City of Fife

www.cityoffife.org

Public Works
3725 Pacific Hwy. E
Fife, WA 98424-1135
(253) 922-9315

James M. Paulson
Criminal Justice Center
3737 Pacific Hwy. E
Fife, WA 98424-1135
(253) 922-6633

Fife Community Center
2111 - 54th Avenue E
Fife, WA 98424-2061
(253) 922-0900

Fife Swim Center
5410 - 20th Street E
Fife, WA 98424-2061
(253) 922-7665

Fife City Hall
5411 - 23rd Street E.
Fife, WA 98424-2061
(253) 922-2489
Fax: (253) 922-5355

February 24, 2010

City of Fife

Water Rates Increase Effective March 1, 2010

Tacoma Public Utilities has raised its wholesale rates on the water Fife buys for distribution to Fife's customers such that Fife must raise its rates or lose money on every gallon sold.

The rates below are monthly rates.

	2009	2010	2011	2012	2013	2014	2015
Equalized Initial Rate Increases	N/A	20%	20%	20%	3%	3%	2%
Avg. monthly bill – 230 gallons per day	$25.12	$30.14	$36.17	$43.40	$44.70	$46.04	$47.42

Meter Size (inches)	2009 0%	2010 20%	2011 20%	2012 20%	2013 3%	2014 3%	2015 2%
5/8x3/4 or 3/4	$ 13.94	$ 16.73	$ 20.08	$ 24.10	$ 24.82	$ 25.56	$ 26.07
1	$ 46.47	$ 55.76	$ 66.91	$ 80.29	$ 82.70	$ 85.18	$ 86.88
1-1/2	$ 83.69	$100.43	$ 120.52	$ 144.62	$ 148.96	$ 153.43	$ 156.50
2	$116.20	$139.44	$ 167.33	$ 200.80	$ 206.82	$ 213.02	$ 217.28
3	$232.46	$278.95	$ 334.74	$ 401.69	$ 413.74	$ 426.15	$ 434.67
4	$348.66	$418.39	$ 502.07	$ 602.48	$ 620.55	$ 639.17	$ 651.95
6	$697.34	$836.81	$1,004.17	$1,205.00	$1,241.15	$1,278.38	$1,303.95
Overage, per ccf	$ 1.76	$ 2.11	$ 2.53	$ 3.04	$ 3.13	$ 3.22	$ 3.28

FREQUENTLY ASKED QUESTIONS

Why didn't the City do smaller increases in past years so that it didn't have to do such large increases now?
The City of Fife was going through some large sewer rate increases and had new rate impacts from a Storm Drainage Utility and was trying to minimize overall impacts to ratepayers. That delayed the adjustments to water rates. The 2008-2009 rates will remain in effect until February 28, 2010.

How much has Tacoma raised its wholesale rates in the last 12 years?
Tacoma has raised its rates an average of 9.8 percent each year. This is a total rate increase of 202 percent.

How much has the City of Fife raised its retail rates in the last 12 years?
Fife has raised its rates an average of 1.4 percent each year. This is a total rate increase of 17 percent.

How has Fife usage of Tacoma wholesale water changed over the last 12 years?
Fife used to operate several of its own wells and only purchased 67 percent of its annual water from Tacoma. However, due to declining yield and water quality issues Fife no longer operates any of its own wells and now buys 100 percent of its water from Tacoma. In addition, demand in the water system has increased by 33 percent. This means that Fife has doubled the amount of water it buys from Tacoma.

What has been the cost impact of these changes?
Fife now spends 5 times more on wholesale water than it did 12 years ago. This is an increase of over $820,000 per year. More importantly, Fife now pays more to Tacoma for water used in the summer than Fife charges its own customers.

How much will Tacoma increase its wholesale rates in the future?
Tacoma's long range business plan projects rate increase of 35 percent in the next 5 years. However, it is suspected that the rate increases may be even larger if Tacoma chooses to install a filtration facility at its Green River source. Tacoma is required by the federal government to improve its treatment process to remove the parasite *Cryptosporidium* by 2014. This will require between $47 and 187 million in capital improvements, and between $1.2 and $5.1 million annually for operation and maintenance.

How much more water does Fife need to accommodate projected growth?
The Comprehensive Water System Plan estimates that Fife will need between 800 gallons per minute (gpm) and 1,100 gpm more water to meet projected growth. These numbers were based on "typical" or historic Fife users but the total supply required depends on what type of commercial water users Fife attracts to the area in the future.

What if Fife does not raise its water rates?
Fife is currently operating its system at a financial loss, and it is estimated that this loss was more than $420,000 last year. It is estimated that a 14 percent rate increase is needed just to match commodity rates with Tacoma. A 14 percent rate increase would not cover any of the City's capital improvement projects needed to upgrade and maintain its existing system.

How much will it cost for Fife to develop its own water supply?
Fife is currently pursuing its own groundwater well that will produce approximately 1,000 gpm. It is estimated that it will cost $5.5 million to complete this project.

How much would it cost to purchase 1,000 gpm worth of additional supply from Tacoma?
Tacoma charges a System Development Charge (SDC) to wholesale customers if they want to use more water. The SDC for 1,000 gpm of new supply is currently $4.4 million.

How will the new well benefit Fife?

It is estimated that Fife will be able to save between $600,000 and $900,000 a year on the difference between Tacoma's wholesale rates and the cost to operate the new well. This amount will be even greater if Tacoma needs to increase its rate more than is outlined in its business plan.

What are the advantages associated with Fife developing its own groundwater supply?

