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EVALUATION OF UTILITY AUTHORITY COSTS FOR THE DOWNRIVER SYSTEM

July 2009

Confidential

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Contents

Introduction	1-1
Introduction	1-1
Background	1-1
Task 1 – Compensation Comparison	2-1
Overview and Purpose	2-1
Compensation Comparison Analysis	2-1
Compensation Comparison Findings	2-2
Task 2 - Management and Administrative Cost Estimate	3-1
Overview and Purpose	3-1
Current Wayne County Management and Administrative Costs	3-1
Benchmarking of Management and Administrative Costs	3-3
Projection of Management and Indirect Costs Under Downriver Authority Option	3-5
Task 3 - Operating Cost Comparison	4-1
Overview and Purpose	4-1
Projection of Future Annual Charges from Wayne County	4-1
Projection of Annual Operating Costs Associated with the Establishment of a Wastewater Authority	4-3
Financial Comparison of Options	4-7
Task 4 – Transactional Cost Analysis	5-1
Overview and Purpose	5-1
Other Considerations	5-3
Conclusion	5-4
Appendix A – Malcolm Pirnie’s Scope of Services	A
Appendix B – Letter from PFM	B
Appendix C – Letter from Thrun Law Firm	C

INTRODUCTION

Introduction

Malcolm Pirnie, Inc. (Malcolm Pirnie) was engaged by Mr. Richard Hinshon, President of Hinshon Environmental Consulting, on behalf of the Downriver System communities to conduct an evaluation of existing wastewater treatment and collection service costs under the operation of the Wayne County Department of the Environment (DOE) and to analyze potential savings that might be realized if there were a change from a Wayne County-operated sewer collection and treatment system to one governed by a wastewater utility authority (Authority). Appendix A presents Malcolm Pirnie's scope of services, as included in its services contract with Hinshon Environmental Consulting.

It is important to note that the analysis and findings contained in this report consider that if operations changed from a Wayne County operated system to one governed by an Authority, the Authority would operate the facilities with its own employees, rather than contracting operations to a private operator. While operation of the facilities using a private operator is a potential option, the cost implications of contract operations was not considered as part of the evaluation due to limitations in the scope of this engagement,

The following sections of this report outline the approach undertaken to accomplish the project objectives, along with preliminary analysis results. The results presented herein should be considered preliminary due to the agreed upon scope of the engagement, availability of information, and relatively short duration of the project.

Background

Downriver Sewage Disposal System Contract. The Downriver communities and Wayne County executed a contract in 1962 and amended it in 1973 for operation and maintenance of the Downriver Sewage Disposal System (System). Subsequently, in 2001 a Joint Management Committee was formed which comprises representatives of the customer communities and Wayne County for the management and control of the System, and a subsequent agreement was executed. The agreement specifies the duties of Wayne County, including the following requirements:

- Operation and maintenance of the System in accordance with the agreement, NPDES permit, and federal, state, and local rules and regulations.
- Operate the system to prevent or eliminate basement flooding in the communities to the greatest extent possible.
- Provide timely information on system O&M, reasonable access to system committee members, periodic reports on performance measures and benchmarks, budget, financial performance information, and quarterly financial reports.
- Obtain insurance coverage for any claim or lawsuit seeking monetary damages for the discharge, release or migration of pollutants, bodily injury, property damage, personal injury, malpractice, motor vehicle liability and wrongful acts in the amount per occurrence as approved by the Committee.
- Limit the chargebacks to the System in accordance with the JMC resolution dated February 10, 2005, which specifies that the increase in chargebacks in the community budget be limited to the increases in the consumer price index plus two percentage points, excluding extraordinary overhead items.

Wayne County DOE CAMPP Efforts. The Competitive Assessment and Master Plan Project began in 2003 as a collaborative effort with management, employees, union, and customers to improve the County's operating efficiency and effectiveness. However, it is important to note that the CAMPP efforts focused on streamlining the wastewater plant operations and did not focus on an analysis of Wayne County charge backs and their reasonableness.

In 2004, CAMPP identified a potential savings opportunity of \$4.2 million associated with the Facilities Management Division, or a potential to reduce costs by 27 percent. In FY03-04, the Downriver WWTP had a staff of 95 employees. In FY08/09, this level of staffing has been reduced to 56 employees, a change of approximately 41 percent. Similarly, total staffing in DOE Administration, Facilities Management Division Administration, Engineering, and the Downriver WWTP has been reduced from 133 in 2002 to 70.5 in 2008, representing a 47 percent staffing reduction. Downriver System operation and maintenance (O&M) rates have increased at an average of 2.55 percent over the past eight years.

TASK 1 – COMPENSATION COMPARISON

Overview and Purpose

The purpose of this task was to obtain and compare the salaries, wages, and fringe benefits of the Downriver System’s wastewater treatment operations and maintenance (O&M) staff with several similar Michigan utilities.

Compensation Comparison Analysis

The municipal wastewater utilities used in the comparison, which were identified by the Downriver community representatives, included the Detroit Water and Sewerage Department, the City of Grand Rapids Wastewater Treatment, the City of Ann Arbor Wastewater Treatment, and the City of Lansing. These municipal wastewater utilities were selected based on the relative complexity of their treatment systems and the relatively similar wastewater treatment capacity in comparison to other municipal wastewater service providers in the State of Michigan. Salaries, wages, and fringe benefit information from each of the last three fiscal years was requested from each entity. However, in some cases only a portion of the requested information was provided, with data for one or two of the past three fiscal years.

In addition to obtaining wastewater treatment plant O&M costs from each comparison utility, Malcolm Pirnie requested cost information relative to local sewer collection system and sewer interceptor O&M. However, none of the municipal wastewater utilities surveyed allocates collection system O&M costs in this manner. In general, all wastewater collection system costs, including local collection system and sewer interceptor costs, are budgeted as a single line item by the utilities surveyed. This made it extremely difficult and time consuming to separate these costs for purposes of this benchmarking exercise. Therefore, the costs presented from the utility survey represent only the salaries, wages, and fringe benefits for wastewater treatment plant O&M and do not include sewer interceptor O&M costs.

Table 1 presents a comparison of the average annual compensation for Wayne County DOE wastewater treatment O&M staff to the wastewater treatment O&M staff compensation at the other Michigan municipal wastewater utilities mentioned above.

