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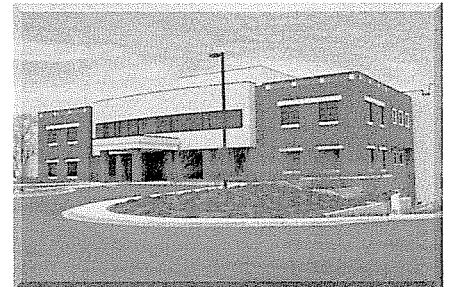
PUBLIC SERVICE
COMMISSION

For

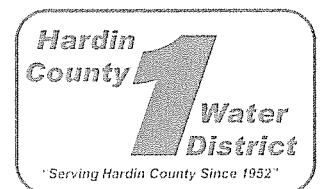
**Tariff Revision - Master Meters, Manufactured Housing
Communities
PSC Case No. - 2009-00113**

Presented To:

**Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602-0615**



Filed By:



1400 Rogersville Road
Radcliff, KY. 40160
Phone: 270-351-3222
Mr. Jim Bruce, General Manager

May 28, 2010

Hardin County Water District No. 1

Serving Radcliff and Hardin County for Over 50 Years

1400 Rogersville Road
Radcliff, KY. 40160

RECEIVED

May 26, 2010

MAY 28 2010

Mr. Jeff Derouen
Executive Director - Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40620-0615

PUBLIC SERVICE
COMMISSION

**SUBJECT: Response to Data Request from PSC Staff, Dated 24-March, 2010
Case 2009-00113 - Tariff for Master Metering of Mobile Home Communities**

Dear Director Derouen,

Enclosed please find an original and 7 copies of our response to a data request presented by Commission staff on March 24, 2010. We filed a motion to extend filing deadline which was approved by Commission order on April 23. We have also filed a copy with Mr. Robert C. Moore, attorney at law representing the parties of record.

As your staff is aware, this problem for our District has gone on for over a decade. Our first meeting with Commission staff and subsequent tariff filing to resolve the problems was four years ago.

In late, 2009, we agreed to mediation with the other parties, which resulted in a joint motion and revised tariff filing. The problems our District encounters with un-paid leaked water, theft of service and other problems continues. We respectfully request that your staff allow the revised and agreed tariff to be approved and put into affect with no further delays.

If you have any questions, please do not hesitate to call me or our attorney, Mr. David Wilson II (Phone: 270-351-4404).

Sincerely,



Jim Bruce, General Manager

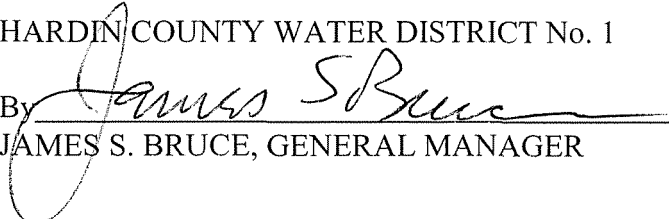
Cf; Mr. David Wilson II, HCWD1 Attorney

Encl.

VERIFICATION

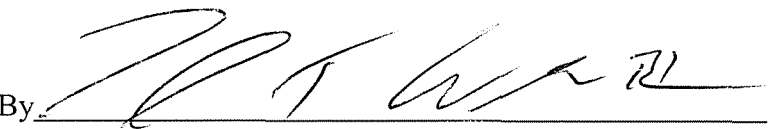
The undersigned, Mr. James S. Bruce, General Manager of the Hardin County Water District No.1, hereby verifies that he has personal knowledge of the matters set forth in the enclosed response to a Data Request from the Public Service Commission staff, dated 24-March, 2010, in the matter of a proposed tariff allowing the use of master meters in mobile home communities and that he is duly designated by the Board of Commissioners of the Hardin County Water District No. 1 to sign and submit this information its behalf.

HARDIN COUNTY WATER DISTRICT No. 1

By 
JAMES S. BRUCE, GENERAL MANAGER

CERTIFICATION OF SERVICE

The undersigned, Mr. David Wilson, II, the attorney of the Hardin County Water District No. 1, hereby verifies that the foregoing was served on Mr. Jeff Derouen, Executive Director, Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, KY. 40601-8204 and on the Mr. Robert C. Moore, Attorney for parties of record, Hazelrigg & Cox, LLP, 415 West Main Street, Frankfort, KY. 40602 on this 27 Day of May, 2010

By 
Mr. David T. Wilson, II, ESQ, Attorney for Hardin County Water District No. 1

STATE OF KENTUCKY
COUNTY OF HARDIN

I, the undersigned, a Notary Public, do hereby certify that on this 27TH day of MAY, 2010, personally appeared before me, James S. Bruce and David Wilson, who being by me first sworn, subscribed to and acknowledged that they both represent the Hardin County Water District No. 1, a Kentucky Corporation, that they have signed the foregoing document as General Manager and Attorney of the Corporation.


NOTARY PUBLIC, STATE OF KENTUCKY

My Commission Expires; 8-28-13


COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF HARDIN COUNTY WATER)	
DISTRICT NO. 1 TO MODIFY WATER UTILITY)	CASE NO.
TARIFF OF MASTER METERS FOR BILLING)	2009-00113
MULTI-UNIT RESIDENTIAL PROPERTIES)	

NOTICE OF EXTENSION OF TIME TO REPLY TO
INFORMATION REQUEST OF COMMISSION STAFF

Commission Staff gives notice that the time for Hardin County Water District No. 1 to respond to Commission Staff's Second Information Request has been extended and that its responses should be filed with the Commission no later than May 28, 2010.



