Preliminary Draft Report on Due Diligence Analysis and Recommendation for MSD and Louisville Water Company Consolidation

Subject To Board Approval
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1. Executive Summary

The Louisville Water Company (LWC) and the Metropolitan Sewer District (MSD) are two essential community partners providing water, sewer, drainage, flood protection and other services to the Louisville area. In January 2012, Louisville Metro Mayor Greg Fischer appointed a seven member task force, the Louisville Utilities and Public Works Advisory Group (the “Advisory Group”) to evaluate the benefits, feasibility and cost effectiveness of consolidating LWC and MSD into one entity, a model to become known as “One Water.” The Advisory Group began its analysis with the assistance of Black & Veatch Consulting, and over several months conducted multiple interviews, reviewed hundreds of documents, interviewed the key staff of the organizations, and held public meetings. The Advisory Group did not perform an in depth analysis of consolidation, however.

After the Advisory Group’s report, which recommended a phased approach to consolidation, the Mayor asked the Boards of each entity to conduct a due diligence exercise to examine the viability of consolidation in depth. Thereafter, LWC and MSD began the due diligence effort (referred to throughout this Report as “Due Diligence”). Due Diligence was to be performed by the two entities on the legal, financial and environment/regulatory impacts affecting the consolidation of the two organizations. This effort did not include an evaluation of Louisville Metro’s Public Works. The review had to not only analyze the legal, financial and environmental issues that arise from a consolidation, but to recommend the approach to achieve greater efficiencies and effectiveness for the ratepayers, LWC’s shareholder Louisville Metro, and the overall community.

Specifically, the following three components of Due Diligence were conducted to determine the impact of a consolidation of both entities:

- A legal evaluation of governance structures, whether those structures are currently permissible under the law, current bond requirements of the organizations, and other major contractual commitments;
- A financial evaluation of how any structures would impact existing debt, future borrowing, bond covenants, overall balance sheets, and credit ratings of the organizations;
- An environmental and regulatory evaluation of the major environmental and regulatory risks that currently exist and that are expected to impact the organizations in the future;

A significant portion of the work was dedicated to analyzing the organizations’ current governance structures because, in both cases, they are substantially different not only from one another but from other water utilities in LWC’s case and from other sewer and drainage utilities in MSD’s case. As a result, this considerably affected the final work product.

LWC is a truly unique entity like none other in the United States. Its governance structure is a hybrid that embodies characteristics of both government entities and private, for profit
companies. That structure has benefitted the ratepayers/customers of LWC and Louisville Metro Government for many years. MSD’s scope of authority is so broad that none of its peer sewer and drainage districts in the country has the breadth of authority and responsibility held by MSD. The distinctive nature of both entities is such that it affected the feasibility of options available for the Due Diligence Teams to consider. Of the original eleven different governance models or consolidation mechanisms that were developed, the Due Diligence Teams settled on a full evaluation of three options after the Teams preliminarily completed a governance analysis and received feedback from the Louisville Mayor and his staff.

Those three options were as follows:

- **The Comprehensive Interlocal Agreement (ILA) Option** -- Consolidating the common functions through the use of an ILA whereby one utility will provide the common service for both entities;
- **The One Water Sub Option** -- MSD is dissolved and Louisville Metro Government establishes a non-profit corporation to hold the MSD assets and liabilities, and services to be provided via contract by LWC; and
- **The One Water Option** – MSD is dissolved and LWC acquires the sewer, drainage and flood protection assets and liabilities.

After a full Due Diligence analysis over several months, the Due Diligence Teams jointly recommended the pursuit of a Comprehensive Interlocal Agreement that will cover the many common functions shared by the two entities. There were a number of reasons behind this recommendation:

- First, the complicated governance structure issues were certain to delay implementation of the One Water Sub Option and the One Water Option for an undetermined period of time.
- Second, the law (HB 1 – subsequently codified as KRS Chapter 65A) allowing dissolution of a district such as MSD was so new at the time of the conclusion of the Due Diligence that no active district – and certainly not one with the breadth of authority, the expanse of assets and amount of debt held by MSD -- had ever utilized this process for dissolution.
- Third, the Comprehensive ILA Option is scalable and able to be implemented in phases. The two entities can build on it and address it over a reasonable time period without significant, disabling impacts to either entity, while both entities are on a path of continuous improvement and progress.
- Fourth, the Comprehensive ILA does not require a new entity or Louisville Metro Government to assume responsibility for regulatory services currently held by MSD, which MSD as a political subdivision may perform, but which LWC as a private company, may not perform.
Fifth, the Comprehensive ILA allows each party to retain its own liabilities and maintain its own financial performance and debt capacity as it currently does today, and as a result, Louisville Metro’s dividend from LWC is not threatened.

Sixth, the Comprehensive ILA achieves the objectives outlined by the Mayor’s Advisory Group, including operating within the boundary conditions adopted by the Mayor and the Boards of MSD and LWC.

Seventh, the Comprehensive ILA allows for a smooth transition of human resources, with reduction of staff through attrition. This allows assimilation of business cultures with minimal risk to operations and service levels.

Eighth, the Comprehensive ILA provides the best balance of cost savings and risk management for MSD and LWC ratepayers and citizens of Metro Louisville.

Ninth, the Comprehensive ILA provides estimated annual savings of up to $10 million by 2017 and $14 million by 2019.

Finally, the Comprehensive ILA does not prevent a future consolidation of either of the other two options fully evaluated by the Due Diligence Teams, and arguably, makes their success more likely since many functions would already be shared.

Going forward, MSD and LWC will continue to build upon existing partnerships such as Billing and Collection Services and LOJIC Mapping to expand their shared services. These will be incorporated into an Interlocal Agreement, submitted to each board of directors for approval, and submitted to the Kentucky Attorney General for approval. As the entities work more and more closely, and as functions and business philosophies become more aligned, the consideration of further consolidation as evaluated by the Due Diligence Teams may be addressed for feasibility and viability.
2. Introduction

2.1 Background

LWC and MSD each provide necessary related utility services to the Louisville community. LWC and MSD have a long history of collaborating in two major areas: MSD contracts with LWC to provide all its billing and collection services, and LWC contracts with MSD to provide the lead system oversight, operations and maintenance for LOJIC, the geographical information database used by LWC and other community partners for digital mapping. While the two entities both provide utility services and coordinate in these manners, it is important to note how different they are from a governance perspective.

In December 2011, the Commonwealth of Kentucky State Auditor issued the findings of a management and financial audit of MSD including many recommendations that resulted in changes to overall administrative processes. It should be noted that there were no findings recommending significant changes operationally or functionally at MSD. Shortly after the Auditor issued the report, LWC President and CEO Greg Heitzman began serving on a part-time capacity as the Interim Executive Director of MSD pursuant to a Loaned Executive agreement and continued to serve in that role, while also leading LWC as President and CEO, until May 1, 2013. By December 2012, MSD had fully responded to the State Auditor with the specific actions taken to address all 150 recommendations. MSD’s response to the audit was cited by the State Auditor as a textbook example of how to respond and set the agency on a course of greater accountability to its customers.

On January 12, 2012 Mayor Greg Fischer formed the Louisville Utilities and Public Works Advisory Group, also referred to as the “Advisory Group.” The Advisory Group’s task was to examine the operations of LWC, MSD and Louisville Metro Department of Public Works and Assets (DPW) to determine whether synergies existed between the entities that would allow for improved service or reduced costs. The evaluation was intended to consider an array of potential business scenarios ranging from the current state where the entities essentially operate separately, with some exceptions, to a full consolidation of MSD and LWC.

Advisory Group Membership

<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Company</th>
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<tr>
<td>John Huber, Chair</td>
<td>Retired President, Louisville Water Company</td>
</tr>
<tr>
<td>Scott Brinkman</td>
<td>Member, Stoll Keenon Ogden PLLC and former State Representative</td>
</tr>
<tr>
<td>Al Cornish</td>
<td>Vice President, Norton Healthcare and former Chairman, District of Columbia Water and Sewer Authority</td>
</tr>
<tr>
<td>Diane Cornwell</td>
<td>Founder, StarFish Consulting and former Tax Partner, Arthur Anderson</td>
</tr>
<tr>
<td>Pete Mahurin</td>
<td>Chairman, Hilliard Lyons and Senior Vice President, the Mahurin Group</td>
</tr>
</tbody>
</table>
To assist in the effort, the utilities hired Black & Veatch Consulting to review the operations of LWC, MSD and DPW and to compare their practices and processes with others in the industry.

The evaluation determined that synergies and cost savings could include:
- Shared or consolidated purchasing
- Shared or consolidated fleet maintenance
- Shared or consolidated energy management
- Shared or consolidated billing/customer service
- Shared or consolidated back office functions
- Shared or consolidated operations

According to Black & Veatch Consulting, full consolidation of LWC, MSD, and Department of Public Works could result in annual cost savings up to $24 million by 2020. Black & Veatch Consulting’s report did not analyze the legal issues under different governance structures. Therefore, the report does not contain any analysis of what consolidation structures are allowable under the law based on the current statutory governance of each entity. It also did not address in depth how the various governance structures impacted either entity’s financial or environmental position.

The Mayor’s Advisory Group recommended a phased consolidation concept where LWC and MSD would begin seeking opportunities to partner and ultimately move toward a complete consolidation of the two entities. The Advisory Group also recommended that a complete legal, financial and environmental analysis be undertaken to determine the full risk and opportunity of a potential consolidation.

2.2 Due Diligence

Mayor Fischer asked the Board of Water Works (BOWW) of LWC and the MSD board to act on the recommendations of the Advisory Group by directing staff to complete a thorough due diligence effort (hereinafter referred to as “Due Diligence”). The purpose of Due Diligence was, to use internal staff and external experts and analyze the legal, financial and environmental issues affecting the feasibility and risks of various consolidation options. In response to the Mayor’s request, the Boards of LWC and MSD entered into a Letter of Intent on April 16, 2013. The Letter of Intent set forth the manner and conditions by which both parties would engage in the process of completing the Due Diligence. There was considerable time and effort put into
the drafting of the Letter of Intent, and both Boards agreed that the Due Diligence process needed to take into consideration the Advisory Group’s “Guiding Principles,” which had been adopted to safeguard the interests of the community (ratepayers), Louisville Metro Government, LWC, MSD and other stakeholders. Therefore, the Guiding Principles were incorporated into the Letter of Intent as the Boundary Conditions and are expected to serve as a framework within which both Boards will consider the consolidation options.

The Boundary Conditions section of the Letter of Intent states as follows:

“6. GUIDELINES FOR DETERMINATION
The Boards of LWC and MSD should take into account the boundary conditions considered by the Louisville Utility and Public Works Advisory Group in its final report to the Mayor about a potential consolidation of LWC and MSD and should weigh how any one or more of the boundary conditions affects the individual Boards’ answers to the questions set forth below in subsection 6B.

A. BOUNDARY CONDITIONS
1. Consolidation should not require any statutory or legal change that would adversely affect LWC’s unique corporate structure established by LWC Charter, the governing statutes for the Board of Water Works, or any other statutes impacting the Board of Water Works and/or the Louisville Water Company.
2. Local, (i.e. Louisville Metro Government), ownership and/or control of LWC and MSD should be maintained after consolidation.
3. LWC’s projected dividend should not be adversely affected by the consolidation in the long-term.
4. Consolidation of the entities should not adversely impact the bondholders of either MSD or LWC, nor should it have any material negative impact to MSD’s or LWC’s bond ratings as of the date of this Letter of Intent.
5. Consolidation should not impair the standing of MSD’s position with the Environmental Protection Agency such that it would warrant a renegotiation or material change to MSD’s EPA Consent Decree signed April 10, 2009.
6. Consolidation should result in stabilization of water, sewer and drainage rates or slowing of the growth of water, sewer and drainage rates of both MSD and LWC over a twenty (20) year period.
7. Consolidation should have no material detrimental impact to service levels for the customers of either LWC or MSD.
8. Consolidation should have no adverse impact to LWC’s or MSD’s ability to serve planned or existing wholesale customers under contract or provide contract operations to planned or existing systems under contract as of the date of this Letter of Intent.
B. QUESTIONS TO BE DETERMINED REGARDING CONSOLIDATION

Each Utility should answer the following questions:

1. Is it financially feasible, offer material cost savings and in the best interest of the utility, customers and Louisville Metro Government to consolidate LWC and MSD in some manner?
2. Is it environmentally feasible and in the best interest of the utility, customers and Louisville Metro Government to consolidate LWC and MSD in some manner?
3. Is it legally feasible and in the best interest of the utility, customers and Louisville Metro Government to consolidate LWC and MSD in some way?

If the answer to all three of the questions above are in the affirmative, the Due Diligence review will also result in recommendations for the manner and the form in which the consolidation may occur, including but not limited to, the proposed structure and any limitations or contingencies that should be imposed to limit potential risk and/or promote a successful implementation.”

This Report provides a detailed discussion of the Due Diligence conducted on the legal and governance issues, the financial analysis, and the environmental and regulatory impacts as they affect each organization due to the potential consolidation scenarios. This Report is supplemented by other documents that are included in the attached Appendices.

3. Governance

3.1 Governance Review Process

The overall objective of the Due Diligence effort was to decide whether consolidation was in the best interests of the utilities, their respective customers and Louisville Metro Government from a financial, environmental and legal perspective.

Both MSD and LWC created Due Diligence Teams to analyze the legal and governance issues arising from a consolidation of the different entities and propose workable solutions to identified issues; to analyze financial impacts and to propose methods to mitigate costs or optimize savings; and to propose methods to determine and mitigate any environmental or regulatory impacts. Both entities assembled separate Teams internally with assistance from outside experts, with the exception of two common team members. Due to his role at both entities, Greg Heitzman served to provide overall direction on the process and schedule but withdrew on issues where there was a conflict of interest. Additionally, MSD and LWC jointly retained the services of CH2M Hill Consulting Engineers to work with a joint MSD-LWC environmental and regulatory due diligence team to conduct that component of due diligence. Therefore, the following individuals served on each team:
MSD and LWC each conducted a self-assessment, whereby each entity analyzed potential legal constraints on a phased consolidation arising out of its existing governance structure. This work had to be completed first because the financial and the environmental and regulatory analyses were affected primarily by the governance structures being considered. It should also be noted that joint meetings of the LWC and MSD Teams were conducted frequently to ensure that respective approaches to this evaluation were similar and in order to answer questions and discuss issues.

After developing many options, the Due Diligence Teams initially considered 11 potential consolidation scenarios. The Teams considered the Boundary Conditions set forth in the Letter of Intent and reviewed preliminary information regarding the structures of various other utilities around the United States. Therefore, the initial 11 governance structures were considered due to the Advisory Group’s report and an initial review of other utility structures in other cities. They were as follows:

- LWC and MSD form a separate 50/50 Joint Venture
- LWC and MSD Dissolved and Both Entities Merged into New Utility
- LWC Subsidiary Responds to RFP Issued by MSD for contract operations of MSD
- MSD Subsidiary Responds to RFP Issued by LWC for contract operations of LWC
- LWC Directly Responds to RFP Issued by MSD for contract operations of MSD
- MSD Directly Responds to RFP Issued by LWC for contract operations of LWC
- LWC Subsidiary Acquires MSD
- MSD Subsidiary Acquires LWC
- LWC and MSD Enter into Comprehensive Interlocal Agreement (ILA)
- LWC and MSD Continue Use of Individual ILAs
- LWC and MSD Enter into a Comprehensive ILA using New Entity

All 11 scenarios were evaluated initially based on whether they were substantially in compliance with the Boundary Conditions. Both Teams affirmed substantial compliance with the Boundary Conditions, or noted compliance as a significant issue affecting the evaluation of that scenario. Thereafter, the scenarios were evaluated further by four criteria:
1. the net savings that could be achieved upon implementation (for evaluation purposes, savings/impacts were taken from the Black & Veatch Consulting’s report to the Advisory Group);
2. the difficulty to implement the scenario legally, including risks associated with the implementation;
3. the time to implement the scenario;
4. and, the views of the stakeholders involved, including LWC’s shareholder, LWC’s or MSD’s customers/ratepayers, community leaders, and the community.

