

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

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PUBLIC SERVICE
COMMISSION

In the Matter of:

Proposed Adjustment of the Wholesale)
Water Service Rates of) Case No. 2014-00392
the City of Danville)

**CITY OF DANVILLE'S RESPONSES TO THE
REQUEST FOR INFORMATION FROM THE INFORMAL CONFERENCE**

The City of Danville ("Danville" or the "City"), by counsel, hereby submits the following responses to the request for information from the informal conference held on April 7, 2105.

Respectfully submitted,



M. TODD OSTERLOH
CHARLES D. COLE
STURGILL, TURNER, BARKER & MOLONEY, PLLC
333 W. Vine Street, Suite 1400
Lexington, Kentucky 40507
Telephone No.: (859) 255-8581
tosterloh@sturgillturner.com

ATTORNEYS FOR CITY OF DANVILLE

Case No. 2014-00392
City of Danville
Responses to Information Request from Informal Conference of April 7, 2015

1. Explain how the cost-of-service study would be affected if Parksville Water District ("Parksville") had a maximum pumping capacity of 335 gallons per minute instead of the 450-gallons-per-minute rate on which Danville's cost-of-service study is based, and provide a calculation of the impact of rates for such a change.

ANSWER:

Parksville's average daily demand is 330,000 gallons, which equates to 229 gallons per minute ("gpm"). The pump rate is 146%, or approximately 150% of the average demand. Therefore, if Parksville's pumping capacity were only 335 gpm, the CAP-1 allocation or peaking factor would be 1.5 for Parksville. The attached documentation was requested by Commission Staff at the informal conference held on April 7 and reveals what impact such a change would have on rates.¹ This change is being made to the revised cost-of-service study filed in response to Item 13 of the Commission Staff's First Request for Information. Although a lower peaking factor (1.5 as opposed to 2.0) for Parksville would decrease the 1,000-gallon-volumetric rate from \$3.25 for Parksville to \$2.98 and increase it for Garrard County Water Association ("GCWA") and Lake Village Water Association ("LVWA") from \$2.89 to \$2.91, these identified rates are still significantly higher than the proposed rates of \$2.68 for Parksville and \$2.41 for GCWA and LVWA.²

It is the position of the City of Danville that the 2.0 peaking factor for Parksville is appropriate as originally used by Connie Allen because it is her expert opinion, supported by AWWA policy, that peaking factor should be designed based on the pumping capacity of the

¹ The spreadsheets include comparison sheets of the distribution expenses and distribution rate base, in addition to the summary page. Those comparison sheets have identifying notations as either 1.5 or 2.0 to indicate the Parksville peaking factor on which it is based.

² The rates of \$2.68 and \$2.41 do not include rate case expense or the Kentucky River Authority fee.

Responses to Information Request from Informal Conference of April 7, 2015

wholesale customer. Although Parksville Water District has indicated that it has never pumped more than 335 gpm from that station and may not have anywhere to pump a higher rate of water in its system, the pumping station is designed to pump 450 gpm.³ Parksville Water District has admitted this in their response to the Commission Staff's Request for Information. ("[T]he stated maximum pumping capacity of this pumping station is 450 gallons per minute") Moreover, the upgrades to Parksville's pumping station have only been in effect since late 2014. Parksville's Annual Reports for 2011, 2012, and 2013 demonstrate that their four highest months average consumption in order are July, September, August, and June.⁴ Thus, the limited data that is available is incomplete and will likely increase over the coming months.

To further understand the situation, one must consider the function of the Alum Springs Pumping Station ("ASPS"), which is owned by Parksville and from which Parksville draws water from Danville's system. Figure 1 is a map that illustrates water service areas inside Boyle

³ Additional support for this design is found in the email from Chris Stewart, Engineer with HMB Professional Engineers, to Earl Coffey, Danville City Engineer, (Aug. 7, 2012 4:40PM), in which Mr. Stewart stated that Parksville was considering upgrading the pump station to have a pumping capacity of 400-500 gpm. There would be no reason to upgrade the pump station to have a pumping capacity of 450 gpm if it did not intend on potentially using that capacity. This email was filed into the record by the City in response to Item 15 of the Commission Staff's First Request for Information.

⁴

	2011	2012	2013	Total
Jan	6643	10495	9751	26889
Feb	8946	7977	8182	25105
Mar	6960	8494	8575	24029
Apr	6801	10137	10028	26966
May	9046	8291	7952	25289
Jun	8267	10128	8651	27046
Jul	7476	11426	10221	29123
Aug	10225	8816	8063	27104
Sept	8315	8981	10086	27382
Oct	7481	9667	7917	25065
Nov	9301	6775	7735	23811
Dec	7961	8898	9743	26602

Case No. 2014-00392
 City of Danville
 Responses to Information Request from Informal Conference of April 7, 2015

County.