Jeff Derouen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602

DATED: APR 23 2010

cc: Parties of Record

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF HARDIN COUNTY WATER)	
DISTRICT NO. 1 TO MODIFY WATER UTILITY)	CASE NO.
TARIFF OF MASTER METERS FOR BILLING)	2009-00113
MULTI-UNIT RESIDENTIAL PROPERTIES)	

SECOND INFORMATION REQUEST OF COMMISSION
STAFF TO HARDIN COUNTY WATER DISTRICT NO. 1

Hardin County Water District No. 1 ("Hardin District"), pursuant to 807 KAR 5:001, is to file with the Commission the original and seven copies of the following information, with a copy to all parties of record. The information requested herein is due on or before April 9, 2009. Responses to requests for information shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Hardin District shall make timely amendment to any prior response if it obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which

Hardin District fails or refuses to furnish all or part of the requested information, it shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations.

For the purposes of this information request, the abbreviation "MHPs" means the mobile home parks to which the proposed tariff would currently apply.

1. a. For each MHP, identify the date that Hardin District began providing water service to the property owner or units on the property.

b. For each MHP, identify the date on which Hardin District required that individual units be individually metered.

c. If the specific information requested in (a) is unknown and inaccessible, identify each MHP that was not in existence before June 7, 1992. For the purposes of this item, the term "existence" relates to whether there was an MHP with more than one unit that received water from Hardin District either as a customer or as a tenant of a master-metered property owner.

d. For each MHP identified in (c), identify each individual MHP on which Hardin District has metered each individual unit.

e. For each MHP identified in (d), identify whether the individual unit's meters are located at that point on or near the street right-of-way or property line most accessible to the utility from its distribution system.

2. State whether, in Hardin District's opinion, Hardin District has acquired under Kentucky law a prescriptive easement for water lines located in MHPs. Explain.

3. State the number of individual unit meters in MHPs that remain in service and have not been tested for 10 years or longer.

4. Refer to Item 4 of the proposed tariff.

a. (1) State whether Hardin District would disconnect water service to the MHP and its residents if the MHP owner refused to open an account.

(2) If Hardin District proposes to disconnect an MHP's water service for refusal to open an account, reconcile this position with the Commission's finding in Case No. 2007-00461¹ that the water district could not terminate water service to the mobile home community for nonpayment because the residential customers who may be paying their bills would lose water service.

b. Identify the statutory or regulatory basis under which Hardin District may open an account for an MHP resident if the MHP owner refuses to provide certain information.

c. Explain why Hardin District would establish an account for an MHP resident if the resident is not a customer of the water district and any water that the resident consumes is billed to the MHP owner.

¹ Case No. 2007-00461, Hardin County Water District No. 1's Proposed Tariff Allowing the Use of Master Meters in Manufactured Housing Communities (Ky. PSC Aug. 14, 2008).

5. Describe the conditions under which a meter would be “not accessible” under Item 5 of the proposed tariff.

6. a. Item 5(d) of the proposed tariff provides that, under certain circumstances, the MHP will not be given any credit for amounts subsequently billed to the tenant.

(1) State whether Hardin District would bill the resident for all usage prior to the problem’s resolution.

(2) State whether Hardin District would only bill the resident for water passing through that meter after the problem is resolved.

b. Explain why, if Hardin District bills the resident for all usage prior to the problem’s resolution, it should be able to collect rates from the MHP owner and resident for the same water.

7. 807 KAR 5:011, Section 2, states: “If a utility furnishes more than one (1) kind of service (water and electricity for example), a separate tariff must be filed for each kind of service.” State whether a separate tariff (other than the one for which approval is jointly sought) would be necessary for an MHP master-metered customer to be billed based on the sewer charges.

8. Explain why a master-metered MHP customer should be billed for equivalent sewer charges.

9. State whether Hardin District intends to install flow meters to determine the amount of wastewater exiting the MHP and flowing into Hardin District’s wastewater system.

10. Provide the basis for the proposition that water passing through an MHP master meter but not being billed to an individual unit eventually flows into Hardin District's wastewater facilities.

11. State whether the master-metered MHP customers will be charged a customer meter charge.

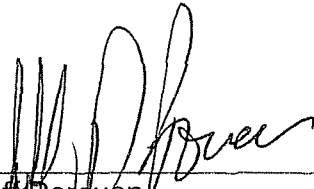
12. a. State whether the master-metered MHP customers will be charged the wholesale rate, which is currently set at \$1.92 per 1,000 gallons, or the "Volume Charge," which is set at \$4.42 per 1,000 gallons for the first 15,000 gallons and \$3.16 for each 1,000 gallons thereafter.

b. If master-metered customers are to be charged at the Volume Charge rates, state whether a master-metered customer will be required to pay \$4.42 per 1,000 gallons for the first 15,000 gallons it is billed even if individual units collectively surpass 15,000 gallons of usage during a given month.

13. Describe how Hardin District would address the situation if an MHP master meter indicated lower usage than was collectively billed to the individual units within that MHP.

14. State whether the proposed tariff will apply to future mobile home communities.

15. State whether Hardin District intends to require future mobile home communities to be exclusively unit-metered. Explain.



Jeff Derduen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATED: MAR 24 2010

cc: Parties of Record

Case No. 2009-00113

Q1.

- a. For each MHP, identify the date that Hardin District began providing water service to the property owner or units on the property.

Answer; Since some of these MHP's were created in the 1950's and 1960's, we do not have the exact date service began being provided. The MHP owners are not current customers of the District, so we have no current account records for those properties. The renters lot accounts (W&S) have a different date for each lot/customer, and those customers can and often change daily, depending on moving in and out, so the District does not have a static, fixed list of dates, but a list of current lot customers could be provided to the Commission if requested.