Several governance scenarios were tabled after the evaluation of the above criteria due to significant differences related to the structures of both entities, especially the distinctiveness of the structure of LWC and its governing Board, the Board of Water Works, and the unusually broad scope of authority of MSD compared to other sewer and drainage districts. Additionally, the evaluation changed during the process due to new information that arose during this time period. This new information will be discussed in more depth below, but one example was the adoption of KRS Chapter 65A (HB 1), the Special Purpose Governmental Entity statutes. Until the emergency passage of this Bill, there was no statutory mechanism for dissolution of MSD, and therefore, options related to dissolution of MSD had been questionable, at best. The possibility of a MSD dissolution changed with the adoption of KRS Chapter 65A, although issues remain with the actual process to implement a dissolution. The pertinent language from the statutes is included in Appendix A.

Midway through the due diligence process, the Teams met with the Louisville Metro Government Mayor and senior Metro staff to provide preliminary findings, answer questions of the Metro staff, and receive feedback regarding the ongoing due diligence. This meeting also provided insight that affected the evaluation moving forward because the LWC and MSD Teams were able to better understand limitations related to certain initiatives and the interest of the Metro staff in exploring certain options further. From this point, senior staff at both entities continued to work together to further develop the due diligence for these final options in an effort to answer the questions contained in the Letter of Intent, whether these options were feasible and in the best interests of the utilities, our customers/ratepayers, and Louisville Metro Government.

3.2 Explanation of the Various Structures Considered

As specifically listed above, the Due Diligence Teams considered various options for consolidating the operations of each entity or consolidating the entities. For ease of discussion, those scenarios are grouped into five different approaches to consolidating some or all of the functions of both entities:

1. LWC and MSD creating a new entity, a service company for consolidating some operations, likely to be the “back office” functions through a joint venture (referred to as
the Joint Venture Option), the management of which would have representation from each MSD and LWC;
2. The dissolution of both LWC and MSD and the assets and liabilities of both entities being transferred into a completely new entity (referred to as the New Utility Option).
3. LWC or MSD directly acquiring the other or acquiring the other through a subsidiary, with the acquired entity dissolving (referred to as the Acquisition Option);
4. LWC or MSD directly responding or responding through a subsidiary to a Request for Proposal (RFP) issued by the other for contract operations (referred to as the RFP Option); and finally,
5. LWC and MSD contracting for joint services through the use of limited but multiple Interlocal Cooperation Agreements (ILAs) under Kentucky Revised Statutes (KRS) Chapter 65, or contracting for all joint services through a single ILA, either with or without a new administrative or legal entity being created under the ILA (referred to as the ILA Option) to combine various functions and have one entity perform them for both entities.

The first step in analyzing these options was to understand the current powers, duties, obligations and limitations, both statutory and common law, of each entity.

3.3 Current Governance Structure, Power and Duties of Louisville Water Company

Louisville Water Company is unique; there is no other entity with a corporate structure like LWC in the United States. Its one-of-a-kind structure derives from its evolution. In March of 1854, six founders formed it as a private company with all of the normal powers of a corporation and with 10,000 shares. The Kentucky General Assembly’s Charter issued for LWC enabled it to issue bonds secured by mortgages on the land and fees for the sale of water. To accomplish the monumental task of providing a safe water supply to a thriving city suffering from constant health threats, this Charter conveyed substantial powers to LWC, including eminent domain, the ability to extract water from the Ohio River, and the power to set stringent rules including reasonable fees for its usage, among other things. From the very beginning, this private company engaging in a very public purpose had characteristics typically held by cities and other government agencies.

It did not take long for the founders to learn it was costly to build and maintain a waterworks system. In order to infuse capital into LWC and ensure a water supply to its citizens, the City of Louisville purchased shares of LWC and by 1906, the City of Louisville owned all of the shares of Louisville Water. Additionally at that time, the Kentucky General Assembly created KRS Chapter 96.230-96.310 permitting a city of the first class to control its waterworks through a board of waterworks for the benefit of the city. The City could have chosen to purchase the assets of LWC, but it did not do that; rather the City determined it would retain its relationship as that of shareholder to a corporation. In the 1891 Kentucky Constitution, a provision was added
under Article 179 that prohibited governments from owning stock in private companies, a practice that was not uncommon at the time, but often did not prove to be a wise investment of taxpayer revenue. However, because of its previous stock ownership in LWC, the City of Louisville was not subject to the constitutional prohibition as it applied to LWC. That relationship has remained unchanged, and today LWC’s sole shareholder is Louisville Metro Government.

The uniqueness of LWC’s governance structure has served to create conflicting opinions due to it not squarely falling into the category of government agency or private company for all situations. It has been further complicated by the fact that there is no comparable entity anywhere in the United States so courts have been unable to find analogous opinions by which to be guided. Of importance to LWC’s governance structure, especially when considering opportunities and limitations regarding consolidation with MSD, are the following current opinions relating to the BOWW and/or LWC:

1. LWC is a distinct corporate entity, separate and apart from the City owning all its stock.¹
2. LWC is not an agent of the City because it is a business corporation unlike other government entities and who its shareholder is does not determine the nature, corporate or governmental, of LWC. As a result, the City is not liable for LWC’s debts and liabilities, but LWC as a private company, may be subject to punitive damages for gross negligence and willful misconduct.²
3. The BOWW, as the board of directors of the waterworks corporation known as LWC, holds specific powers to operate the corporation, including the power to issue debt, make contracts and sue and be sued, but these powers may be exercised only in the name of the waterworks corporation. The BOWW was created specifically by the legislature to manage and govern LWC.³
4. As a private corporation, with all the rights and powers under corporate law, LWC may earn a profit.⁴ However, its income is not taxable to the extent it is earned from performing an essential governmental function and it accrues to a state or political subdivision thereof.⁵
5. LWC is exempt from regulation by the Kentucky Public Service Commission because KRS 278.010 exempts all water districts organized under Chapter 74 and any city that controls, operates and manages its utilities.⁶

¹ Dolan v. Louisville Water Co., 174 S.W.2d 425 (Ky. 1943). See also Bell, Sheriff, et al v. City of Louisville, et al., 106 S/W/ 862 (Ky. 1908)
² Phelps v. LWC, 103 S.W.3d 46 (Ky. 2003) overruling Barber v. Louisville, 777 S.W.2d 919 (Ky. 1989).
⁴ Dolan, p.431.
⁵ 26 U.S.C.A § 115 (2008) as interpreted in Phelps, supra,.
⁶ McClellan v. Louisville Water Co., 351 S.W.2d 197 (Ky. 1961); Louisville Water Co. v. Public Service Comm’n, 357 S.W. 2d 877 (Ky. 1962).
6. LWC, as a private company, has the authority to operate outside of the geographical limits of Jefferson County.⁷ Operations have been interpreted to allow not only providing a public water supply, but also water-related services.⁸

7. LWC has been considered a “public authority” performing “public works projects” pursuant to KRS Chapter 337, and is therefore, required to pay prevailing wages when applicable.⁹

8. BOWW is a “public agency” for the purposes of the Kentucky Open Records Act.¹⁰

3.4 Current Governance Structure, Power and Duties of the Metropolitan Sewer District

MSD is also distinctive in nature due to its broad authority. This breadth of authority has resulted from its evolution, like LWC.

3.4.1 Creation of Sewer District

MSD was created and established pursuant to KRS Chapter 76 in the interest of public health for the purpose of providing adequate sewer and drainage facilities in the City of Louisville and Jefferson County, Kentucky.¹¹ It was created by ordinance passed by the Board of Alderman on July 9, 1946 and approved by the Mayor of Louisville on July 10, 1946.¹²

When established, MSD became a “public body corporate” and “political subdivision.”¹³ As such, MSD exists as a separate entity acting for its own purposes though possessing limited powers of a municipal corporation.¹⁴ Defined by law as a hybrid agency, MSD is neither an agency of the City nor of state.¹⁵ It is a local governmental entity, and special district, distinct from state government and Louisville Metro.¹⁶

KRS Chapter 76 constitutes MSD’s charter¹⁷ pursuant to which MSD is empowered, among other things, to operate, maintain, reconstruct and improve the sewer and drainage system, and to construct additions, betterments, and extensions thereto within the limits of its service area as

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⁷ KRS 96.265
⁸ KRS 96.265
⁹ Louisville Water Co. v. Wells, 664 S.W.2d 525 (Ky. 1984), relying upon the Dolan case to determine that LWC was a distinct entity apart from the City and not exempt from paying prevailing wages as a “city” under KRS 337.010, although it met the court’s definition of a “public authority.”
¹⁰ See 94-ORD-47; 08-ORD-139.
¹¹ KRS 76.020.
¹² Ordinance No. 90, Series 1946, approved 7-9-1946.
¹³ KRS 76.010
¹⁴ Veail v. Louisville & Jefferson County Metropolitan Sewer District, 303 Ky. 248, 197 S.W.2d 413 (Ky. 1946).
¹⁶ Id.
¹⁷ Rash v. Louisville & Jefferson County Metropolitan Sewer District, 309 Ky. 442, 217 S.W.2d 232 (1949)
defined by the statutes.\(^{18}\) Chapter 76 also authorizes MSD to fix and collect sewer rates, rentals and other charges for services rendered by the facilities of the district subject to approval of Louisville Metro Council.

3.4.2 Sewer, Drainage and Flood Control Services\(^{19}\)

On November 16, 1946, MSD supplanted the function of the Commissioners of Sewerage of Louisville and assumed jurisdiction over the then existing sewer system within the City. MSD, however, did not assume responsibility for the City’s or County’s drainage system. During the 1960’s and 1970’s, MSD provided drainage services under a contract with Jefferson County, pursuant to which the County reimbursed MSD’s drainage maintenance costs. Later, in 1981, responsibility for drainage operations shifted to the Jefferson County Department of Public Works and in 1982 responsibility for the area’s flood protection system shifted to the City.

In 1984, due to universal concern for drainage, MSD began reassessing its long term role in drainage and storm water management as part of an overall review of its entire program. By that time, drainage had become recognized as a major problem due to unregulated and uncoordinated land development, deteriorating drainage systems in some areas, and the lack of systems in others.

In February 1984, a Strategic Planning and Finance Committee (“Committee”) was appointed to develop a plan to address water quality issues throughout the City and County. The Committee was comprised of local officials, members of the MSD Board, and various representatives from the community. In its final report, the Committee proposed the establishment of a single authority to be responsible for maintaining and improving the County’s storm water system with revenues derived from user fees.

Thereafter, following engineering studies of existing facilities, the establishment of a rate structure and annexations, MSD entered into an interlocal agreement with the City of Louisville and Jefferson County whereby responsibility for drainage was transferred to MSD. The agreement, which was entitled Establishment of a Comprehensive Storm Water Drainage Authority Coextensive With and Under the Louisville and Jefferson County Metropolitan Sewer District and Agreement for Interlocal Cooperation (“Drainage ILA”) was signed December 23, 1986.\(^{20}\) The purpose of the Drainage ILA was to create a single, countywide storm water drainage utility service under the management of MSD.

The Drainage ILA transferred all storm and surface water drainage and flood control responsibilities to MSD and also authorized MSD to improve, operate, manage and repair

\(^{18}\) KRS 76.080
\(^{19}\) Except as otherwise noted, information noted under Section C was obtained from Section 1 of the Louisville and Jefferson County Storm Water Drainage Master Plan, Institutional Plan Element, dated October 1986, prepared by Water Resources Associates, Inc.
\(^{20}\) The formation of an interlocal agreement is authorized under KRS 65.210 – KRS 65.300;
existing storm and flood protection systems for a term of 50 years. All flood, surface and storm water systems, equipment, and facilities owned, controlled and/or leased by the City and County were leased to MSD which included all ditches, inlets, headwalls, outlets, basins, floodwalls, pipes, channels, creeks, ponds, easements, rights-of-way, dedications and other interests in real property controlled or possessed by the City or County for drainage.

The City and County also transferred to MSD all obligations arising under the Assurances consummated between the City and/or County and the United States Government regarding local flood protection. Through this transfer, MSD became responsible for maintaining, operating and repairing the Louisville Local Flood Protection Project, the Southwestern Louisville Flood Protection Project and the Millcreek Channel Improvement Project. MSD also assumed responsibility for preparing and adopting a storm and surface water drainage master plan for Jefferson County in cooperation with the City and County.

Contemporaneous to finalizing the Drainage ILA, the parties also finalized amendments to MSD’s existing Schedule of Rates, Rentals and Charges to implement a drainage service charge. The charge became effective January 1, 1987. The first schedule of rates, rentals and charges was approved and implemented in 1947.

3.4.3 MSD’s Current System

Currently, MSD operates and maintains a collection, transmission, and treatment system that includes 3200 miles of sewer lines, 285 pumping stations, six (6) regional water quality treatment centers, thousands of sanitary and combined sewer manholes and catch basins, and a number of small treatment facilities. MSD’s system lies within Jefferson County and serves more than 220,000 homes, businesses, and industries in a service area consisting of approximately 385 square miles.

Since 1987, MSD continues to be responsible for the construction, repair, and maintenance of storm sewers, drainage swales, ditches and channels, inlets, headwalls, outlets, and basins. MSD is also responsible for the maintenance and repair of 25 miles of earthen levees, 16 flood pumping stations, and 4.5 miles of reinforced concrete floodwalls.

3.4.4 Regulatory Functions and Services

1. Flood Plain Management

Consistent with the flood control management responsibilities assumed by MSD under the Drainage ILA, in 1997 MSD was also designated administering agency of the Louisville Metro Floodplain Management Ordinance21 (“FMO”). As a participant in the National Flood Insurance

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Program (“NFIP”), Louisville Metro is required to adopt and submit to the Flood Insurance Administrator of the Federal Emergency Management Agency (“FEMA”) flood plain management regulations satisfying Federal criteria.

At a minimum, flood plain management regulations must satisfy applicable provisions of 44 CFR Part 60. These regulations set forth the criteria developed by FEMA for adequate flood plain management as required by the various federal laws authorizing the NFIP. The Federal regulations require appropriate local land use adjustments to constrict the development of land which is exposed to flood damage, to minimize damage caused by flood losses, and to guide development of proposed future construction away from locations which are threatened by flood hazards.

As the FMO administrator, MSD is responsible for enforcing all FMO requirements. This includes issuing floodplain permits, and maintaining the flood protection system, Flood Insurance Rate Maps, Flood Insurance Studies, drainage system, as well as other storm water related tasks. The Board of MSD serves as the Flood Plain Board and is responsible for hearing variance requests and enforcement appeals.

Commensurate with its floodplain management duties, MSD is also responsible for administering the Floodplain Management Plan and coordinating the Community Rating System Program for Louisville Metro. Adopted by the City of Louisville and Jefferson Fiscal Court in 2000, the Flood Plain Management Plan outlines a Five-Year Action Plan for mitigation to eliminate or reduce flood losses and was readopted, along with revisions to the FMO in 2005.

The Community Rating System Program (“CRS”), which was implemented in 1990, encourages communities to go above and beyond the NFIP minimum requirements in administering floodplain management. To be eligible for CRS discounts, communities are required to engage in activities recognized as measures for eliminating exposure to floods with credit points assigned to each activity. There are eighteen activities organized under four categories: Public Information, Mapping and Regulation, Flood Damage Reduction, and Flood Preparedness. The more credits received the higher the community’s class rating and flood insurance discount.

As CRS Program Coordinator, MSD is responsible for completion of all CRS activities and currently provides activities in all categories. The activities have also contributed to an increase in discounts. In 2000, Louisville Metro had a Class 6 Rating, which awarded residents a 20%

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22 44 CFR Part 60
23 There are three applicable subparts, Subpart 60.3 for flood-prone areas, Subpart 60.4 for mudslide areas, and Subpart 60.5 for flood-related erosion areas. (44 CFR §59.2 (b) and (c))
24 Communities that join the CRS receive a rating according to a point system devised to reflect the level of safety provided through the floodplain management activities they implement. CRS communities are assigned a CRS Class, from Class 9 to Class 1 that establishes the level of premium discount policyholders receive. The discount on their annual flood insurance premiums can range from 5% to as much as 45%, based on the community’s CRS Class.
discount on premiums for flood insurance. Currently, Louisville Metro has a Class 4 Rating, which awards residents in Jefferson County with a 30% discount.

2. Erosion Prevention/Sediment Control

In addition to the Floodplain Management Ordinance, MSD is also the administering agency of the Louisville Metro Erosion Prevention and Sediment Control Ordinance ("EPSC Ordinance" / "Ordinance").²⁵ The EPSC Ordinance was adopted by Jefferson County Fiscal Court in November, 2000 pursuant to authority granted counties in KRS Chapter 67, and powers granted by the Federal Clean Water Act, 33 U.S.C. §1323, et seq.

