Abstract
Municipal solid waste systems have restructured their financial operations in order to provide more economic pricing to operate in a competitive market following the loss of legal flow control. Public and private partnerships between municipal systems and private sector vendors have been refined in order to obtain financial savings. Contracts and agreements have formalized inter-municipal relationships between municipal solid waste systems and municipalities served by the system. The use of these contracts and inter-municipal agreements cover waste collection, disposal and system operations. Contracts are also used for sales of energy and reclaimed materials, by products of the processing of municipal solid waste. Often, the terms of these contracts expire prior to the final amortization of debt issued to finance facility improvements. This paper discusses the use of contracts and profiles how contract risks, including renewal, are managed leading to satisfactory bond security structures, financial operations and investment grade credit ratings.

Topics
I. Contracts
II. Contract Types
III. Contract Provisions
IV. Contract Risks
V. Contract Remedies
VI. Contracts and Credit Quality

Contracts
The collection and disposal of municipal solid waste is a service function provided by governmental entities. This service can be provided directly by the municipality or under a service contract with a private vendor. Collection and disposal can also be a private arrangement between the private vendor and the residential, commercial or industrial customer. These interrelationships provide the impetus for public and private partnerships in order to benefit all parties following the loss of legal flow control.

Solid waste systems have coped with flow control uncertainty and regulatory changes by modifying revenues and expenditures within the framework of the various legal decisions impacting the solid waste sector. The linchpins of these public-private partnerships have been solid waste collection, disposal and service contracts. These contracts have provided a committed source of waste supply for the municipal system. Thus, the loss of legal flow control has formalized the public-private partnerships that previously existed.

In this paper, the term “contract” is used in broad terms to describe written agreements between municipal solid
waste systems and their essential public and private sector participants. There are several types of contracts. These contract types include waste collection, waste disposal, facility operations and covering sales of recovered materials such as recyclables and energy.

Federal, state and local laws and regulations govern the use of contracts. Additionally, appropriate state and local agencies should approve solid waste management plans. Through this process, the solid waste system is identified as a market participant or market regulator. The procurement process should be non-discriminatory (not favoring in-state vendors over out-of-state vendors) and provide for competitive bid procedures. Additionally, contracts enable better identification of each party’s financial obligations.

Contract Types
There are several types of contracts incorporated in the operations of municipal solid waste systems. These include waste collection, waste disposal, facility operation, and sales of reclaimed products and energy.

Waste Supply Collection and Disposal Contracts
Waste disposal contracts commit the waste supplied to the solid waste agency. Contracts are executed between the solid waste system and its municipal and private sector participants. In the case of regional solid waste systems, underlying contracts or inter-local agreements are often executed between the county and its local municipalities in addition to the contracts signed between the regional authority and the county. When revenue sources are diversified and not totally reliant upon tipping fees, waste collection contracts often enable lower tipping fees for non-contract waste, also known as "spot market” waste.

Solid waste systems also provide for waste collection. Waste collection contracts can be subdivided into three types: waste that is collected directly by the municipality, waste collected privately for the municipality under a private collection contract, or waste that is privately collected. Participants include the underlying municipalities and commercial, retail and industrial base customers. Hauler considerations include whether or not the hauler or vendor provides collection, disposal or both. In addition, analysts consider how the revenues flow from the hauler to the system. There are several methods of revenue collection that are in use by municipal solid waste systems and include escrow or performance bonds being required prior to disposal of waste at the facility. When the vendor utilizes direct billing, the timing of payments should be sufficient to protect the revenue stream from a bankruptcy of the vendor. Property or refuse bills that are a lien on property can provide a satisfactory stream of revenues.

Interlocal agreements are often used by county systems with revenues derived from underlying municipalities via the service contract or agreement. The terms are usually “put or pay” agreements. Flow control uncertainties and economic declines led to less waste being generated by the municipalities. In practice, where overall supply has been met by other municipal participants, or imported waste, and sufficient revenues were generated on a total basis, municipalities have been billed for only the amounts disposed and not the contracted amounts.