- b. For each MHP, identify the date on which Hardin District required that individual units be individually metered.

Answer; As the District has explained previously, the change to individual metering was done in the mid to late 1980's and we have no documentation or records of this mass change from master meter to lot meters. We have no current employees that work here when this occurred. When changing our software in 1999, all original account dates could not be stored and earliest date in our CIS system is 11/8/1999.

- c. If the specific information requested in (a) is unknown and inaccessible, identify each MHP that was not in existence before June 7, 1992. For the purposes of this item, the term "existence" relates to whether there was an MHP with more than one unit that received water from Hardin District either as a customer or as a tenant of a master-metered property owner.

Answer; Again, we have no records for this. However, we did ask the City of Radcliff, Property Tax Department (Mr. Jeff England), and it is his opinion that all current MHP's today existed prior to June 7, 1992.

- d. For each MHP identified in (c), identify each individual MHP on which Hardin District has metered each individual unit.

Answer; There are 24 MHP's which have individual metered units, and all also have an existing master meter installed, which previously was used for all billing for that MHP, before individual meters were installed by the MHP owners¹.

There are nine other MHP's which have converted to master meter only. Some of these had been re-developed since our tariff changed in 2000 and we would not allow them to re-install meters on their private property, so they had to use master metering. A couple other MHP's after re-development chose to install meters within the road right of way, with service lines going to each mobile home. The District serves 147 other multi-unit residential and commercial properties with a master meter only, after which the owner provides water to multiple rental properties downstream of the master meter.

- e. For each MHP identified in (d), identify whether the individual unit's meters are located at that point on or near the street right-of-way or property line most accessible to the utility from its distribution system.

Answer; There are currently 4 meters installed within the road right of way, closest to the water main. These were all installed after the District's tariff change (Sheet 7, A.3) approved October 1, 2000, which sets required location for all meters and does not allow meters on private property. There are approximately 1,244 meter locations within MHP's with approximately 875 of these active accounts (70% active).

WITNESSES: Jim Bruce, HCWD1 General Manager and Daniel Clifford, HCWD1 GIS/Development Specialist

¹ Based on prior District filings and testimony, and confirmed by MHP owners at a public meeting held at District offices (*June 16, 2006, minutes part of record with previous data request*), the MHP owners installed the meters, pits and setters on their own, at their choice of location, purchasing materials from HCWD1. HCWD1 has not actually ever installed meter pits within MHP's with their forces, or to Mr. Bruce's knowledge, ever charged the full Meter Tap Fee for meters installed within MHP's on private property (added by J. Bruce)

Q2. State whether, in Hardin District's opinion, Hardin District has acquired under Kentucky law a prescriptive easement for water lines located in MHPs. Explain.

Answer; The District does not believe it has acquired a prescriptive easement for water lines located in MHP's. As a general matter, in order to obtain a right to a prescriptive easement, a claimant's adverse use must be "actual, open, notorious, forcible, exclusive, and hostile, and must continue in full force ... for at least fifteen years." *Cole v. Gilvin*, 59 S.W.3d 468, 475 (Ky. Ct. App. 2001)(citing *Jackey v. Burkhead*, Ky., 341 S.W.2d 64, 65 (1960)(quoting *Riley v. Jones*, 295 Ky. 389, 174 S.W.2d 530, 531 (1943)).

Easements are not favored under the law, "the right of one to acquire title to an easement, which would deprive the owner of the use of his own property or burden it with a servitude, will be restricted unless it is clearly established by the facts that all the necessary requisites of adverse user have been fully satisfied." *Ben Snyder, Inc. v. Phoenix Amusement Co.*, 309 Ky. 523, 218 S.W.2d 62, 63 (1949).

The requisite elements of a prescriptive easement have not been met in this matter. First, there is no evidence that these water lines, and unlimited access to them, were installed without permission. According to *Cole* it is well established that "the right to use a passway as a prescriptive easement cannot be acquired no matter how long the use continues if it originated from permission by the owner of the servient tenement." *Cole v. Gilvin* 59 S.W.3d 468, 475-476 (Ky. App., 2001). There is no evidence the water meters were forcibly installed or are continuing to be forcibly placed on the properties.

In addition, the water lines are not open, they are buried, and therefore subsequent owners would not be put on notice that the District was claiming the lines by virtue of a prescriptive easement. The lines themselves were installed by the MHP owners, and have always and continue to be maintained by them, not the District. The District has no information, maps or drawings on the actual locations of the lines.

For these reasons, the District has not and does not claim a prescriptive easement in any of the properties.

WITNESSES: David T. Wilson, II, and Derrick Staton, Attorneys representing HCWD1

Q3. State the number of individual unit meters in MHP's that remain in service and have not been tested for 10 years or longer.

Answer; As of this filing date, of the 871 active accounts within MHP's, 358 meters have not been tested for 10 or more years. The District was granted a deviation from testing small meters while it replaced all meters with new radio read meters (Case 2003-00480).

If the revised tariff and settlement agreement terms are approved by the Commission, the District would then include all MHP individual meters in its AMR replacement program, and if the deviation expires and is not extended, would also schedule to have any un-tested meters re-tested.

WITNESSES: Jim Bruce, HCWD1 General Manager and Brett Pyles, HCWD1 Operations Manager

Q4. Refer to Item 4 of the proposed tariff.

- a. (1) State whether Hardin District would disconnect water service to the MHP and its residents if the MHP owner refused to open an account.

Answer; In accordance with a settlement agreement and joint motion by both parties, and filed with the Commission on December 23, 2009, par. 2.c (Case 2009-00113), the District would not turn off water to the park for non-payment by the MHP owner. In the agreement, MHP owners did agree to open an account with the District (see par. 2.b).