The EPSC Ordinance is intended to comply with all applicable state and federal requirements for clean water, including limitations on discharge of pollutants established by the Kentucky Pollutant Discharge Elimination System and applicable provisions of the Federal National Pollutant Discharge Elimination System general permit for municipalities.

The purpose of the Ordinance is to control soil erosion and sedimentation arising from development and other land disturbing activities to prevent adverse impacts and offsite degradation. It requires that all EPSC measures be designed and installed to accomplish an 80% design removal efficiency goal for total suspended solids. With the exception of certain agricultural activities and limited clearing and grading activities, all land disturbing activities in Jefferson County, including single family, commercial, residential and utility construction are subject to the Ordinance.

As the administrator of the EPSC Ordinance, MSD is responsible for the review and approval of all EPSC plans and/or measures, including any modification, prior to implementation. MSD is also responsible for inspecting land disturbing activities, including BMPs and for enforcement of the Ordinance. To achieve efficiency goals, MSD has developed approved structural and non-structural best management practices ("BMPs") as set forth in its Design Manual, Standard Drawings and Standard Specifications.

In August 2013, the MSD Board approved modifications to current EPSC regulations to implement requirements of MSD’s MS4 storm water permit. The modifications, which are included in MSD’s Wastewater/Stormwater Discharge Regulations, include new procedures, standards, and maintenance provisions for the mandatory installation of post-construction BMPs per MSD’s Green Infrastructure Design Manual.

3. Hazardous Materials Ordinance

In 1985, the City of Louisville and Jefferson County adopted a Hazardous Materials Ordinance (HMO) requiring the submittal of a Hazardous Materials Use and Spill Prevention Control

(HMPC) Plan by any business that manufactures, uses or stores hazardous materials in excess of designated quantities. The most recent version was passed in 2007 in accordance with KRS 67.115(2).

The primary function of the HMO is to regulate the use and release of hazardous materials or toxins regulated by various federal laws including but not limited to Section 311(b)(2)(a) of the Federal Water Pollution Control Act (FWPCA), Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and Section 3001 of the Solid Waste Disposal Act (commonly known as the Resource Conservation and Recovery Act “RCRA”), as applicable.

The Ordinance also directs MSD to administer and enforce the program. MSD’s role in enforcing the HMO is to inspect facilities to ensure that they maintain an up-to-date Hazardous Materials Use and Spill Prevention Control Plan. This plan must detail what is on-site, how it is stored and handled as well as best management practice plans in the event of a spill or release. The plan must also contain reporting requirements in the event of a spill or release. The HMO also contains a schedule of fines for violations, including the allowance of cost recovery.

4. Pre-Treatment and Wastewater/Stormwater Discharge Regulations

As publicly owned treatment works (“POTWs”) MSD treatment facilities are designed to treat domestic sewage only. However, MSD’s facilities also receive wastewater from industrial users. To address these “indirect discharges” from industries, the Clean Water Act established the National Pretreatment Program (40 CFR 403) as a component of the Clean Water Act’s National Pollutant Discharge Elimination System Permit Program.

Under the National Pretreatment Program, General Pretreatment Regulations have been established whereby MSD is required to establish a local pretreatment program. MSD’s program is implemented through its Wastewater / Stormwater Discharge Regulations (“WDRs”), pursuant to which MSD enforces all national pretreatment standards and requirements. In addition, because the state of Kentucky is a delegated state, MSD’s WDRs are implemented through the Kentucky Pollutant Discharge Elimination System (KPDES) program. Kentucky adopted federal standards codified at 40 CFR 403 as part of Kentucky’s KPDES Program (401 KAR 5:055 (9).

As the Control Authority over pre-treatment, MSD issues three types of permits: Federal Significant Industrial User (SIU) Permits, General Discharge Permits (GDP) and Unusual Discharge Request (UDR) Permits. In addition, unique user agreements supplement permits where pollution prevention goals have been recognized and joint ventures proposed with companies. All permits issued are directed towards collection system protection.

MSD also meets certain reporting requirements. Under state and federal regulations, MSD is required to submit Pretreatment Discharge Monitoring Reports (DMR), Pretreatment Annual and
Semi-Annual reports, and Industrial User reports for Kentucky Pollutant Discharge Elimination System (KPDES) renewal. The DMRs are submitted each January summarizing influent, effluent and biosolids data for MSD treatment plants with pretreatment requirements. The Pretreatment Annual report is submitted each March. This report includes summaries for each individual permitted user and Pretreatment Program statistics, including compliance and enforcement activities.

The Pretreatment Semi-Annual report submitted each September summarizes program statistics for the first half of the calendar year. Every five years, summary industrial data, similar to the Pretreatment Annual report, must also be collected to satisfy permit application requirements of the KPDES permit renewal.

MSD maintains its own State certified laboratory to process and analyze the collected samples. If a facility is found to be in non-compliance, the WDRs grant MSD authority to initiate enforcement actions and notices of violations for violations of pretreatment standards and prohibited discharges. Publication of Users in Significant Non-Compliance is required annually and is published in the Courier Journal newspaper classified section.

3.4.5 Major Contractual Legal Obligations

1. Consent Decree

In August, 2005, MSD entered into a Consent Decree with the U.S. Department of Justice, the U.S. Environmental Protection Agency (EPA) and the Kentucky Department of Environmental Protection to resolve alleged violations of the Clean Water Act for untreated overflows from Louisville Metro’s combined and separate sanitary sewer systems. In April, 2009, MSD entered into an Amended Consent Decree to resolve alleged violations of the Clean Water Act primarily related to water quality treatment center performance, record-keeping and reporting.

In accordance with the requirements of the Amended Decree, MSD prepared a comprehensive plan known as the Integrated Overflow Abatement Plan and developed under Project WIN to reduce and mitigate the effects of combined sewer overflows, to eliminate sanitary sewer overflows, and other unauthorized discharges. The abatement plan is estimated to cost $850 million over a twenty year period.

2. Lee’s Lane Landfill Consent Order

The Lees Lane Landfill site is a 112 acre site located next to the Ohio River. The site includes an area where a landfill operated from the 1940s until 1975. In 1993, EPA placed the site on the National Priorities List due to contaminated ground water, surface water, sediment, soil and air testing from landfill operations. In 1991, the EPA negotiated a Consent Order with MSD, one of
the site’s potentially responsible parties, to perform operations and maintenance activities at the site, with oversight by the Kentucky Department of Environmental Protection. The Order is due to expire in 2020.

3. Interlocal Cooperative Agreements

A. Wastewater Treatment Services

MSD is presently party to Interlocal Agreement with City of Crestwood and Oldham County pursuant to which MSD provides wastewater collection and treatment services at its Hite Creek Wastewater Treatment Plant. The Interlocal Agreement with the City of Crestwood and Oldham County was executed in September 1996 for a term of 30 years.

B. MS4 Compliance Services

In addition to the Interlocal Agreements with the Oldham County Environmental Association and the City of Crestwood, MSD also has 5 Interlocal Agreements that pertain to its MS4 Permit. MSD is a Phase I MS4 community and holds a Kentucky Pollutant Discharge Elimination System (KPDES) Stormwater Permit (KYS000001) issued by the Kentucky Division of Water (KDOW).

The MS4 permit mandates that MSD implement the following major programs to improve stormwater quality: Illicit Discharge Detection and Elimination Program; Industrial Stormwater Program; Construction Site Runoff Controls; Post Construction Controls; Good Housekeeping and Pollution Prevention; Public Education and Outreach Programs; and Monitoring and Reporting.

MSD is co-permitted with Louisville Metro, Anchorage, Jeffersontown, Shively and St. Matthews. To ensure compliance, MSD has entered into an Interlocal Agreement with each of these entities, the purpose of which is to establish and set forth each co-permittee’s responsibilities.

Pursuant to the Interlocal Agreements, MSD is responsible for conducting inspections and investigations to locate and eliminate illicit, unpermitted discharges from entering the waters of the Commonwealth and MSD’s sewer system. MSD categorizes facilities into moderate and high risk classifications based on their potential to discharge both volume and categorical types of waste and prepares annual compliance reports required by KDOW. MSD also prepares and administers a mandated Stormwater Quality Management Plan (“SWQMP”). The SWQMP outlines the activities that co-permittees, in conjunction with MSD, will complete during the 5-year term of the permit to address joint requirements under the MS4 permit. These requirements include education and
community outreach programs; good housekeeping; construction site runoff controls and post construction controls best management practices.

3.5 Various Governance Structures Eliminated

Of the 11 initial governance structures considered, the Teams eliminated certain options after their initial evaluations. The Joint Venture Option was eliminated due to several reasons, but namely the risk associated with the formation of such a structure and its actual operation due to it being controlled by two different boards. Although the Joint Venture Option evaluation results were low anyway, subsequent to considering that option, MSD provided information that it was unable by law to form a subsidiary due to its current governance structure, and therefore, the Teams determined that these options were not feasible. A governance structure decision tree was developed to assist in this analysis and is included in Appendix B.

The New Utility Option also scored low and substantially violated many of the Boundary Conditions agreed to by MSD and LWC in the Letter of Intent. The New Utility Option not only changed the unique character of LWC’s governance, it eliminated it permanently. Due to the constitutional provision that now prevents ownership of stock in private companies, Louisville Metro could never recreate another entity with its corporate structure of LWC as it exists today without a constitutional amendment. Given that 40 other states also have this same constitutional provision, it is unlikely stock ownership by public entities would ever be permitted by constitutional amendment. Therefore, this option threatens, and actually eliminates, the dividend paid by LWC to Louisville Metro through its Revenue Commission on Louisville Metro’s shares of stock.

Any new entity that would be created in the event both MSD and LWC were dissolved would have to be formed as one of the traditional governance structures available for utilities today:

- A department of the local government;
- A not-for-profit district;
- A private entity, which would accrue income to its owner on a consolidated accounting basis, which would not likely be Kentucky based, and which would seek a franchise from Louisville Metro for exclusive utility operations.

If LWC was dissolved, LWC’s bonds likely would require refunding because of its Corporate Existence covenant, among other things. MSD’s bonds likely would require refunding if its debt was transferred to a nongovernmental entity but may not be required to be refunded if transferred or assigned to a governmental entity. MSD’s Consent Decree would have to be assigned to the New Utility, and the Environmental Protection Agency (EPA) would have to agree to the assignment. Additionally, at the time of initial consideration of the New Utility Option, there was no mechanism of dissolution available for MSD. However, with the passage of the Special
Purpose Governmental Entity legislation, dissolution became available during the timeframe of the due diligence review. Still, however, there are significant issues regarding the steps necessary for dissolution. That lack of clarity, coupled with all the factors listed above, influenced the Due Diligence Teams to eliminate New Utility Option from further consideration.

The Due Diligence Teams evaluated the RFP Options and considered them feasible. One major concern with the RFP Option was the potential loss of local control over the water, sewer and related services. This loss of control can affect customer satisfaction, collaboration with Louisville Metro, and each utility’s commitment to sustaining and improving its infrastructure. Another concern with the use of the RFP process was the potential inability to adequately contract for all contingencies related to operating another utility. Benchmarking has shown that there were instances around the country where utility operating entities have not performed at pre-established levels during contractual arrangements resulting from RFPs. Such water systems have had deteriorating physical assets, insufficient ability to raise rates to cover improvements, and low customer satisfaction levels with a contract operator. Due to these risks, the Due Diligence Teams decided to instead focus on less risky options that were not only feasible but also achieved the overall goals of consolidation. The Due Diligence Teams also reviewed the use of individual ILAs but determined that these would be an administrative burden.

This analysis left the Due Diligence Teams with two remaining options plus another one that developed through the process. These three governance options were evaluated financially and from a governance perspective:

- Comprehensive ILA under the existing statutes;
- The creation of a subsidiary to acquire MSD; and
- Dissolution of MSD and acquisition by LWC of some portion of assets.

These options are discussed in detail below.

3.6 Legal Evaluation of Selected Governance Structures

3.6.1 Comprehensive Interlocal Cooperation Agreement

The Interlocal Cooperation Act, KRS Chapter 65.210-300, the “ILA Act,” was created to allow local governmental units to make the most efficient use of the powers they have by cooperating with one another to provide services and facilities according to geographic, economic, population and other factors that influence the needs of the communities. Only public agencies may avail themselves of the Act. Under state law, the definition of “public agency” varies depending on the statutes that the definition is referencing. In other words, an entity may be a public agency under one group of statutes for one purpose, but not for another group of statutes for a different
purpose. This definition and distinction is especially true for LWC and the BOWW because of the unique nature and the differing opinions about its status throughout history, as discussed previously. Under the ILA Act, a public agency is any “political subdivision.” As discussed previously, both the BOWW and MSD are political subdivisions and can enjoy the benefit of the Act. The BOWW’s agreement under the ILA Act may only be for the benefit of LWC, however, due to the limitations on the BOWW’s powers.  

What a political subdivision may do under an ILA is subject to KRS 65.240, which allows one political subdivision to exercise for another political subdivision “any power or powers, privileges or authority exercised or capable of exercise” by the first political subdivision. Any ILA, once approved by the Boards of each entity, must be submitted to the Kentucky Attorney General for approval, and the Attorney General has sixty (60) days to either approve the ILA or allow it to be approved by default. MSD and the BOWW, on behalf of LWC, have received approval for one ILA for the joint sharing of concrete pouring services.

The manner in which LWC and MSD would use the Comprehensive Interlocal Cooperation Agreement would be much broader than the previous power shared under the existing concrete pouring ILA. The parties have identified certain functions that each utility has that could be provided for one another or jointly shared. These functions include: Information Technology; Engineering; Internal and External Communications and Public Relations; Finance and Accounting, including collection; Procurement; Warehouse, Lab Services; Fleet; Government Relations; Human Resources; and, Business Development. The concept of one of the utilities providing these services for the other as a part of a larger comprehensive ILA has been discussed with the Kentucky Attorney General’s staff. The choice of which utility would provide which service to the other, and the manner and the cost to provide them, has yet to be determined, but if such an arrangement were approved and implemented, the Due Diligence Teams agreed that savings could be achieved and the overall objectives of the Letter of Intent could be met.

There are notable benefits to the Comprehensive ILA.

- Rate setting remains under each entity’s current process.
- It allows LWC to maintain its current legal structure, which may not be replicated if changed or eliminated, which thereby maintains the current shareholder-corporation

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26 KRS 96.230: Powers of Board [of waterworks] “….It may make contracts and sue and be sued, but only in the name of the corporation.”
relationship between LWC and Louisville Metro and allows for LWC’s dividend to Louisville Metro.

- It does not affect MSD’s Consent Decree, which the parties agreed needs to remain unchanged.
- It does not force any refunding or sale of any bonds and does not increase either entity’s debt. Consequently, the existence of the ILA does not affect either entities’ bond rating.
- It does not change the different geographical areas in which each entity currently operates. Thus, LWC’s and MSD’s service areas would remain the same, and their wholesale and contract operations agreements would remain intact.
- Because MSD would retain its current structure, the use of the Comprehensive ILA does not require any changes to the BOWW’s statutes to give it the regulatory authority currently held by MSD.
- It does not require changes to the collective bargaining arrangements with either entity’s unions.
- Finally, it allows MSD to keep its qualified immunity status and does not expose any of MSD’s current liabilities to LWC’s potential for punitive damages.

There are very few risks to the Comprehensive ILA process once it is approved.

- The Comprehensive ILA must be approved by the Attorney General. MSD and LWC must ensure that the agreement submitted contains all the information required by the statute.
- Additionally, because both entities would remain unchanged from a governance perspective, there would continue to be two boards involved in the management of the operations and maintenance of both MSD and LWC. Therefore, the risk exists that there would be disagreement between LWC and MSD as to the provision of services, payment of services, objectives to be achieved, measurement of performance, and other aspects of contract operations. To mitigate this concern, the parties would need to ensure that the contract was sufficiently detailed to cover these issues. To further mitigate the risk of a disagreement during the contracting relationship, the parties can build a Joint Services Steering Committee (JSSC) made up of representatives of senior staff from each entity to serve as the governing committee to determine solutions to move forward after issues are raised.
- A detriment to this governance structure is that LWC and MSD follow different procurement rules. MSD has adopted the local public agency section of the Model Procurement Code, whereas LWC is not required to follow the Kentucky Model Procurement Code. This difference can make joint procurement difficult in some situations, although the bulk of the public procurement rules followed by both entities are the same. To mitigate this difference, the particular service being provided by one entity for the other should cover, to the extent possible, all procurement requirements necessary to provide that service for both entities. In addition, when procurement rules are the
same, the entities could consider cooperative purchasing to gain efficiencies realized through economies of scale and less employee labor for such procurement.