Table 1
Compensation Comparison
Municipal Wastewater Utility Treatment Plant O&M

Wastewater Utility	Average Salaries & Wages	Average Fringe Benefits	Benefits as % of Salaries	Total	Average WWTP Influent (MG)	Average WWTP FTEs	\$ / MG	MG / FTE
DWSD ⁽¹⁾	\$ 33,802,062	\$ 14,891,814	44%	\$ 48,693,876	244,700	882	\$ 199	277
Wayne County DOE ⁽²⁾	\$ 3,169,481	\$ 1,864,841	59%	\$ 5,034,323	20,075	61	\$ 251	327
Ann Arbor ⁽³⁾	\$ 1,870,336	\$ 579,530	31%	\$ 2,449,866	6,747	26	\$ 363	260
Grand Rapids ⁽⁴⁾	\$ 4,078,231	\$ 2,491,001	61%	\$ 6,569,232	16,790	80	\$ 391	210
Lansing ⁽⁵⁾	\$ 1,903,704	\$ 1,750,855	92%	\$ 3,654,559	5,923	41	\$ 617	144

¹ Averages include salaries, wages, and fringe benefits data from 2007-2008, staffing data from 2009 budget, and flow data from 2007. FTEs are budgeted figure

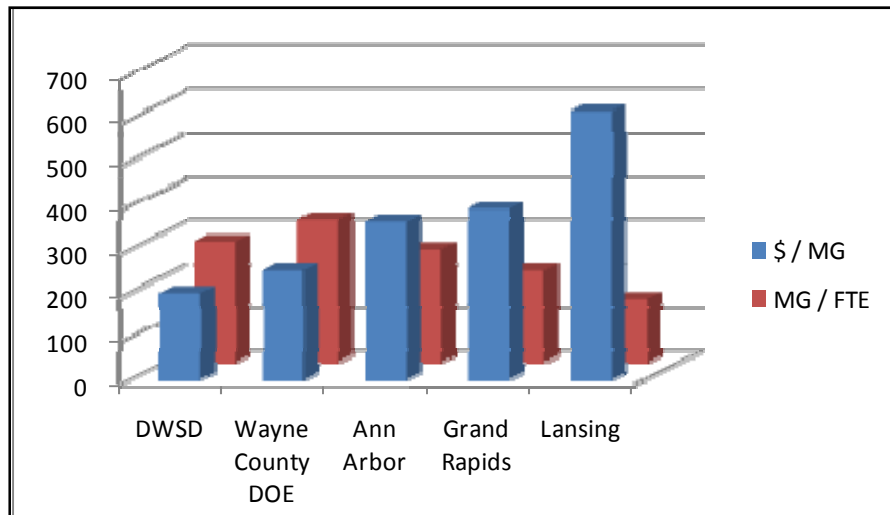
² Averages include salaries, wages, fringe benefits, staffing, and flow data from 2006-2008.

³ Averages include salaries, wages, fringe benefits, staffing, and flow data from 2006-2008.

⁴ Averages include salaries, wages, fringe benefits, staffing, and flow data from 2008.

⁵ Averages include salaries, wages, fringe benefits, and staffing data from 2007-2008 and flow data from 2006-2007.

Figure 1
Compensation Comparison
Municipal Wastewater Utility Treatment Plant O&M



Compensation Comparison Findings

These comparisons indicate that the number of personnel employed to operate the Downriver system, and the amount of wastewater treated per employee, are favorable when compared to other Michigan municipal wastewater utilities. As demonstrated in Table 1 and Figure 1, the compensation costs for wastewater treatment plant O&M ranged from \$199 to \$617 per million gallon (MG) of wastewater treatment plant influent, while the total quantity of flow treated (in million gallons) per full-time equivalent (FTE) staff member ranged from 144 to

327. The average costs for Wayne County DOE’s compensation for its wastewater treatment facility O&M staff, at \$251/MG, are the second lowest of the five Michigan wastewater utilities benchmarked, behind only DWSD. These results are somewhat predictable, as the larger facilities included within the survey have a stronger ability to take advantage of economies of scale than do the smaller of the utilities surveyed (e.g., Ann Arbor, Lansing). However, please note that the average WWTP FTEs for DWSD is a budgeted figure; thus skewing the \$/MG calculation for DWSD in a positive manner. Wayne County DOE treats an average of 327 MG/FTE, the highest figure for all municipal utilities surveyed as part of this study.

TASK 2 - MANAGEMENT AND ADMINISTRATIVE COST ESTIMATE

Overview and Purpose

The objective of this task was to estimate and project potential Downriver wastewater utility authority management and administrative costs based on a review of past and current Wayne County DOE costs and through the benchmarking of other Michigan wastewater utility authorities' management and administrative costs.

Current Wayne County Management and Administrative Costs

In FY08, County Services and Indirect Costs amounted to approximately \$2 million, or approximately 12 percent of the total Downriver System cost. The components that comprise County services and indirect costs are presented in Table 2 below.

Table 2
2008 Indirect Chargebacks to the Downriver System¹

Description		% of Total Indirect Cost	% of Total System Cost
M&B-DOE Finance ²	\$ 480,341	24%	2.8%
DOE Administration Chargebacks	403,707	20%	2.4%
FMD Administration Chargebacks	275,160	14%	1.6%
Central Services Chargebacks	151,516	8%	0.9%
Engineering Div Chargebacks ³	150,835	8%	0.9%
Corporation Counsel	117,754	6%	0.7%
Henry Ruff Chargebacks	102,655	5%	0.6%
Personnel Dept Chargebacks	95,578	5%	0.6%
Info Services Chargebacks	93,589	5%	0.5%
Sewer and Meter Chargebacks (HR)	72,179	4%	0.4%
Data Circuits Chargeback	28,044	1%	0.2%
Local/LD Telephone Chargeback	885	0%	0.0%
Telephone Repairs Chargeback	160	0%	0.0%
Tuition Reimbursement	-	0%	0.0%
Buildings Division Chargebacks	-	0%	0.0%
Indirect Cost Expense	-	0%	0.0%
Total	\$ 1,972,403		

¹Source: Downriver Sewage Disposal System Statement of Revenues and Expenses for the Period Ending September 30, 2008. Figures above include only chargebacks, and exclude outside contractual services.

²Based on an overhead rate of 70.42%.