The District assumes that if the MHP owner does not pay for their bill the District would need to use other legal action, including small claims court, property lien or other collection methods to secure re-payment, but would not to turn off water to the MHP.

- a. (2) If Hardin District proposes to disconnect an MHP's water service for refusal to open an account, reconcile this position with the Commission's finding in Case No. 2007-00461 that the water district could not terminate water service to the mobile home community for nonpayment because the residential customers who may be paying their bills would lose water service.

Answer; NA

- b. Identify the statutory or regulatory basis under which Hardin District may open an account for an MHP resident if the MHP owner refuses to provide certain information.

Answer; Other than what was agreed to by both parties in accordance with a settlement agreement and joint motion by both parties, and filed with the Commission on December 23, 2009, par. 2.b (Case 2009-00113), the District is not aware of a specific statute or regulation addressing this action. This situation is very unique and specific to HCWD1 and there probably has not been a reason or past history requiring statutory law or regulations.

- c. Explain why Hardin District would establish an account for an MHP resident if the resident is not a customer of the water district and any water that the resident consumes is billed to the MHP owner.

Answer; See previous answer.

WITNESS: Jim Bruce, HCWD1 General Manager

Q5. Describe the conditions under which a meter would be “not accessible” under Item 5 of the proposed tariff.

Answer; The definition of accessibility was discussed during the mediation session between parties (September 24, 2009). The language agreed to is in section 2.d of the settlement agreement and joint motion by both parties, and filed with the Commission on December 23, 2009, par. 2.b (Case 2009-00113).

The District believes that Sheet 7B.2, par. 5, addresses adequately the definition and causes of a non-accessible meter, and actions the District and MHP owner may take in response. These would include meters within dog pens, too close to a restrained dog, meter pits filled with contaminated water and meters located under decks, mobile homes or other permanent structures.

WITNESS: Jim Bruce, HCWD1 General Manager

Q6.a Item 5(d) of the proposed tariff provides that, under certain circumstances, the MHP will not be given any credit for amounts subsequently billed to the tenant.

(1) State whether Hardin District would bill the resident for all usage prior to the problem's resolution.

Answer; Yes, but only that water that was attributed to the individual lot meter that could not be read.

(2) State whether Hardin District would only bill the resident for water passing through that meter after the problem is resolved.

Answer; Yes, once a meter became accessible again and the problem was fixed, the District would read and bill the renter at that lot as normal.

b. Explain why, if Hardin District bills the resident for all usage prior to the problem's resolution, it should be able to collect rates from the MHP owner and resident for the same water.

Answer; It would not bill two parties for the same water. The water billed to the MHP owner, which was used by an individual lot where the meter was not accessible, would be first billed to the MHP owner. If the meter problem were corrected within 30 days, or before the next billing cycle, that same volume of water (measured at the lot meter) would be refunded to the MHP owner and billed to the lot renter where the water was actually used.

If there were leaks continuing throughout the private plumbing, that use would be billed only to the MHP owner. Only the water used through lot meters would be billed to the renter at that lot. If the inaccessible meter problem continued for more than a month, the District was not agreeable to refund multiple months to the MHP owner, and bill the same to that lot since this would in affect require multiple separate accountings of past water use at each lot. With the large turnover and change of renters, the District was also concerned about billing a new renter, for water used by the previous renter.

This solution was agreed to in the settlement agreement and joint motion by both parties, and filed with the Commission on December 23, 2009, after mediation.

WITNESS: Jim Bruce, HCWD1 General Manager

Q7. 807 KAR 5:011, Section 2, states: "If a utility furnishes more than one (1) kind of service (water and electricity for example), a separate tariff must be filed for each kind of service." State whether a separate tariff (other than the one for which approval is jointly sought) would be necessary for an MHP master-metered customer to be billed based on the sewer charges.

Answer: A separate tariff would not be necessary for a MHP master-meter customer to be billed based on the sewer charges as stated in the Sanitary Sewer Services Tariff of March 28, 2008 - Article VII Sec. 17-18; Sewage Service Rates - Residential, commercial, and industrial customers shall pay sewage service rates based on water purchased from any public supplier of water or from any other source. This tariff was adopted from the City of Radcliff ordinance, and said tariff was approved for use by the Commission with case 2008-00074.

As stated by the District with its filing to take over the City of Radcliff sewer system, par. 16 of its application, the District requested permission to adopt the City's sewer rates. The District is nearing completion of a cost of service sewer study, which will include revisions to its sewer tariff, which it anticipates filing with the Commission soon.

WITNESS: Jim Bruce, HCWD1 General Manager

Q8. Explain why a master-metered MHP customer should be billed for equivalent sewer charges.

Answer; See answer to Q7.

Also, the District believes that water leaks within the MHP pipes can travel to the sewer pipe trench gravel and enter the sewer main at any cracks, open joints and clean out connections. Once the water is in the sewer system, it must then be conveyed to and treated at the wastewater treatment plant. This is based on Mr. Bruce's experience working for water and sewer utilities since 1982. Recently, the District also completed a sewer flow study of a neighborhood in Radcliff. One section of sewer main dead ended at a MHP in Radcliff, and flows only came into that section from that MHP. A professional flow metering contractor placed and read the meters. After a rain event, it was found that the flows entering the MHP line, on the day of a significant rain event, was 2,583% more than the flows contributed from the balance of the City (measured in gallons per acre) and 942% more than the other basins and meters set to measure flows from the balance of the neighborhood being studied (see attached).