After the consideration of these risks and benefits, the Due Diligence Teams recommend the Comprehensive ILA Option as a feasible and highly viable option. The discussion of the financial savings available and any costs associated with this ILA Option follows in the section entitled “Financial Analysis of the Governance Options.”

3.6.2 Acquisition of MSD by a Non-Profit Corporation

The Due Diligence Teams analyzed several mechanisms for the use of a subsidiary to acquire MSD. The first method of acquisition considered was the creation of a limited liability company for the purpose of acquiring MSD. In this scenario, Metro Louisville would form a new entity, which for purposes of discussion is referred to as “One Water Sub.” After the creation and establishment of One Water Sub, MSD’s Board of Directors would need to take MSD through the dissolution process for an active Special Purpose Governmental Entity (SPGE) under the newly enacted statutory provisions in KRS Chapter 65A.27

Dissolution of an active SPGE established by the City of Louisville requires two-thirds (2/3) approval of the governing body of the Louisville/Jefferson County Metro Government, or Metro Council. After the vote and during consideration of a plan for dissolution, the SPGE is not permitted to assume any new obligations or duties, contract for any debt whatsoever, or levee any additional fees unless the new obligations are included in the plan of dissolution to be provided to the governing body for consideration. This dissolution plan, at a minimum, must contain an explanation for how all the necessary services will be provided for after the dissolution; the satisfaction of any outstanding obligations; an assumption of responsibility from the successor organization that will provide the services and assume the obligations; a plan for the orderly transfer of assets; and the date upon which final dissolution should occur. The plan must be available for thirty (30) days prior to a public hearing, which must be advertised between fifteen (15) and thirty (30) days in advance. This process would require approval of dissolution by the MSD Board.

27 KRS 65A.050 is included in Appendix A. The requirements have yet to be interpreted and are not entirely clear how they would apply to this specific process. Some assumptions have been made in the following two sections.
Because of the statutory limitation on the BOWW that does not allow it to manage and operate any corporation other than LWC, the actual governing body of One Water Sub could not be the BOWW. Because the BOWW is the issuer of all bonds for the improvements of the waterworks, an Acquisition Option using a traditional LLC subsidiary does not permit the issuance of tax-exempt debt for the One Water Sub. This was considered by the Due Diligence Teams as a fatal flaw to this scenario because it substantially increased the cost of future construction and operation of the MSD system but also created a taxable event requiring a refunding of MSD’s debt.

Therefore, the Due Diligence Teams considered a different method by which it would utilize a subsidiary option. This method would be through the creation of a non-profit entity that would have the flexibility to issue low cost debt and could hold the assets and liabilities of MSD. One of the mechanisms to accomplish this was through IRS Revenue Ruling 63-20 from 1963 to issue tax exempt bonds for the purpose of funding the necessary public assets associated with One Water Sub. This type of entity is referred to as a 63-20 Corporation. Local governments have formed 63-20 Corporations to finance large capital projects. The government creates a channel to float the debt of the entity and leases the overall project back for the duration of the project. While the 63-20 corporation has traditionally been used for finite projects, there appears to be no limitation in using it for ongoing utility operations. The formation of the 63-20 Corporation must be through a statutorily permissible avenue, which under Kentucky law is through the powers granted to governments for the creation of a non-profit corporation to act as that government’s agent for the purpose of financing public projects. IRS Revenue Ruling 63-20 provides the framework to permit the non-profit entity to issue tax exempt bonds under specific conditions. The conditions that must be met by the private corporation are: (1) the activities of the corporation must be public in nature; (2) the corporation must not be organized for profit, except to the extent of retiring indebtedness; (3) the income must not inure to any private person; (4) a state or political subdivision must have a beneficial interest in the corporation while the debt remains outstanding; and (5) the corporation must have been approved by the state or political subdivision.

The 63-20 Corporation addresses the inability of the traditional limited liability company or other corporation acting as One Water Sub to issue tax-exempt debt. However, the BOWW could not create the 63-20 Corporation, although the BOWW is a political subdivision, because the BOWW has authority only to contract as the waterworks corporation, as LWC. LWC could not form the 63-20 Corporation because a political subdivision must form it. Therefore, to utilize this mechanism and allow tax-exempt debt to be issued, Louisville Metro Government would need to create the 63-20 Corporation. Revenues generated from the assets in the 63-20

28 KRS 58.180
Corporation would be pledged as debt service for the bonds, and in exchange for operating the sewer system and other systems within the 63-20 Corporation, LWC could by contract receive an operating payment. Under the regulations governing 63-20 Corporations, the amount of the operating payment is restricted.

Under this scenario, once this SPGE dissolution process was accomplished to dissolve MSD, all of the sewer, drainage, storm water and flood protection functions would transfer to Louisville Metro, and then the water-related functions minus the regulatory functions could be transferred to One Water Sub, a 63-20 Corporation. LWC could as a part of its operating agreement with One Water Sub, the 63-20 Corporation, provide all the back office functions for One Water Sub with LWC utilizing its existing resources together with resources from the dissolved MSD. As a private non-profit corporation, all functions currently being regulated by MSD could not be transferred to One Water Sub because a private entity cannot regulate the conduct of citizens without a statutory mechanism to do so. Additionally, without changes to the BOWW’s statutes, the BOWW cannot assume this regulatory responsibility either. The BOWW does not have the regulatory authority held by MSD currently. LWC as a private company may not be a regulator.

This structure has several benefits.

- It would effectively provide for several of the community’s critical utility functions to be provided by one entity, LWC.
- A 63-20 Corporation can issue tax exempt debt.
- This structure limits exposure to LWC, an entity subject to punitive damages for gross negligence or willful misconduct.
- As a separate entity holding the former MSD assets, liabilities related to those assets would not be imputed to LWC, except to the extent permitted contractually in the operating agreement.
- One Water Sub would not have MSD's jurisdictional limits, and consequently, could own the assets of, issue debt for, and receive the revenue for sewer and drainage services, and then contract with LWC to operate sewer and drainage services outside of Jefferson County.
- It would allow one entity to centralize control of purchasing and eliminate the differences in the procurement rules being followed by the two entities, allowing for ease of procurement and savings due to the economies of scale where like goods and services are needed for operations.

This structure is not without risks.

- The dissolution of MSD, including through this mechanism, could require the refunding of its debt, but this issue is not settled by current tax law.
- The 63-20 Corporation, because of its legal structure, may not earn a profit, and the amount of profit available to the contract operator, LWC, is limited.
Another risk is that the storm water and drainage assets may have a hybrid ownership, being partially built by the former City of Louisville and added to, rehabilitated and/or upgraded by MSD. Therefore, the accounting for these assets for purposes of transfer and valuation would be very difficult. Assumptions would have to be made regarding these assets, as further discussed in the section on “Financial Analysis of the Governance Structures.”

The EPA could reject assignability of the Consent Decree due to various reasons. Renegotiation or additions to the Consent Decree could be financially detrimental to ratepayers.

Because MSD would cease to exist, it would require some provision for transfer of existing union agreements to the new entity or amendment of the current LWC collective bargaining agreement to address additional positions that are traditionally designated as union positions to provide the services for One Water Sub.

A 63-20 Corporation as a private entity cannot set rates. Louisville Metro/Metro Council will have to approve and set rates which may significantly impact credit ratings.

Finally, the regulatory authority held by MSD and administered by MSD would have to be transferred to a separate governmental entity. The entity assuming the regulatory authority could be Louisville Metro, specifically an agency of Louisville Metro created for a broader purpose that could assume this responsibility, or a newly-created government agency or board to review regulatory compliance and appropriately administer fines and penalties where necessary.

One Water Sub is a feasible governance option. However, implementation of this structure would take several years, would be very difficult and therefore costly, and would not be without significant legal risk to LWC, the community and ratepayers of both entities, and Louisville Metro. If the One Water Sub is pursued, it should be pursued in parallel with the Comprehensive ILA since that contract would eventually align many back office functions of both entities.

3.6.3 Acquisition of MSD by LWC

In the full consolidation of MSD and LWC, the Due Diligence Team analyzed the scenario in which MSD is dissolved and LWC acquires all the assets and liabilities into one entity known as “One Water”. Much of the discussion above related to One Water Sub also applies to this scenario.

First, this structure requires the dissolution of MSD. That process would require the approval of the MSD Board of Directors and then the two-
thirds (2/3) approval of the Metro Council. As noted above, once that vote is achieved, MSD could not borrow funds or commit itself further unless such borrowing or commitment was in the plan of dissolution that contained the minimum components set forth by the statute. Because of the issue already discussed previously regarding LWC’s inability as a private, for profit corporation to override government regulation, and because of the BOWW’s current limited statutory powers, the current regulatory powers of MSD would have to be assumed by Louisville Metro – either a newly-created board or an existing board that has sufficient powers to do so. The decision regarding where these regulatory powers would fall may affect the plan of dissolution. This plan would have to indicate the entity that would provide these services in the future. The plan can call for more than one entity to assume the various rights, powers, and obligations currently held by MSD. Therefore, the plan may indicate that Louisville Metro will assume some powers and responsibilities and LWC will assume other responsibilities. The dissolution and the plan of dissolution must be discussed in a public hearing and then may be finally approved by the Metro Council sixty (60) days after the public hearing.

This structure has some obvious benefits.

- It provides for the ownership, operation and maintenance of all the water, sewer, drainage, storm water and flood protection services by one utility, with one governing board.
- Because of its legal structure, that one utility is able to earn a profit and declare a dividend for its shareholder, Louisville Metro.
- The structure would have complete authority to set rates and issue tax exempt debt.
- With one entity, governed by one board of directors, One Water can achieve efficiencies more effectively within its own organization than with any other.

This structure has significant risks, however.

- MSD’s debt is much larger than LWC’s debt. The dissolution of MSD may result in requiring a refunding of all of the debt.
- The assumption of this debt would violate the statutory limit on LWC’s debt coverage ratio. The BOWW may not issue more debt if its debt coverage payments in one year times 1.3 exceed its net income. Therefore, this statutory limitation would require legislative change to enable future borrowing for water and sewer needs. Further discussion of the financial impacts of the One Water Option are contained in the Financial Analysis of Due Diligence section of this Report.
- Additionally, as previously noted, MSD’s liabilities would be exposed to LWC’s potential for punitive damages. Some of these liabilities are environmental in nature and are discussed further in the Environmental Analysis and Appendix section of this Report.
- Additionally, with MSD’s two collective bargaining agreements, and LWC’s collective bargaining agreement, LWC would need to address issues related to additional employees and the seniority of those employees.

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29 KRS 96.300.
4. **Financial**

4.1 MSD Overview

4.1.1 Financial Summary of Consent Decree

The United States Environmental Protection Agency (EPA) has required many wastewater utilities to address Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs) through unfunded federally mandated Consent Decrees. MSD entered into its Consent Decree in 2005, amended in 2009, which requires an estimated $850 million in capital projects and improvements to infrastructure over a twenty year period. As a result, MSD implemented Project WIN, a comprehensive sewer improvement program designed to meet the requirements of the EPA and Kentucky’s Environmental and Public Protection Cabinet. To date, MSD is approximately 40% completed with the capital requirements of the Consent Decree.

In 2010 MSD, Louisville Metro Government and four 4th class cities in Jefferson County (Shively, St. Matthews, Anchorage and Jeffersontown) also received an amended MS4 permit from the Kentucky Division of Water. The requirements of this permit were developed in consultation with the EPA to benefit the stormwater quality which impact Jefferson County’s local waterways. Under the terms of this permit, MSD is required to perform over a hundred complex and costly tasks, including multiple inspections of industrial and commercial facilities and inspecting and monitoring construction and development projects under the Erosion Prevention Sediment Control Ordinance, to meet various measurable goals. This is a separate program and is not linked to the original and Amended Consent Decrees that MSD is operating under; however the goals are the same - the improved water quality for our streams and creeks. The terms of the MS4 permit focus on reducing the quantitative flow of water as well as improving the overall qualitative characteristics of local waterways.

4.1.2 Summary of MSD’s FY 2012 Financial Results

During the 2012 fiscal year (FY) MSD’s operating revenues increased by 3.5% to $192 million while operating expenses decreased by 2.4%. The increased revenue is primarily attributable to the August 2011 rate increase of 6.5% as water consumption continues to decline. MSD’s net
income, before the change in fair value of interest rate swaps, increased by 26% to $25.7 million. However, after accounting for the mark-to-market change on swaps, net income fell by $75.5 million to $(29.3) million. The total mark-to-market value on June 30, 2012 was $(108.7) million which represents the expected cost for MSD to terminate the nine derivative contracts that hedge the outstanding debt against future years interest rate fluctuations.

MSD’s net assets decreased by $27.2 million in FY 2012 while total assets decreased by $8 million primarily due to using funds to retire debt. During the year, $263 million of new bonds were issued to refund two existing bonds with higher interest rates for a reduction of future debt service payments over the next 24 years of $37 million. MSD’s capitalization is similar to most other wastewater utilities in that bond proceeds are required to offset deficit spending in order to fund the consent decree’s mandated improvements. In total, MSD has over $1.6 billion in long-term bonds outstanding and $226 million in a one year note (total $1.8 billion in debt). However, MSD’s overall liquidity improved in FY 2012 because of a substantial increase in cash from operating activities which enabled MSD to forgo the planned issue of a new $80 million bond until later in 2013.

Even with this increasing debt load MSD has produced a steady improvement to the debt service coverage ratio since 2007 from 110% to 177% in FY 2012. This improvement has resulted in strong credit ratings from the rating agencies of AA by S&P, Aa3 by Moody’s and AA by Fitch. Ultimately, 2012 concluded what was an overall sound year financially for MSD.

4.1.3 Summary of Financial Results for FY 2013

The final results for FY 2013 show substantial improvements across the board. Operating revenue increased by over 9% to $210 million while operating expenses decreased by $0.4 million. The increased revenue for the year is a result of the 6.5% rate increase in August 2012 plus results from the Revenue Enhancement Program which identified significant unbilled revenue sources. MSD’s net income, before the change in fair value of interest rate swaps, decreased by $3.6 million or 14% to $22.0 million due to the loss of $26.5 million of investment income from the cancelled Yield Enhancement Program. However, after accounting for the mark-to-market change on swaps, net income increased by $85.5 million to $58.3 million. The total mark-to-market value on June 30, 2013 was $(72.4) million which represents the expected cost for MSD to terminate the remaining two divertive contracts that hedge the outstanding Bond Anticipation Note (BAN) against future years interest rate fluctuations.

MSD’s positive financial results for FY 2013 is also reflected in the reduction of deficit spending for the year which produced negative working capital of $(87.5) million vs. $(112.4) million in FY 2012. Also during the year, $235 million of new bonds were issued to refund three existing bonds with higher interest rates for a reduction of future debt service payments over the next 24 years of $112 million. MSD also terminated 7 swap contracts and reduced the notional amount
on the other two contracts which will reduce future swap payments by $35 million over the next ten years. The two remaining swaps have a notional amount of $226 million which matches the outstanding balance of the BAN and serves as an effective hedge.

4.1.4 Financial Summary

MSD operates as a not-for-profit entity with any income going back into the capital program or reducing the following year’s rate increase. Due to the mandated capital requirements of the Consent Decree, MSD, like most other wastewater utilities in the country, is constantly in a state of deficit spending. This is evident by reviewing Working Capital cash flow amounts (in millions) for the past two years and next year’s budget as follows:

<table>
<thead>
<tr>
<th></th>
<th>Actual FY 2012</th>
<th>Actual FY 2013</th>
<th>Budget FY 2014</th>
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<tr>
<td>Revenue</td>
<td>$ 235</td>
<td>$ 231</td>
<td>$ 238</td>
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<tr>
<td>O&amp;M Expenses</td>
<td>(106)</td>
<td>(108)</td>
<td>(115)</td>
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<tr>
<td>Capital Projects</td>
<td>(76)</td>
<td>(86)</td>
<td>(87)</td>
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<tr>
<td>Debt Service Payments</td>
<td>(133)</td>
<td>(134)</td>
<td>(123)</td>
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<tr>
<td>Bond Proceeds (Retirements)</td>
<td>(33)</td>
<td>10</td>
<td>89</td>
</tr>
<tr>
<td>Impact on Working Capital</td>
<td>($113)</td>
<td>$ (87)</td>
<td>$ 2</td>
</tr>
</tbody>
</table>

Similar amounts are projected over the next ten year period. To fund these ongoing deficit spending needs, MSD’s financial projections along with the IOAP show the need for both continuous rate increases of 5.5% to 6.0% per year, and approximately $450 million of new bonds over the next ten years. While the capital spending on Consent Decree projects are expected to be completed by 2025, debt service payments will continue over the next 30 years.

