	106
8"	36
10" and 12"	9
Total	19,499

(1) Revenue Requirements Report Workpapers Volume 1 of 2, 2-2

Revenues and Expenses

Table 6 presents historical operating revenues and expenses for 2005 through 2010, based on CPUC Annual Reports and recent unaudited data. For 2010, AVR estimates operating revenues of $18.0 million, about 91 percent of which was from metered water sales (including fixed monthly meter charges). Total reported operating expenses, including main office expenses, depreciation, and taxes, are projected at $15.6 million. Net income is estimated to be $2.4 million. Non-operating revenues include $500,000 from the regulatory balancing account for a total net income of $3.0 million.

Capital Improvements

AVR has carried out an aggressive water main replacement program for a number of years which has reduced the number of reported leaks from 3,000 in 1996 to around 600 today. AVR expects to continue to fund main replacements over the next three years, at a total cost of $4,336,000 over the three years included in the Test Year 2012 Revenue Requirements.

AVR is proposing a range of other capital improvements to its system, including adding pressure reducing stations, corrosion control for storage tanks, replacing aging water connections, installing new automated read meters, various equipment replacements, well site improvements, and office space expansion.

In total, including main replacement, AVR proposes to complete approximately $13.1 million in plant additions over the three years included in the Test Year 2012 Revenue Requirements. Table 7 details these improvements.

Table 7
2011 Update of Potential Water System Acquisition of AVR
Apple Valley Ranchos Water Company – Company-Funded Capital Improvements

	From General Rate Case (TY2012)		
	2011	2012	2013
Supply, Treatment, and Pumping			
Site Improvement	$740,000	$300,000	$200,000
Pumping	300,000	310,000	321,000
Treatment	80,000	100,000	80,000
Remote Monitoring	324,000	189,000	148,000
General Plant			
Vehicles/equipment	332,000	731,000	706,000
Transmission, Storage, Distribution			
Reservoirs and Tanks	120,000	15,000	0
Transmission and Distribution Replacement	1,907,000	2,207,000	2,584,000
Meters	449,000	499,000	465,000
Total	$4,252,000	$4,351,000	$4,504,000

Source: Apple Valley Ranchos Water Company General Rate Case Test Year 2012, Revenue Requirements Report Workpapers Volume 2 of 2, pages 6 - 13 through 6 - 29.

Agreement, Western Water Holdings will acquire 100% of the outstanding capital stock of Park Water. Western Water Holdings will pay cash for the shares of capital stock.

Park Water is a California corporation owned and controlled by the Wheeler family. Park Water is a Class A water utility, subject to CPUC regulation. Park Water operates a public utility system in the southeastern portion of Los Angeles County (the Central Basin Division) serving 27,158 active customers as of December 31, 2010, including three separate service areas of Compton/Willowbrook, Lynwood/Rancho Dominguez, and Bellflower/Norwalk. Park Water also operates as a parent company, holding 100% of the outstanding capital stock of two water utilities: Apple Valley Ranchos, also a Class A water utility regulated by the CPUC, which provides water service to approximately 19,500 customers in the Town of Apple Valley, and Mountain Water Company, a Montana corporation that provides water service to approximately 22,300 customers in Missoula, Montana, subject to the jurisdiction of the Montana Public Service Commission.

As BWA understands the Merger transaction, each Park Water shareholder will receive $4,177.65 for each share of Park Water common stock.[3] The Merger Agreement, which is attached to the CPUC application, indicates the total amount paid to the shareholders to be $102 million.

If the total share payment of $102 million is split between the water companies that Park Water owns the capital stock proportional to the number of water customers, the payment for Apple Valley Ranchos capital stock would be about $48 million, see Table 8.[4]

Table 8
2011 Update of Potential Water System Acquisition of AVR
Estimated Stock Price

Park Water Stock Price	$102,000,000		
Utility	Number of Connections	Percent	Allocated Stock Price
Mountain Water Company	22,300	53%	54,060,000
Apple Valley Ranchos	19,500	47%	47,940,000
	41,800	100%	102,000,000

[3] The Carlyle Infrastructure Partners Western Water is purchasing Park Water's *stock;* the assets (water facilities) remain with Park Water. Park Water continues as a water utility regulated by the CPUC. The company's management team will not change as of result of the transaction and the day-to-day operations of Park Water and Apple Valley Ranchos will not be affected by the proposed change of ownership. There will no change in either company's water rates or rate base as a result of the transaction.