District employee Daniel Clifford (GIS/Development Specialist) also testifies that during the summer of 2003 he assisted in a leak survey to locate a water main break in Happy Valley Subdivision. The leak was not surfacing but was later found to be entering a sewer gravity line. After repairing the leak he contacted Bob Kendall, Sewer Collection Supervisor for the City of Radcliff Sewer Department and asked him if there were any sewer lift stations that had higher than normal or excessive flows, assuming there may be another leak somewhere in the distribution system with circumstances similar to the Happy Valley leak. Mr. Kendall pointed out the Oak lift station was experiencing almost continuous run times and the pipe carried constant high flows even though there were relatively few customers upstream. Mr. Clifford traced the gravity line upstream with Mr. Kendall's assistance to Dixie MHP (1740 Dixie) and Park City MHP (1674 Dixie). Both manholes located at the MHP property lines had excessive flows with clear water and after investigating found multiple large leaks within the MHP's that were running across the ground and finding ways into manholes that were either missing lids, un-secure or in disrepair.

The Dixie MHP had excessive leaks and meter access problems and the District actually turned off water for a period to this MHP (which the Commission was notified of in advance). On one occasion, Mr. Bruce personally observed clear water coming out of the top of a sewer clean out cap, into air about six inches. This could only be caused by the sewer pipes being completely surcharged and full from the water pipes leaking, and the underground water finding its way into the sewer pipes. If the sewer pipes are of same age and in disrepair as the water pipes (which most likely are if installed at same time) it would not be unusual for the sewer pipes to have many cracks, joints pulled apart and tree root intrusion where water could enter.

Since the District has taken over the system, and Park City MHP is basically empty, and Dixie MHP has been re-developed with all new water and sewer mains, the sewer lift station no longer runs continuously. However, because of holes in Park City MHP's sewer lines, and un-sealed manholes and clean outs, high inflow and infiltration (I&I) does occur after a rainfall because of rain water getting in to the MHP's sub-standard private sewer lines.

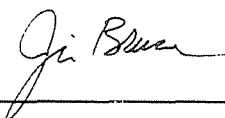
WITNESSES: Jim Bruce, HCWD1 General Manager and Daniel Clifford, HCWD1 GIS/Development Specialist

HARDIN COUNTY WATER DISTRICT No. 1
Staff Information Item

DATE: September 15, 2009

AGENDA ITEM NO.: 5

ITEM: Wilma / Pearman Area Sewer Study Recommendations

SUBMITTED BY: Jim Bruce, General Manager 

One of the main Radcliff sewer system problems we have focused has been the overflowing and periodic back-up of sewers during high rain in the Wilma / Pearman neighborhood. This area includes about 7.5 miles of sewer line and about 83 manholes.

We have identified about 590 homes in this area that discharge through gravity mains into two lift stations (LS). The LS's are the Greenview Lift Station (GLS), from the Woodland Road elevation break flowing west, and the Cement Lift Station (CLS), from Woodland east. The Perriwinkle neighborhood (actually in Vine Grove) also contributes to these flows and goes to the GLS from the south, flowing north into the Logsdon gravity main.

Since we have taken over, there has continued to be additional back-ups in a couple homes. We have kept homeowners informed in this area of our study, and placed signs along entrance roads into the neighborhood. We have also met with several residents to discuss the nature and frequency of their back-ups. Here is a time-line of our study efforts to date;

May 2008	Veolia/HCWD1 began reviewing a small construction project designed by City to solve back-up problems. HCWD1 rejects this project as not able to solve total neighborhood issues, but was aimed more at a couple homes
May 2008	We ask HDR to submit proposal to study the area and present report on findings and recommendations (issue notice to proceed, 6/10/08)
July 2008	We send our 2 nd letter to selected residents explaining what we are doing
8/08 ~ 2/09	Veolia performs extensive field work to CCTV and PACP all lines in study area, perform smoke testing of all lines, inspect all manholes and place flow monitors in 6 manholes to collect flow data. Also took flow measurements of lift station pumps and condition
Mar 2009	HDR Issues first preliminary report of findings. Much of flow data collected not useable. Also some of LS flow measurements inaccurate. Recommend additional flow monitoring, and survey of residents to determine number of sump pumps
May 2009	Engage Gripp Consultants to complete flow study of entire area with 10 flow meters. Also placed signs about project work along entrances into area
May 2009	HCWD1 mails survey forms to 590 addresses in study area, with return envelope to return anonymous answers to District (see attached example)
May 2009	HCWD1 engages Horizon Engineering to do a contingent study of the Greenview LS influent gravity lines to find options to re-locate or upsize (all flows from west and south flow through this main and it is located in a flood plain, and also needs repairs)
July 2009	Gripp completes flow study and send data to HDR
July 2009	J. Bruce sends mailed survey summary results to HDR (28% response rate)
August 2009	HDR completes final report and recommendations to HCWD1

Pearman / Wilma Area Sewer Study Recommendations
Continued

After reviewing the final report, it is apparent that the flow problems stem from a variety of issues and causes. These include;

- ✓ High rain flooding entering GLS, pipe and MH's along GLS influent line behind Meadowview School
- ✓ GLS pumps undersized to handle flows coming to LS (to pump and move flows from LS to WWTP)
- ✓ Poor alignment layout/design causing hydraulic bottlenecks
- ✓ High flows on Wilson from upstream MHC lines using up much of capacity in main Wilma discharge main, upstream of CLS
- ✓ Numerous fractures in pipe including one major break allowing exfiltration of sewer flows into ground. (Most of pipe is Vitrified Clay Pipe, VCP, which is not longer used and prone to cracking if bedding or trench settles)
- ✓ Numerous sags in lines due to poor construction / settlement of pipe between manholes
- ✓ Some length of major grade sags holding water at all times due to poor construction or trench settlement
- ✓ Manholes located in flow line of storm drainage ditch allowing storm water to enter cracks in sides and lids of MH's
- ✓ Numerous root intrusions impeding flow
- ✓ High flows in Wilson, south of Wilma, using up much of capacity in Wilson main, causing flow restrictions draining the Wilma/Pearman area (east of Woodland)
- ✓ Several leaks at cleanouts where connected to lateral lines

The flow study showed that during a significant rain event (June 11, 2009) the area of the Wilma/Pearman neighborhood contributed 157% (930 vs. 361) more gallons per acre than the rest of the city area.