Figure 4-2: MSD's Working Capital through 2025
4.2 LWC Overview

LWC provides water service to over 850,000 people through retail service in Jefferson County and parts of Oldham and Bullitt Counties in Kentucky, wholesale service to utility customers in Spencer, Nelson, Bullitt and Shelby Counties in Kentucky and contract operations to Southern Indiana and Ft. Knox, Kentucky. LWC delivers an average of 121 million gallons per day through over 4,200 miles of pipeline.

By virtue of LWC’s ownership by Louisville Metro, LWC follows Governmental Accounting Standards, is tax exempt, issues tax-exempt municipal debt, and is not under jurisdiction of the Kentucky Public Service Commission (PSC). LWC is a component unit of Louisville Metro as reported in the Comprehensive Annual Financial Report (CAFR) for Louisville/Jefferson County Metro Government.

The return to Louisville Metro, based on the ownership of LWC stock, includes a dividend paid on adjusted net income, with specific deductions per the 2009 Bond Resolution. Free water for public buildings principally occupied by its employees, parks, parkways, its property principally used for public purposes, all its agencies, and any waterfront parks located within the boundaries of the consolidated local government and public fire protection are provided per statute. (See Appendix C for historical amounts for dividend and free water paid to Louisville Metro.) In turn, Louisville Metro exempts all the property which LWC controls through the BOWW from taxation of the consolidated local government.

4.2.1 LWC’s Financial Summary

LWC reports on a calendar year with annual rate increases, approved by the BOWW and effective January 1. A budget is developed and approved by the BOWW in November along with a full cost of service rate study, following the AWWA M1 manual, prepared internally and approved by the BOWW in December. Included with the budget is a 10-year income statement proforma, as well as capital and financing plans. LWC also utilizes a five category basket of ratios to ensure balanced financial risk management as presented with the annual budget and annual report, including profitability, liquidity, dividend payout, capitalization, and coverage. An external audit is performed in the first quarter each year on the previous calendar year financials.

Full year 2012 audited financial results reported revenues of $158 million, an increase of $9.9 million or 6.6% over 2011. While water consumption per customer continues to decline due to the economy and low-flow fixtures, other operating revenues were $11.2 million, an increase of 27% over 2011. This is the result of LWC’s focused efforts on revenue generation other than water sales to offset declining consumption trends. LWC’s continued efforts on process and operational improvements resulted in an increase of 1.8% in operations and maintenance expense. While focusing on reducing expenses, LWC did not sacrifice its commitment to providing a safe, reliable water supply while still meeting obligations to bondholders and its
shareholder, Louisville Metro. S&P affirmed LWC’s AAA credit rating in 2013 and Louisville Metro received a 9.32% return on equity including a dividend of $19.3 million for 2012.

Full year 2012 reported an increase in total net position of $27,767,655 or 3.5%, primarily due to net utility plant. Total assets at year end 2012 were $1,133,383,464 with $978,322,022 in net utility plant. Total temporary cash totaled $34,126,108 with reserves of $56,731,657 for capital investment in infrastructure. LWC fully cash funds capital reserves in an amount equal to depreciation expense each month, as required in the 2009 Master Bond Resolution and previous resolutions.

LWC had four outstanding bond issues at year end 2012. In 2013, the 2001 issue was fully called so current outstanding bond issues are 2006, 2009A and 2009B Bond Series. 2006 and 2009A are tax-exempt bond issues with 2009B a taxable Build American Bond issue with a 35% subsidy from the Treasury. Total bond debt at year end 2012, excluding the 2001 series, was $257,513,831. LWC is rated AAA and Aa by Standard & Poor’s and Moody’s, respectively.

4.3 Advisory Group Recommendations and Black & Veatch Consulting Savings Estimates

As discussed previously, Black & Veatch Consulting was engaged by the Advisory Group to assist with the evaluation of the operations of LWC, MSD, and the Louisville Department of Public Works. The following potential cost savings were included in their final report presented to the Advisory Group and Mayor Fischer.

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<tr>
<td><strong>Limited ILA</strong></td>
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<td>320</td>
<td>660</td>
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<td>2,220</td>
<td>2,290</td>
<td>2,360</td>
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<td>2</td>
<td>MSD</td>
<td>(250)</td>
<td>450</td>
<td>930</td>
<td>2,270</td>
<td>3,130</td>
<td>3,210</td>
<td>3,310</td>
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<td>620</td>
<td>640</td>
<td>1,690</td>
<td>3,190</td>
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<td>2,730</td>
<td>2,810</td>
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<tr>
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<td>Net Savings</td>
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<td>8,370</td>
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<tr>
<td>9</td>
<td>LWC</td>
<td>(340)</td>
<td>520</td>
<td>940</td>
<td>2,330</td>
<td>4,320</td>
<td>5,870</td>
<td>8,630</td>
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<td>2,100</td>
<td>3,640</td>
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<td>12</td>
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<td>(900)</td>
<td>850</td>
<td>1,070</td>
<td>5,230</td>
<td>9,090</td>
<td>12,410</td>
<td>17,630</td>
<td>24,130</td>
<td>24,840</td>
<td>25,580</td>
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</tbody>
</table>

Figure 4-3: Black & Veatch Consulting Cost Savings Estimate
4.4 Analysis of Structures

An analysis of the estimated potential financial benefits and risks related to the consolidation or shared services for LWC and MSD were performed on the three potential structures. Included in Appendix F is an estimate of revenues, expenses and debt service coverage for each structure.

4.4.1 Comprehensive Interlocal Cooperation Agreement (ILA)

As discussed in the legal evaluation, this ILA Option provides notable benefits and minimal risks.

- Two separate entities would be maintained, with separate balance sheets, credit ratings and bond indentures.
- Efficiencies would be achieved through consolidation of support and back office functions in one entity with cost transfers to the other through ILAs.
- Shared purchasing could also produce a reduction in expenses due to larger volumes and purchasing efficiencies through collaboration in construction and professional services.
- Rate setting methodology maintained through current process.
- The dividend to Louisville Metro is affected positively by the increase in adjusted net income related to the efficiencies achieved at LWC through staff and material reductions or payment for staff services from MSD.
- Rate setting maintained through current processes.
- Savings allocated to each organization utilizing appropriate methodology.
An estimate of the savings that could be achieved through this option based on the analysis performed by Black & Veatch Consulting is included in Figure 4-3.

4.4.2 Acquisition of MSD by a Non-Profit Corporation

Based on the legal due diligence, the team could not identify a viable solution for this option except for the use of a 63-20 Corporation.

- As pointed out in the legal evaluation, Metro could create a 63-20 corporation and contract with LWC through an operating agreement to perform the services previously performed by MSD, with the exception of the regulatory function.
- Metro would use KRS Chapter 65A for dissolution of MSD and the new entity would house the assets, liabilities, revenues, operating lease payment to LWC, and debt service payment.
- The new entity could issue tax exempt debt.
- The new entity would require a governing board and would most likely be a component unit of Metro.
- LWC structure remains unchanged.
- Rate setting for LWC remains unchanged and rates for sewer and drainage set by Louisville Metro/Metro Council.

An estimate of the net annual savings that could be achieved through this option based on the analysis performed by Black & Veatch Consulting is included in Figure 4-3.

LWC will have a significant increase in expenses related to operating MSD through a contract agreement, however, these expenses will be offset by the operating payment from the 63-20 Corporation. The net income from this arrangement will impact adjusted net income for LWC, therefore affecting the dividend to Louisville Metro. Should expenses exceed the payment from the 63-20, adjusted net income will decrease, which would provide a lower dividend to Louisville Metro. To the extent operations of a 63-20 Corporation create an ongoing structural loss impacting LWC, bondholders of LWC could be impaired and/or credit ratings could be impacted. Operating agreements for the 63-20 would need to address a true up mechanism, to the extent permitted by law, for any losses incurred.

4.4.3 Acquisition of MSD by LWC

This scenario involves the acquisition of MSD by LWC.

- LWC would not necessarily need to refund current debt, however, operating under two different and possibly conflicting bond resolutions would create confusion in the marketplace with credit agencies and investors.
- The debt of MSD must either be assigned to LWC or refunded but this issue is not settled by current tax law.
• Using the current formula for calculating the dividend to Louisville Metro, adjusted net income for the combined utility would be impacted. In 2012, the combined adjusted net income was negative.
• The regulatory function would need to be housed at an entity other than LWC if the current LWC structure is maintained.
• This scenario will result in a maintaining separate cost structures and cost transfers to follow separate bond resolutions.
• The borrowing capacity of the entity would be significantly limited as LWC is required by statute to maintain 1.3x total debt service coverage. This requirement could be met by increasing water, sewer and drainage rates.
• A change in the statute could be pursued to reduce the 1.3 debt service requirement, however if both indentures remain, the 1.3 debt service coverage is a bond covenant for LWC as well.
• Contingent liability exposes LWC to large variations in future expenses, which could reduce future dividends or require additional rate increases.

To avoid multiple indentures, the new entity could prepay either MSD or LWC debt through refunding obligations.

• It would be more economical to refund LWC debt rather than MSD. At this time, the premium would be approximately $17 and $397 million to prepay LWC’s and MSD’s debt, respectively, through refunding obligations.
• The bond covenants could be amended at reissuance to provide for a dividend to Louisville Metro based on a combined entity.
• MSD bondholders could potentially protest the dividend calculation and if MSD debt isn’t refunded, consent of the bondholders would be required for a dividend payment coming from MSD revenues.

An estimate of the net annual savings that could be achieved through this option based on the analysis performed by Black & Veatch Consulting is included in Figure 4-3.

This option could produce the most savings from a full consolidation under one governing board, however produces the most risk from a debt administration and capacity perspective. If operating under two bond resolutions, cost transfers between entities must be contractual and sophisticated to administer two separate pledges of the revenues. If the debt is not defeased or prepaid, bondholders for MSD could potentially have issue with 50% of adjusted net income paid to Louisville Metro as a dividend.

The debt can be defeased or prepaid although under this option a premium will be paid which would need to be absorbed by the ratepayers and also, Louisville Metro through decreased adjusted net income initially and the cost of removing either indenture substantially reduces or entirely eliminates expected savings based on the Black & Veatch Consulting report.
Finally, whether the debt is defeased or prepaid, the statutory requirement of 1.3x debt service coverage for all indebtedness would need to be repealed.

5. **Benchmarking of Similar City Utilities**

The team, as part of the review, benchmarked similar size or cities in close proximity of Louisville Kentucky. While many cities have combined water and wastewater entities, as discussed in the legal review, LWC is a unique corporate structure and along with MSD’s broad scope of responsibility, we did not identify a structure or combination organization for comparison. Notably, there are a few that have recently embarked on some sort of consolidation. In this general vicinity, Nashville operates water and sewer as an agency within the City, Indianapolis recently consolidated under a public trust, and Cincinnati is pursuing shared services under three entities. A summary of benchmarking data is included in Appendix E.

6. **Environmental and Regulatory Risks**

The environmental and regulatory effort focused on four categories of impact including: environment, public health, safety, and flood protection. Each utility is highly regulated and governed by various agencies and legislation. Water systems are primarily regulated by the Environmental Protection Agency (EPA) pursuant to the Safe Drinking Water Act, and wastewater systems are principally governed under regulations related to the Clean Water Act. MSD also has flood protection responsibilities and must follow regulations from the US Army Corps of Engineers (USACE) and the Federal Emergency Management Agency (FEMA). Additionally, MSD must comply with the EPA consent decree related to operating its combined sewer system and minimizing combined and sanitary sewer overflows. While much of MSD’s operations are regulated by others, the organization also serves as a regulator itself. These duties include the management and enforcement of a pretreatment program primarily related to industrial users, the enforcement of several Louisville Metro Ordinances including the Hazardous Materials Ordinance (HMO), the Erosion and Sediment Control Ordinance, and the Floodplain Ordinance.

6.1 Risk Identification and Methodology

The major risks facing the two organizations were identified using an evaluation methodology which scored each risk based on two factors: consequence and likelihood. The likelihood rating included two factors, the estimated probability of occurrence in a given year, and the speed at which the risk would develop. Through the use of workshops with key employees within each organization, the top risks were identified and scored.

Identified risks were evaluated that impacted one or both of the utilities. These events were categorized into four sections including: natural events, non-malicious anthropogenic (caused by humans) events, infrastructure failure events, and malicious anthropogenic events.
LWC’s risk profile was determined to be lower than MSD’s. Three of its top ten risks fell into the infrastructure failure category while eight of MSD’s top ten risks involved infrastructure failure.

6.2 LWC’s top three risks included the following:

1. Functional Failure – Transmission Pipelines

   This event has by far the highest relative risk score of all LWC risks, generated by mostly “moderate” and “high” consequential impacts and a “probable” likelihood of occurrence. LWC has experienced three major failures of large diameter pipelines in the last 5 years. These failures have resulted in short-term loss of service to some customers. LWC’s well-networked system generally allows water service to be restored to most customers quickly through valve closures and various work-arounds. The longer term impacts come from flooding damage, sink-hole and wash-out damage, and the high cost to repair large-diameter high pressure service lines. Street closures are often required, sometimes for several weeks or even months if the damage is severe and requires significant clean-up and reconstruction.

   In addition to the extensive network of pipes and valves that allows LWC to route flow around main breaks, LWC mitigates this risk through an active main repair and replacement program that has been a benchmark example for the water supply industry. This program systematically identifies pipelines with a high probability of failure and replaces or rehabilitates these pipe segments on a prioritized basis. LWC has also recently begun implementing remote sensing approaches to assessing the condition of critical pipelines. LWC maintains a significant inventory of pipe and repair materials so their crews can rapidly respond to breaks, repair them quickly, and get customers back into service.

   The risk event evaluated for this analysis was the 60-inch transmission line between the B.E. Payne WTP (BEP) and the English Station Standpipe. This single pipeline provides water to a large service area in relatively high ground (requiring high delivery pressure) in southeast Jefferson County. Recognizing the vulnerability of this critical asset LWC is in the process of constructing a parallel pipe which will provide partial redundancy between BEP and the English Station Standpipe. LWC has also initiated a non-destructive testing program of its large transmission lines to proactively identify and repair high risk pipe segments.

2. Functional Failure – Crescent Hill Water Treatment Plant(CHWTP) Source Water Supply

   If the CHWTP source water supply were disrupted for an extended period of time, the only potable water source would be BEP. The maximum capacity of BEP is 60 MGD, which is not sufficient to meet normal day system-wide demands. In addition, while the LWC transmission and distribution system is well networked, there are parts of the service area that cannot be served from BEP Treatment Plant.
Several different scenarios could cause this event. A most probable worst case scenario is a barge collision with the intake tower which severely damages the intake structure and interferes with operation of the Zorn Pump Station. While this has never happened in its 100 year history, several other structures in the river have been struck by barges in the past few years.

LWC has a number of mitigation strategies to protect against this. The CHWTP has two raw water reservoirs that serve as short-term raw water storage. For an outage of a few hours the CHWTP can continue to operate by drawing down the raw water reservoirs. LWC is also in the project development stage for both a submerged outlet and a riverbank filtration system to provide raw water to the CHWTP. Both of these systems would be essentially immune to physical damage due to collision by a barge.

This risk had very high consequence impacts but the likelihood score was remote based on past history.

3. Purposeful Contamination – Distribution System

An individual with intentions to contaminate the system could create a back flow of toxic chemicals into the distribution system through a hydrant or from inside a home or business without begin detected. The potential for an event like this to occur was recently the subject of a network television show. While there are literally hundreds of thousands of potential entry points into the distribution system it would be very difficult to impact a large area from most of the uncontrolled entry points.