³Based on an overhead rate of 70.43%

A description and purpose of the most significant of these indirect costs is provided below:

Management & Budget – DOE Finance Division. This Division is a satellite office of M&B with 10 positions located within DOE offices providing services including: accounting, accounts receivable, billings and collections, budget oversight, assistance with accounts payable (including debt and grant-related activity), and the preparation of financial statements for sewers and drains funds.¹

Services provided by this Division are directly charged to the business units receiving services, and the remaining indirect charges are allocated based upon the direct cost allocation with an overhead rate.

Approximately \$480,000 was charged to the Downriver system in FY08.

DOE Administration Chargebacks. The Department of Environment Administrative Division is comprised of Facilities Management, Water Quality Management, and Land Resource Management Divisions, as well as management and administrative staff within the Director’s and Deputy Director’s office.

The DOE administrative costs that are identified as being performed for specific businesses managed by the divisions are directly charged to the benefiting business unit. Indirect costs are allocated to each of the three DOE operating divisions based on each division’s salary expense.²

Approximately \$404,000 was charged to the Downriver system in FY08.

FMD Administration Chargebacks. The Facility Management Division (“FMD”) maintains sewer and drain operations throughout Wayne County, along with operations at the Downriver Wastewater Treatment Plant (serving thirteen Wayne County communities). The FMD administration oversees the operation and maintenance of the Wyandotte Wastewater Treatment Plant, and the network of interceptors, basins, outfalls, metering devices, pump stations, and other system components comprising the Downriver system.

Direct FMD services are directly charged to the FMD areas receiving service, and the remaining indirect charges are allocated based upon proportionately adjusted direct costs. Approximately \$275,000 was charged to the Downriver system in FY08 for FMD administration.

¹ Wayne County FY08 Budget, Management and Budget Section.

² Wayne County Overhead Allocation Plan Methodology for FY08.

Engineering Division Chargebacks. The Engineering services unit is a unit of DOE that provides engineering-related services associated with operations and maintenance, along with capital project implementation associated with the wastewater treatment plant and wastewater transport systems. Direct engineering services are charged to the business unit where the service is provided. Indirect charges are allocated based on the direct costs plus an overhead rate. Approximately \$151,000 of Engineering Division charges were allocated to the Downriver system in FY08.

Central Services Chargebacks. Central services chargebacks are for County services provided to DOE and subsequently the Downriver system. These services include budgeting, financial reporting, cost accounting, payroll processing, disbursement processing, purchasing, and risk management services. These services originate from the County Department of Management and Budget.

Approximately \$152,000 of Central Services charges were allocated to the Downriver system in FY08.

Henry Ruff Chargebacks. Henry Ruff chargebacks are costs associated with direct operation and maintenance of sewers, drains and meters. These costs are direct services that are allocated to each location where the service is provided, including the Downriver system.

Approximately \$103,000 of Henry Ruff charges were allocated to the Downriver system in FY08.

Benchmarking of Management and Administrative Costs

Malcolm Pirnie compared the Wayne County DOE Management and Indirect costs charged to the Downriver System communities to other wastewater utility authorities in Michigan. Our project team solicited information and data relative to these costs from the Galien River Sanitation District Sewer Authority, Ypsilanti Community Utility Authority, South Huron Valley Utility Authority, Southern Clinton County Utilities Authority, and the West Bay County Utility Authority. These utility authorities were selected based on the intent to discover the potential management and administrative costs the Downriver System communities might encounter if they decide to create a utility authority and to compare those costs with the Downriver System's current service provider, Wayne County DOE. Each authority, with the exception of the Galien River Sanitation District Sewer Authority, provided information and data relevant to this study. It should be noted that while speaking with Mr. Ken Miller, the Director of the Bay County Department of Water and Sewer, it was determined that Bay County does not

operate as an official utility authority. However, it is a public wastewater purveyor separate from Bay City and operates in much the same manner as do most utility authorities. Therefore, it was determined that the data provided by Bay County would be relevant to this study in that it would provide another benchmarking source of information.

Table 3 and Figure 2 present the benchmarking results for the management and administrative costs of each of the wastewater utility authorities surveyed. As demonstrated, the Wayne County DOE management and administrative costs, on a dollars per million gallon basis, are second lowest at \$104/MG, while its corresponding million gallons treated per FTE of 327 is the highest.

Although the lower cost per MG may be associated with the larger volume of wastewater treated in the Downriver system as compared to the other utilities surveyed, resulting in greater economies of scale, combining this metric with the MG wastewater treated per FTE seems to demonstrate the relative efficiency under which Wayne County DOE’s management and administration currently operates.

**Table 3
Wastewater Utility Authorities
Management and Administrative Cost Comparison**

Wastewater Authority	Average Management & Admin	Average WWTP Influent (MG)	Average WWTP FTEs	\$ / MG	MG / FTE
West Bay County Regional WWTP ⁽¹⁾	\$ 94,621	1,611	18	\$ 59	89
Wayne County DOE ⁽²⁾	\$ 2,081,648	20,075	61	\$ 104	327
South Huron Valley Utility Authority ⁽³⁾	\$ 550,258	3,549	13	\$ 155	273
Ypsilanti Community Utility Authority ⁽⁴⁾	\$ 1,370,392	8,310	132	\$ 165	63
Southern Clinton County Utilities Authority ⁽⁵⁾	\$ 200,116	846	17	\$ 237	50

¹ Average costs include personnel, legislative, legal, and audit costs for 2006-2008.

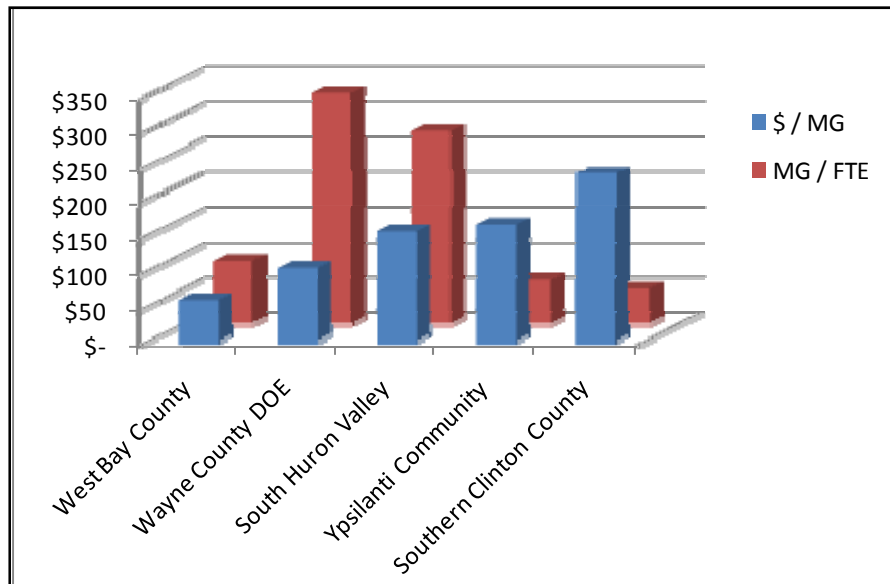
² Average costs include all items presented in Table 2 for 2008.