[4] It is unclear to BWA whether the stock purchase includes Park Water's Central Basin Division. The application and Merger Agreement only addresses Apple Valley Ranchos and Mountain Water Company. They do not mention the Central Basin Division as part of the stock transaction.

Reproduction Cost New Less Depreciation

The Reproduction Cost New Less Depreciation (RCNLD) method produces the highest probable purchase price evaluated in this report. Generally speaking, this is an estimate of what it would cost to replace (or reproduce) existing utility assets, accounting for their accumulated depreciation due to age and wear and tear.

For the purpose of this feasibility study, BWA calculates RCNLD by escalating the original cost of the assets by the Handy-Whitman Index of Public Utility Construction Costs to current dollars. From this amount, a depreciation component, representing the loss of value of the existing asset due to age and condition, adjusted to account for any remaining salvage value of the asset, is subtracted. The cost of advances is also subtracted from the RCNLD. The result is an approximation of the value of the utility which accounts for the current cost to replace it, age, wear and tear, and advances due to developers.

Table 9 details the RCNLD calculation for AVR in 2011, which is approximately $139 million. This is significantly higher than the RCNLD estimated in the 2006 study, and reflects the high level of capital additions since that time. In fact, utility plant in service has increased from $51.7 million at the start of 2004 to $103 million at the end of 2010.

Two adjustments are made to the RCNLD estimate. An addition is made for intangibles, such as going concern and goodwill, and the acquisition of billing records, office equipment, and rolling stock. The adjustment for intangibles, et al is 10% of the RCNLD estimate.

The second adjustment is to deduct customer advances of $31.1 million, which must be repaid to customers. If the Town purchased the water system, the Town would be responsible to assume the liability and pay back the advances.

The RCNLD plus intangibles (estimated at 10 percent) less estimated advances totals $121.5 million and is used as the highest probable acquisition cost for this analysis.

Capitalization of Net Income

The capitalization of the net income earned by an enterprise, like a water utility, can also be used to assess the value of the water facilities. Net income is defined as operating revenues less operating expenses. The capitalization of net income is calculated by dividing the net income of the utility by a discount rate. For a regulated public utility the appropriate discount rate is the rate of return on the rate base authorized by the California Public Utilities Commission.

For Apple Valley Ranchos Water Company, the current General Rate Case, net revenues (income) totaled approximately $3,855,000 at proposed rates and the rate of return authorized by CPUC was 9.42%. Dividing net income by the rate of return produces a capitalization of net income of $40.9 million.

Sales of Other Water Systems

The third approach to value water facilities is to examine the sales of other water systems that are comparable to the subject water system. In order for sales to be comparable, they must satisfy four criteria: (1) recent in time; (2) close in geography to the subject system; (3) similar in size, such as the number of customers and type of service connections; and (4) "arms-length" transactions that were negotiated between a willing buyer and willing seller.

BWA has compiled data on water utility sales in California. Sources include decisions approving the sales by the California Public Utilities Commission of privately owned water utilities regulated by the CPUC. Purchases and sales of water utility plants in service must be approved by the CPUC. Water companies submit applications to the CPUC requesting the approval of the sales and transfers of water plants in service and after investigation by CPUC staff the CPUC decides on the sales and transfers.

Sales between publicly owned water utilities are not under the jurisdiction of the CPUC, and sales and transfers effectuated through condemnation may not be reported to the CPUC. BWA has compiled data on these types of sales either as financial advisors to the public agencies or through publicly available documents.

Sales of water systems occur infrequently and under different circumstances. Moreover, most are relatively small, less than 1,000 customers. They are not comparable to the water systems that the Town is considering to buy.

There are four water utility sales that BWA have been directly involved in and that illustrate the difficulty in comparing sales.

In April 2001, the City of Yuba City purchased a water system from the Hillcrest Water Company, owned by a sole proprietor. The water system was adjacent to the City-owned water system and the service area was being annexed into the City. The sale was

and past water rate indicate a net book value for the Felton water system was around $5,500,000. The ratio of the acquisition value to NBV would be 244%.

The acquisition was in part financed by a special tax. On July 26, 2005, more than 2/3 of the voters within the Community Facilities District (CFD) organized by the County of Santa Cruz approved the District's formation and voted for special taxes to pay for the acquisition of the water facilities in Cal-Am's Felton district.

