

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NORTHERN	)	
KENTUCKY WATER DISTRICT	)	CASE NO.
FOR APPROVAL OF DEPRECIATION	)	2006-00398
STUDY	)	

ORDER

In Case No. 2002-00105,<sup>1</sup> the Commission, recognizing the importance of adequate depreciation recovery to fund renewals and replacements of plant assets,<sup>2</sup> ordered Northern Kentucky Water District (“Northern”) to perform a depreciation study.<sup>3</sup> In response to the Commission’s Order, on August 31, 2006, Northern submitted a depreciation study prepared by Black & Veatch (“Original Study”). The Original Study was accepted by the Commission for review.

Upon request, intervention was granted to the Attorney General of the Commonwealth of Kentucky (“Attorney General”) by Order dated September 19, 2006.

The Original Study is not a traditional depreciation study. The end result of any depreciation study is to determine the estimated useful lives over which the cost of plant assets should be recognized. Traditional depreciation studies analyze a utility’s historic

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<sup>1</sup> Case No. 2002-00105, Application of Northern Kentucky Water District for (A) an Adjustment of Rates; (B) a Certificate of Public Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds.

<sup>2</sup> The Kentucky Supreme Court found in *Public Service Comm’n v. Dewitt Water District, et al.*, 720 S.W.2d 725 (Ky. App. 1986) that that depreciation for a water district, a non-profit utility, is an operating expense included in the calculation of rates for service to provide funds for renewals and replacement of assets.

<sup>3</sup> April 30, 2003 Order at 18 and 29.

plant addition and retirement information to determine anticipated service lives. Black and Veatch state that at least 30 years of specific plant addition and retirement information must be available to perform a reliable analysis.<sup>4</sup> Northern does not possess the required information. Northern was formed on January 1, 1997 from the merger of Kenton County Water District No. 1 and Campbell County Kentucky Water District.<sup>5</sup> Northern began maintaining the plant addition and retirement records necessary to perform a proper analysis in 1999.<sup>6</sup> Detailed records do not exist prior to this date.

In the absence of the required information, benchmarking was relied upon to establish the depreciation rates recommended in the Original Study. Black and Veatch's benchmarking analysis included the depreciation practices and methods of 17 regional water utilities. From this proxy, Black & Veatch developed average trends to determine the recommended depreciation rates. Deviation from the average trends was incorporated in the study where circumstances specific to Northern warranted adjustment.

An informal conference was held on January 25, 2007 to discuss the Original Study. At the conference the following concerns were discussed:

1. the Original Study did not identify characteristics common to the proxy group and Northern;

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<sup>4</sup> Original Study at 11.

<sup>5</sup> See Case No. 1996-00234, The Joint Application of Kenton County Water District No. 1 and Campbell County Kentucky Water District for Authority to Merge into Northern Kentucky Water Service District and for Authority for the Combined District to Operation (August 22, 1996).

<sup>6</sup> Original Study at 11.

2. the Original Study did not identify the method of determining depreciation rates used by each of the utilities included in the proxy group; and

3. the proxy group only included two Kentucky water suppliers.

Addressing these concerns, Northern filed a revised depreciation study prepared by Black & Veatch (“Revised Study”) on October 24, 2007. Table I highlights the details of the Original Study and the Revised Study.

	Table I	
	Original	Revised
Test Year Analyzed	2004	2004
Test Year Depreciation Expense	\$5,128,169	\$5,128,169
Increase	2,190,986	1,808,037
Adjusted Depreciation Expense	7,319,155	6,936,206
Overall Composite Rate	3.04	2.88
Salvage Value Included	No	Yes
Method	Straight-Line, Remaining Life	Straight-Line Whole Life
Proxy Group	Indiana 5 Kentucky 2 Ohio 5 Missouri 5	Kentucky 4 Average Service Lives used by the Florida Public Service Commission

Through a filing received on October 25, 2007, the Attorney General stated he had no objection to the Revised Study.

Due to the detailed information and expense required to perform a traditional depreciation study using generally accepted practices, no water district operating under the Commission’s jurisdiction has ever filed such a study for Commission review. The absence of such study does not prevent Commission review of depreciation practices of those utilities. Historically, the Commission has relied on the National Association of

Regulatory Utility Commissioners (“NARUC”) Study of Depreciation Practices for Small<sup>7</sup> Water Utilities (“NARUC Study”), dated August 15, 1979, to judge the reasonableness of a utility’s depreciation practices. The NARUC Study outlines expected life ranges for asset groups. An adjustment is made when the Commission finds that a utility is using a life that falls outside of this range.<sup>8</sup>

Table II compares Northern’s current depreciable lives, the lives proposed in the Original Study and Revised Study, and those of the NARUC Study.