³ Average costs include insurance, financial administration, professional fees, miscellaneous contract, and miscellaneous contract, and miscellaneous expenses for 2006-2008.

⁴ Average costs for 2006-2008.

⁵ Average costs include commissioner and management salaries, benefits, education and training, supplies, motor vehicle and mileage, professional services, legal, and miscellaneous costs for 2006-2008.

Figure 2
Wastewater Utility Authorities
Management and Administrative Cost Comparison

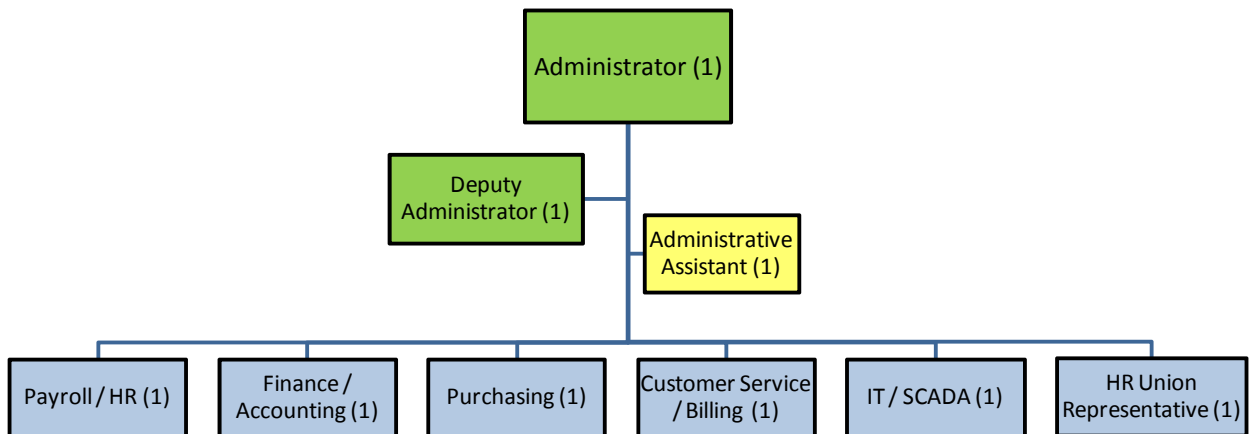


Projection of Management and Indirect Costs Under Downriver Authority Option

In FY08, County Services and Indirect Costs amounted to approximately \$2 million, or approximately 12 percent of the total System cost as discussed above. Under a separate Downriver Authority, it is possible that a portion of these indirect and overhead costs could be avoided. It is anticipated that under the Downriver Authority option, several indirect or support services positions will be required, as identified below and shown in Figure 3.

- Administrator
- Deputy Administrator
- Administrative Assistant
- Payroll and Human Resources Manager
- Finance and Accounting Manager
- Purchasing Manager
- Customer Service and Billing Manager
- Information Technology / SCADA Specialist
- HR Union Manager

Figure 3
Potential Downriver Management and Support Structure



The Administrator’s primary responsibility would be to manage the overall operation of the Downriver Utility Authority, including managing all staff and monitoring all utility authority activities, contracts, and performance. The Deputy Administrator would be responsible for managing the day-to-day operations of the treatment facility and the operations and maintenance staff. The Payroll/HR position would be responsible for administering appropriate human resources practices and ensuring that proper payroll procedures are followed. The Finance/Accounting position would be responsible for ensuring that a cost of service-based rate is applied to all services provided by the Authority, and that Generally Accepted Accounting Principles are followed when administering the financial books. Customer Service/Billing responsibilities would include establishing policies and procedures to deal with potential customer inquiries and complaints, in addition to ensuring that appropriate and accurate bills are sent to Authority customers. IT/SCADA responsibilities would include day-to-day maintenance of the WWTP instrumentation and controls, along with any information technology software or hardware issues that might arise. Finally, an HR Union Representative would be responsible for negotiating with staff bargaining units and ensuring that appropriate union rules and laws are followed.

Potential salary and benefits costs associated with these positions are summarized in Table 4 below.

Table 4
Management and Support Positions Under an Authority

Position	Estimated Salary	Estimated Benefits	Estimated Total
Management			
Administrator	\$125,000	\$ 73,750	\$ 198,750
Deputy Administrator	100,000	59,000	159,000
Administrative Assistant	50,000	29,500	79,500
Subtotal Management			\$ 437,250
Accounting/Finance			
Payroll / HR	\$ 75,000	\$ 44,250	\$ 119,250
Finance & Accounting	75,000	44,250	119,250
Purchasing	50,000	29,500	79,500
Customer Service and Billing	50,000	29,500	79,500
Subtotal Accounting/Finance			\$ 397,500
Other Support			
IT / SCADA	\$ 90,000	\$ 53,100	\$ 143,100
HR Union Rep	75,000	44,250	119,250
Subtotal Other Support			\$ 262,350
Total Incremental Cost	\$690,000	\$407,100	\$1,097,100

Wayne County Fringe Benefit rate average over past 3 years 59% of salaries.

The salary information presented above was conservatively estimated based on similar information gathered from the various municipal utilities and utility authorities within Michigan that took part in the surveys conducted as part of this study. The benefits were assumed to be at the same rate as the current Wayne County DOE, or 59% of salaries. This fringe benefit rate does fall within a general range for utilities for which Malcolm Pirnie has conducted similar financial and rate studies.

The management and support structure outlined in Table 4 assumes that the employees are Authority employees, rather than employees of a private operator. If the Authority operated the facilities under a private operations contract, the management and support structure would likely be different than outlined above. Assuming the management and support structure outlined above, a comparison of estimated management and indirect costs under a Downriver Authority structure versus continued Wayne County operations was performed and is summarized in Table 5.