Purchase Price Estimates Used In This Study

The accuracy of these estimates is largely dictated by the availability of required data. The RCNLD method generally produces the highest purchase price, and as such, it is the most conservative for the purposes of a feasibility analysis.

As developed in Table 9, the total RCNLD for AVR is estimated at $121.5 million.

The estimated acquisition price used in the 2006 feasibility study was $97,750,000. This was developed not using the RCNLD calculation but by calculating two times Net Book Value of both the AVR and the GSWC utility. For comparison purposes, the Net Book Value (NBV) of AVR as of 2011 was $79.2 million. Using the two times NBV method, the updated acquisition price would be $79.2 million x 2 = $158.4 million.

In appraising public utilities, consideration can be given to going concern, goodwill and other intangibles. With water utilities, the value of water rights may be included. In addition, the cost of furniture, equipment, vehicles, software, materials and supplies may be included in the acquisition price. Finally, the value of the turning over of billing and accounting records may be considered.

Regarding AVR, there may also be severance costs, because the water system is part of larger enterprise of Park Water.

Given all of these considerations, for the purpose of the updated feasibility study, BWA uses as the highest probable acquisition cost $121.5 million, the RCNLD of the AVR system with adjustments for advances and intangibles.

The lowest probable acquisition cost used in this feasibility study update is $48 million, the estimated purchase price of the AVR stock.

CEQA and Annexation

There will be costs associated with the environmental review of the acquisition. The cost estimated assumes that there will be a negative declaration and no environmental impact report would be required.

The Town may also need to annex some new land into the Town boundaries in order to make the boundaries of the Town and the AVR service areas more co-terminus.

Appraisals

The Town will need to retain an independent appraiser to value the water utility. The appraisal of the system should include all water facilities, intangible assets, water rights, and land that would be acquired by the Town. It is a crucial component of any successful acquisition. The appraisal would form the basis for initial offers to the companies. In a condemnation proceeding, the appraisal would be further supported by the opinion of expert testimony used to establish fair market value for the utility.

Condemnation Attorney and Trial

If the Town should choose to proceed with condemnation proceedings, it would require the services of an attorney specializing in this type of procedure. Within the condemnation proceeding, there would likely be two trials; one dealing with the "right to take" and another establishing just compensation, the fair market value of the condemned water facilities.

Contingency Reserve

The Town should also maintain a contingency reserve, BWA assumes 18% of the transaction costs, to cover unexpected expenses, see Table 10.

FINANCING OPTIONS

BWA evaluated four major financing options that are available to the Town of Apple Valley to acquire the AVR system. Each of these financing methods has been used by public agencies to acquire water systems from private owners.[8] Financing would include funding the purchase of water facilities and land and the funding of transaction costs. The four methods of financing that BWA investigated include:

- General Obligation Bonds
- Mello-Roos Community Facilities District (Special Tax) Bonds
- Assessment Bonds
- Revenue-Supported Borrowing

General Obligation Bonds

General obligation (GO) bonds are debt instruments secured by the full faith and credit of the borrower. They would be paid back through the unlimited power of the Town to levy property taxes at any rate or amount necessary to pay semi-annual debt service payments. These taxes would be levied at an equal percentage on all assessed property value within the Town of Apple Valley. Taxpayers in the Town of Apple Valley would pay higher property taxes as a result of this financing.

GO bonds require approval by 2/3 of registered voters. The principal and interest to repay GO bonds would be paid with a general tax based on the assessed value of property. The Town of Apple Valley would have to prepare a ballot measure and would have to indicate the maximum bonds authorized by the vote and an estimate of the maximum property tax.

Each year the Town would set the property tax rate per $100 of assessed value and provide the tax rate to the County, who collects the tax payments and remits them to the Town. The tax rate will more than likely decline over the life of the GO bonds assuming annual increases in assessed values of property within the town.

The clearest advantage of a GO bond is its low cost. Since GO bonds are backed by the pledge that all necessary revenues will be raised through increased property taxes, they typically carry the lowest risk in the municipal market, which is reflected in their low interest rates. They do not require a reserve fund and they have the lowest issuance costs of the four financing methods reviewed. GO bonds are also relatively simple to administer, as they require no changes in the manner in which property taxes are collected. They are collected along with the other taxes, assessments, and special charges on the property tax bill.