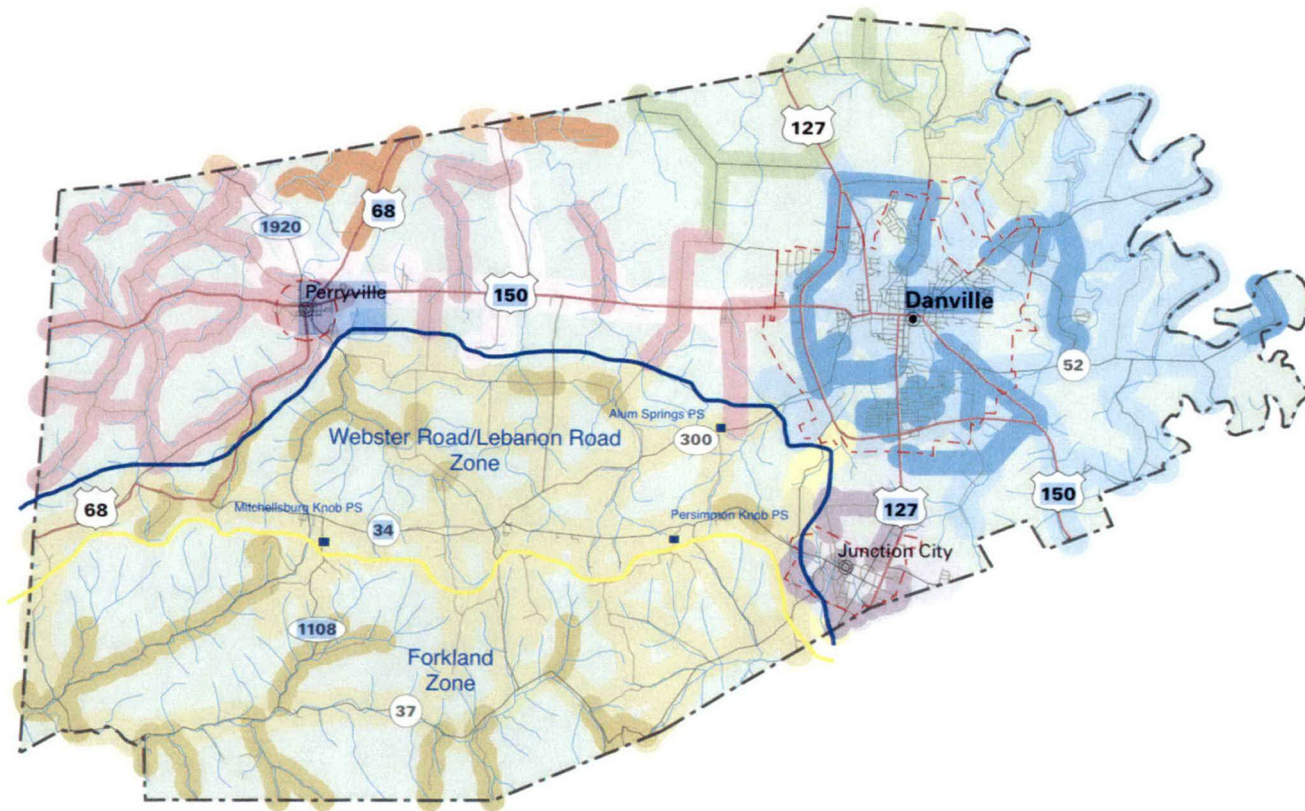
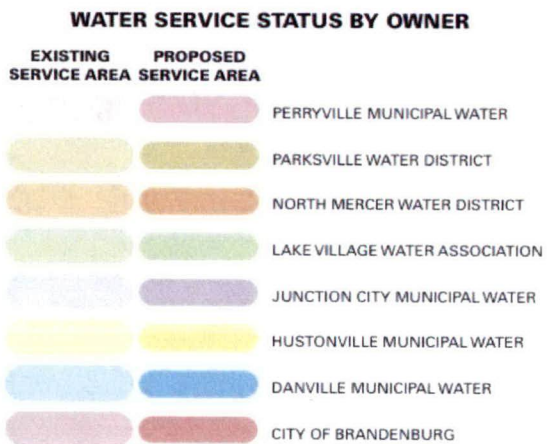


Figure 1



Case No. 2014-00392
City of Danville
Responses to Information Request from Informal Conference of April 7, 2015

Figure 1 shows that Parksville can essentially be separated into two main zones: Forkland Zone and the Webster Road/Lebanon Road Zone.⁵ The key distinction between the zones is that for water to enter the Forkland Zone it must be pumped twice. First, the ASPS sends water into the storage tanks beside the Persimmon Knob Pump Station (“PKPS”) and the Mitchellsburg Knob Pump Station (“MKPS”). Then, water is pumped up to the top of the ridges south to feed the Forkland Zone. The customers within the zone identified as Webster Road/Lebanon Road are fed either by the ASPS, pressure from Danville’s tanks, or the storage tanks at PKPS and MKPS when the pumps are off. The City does not have a hydraulic model to confirm these details but such modeling is not necessary for Danville as the AWWA policy reacts to the peak pumping capacity of the ASPS for rate setting.

At an informal conference held on April 7, 2015, Parksville indicated that there would be no place to pump additional water if Parksville pumped at 450 gallons per minute (2-pumps) by the ASPS instead of 335 gallons per minute (1-pump). In reality, however, there appears to be places where water could go when a higher rate of pumping is needed. The “peak rate” of water affects the amount of time it takes to fill the storage tanks next to the PKPS and MKPS (or total run time for the ASPS). If both PKPS and MKPS are “on” and the customer demand inside the Webster Road/Lebanon Road zone is high, it is conceivable that the 450gpm peak would be required to maintain system pressure. If not, the Webster Road/Lebanon Road zone could “run out of water”. Simultaneously problems would develop in the Forkland zone as the two remaining stations would not have influent water.

⁵ The labeling of the map for existing and proposed service area is not current. Several of the areas indicated as “proposed” have been constructed, particularly in the Perryville service area.

Case No. 2014-00392
City of Danville
Responses to Information Request from Informal Conference of April 7, 2015

Again, this description is provided without the benefit of a hydraulic model to complete the mass balance. However, to say the water has “nowhere to go” is not accurate. The peak flow rate would reduce the fill time for the storage tanks at the PKPS and the MKPS while aiding in meeting the demand for those customers in the Webster Road/Lebanon Road zone.

This analysis, however, may be a moot point because regardless of whether the cost-of-service study demonstrates that the appropriate rate for Parksville is \$3.25 or \$2.98 per 1,000 gallons depending on the appropriate peaking factor, the City of Danville has only requested a rate of \$2.68 per 1,000 gallons.