Facility Service Contract
Service contracts are negotiated between systems and vendors as well as between municipal governments. These contracts and agreements also provide the terms of operation for facilities that are not municipally operated. The use of these instruments has risen in response to flow control. The key analytical areas for the evaluation of service contracts can be divided into its component parts: contract terms, hauler considerations, waste supply agreements, intermunicipal agreements and municipal support.

Service contracts are also featured in privatization of waste disposal and collection. Recent trends include some public works departments successfully winning bid proposals to operate municipal systems on a more economical basis. Service contracts are also executed between private sector vendors and municipalities. Some solid waste systems now contract for collection and disposal from the private sector, and no longer perform these services municipally.

By-Product sales
The processing of municipal solid waste creates several by-products for potential sale with revenue often pledged to system operations, reserves or debt service. Recyclable products include glass, paper and packaging, metals and compost materials. Electricity is a by-product of the processing of municipal solid waste with the sale of energy a significant revenue component equal to over a third of revenues for some waste-to-energy systems. Fitch IBCA evaluates energy sales contracts in conjunction with our corporate department to analyze the ability of the underlying electric utility to meet the terms of the power purchase contract. Fitch IBCA also considers the price paid by the electric utility as compared with its avoided cost and the degree of electric
energy de-regulation. Fitch IBCA assesses the energy sales price and demand for power. (The ability of the sold waste system to seek alternative customers) in the event the electric utility does not renew the contract upon expiration.

**Contract Provisions**

Contract provisions include covenants governing cost sharing, renewal, pricing formulas and uncontrollable events.

**Cost Sharing:** Cost sharing among regional or multi-participant systems determines whether financial responsibilities are joint or several, put or pay or dependent upon spot market.

*Joint and several contracts:* Another type of intermunicipal or interlocal agreement can be found in contracts that are joint and several. Often these pertain to regional solid waste systems. Participating counties executed resolutions acknowledging the bonds sold to finance the regional landfill. Additionally, the obligation to remit under these agreements is joint and several. In this manner, the failure of one county to meet its obligation may be apportioned equally among the remaining participants. With this type of contract, Fitch IBCA evaluates the underlying credit quality of each municipal participant to assess the willingness and ability to pay required contract amount. Also evaluated are the circumstances that could trigger a default by one of the participant and the likelihood that a payment default would occur.

*Put or pay contracts:* Another example of municipal solid waste contracts are county systems with contracts with underlying municipal participants. The underlying municipal contracts are “put or pay” contracts, where the municipality has pledged its full faith and credit to satisfy the contract amounts. Technically, the municipality should be charged whether or not the full amount of waste contracted for is delivered to the system. When total system waste is sufficient the municipalities have not been charged for waste that is not delivered under committed amounts. They are charged only for waste processed in the system. In this manner, non-contract spot waste can provide a waste supply “cushion” and prevent municipalities from paying for waste not delivered. Nonetheless, the municipality remains obligated to remit contract amounts in the event that non-contract waste is not sufficient.

“Spot market” Waste: Waste furnished to the system from “non-contract” sources due to competitive prices is considered “spot market” waste. Some systems use spot market waste to supplement waste received under contracts. Often, system pledged revenues are diversified, using a combination of revenues, including energy sales, tipping fees and revenues derived from municipal service contracts. The municipalities and the county commit to specific tonnage. However, if the total amount of contracted municipal waste is less than the amount expected to be generated by these local governments and the county, then the system operator is permitted to obtain spot market waste. Thus, the system operator, under its contract, is to use its best efforts to secure additional waste.

Service contract payments in vendor operated systems have been affected by receipt of “spot” waste or waste under contract from other jurisdictions. This enables revenue sharing, as the vendor allows municipal service contract payments to be reduced in exchange for retaining revenues from the processing of the additional waste. The municipality benefits by lowered operating expenses and a percentage of profits generated by the additional waste accepted by the system. However, increased capital and maintenance expenses due to the higher utilization of the system need to be considered. If the municipal system includes a pledge the new revenues, it is important to determine whether or not the direct and indirect service area waste supply is sufficient to generate the additional waste needed.