[8] The Montara Water and Sanitary District issued general obligation bonds; Santa Cruz County issued Mello-Roos (special tax) bonds; Yuba City issued certificates of participation; and Madera County used assessment bonds for a small acquisition.

Mello-Roos bonds have the advantage of flexibility. In this case, the Town could design the CFD boundaries to be co-terminus with the boundary of the service area of the utility. This would ensure that only those properties directly impacted by the acquisition would be assessed the special tax. In addition, because there is no requirement that the tax be based on the "special benefit" a parcel receives, the District can tailor the rate and method of apportionment to best meet revenue requirements and the political environment, potentially improving the likelihood of voter approval.

At the same time, Mello-Roos financings are very complex. The flexibility allowed in constructing the special tax apportionment also means that these formulas can be very intricate and difficult for the property owner to understand. Engineering and financial analysis would be required to develop the special tax formula. Additionally, because Mello-Roos bonds are not secured by the full faith and credit of the issuing agency, they are considered riskier than GO bonds and carry higher interest rates. Mello-Roos bonds also typically provide for a reserve fund and bond insurance may be advisable, two factors which also increase the effective cost of this type of financing for the Town.

Assessment Bonds

The Town could possibly use assessment bonds to finance the acquisition of the water company.[9] Assessment bonds are typically used to finance capital improvements to a relatively small area where the special benefits of the public project can be readily assigned to assessed properties benefiting from the project. They may not be the best method to finance a large water system acquisition for the whole Town which could provide a general benefit to the public at large. One general benefit of a publicly owned water system is fire protection.

The most common assessment bonds used by local governments to finance public projects are issued under the Improvement Bond Act of 1915. The 1915 Act, which only involves the issuance of bonds, requires another stature to establish the assessment district, authorize public improvements, and impose the assessments. Typically the Improvement Bond Act of 1913 (or sometimes the Act of 1911) is used. The use of assessment bond financing and the establishment of an assessment district are subject to Proposition 218, which added Article XIID to the California Constitution.

An assessment bond is a financing method where bonds are secured by liens placed upon all property within a defined geographic area (the assessment district). Similar to both GO bonds and special tax bonds, owners of impacted parcels of land would fund the cost of annual debt service.

[9] The Town has experience with assessment bonds. Assessment District No. 3 Improvement Bonds (1915 Act bonds) are outstanding and were originally issued by the Apple Valley Water District in 1988 to fund public improvements. Assessment District No. 2-B sold limited obligation improvement refunding bonds in 1991 to fund sanitary sewer facilities. These bonds were refunded with a 1996 assessment bond issue. The Apple Valley Water District has issued Special Assessment District 98-1, 1915 Improvement bonds to finance sewer improvements in the Jess Ranch area.

Issuance costs are higher than for GO bonds, as there are increased costs associated with the creation of the district and the need for a civil engineer to determine the special benefit for each parcel and to calculate the assessments. In addition, since debt service is only secured by the liens on property and not by the unlimited power of the Town to levy taxes, assessment bonds are considered riskier investments. To provide the bonds with appropriate security and allow for successful marketing, the property securing the lien must have value sufficient to cover the assessment. As a general guideline, the ratio of assessed value to assessment lien should be at least 3:1. In either case, assessment bonds will likely carry higher total interest costs than GO bonds and require a one year reserve fund.

Revenue-Supported Borrowing

There are two major revenue-supported borrowing options available to the Town to finance this purchase. With this type of financing, the Town does not incur any further indebtedness; instead, the Town must pledge a portion of the enterprise's future net revenues to meet the debt service. Revenue bonds take a number of different forms, to include public enterprise revenue bonds, public lease revenue bonds, and certificates of participation.

Public Enterprise Revenue Bonds

Traditional revenue bonds can be used to finance any public improvement of revenue producing nature. They are secured by a lien upon future revenues of the proposed improvement. Approval of a revenue bond is subject to provisions of the Revenue Bond Law of 1941; they can be issued upon adoption by majority vote of the governing body of the local agency. A majority vote must be obtained at an election on the proposition of issuing bonds.

Most revenue bonds are issued by means of a joint powers authority (JPA) that does not require an election or voter approval. The joint powers authority can be a financing authority created by the two public agencies, such as a city and its redevelopment agency. If a JPA is used, then the more typical financing is the use of certificates of participation, which are described below.