WITNESSES: Earl Coffey, Connie Allen

City of Danville
 Functionalization and Allocation of Rate Base (based on Test Year 2013 with Limited Pro Forma and Depreciation)

account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer		public fire (PFP)	revenue related (RR)	direct assign (DA)	basis of classification
					customer accounting (WCA)	meters and services (WCMS)				
intangible										
organization & franchises	0	0	0	0	0	0	0	0	0	as factor ST&D
total intangible plant	0	0	0	0	0	0	0	0	0	balance
source of supply										
land & land rights	13,580	8,827	4,753	0	0	0	0	0	0	65 COMM/35 CAP
structures & improvements	1,663,736	1,081,428	582,308	0	0	0	0	0	0	65 COMM/35 CAP
collect/impound reservoirs	0	0	0	0	0	0	0	0	0	65 COMM/35 CAP
other source plant	0	0	0	0	0	0	0	0	0	65 COMM/35 CAP
total source of supply	1,677,316	1,090,255	587,061	0	0	0	0	0	0	balance
water treatment										
land & land rights	40,000	26,000	14,000	0	0	0	0	0	0	65 COMM/35 CAP
structures & improvements	28,874,002	18,768,101	10,105,901	0	0	0	0	0	0	65 COMM/35 CAP
treatment equipment	8,377,113	5,445,123	2,931,990	0	0	0	0	0	0	65 COMM/35 CAP
other treatment	0	0	0	0	0	0	0	0	0	65 COMM/35 CAP
total water treatment	37,291,115	24,239,225	13,051,890	0	0	0	0	0	0	balance
transmission & distribution										
land & land rights	40,708	0	31,784	4,092	0	469	4,363	0	0	as other trans & distr
structures - transmission	2,346,000	0	1,707,523	0	0	0	0	0	638,477	100 CAP less DA
distribution reservoirs	2,446,564	0	567,466	0	0	0	100,141	0	1,778,957	85 CAP/15 PFP less DA
distribution mains	1,851,534	0	683,578	380,865	0	0	302,714	0	484,377	dist main analysis
services	5,820	0	0	0	0	5,820	0	0	0	100 WCMS
meters	37,850	0	0	0	0	37,850	0	0	0	100 WCMS

City of Danville
 Functionalization and Allocation of Rate Base (based on Test Year 2013 with Limited Pro Forma and Depreciation)

account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer		public fire (PFP)	revenue related (RR)	direct assign (DA)	basis of classification
					customer accounting (WCA)	meters and services (WCMS)				
hydrants	3,270	0	0	0	0	0	3,270	0	0	100 PFP
other distribution plant	603,778	0	471,420	60,687	0	6,958	64,712	0	0	as other trans & distr
total transmission & distribution	7,335,524	0	3,461,771	445,644	0	51,098	475,200	0	2,901,812	balance
total supply, treat & T&D plant	46,303,955	25,329,480	17,100,722	445,644	0	51,098	475,200	0	2,901,812	balance
% total supply, treat & T&D	100%	58%	39%	1%	0%	0%	1%	0%	0%	factor "ST&D"
general plant										
structures	4,194	2,448	1,652	43	0	5	46	0	0	as factor ST&D
office equipment	34,063	19,879	13,421	350	0	40	373	0	0	as factor ST&D
vehicles	285,046	166,353	112,310	2,927	0	336	3,121	0	0	as factor ST&D
tools & shop equipment	0	0	0	0	0	0	0	0	0	as factor ST&D
lab equipment	10,045	5,862	3,958	103	0	12	110	0	0	as factor ST&D
communication equipment	548,418	320,057	216,080	5,631	0	646	6,005	0	0	as factor ST&D
misc equipment	180,839	105,538	71,252	1,857	0	213	1,980	0	0	as factor ST&D
total general plant	1,062,605	620,136	418,673	10,911	0	1,251	11,634	0	0	balance
total plant in service	47,366,560	25,949,616	17,519,395	456,554	0	52,349	486,834	0	2,901,812	balance
% of total plant in service	100%	58%	39%	1%	0%	0%	1%	0%	0%	factor "plant in service"
less accumulated depreciation										
intangible plant	0	0	0	0	0	0	0	0	0	as intangible plant
source of supply plant	-378,289	-245,888	-132,401	0	0	0	0	0	0	as source of supply plant
water treatment plant	-8,244,773	-5,359,102	-2,885,671	0	0	0	0	0	0	as water treatmt plant
trans & distribution plant	-3,003,870	0	-1,634,642	-210,432	0	-24,128	-224,389	0	-910,279	as trans & distr plant

City of Danville
 Functionalization and Allocation of Rate Base (based on Test Year 2013 with Limited Pro Forma and Depreciation)

account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer		public fire (PFP)	revenue related (RR)	direct assign (DA)	basis of classification
					customer accounting (WCA)	meters and services (WCMS)				
general plant	-677,475	-395,374	-266,929	-6,956	0	-798	-7,418	0	0	as general plant
total accumulated depreciation	-12,304,407	-6,000,365	-4,919,643	-217,388	0	-24,926	-231,806	0	-910,279	balance
less contributions in aid										
distribution mains	0	0	0	0	0	0	0	0	0	as distr mains
meters & services	0	0	0	0	0	0	0	0	0	as meters & services
total contributions in aid	0	0	0	0	0	0	0	0	0	balance
less grants in aid										
treatment plant	-2,175,000	-1,413,750	-761,250	0	0	0	0	0	0	as water treatmt plant
transmission	-700,000	0	-700,000	0	0	0	0	0	0	as trans mains
distribution & storage	0	0	0	0	0	0	0	0	0	as distr mains
total grants in aid	-2,875,000	-1,413,750	-1,461,250	0	0	0	0	0	0	balance
plus working capital										
materials & supplies	43,550	25,416	17,159	447	0	51	477	0	0	as plant in service
prepayments	0	0	0	0	0	0	0	0	0	as plant in service
1/8 O&M	414,194	224,911	114,096	21,618	34,689	3,869	15,011	0	0	as O&M expense
total working capital	457,744	250,327	131,255	22,066	34,689	3,920	15,487	0	0	balance
total rate base	32,644,897	18,785,828	11,269,757	261,231	34,689	31,343	270,515	0	1,991,533	balance
% total rate base	100.0%	61.3%	36.8%	0.9%	0.1%	0.1%	0.9%	0.0%	0.0%	factor RATE BASE