- Groundwater is usually easier to treat than surface water.
- Groundwater quality and quantity are typically less susceptible to seasonal fluctuations than surface water.
- Groundwater sources can be located closer to where the supply is needed.
- Deep groundwater sources are not impacted by acute stormwater events.
- Deep groundwater sources are free from pathogenic bacteria that cause diseases.
- Fife would have more control over treatment and capital improvements associated with its well.
- Fife can develop independent sources of supply rather than rely upon a single source.

What are the disadvantages associated with Fife developing its own groundwater supply?

- Fife will be responsible for treatment regulations.
- Fife will need to work with Ecology to obtain and transfer water rights.
- Electricity with backup emergency power is required to pump groundwater into the water system.
- The well shaft and aquifer are susceptible to damage in an earthquake.

What are the advantages associated with Fife buying all of its water from Tacoma, which gets most of its supply from surface water sources?

- Fife does not have to manage its own supply.
- Water is available via gravity at the existing interties.

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- Surface waters typically contain more precursors to disinfection byproducts, (i.e. compounds that combine with chlorine to form carcinogenic contaminants such as trihalomethanes).
- Surface waters are more susceptible to drought and low snow pack years.
- Turbidity at the Green River source is sometimes so high that Tacoma cannot supply water from this source.
- Many miles of large diameter transmission main are vulnerable to catastrophic failures and must be maintained and eventually replaced.
- Fife must pay a stand-by or availability charge to Tacoma even if it does not use any water.
- Fife has no control over treatment and capital decisions and must pay whatever rate Tacoma charges for wholesale water.

Can Fife rehabilitate the wells it already owns?

Well rehabilitation is a difficult and uncertain endeavor. Most of Fife's existing wells are relatively shallow (only 100 feet deep). Some of the wells have inherent water quality issues (arsenic). While it may be possible to rehabilitate the wells, and certainly would be possible to drill replacement wells, this would not make sense financially. Fife already has an existing new well drilled. This well is over 1,000 feet deep and has a yield in excess of 1,000 gpm. There would be no economy of scale in drilling several new replacement wells, equipping them, and providing separate treatment facilities for each of them.

Will Fife's new well adversely impact existing private homeowner wells?

No - the new well should not adversely impact homeowner wells or other existing wells in the area. Most, if not all, of the existing exempt homeowner wells in the Fife area are relatively shallow compared to the new well which has been drilled to a depth of 1,005 feet. Well logs indicate that several hundred feet of silt and clay isolate the new well from shallower aquifers in the area. Furthermore, as is required for any new well, Fife must work closely with Ecology to ensure that existing water users do not have their water rights impaired by the new well. This includes homeowners

with exempt wells, existing water right holders, and environmentally sensitive areas such as Wapato Creek. A pump testing and monitoring study to determine potential impacts will be required before Ecology allows the new well to be put into service.

What other advantages are there to Fife developing its own supply?
Staff will pursue the maximum amount of new and transferred water rights possible with Ecology. If Fife is successful in obtaining more rights than can be accommodated by the capacity of the new well then it makes sense to consider drilling a second new well. This well would be located near the first new well and a great economy of scale could be realized by utilizing the treatment facility for the first new well.

What if Fife does not pursue its own groundwater sources and continues to buy all of its water from Tacoma?
The results of the latest rate study indicate that Fife needs to raise its rates by 83 percent over the next five years under the new well option. However, if the City does not pursue the well and buys all of its water from Tacoma, Fife will need to raise its rates by 91 percent over the next five years.

What steps are required to successfully develop a groundwater supply?

- Locate a property on which to drill a well.
    - *Fife has identified the Holt property for the well. The owner is cooperative with Fife and is willing to sub-divide his property and provide the necessary easements.*
- Drill a well that hits an aquifer.
    - *One in three wells actually hit an aquifer with sufficient water quality and quantity. The Holt well hit good water on its first attempt.*
- Obtain a meaningful yield from the well by having a large diameter well casing and hitting a high yield portion of the aquifer.
    - *Commonly, subsurface conditions make drilling difficult and the well casing must be reduced down in size to continue advancing the well, especially to depths of 1,000 feet. Fortunately, subsurface conditions were favorable and the diameter of the well casing is still relatively large. Furthermore, the aquifer is artesian (meaning water pressure in the aquifer is great enough to cause water to flow out of it naturally without pumping) and preliminary pump tests indicate a high yield from the aquifer.*
- Determine the water quality of the water available in the aquifer.
    - *Preliminary water quality testing of the aquifer indicates good quality water. Some treatment will be required to remove secondary contaminates (meaning substances with no adverse health impacts) such as iron and manganese, that could cause taste and staining issues.*
- Determine the long-term sustainable yield of the aquifer.
    - *Pump testing will be accomplished this spring to determine the long-term yield as required by Ecology to grant a water right.*
- Obtain water rights from Ecology to operate the well.
    - *Staff and consultants will work with Ecology to obtain water rights. Due to the depth of the aquifer, the limited number of senior water rights and the number of existing water rights that Fife owns, it is believed that Fife will be successful in this water rights process.*
- Build a pumping and treatment facility for the well.
    - *This is the one step Fife has the most control over and the design and construction of such a facility is relatively straightforward.*
- Build a water transmission main for delivery of the water to the system.
    - *The vast majority of the necessary transmission main for this source location will be constructed as part of the Valley Avenue project. A few hundred feet of additional water main along Freeman Road will be required to connect the Valley project to the Holt property.*