Effective marketing of revenue bonds requires a well-established operating history of the enterprise to ensure that future revenues will meet required debt service. The issuer may also have to covenant to establish rates and charges that are sufficient to meet debt service.

Financing Leases and Certificates of Participation

Slightly different than traditional revenue bonds, but used more frequently, is lease financing using certificates of participation (COPs).[10] COPs would allow the Town to

[10] The Town has previously issued certificates of participation. In 1999, the Town sold COPs to finance the construction of the new Town Hall and new county office building. In 2001, the Town sold variable rate demand COPs to refund the 1999 COPs.

FINANCING COSTS

For the purposes of this feasibility analysis, financing includes funding for the purchase of water facilities and all transaction costs.

Table 11 summarizes overall financing costs for the four different financing methods discussed in the previous section. Each method results in a different annual debt service.

The analysis assumes a total acquisition cost of $52.2 million at the stock price and a total acquisition cost of $125.7 million at the RCNLD price for AVR which include the high estimate (condemnation) for transaction costs of $4,248,000.

Financing methods differ in terms of interest rate, need for a debt service reserve fund, issuance cost, and underwriter's discount. GO bonds are significantly cheaper to issue, as they do not provide for underwriter's discount and have lower fees associated with the use of outside consultants and bond counsel. They also do not require a reserve fund and carry the lowest interest rate which BWA estimates in the range of 5.25%. Overall debt service on GO bonds is estimated to range from $3.8 million to $9.2 million per year over 25 years.

For a special tax bond, the average interest rate is 6.25% reflecting the lower security of that method of financing. Issuance costs are greater because of the complexity of the special tax bonds and the need for a special tax consultant. Bond underwriters are allowed to charge a discount with special tax bonds, which is assumed to be 1.5% of the total issue. A reserve fund equal to one year's debt service would be required. Special tax levies are also subject to delinquencies (assumed to be 1.5% of the total annual levy) and annual administration costs (assumed to be $50,000). The annual debt service for a special tax bond is estimated to range from $4.8 million to $11.4 million.

An assessment bond is assumed to have an interest rate of 7.00%, as they are among the highest risk of municipal financings. Issuance costs, underwriter's discount, and annual delinquencies are also assumed to be about the same as for a special tax bond. Annual administration is assumed to be $75,000. In total, the average annual debt service plus admin costs for an assessment bond is estimated to range from $5.2 million to $12.3 million.

The average interest rate for COPs is assumed to be 6.75% for this feasibility analysis. Issuance costs would be lower than special tax and assessment bonds, but the COPs would need to be rated and would need an investment grade rating to be sold. A reserve fund equal to one year's debt service would be required. Because of market acceptance, the underwriter's discount for COPs would be lower than for special tax or assessment bonds (estimated at 1%). The average annual COP payment is estimated to range from $4.9 million to $11.7 million.

Property Tax Impact of General Obligation Bonds

Table 12 shows the impact of a general obligation bond issue on the property taxes of Apple Valley. Total secured valuation in 2010 was $4.38 billion. The issuance of GO bonds could increase property taxes by an estimated range of $87 to $209 per $100,000 assessed value.

Table 12
2011 Update of Potential Water System Acquisition of AVR
Estimated Property Tax Impact of General Obligation Bonds

Stock Purchase Price	
Annual Debt Service	$3,816,000
Assessed value in Apple Valley (1)	4,378,000,000
Tax per $100 AV	0.087
Tax per $100,000 AV	$87
RCNLD Purchase Price	
Annual Debt Service	$9,165,000
Assessed value in Apple Valley (1)	4,378,000,000
Tax per $100 AV	0.209
Tax per $100,000 AV	$209

(1) From 2010 Assessment Roll Re-cap Totals San Bernardino County, secured value

Special Tax Size for Mello-Roos Bonds

Table 13 calculates the estimated special tax that would be levied on water customers should this acquisition be financed by Mello-Roos special tax bonds. The annual tax is calculated based on the estimated number of equivalent meters in the Town. With an annual debt service plus an administration charge and considering delinquencies, the total cost would range from $4.8 million to $11.4 million assuming approximately 34,653 equivalent meters, a single family residence with one equivalent meter (5/8 x 3/4 inch) would face an annual special tax levy of $138 to $329.