City of Danville
 Functionalization and Allocation of Expenses (based on Test Year 2013 with Limited Pro Forma and Depreciation)

acct no	account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer		public fire (PFP)	revenue related (RR)	direct assign (DA)	basis of classification
						customer accounting (WCA)	meters and services (WCMS)				
source of supply											
	operating labor & expense	0	0	0	0	0	0	0	0	0	as "source of supply"
	operating supply & expense	0	0	0	0	0	0	0	0	0	as "source of supply"
	pump power cost	177,003	177,003	0	0	0	0	0	0	0	100% COMM
	maintenance source plant	190,514	123,834	66,680	0	0	0	0	0	0	as "source of supply"
	total source of supply exp	367,517	300,837	66,680	0	0	0	0	0	0	balance
treatment expense											
	operation labor	518,840	337,246	181,594	0	0	0	0	0	0	as "treatment plant"
	chemicals	669,857	669,857	0	0	0	0	0	0	0	100% COMM
	operating supply & expense	72,773	47,302	25,471	0	0	0	0	0	0	as "treatment plant"
	power cost	270,344	270,344	0	0	0	0	0	0	0	100% COMM
	maintenance trmt plant	6,277	4,080	2,197	0	0	0	0	0	0	as "treatment plant"
	total treatment expense	1,538,091	1,328,830	209,262	0	0	0	0	0	0	balance
transmission expense											
	operation labor	688,549	0	411,428	65,534	0	0	52,087	0	159,500	as "transmission lines"
	pump power cost	6,212	0	4,831	769	0	0	612	0	0	as "transmission lines"
	operating supply & expense	12,368	0	9,618	1,532	0	0	1,218	0	0	as "transmission lines"
	maint of trans mains	10,190	0	7,925	1,262	0	0	1,003	0	0	as "transmission lines"
	total transmission expense	717,319	0	433,802	69,098	0	0	54,919	0	159,500	balance
distribution expense											
	operation labor	0	0	0	0	0	0	0	0	0	as "total T&D"
	operating supply & expense	77,015	0	60,132	7,741	0	888	8,254	0	0	as "total T&D"

City of Danville
Functionalization and Allocation of Expenses (based on Test Year 2013 with Limited Pro Forma and Depreciation)

acct no	account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer		public fire (PFP)	revenue related (RR)	direct assign (DA)	basis of classification
						customer accounting (WCA)	meters and services (WCMS)				
	maint of reservoirs	19,406	0	16,495	0	0	0	2,911	0	0	as "reservoirs"
	maint of distribution mains	76,868	0	38,434	21,414	0	0	17,020	0	0	as "distribution mains"
	maint of services	0	0	0	0	0	0	0	0	0	100% WCMS
	maint of meters	27,321	0	0	0	0	27,321	0	0	0	100% WCMS
	maint of hydrants	26,206	0	0	0	0	0	26,206	0	0	100% PFP
	other maintenance	19,528	11,397	7,694	201	0	23	214	0	0	as factor ST&D
	total distribution expense	246,344	11,397	122,755	29,355	0	28,232	54,605	0	0	balance
customer accounting											
	meter reading	31,670	0	0	0	31,670	0	0	0	0	100% WCA
	accounting & collection	246,044	0	0	24,604	221,440	0	0	0	0	90% WCA; 10% AC
	uncollectable accounts	34,681	0	0	34,681	0	0	0	0	0	100% AC
	total customer accounts	312,395	0	0	59,285	253,110	0	0	0	0	balance
	total operation & maintenance and customer accounts expense	3,181,666	1,641,063	832,499	157,739	253,110	28,232	109,524	0	159,500	balance
	maintenance and customer	100.0%	54.3%	27.5%	5.2%	8.4%	0.9%	3.6%	0.0%	0.0%	factor "O&M"
admin & general expenses											
	admin and general salaries	57,787	31,379	15,918	3,016	4,840	540	2,094	0	0	as factor O&M
	office supplies expense	60,777	33,002	16,742	3,172	5,090	568	2,203	0	0	as factor O&M
	outside services	74,373	40,385	20,487	3,882	6,229	695	2,695	0	0	as factor O&M
	property insurance	83,591	51,229	30,732	712	95	85	738	0	0	as factor rate base
	employee benefits	0	0	0	0	0	0	0	0	0	as factor O&M

City of Danville
 Functionalization and Allocation of Expenses (based on Test Year 2013 with Limited Pro Forma and Depreciation)

acct no	account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer			revenue related (RR)	direct assign (DA)	basis of classification
						customer accounting (WCA)	meters and services (WCMS)	public fire (PFP)			
	misc general expense	24,916	13,530	6,863	1,300	2,087	233	903	0	0	as factor O&M
	total admin & general expense	301,444	163,687	83,037	15,734	25,246	2,816	10,924	0	0	balance
	total all operating expense	3,483,110	1,804,750	915,536	173,472	278,356	31,048	120,449	0	159,500	balance
taxes											
	state and local taxes	62,382	0	0	0	0	0	0	62,382	0	100% RR
	Social Security	53,288	28,936	14,679	2,781	4,463	498	1,931	0	0	as factor O&M
	Kentucky River Authority	41,417	41,417	0	0	0	0	0	0	0	100% COMM (cla)
	total taxes and fees	157,087	70,353	14,679	2,781	4,463	498	1,931	62,382	0	balance
debt service											
	principal expense	678,154	378,270	255,382	6,655	0	763	7,097	0	29,987	as total plant in service
	interest expense	722,666	415,219	280,327	7,305	0	838	7,790	0	11,187	as total plant in service
	total debt service	1,400,820	793,489	535,709	13,961	0	1,601	14,886	0	41,174	balance
depreciation											
	new depreciation	573,589	372,833	200,756	0	0	0	0	0	0	as treatment
	old depreciation	467,787	228,140	187,021	8,280	0	936	8,794	0	34,616	factor ACCM DEP
		0	0	0	0	0	0	0	0	0	as distribution
	total revenue requirement	6,082,393	3,269,565	1,853,701	198,494	282,819	34,082	146,061	62,382	235,290	balance