Given the huge geographic span of the LWC transmission and distribution system this potential risk is difficult to mitigate. LWC field staff is trained to be on the lookout for unauthorized use of hydrants or any other suspicious activity. LWC is currently investigating emerging technology for remote sensing warning systems that could be positioned at key locations in the distribution system to provide an early warning if toxics or other sudden changes in distribution system water quality are detected.

This relative risk scored very high due to consequence impacts having mostly high scores. The likelihood score was “remote” due to the difficulty in actually implementing an event like this to an extent that could contaminate the water supply for a significant number of customers.

6.3 MSD’s Top Three Risks

1. Functional Failure – Flood Pump Stations

Loss of capacity at a flood pump station poses the greatest risk for MSD, having a relative risk score of 42.5. The consequence of such an event is high (8.5), with widespread property damage, loss of public confidence and regulatory fines. The likelihood score is five, representing the fact that it is possible due to the age of the facilities (some are more than 50
years old and still rely on the original electrical and mechanical components) and the condition would develop rapidly.

MSD evaluated the potential impacts of a 10-year flood due to internal drainage issues alone (no Ohio River flooding). The results indicate that over 4,500 primary and secondary structures could be flooded, having a financial impact in excess of $680 million. Primary structures are occupied, whereas secondary structures are not occupied. When the Ohio River is at flood stage, the internal drainage issues are compounded if there is no outlet for the stormwater generated within Jefferson County. In order to alleviate interior flooding, the flood pump stations are designed to convey the stormwater generated within MSD’s service area into the Ohio River when the Ohio River is at flood stage.

MSD has 16 flood pump stations that work in tandem with Louisville’s floodwall and levee system. Construction of the pump stations system began in 1950’s, initially under the U.S. Army Corps of Engineers (USACE), and continued until 1994 with MSD’s completion of the pumping station located between Second Street and Interstate 65 in Louisville's downtown Riverfront area. Prior to 1987, the City of Louisville and Jefferson County government operated and maintained the system. While different failure modes are possible, the scenario evaluated for the risk scoring analysis was a failure of the electrical system that would cause complete loss of pumping during a flood event. Although the pump stations do not have standby generators, they are designed with two electrical utility service entrances that are intended to provide a redundant power supply.

MSD recognizes the importance of the flood pump stations and has developed a robust preventive maintenance program to maintain the required level of service. MSD has also conducted a condition assessment of the flood pump stations, which recommended some level of rehabilitation for most of the facilities. However, MSD’s ability to perform all the desired upgrades is limited due to funding constraints. In 2009, having the opportunity to receive federal stimulus grant money, MSD began rehabilitation of the Western Pump Station for a total cost of over $20 million. The Western Pump Station, near Chickasaw Park, was selected as the highest priority station because it is one of the oldest pump stations and the first pump stations in the system to activate when stormwater fills area streams, causing 135,000 homes from Portland to Shively to be at risk for flood damage. The rehabilitation was completed in 2013. MSD plans to continue rehabilitating flood pump stations on a prioritized basis as funding is available.

2. Functional Failure – Wastewater/Stormwater Gates

Failure of the large gates within the collection system poses the second greatest risk for MSD, having a relative risk score of 37.5. The consequence of such an event is high (7.5), with widespread property damage and loss of public confidence. The likelihood score is five, representing the fact that it is possible due to the large number of facilities like this throughout the service area, and the condition would develop rapidly.
When the collection system was originally installed, large diameter interceptors and outfalls conveyed a combination of sewage and stormwater directly to the Ohio River. After the construction of the Morris Forman Water Quality Treatment Center (WQTC) in 1958, gates and dams were installed at key locations to divert wastewater to the WQTC during dry weather conditions. During wet weather events, the gates were designed to open when the capacities in the interceptors exceeded the capacity of the WQTC. Due to the large gate sizes and challenging operating environments, MSD has had several significant events over the years. The most notable incident occurred during an intense thunderstorm in May 1983 when the gates in the Southwestern Outfall failed to open. A large neighborhood in southwestern Louisville was flooded, to depths of as much as ten feet. About 400 families were evacuated from their homes. Police divers had to be called to help MSD staff open the gates manually. MSD appropriated three million dollars to help the flood victims.

Over the past 10 years, MSD has installed additional gates and other flow control devices within the collection system to efficiently utilize the available in-line storage capacity of the large interceptors. In 2000, MSD completed a Real Time Control (RTC) Strategy Study, which quantified significant cost savings of using the existing in-line storage capacity verses constructing new storage facilities that were needed to reduce combined sewer overflows. Since the original implementation of the RTC system, MSD has achieved its desired outcomes and has expanded its applications to new locations. However, the new flow control structures also create additional risks for the system.

While different failure modes are possible, the scenario evaluated for the risk scoring analysis was a failure of the gates at the Southwestern Outfall, similar to the event that occurred in 1983. Although MSD replaced the gate actuators with more reliable and stronger systems, and has implemented many safeguards to prevent a reoccurrence of 1983 event, it still remains possible for a similar incident to occur.

In addition to the equipment upgrades managed, MSD manages this risk by having a comprehensive network of monitoring and control equipment in the collection system. The interceptor water levels at the RTC sites are continuously monitored, and the flow control devices are automatically adjusted to maintain predetermined levels. In the unlikely event that the monitoring and control system fails, the flow control devices are programmed to move to the full open position, thus lowering the level in the interceptor to prevent flooding.

MSD also manages the risks associated with these facilities by implementing a proactive preventive maintenance and valve exercising program. The preventive maintenance program includes frequent inspections and tests of the equipment. MSD also maintains an inventory of spare parts for some of the key facilities. However, MSD staff recognizes that the spare part inventory does not comprehensively include all gates.
3. Functional Failure – Sanitary/Combined Pump Stations

Loss of capacity at a sanitary/combined sewer pump station poses the third greatest risk for MSD, having a relative risk score of 35.8. The consequence of such an event is high (7.2), with widespread property damage, loss of public confidence and sanitary sewer overflows. The likelihood score is five, representing the fact that, like the flood pump stations, some of the combined pump stations are very old, and a failure condition would develop rapidly.

The risk evaluated for this scenario is a failure of some component of the pump station that causes partial or complete loss of function. This scenario does not include power outages or excessive influent flows, as those risk scenarios are evaluated independently. The specific scenario evaluated for the risk scoring analysis was a failure of the Northern Ditch Pump Station (NDPS). This pump station was constructed in the 1950’s and serves a large region within the city. Failure of this pump station could potentially flood 250 to 300 homes.

MSD manages this risk by remotely monitoring critical components of the pump stations, including pump station wet well level. MSD crews are automatically alerted if a problem arises at one of these pump stations. In many cases, the staff can correct the problem before an overflow occurs. For smaller pump stations, MSD staff can pump the flow into a tanker truck and haul it to a regional plant for treatment. However, for larger pump stations, such as NDPS, the use of tanker trucks in not a viable option.

MSD also reduces the risk of failure through proactive preventive maintenance programs and construction of new capital improvements. The preventive maintenance program includes frequent inspections and equipment service, such as oil changes and lubrications. The capital upgrades include construction of new interceptors that allow the decommissioning of pump station where possible, and upgrades to existing pump station equipment. For example, in 2004, MSD replaced the pumps at the NDPS at a cost of $690,000 because the pumps were becoming unreliable and spare parts were difficult to obtain. Additionally, MSD recently constructed the Northern Ditch Diversion Interceptor, which will allow MSD staff to divert flow to the Derek R Guthrie WQTC upstream of the NDPS. While this project was primarily constructed to reduce overflows during wet weather events, it also has the dual benefit of reducing the risks associated with a pump station failure at NDPS.

6.4 Consolidation Impacts on Financial Exposure

In reviewing the environmental and regulatory risks it can be seen that the risks that LWC and MSD face are typical of risks faced by public utilities everywhere. For example, the organizational structure does not impact the risk of a flood pump station failure. If a flood pump station fails, the same damage occurs whether pump station operation and maintenance is the responsibility of a municipal government, a special district of the state, or a for-profit company. The differences are the potential damages that might be assessed against the utility. Based on the qualified immunity afforded MSD under provisions of the Claims Against Local
Governments Act (KRS 65.200 \textit{et. seq.}) ("Act"), MSD’s liability for the failure would be limited to the actual damages suffered, even if found to be at fault (negligent). As a local governmental agency covered by the Act, MSD would not be subject to punitive or consequential damages. As a for-profit corporation LWC does not enjoy the same liability protection. If LWC is found to be responsible for an incident that causes damages they could be found liable for actual, punitive, and consequential damages. This could seriously affect the direct financial impact of utility-caused damages.

7. **Overall Recommendation:**

The due diligence effort was very complex and included a significant effort from not only the various staff members of the two organizations, but also key outside legal, financial, and engineering advisors.

In a normal consolidation activity, the goal is usually straightforward and involves putting together two similar organizations with the potential for saving millions of dollars from future operating costs. However, with LWC and MSD the corporate structures are very different and each plays an important role in providing both services and protection to the community. In fact, these unique structures are a key element for both organizations and Louisville Metro currently has the best of both worlds with the existing structures in place:

First, LWC is a profitable corporation that provides a return, including a cash dividend and free water and fire protection to its sole shareholder, Louisville Metro. Total value in 2012 of the dividend, and free water and fire protection was $19.3 million and $15.3 million, respectively. LWC is actively pursuing horizontal (territory) and vertical (products) expansion while remaining focused on efficiencies and cost controls. This combination should provide a steady dividend stream and return on equity to Louisville Metro for years to come.

Second, MSD is a not-for-profit political subdivision of the State that provides necessary sewer, drainage and flood protection to the residents of Louisville and Jefferson County. MSD also provides Louisville Metro with free sewer and drainage services. Revenue is generated through water usage fees and drainage charges on the local population to support operating expenses and debt service obligations while mandated capital projects are funded through the issuance of Revenue Bonds. Providing these costly major services through a separate utility district frees up Louisville Metro to utilize its tax base in support of other needed services to the community.

Third, MSD also serves an important role as a regulator for several Louisville Metro Ordinances. These duties include both the management and enforcement of the
Hazardous Materials Ordinance, the Erosion and Sediment Control Ordinance and the Floodplain Ordinance. These regulatory services can only be performed by a governmental entity and would need to be transferred to Louisville Metro under the consolidation options.

Fourth, as a political subdivision of the State, MSD benefits from limited liability that could save millions from future liability claims which LWC does not have. This coverage is especially valuable considering the magnitude of environmental and regulatory risks that MSD operations are subject to, as identified in this Report.

Fifth, both LWC and MSD currently have the ability to raise funds independently through the issuance of tax exempt bonds. The dissolution or consolidation of either entity could require the refunding of that entity’s outstanding debt with a substantial premium cost. The cost of this premium could overwhelm any future shared services savings making this entire project counterproductive.

Not only are the legal structures of LWC and MSD distinct and unique but the financial structures are as well. While great care needs to be given to protecting the profitable dividend structure of LWC, similar care should be given to maintaining MSD’s not-for-profit structure along with its rate making and bond issuance abilities. Not only does the community benefit from LWC’s dividend payment to Louisville Metro but also from MSD’s ability to provide a separate financing source to comply with federally mandated infrastructure improvements costing hundreds of millions of dollars. Any combination involving the dissolution of MSD, while providing costs savings, is rife with other financial implications including dividend stress, rating agency issues and potential loss of bonding capacity. However, the opportunity for substantial cost savings is still available under the comprehensive ILA strategy which makes it clearly the best option for the community.

Therefore, it is recommended that MSD and LWC pursue the comprehensive ILA strategy in order to achieve synergies between the two organizations. The major factors driving this recommendation include the following:

- Moving forward with a comprehensive ILA strategy is relatively straightforward and can be achieved in a short amount of time.
- No legislative changes would be required to move in this direction.
- It provides the ability to achieve significant savings as outlined in the utility task force report (a large portion of these involved back office functions).
- The unique structure of LWC, and its ability to deliver dividends to Metro, is retained.
- The individual regulatory and environmental risks and liabilities remain within the existing legal entities (none of these risks impact the other organization).
• There is no impact to the qualified legal immunity protection for MSD.
• There is no requirement to refinance the debt of either organization.
• This approach does not prevent the future evaluation or movement to full consolidation between the two organizations. The comprehensive ILA approach, in many ways, provides a logical first step in moving toward a one water organization.
• And finally it is flexible. Should a particular element of the comprehensive ILA not achieve the desired outcomes it can be easily modified.

As previously mentioned, MSD and LWC will continue to build upon existing partnerships such as Billing and Collection Services and LOJIC Mapping to expand their shared services. These will be incorporated into an Interlocal Agreement, submitted to each board of directors for approval, and submitted to the Kentucky Attorney General for approval. As the entities work more and more closely, and as functions and business philosophies become more aligned, the consideration of further consolidation as evaluated by the Due Diligence Teams may be addressed for feasibility and viability.

8. Administration and Implementation

The goal of the Comprehensive ILA initiative, referred to as “One Water”, is to create coordinated teams of employees from both companies with the capability of delivering superior customer service at lower costs than the existing two corporate entities combined. The administration of the various service agreements will be the key to successfully providing consolidated services to both LWC and MSD. The responsibility for directing and monitoring the progress of One Water will be assumed by a Joint Services Steering Committee (described in the ILA) consisting an equal number of senior managers from both LWC and MSD.

8.1 Transition Coordinator

A position of Transition Coordinator (TC) will be created to lead the overall development of the One Water initiative. The TC will be responsible for the success of this initiative and will report jointly to both the LWC President and the MSD Executive Director. The ideal candidate will have extensive water and/or wastewater utility experience, strong leadership skills and the ability to set and accomplish goals. The TC must be able to understand and develop strategies to overcome the various risk factors associated with the governance, financial and environmental evaluations as described in this analysis.

The TC will work with the CFOs from LWC and MSD to develop a cost allocation methodology that may be applied individually or collectively to all Transition Teams (see below). The TC will prepare and submit a monthly report showing total costs for each Transition Team and the allocations to LWC and MSD.

The TC will also be responsible for providing all reporting requirements for all aspects of One Water (see Operational Efficiencies section below).
8.2 Transition Teams

The Transition Teams for each service agreement will consist of personnel from LWC and MSD departments currently providing the service, i.e., Human Resources, Accounting, Engineering, etc. These individuals will report to a common Transition Manager (TM), who will also be part of the Transition Team reporting to the TC. Ultimately, it is envisioned that all Transition Teams will collectively be working under the One Water initiative and managed by the joint process described above.

However, all individuals assigned to a Transition Team will remain employed by either LWC or MSD. While the daily activity of the Teams will be directed by a TM, the reporting relationship will continue as is within the existing LWC or MSD management structure. This will require a coordinated process for evaluation and feedback to Transition Team individuals by the TM, the existing manager and the individual team members.

The administrative structure for One Water is shown in Figure 8.1.

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**Figure 8-1: One Water Administration**

![One Water Administration Diagram]

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1. The Transition Coordinator will have a shared reporting relationship to the LWC CEO and MSD Executive Director.
8.3 Operational Efficiencies

*Industry Practices, Benchmarking and Effective Utility Management:*

With the development of One Water and shares services, LWC and MSD will benchmark similar Cities and utilities to identify best practices across the industry. Several models are utilized across the country; however the Water Research Foundation (WRF) is completing the roll-out of a standard benchmarking tool for water and wastewater utilities. It is the Effective Utility Model (EUM).

In May, 2007, six major water and wastewater associations and the U.S. Environmental Protection Agency (EPA) signed an historic agreement pledging to support effective utility management collectively and individually throughout the water sector and to develop a joint strategy to identify, encourage, and recognize excellence in water and wastewater management. The six associations participating in the agreement and partnership were the following:

- Association of Metropolitan Water Agencies (AMWA)
- American Public Works Association (APWA)
- American Water Works Association (AWWA)
- National Association of Clean Water Agencies (NACWA)
- National Association of Water Companies (NAWC)
- Water Environment Federation (WEF)

The Effective Utility Management Primer was developed as a result of the agreement. EUM’s stated objective is to help water and wastewater utilities enhance the stewardship of their infrastructure, improve performance in many critical areas, and respond to current and future challenges.

The Primer is designed to help water and wastewater utility managers make practical, systematic changes to achieve excellence in utility performance. The Primer provides a framework intended to help a utility manager identify and address their most pressing needs through a customized, incremental approach that is relevant to the day-to-day challenges utilities face.