Table 5
Comparison of Estimated Management/Indirect Costs

Description	Wayne County¹	Downriver Authority	Notes
1 M&B-DOE Finance	\$ 480,341	\$ 397,500	Finance/accounting, payroll/HR, purchasing, and customer service/billing positions added under the Authority.
2 DOE Administration Chargebacks	403,707	437,250	Administrator/Deputy/Assistant positions added under Authority.
3 FMD Administration Chargebacks	275,160	-	Downriver management included in line 2 above under Authority.
4 Engineering Div Chargebacks	150,835	150,835	Engineering services outsourced under the Authority.
5 Central Services Chargebacks	151,516	-	Included in line 1 above under Authority.
6 Henry Ruff Chargebacks	174,834	174,834	Direct cost for drains and meters. Similar cost under Authority.
7 Personnel Dept Chargebacks	95,578	119,250	HR / Union representative position added under Authority.
8 Info Services Chargebacks	93,589	143,100	IT Manager position added under Authority.
9 Sewer and Meter Chargebacks (HR)	-	-	Direct cost associated with Sewer and Meter Maintenance.
10 Corporation Counsel	117,754	117,754	Legal council outsourced under Authority.
11 Data Circuits Chargeback	28,044	28,044	Data circuits assumed to be the same under Authority.
12 Local/LD Telephone Chargeback	885	885	Assumed to be similar cost under Authority.
14 Telephone Repairs Chargeback	160	160	Assumed to be similar cost under Authority.
15 Tuition Reimbursement	-	-	
16 Buildings Division Chargebacks	-	-	
17 Indirect Cost Expense	-	-	
18 Total	\$1,972,000	\$1,570,000	

Source: Downriver Sewage Disposal System Statement of Revenues and Expenses for the Period Ending September 30, 2008.

¹Excludes miscellaneous fees \$20,391, contracted engineering services \$97,545 and legal contractual services \$86,399, which were assumed to be the same under Wayne County operation or the Authority option.

The difference between the management and indirect costs of Wayne County DOE operations versus the Downriver Authority option is estimated to be approximately \$402,000. Several indirect services that are provided by Wayne County with internal staff or outside service contracts, and included in the table above, would need to be procured under the Downriver Authority option. These are discussed in the Task 3 analysis below.

TASK 3 - OPERATING COST COMPARISON

Overview and Purpose

The purpose of this task is to estimate the operating cost associated with the Downriver communities creating their own municipal utility authority versus the operating cost if the Wayne County sewer service agreement is extended past 2012.

This task of the work consisted of the following:

- Projection of future annual charges from Wayne County.
- Projection of annual operating costs associated with the establishment of a wastewater Authority.
- Financial Comparison of the two options.

Projection of Future Annual Charges from Wayne County

This subtask consisted of a review of Wayne County's historical costs and current budgets, and an estimate of the projected cost of service provided by Wayne County under the existing sewer service agreement.

In completing this task, Malcolm Pirnie reviewed and analyzed the following documents:

- Wayne County's Utility Budget for 2008/2009 and 2009/2010
- Actual Wayne County costs for the last three years associated with providing service to the Downriver communities, including the direct costs from various Wayne County departments and agencies that are reimbursed from Downriver system revenues (Human Resources, Legal, etc.)
- Wayne County's (audited/unaudited) financial statements and information for the Downriver contract
- Incentives and penalties associated with the Wayne County service agreement
- Other relevant documents and information

Historical Financial Results. A summary of the historical financial results for the Downriver Sewage Disposal System is provided in Figures 4 and 5, and Table 6 below. As shown in Table 6, the total Downriver Sewerage Disposal System costs

have decreased significantly from FY02 to FY08. As shown in Figures 4 and 5, Personnel, County Services & Indirect, and contractual services costs have decreased as a percentage of the total annual cost from FY02 to FY08. In addition, as the cost of utilities, bulk chemicals, and employee benefits has increased, the percentage of other operating costs, materials & supplies, and fringe benefit costs have increased as a percentage of the total annual cost from FY02 to FY08.

