

Corix Utilities (Foothills Water) Inc.

Application for Water Tariff

Updated April 2009

Result of customer comments:

This April 2009 Update of the Foothills Water Tariff Application reflects comments received from customers and discussions with Alberta Utilities Commission staff since the Open House in January. In particular, in response to customer questions related to the use of average residential consumption data, Corix reviewed actual monthly customer use data for 2007 and 2008. The review of this data set for the two year period resulted in revised estimates of monthly water consumption and provided additional information on customer consumption that historically has fallen within each tier of the proposed 3 tier residential rate design.

The review of this data indicated that based on historical customer consumption, a larger portion of monthly water use would fall within the second and third tier blocks than was originally estimated. Based on this information, Corix has increased the initial block to 40 cubic metres per month (from 30 cubic metres). Corix will also work with the existing customer associations to institute a voluntary water conservation program requesting that during the months of July and August, customers irrigate only on odd or even numbered days depending on their address. Corix will also institute a customer notification program for large consumption customers whereby Corix staff will contact these customers to discuss their water consumption and the implications that the revised rates will have on their monthly water bills. Corix believes that these changes will result in a significant response in the form of reduced water consumption at the higher use rates when compared to what has occurred historically. However, because it is not possible to predict the exact magnitude of this consumption response, Corix is also proposing that a revenue deferral account be established to ensure that both customers and the utility are protected from revenue impacts due to fluctuations in water consumption that cannot be anticipated.

1. Overview of Water System at Heritage Pointe

Corix supplies water service to the community of Heritage Pointe located in the Municipal District of Foothills on the south border of the City of Calgary. The community currently consists of approximately 650 homes and amenities within the development and includes a golf course and a recreational lake. All water is sourced from the Bow River.

1.1. Water Source

The raw water pump house is located on the Bow River (NW ¼ 5-22-29-W4M) immediately south of the city of Calgary. The pump house is used to supply raw water for treatment in the municipal system that serves the Heritage Pointe residential development, the irrigation ponds for the golf course and the recreational lake. The pump house is currently equipped with three 100 horsepower pumps. A new pump

planned for the raw water line between the lake and the water plant will provide the plant with an additional supply of raw water (1,700 litres per minute) during times of high turbidity or low flow in the Bow River.

1.2. Treatment

The water treatment plant employs dissolved air flotation (DAF) technology. Currently there are two separate trains that can each supply up to 1,740 litres/minute of treated water. The treated water is then disinfected using ultra violet reactors and chlorine gas. The treatment plant is equipped with three distribution pumps that can supply 3,500 litres per minute as well as an automated diesel fire pump that is triggered if power is lost or if system pressures drop to unacceptable levels.

1.3. Storage

The water treatment plants is situated above a 1,350 cubic metre reservoir which serves the golf course community and also feeds a larger 1,940 cubic metre reservoir that serves the lake community at Heritage Pointe. The reservoir in the lake community is equipped with three distribution pumps as well as a fire pump which delivers fire flows and volumes. In the event of a power disruption, a diesel generator provides emergency power for the reservoir pumps.

1.4. Meters

All treated water connections are metered including houses, commercial buildings, golf course restrooms and water plant facilities. The raw water system is equipped with individual lines and meters for golf course irrigation, municipal raw water supply and lake filling. The water plant is equipped with influent meters and effluent meters. The distribution header is also equipped with a total distribution meter. The reservoir in the lake community is equipped with a separate line and meter for the bulk water filling station as well as a separate line and meter for distribution into the municipal system.

A map of the water system is provided as **Attachment 1**.

2. Licenses and approvals

Corix obtains its water supply from the Bow River under licences granted by the Province of Alberta. Water licenses and Alberta Environment approvals are provided as **Attachment 2**.

3. Investment profile

3.1. Overview

Substantial investments in water supply infrastructure were required before construction of homes and other facilities within the Heritage Pointe community could begin in the early 1990s. At that time, construction of the water system was undertaken by the developer of Heritage Pointe pursuant to a 20 year franchise agreement between the developer and the Municipal District of Foothills No. 31. The original investment in infrastructure included a water treatment plant, pumping station, treatment reservoir, underground distribution systems, meters and fire hydrants. The cost of these assets, including direct costs plus capitalized engineering, financing and other development costs, was \$3,376,119 and the assets were transferred by the developer at cost to a separate utility company, Thornmark Utilities Corporation (TUC), in August 1992. TUC financed the asset purchase through the issue of 3,376,119 common shares at \$1.00 per share. The franchise agreement and various operating licenses and permits were also assigned to TUC at that time and these transactions were the subject of proceedings before the Alberta Energy and Utilities Board (AEUB) in 1992 and 1993.