LWC and MSD have engaged CH2M Hill, our Engineer of Record, to facilitate the development of the EUM tool using full year 2012 as the baseline. CH2M Hill was the awardee through the WRF to develop the EUM methodology using participating utilities from across the United States and Canada, which included LWC. Part of the scope of this engagement will identify industry best practices and metrics to assure we are developing best in class water, wastewater, and flood protection model for our shareholder, Louisville Metro, and our customers.

Once the self-assessment and baseline has been developed, LWC and MSD will utilize the attributes of EUM to target priorities for improvement and synergies. The EUM model will be used to achieve efficiencies while maintaining reliable public water supply, treatment of wastewater, and flood protection.
8.4 Reporting and Performance Tracking

Measurements and Key Process Indicators (KPIs) will be developed by the Joint Services Steering Committee (JSSC) to develop a baseline and system of measurements. Quarterly measurements will be provided to the Boards, Metro, management and stakeholders to track progress and compare with other utilities across the United States.

8.5 Audit/Internal Controls

The JSSC will also be responsible for organizing, streamlining and replacing, where appropriate, policies, procedures and work instructions to manage the work and processes to maintain an effective control environment. Audit staff from both organizations will include, as part of their annual audit plans, review of the processes that are combined. These reports will be presented to both Boards, the JSSC, and interested stakeholders.

8.6 Implementation

Implementation will begin in the second quarter of 2014 after direction is received from the Mayor, and both Boards (Louisville Water Company and Metropolitan Sewer District) approve the comprehensive ILA. The ILA will be filed with the Kentucky Attorney General's office shortly thereafter and assuming it is approved as submitted, the major implementation work will begin in May, 2014 with the first of two phases.

8.6.1 Phase I

The first phase will entail the sharing of services in five functional groups plus one specialty area of focus. The five functional groups to be addressed in this phase include Procurement, Fleet, Human Resources, Information Technology, and Customer Service. The specialty area to be evaluated will focus on energy savings as highlighted in the Black & Veatch Consulting Utility Operations Review report dated August 2012.

It is anticipated that external assistance will be needed during the Phase I activities. An initial step will include identifying and bringing on board the individuals and/or organizations required to help with the effort. This will include the identification and hiring of a Transition Coordinator, the selection of a consultant who will work with the organizations using the Effective Utility Management Model, and the procurement of a consultant to assist with the energy savings specialty area. Bringing in expertise from outside of the organizations will not only assist with the speed of implementation, but also help with the identification of best practices through the EUM model.

Implementing the first two functional areas (Procurement and Fleet) as well as the initial assessment of the energy savings specialty effort will be achieved in 14 months. The complexities involved with the HR consolidation (i.e. the standardization of policies and benefits) and the investments required to achieve the energy savings will extend the implementation timeframe for these two initiatives. The future strategy and plans for the Louisville/Jefferson County Information Consortium (LOJIC) which includes MSD, LWC,
Louisville Metro, and PVA will also be part of the Phase I implementation. The ongoing collaborative effort to implement a new joint customer care and billing system will progress through much of Phase I and will be completed in June, 2015. Preliminary efforts for the IT and Customer Service functions will begin immediately and will include items such as IT system planning, the evaluation of joint opportunities for new (and existing) technologies, organization design considerations, and space planning activities. The organization consolidation efforts for these functions however, will follow immediately after the customer care and billing system implementation.

8.6.2 Phase II

It is anticipated that Phase II will begin in the fourth quarter of 2015. This phase will include the consolidation of additional back office functions and may also include operational areas as well. The feasibility assessment and prioritization of these subsequent functions will be performed at the end of Phase I and a detailed plan will be developed prior to the implementation of Phase II activities. Full savings are expected to be achieved by December 2018.

8.7 Savings

Based on the analysis prepared by Black & Veatch Consulting for the Advisory Group, the savings for the limited Interlocal agreements (ILA) were expected to be at 100% in year 2017 and the expanded ILAs in 2019. Excluding Public Works, the functions included in Phase I also include some of the functions contained in the Black & Veatch Consulting expanded ILAs, which accelerates Phase II savings for this Report. The estimated annual savings for Phase I for LWC and MSD in year 2017 are up to $10 million. The additional estimated annual savings for Phase II in year 2019 will be up to $4 million. During the initial years of this initiative the annual savings will be partially offset with implementation costs totaling an estimated $2.7 million. All savings and costs will be allocated between LWC and MSD using an agreed upon, generally accepted cost of service or activity based cost allocation model. These estimates are shown in Figure 8-2 below.
Figure 8-2: One Water Estimated Savings/Costs ($000)

<table>
<thead>
<tr>
<th></th>
<th>Annual Savings</th>
<th>Initial Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Phase I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>1,543</td>
<td>2,650</td>
</tr>
<tr>
<td>Fleet</td>
<td>520</td>
<td>520</td>
</tr>
<tr>
<td>Human Resources°[1]</td>
<td>836</td>
<td>1,168</td>
</tr>
<tr>
<td>Information Technology°[1]</td>
<td>1,254</td>
<td>1,752</td>
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<tr>
<td>Customer Service</td>
<td>200</td>
<td>560</td>
</tr>
<tr>
<td>Energy</td>
<td>817</td>
<td>880</td>
</tr>
<tr>
<td>Total Phase I</td>
<td>5,170</td>
<td>7,350</td>
</tr>
<tr>
<td>Phase II°[1]</td>
<td>2,090</td>
<td>2,920</td>
</tr>
<tr>
<td>Total Savings for One Water</td>
<td>7,260</td>
<td>10,450</td>
</tr>
</tbody>
</table>

[1] Assumes 50% of savings/costs from B&V Expanded ILA is from HR and IT (allocated 40% and 60% respectively) which leaves 50% in Phase II

8.8 Implementation Timeline

The organizational consolidation work is to be staged to take advantage of lessons learned during the initial efforts. Procurement will be the first to consolidate and work will begin immediately after the ILA has been approved. As this work progresses, the lessons learned will be captured and used in the subsequent efforts. The implementation timeline is shown in Figure 8-3 below.
Figure 8-3: Projected Implementation Timeline

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Board Approvals for Comprehensive ILA</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Filing Comprehensive ILA with KY AG</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>Comprehensive ILA Approval [1]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Select Consultant for EUM and Organizational Consolidation Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>ID and Hire Transition Coordinator</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Consultant Services Support and EUM Benchmarking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>LWC/MSD Customer Care and Billing System Implementation (Began 7/2013)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Evaluation of LOJIC Partnership Strategy</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>LOJIC Strategy Implementation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10</td>
<td>Functional Area Consolidation Implementation Start (Phase I)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Procurement</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Fleet</td>
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<tr>
<td>13</td>
<td>Human Resources</td>
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<tr>
<td>14</td>
<td>Information Technology [2]</td>
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</tr>
<tr>
<td>15</td>
<td>Customer Service [2]</td>
<td></td>
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<tr>
<td>16</td>
<td>Select Consultant for Energy Savings Work</td>
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<tr>
<td>17</td>
<td>Energy Savings Evaluation</td>
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<tr>
<td>18</td>
<td>Energy Saving Implementation</td>
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<tr>
<td>19</td>
<td>Board and Metro Report-out Sessions (performed quarterly)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Feasibility Assessment and Prioritization of Phase II Initiatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Begin Phase II Implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[1] Contingent upon AG approval as submitted.

[2] Preliminary work associated with these items will begin immediately and will include system planning, organizational design,
Appendices

A. KRS 65A.050
B. LWC Decision Tree for Due Diligence
C. Annual Dividend and Free Water
D. Benchmarking
E. One Water Expense Savings
F. Financial Impact Scenarios
65A.050. Administrative dissolution of special purpose governmental entity -- Dissolution by governing body. (1) (a)

As used in this subsection, "entity seeking dissolution" shall mean:

1. The DLG;

2. If the special purpose governmental entity was established by one (1) county, or by one (1) city, the governing body of the county or city that established the special purpose governmental entity;

3. If the special purpose governmental entity was established by multiple counties and cities, the governing bodies of all establishing entities; or

4. If the special purpose governmental entity was established other than by an establishing entity, the governing body or bodies of the county or counties in which the special purpose governmental entity provides or provided services, or operates or operated.

(b) Any special purpose governmental entity that meets at least one (1) of the following criteria may be administratively dissolved:

1. The special purpose governmental entity has taken no action for two (2) or more consecutive years;

2. Following a written inquiry from the entity seeking dissolution, the chair of the special purpose governmental entity either:

   a. Notifies the entity seeking dissolution in writing that the special purpose governmental entity has not had a governing board, or has not had a sufficient number of governing board members to constitute a quorum for two (2) or more
consecutive years; or

b. Fails to respond to the inquiry within thirty (30) days;

3. The special purpose governmental entity fails to register with the DLG as required by KRS 65A.090;

4. The special purpose governmental entity fails to file the information required by KRS 65A.020 for two (2) or more consecutive years; or

5. The governing body of the special purpose governmental entity provides documentation to the DLG or the governing body or bodies of the establishing entity that it has unanimously adopted a resolution declaring the special purpose governmental entity inactive.

(c) To begin the process of administrative dissolution, the entity seeking dissolution shall provide notification of the proposed administrative dissolution as provided in this paragraph:

1. The entity seeking dissolution shall:

a. Post a notice of proposed administrative dissolution on the registry established by KRS 65A.020;

b. For administrative dissolutions under subparagraphs 3., 4., and 5. of paragraph (b) of this subsection, publish, in accordance with the provisions of KRS Chapter 424, a notice of proposed administrative dissolution, with the cost of the publication billed to the special purpose governmental entity for which administrative dissolution is sought;

c. Mail a copy of the notice to the registered contact for the special purpose governmental entity, if any; and

d. Mail a copy of the notice as follows:

i. If the dissolution is sought by the DLG, to the governing body of the establishing entity or county, and to all entities at the state level having oversight of or responsibility for the special purpose governmental entity; and

ii. If the dissolution is sought by an establishing entity or county, to the DLG and any other establishing entities or counties, and to all entities at the state level having oversight of or responsibility for the special purpose governmental entity; and

2. The notice shall include:

a. The name of the entity seeking dissolution, and contact information for the entity;

b. The name of the special purpose governmental entity for which dissolution is sought;

c. The statutes under which the special purpose governmental entity was organized and operating;

d. A description of the services provided and the territory of the special purpose governmental entity;

e. If there is a plan of dissolution as required by paragraph (e) of this subsection, identification of the place where the plan of dissolution may be reviewed;

f. A statement that any objections to the administrative dissolution shall be filed in writing with the entity seeking to dissolve the special purpose governmental entity within thirty (30) days after the publication date, and the address and process for submitting such objections; and

g. A statement that if no written objections are received within thirty (30) days of publication of the notice, the
special purpose governmental entity shall be administratively dissolved.

(d) 1. Any resident living in or owning property in the area served by the special purpose governmental entity for which dissolution is sought, who is not a member of the governing body of the special purpose governmental entity or an immediate family member of a member of the governing body of the special purpose governmental entity, may file a written objection to the dissolution with the entity seeking dissolution. The written objection shall state the specific reasons why the special purpose governmental entity shall not be dissolved, and shall be filed within thirty (30) days after the posting of the notice on the registry as required by paragraph (c) of this subsection.

2. a. Upon the passage of thirty (30) days with no objections filed, and satisfaction of all outstanding obligations of the special purpose governmental entity, the special purpose governmental entity shall be deemed dissolved and, if a dissolution plan was required, the entity seeking dissolution shall proceed to implement the dissolution plan.

b. Notification of dissolution shall be provided by the entity seeking dissolution to all other entities listed under paragraph (a) of this subsection. The DLG shall maintain a list of all dissolved special purpose governmental entities and the date of dissolution on the registry established by KRS 65A.020.

3. If written objections are received within thirty (30) days of the publication on the registry required by paragraph (c) of this subsection, the dissolution process shall be aborted, and the process established by subsection (2) of this section shall be utilized if it is determined that dissolution should still be sought, notwithstanding any other dissolution process that may exist in the Kentucky Revised Statutes for the type of special purpose governmental entity for which dissolution is sought.

(e) If the special purpose governmental entity for which administrative dissolution is sought:

1. Is providing services;

2. Has outstanding liabilities; or

3. Has assets;

the entity seeking dissolution shall, as part of the dissolution process, develop a dissolution plan that includes, as relevant, provisions addressing the continuation of services, the satisfaction of all liabilities, and the distribution of assets of the special purpose governmental entity.

(2) Any special purpose governmental entity not meeting the requirements for dissolution under subsection (1) of this section, and for which no specific dissolution provisions apply in the Kentucky Revised Statutes, may be dissolved as provided in this subsection:

(a) The dissolution of a special purpose governmental entity may be initiated upon:

1. The affirmative vote of two-thirds (2/3) of the governing body of the special purpose governmental entity and the adoption of an ordinance by the affirmative vote of two-thirds (2/3) of the governing body of each establishing entity;

2. The adoption of an ordinance by an affirmative vote of two-thirds (2/3) of the governing body of each establishing entity; or

3. If there is no establishing entity, by the adoption of an ordinance by an affirmative vote of two-thirds (2/3) of the governing body of each county in which the special purpose governmental entity provides services or operates;

(b) Upon initiation of a dissolution after an affirmative vote as provided in paragraph (a) of this subsection, the special purpose governmental entity for which dissolution is sought shall not assume any new obligations or duties, contract for any new debt, or levy any additional fees or taxes unless the new obligations, duties, debt, fees, or taxes are included in the
dissolution plan required by paragraph (c) of this subsection. Any contract or agreement or plan for new obligations, duties, debt, fees, or taxes entered into or devised in violation of this paragraph shall be void;

(c) After voting to commence dissolution of a special purpose governmental entity, the governing body or bodies initiating the dissolution shall:

1. Develop a dissolution plan which, if adopted by an establishing entity shall be by ordinance, which shall include but not be limited to:

   a. A description of how the necessary governmental services provided by the special purpose governmental entity will be provided upon dissolution of the entity or a statement that the services are no longer needed;

   b. A plan for the satisfaction of any outstanding obligations of the special purpose governmental entity, including the continuation of any tax levies or fee payments necessary to meet the outstanding obligations;

   c. Assurances from any organization or entity that will be assuming responsibility for services provided by the special purpose governmental entity, or that will assume the obligations of the special purpose governmental entity, that the organization or entity will, in fact, provide the services or assume the obligations;

   d. A plan for the orderly transfer of all assets of the special purpose governmental entity in a manner that will continue to benefit those to whom services were provided by the special purpose governmental entity;

   e. A date upon which final dissolution of the special purpose governmental entity shall occur; and

   f. Any other information the governing body wishes to include.

   The dissolution plan shall be available for public review at least thirty (30) days prior to the public hearing required by subparagraph 2. of this paragraph;

2. Hold a public hearing in each county and city that is participating in the dissolution to present the proposed dissolution plan and receive feedback from the public. The time and location of the hearing, as well as the location where a copy of the dissolution plan may be reviewed by the public prior to the hearing, shall be advertised as provided in KRS 424.130, and shall be posted on the registry established by KRS 65A.020. The hearing shall be held not less than fifteen (15) days, nor more than thirty (30) days, after the publication of the notice in the newspaper;

3. Send a copy of the notice required by subparagraph 2. of this paragraph to the DLG and to any state entity with oversight authority of the special purpose governmental entity;

4. If the dissolution plan is amended after the public hearing, make the amended dissolution plan available for public inspection for at least fifteen (15) days prior to the final vote of the governing body under subparagraph 6. of this paragraph;

5. If the special purpose governmental entity is a utility as defined in KRS 278.010(3), obtain approval from the Public Service Commission pursuant to KRS 278.020(5); and

6. Within sixty (60) days after the date of the public hearing, finally approve or disapprove the dissolution of the special purpose governmental entity and the dissolution plan. Approval shall require:

   a. If initiated by the governing board of the special purpose governmental entity, the affirmative vote of two-thirds (2/3) of the members of the governing body of the special purpose governmental entity and the adoption of an ordinance by two-thirds (2/3) of the members of the governing body of each establishing entity;

   b. The adoption of an ordinance by two-thirds (2/3) of the members of the governing body of each establishing entity; or
c. If there is no establishing entity, by the adoption of an ordinance by two-thirds (2/3) of the members of the governing body of each county in which the special purpose governmental entity provided services or operated;

(d) The governing body or bodies shall notify the DLG of the outcome of the vote or votes taken pursuant to subparagraph 6. of paragraph (c) of this subsection; and

(e) Notwithstanding any other provision of this section, the dissolution of a special purpose governmental entity shall not be final until all obligations of the special purpose governmental entity have been satisfied or have been assumed by another entity.