City of Danville
 Functionalization and Allocation of Expenses (based on Test Year 2013 with Limited Pro Forma and Depreciation)

acct no	account description	total expenses	commodity (COMM)	capacity (CAP)	actual customer (AC)	weighted customer		public fire (PFP)	revenue related (RR)	direct assign (DA)	basis of classification
						customer accounting (WCA)	meters and services (WCMS)				
	less miscellaneous revenues										
	other operating	-82,000	-27,880						-54,120		66% RR/34% COMM
	non-operating	-328,557	-201,355	-120,794	-2,800	-372	-336	-2,900	0	0	as rate base
	miscellaneous	-2,750			-2,750						
	jobbing - net										
	total miscellaneous revenues	-413,307	-229,235	-120,794	-5,550	-372	-336	-2,900	-54,120	0	balance
	total net revenue requirements	5,669,086	3,040,330	1,732,906	192,944	282,447	33,746	143,161	8,262	235,290	balance

City of Danville
 Cost of Service/Rate Study
 Distribution Factors
 Water - COMM-1

Commodity Distribution Factor				
Customer Class	Metered Water Sales (CCF)	Plus % Losses	Total CCF at the Source	% of Total
Owner Residential/Commercial	894,344	15.6%	1,033,861	44.500%
Non-Owner Residential/Commercial	291,694	15.6%	337,198	14.514%
Owner Industrial	65,049	15.6%	75,197	3.237%
Non-Owner Industrial	44,731	15.6%	51,709	2.226%
Perryville	70,066	15.6%	80,996	3.486%
Junction City	76,543	15.6%	88,484	3.809%
Wholesale-Parksville	148,103	10.0%	162,913	7.012%
Wholesale-Hustonville	159,370	10.0%	175,307	7.546%
Wholesale-GCWA	111,801	10.0%	122,981	5.293%
Wholesale-LVWA	176,952	10.0%	194,647	8.378%
Total	2,038,652		2,323,293	100%
DISTRIBUTION FACTOR			(COMM-1)	

City of Danville
 Cost of Service/Rate Study
 Distribution Factors
 Water - CAP-1

Capacity Distribution Factor					
Customer Class	Total CCF at the Source	Ave Day Use in MGD	Peaking Factor	Peak Day Use (MGD)	% of Total
Owner Residential/Commercial	1,033,861	2.12	2.50	5.297	51.216%
Non-Owner Residential/Commercial	337,198	0.69	2.50	1.728	16.704%
Owner Industrial	75,197	0.15	2.00	0.308	2.980%
Non-Owner Industrial	51,709	0.11	2.00	0.212	2.049%
Perryville	80,996	0.17	2.25	0.373	3.611%
Junction City	88,484	0.18	2.25	0.408	3.945%
Wholesale-Parksville	162,913	0.33	1.50	0.501	4.842%
Wholesale-Hustonville	175,307	0.36	1.50	0.539	5.211%
Wholesale-GCWA	122,981	0.25	1.50	0.378	3.655%
Wholesale-LVWA	194,647	0.40	1.50	0.598	5.786%
Total	2,323,293			10.342	100%
DISTRIBUTION FACTOR				(CAP-1)	

City of Danville
 Cost of Service/Rate Study
 Distribution Factors
 Water - CUST-X

Customer Distribution Factors								
Customer Class	Ave Number of Customers	% of Total	Customer Accounting Weighting Factor	Customers Weighted for Customer Accounting	% of Total	Meters and Services Weighting Factor	Weighted Customer	% of Total
Owner Residential/Commercial	5,835	55.324%	1.0	5,835	33.967%	\$200	\$1,167,000	48.603%
Non-Owner Residential/Commercial	1,845	17.493%	1.5	2,768	16.110%	\$250	\$461,250	19.210%
Owner Industrial	16	0.152%	2.0	32	0.186%	\$1,200	\$19,200	0.800%
Non-Owner Industrial	2	0.019%	2.5	5	0.029%	\$1,200	\$2,400	0.100%
Perryville	1,390	13.179%	3.0	4,170	24.275%	\$250	\$347,500	14.473%
Junction City	1,455	13.795%	3.0	4,365	25.410%	\$250	\$363,750	15.149%
Wholesale-Parksville	1	0.009%	1.0	1	0.006%	\$8,000	\$8,000	0.333%
Wholesale-Hustonville	1	0.009%	1.0	1	0.006%	\$16,000	\$16,000	0.666%
Wholesale-GCWA	1	0.009%	1.0	1	0.006%	\$8,000	\$8,000	0.333%
Wholesale-LVWA	1	0.009%	1.0	1	0.006%	\$8,000	\$8,000	0.333%
Total	10,547	100%		17,179	100%		2,401,100	100%
DISTRIBUTION FACTOR		(CUST-1)				(CUST-2)	(CUST-3)	

City of Danville
 Cost of Service/Rate Study
 Distribution Factors
 Water - PFP-1

Public Fire Distribution Factor					
Customer Class	Number of Units	Public Fire Protection Requirements (GPM)	Duration (mins)	Total Fire Protection Requirement (MG)	% of Total
Owner Residential/Commercial	5,835	1000	60	350.100	52.663%
Non-Owner Residential/Commercial	1,845	1000	60	110.700	16.652%
Owner Industrial	16	5000	240	19.200	2.888%
Non-Owner Industrial	2	5000	240	2.400	0.361%
Perryville	1,390	1000	60	83.400	12.545%
Junction City	1,455	1000	60	87.300	13.132%
Wholesale-Parksville	1,584	250	12	4.752	0.715%
Wholesale-Hustonville	1,850	250	15	6.938	1.044%
Wholesale-GCWA	5,397	1000	0	0.000	0.000%
Wholesale-LVWA	2,302	1000	0	0.000	0.000%
Total	21,676			664.790	100%
DISTRIBUTION FACTOR				(PFP-1)	