**Renewal**

The date the contract ends and the amount of times that the contract may be renewed are evaluated in conjunction with events of termination. Included in the evaluation are competitive factors and the price paid for the service. Contracts for waste collection, disposal and facility operations are more likely to be renewed when pricing is competitive and there is less competition.

**Pricing Formulas**

The pricing of the solid waste service, whether waste collection, disposal or facility operation, is often based on complex formulas. These formulas include operating costs (some may be passed through to underlying municipal participants), debt service costs and renewal and replacement reserves. Additionally, the risks associated with increases in consumer or producer prices are also assessed. Some contracts have the solid waste system responsible for increases above a specified amount, placing the risk of inflation on the system. Analysts evaluate the extent of liability and the potential amounts paid by the vendor or municipality. Also evaluated are the payment mechanisms, including what party is responsible for billing—the municipality or the vendor. In addition, the budgeting process as well as put
or pay contract terms are evaluated as well as the
dependence upon imported or spot market waste.

Tipping fees may include recovery of operating costs,
landfill closure, post-closure care costs and debt service
as part of the basic fee. Residential and commercial user
fees and charges have been imposed in order to order to
diversify revenues and lower tipping fees to make them
more competitive.

Uncontrollable events
Uncontrollable costs are identified in operating and
service contracts. This section of the contract or
agreement identifies liability under various
circumstances. The usual circumstances include
technical and non-technical events. Penalties and
damages are apportioned to the vendor and the municipal
participant as described in the contract.

Contract Risks
Fitch IBCA assesses contract risks in relation to credit
quality through the analysis of renewal provisions,
financial risks such as pricing policies, determinations of
uncontrollable events and evaluation of the public and
private sector participants.

Contract covenants
Contract renewal risks occur when the contracts expire
before debt is repaid. Scenarios exist where new
contract terms could be more costly than original
financial projections. There is less risk where contract
prices are market based and revenue structure is
diversified. There are circumstances where contracts for
waste collection; disposal, facility operations and energy
sales were shorter than the term of the bonds. Municipal
solid waste systems have successfully managed contract
renewal risks and credit quality has not been jeopardized.
Factors contributing to attainment of investment grade
ratings include diversified revenues, market based
pricing, few competitors and strong support from
underlying municipal participants.

Financial risks include changes in service formulas and
other pricing structures. It is important to understand
how revenues and expenditures are budgeted. This
analysis evaluates how rates are set, the flexibility to
change rates, the billing process; the degree of operating
flexibility attained from rate stabilization funds.
Additionally, what are the levels of the reserves for
operations and maintenance, debt service reserves and
renewal and replacement. The analysis also includes the
evaluation of the mechanism to trigger the payment of
municipal or vendor guarantees to determine if sufficient
time is allotted to get necessary budgetary approvals to
ensure that all payments are made on time and in full.

The payment priority of operating expenses and the flow
of funds is critical to determine what gets paid ahead of
bonds. Some debt structures provide for both vendor
and municipal debt, with debt service on vendor bonds
payable as an operating expense under the service
contract. In effect, the vendor debt is senior to municipal
debt. Additionally, there are some expenses that are
payable ahead of debt service, such as reimbursement for
variable costs and equity payments. Some systems have
subordinated these payments to debt service enhancing
the funds available for debt service.

Fitch IBCA evaluates uncontrollable costs to determine
• Who are the responsible parties
• Are costs associated with these events insured and
are there any sharing of costs between the vendor
and the municipality
• Are these costs fixed or a blank check in the form of
pass-through payments to underlying participants
• What is the willingness and ability to pay damages
and penalties and correct events
• Is there a mechanism to trigger any corporate or
municipal guaranty
• Are any revenues from insurance or damage awards
pledged to bondholders

Service area
The credit fundamentals of the service area and the
ability and willingness to meet contractual obligations is
evaluated as part of contract risks. Thus, the amount of
municipal support is an important credit consideration. If
there is a guaranty or deficiency make-up provision, it is
important to determine if there is a mechanism in place to
have the trustee notify that there is a deficiency in
revenues, or if reserve funds may be drawn upon.