During our study, we also noticed that the sewer main in Wilson, prior to meeting the flows coming from Wilma, was full and did not have much capacity left to take flow from the Wilma / Pearman area (which would also contribute to back-ups in homes on Wilma). We placed a meter upstream of Wilma, on Wilson, which flows are only contributed by a mobile home community up the road (Duvall MHC). We found the flows from the MHC, during the rain event, were 942% more than Wilma/Pearman (9,687 vs. 930) and 2583% more than the rest of the city.

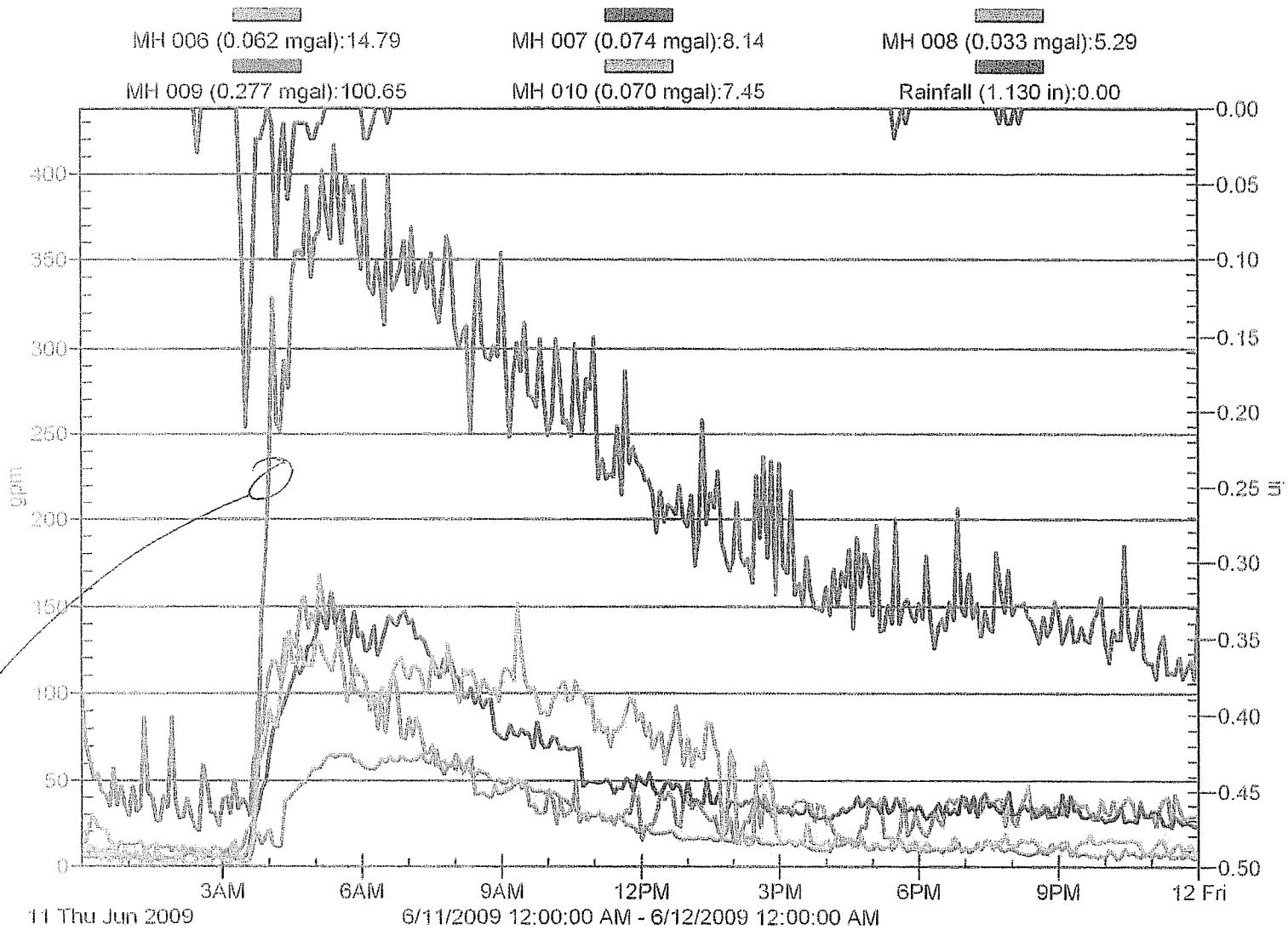
Attached is a table and summary of all problems and issues found and identified. We also asked HDR to provide a summary of all types of repairs needed, and estimated costs. The cost summary table is also attached. Based on their estimates, the total repair costs, not including the relocation of the GLS mains or upsizing those pumps, is \$751,521. The estimated project cost for the GLS mains is \$125,000.

We currently have unrestricted reserves of \$2,566,864 in the Radcliff sewer fund, and available grants (BRAC) for Radcliff sewer improvements of \$3,750,000. This provides available funds for Radcliff capital projects of \$6,316,864.