3.2. Reconciliation of Property, Plant and Equipment

As of November 30, 2005, property, plant and equipment (PP&E) recorded in rate base was \$3,833,335. This compares to PP&E recorded in the balance sheet of \$1,943,747. A reconciliation of these two values is provided within the financial model attached to this application. The reconciliation is necessary due to three valuation adjustments that have been recorded in the balance sheets over time in addition to asset purchases and annual provisions for depreciation. These adjustments have resulted in balance sheet values which are not based on the original costs of assets and are therefore excluded in the calculation of rate base. The adjustments were made pursuant to four events: an asset impairment write-down recorded by the original owner in 1995 and three sale transactions whereby TUC and/or TUC's parent company were sold in April 2005, November 2005 and May 2006. These four events are summarized below.

Subsequent to the transfer of assets to TUC in 1992, additional plant was installed by TUC over time resulting in a net book value of property, plant and equipment totalling \$4,085,000 as of December 31, 1995. At that time, TUC's parent company recorded a general asset impairment related to its real estate development business and the TUC plant assets were all written down to \$1.00. These valuation adjustments have been carried in asset contra accounts since 1995 in order to preserve the original values for determination of the utility rate base.

Over the ten year period between 1995 and 2005 the Heritage Pointe development continued to grow and TUC made further investments in the water distribution system. By November 2005 TUC's total cost of PP&E was \$4,693,832 and net book value was \$3,833,335.

In April 2005 a share purchase agreement was executed whereby all of the shares of TUC were sold to Terasen Utility Services Inc. (TUS) for a price of \$3,225,000 plus closing adjustments. At that time the development was approximately 50% complete and, based on TUS' concerns about the future value of rate base in relation to the number of connections at build-out, the parties agreed that the vendor/developer would be responsible for funding the full cost of further expansions of the water distribution system (excluding meters) within the franchise area. The sale of TUC was subject to regulatory approvals by the AEUB and the transaction closed on November 30, 2005.

On the same day, November 30, 2005, the parent company of TUS, Terasen Inc., was purchased by Kinder Morgan Inc. (KMI), a Houston-based energy infrastructure company, for approximately \$6.9 billion. KMI's allocation of its purchase price involved a "push-down" of various fair-value adjustments into the records of the various companies purchased. Since TUC had just been purchased by Terasen, Terasen's price of \$3,225,000 (plus adjustments) was allocated by KMI to the net assets of TUC. KMI's allocation included \$1,943,747 to PP&E, \$1,452,785 to goodwill, and the balance to various working capital and other items. According to standard practice for acquisition adjustments, accumulated depreciation was reset to zero at that time.

In May 2006, all of the Terasen "water businesses" were sold by KMI to Corix and TUC was renamed Corix Utilities (Foothills Water) Inc. shortly thereafter. Corix also recorded a "push-down" of its fair value adjustments and the purchase price allocation included \$1,963,252 to PP&E and zero to goodwill. Accumulated depreciation was again reset to zero at that time.

These adjustments impact the recorded cost of assets as well as ongoing provisions for depreciation. To simplify the analysis, the reconciliation has been based on November 30, 2005 values which exclude the impacts on depreciation provisions since that time. Rate base values for the 2008 and 2009 forecasts are based on the November 30, 2005 rate base per the reconciliation, plus capital additions and minus depreciation provisions (based on original cost and estimated asset life) since November 2005.

Attachment 3 provides a set of schedules that provide historical financial details including:

- Balance Sheets for 2005 -2007 (tab BS);
- Income Statements for 2005 – 2007 (tab IS);
- Plant in Service from November 2005 through December 2007 (tab Plant);
- Plant in Service Reconciliation as of November 2005 (tab Plant Reconciliation); and,
- Un-depreciated Capital Cost from December 2005 through December 2007 (tab UCC).

4. Government grants

Corix has received no government grants related to its utility operations at Heritage Pointe.

5. Supporting documentation for customer/developer contributions

Under the terms of the Share Purchase Agreement as stipulated in Article 4.02 (7) on page 19, the developer (Upper Lakes Group) is responsible for all capital expenditures (excluding meters) for expanding the water distribution system to service future development at Heritage Pointe. The Share Purchase Agreement is provided as **Attachment 4**.