Fitch IBCA evaluates the willingness and ability of the
service area to provide payment under interlocal,
intermunicipal contracts and agreements. It is also
important to evaluate the ability of the municipality to
impose the fees or user charges as well as ascertain that the
service area has sufficient resources to repay on time and
in full. This analysis blends traditional municipal finance
fundamentals where the service area and primary
municipality is evaluated based on its underlying
"general obligation" rating or an internal determination
or "shadow" evaluation of credit quality. The analysis
focuses on the evaluation of the four primary areas of
credit analysis: Debt, Finances, Government and
Economy. Please refer to Fitch IBCA’s guidelines for
rating general obligation debt, available on the Internet, www.fitchibca.com, for a more complete summary of these credit fundamentals.

Thus, the analysis of the underlying service area is important where there is a municipal guaranty, or pledge of revenues from household or commercial charges, whether or not these are remitted via the vendor, or directly by the municipality. The most important part of the analysis centers on the financial position and wealth indicators. These measures enable analysts to evaluate the ability of the service area to pay on time and in full.

Key measures of the economy include whether or not the area is growing, or more mature economy. Per capita income and household buying income measure the wealth levels of the area. Each entity is evaluated based on how much greater or less income is to the state and nation as well as the metropolitan service area (MSA). Another area of the analysis evaluates the employment sectors that contribute to income. These are also compared to the state and national averages. The major taxpayers are evaluated as well as concentration to determine whether or not the employment and tax base is stable, growing or declining. Economic incentives to facilitate growth or rehabilitation are important when compared with estimates of the projected waste supply.

**Participant Credit Fundamentals**

Fitch IBCA evaluates the ability of all contract participants to fulfill the terms of the contract. This includes the analysis of underlying corporate parent guarantees and private sector participants contracting for purchase of reclaimed products and energy. The analysis of the corporate developer, vendor, or operator is performed in order to determine their technological experience and ensure that sufficient fiscal resources are available to meet construction or operating risks. The vendor analysis will include, where appropriate, a review of historical and projected income statements and cash flow position. Where there is a parent guaranty for an operating subsidiary, the fiscal condition of the parent will be evaluated. This includes a review of liabilities, including direct debt, leases, and potential amounts of other guaranty's are also evaluated in conjunction with market access, bank lines and other financing sources available to the parent. This analysis also considers the identification of project and bondholder risks, identification of municipal and vendor responsibilities as well as the timing mechanism to trigger any payments from a parent.

The evaluation of contract risks and remedies are based on the overall evaluation of the system, the type of contract and its importance to pledged revenues, the credit fundamentals of project participants and the underlying service area. The ability for self-operation of system facilities is important where operating contracts may expire prior to amortization of the bonds. Thus, credit fundamentals may still be secure enabling investment grade credit quality.

Renewal, price changes and uncontrollable events are features of waste supply, waste disposal, service, operating and energy sales contracts. The key variable is the amount of revenues derived from the contract. In the case of energy sales, it is important to also evaluate the price energy is sold. Financial operations are less likely to be disrupted when system revenues are diversified and energy prices are close to market. Financial operations are more likely to be affected when there is greater dependency upon energy revenues and the revenues are also based on higher energy prices. The local and regional need for power is important. Financial shocks are less likely to result when energy sales are based on market prices in an environment where there is long-term demand for power. Alternatively, since solid waste systems are classified as “non-utility generators” they are able to sell, or “wheel” power directly to other purchasers. In some instances, power may be purchased by the municipality to support power needs of municipally owned enterprises, such as water and wastewater treatment plants.

Fitch IBCA conducts an evaluation of energy deregulation for investor owned utilities and how deregulation affects the solid waste system participants. Associated with energy deregulation is the concept of “stranded assets”. The costs associated with “stranded assets” include debt service on facilities and costs embedded in purchase contracts between investor owned utilities and “non-utility generators” as solid waste systems are known under energy acts.