RECOMMENDATION: As our study has identified clear and identifiable problems which contribute to the back-ups and flow restrictions, we should now proceed with the corrections and projects to fix these problems. Most of these projects would also qualify for use of the BRAC grants recently approved. Staff recommends proceeding with the following;

1. Have Veolia complete further PACP inspection of the Perriwinkle sewer mains and contributing areas south of North Hardin High School and present findings to HDR for inclusion of additional repair needs
2. Authorize HDR to proceed with final design, drawings and specifications for all recommended repairs and prepare bid documents for same
3. Authorize Horizon Engineering to proceed with final design for GLS mains/MH replacement project
4. Advertise and receive bids for all work, and bring bids and recommendation to Board for approval, award of any bid(s)

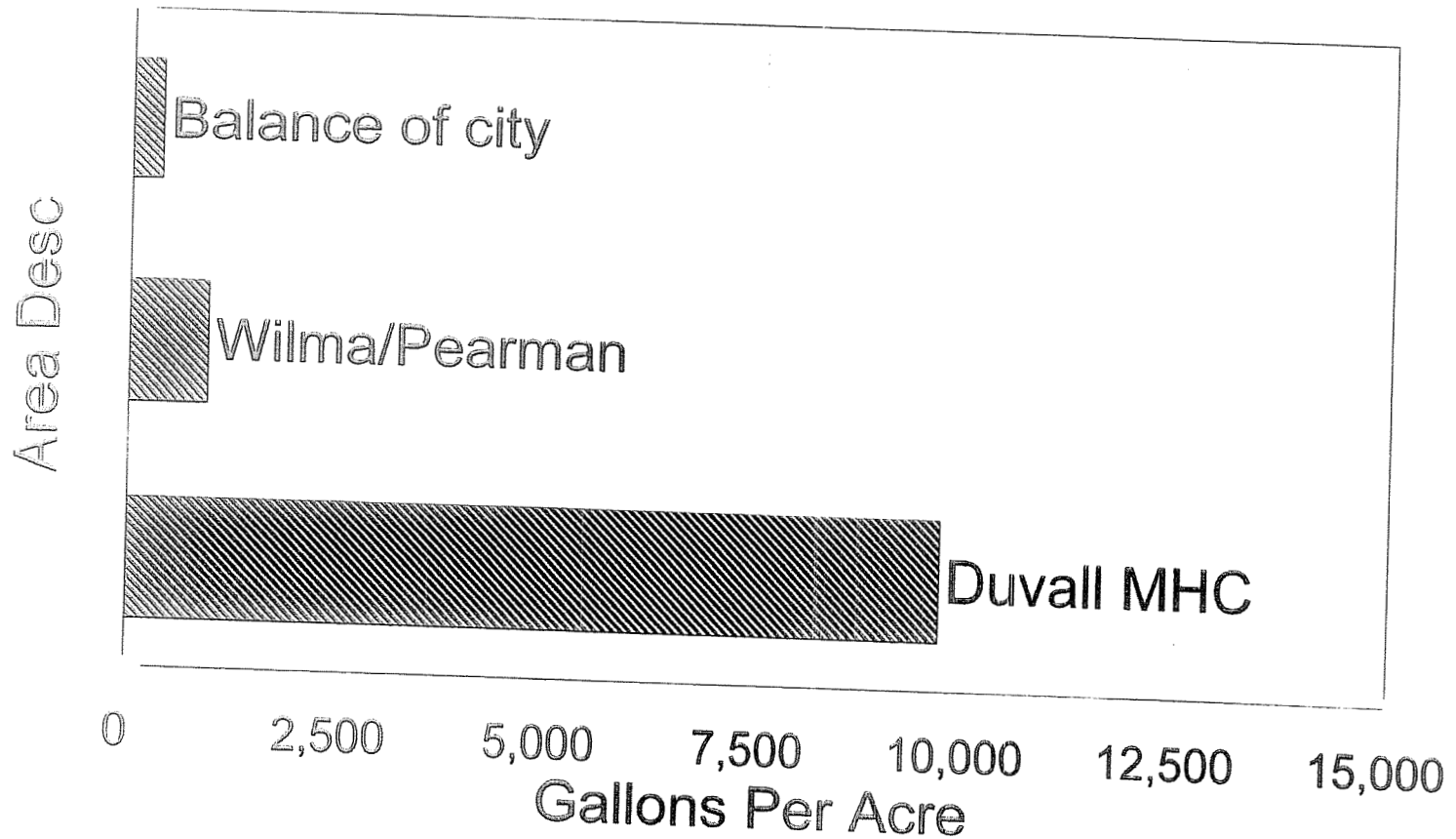
Suggested Motion Language: *"Motion to authorize staff to proceed with recommendations for the Pearman / Wilma area sewer improvements, including preparing drawings, specifications and bid documents, and bring bids to Board for consideration, and also authorize staff to utilize currently approved grant funds for these projects, as necessary, and authorize staff to execute engineering agreements to not exceed \$65,000 for all design work for these projects"*



THIS IS GRAPH OF FLOWS FROM RAIN EVENT. MH6 IS ISOLATED LINE ONLY. BEING FED BY DUVALL MHP WHICH IS AN AREA OF 6 ACRES AND 59 UNITS. WE COMPARED THIS TO COMPOSITE OF OTHER METERS IN STUDY AREA, AND TOTAL FLOWS TO WWTP FROM REST OF CITY ON SAME DAY

Sewer Flows Per Acre

June 11 09 Rain Event



Wilma / Pearman Flow Comparisons
 June 11, 2009 Rain Event - During Flow Study

<u>6/11 Gals</u>		<u># Units</u>	<u>Acres</u>	<u>GPM/Unit</u>	<u>GPA</u> <u>Area</u>
62,000	1.9%	59	6.40	0.730	9,687 Duvall MHC
351,000	10.8%	531	377.62	0.459	930 Wilma/Pearman
2,851,000	87.3%	8,110	7,898.05	0.244	361 Balance of city
3,264,000	100.0%				

*from
 DOUB GRIPP
 from RETURN
 from METER
 TOTALS ON 6/11*

Q9. State whether Hardin District intends to install flow meters to determine the amount of wastewater exiting the MHP and flowing into Hardin District's wastewater system.