Figure 4 – FY02 Expense Breakdown

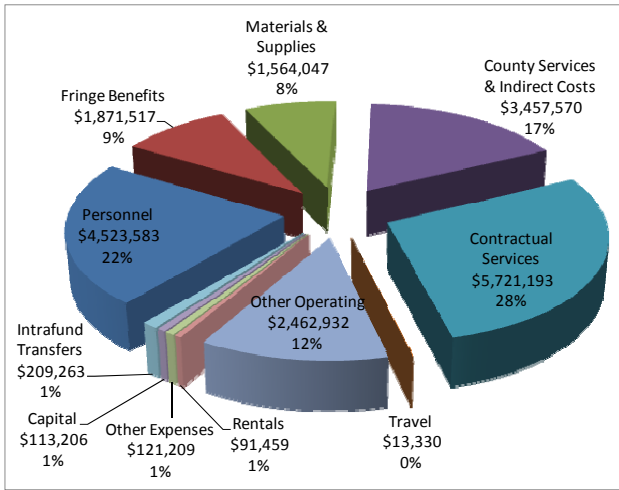


Figure 5 – FY08 Expense Breakdown

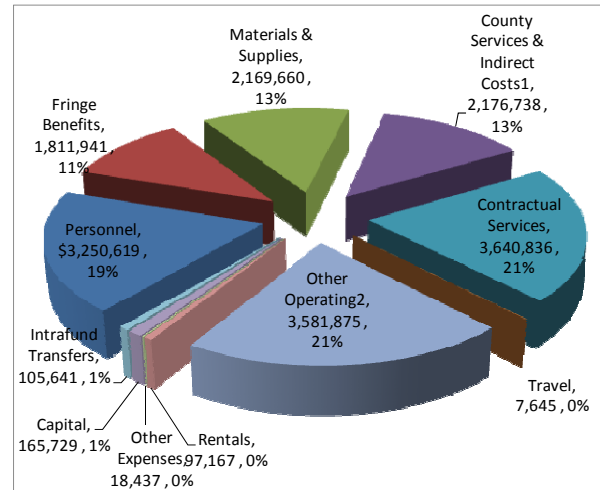


Table 6 Summary of Annual Expenses
Downriver Sewage Disposal System

Expense Category	FY02	FY03	FY04	Actuals			
				FY05	FY06	FY07	FY08
Personnel	\$ 4,523,583	\$ 4,560,615	\$ 4,349,439	\$ 3,841,013	\$ 3,265,725	\$ 3,054,182	\$ 3,250,619
Fringe Benefits	1,871,517	1,730,053	1,877,700	1,813,124	1,885,702	1,739,252	1,811,941
Materials & Supplies	1,564,047	1,683,128	1,507,243	1,585,661	1,840,021	1,986,733	2,169,660
County Services & Indirect Costs ¹	3,457,570	4,549,877	3,900,549	3,093,778	2,513,269	2,654,844	2,176,738
Contractual Services	5,721,193	7,244,698	5,923,591	5,335,957	2,097,156	3,176,990	3,640,836
Travel	13,330	27,893	17,861	25,413	681,331	47,973	7,645
Other Operating ²	2,462,932	2,371,501	2,326,994	2,451,718	2,713,911	3,021,330	3,581,875
Rentals	91,459	116,442	88,387	97,830	92,094	87,586	97,167
Other Expenses	121,209	129,997	88,621	19,511	39,574	20,026	18,437
Capital	113,206	14,192	171,716	147,065	56,682	81,987	165,729
Intrafund Transfers	209,263	134,894	(95,247)	164,770	168,301	160,620	105,641
Total	\$20,149,308	\$22,563,290	\$20,156,855	\$18,575,839	\$15,353,766	\$16,031,523	\$17,026,288

¹Includes Engineering Service, DOE Administration, Management & Budget office, Facilities Management Division administration, Legal, Central Services, Personnel chargebacks, Business Division, IT Division, and other costs and chargebacks.

²Includes utilities (electricity, gas, water, sewer), equipment repair and maintenance, insurance and bonds, and vehicle repair and maintenance.

Estimated Future Costs Under Continued Wayne County Operations. As part of the FY09 budgeting process, the County prepared a five year projection of Downriver system expenses for the period FY09 through FY13. A summary of this forecast is provided in Table 7. Malcolm Pirnie has used this financial projection as the baseline under continued Wayne County operations with which to compare with the projection of annual operating costs associated with the establishment of a wastewater municipal utilities authority separate from Wayne County.

**Table 7 Summary of Wayne County Annual Expense Projections
Downriver Sewage Disposal System**

Expense Category	Budget / Forecast									
	FY09	% of Total	FY10	% of Total	FY11	% of Total	FY12	% of Total	FY13	% of Total
Personnel	\$ 3,216,723	18.6%	\$ 3,459,433	19.7%	\$ 3,455,048	19.3%	\$ 3,450,315	18.9%	\$ 3,445,164	18.5%
Fringe Benefits	1,741,875	10.0%	1,776,713	10.1%	1,812,247	10.1%	1,848,492	10.1%	1,885,462	10.1%
Materials & Supplies	2,181,400	12.6%	2,235,278	12.7%	2,300,490	12.9%	2,342,069	12.9%	2,404,348	12.9%
County Services & Indirect	3,125,587	18.0%	2,801,099	16.0%	2,852,101	16.0%	2,904,113	15.9%	2,957,155	15.9%
Contractual Services	3,101,800	17.9%	3,229,115	18.4%	3,363,138	18.8%	3,502,910	19.2%	3,648,682	19.6%
Travel	110,000	0.6%	110,050	0.6%	110,101	0.6%	110,154	0.6%	110,208	0.6%
Other Operating	3,550,831	20.5%	3,603,515	20.6%	3,657,253	20.5%	3,728,898	20.5%	3,801,976	20.4%
Rentals	104,900	0.6%	107,057	0.6%	109,539	0.6%	113,092	0.6%	115,720	0.6%
Other Expenses	23,000	0.1%	23,440	0.1%	23,889	0.1%	24,347	0.1%	24,814	0.1%
Capital	181,800	1.0%	186,345	1.1%	191,004	1.1%	195,779	1.1%	200,673	1.1%
Intrafund Transfers	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Total	\$17,337,916	100.0%	\$17,532,044	100.0%	\$17,874,808	100.0%	\$18,220,168	100.0%	\$18,594,200	100.0%

Projection of Annual Operating Costs Associated with the Establishment of a Wastewater Authority

Operating costs for the Downriver Authority alternative will differ from those charged by Wayne County. The differences are anticipated to be primarily due to avoidance of a portion of Wayne County services charges and indirect costs. A discussion and summary of these differences is provided below:

Direct Labor Costs. In completing this cost comparison analysis, it was assumed that the number of direct employees required to operate and maintain the Downriver system will be the same under either scenario. Therefore, based on the salary cost and benefit comparison, direct labor savings are not anticipated under the authority option.

Capital Costs and Capital Financing. It is anticipated that the capital improvement program ("CIP") will be identical under either configuration in terms of the number, size, and timing of capital project implementation.

Regarding project financing, Malcolm Pirnie did not independently assess the potential impact of project financing costs under the Downriver Authority option. However, based on an analysis completed by the Public Financial Management Group (“PFM”), it would be possible for the Authority to issue debt at reasonable interest rates (Appendix B presents the letter from PFM to Mr. Hinshon, while Appendix C presents the letter from Thrun Law Firm to Mr. Hinshon). According to PFM, the formation of a utility authority is something that could be marketable, and should come at a cost similar to that of debt issued through Wayne County.³

Property Insurance. Certain underground assets associated with the Downriver System, which were constructed under the consent decree, are insured by an Inland Marine policy providing coverage for direct physical loss or damage to the Downriver system assets due to specified peril, and a General Liability Policy covering claims up to \$5 million. The premiums for these two policies totaled \$385,000 in FY08.⁴ However, the majority of the property loss/damage coverage for the system is provided by Wayne County through its self insurance program. In 2008, the cost of this self insurance to the Downriver system was approximately \$24,400.

A preliminary estimate of the cost of purchasing a property insurance policy under the Authority option was obtained to compare with the cost of paying for insurance under Wayne County’s self insurance coverage program. The estimate of the annual property insurance premiums for purchasing private insurance is \$164,000, which was based on \$0.10 per \$100 of value, and a value estimate of \$164 million.⁵ Therefore, based on the preliminary insurance cost estimate, the cost associated with purchasing insurance is estimated to be \$140,000 per year higher than the cost of Wayne County self insurance.

Other Direct Costs – Procurement. The County’s procurement practices were examined to assess the potential financial impact of procurement of materials and services by a Downriver Authority as compared to Wayne County. A summary of this assessment is provided below.