In a deregulated climate, investor owned utilities anticipate passing contract costs through to their utility ratepayers. However, each state will be determining policy for cost recovery. Under proposed terms of deregulation, solid waste systems expect to continue to receive amounts under existing contracts. However, it is prudent to evaluate alternative financial measures in the event that anticipated revenues are not received in full. This analysis is especially important in systems where there are municipal contracts where the obligation is a full faith and credit obligation. Under this scenario, declines in system revenues would be offset by increased
charges under the service contract. In the event where energy sales revenues were less than budgeted, the shortfall would be passed through to the underlying municipalities. A situation is created where the contract fees could cause increases in ad valorem property taxes or residential and commercial user fees.

**Contracts and Credit Quality**

Municipal bonds solid waste revenue bond ratings are the distillation of all of the credit factors and fundamentals and is a statement about the issuers willingness and ability to repay debt on time and in full. Fitch IBCA assigns long term debt ratings using a letter scale: AAA is the highest credit quality and BBB the lowest investment grade rating. The speculative grade ratings begin with the “BB” category and extend to “D”, denoting default. Fitch IBCA utilizes a “+” or “-” sign to denote placement within the category. Ratings are bands of credit quality and each debt instrument within the rating category shares a similar risk profile regardless of its fixed income debt sector—municipal, corporate, structured, asset-backed or international.

Municipal solid waste systems have been acting responsibly to respond to external pressures and meet challenges from change in laws and regulations, litigation, and competition. Bond security should be assessed in relation to competition, the impact of regulatory changes, collection and disposal practices, changes in the waste supply and sources of pledged revenues. The evaluation also focuses on the economy and finances of the service area. In this manner, flow control, legal, legislative and regulatory changes can be evaluated to determine any impact on bond security and credit quality, which could affect the credit rating and which could lead to a ratings upgrade or downgrade. While the need for external action can be destabilizing and jeopardize credit quality, there remains the potential that the solutions could improve credit quality. Thus, solid waste systems should be evaluated independently, based on its ability to operate as a market participant or market regulator, with non-discriminatory procurement, in a competitive environment. Thus, the rating is the distillation of all of the credit factors and fundamentals and is a statement about the issuer’s willingness and ability to repay debt on time and in full.

As a result of collection, disposal and service contracts and agreements, systems have been able to restructure and refinance outstanding bonds. In some instances, debt refinancing not only restructured system operations to achieve debt service savings, but, also have given rise to efforts to relax more stringent additional bonds tests and have put or pay covenants and others include provisions that payment must be made whether or not the facility is completed or operational.

Credit fundamentals of solid waste systems that are positive include over ten year history of system operations, satisfactory financial operations, a diversified and committed waste supply, competitive rate structure which leads to economic flow control that provides stable revenues sources. However, credit concerns include the potential of limited financial flexibility, uneconomic rate structure, and competition from other facilities within transportable distance, uncommitted waste supply and revenues dependent upon tip fees. Nonetheless, characteristics of a minimum investment grade rating, in the BBB category, include sufficient waste supply, demonstration that the service area is economically viable and stable, projections are realistic, and the system has demonstrated the ability to withstand economic and financial difficulties. The flexibility to respond to a dynamic operating climate as well as sufficient reserves and coverage are also important to attainment of the investment grade rating.

Janet H. Martin is a Senior Director, Public Finance with Fitch IBCA, Inc. Fitch IBCA, Inc is an internationally Recognized statistical rating organization. Ms. Martin is a member of the Municipal Forum, the Municipal Analysts Group of New York (MAGNY), and the National Federation of Municipal Analysts (NFMA). She is also A member of the Solid Waste Association of North America (SWANA), serving as Vice-chair of the Training Committee and member of the program committee of the Planning and Management Technical division. She is Co-faculty for SWANA’s “Paying for your Municipal Solid Waste system” course. Janet is also a member Of the audit committee of the New York State Chapter Of SWANA. Ms. Martin has spoken extensively on public Finance topics to various industry organizations.