City of Danville
 Cost of Service/Rate Study
 Distribution Factors
 Water - REV-1

Revenue Related Distribution Factor		
Customer Class	Revenues at Present Rates	% of Total
Owner Residential/Commercial	\$1,650,649	36.668%
Non-Owner Residential/Commercial	\$742,834	16.502%
Owner Industrial	\$236,983	5.264%
Non-Owner Industrial	\$259,043	5.755%
Perryville	\$397,350	8.827%
Junction City	\$486,250	10.802%
Wholesale-Parksville	\$175,634	3.902%
Wholesale-Hustonville	\$198,372	4.407%
Wholesale-GCWA	\$137,958	3.065%
Wholesale-LVWA	\$216,480	4.809%
Total	\$4,501,553	100%
REVENUE RELATED DISTRIBUTION FACTOR		(REV-1)

City of Danville
 Cost of Service/Rate Study
 Allocation Factors
 Water - distr main analysis

Distribution Main Analysis				
Pipe Size (in)	Linear Feet	Installed Cost (\$/LF)	Replacement Cost (\$)	
2	46,144	8.00	\$	369,152
3	34,678	12.00	\$	416,136
4	100,053	16.00	\$	1,600,848
6	484,551	25.00	\$	12,113,775
8	54,271	35.00	\$	1,899,485
10	8,991	45.00	\$	404,595
12	131,754	60.00	\$	7,905,240
Totals	860,442		\$	24,709,231

Customer % = 860,442 X \$8.00 = \$ 6,883,536
 divided by \$ 24,709,231 gives 28%
 Customer Component

Add cost of 2 inch through 6 inch pipe \$ 14,499,911
 Equivalent for 8 inch through 12 inch

Add	54,271	8,991	131,754
		multiplied by \$	25
Add \$	(6,883,536)	\$ 14,499,911	\$ 4,875,400
		gives \$	12,491,775
		divided by \$	24,709,231
			50%

Capacity Component

100% minus 28% 50%
 22%
 Fire Protection Component

City of Danville
Distribution of Rate Base (based on Test Year 2013 with Limited Pro Forma and Depreciation)

Distribution of Costs												
Cost Component	Total	Residential/Commercial		Industrial		Perryville	Junction City	Non-Owner Wholesale				Basis of Distribution
		Owner	Non-Owner	Owner	Non-Owner			Parkville	Hustonville	GCWA	LWWA	
commodity (COMM)	18,785,828	8,359,661	2,726,538	608,030	418,115	654,925	715,466	1,317,293	1,417,507	994,407	1,573,886	COMM-1
capacity (CAP)	11,269,757	5,771,932	1,882,540	335,852	230,950	406,974	444,595	545,715	587,231	411,953	652,014	CAP-1
actual customer (AC)	261,231	144,523	45,698	396	50	34,428	36,038	25	25	25	25	CUST-1
customer accounting (WCA)	34,689	11,783	5,589	65	10	8,421	8,814	2	2	2	2	CUST-2
meters and services (WCMS)	31,343	15,234	6,021	251	31	4,536	4,748	104	209	104	104	CUST-3
public fire (PFP)	270,515	142,462	45,046	7,813	977	33,937	35,524	1,934	2,823	0	0	PFP-1
revenue related (RR)	0	0	0	0	0	0	0	0	0	0	0	RR-1
direct assign (DA)	1,991,533	0	0	150,728	150,728	704,979	586,693	191,016	207,389	0	0	direct assignment
Total (Plant In Service) Rate Base	32,644,897	14,445,595	4,711,431	1,103,134	800,860	1,848,200	1,831,878	2,056,089	2,215,186	1,406,492	2,226,031	1.50

City of Danville
Distribution of Rate Base (based on Test Year 2013 with Limited Pro Forma and Depreciation)

Distribution of Costs												
Cost Component	Total	Residential/Commercial		Industrial		Perryville	Junction City	Non-Owner Wholesale				Basis of Distribution
		Owner	Non-Owner	Owner	Non-Owner			Parkville	Hustonville	GCWA	LVWA	
commodity (COMM)	18,785,828	8,359,661	2,726,538	608,030	418,115	654,925	715,466	1,317,293	1,417,507	994,407	1,573,886	COMM-1
capacity (CAP)	11,269,757	5,680,247	1,852,636	330,517	227,282	400,509	437,532	716,062	577,903	405,410	641,657	CAP-1
actual customer (AC)	261,231	144,523	45,698	396	50	34,428	36,038	25	25	25	25	CUST-1
customer accounting (WCA)	34,689	11,783	5,589	65	10	8,421	8,814	2	2	2	2	CUST-2
meters and services (WCMS)	31,343	15,234	6,021	251	31	4,536	4,748	104	209	104	104	CUST-3
public fire (PFP)	270,515	142,462	45,046	7,813	977	33,937	35,524	1,934	2,823	0	0	PFP-1
revenue related (RR)	0	0	0	0	0	0	0	0	0	0	0	RR-1
direct assign (DA)	1,991,533	0	0	150,728	150,728	704,979	586,693	191,016	207,389	0	0	direct assignment
Total (Plant In Service) Rate Base	32,644,897	14,353,910	4,681,527	1,097,799	797,192	1,841,736	1,824,816	2,226,436	2,205,858	1,399,948	2,215,674	2.00

City of Danville
Distribution of Expenses (based on Test Year 2013 with Limited Pro Forma and Depreciation)