Investments in infrastructure that are not associated with incremental customer additions but that are required for refurbishments to existing infrastructure or improvements to supply existing customers are the responsibility of Corix. These capital investments are reflected in the capital requirements forecast discussed below in section 11 Capital Additions.

6. Agreements with the Municipality

In 1992 the Municipal District of Foothills No. 31 entered into a franchise agreement with Thornmark Capital Corporation. Thornmark Capital Corporation subsequently assigned the franchise agreement to Thornmark Utilities Corporation. A copy of the franchise agreement and the assignment agreement are provided in **Attachment 5**.

7. Contracts/Terms and Conditions of Service with customers for water service.

The proposed Corix terms and conditions of service are provided in **Attachment 6**.

In addition to providing potable water service to customers at Heritage Pointe, Corix supplies raw water under water transportation agreements to the Heritage Pointe Golf Club Inc. and The Lake at Heritage Pointe Owners Association. The agreements, provided in **Attachment 7**, were signed on April 1, 2005 and are for a term of 20 years. The initial rate was set at \$0.26 per cubic meter, and subject to annual increases of the greater of 3% or the consumer price index. The current price charged for the raw water is \$0.28 per cubic metre.

Corix also provides off-site potable water through a bulk water filling station to the east of the Heritage Pointe entrance. The price charged for this service will be set at the commercial rate proposed for this application. A copy of an Off-site Water Sales Agreement is provided in **Attachment 8**.

8. Customers and Consumption

The table below provides historical data on the number of customers, consumption and estimated losses for the water distribution system at Heritage Pointe.

Year	# of Customers	Raw Water m ³	Treated Water m ³	Estimated Losses %	Reasons
2004	384	190,066	170,789	10.5	Plant Processes will consume on average 15% for filter cleaning etc. Additional loss due to distribution leak
2005	460	239,044	202,481	15	Normal plant cleaning processes
2006	524	299,160	262,213	12	Normal plant cleaning processes
2007	637	330,860	323,388	10	Normal plant cleaning processes

9. Fire Protection

Corix has 73 hydrants serving Heritage Pointe. Fire pumps in both reservoirs are capable of producing 126 litres per second. Both reservoirs provide fire flow capacity sufficient to meet estimated maximum requirements.

Attachment 9 shows the location of fire hydrants.

10. Operations and Management Staff and Contractors

Corix currently has two operators for the water utility at Heritage Pointe. A job description for operations staff is provided in **Attachment 10**. Management is handled through the allocation of a portion of the time from a regional manager in Alberta. **Attachment 11** provides a job description for the management position. Compensation for these positions is included in the operations and maintenance (O&M) information provided in **Attachment 3**.

Corix retains contractors as required, specifically for programming for the PLC and SCADA systems as well as for sludge hauling. Costs associated with contract work are shown in the O&M schedules included in **Attachment 3**.

11. Capital Additions

As shown in **Attachment 3**, Corix will add an estimated \$365,450 in capital additions in 2008 and \$732,500 in 2009. The capital expenditures consist of the following items:

	2008	2009
Water Distribution	\$85,000	\$145,000
Water Treatment Plant	\$258,673	\$537,500
Water Meters	\$21,777	\$15,000
Vehicles		\$35,000
Total	\$365,450	\$732,500

Capital costs for the water distribution system are for a new pumping station to allow additional access to water supply from the lake during times of high water turbidity in the Bow River. Additions to water treatment plant infrastructure include installation of a standby generator, transfer switch and building, removal of the existing chlorine gas unit and replacement with a sodium hypochlorite unit, replacement of a hi-lift pump and installation of a new chemical scale and chemical feed system. Corix plans to add an additional 24 water meters between now and the end of 2009. A new vehicle will also be required in 2009.

12. Proposed System Expansion Plans

Currently, there are no plans to expand the water treatment plant at Heritage Pointe. However, as indicated in the Share Purchase Agreement (**Attachment 4**), the costs for expanding the water system to serve additional communities will be paid for by the developer.

13. Operation and Maintenance Costs

The operation and maintenance (O&M) costs for 2007 and forecast amounts for 2008 and 2009 are shown in the table below.