Table 14
2011 Update of Potential Water System Acquisition of AVR
Estimated Impact on Water Rates of COP Issuance

Stock Purchase Price	
Annual debt service (estimated)	$4,858,000
Net revenue requirement (125% annual debt service)	$6,073,000
Less net revenues (at current rates)	6,016,000
Additional revenue needed	($57,000)
Total projected revenues (current rates) (Table 15)	$19,483,000
Required 2012 rate increase to repay COPs	0.3%
RCNLD Purchase Price	
Annual debt service (estimated)	$11,664,000
Net revenue requirement (125% annual debt service)	$14,580,000
Less net revenues (at current rates)	6,016,000
Additional revenue needed	($8,564,000)
Total projected revenues (current rates) (Table 15)	$19,483,000
Required 2012 rate increase to repay COPs	44.0%

mains and the utility then repays those advances over a period of up to forty years, interest free.

Importantly, AVR has financed a significant portion of its current infrastructure with advances. According to its most recent rate case, it has over $31.1 million in outstanding advances. The yearly payments on those advances is estimated at $795,000 for 2012. The Town could continue to use this method as a means for adding new infrastructure to the system, or, at the very least, it is assumed that the Town would have to continue to repay these advances under their current terms.

Contributions

The utility can also generate revenue through in-kind contributions of infrastructure. In this arrangement, a developer will typically agree to build the necessary water facilities to connect a new development to existing facilities at his own expense. Unlike an advance, contributions are not repaid.

Taxes

Under public ownership, the water utility would be eligible to receive tax revenue to support its activities. Should the Town choose to finance this acquisition with GO bonds or Mello-Roos special tax bonds, it would also generate revenues to meet debt service from a property tax or a special tax.

Costs under Public Ownership

The operating costs for a publicly-owned utility will differ from those incurred by a private utility. The publicly-owned water utility would not pay income taxes, property taxes, nor a profit. However, expenses for operations and maintenance (O&M) and administrative and general expenses (A&G) would be similar.

Personnel

The new Town water utility would require personnel to staff all of the required positions. This study assumes that the Town would continue to employ all employees from the utility with the exception of Mr. Wheeler. The employees would fill necessary administrative, billing, and operations positions within the utility.

Operations and Maintenance

The Town's water utility would incur expenses related to the operation and maintenance of the water system. Major expenses in this category include funding for payroll, repairs of equipment, and maintenance of infrastructure. The utility would also incur expenses for purchasing power to run pumps, and leasing water to meet demand in excess of its free pumping allowance. To the extent that prices for commodities like power and water vary each year, the utility could face significant uncertainty in these expenses. BWA assumes that under public ownership, the operations and maintenance costs would be reduced by $259,147, the portion of Mr. Wheeler's salary that is booked as a utility expense, but that all other O&M expenses are similar to what AVR now incurs.

It is unknown at this time what, if any, additional costs would be required to connect the AVR and GSWC systems, or if there would be savings associated with combining the well capacity and storage of the two systems.

Projected Net Revenues at Current Rates

Using the historical operating results of the AVR, BWA has developed an estimate of the net revenues for the year 2012. This estimate is based on the operating expenses included in the proposed AVR General Rate Case (Test Year 2012 Revenue Requirements).

Importantly, a number of significant expenses are eliminated under public ownership, including taxes (Federal and state) as well as depreciation (which is not typically treated as a cash-funded expense in public utilities), and rate of return (or profit).

In addition, BWA has assumed that Mr. Wheeler's salary would be eliminated. The water utility would also incur Town overhead costs estimated at $1.1 million per year. As discussed under the costs under public ownership, BWA has also assumed a $2 million annual water main replacement requirement in overall expenses.

Due to the controversy over the rate increase proposed in the AVR 2012 General Rate Case, revenues are projected based on the current rates.

Table 15 details these findings. In total, BWA estimates that at current rate level, the combined utility would have net operating revenues of approximately $6 million annually.

Organization of the Town's Water Enterprise

The Town's water utility would be organized like other public enterprises. The Town Council would act as the Board of Directors and would set policy, establish rates and charges, and provide legislative oversight. The Town Council would be politically accountable to the water utility's ratepayers. Under Town ownership, the utility would *not* be regulated by the CPUC.