Distribution of Costs												
Cost Component	Total	Residential/Commercial		Industrial		Perryville	Junction City	Non-Owner Wholesale				Basis of Distribution
		Owner	Non-Owner	Owner	Non-Owner			Parksville	Hustonville	GCWA	LVWA	
commodity (COMM)	3,040,330	1,352,941	441,267	98,405	67,668	105,994	115,792	213,193	229,412	160,937	254,720	COMM-1
capacity (CAP)	1,732,906	887,527	289,471	51,643	35,512	62,579	68,364	83,912	90,296	63,344	100,258	CAP-1
actual customer (AC)	192,944	106,744	33,752	293	37	25,428	26,617	18	18	18	18	CUST-1
customer accounting (WCA)	282,447	95,938	45,503	526	82	68,563	71,769	16	16	16	16	CUST-2
meters and services (WCMS)	33,746	16,402	6,483	270	34	4,884	5,112	112	225	112	112	CUST-3
public fire (PFP)	143,161	75,393	23,839	4,135	517	17,960	18,800	1,023	1,494	0	0	PFP-1
revenue related (RR)	8,262	3,030	1,363	435	475	729	892	322	364	253	397	RR-1
direct assign (DA)	235,290	0	0	3,015	3,015	118,365	94,589	7,818	8,488	0	0	direct assignment
Total Expenses	5,669,086	2,537,975	841,678	158,721	107,341	404,502	401,935	306,416	330,313	224,681	355,523	1.50

City of Danville
Distribution of Expenses (based on Test Year 2013 with Limited Pro Forma and Depreciation)

Distribution of Costs												
Cost Component	Total	Residential/Commercial		Industrial		Perryville	Junction City	Non-Owner Wholesale				Basis of Distribution
		Owner	Non-Owner	Owner	Non-Owner			Parkville	Hustonville	GCWA	LVWA	
commodity (COMM)	3,040,330	1,352,941	441,267	98,405	67,668	105,994	115,792	213,193	229,412	160,937	254,720	COMM-1
capacity (CAP)	1,732,906	873,429	284,873	50,822	34,948	61,585	67,278	110,106	88,862	62,338	98,665	CAP-1
actual customer (AC)	192,944	106,744	33,752	293	37	25,428	26,617	18	18	18	18	CUST-1
customer accounting (WCA)	282,447	95,938	45,503	526	82	68,563	71,769	16	16	16	16	CUST-2
meters and services (WCMS)	33,746	16,402	6,483	270	34	4,884	5,112	112	225	112	112	CUST-3
public fire (PFP)	143,161	75,393	23,839	4,135	517	17,960	18,800	1,023	1,494	0	0	PFP-1
revenue related (RR)	8,262	3,030	1,363	435	475	729	892	322	364	253	397	RR-1
direct assign (DA)	235,290	0	0	3,015	3,015	118,365	94,589	7,818	8,488	0	0	direct assignment
Total Expenses	5,669,086	2,523,877	837,080	157,901	106,777	403,508	400,849	332,609	328,879	223,675	353,930	2.00

City of Danville
Average Unit Costs based on TY 2013 Limited Pro Forma Adjustments (Kgallons) with Adjustment
Depreciation substituted

Cost Component	Total	Residential/Commercial		Industrial		Perryville	Junction City	Parksville	Non-Owner Wholesale			1.50
		Owner	Non-Owner	Owner	Non-Owner				Hustonville	GCWA	LVWA	
Allocated Commodity Costs	3,040,330	1,352,941	441,267	98,405	67,668	105,994	115,792	213,193	229,412	160,937	254,720	
Commodity Costs - \$/1000 gal	\$1.99	\$2.02	\$2.02	\$2.02	\$2.02	\$2.02	\$2.02	\$1.92	\$1.92	\$1.92	\$1.92	
Allocated Capacity Costs	1,732,906	751,294	245,038	118,817	167,154	52,973	115,966	66,739	76,436	53,621	84,868	
Capacity Costs - \$/1000 gal	\$1.14	\$1.12	\$1.12	\$2.44	\$5.00	\$1.01	\$2.03	\$0.60	\$0.64	\$0.64	\$0.64	
Allocated Pub Fire Pro Costs	143,161	75,393	23,839	4,135	517	17,960	18,800	1,023	1,494	-	-	
Pub Fire Pro Costs - \$/1000 gal	\$0.09	\$0.11	\$0.11	\$0.08	\$0.02	\$0.34	\$0.33	\$0.01	\$0.01	\$0.00	\$0.00	
Allocated Rev & DA Costs	243,552	3,030	1,363	3,450	3,491	119,094	95,481	8,140	8,852	253	397	
Rev & DA Costs - \$/1000 gal	\$0.16	\$0.00	\$0.01	\$0.07	\$0.10	\$2.27	\$1.67	\$0.07	\$0.07	\$0.00	\$0.00	
Allocated Return Component	501,415	144,456	94,229	11,031	20,022	36,964	36,638	41,122	44,304	28,130	44,521	
Return Comp Costs - \$/1000 gal	\$0.33	\$0.22	\$0.43	\$0.23	\$0.60	\$0.71	\$0.64	\$0.37	\$0.37	\$0.34	\$0.34	
Allocated Customer Costs	509,137	219,084	85,737	1,089	153	98,875	103,499	147	260	147	147	
Customer Costs - \$/Cust/Mn	\$4.02	\$3.13	\$3.87	\$5.67	\$6.36	\$5.93	\$5.93	\$12.26	\$21.63	\$12.26	\$12.26	
Total Cost - \$/1000 gal	\$3.71	\$3.48	\$3.69	\$4.85	\$7.74	\$6.35	\$6.68	\$2.98	\$3.02	\$2.91	\$2.91	
Basic Data:												
Annual Water Flow 1000 gal	1,524,912	668,969	218,187	48,657	33,459	52,409	57,254	110,781	119,209	83,627	132,360	
Number of Customers	10547	5835	1845	16	2	1390	1455	1	1	1	1	

City of Danville
Average Unit Costs based on TY 2013 Limited Pro Forma Adjustments (Kgallons) with Adjustment
Depreciation substituted