	Table II			
	Current	Original Study	Revised Study	NARUC Study
Structures and Improvements	59	31	39	35-40
Lakes and Rivers	22	48	43	35-45
Supply Mains	99	72	38	50-75
Pumping Equipment	29	29	49	20
Water Treatment Equipment	46	29	50	20-40
Dist. Reservoirs and Standpipes	57	40	43	30-60
Trans. and Dist. Mains	94	50	50	50-75
Services	49	44	40	30-50
Meters and Meter Installations	43	26	40	35-50
Hydrants	50	40	48	40-60
Other Plant and Misc. Equip.	9	11	8	
Office Furniture and Equip.	8	11	15	20-25
Computer Equipment	4	5	5	
Transportation Equipment	5	9	5	7
Stores Equipment	5	25	18	20
Tools, Shop, and Garage Equip.	3	17	10	15-20
Power Operated Equip.	5	14	10	10-15
Communication Equip.	11	15	8	10
Miscellaneous	8	16	18	

<sup>7</sup> While the title of the publication is “Depreciation Practices for Small Water Utilities,” the publication finds that “the small water utility average service lives and depreciation rates would be similar to those used by the average water utility.” See NARUC Study at iv. The findings of the publication can then also be applied to the “average water utility” in developing standard depreciation practices.

<sup>8</sup> A recent example of the Commission’s application of the findings of the NARUC Study can be found in Case No. 2006-00542, Application of West McCracken County Water District for Approval of a Proposed Increase in Rates for Water Service, to Increase Non-Recurring Charges, and to Revise its Tariff Accordingly.

Given the large differences in the results of the Original Study and Revised Study for certain asset groups, e.g., Supply Mains, the Commission questions the validity and reasonableness of their findings and conclusions. Further, the recommended lives assigned to certain asset groups in these studies fall outside the recommendations of the NARUC Study. For these reasons the Commission finds both the Original Study and Revised Study to be inappropriate and should be denied.

Considering that the current lives assigned to certain asset groups fall outside of the NARUC Study's recommendations, the Commission finds that Northern's current depreciation rates warrant adjustment. To maintain consistent application of depreciation practices for water utilities where traditional depreciation studies are not performed, the Commission finds that Northern shall be allowed to adjust its current depreciation rates based on the average life range for each asset group found appropriate in the NARUC Study.

Where the NARUC Study makes no recommendation for Northern's asset groups as listed in Table II, the Commission finds that the depreciable life recommended in the Revised Study should be utilized. Considering the low balances of these accounts relative to total plant and the difference in their current lives and those lives recommended in the Revised Study, the Commission's findings and resulting adjustments are of no significant consequence.

The Original Study gave no consideration to salvage but salvage was included in the Revised Study. It is common practice to account for salvage in the calculation of depreciation. The salvage allowances included in the revised study are based upon Northern's practices.<sup>9</sup> The Commission finds that the depreciation rates approved

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<sup>9</sup> See Revised Study, Table 6, at 3 of 3.

herein shall include the salvage allowances included in the Revised Study. Northern shall track the recovery of asset removal costs included in the salvage allowances separately and charge this recovery to account 253.1, Other Deferred Credits-Regulatory Liabilities. The balance of this account shall be reclassified to accumulated depreciation when determining future depreciation rates.

The Original Study calculated depreciation using the straight-line remaining life method while the straight-line whole life method was used in the Revised Study. The Commission found no explanation for the change of method in the record. The Commission has calculated Northern's 2004 depreciation using both methods based upon the Commission's findings herein. Using the whole life method, the Commission determined Northern's 2004 annual depreciation to be \$6,755,967, an overall composite rate of 2.81 percent, while the annual expense using the remaining life method is \$7,088,371, an overall composite rate of 2.94. The calculations using the whole life and remaining life methods are shown in this Order at Appendices A and B, respectively.

The NARUC Uniform System of Accounts ("USoA"), as adopted by the Commission, allows for use of either the Straight-Line Method (Whole Life Method) or the Straight-Line Remaining Life Method depending upon Commission approval.<sup>10</sup> The Commission has no preference as to which method Northern employs. Since Northern's most recent request, the Revised Study, uses the Whole Life Method, the Commission finds that this method shall be approved. The Commission further finds that Northern shall have the opportunity to request use of the Remaining Life Method.

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<sup>10</sup> See USoA for Class A/B Water Districts and Associations, Accounting Instruction 33, at 35.

IT IS THEREFORE ORDERED that:

1. The composite depreciation rates requested in the Original Study and Revised Study are denied.

2. The composite depreciation rates for each account group of Northern's plant assets as shown in Appendix A of this Order are approved and effective as of the date of this Order unless Northern notifies the Commission of its wish to instead be allowed the composite rates shown in Appendix B of this Order. If Northern timely files its written request for the composite rates shown in Appendix B, the composite depreciation rates for each account group of Northern's plant assets as shown in Appendix B are approved and effective as of the date of this Order with no further rulings required of the Commission.

3. Any request by Northern for the composite rates shown in Appendix B must be received by the Commission within 10 days from the date of this Order.

4. Northern shall properly account for recovery of non-legal asset removal costs as a regulatory liability.

Done at Frankfort, Kentucky, this 21<sup>st</sup> day of November, 2007.