HISTORY: (Enact. Acts 2013, ch. 40, § 5, effective March 21, 2013.)

NOTES: Legislative Research Commission Note.

(3/21/2013). Under the authority of KRS 7.136, the Reviser of Statutes has corrected manifest clerical or technical errors in this statute. In subsection (1)(c)1.d.i., the word "the" has been inserted before "special purpose governmental entity." In subsection (2)(a)1., the words "vote or" have been changed to read "vote of." In subsection (2)(c)5., the word "a" has been inserted before "utility," and in subsection (2)(d), the word "of" has been inserted before "the vote or votes."

(3/21/2013). In subsection (2)(c)4. of this statute, a reference to "subparagraph 5." has been changed to read "subparagraph 6." During the drafting of the bill that created this statute (2013 Ky. Acts ch. 40, sec. 5), the former subparagraph 5. was renumbered as subparagraph 6., but an internal reference to subparagraph 5. was not corrected. In codifying this section, the Reviser of Statutes has made this correction pursuant to KRS 7.136(1).
START - Task Force, Black & Veatch, and Metro recommend due diligence for merger

**System Purchase?**

- Yes
  - Option 1a: LWC creates subsidiary to respond to MSD RFP – SERVCO-LWC
  - Option 2a: LWC responds to MSD RFP
  - Option 3a: Continue with Limited ILAs

- No
  - Issue an RFP for services?
    - Yes
      - Option 4a or 4b: LWC subsidiary acquires MSD or MSD subsidiary acquires LWC
      - Option 4c: Form new One Water
    - No
      - Propose Extended ILA
        - Yes
          - Continue as is?
            - Yes
            - Option 1c: Create 50/50 MSD/LWC joint venture - SERVCO
            - No
              - Option 3a: Continue with Limited ILAs
        - No
          - Create new entity?
            - Yes
              - Option 1b: MSD creates entity to respond to LWC RFP – SERVCO-MSD
            - No
              - Option 2b: MSD responds to LWC RFP

**Create Sub?**

- Yes
  - Option 1a: LWC creates subsidiary to respond to MSD RFP – SERVCO-LWC
  - Option 2a: LWC responds to MSD RFP
  - Option 3a: Continue with Limited ILAs

- No
  - Create new entity?
    - Yes
      - Propose Extended ILA
        - Yes
          - Continue as is?
            - Yes
            - Option 1c: Create 50/50 MSD/LWC joint venture - SERVCO
            - No
              - Option 3a: Continue with Limited ILAs
        - No
          - Option 2b: MSD responds to LWC RFP
    - No
      - Issue an RFP for services?
        - Yes
          - Option 4a or 4b: LWC subsidiary acquires MSD or MSD subsidiary acquires LWC
          - Option 4c: Form new One Water
        - No
          - Create new entity?
            - Yes
              - Propose Extended ILA
                - Yes
                  - Continue as is?
                    - Yes
                    - Option 1c: Create 50/50 MSD/LWC joint venture - SERVCO
                    - No
                      - Option 3a: Continue with Limited ILAs
                - No
                  - Option 2b: MSD responds to LWC RFP
            - No
              - Issue an RFP for services?
Annual Dividend Payment and Free Water

Appendix C

<table>
<thead>
<tr>
<th>Year</th>
<th>Free Water</th>
<th>Dividend Payment</th>
</tr>
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<tbody>
<tr>
<td>1992</td>
<td>$2,176,944</td>
<td>$10,954,879</td>
</tr>
<tr>
<td>1993</td>
<td>$2,321,960</td>
<td>$11,623,915</td>
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<tr>
<td>1994</td>
<td>$2,448,217</td>
<td>$12,587,979</td>
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<td>1995</td>
<td>$2,358,938</td>
<td>$11,198,145</td>
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<tr>
<td>1996</td>
<td>$2,410,695</td>
<td>$11,035,300</td>
</tr>
<tr>
<td>1997</td>
<td>$2,702,930</td>
<td>$10,972,117</td>
</tr>
<tr>
<td>1998</td>
<td>$3,180,922</td>
<td>$11,267,440</td>
</tr>
<tr>
<td>1999</td>
<td>$3,743,467</td>
<td>$13,295,190</td>
</tr>
<tr>
<td>2000</td>
<td>$8,082,846</td>
<td>$12,876,680</td>
</tr>
<tr>
<td>2001</td>
<td>$8,052,850</td>
<td>$12,251,313</td>
</tr>
<tr>
<td>2002</td>
<td>$8,476,819</td>
<td>$14,093,410</td>
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<tr>
<td>2003</td>
<td>$9,415,500</td>
<td>$16,178,050</td>
</tr>
<tr>
<td>2004</td>
<td>$9,899,081</td>
<td>$18,049,370</td>
</tr>
<tr>
<td>2005</td>
<td>$11,170,365</td>
<td>$18,331,410</td>
</tr>
<tr>
<td>2006</td>
<td>$11,404,590</td>
<td>$18,009,199</td>
</tr>
<tr>
<td>2007</td>
<td>$12,251,313</td>
<td>$15,482,815</td>
</tr>
<tr>
<td>2008</td>
<td>$13,186,810</td>
<td>$13,186,810</td>
</tr>
<tr>
<td>2009</td>
<td>$14,622,800</td>
<td>$18,049,370</td>
</tr>
<tr>
<td>2010</td>
<td>$15,282,810</td>
<td>$18,049,370</td>
</tr>
<tr>
<td>2011</td>
<td>$14,162,670</td>
<td>$15,467,670</td>
</tr>
<tr>
<td>2012</td>
<td>$13,186,810</td>
<td>$18,049,370</td>
</tr>
<tr>
<td>2013</td>
<td>$14,162,670</td>
<td>$15,467,670</td>
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</table>
## Appendix D: Benchmarking

<table>
<thead>
<tr>
<th>State</th>
<th>City</th>
<th>Utility Services</th>
<th>Utility Type</th>
<th>Type of Entity</th>
<th>S&amp;P Credit Rating</th>
<th>Service Population</th>
<th>Number of Service Accounts</th>
<th>Consumption / Treatment MGD per day</th>
<th>Average Monthly Bill</th>
<th>Amount of Total Debt (000's)</th>
<th>Any Consolidations</th>
<th>Separate W/WW with Inter-Local Agreements</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>KY</td>
<td>Louisville</td>
<td>Louisville Water Company</td>
<td>Private Corp</td>
<td>Louisville Water Company</td>
<td>AAA</td>
<td>850,000</td>
<td>304,902</td>
<td>121 mgd</td>
<td>4.42</td>
<td>$23.47</td>
<td>287,114</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>OH</td>
<td>Cincinnati</td>
<td>Greater Cincinnati Water Works</td>
<td>Private Corp</td>
<td>Cincinnati Water Works</td>
<td>AAA</td>
<td>1,738,000</td>
<td>192,778</td>
<td>145.2 mgd</td>
<td>44.79</td>
<td>$287,114</td>
<td>506,365</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>IN</td>
<td>Indianapolis</td>
<td>Citizens Energy</td>
<td>Private Corp</td>
<td>Citizens Energy</td>
<td>AA+</td>
<td>400,000</td>
<td>32.99</td>
<td>125 mgd</td>
<td>31.44</td>
<td>$940,890</td>
<td>41,603</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>TN</td>
<td>Nashville</td>
<td>Nashville Metro Water Services</td>
<td>Private Corp</td>
<td>Public Authority</td>
<td>AA</td>
<td>635,475</td>
<td>18.84</td>
<td>180 mgd</td>
<td>45.87</td>
<td>$647,366</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>NS</td>
<td>Halifax</td>
<td>Halifax Water</td>
<td>Private Corp</td>
<td>Corporate Municipality</td>
<td>AA+</td>
<td>413,700</td>
<td>30 mgd</td>
<td>28.64</td>
<td>48.07</td>
<td>$75,714</td>
<td>Yes</td>
<td>No</td>
<td>Incorporated under the Halifax Regional Water Commission Act; regulated by Nova Scotia Utility and Review Board; joint-stock company with all shares owned by HRM</td>
</tr>
<tr>
<td>OK</td>
<td>Tulsa</td>
<td>Tulsa Metro Utility Authority</td>
<td>Private Corp</td>
<td>Public Trust Organization</td>
<td>AA</td>
<td>500,000</td>
<td>35.64</td>
<td>115 mgd</td>
<td>5.43</td>
<td>$164,206</td>
<td>206,751</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PA</td>
<td>Philadelphia</td>
<td>Philadelphia Water Dept.</td>
<td>Private Corp</td>
<td>City Dept.</td>
<td>A</td>
<td>1,788,000</td>
<td>250 mgd</td>
<td>27.50</td>
<td>21.40</td>
<td>$1,749,790</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>TX</td>
<td>El Paso</td>
<td>El Paso Water Utilities</td>
<td>Private Corp</td>
<td>Component unit of City</td>
<td>AA</td>
<td>840,000</td>
<td>41.50</td>
<td>103.4 mgd</td>
<td>8.10</td>
<td>$612,664</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>LA</td>
<td>New Orleans</td>
<td>Sewerage and Water Board of New Orleans</td>
<td>Private Corp</td>
<td>City Dept.</td>
<td>BB+</td>
<td>358,052</td>
<td>60.15</td>
<td>37.8 mgd</td>
<td>42.60</td>
<td>$304,719</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>TN</td>
<td>Knoxville</td>
<td>Knoxville Utilities Board</td>
<td>Private Corp</td>
<td>Independent City Agency</td>
<td>AA</td>
<td>181,000</td>
<td>17.45</td>
<td>34 mgd</td>
<td>42.30</td>
<td>$112,445</td>
<td>405,124</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>MO</td>
<td>Kansas City</td>
<td>Kansas City Water Services</td>
<td>Private Corp</td>
<td>City Dept.</td>
<td>AA</td>
<td>450,000</td>
<td>112 mgd</td>
<td>103 mgd</td>
<td>320,436</td>
<td>$414,703</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>TX</td>
<td>Austin</td>
<td>Austin Water</td>
<td>Private Corp</td>
<td>City Dept.</td>
<td>AA</td>
<td>890,000</td>
<td>180 mgd</td>
<td>146 mgd</td>
<td>3.22</td>
<td>$130,436</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>NC</td>
<td>Asheville</td>
<td>Asheville Water Services Buncombe County MSD</td>
<td>Private Corp</td>
<td>Political Subd. of State</td>
<td>AA</td>
<td>125,000</td>
<td>21 mgd</td>
<td>38.1 mgd</td>
<td>68,247</td>
<td>$98,504</td>
<td>In progress</td>
<td>***</td>
<td>MWD was created by the State in 1962 to serve Buncombe Co. and other political subdivisions; Board managed; ***NA means implementation depends on degree of consolidation; a bill is in State Senate to consolidate water under MSD</td>
</tr>
<tr>
<td>MO</td>
<td>St. Louis</td>
<td>City of St. Louis Water Division MSD of St. Louis</td>
<td>Private Corp</td>
<td>Political Subd. of State</td>
<td>AA-</td>
<td>1,400,000</td>
<td>15 mgd</td>
<td>300 mgd</td>
<td>28.73</td>
<td>$15,661</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>OH</td>
<td>Columbus</td>
<td>Columbus Dept. of Public Utilities</td>
<td>Private Corp</td>
<td>City Dept.</td>
<td>AA</td>
<td>1,000,000</td>
<td>140 mgd</td>
<td>133.4 mgd</td>
<td>4.42</td>
<td>$706,279</td>
<td>No</td>
<td>No</td>
<td>Average monthly bill found by dividing average annual resident charge by 12; water and sewer rate for area; drain serves within city limits</td>
</tr>
</tbody>
</table>

Preliminary Draft – February 5, 2014
Appendix E: One Water Estimated Savings/Costs

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Initial Costs</th>
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<tbody>
<tr>
<td><strong>Phase I</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>1,543</td>
<td>2,650</td>
<td>3,757</td>
<td>(270)</td>
</tr>
<tr>
<td>Fleet</td>
<td>520</td>
<td>520</td>
<td>520</td>
<td>(240)</td>
</tr>
<tr>
<td>Human Resources*</td>
<td>836</td>
<td>1,168</td>
<td>1,500</td>
<td>(200)</td>
</tr>
<tr>
<td>Information Technology*</td>
<td>1,254</td>
<td>1,752</td>
<td>2,250</td>
<td>(300)</td>
</tr>
<tr>
<td>Customer Service</td>
<td>200</td>
<td>560</td>
<td>930</td>
<td>(250)</td>
</tr>
<tr>
<td>Energy</td>
<td>817</td>
<td>880</td>
<td>943</td>
<td>(940)</td>
</tr>
<tr>
<td><strong>Total Phase I</strong></td>
<td>5,170</td>
<td>7,530</td>
<td>9,900</td>
<td>(2,200)</td>
</tr>
<tr>
<td><strong>Phase II</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Total Savings for One Water</strong></td>
<td>7,260</td>
<td>10,450</td>
<td>13,650</td>
<td>(2,700)</td>
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<tr>
<td>Savings from Public Works</td>
<td>1,510</td>
<td>2,090</td>
<td>2,670</td>
<td>(810)</td>
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<tr>
<td>Savings from consolidation</td>
<td>5,000</td>
<td>6,500</td>
<td>8,000</td>
<td>(5,450)</td>
</tr>
<tr>
<td><strong>Savings from Black &amp; Veatch Consulting report</strong></td>
<td>13,770</td>
<td>19,040</td>
<td>24,320</td>
<td>(8,960)</td>
</tr>
</tbody>
</table>

* assumes 50% of savings/costs from B&V Expanded ILA is from HR and IT (allocated 40% and 60% respectively) which leaves 50% in Phase II

Savings form Phase I fully realized in year 4 (2017)

Savings form Phase II fully realized in year 5 (2018)
### One Water Sub

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MSD (1,2) LWC Combined</td>
<td>MSD (1,2) LWC Combined</td>
<td>MSD (1,2) LWC Combined</td>
<td>MSD (1,2) LWC Combined</td>
<td>MSD (1,2) LWC Combined</td>
</tr>
<tr>
<td>Revenues (3)</td>
<td>235,330 146,957 382,287</td>
<td>229,954 146,371 376,325</td>
<td>238,340 155,581 393,921</td>
<td>250,268 162,582 366,976</td>
<td>262,614 168,272 366,976</td>
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<td>Expenses</td>
<td>108,326 91,762 200,088</td>
<td>108,041 92,959 201,000</td>
<td>115,281 100,693 215,974</td>
<td>- 222,404 -</td>
<td>- 228,027 -</td>
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<td>Plus Savings (4)</td>
<td>- - - -</td>
<td>- - - -</td>
<td>- - - -</td>
<td>- 860 -</td>
<td>- 1,620 -</td>
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<tr>
<td>Operating Lease</td>
<td>- - - -</td>
<td>- - - -</td>
<td>- - - -</td>
<td>(117,180) 117,180</td>
<td>(119,120) 119,120</td>
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<td>Net Cash</td>
<td>127,004 55,195 182,199</td>
<td>121,913 53,412 175,325</td>
<td>123,059 54,888 177,947</td>
<td>133,088 58,218</td>
<td>143,494 60,985</td>
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<td>Current Debt Service</td>
<td>114,983 29,142 144,125</td>
<td>118,409 29,013 147,422</td>
<td>107,110 29,012 136,122</td>
<td>110,710 28,583</td>
<td>113,549 27,428</td>
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<tr>
<td>Additional Debt Service</td>
<td>0 0 0</td>
<td>0 0 0</td>
<td>0 0 0</td>
<td>0 2602 0</td>
<td>0 6,850</td>
</tr>
<tr>
<td>Senior Debt Service</td>
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<td>118,409 29,013 147,422</td>
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(1). Revenue and Expenses from Chad Collier, Finance Director MSD
(2). Debt Service from Chad Collier with additional borrowings and BAN included.
(3). Includes BABs subsidy.
One Water

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(1). Revenue and Expenses from Chad Collier, Finance Director MSD
(2). Debt Service from Chad Collier with additional borrowings and BAN included.
(3). Includes BABs subsidy.
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(1) Revenue and Expenses from Chad Collier, Finance Director MSD
(2) Debt Service from Chad Collier with additional borrowings and BAN included.
(3) Includes BABs subsidy.
(4) Black and Veatch report. Page 70.