Cost Component	Total	Residential/Commercial		Industrial		Perryville	Junction City	Parksville	Non-Owner Wholesale			2.00
		Owner	Non-Owner	Owner	Non-Owner				Hustonville	GCWA	LVWA	
Allocated Commodity Costs	3,040,330	1,352,941	441,267	98,405	67,668	105,994	115,792	213,193	229,412	160,937	254,720	
Commodity Costs - \$/1000 gal	\$1.99	\$2.02	\$2.02	\$2.02	\$2.02	\$2.02	\$2.02	\$1.92	\$1.92	\$1.92	\$1.92	
Allocated Capacity Costs	1,732,906	735,673	239,943	118,869	167,246	51,872	116,106	92,740	74,847	52,506	83,104	
Capacity Costs - \$/1000 gal	\$1.14	\$1.10	\$1.10	\$2.44	\$5.00	\$0.99	\$2.03	\$0.84	\$0.63	\$0.63	\$0.63	
Allocated Pub Fire Pro Costs	143,161	75,393	23,839	4,135	517	17,960	18,800	1,023	1,494	-	-	
Pub Fire Pro Costs - \$/1000 gal	\$0.09	\$0.11	\$0.11	\$0.08	\$0.02	\$0.34	\$0.33	\$0.01	\$0.01	\$0.00	\$0.00	
Allocated Rev & DA Costs	243,552	3,030	1,363	3,450	3,491	119,094	95,481	8,140	8,852	253	397	
Rev & DA Costs - \$/1000 gal	\$0.16	\$0.00	\$0.01	\$0.07	\$0.10	\$2.27	\$1.67	\$0.07	\$0.07	\$0.00	\$0.00	
Allocated Return Component	502,367	143,539	93,631	10,978	19,930	36,835	36,496	44,529	44,117	27,999	44,313	
Return Comp Costs - \$/1000 gal	\$0.33	\$0.21	\$0.43	\$0.23	\$0.60	\$0.70	\$0.64	\$0.40	\$0.37	\$0.33	\$0.33	
Allocated Customer Costs	509,137	219,084	85,737	1,089	153	98,875	103,499	147	260	147	147	
Customer Costs - \$/Cust/Mn	\$4.02	\$3.13	\$3.87	\$5.67	\$6.36	\$5.93	\$5.93	\$12.26	\$21.63	\$12.26	\$12.26	
Total Cost - \$/1000 gal	\$3.71	\$3.45	\$3.67	\$4.85	\$7.74	\$6.33	\$6.68	\$3.25	\$3.01	\$2.89	\$2.89	
Basic Data:												
Annual Water Flow 1000 gal	1,524,912	668,969	218,187	48,657	33,459	52,409	57,254	110,781	119,209	83,627	132,360	
Number of Customers	10547	5835	1845	16	2	1390	1455	1	1	1	1	

Responses to Information Request from Informal Conference of April 7, 2015

2. Provide a tabulation for the hydraulic analysis that was provided in response to Item 3 of the Commission Staff's First Request for Information.

ANSWER: The City is providing the table below in an effort to reformat and to clarify the previous answer to Item 3 of the Commission Staff's First Request for Information.

PWD Impact

Danville average demand	3602	gallons per miunute
Danville pump rate	4132	gallons per minute
Fill Rate	530	gallons per minute
Parksville Peak Pump Rate	450	gallons per minute
<i>Net fill-rate</i>	<i>80</i>	<i>gallon per minute</i>

Parksville Fill-Time

	330,000 gal/day average
time @ 335 gpm	16.4 hours
time @ 450 gpm	12.2 hours

The table demonstrates that the ability to fill the Danville water system is severely diminished at the peak flow rate achievable by Parksville. Meanwhile, the table also shows that the projected flow rate is beneficial for the Parksville as it reduces the pumping time required.

As the City has previously stated, beyond storage, Parksville impacts 3.34% of the distribution system, as shown in the model results previously provided. Nevertheless, looking only at pressure variation is an incomplete assessment, which is why the City is not taking the position that pressure drop is the only indicator of cost. Specifically, the Kentucky Division of

Case No. 2014-00392

City of Danville

Responses to Information Request from Informal Conference of April 7, 2015

Water design guidelines for a water distribution system require certain pressures to be maintained as the system is expanded. A well-balanced and properly designed system will not “lose pressure” when a station such as Parksville’s is activated. The system must be stable with limited pressure variation caused by demand, rather the available pressure should only vary with tank levels, which is why the Danville fill rate is significant. To properly analyze impact one must consider the balance of the system.

WITNESSS: Earl Coffey

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

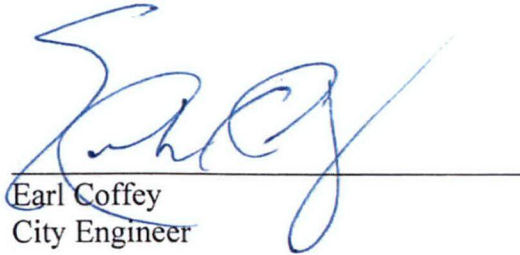
In the Matter of:

Proposed Adjustment of the Wholesale)
Water Service Rates of) Case No. 2014-00392
the City of Danville)

**CERTIFICATION OF RESPONSES TO THE
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION**

This is to certify that I have supervised the preparation of the City of Danville's responses to the requests for information from the informal conference, and that the responses are true and accurate to the best of my knowledge, information, and belief after reasonable inquiry.

Date: April 20, 2015



Earl Coffey
City Engineer

Case No. 2014-00392
City of Danville
Responses to Information Request from Informal Conference of April 7, 2015

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served via U.S. Mail, postage prepaid, to
the following on April 20, 2014:

Caywood Metcalf
214 Stanford Street
Lancaster, Kentucky 40444

Jeffrey W. Jones
Jeffrey W. Jones, PLLC
1000 East Lexington Avenue, #3
Danville, KY 40422



COUNSEL FOR CITY OF DANVILLE