Operating and Maintenance Expenses

Line No.		2007 Actual	2008 Forecast	2009 Forecast
1	Utilities	\$ 82,755	\$ 85,000	\$ 90,522
2	Plant repairs and maintenance	46,462	64,000	65,280
3	Plant supplies and chemicals	28,834	32,000	34,079
4	Septic service	3,090	3,200	3,264
5	Wages and benefits	175,000	207,500	211,650
6	Customer care and billing	-	26,200	27,902
7	Office expenses	30,212	33,340	34,007
8	Vehicle expenses	15,051	16,450	16,779
9	Legal, consulting and outside services	14,720	40,300	41,106
10	Building insurance	6,093	6,500	6,630
11	Bad debts	5,060	3,000	3,195
12	Dues, memberships, licenses and permits	3,095	875	893
13	Travel, meals and entertainment	2,701	1,800	1,836
14	Conferences, promotional and miscellaneous	1,876	1,625	1,658
15	Computer expenses	603	1,000	1,020
16	Bank charges	711	660	673
17	Total	<u>\$ 416,263</u>	<u>\$ 523,450</u>	<u>\$ 540,493</u>

The majority of costs associated with providing water service are fixed costs. Variable cost items are limited to utilities costs, chemicals and septic service.

The following is a line by line description of items included in the table above as well as notes on changes in budgeted costs.

Line 1 Utilities includes electricity and gas required to operate the water treatment plant and pumping stations. Costs for utilities have generally been increasing each year.

Line 2 Plant repairs and maintenance includes costs related to maintaining and repairing the water infrastructure. As the infrastructure ages, more frequent maintenance is required. The 2008 budget is based on expectations for refurbishment and equipment and facilities including repairs to the intake building and repairs to the lake intake.

Line 3 Plant supplies and chemicals are required to operate the water treatment plant. Costs related to this item are forecast to increase due to supplier cost increases as well as increased volumes with additional customers.

Line 4 Septic service is a contract service for hauling away residue from treating raw water. Costs for this service are forecast to increase due to higher contract charges.

Line 5 Wages and benefits include the salaries for management and operations staff. Prior to 2008 the full cost associated with this item was not allocated to the Foothills operation. Costs for this item in 2008 and 2009 include the addition of an operations

staff person and an increase in the amount of total management time dedicated to the Heritage Pointe operation due to required infrastructure refurbishments and improvements.

Line 6 Customer Care has been broken out for 2008 as a separate line item. Costs are based on a per customer average billing and customer care rate of \$6.50 per customer, 50 % of which is allocated to the water utility operation at Heritage Pointe.

Line 7 Office expenses are forecast to increase in line with comparable increases experienced in 2007.

Line 8 Vehicle expenses include the costs for a portion of the two Corix vehicles used at Heritage Pointe. The forecast increase reflects increases in vehicle lease rates.

Line 9 Legal, consulting and outside services includes in-house legal and outside financial consulting services associated with regulatory filings and agreements with contractors. The projected increase in 2008 and 2009 is due to costs associated with the current regulatory filing.

Line 10 Building insurance is for insurance on the water treatment plant and utility owned infrastructure. The forecast increase reflects rising insurance premiums.

Line 11 Bad Debts is for collection costs on overdue accounts, and is forecast to decrease in 2008.

Lines 12, 13 and 14 are associated with dues, memberships, licenses, permits, travel, meals, entertainment, conferences, and promotional activities are all forecast to decrease in 2008.

Line 15 Computer expenses are forecast to increase in 2008 due to upgrade requirements.

Line 16 Bank charges are expected to decrease in 2008.

14. Rates

14.1. Historical/current rates charged

Rates charged to customers since the Heritage Pointe water system was purchased by Corix are as follows:

CORIX UTILITIES (FOOTHILLS WATER) INC.

Residential: \$1.41/cubic metre and \$40/month basic charge
 Commercial: \$1.40/cubic metre and \$40/month basic charge
 Irrigation: \$0.28/cubic metre
 Bulk: \$1.20/cubic metre

Current rates at Heritage Pointe are at or below the rates approved by the AEUB in September of 1992 as part of the Water Service Regulations filed with the Board (see **Attachment 12** Schedule “B”).

14.2. Proposed Rates

Corix is proposing a rate design based on a basic charge and a three (3) step variable block rate for residential customers and a single block rate for commercial customers. Corix is requesting that the new rates would take effect as of February 1, 2009.

The table below is taken from the Rate Design tab from **Attachment 3**.