Answer: No.

Besides the added cost of installing an expensive open flow channel meter on each sewer service line, there would be no way to differentiate from water in sewer lines being contributed by leaks from the MHP owner's water main, and groundwater and other I&I sources (inflow and infiltration) getting into the underground sewer pipes.

It could be very likely that metered sewer flows could be much higher than just water leaking from the water pipes, and measured by the water master meter, due to other I&I contribution (see answer Q8 also).

WITNESS: Jim Bruce, HCWD1 General Manager

Q10. Provide the basis for the proposition that water passing through an MHP master meter but not being billed to an individual unit eventually flows into Hardin District's wastewater facilities.

Answer; See answers to Q8 and Q9.

Also, if a MHP owner had a high master meter sewer bill (due to high water leakage), they would be able to provide their own remedy by repairing their leaking water pipes.

Given the short length of pipe in the MHP's, having tight and non-leaking water supply pipes is not unreasonable and certainly achievable which would result in zero charges for water and sewer, except for the customer meter or minimum bill charges.

WITNESS: Jim Bruce, HCWD1 General Manager

Q11. State whether the master-metered MHP customers will be charged a customer meter charge

Answer: Yes (See answer to No. 12 also which refers to specialized rates for MHP's). The costs recovered in the Customer Meter Charge are no different or less for providing a meter for the MHP owner, and preparing and collecting a monthly bill for that account.

WITNESS: Jim Bruce, HCWD1 General Manager

Q12.

- a. State whether the master-metered MHP customers will be charged the wholesale rate, which is currently set at \$1.92 per 1,000 gallons, or the "Volume Charge," which is set at \$4.42 per 1,000 gallons for the first 15,000 gallons and \$3.16 for each 1,000 gallons thereafter.

Answer: The regular retail rate, not the wholesale rate. The District's water tariff, Sheet 8 (April 11, 2002) provides a specific qualification for wholesale customers. The MHP's do not meet this criteria. The settlement agreement and revised tariff (referred to herein) also did not require or provide for any discounted water rate for MHP's. The District's last rate study and water rate case, 2006-00410, also did not identify or justify through a cost of service study a specific discounted rate for MHP owners, as they were not then and are not currently customers of the District.

It would be the opinion of the witness that a MHP water use characteristics would be no different than any other retail, residential customer, and the cost of service to serve MHP's owners would be no less than other customers, other than wholesale customers whose discounted rate has been reviewed and approved by the Commission.

- b. If master-metered customers are to be charged at the Volume Charge rates, state whether a master-metered customer will be required to pay \$4.42 per 1,000 gallons for the first 15,000 gallons it is billed even if individual units collectively surpass 15,000 gallons of usage during a given month.

Answer: See answer to "a" above.

Yes. Either customer, the MHP owner or the lot renter would benefit from the 20% rate discount if their usage exceeds 15 kgals. The District's existing tariff does not address allowing two different customers to "share" the total billed volume so that one benefits from the lower rate tier.

Also, if a MHP owner did not want to pay any water charges due to private pipe leaks, they would be able to provide their own remedy by repairing their leaking water pipes.

Given the short length of pipe in the MHP's, having tight and non-leaking water supply pipes is not unreasonable and certainly achievable which would result in zero water charges, except for the customer meter or minimum bill charges.

WITNESS: Jim Bruce, HCWD1 General Manager

Q13. Describe how Hardin District would address the situation if an MHP master meter indicated lower usage than was collectively billed to the individual units within that MHP.

Answer; This would show up as part of our monthly review of billings and meter reading and would be flagged for a reading check (as required by 807 KAR 5:006, Section 10). If this occurred, then the master meter would need to be checked. The only way the use could be lower would be if the master meter were slow or stuck. In that case, the MHP owner would be under billed until the meter was repaired. As for back billing the MHP owner, this would have to be in accordance with existing PSC / Commission regulations.

WITNESS: Jim Bruce, HCWD1 General Manager

Q14. State whether the proposed tariff will apply to future mobile home communities.

Answer; Yes. Given the District's current tariff regarding meter locations, a new MHP would not be able to install meters on private property, on water mains that are not owned and maintained by the District. (See answer 15 also).

WITNESS: Jim Bruce, HCWD1 General Manager

Q15. State whether Hardin District intends to require future mobile home communities to be exclusively unit-metered. Explain.

Answer; Any future developments would need to follow the current tariff, Sheet 7, regarding placement of meters. The District has not, since this tariff was approved, allowed new meter locations on private property. However, there have been two MHP's which have been re-developed with site built, single or multi-family homes using private roads. These developments replaced all water and sewer mains, and meters (there is no master meter since the new mains now belong to the District) were placed within a dedicated public utility easement. This granted the District access to the meters and the mains were constructed in accordance with DOW and District specifications, and turned over to the District once passing inspection and put in service.

This is also consistent with section 4 of the settlement agreement and joint motion by both parties, and filed with the Commission on December 23, 2009 (Case 2009-00113).

WITNESS: Jim Bruce, HCWD1 General Manager