The County follows documented procurement practices for procuring materials, supplies, and contractual services from its vendors. The Downriver Facility has a

³ Letter from Kari Blanchett of PFM to Dick Hinshon, Hinshon Environmental Consulting, dated June 3, 2008.

⁴ Insurance Policies for the Downriver Sewer System provided to Mr. Patrick McCauley from Ms. Margaret Banchemo of Wells Fargo Insurance Services on May 21, 2008.

⁵ The cost for property insurance was based on the 2004 value of assets of \$164,000,000. It is important to note that a full assessment and evaluation of the property to be insured was not completed and could result in a higher property insurance cost than reported.

dedicated purchasing authority to create internal purchase orders for services and supplies up to \$20,000. Purchases in amounts greater than this must follow the County's formal source selection process.⁶

Regarding the purchase of electricity, the Downriver facility has contracted with the Wyandotte Municipal Services to provide electricity to the plant. It is anticipated that under the Authority option, procurement of electricity would continue to be contracted with the Wyandotte Municipal Services. In addition, the Downriver facility utilizes demand aggregation to combine the procurement of natural gas for various Wayne County buildings and the plant.

Regarding chemical and other major supply items, these items are procured through the County's bid process. However, some items are procured utilizing the MIDEAL purchasing program through the statewide procurement program.

Under the Downriver Authority option, the Authority would be required to follow similar procurement guidelines as used by Wayne County. However, due to the number of departments involved in major purchases, a Downriver Authority could potentially procure items more cost effectively and efficiently. In addition, the Authority may have similar access to electricity procurement programs and statewide contracts. Furthermore, under the Authority option, if a contract operator is hired to operate the plant, the procurement of commodities may be obtained at slightly lower cost if the contract operator has preferred purchasing contracts and quantity discounts with vendors and suppliers. However, if the Authority operates the Plant, it is likely that the pricing that could be obtained under an Authority would likely be similar to the pricing available to the County.

Other Direct Costs – Materials, Equipment and Supplies. Wayne County's Downriver budget includes the following other direct costs:

- Chemicals
- Equipment parts
- Telecommunications
- Travel expenses
- Equipment rental
- Other miscellaneous equipment, materials & supplies

⁶ County Procurement Ordinance No. 2006-1101, and roles and responsibilities of DOE M&B Finance and County Central M&B services.

In completing this cost comparison, it was assumed that these costs will be the same under either County operations or the Downriver Authority option.

Management and Indirect Costs. As described in the Task 2 section herein, the difference between the management and indirect costs of Wayne County operations versus the Downriver Authority option is estimated to be approximately \$402,000, or roughly 2.4 percent of Wayne County's FY08 expenses for operating and maintaining the Downriver Sewage Disposal System, and approximately a 20 percent reduction in the management and indirect cost charges from Wayne County as shown in Table 2. However, the following services that are provided by the County with internal staff or outside service contracts would likely need to be procured under the Downriver Authority option:

- Engineering support services. It was assumed that the Engineering Division chargebacks would be replaced by outside engineering support.
- Legal services. Other outside legal services costs are included in the Downriver budget (\$86,400 was spent in 2008), but not shown in Table 5 above. These costs would likely be similar under either option. Furthermore, the total cost of legal services (in 2008, \$204,200 was incurred including Corporate Counsel Chargebacks and outside legal services) was assumed to be the same under either option. However, while it is possible some legal costs could potentially be saved under the Downriver Authority option by eliminating the Corporate Counsel Chargeback, if the majority of the legal costs are procured, rather than utilizing Authority legal staff, legal costs could be higher under the Authority option.
- Office supplies and office equipment maintenance services. These are presumed to be included in the Downriver system budget or chargebacks shown above. No additional costs are anticipated to be added under the Downriver Authority option.
- Office Space - The Downriver system budget includes approximately \$70,000 for building rental. Under the Downriver Authority option, a building and office space will be required for operations if the existing wastewater treatment facility cannot be used for management and support staff office space. Based on an analysis of office space requirements and current lease rates within Wayne County, the cost of office space under the Authority option is estimated to be \$47,000 per year.⁷ Therefore, we have included this amount for office space under

⁷ Based on office space leasing cost of \$21/SF/yr, and average office space requirement of 250 SF/person and assuming office space needs for nine positions. $\$21.00 \times 250 \times 9 = \$47,250/\text{yr}$.

the Authority option in lieu of the \$70,000 amount included in the Wayne County's Downriver system budget.

Financial Comparison of Options

Based on the cost analysis described above, it is anticipated that the most significant cost difference between Wayne County operations and the Downriver Authority option is associated with the potential avoidance of indirect costs allocated to the Downriver system by the various Wayne County departments, and possibly cost impacts associated with property insurance.

Based on the FY08 actual expenses, the potential savings could be as much as 1.7 percent of Wayne County's annual expenses for operating and maintaining the Downriver Sewage Disposal System, or in terms of the FY08 expenses, approximately \$285,000 per year.⁸ However, this potential recurring savings amount excludes potential cost impacts associated with transactional and organizational costs associated with the formation of a Downriver Authority, as described in the Task 4 discussion below.

⁸ \$402,000 per year savings associated with management & indirect costs, \$140,000 per year additional cost associated with the purchase of private property insurance instead of Wayne County self insurance, and cost savings of \$23,000 per year associated with office space.

TASK 4 – TRANSACTIONAL COST ANALYSIS

Overview and Purpose

The purpose of Task 4 is to estimate the anticipated transactional costs and associated expenses should the Downriver communities choose to create a wastewater utility authority.

In transactions such as this, typical costs generally include some or all of the following items:

- Asset valuation – dependent on size of the utility. As the Downriver authority would be essentially taking control of assets that it currently owns, there should be no need for this transaction item.
- Condition assessment analysis - dependent on size of utility and need to determine assets and liabilities. Similar to the asset valuation, there should be no need for this item since the Downriver communities already own the assets.
- Legal assistance for asset sale/transfer. Official documentation pursuant to local and state law requirements. This would be necessary to complete the transaction.
- Legal establishment of governance structure and by-laws. Official documentation pursuant to local and state law requirements. This would be necessary to outline the new authority’s governing structure, decision-making process, voting authorities, etc.
- Legal assistance with the development and approval of enabling legislation. As there are several wastewater utility authorities in operation within the state of Michigan, this item would seemingly not be required.
- New rate structure - depending on need and whether existing structure can be preserved. As the revenue requirements will differ somewhat under the operation and maintenance of the Downriver system as an authority, this item would be required to appropriately capture new cost of service.
- Policies, procedures and ordinances - depending on whether existing documentation is sufficient. It is anticipated that this item would need to be developed, as authority management practices may differ from Wayne County’s.