Rates				Rate	Unit	Average Consumption Per Customer	Average Annual Revenue Per Customer
Residential							
Monthly fixed charge				\$ 50.00	per month	12	\$ 600.00
1st block rate for up to	40	cubic metres		\$ 1.60	per cubic metre	268.0	\$ 429.28
2nd block rate for up to additional	25	cubic metres	150% of 1st block rate	\$ 2.40	per cubic metre	33.2	\$ 79.77
3rd block rate for balance over	65	cubic metres	200% of 1st block rate	\$ 3.20	per cubic metre	21.6	\$ 69.20
			Average rate	\$ 1.79	per cubic metre		
Total residential							\$ 1,178.25
Commercial							
Monthly fixed charge				\$ 50.00	per month	12	\$ 600.00
1st block rate for all consumption				\$ 1.79	per cubic metre	2057.0	\$ 3,684.80
Total commercial							\$ 4,284.80

The proposed rate design was developed to encourage the prudent use of water by Heritage Pointe customers. For residential customers, the initial block rate of \$1.60 per cubic metre for up to 40 cubic meters per month is designed to allow for non-discretionary household water use. Any monthly water use above 40 cubic metres and up to 65 cubic metres attracts the second tier block rate of \$2.40 per cubic metre, 150% of the initial block rate. The rate for the second block is designed to encourage water conservation for discretionary water use such as irrigation. The third tier for water use in excess of 65 cubic metres per month is \$3.20 per cubic metre, 200% of the initial block rate, and is designed as a strong price signal to discourage excess water use. Water use at these levels during times of low water levels in the Bow River could result in water shortages for all customers.

Commercial customers would pay a per cubic metre rate of \$1.79 for all volumes consumed, an amount that is equal to the average residential per cubic meter rate. An

inclining block rate structure has not been proposed for commercial customers because all consumption during any one month for commercial customers is associated with similar use requirements and, unlike residential use, there is no discernable threshold above which water consumption is of a discretionary nature.

The rate design includes a basic charge of \$50 per month for residential and commercial customers. This reflects the high portion of fixed costs associated with providing water service to customers at Heritage Pointe. Corix believes the proposed rate design provides a balance in providing a measure of revenue stability to the utility reflecting the high portion of fixed costs associated with providing service while also sending the right pricing signals to encourage customers to make wise choices with respect to consumption of the water resource.

Corix will also work with the existing customer associations to institute a voluntary water conservation program to encourage water conservation during the peak consumption months of July and August. During these months, Corix will be requesting that customers irrigate only on odd or even numbered days depending on their address. Corix will also institute a customer notification program for large consumption customers whereby Corix staff will contact these customers to discuss their water use and the implications that the revised rates will have on their monthly water bills. Corix believes that these changes will result in a significant response in the form of reduced water consumption at the higher use rates when compared to what has occurred historically.

The tiered rates are expected to result in an overall reduction in residential water use at Heritage Pointe of approximately 9% in 2009 compared to 2008. The table below shows the water consumption reductions by tier.

Residential	1st Block	2nd Block	3rd Block	Total
Estimated average consumption per customer in 2008	268	41	42	351
Estimated average residential consumption for 2 month period July and August	67	26	34	127
Expected percentage reductions	0%	30%	60%	22%
Estimated volume reductions in July and August	-	8	20	28
Estimated average consumption per customer in 2009	268	33	22	323

While for revenue requirement modeling purposes Corix has estimated the expected reduction in water use, it is not possible to predict the exact magnitude of this consumption response. Due to the uncertainties inherent in predicting the impact of the proposed rates structure on actual consumption and associated utility revenues, Corix will be applying for a revenue deferral account. The deferral account will ensure that the revenue requirement as approved by the AUC will be met and any revenue shortfall or over collection will be collected from or refunded to customers as required.

15. A detailed description of any deferral accounts set up by the utility.

Pursuant to a memorandum of understanding dated May 27, 2002, the utility agreed to supply potable water to the PCR Lands, a neighbouring development within its franchise area. The developer of the PCR Lands agreed to install and fund all of the water infrastructure costs within the PCR Lands and then transfer its ownership interests in the improvements to the utility for nominal consideration. In order to share the costs of the upstream distribution system and water treatment plant within Heritage Pointe, the parties also agreed to a capital contribution by the developer in the amount of \$494,000. This receipt was recorded on the balance sheet of the utility as deferred revenue and has been amortized over the remaining term of the utility's franchise agreement.