The Town's water utility would have a General Manager, who would report to the Town Council. Legal, financial, and accounting services would be provided as they now are for the sewer enterprise. The water utility's audit would be done at the same time as the audit of the Town's other funds.

BWA assumes that operation, maintenance, administration, billing, and human resources would be largely the same as it is now for the private water utility. There would be no changes in staffing or personnel except for the reduction of Mr. Wheeler's position.

Lost Revenues

Under public ownership, there will be the loss of two sources of revenues to local governments: property taxes and franchise fees.

The privately owned utilities pay property taxes. If the Town were to acquire the utility, this source of revenue (estimated at $425,000 in 2012) would be eliminated. The other lost revenue would be franchise fees. AVR estimates that it will pay the Town approximately $192,000 in franchise fees in 2012.

revenue collection could be a possible risk, especially given recent changes in the housing market. Town management would have to engage in collection activities, which can be troublesome and time consuming.

Under public ownership, the Town would be responsible for repayment of past customer advances. The general rate case for AVR indicated advances are estimated at $31.1 million in 2010 and would need to be returned to customers. The Town would be responsible for their repayment, or would have to arrange with the current owner for the repayment when the water system is bought. Future accounting for the advances and customer record keeping could be burdensome and time consuming.

There is the risk of additional operation and maintenance expenses in the future due to federal and state regulations. Also, additional O&M costs could result due to large increases in electric and chemical costs over which the Town has no control.

The Town would be responsible for future water plant additions, improvements, and replacements. The cost and timing of these future capital projects are unknown. The Town would also be responsible for on-going investments in the water systems and need to establish a reserve fund for future replacements of utility assets. Town water staff would also need to respond to water emergencies and prepare and enforce security plans.

issue debt which must be repaid through taxes or a rate increase. The magnitude of the tax or rate increase is dependent on the purchase price of the AVR.

Property taxes would have to increase by a range of $87 to $209 per $100,000 of assessed value to complete the acquisition using General Obligation bonds. A new special tax could range from $138 to $329 per equivalent meter would be necessary if Mello-Roos bonds are used. If revenue-supported COPs were used, the Town may generate sufficient revenues under the current rates to repay the debt. Under the high purchase price scenario, a rate increase of approximately 44% would be necessary.

The benefits that could result from ownership must be therefore balanced with the increases in taxes or rates and the assumption of risks associated with ownership.

It would take approximately 21 years for the first year's net revenues of $6 million to pay back the total RCNLD estimated acquisition costs of $125.7 million. Using a discount rate of 5.25% (which roughly equals the Town's cost of borrowing) and assuming 25 years as the expected remaining life of the water utility assets, the present value of the net revenues would be $82.7 million, about $43 million less than the total estimated acquisition costs.

Assuming the lower estimated acquisition cost from the stock purchase price of $52.2 million, it would take approximately 9 years to pay back the AVR acquisition. The discounted net revenues over 25 years would equal a net gain in revenue of $30.5 million. The Town could use these funds to build up reserves and make capital replacements as needed.

FINDINGS AND CONCLUSION

BWA finds the acquisition of the water utility financially feasible under both the high and low purchase price if the voters approve a new property or special tax. If revenue-supported borrowing is used, an increase in water rates would make the acquisition feasible at the higher cost. While net revenues are estimated to be available under public ownership they may not be sufficient to repay any borrowings and rates would have to be increased to pay annual principal and interest and satisfy any debt service coverage requirements under the high purchase price. Under the lower purchase price, net revenues will likely be sufficient to meet the debt service coverage requirement.

Total operating costs could be less under public ownership then under private ownership. The Town would not pay property taxes or income taxes. In addition, payroll costs could be reduced and corporate overhead would be avoided. Typically, public enterprises operate and set rates on a cash basis and annual depreciation would not be accounted for as an operating cost included in the revenue requirement to be recovered through rates and charges. Most importantly, the Town would not earn a profit, while a private owner can earn a profit.

The potential possible net revenue from the water enterprise would be available to fund facility replacements, capital improvements, and reserves. Net revenues could also be used for debt service payments.

- Vote by electorate if General Obligation or Special Tax bonds are to be used. (Formation of an assessment district would follow Proposition 218)

The Town Council will also need to decide on the financing method. The Town Council may want to place the water acquisition before the voters before pursuing the above tasks. A general obligation bond or special tax bond vote would indicate voter support for the acquisitions and would provide funding to pay for the tasks.