By Commission

ATTEST:



Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2006-00398 DATED

Whole Life Depreciation	Original Cost 12/31/2004	Removal Cost/ (Salvage) Percent of Cost	Removal Cost/ (Salvage) Dollars	Total to be Recovered	Whole Life	Re
Land	\$ 605,416					
Structures and Improvements	65,516,439	13%	\$ 8,517,137	\$ 74,033,576	37.5	\$ 1
Lakes and Rivers	1,524,592		-	1,524,592	40.0	
Supply Mains	2,307,853	10%	230,785	2,538,638	62.5	
Pumping Equipment	8,661,832	15%	1,299,275	9,961,107	20.0	
Water Treatment Equipment	9,285,428	15%	1,392,814	10,678,242	30.0	
Distr. Reservoirs and Standpipe	7,500,741	30%	2,250,222	9,750,963	45.0	
Trans. Dist. Mains	106,184,511	5%	5,309,226	111,493,737	62.5	1
Services	18,787,274	5%	939,364	19,726,638	40.0	
Meters and Meter Installations	6,537,668	10%	653,767	7,191,435	42.5	
Hydrants	4,550,842	25%	1,137,711	5,688,553	50.0	
Other Plant and Misc. Equip.	3,374,076		-	3,374,076	8.0	
Office Furniture and Equipment	1,433,584		-	1,433,584	22.5	
Computer Equipment	918,944		-	918,944	5.0	
Transportation Equipment	2,512,074	-18%	(452,173)	2,059,901	7.0	
Stores Equipment	284,376	-14%	(39,813)	244,563	20.0	
Tools, Shop and Garage Equipr	13,051		-	13,051	17.5	
Power Operated Equipment	529,499	-15%	(79,425)	450,074	12.5	
Communication Equipment	297,716	-10%	(29,772)	267,944	10.0	
Miscellaneous	593,361		-	593,361	18.0	
<b>Total</b>	<b>\$ 241,419,277</b>		<b>\$ 21,129,118</b>	<b>\$ 261,942,979</b>		<b>6</b>
Divide by: Original Cost of Depreciable Plant						<b>240</b>
Overall Composite Depreciation Rate						



APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2006-00398 DATED

Remaining Life Depreciation

	Original Cost 12/31/2004	Accumulated 12/31/2004	Net Original Cost To Be Recovered	Removal Cost/ (Salvage) Percent of Cost	Removal Cost/ (Salvage) Dollars	Total to be Recovered	Whole Life	Less: Existing Weighted Age	Remain Life
Land	\$ 605,416		\$ 605,416			\$ 605,416			
Structures and Improvements	65,516,439	\$ 11,350,180	54,166,259	13%	\$ 8,517,137	62,683,396	37.5	8.90	28.60
Lakes and Rivers	1,524,592	601,663	922,929			922,929	40.0	9.87	30.13
Supply Mains	2,307,853	339,413	1,968,440	10%	230,785	2,199,225	62.5	15.80	46.70
Pumping Equipment	8,661,832	3,408,410	5,253,422	15%	1,299,275	6,552,697	20.0	9.43	10.57
Water Treatment Equipment	9,285,428	2,717,678	6,567,750	15%	1,392,814	7,960,564	30.0	10.55	19.45
Distr. Reservoirs and Standpipes	7,500,741	2,542,408	4,958,333	30%	2,250,222	7,208,555	45.0	17.35	27.65
Trans. Dist. Mains	106,184,511	12,557,965	93,626,546	5%	5,309,226	98,935,772	62.5	8.72	53.78
Services	18,787,274	5,832,870	12,954,404	5%	939,364	13,893,768	40.0	11.47	28.53
Meters and Meter Installations	6,537,668	1,490,420	5,047,248	10%	653,767	5,701,015	42.5	5.82	36.68
Hydrants	4,550,842	1,193,249	3,357,593	25%	1,137,711	4,495,304	50.0	14.06	35.94
Other Plant and Misc. Equip.	3,374,076	1,143,635	2,230,441			2,230,441	8.0	3.29	4.71
Office Furniture and Equipment	1,433,584	1,065,870	367,714			367,714	22.5	5.81	16.69
Computer Equipment	918,944	690,381	228,563			228,563	5.0	4.04	0.96
Transportation Equipment	2,512,074	1,833,191	678,883	-18%	(452,173)	226,710	7.0	5.69	1.31
Stores Equipment	284,376	273,713	10,663	-14%	(39,813)	(29,150)	20.0	9.91	10.09
Tools, Shop and Garage Equipment	13,051	2,503	10,548			10,548	17.5	0.06	17.44
Power Operated Equipment	529,499	395,978	133,521	-15%	(79,425)	54,096	12.5	8.58	3.92
Communication Equipment	297,716	257,541	40,175	-10%	(29,772)	10,403	10.0	6.92	3.08
Miscellaneous	593,361	591,642	1,719			1,719	18.0	10.76	7.24
<b>Total</b>	<b>\$ 241,419,277</b>	<b>\$ 48,288,710</b>	<b>\$ 193,130,567</b>		<b>\$ 21,129,118</b>	<b>\$ 214,259,685</b>			

Divide by: Original Cost of Depreciable Plant

Overall Composite Depreciation Rate