- Operations Plan, depending on the level of detail required by statutes. It is anticipated that the development of a new operations plan would be necessary based on changing management structure and policies.
- Bond feasibility report. The Downriver System has several State Revolving Fund Loans and one municipal bond outstanding where the debt service is paid by the Downriver communities but backed with the full faith and credit of Wayne County. Although it is anticipated that a full bond feasibility study would not be required, the existing debt service may need to be refinanced, which would likely necessitate the development of a Consulting Engineer's Report and financial feasibility study.
- Consensus building. Significant effort may be required to facilitate community meetings, discuss details at Board meetings, provide cost detail to each involved community, refine policy documents, develop presentation materials, etc. Due to thirteen separate communities being involved in this potential transaction and subsequent authority governance, the consensus building effort could require significant time and effort.

Table 8 illustrates anticipated typical ranges of transactions costs that can be expected if the Downriver communities choose to form a wastewater utility authority. These costs were estimated based on several similar authority formations, transactions, and feasibility projects that Malcolm Pirnie has been involved in over the past several years, including: the Milwaukee Metropolitan Sewerage District Contract Operations Analysis and Procurement project; the Greater New Haven Water Pollution Control Authority formation; the New Haven Solid Waste and Regional Authority formation; the Engineering Feasibility and Asset Valuation Support and Creation of a New Sewer Authority for Nassau County, New York; the evaluation of the potential creation of the Long Island Water Authority; and the Regionalization Study of the Mattabasset Sewer District in Middletown, Connecticut.

Table 8
Transactional Cost Estimate for the Downriver Authority Formation

Transaction Item	Estimated Minimum Cost	Estimated Maximum Cost	Part of Downriver Transaction?
Asset Valuation	\$ 25,000	\$ 100,000	No
Condition Assessment	\$ 50,000	\$ 100,000	No
Asset Sale/Transfer Agreement	\$ 50,000	\$ 100,000	Yes
Establishment of Governance and By-Laws	\$ 25,000	\$ 50,000	Yes
Enabling Legislation	\$ 50,000	\$ 100,000	No
Development of Rate Structure	\$ 25,000	\$ 75,000	Yes
Policies, Procedures, Ordinances	\$ 10,000	\$ 100,000	Yes
Operations Plan	\$ 40,000	\$ 80,000	Yes
Bond Feasibility Study ⁽¹⁾	\$ 50,000	\$ 100,000	Yes
Consensus Building	\$ 25,000	\$ 100,000	Yes
Total of Downriver Authority Transaction Items ⁽²⁾	\$ 225,000	\$ 605,000	

¹ Consulting Engineer's Report and Financial Feasibility Study

² Includes only items deemed necessary for Downriver Transaction

The total typical transactional costs associated with the formation of a Wastewater Utility Authority are estimated to be between \$225,000 and \$605,000. This estimate assumes that the process of individual community approvals will be rather streamlined in nature and will not be subject to lengthy, political discussions. However, due to the current disagreement between the Downriver communities and Wayne County associated with ownership of the wastewater assets, it is anticipated that the transactional costs for the Downriver Wastewater Utility Authority will be higher than the typical range shown above.

Other Considerations

There are other considerations that may influence the decision that the Downriver communities makes with regard to future sewer collection and treatment service provisions, which Malcolm Pirnie was unable to explore to the fullest extent due to the scope and budgetary limitations associated with this project. A preliminary list of these considerations are outlined below.

- What happens to Downriver System employees' pension obligations when they become Authority employees instead of Wayne County employees?
- How do healthcare costs get funded under the Downriver Authority option (it is our understanding that retirement healthcare costs are currently 0% funded and the pension program is only 50% funded)?

- How would the existing debt obligations transfer to the Authority?
- The existing contract with Wayne County shifts some environmental operational risk to the County. To what extent are the Downriver communities shielded from this risk under the current contract?
- It is our understanding that there is some disagreement between the Downriver communities and County associated with ownership of the wastewater assets. Will assets need to be transferred to the Authority if the Downriver communities decide to proceed with this option?

These questions and other issues should be more fully evaluated and considered in the future if the Downriver communities decide to continue to consider the Authority alternative. While these questions and issues are significant, it is important to note that the South Huron Valley System was also operated by Wayne County prior to its change to a utility authority. Therefore, the process of establishing a utilities authority has been successfully completed in the past and would not be a first-time event.

Conclusion

Creating a Downriver Authority has the potential to save the Downriver communities and their wastewater rate payers an estimated 1.7 percent, or in terms of the FY08 expenses, approximately \$285,000 per year. However, these cost savings would be off-set by transactional costs, which would reduce the actual net savings realized.

The potential savings would be a result of the avoidance of management and indirect cost charges currently allocated to the Downriver System by Wayne County and reduction in the cost of office space. The savings estimate corresponds to approximately a 20 percent reduction in the management and indirect cost charges from Wayne County.

While the potential estimated savings would be recurring savings, additional transactional costs would off-set the savings. Transaction costs associated with the creation of a Downriver Authority would be significant. Disagreement between the Downriver communities and Wayne County associated with ownership of the wastewater assets is a significant issue that would need to be resolved for the Authority option to be possible. This issue could significantly increase the transactional costs associated with creation of a Downriver Authority and require significant time and cost to resolve.

If the Downriver communities decide to continue to consider the feasibility of forming a utility authority, questions and issues associated with property

insurance, asset ownership, legacy costs (i.e. pension and retirement healthcare costs), and capital financing should be evaluated further in order to refine the cost savings estimates.

During the course of this engagement, Wayne County, the Downriver Communities, and other utilities in Michigan provided Malcolm Pirnie with a variety of operational and cost information. Malcolm Pirnie has reviewed the data for reasonableness and general representation of cost and related activities. However, Malcolm Pirnie did not independently assess or test the accuracy of such data, historic or projected. We have relied on this data in the formulation of our findings and conclusions contained in this report. In addition, the conclusions presented herein should be considered preliminary due to the agreed upon scope of the engagement, availability of information, and relatively short duration of the project.