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The Financial and Environmental Implications of a Public Private Waste Management Strategic Initiative

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ABSTRACT: Across the United States, there has been an increased demand for municipalities to manage taxpayer's funds and meet the citizens' needs. This paper describes how a county in New York State effectively implemented a public-private interface model to outsource management of the county's landfill to a private waste management corporation as a strategic initiative to control the municipality's increasing tax rate and to enhance the county's competitive environment. This initiative is expected to provide the county with a substantial positive cash flow from landfill operations as opposed to significant annual increases in operating losses.

Keywords: Strategy, Public-Private Interface,

INTRODUCTION

This paper addresses the rationale and processes for the outsourcing of the management and operations of a municipal landfill in Ontario County, New York. It describes the efforts of the County Administrator, the county's Chief Planner (Ontario County Planning Department 2010) and the county's Board of Supervisors to assess the need for and the viability of outsourcing a public-funding municipal operation to the private sector. In addition, the financial impact of the decision to outsource is evaluated.

In the fall of 2003, Ontario County accepted a proposal from Casella Waste Systems to take over operation and maintenance of the county landfill that was currently under performing with annual losses exceeding one million dollars (\$1,000,000). The developed landfill encompasses over three hundred (300) acres in Stanley, NY and has been owned and run by Ontario County since 1970. However, many consecutive quarters operating at a loss prompted the county to seek an outside partner who specialized in waste disposal to streamline the landfill operation. The county's Planning Department released a Request for Proposals (RFP). A special landfill evaluation committee consisting of members from the Board of Supervisors and senior county managers reviewed the submissions from various waste management companies.

The contract was awarded to Casella Waste Systems, partially based on Casella's experience in managing Clinton County's landfill in Western New York. The Casella and Ontario County Partnership is a blend of contractual, legally binding agreements and strong collaboration between the two entities to meet common goals and objectives. Both of these entities have unique core competencies that can provide mutual benefits for all parties involved. This partnership was brought about for the purposes of optimizing the productivity of the landfill and shares the risk/reward that the newfound productivity could potentially bring both to Ontario County and to Casella. The public-private interface agreement has significantly exceeded the estimated increase of revenues to the County. However, the agreement is currently being questioned for its potentially negative impact on the area's environment and quality of life

PUBLIC-PRIVATE PARTNERSHIPS

The public-private partnership concept has been in use in the world for over forty years, and has been growing at a varying rate with mixed success. Its popularity is due to the fact that governments are more and more eager to increase the quality and efficiency of public services, while facing insufficient budgetary resources to cover investment needs. Confronted with public spending restrictions, municipalities began to turn to the private sector as a source of funds. These public-private partnerships are based on the cooperation of a

public entity with private entities aimed at mutual benefits. For this project, Ontario County's feasibility study indicated that outsourcing the operation and maintenance of its landfill would turn annual operating losses into significant positive cash flows. Moreover, it would not require capital investment by the county except for attaining approval from New York State's Department of Environmental Conservation (NYS DEC).

Public-private partnerships (PPP) are "working arrangements based on a mutual commitment (over and above that implied in any contract) between a public sector organization with any other organization outside of the public sector" (D.W. Brinkerhoff & J.M. Brinkerhoff, 2011). These relationships are cross-sectoral but there is a shared effect between both parties to bring both commitment and competence to the table, thereby creating a classic synergy with the whole being more than the sum of the parts. These mutual agreements share the following features for both parties to enjoy the synergistic effect: Jointly determined goals, Collaborative and consensus-based decision making, Trust-based and formal/informal relationships and Shared accountability for outcome and results

Brinkerhoff and Brinkerhoff state that public-private partnerships typically evolve from one or more of the following reasons:

- To enhance efficiency and effectiveness through a reliance on comparative advantages and a rational division of labor and resources
- To keep the tax rate at a stable position for years to come
- To move from a no-win situation to a compromise and a potential win-win situation. It potentially would be possible to continue without a partnership, but stakeholders within the county would continue to be dissatisfied and incur losses.
- To provide integrated resources and solutions where the whole will be better than the sum of the parts.
- To improve and open decision-making processes to promote a more formidable operation which would benefit the citizens of the municipality.
- To allow the public sector to avoid up-front capital costs and reduce public sector administration costs
- To allow risk to be transferred from the public to the private sector

However, as with most decisions, there is rationale against the establishment of the public-private partnership including but not limited to the following issues:

- May not achieve their intended public benefits due to poor implementation
- Citizens may not be aware of such partnerships and think the public and private sectors lack the appropriate skills to capitalize on long-term success
- May restrict competition and choice
- Increase costs to consumers
- Loss of jobs for existing workers when partnership is formed

With the rational for and against being formed above for outsourcing municipal operations or infrastructure services, it has been concluded that neither a purely public nor a purely private infrastructure development approach is likely to be sustainable in the long-term for some projects. A purely public approach may cause problems such as slow and ineffective decision-making, inefficient organizational and institutional frameworks, and lack of competition and efficiency, which are collectively known as government failure. On the other hand, a purely private approach may cause problems such as inequalities in the distribution of infrastructure services, an example of what is known as market failure. To overcome both government failure and market failure, a public-private partnership approach can incorporate the strengths of both the public and private sector (Kwak, Chih, Ibbs).

A public-private partnership is particularly attractive in those instances where there is strong demand for rendering services such as communication infrastructure, water supply, wastewater disposal and treatment, waste management, public transport, construction of cultural facilities, public administration buildings, hospitals, schools and even prisons but there is a lack of sufficient municipal capital to finance costly investments or to modernize inefficient infrastructure. This paper uses a case study approach to describe a potentially successful public-private partnership to develop a better waste management plan through collaboration between the county and private sector.

METHODOLOGY

This case study is based upon interviews with Ontario County's Chief Administrator, Landfill Committee Chairman and Finance Committee Chairman and with Cassella's President, Ontario County landfill manager and Ontario County landfill engineer. Additional information was gathered by collection and analysis of the meeting minutes of the County Board of Supervisors as well as the minutes and relevant documents of the County's Finance Committee and Planning and Research Committee, and Industrial Development Agency Committee.

Ontario County is located in Western New York State roughly 300 miles northwest of New York, NY, 30 miles southwest of Syracuse, NY, and 30 miles southeast of Rochester, NY. The area that Ontario County is situated in is more commonly referred to as the Finger Lakes Region with the county touching Canandaigua Lake and Seneca Lake. Geographically, the county is 644 square miles, a majority of which is rural and suburban in nature. Ontario County is governed by a Board of Supervisors composed of representatives from eighteen (18) towns and two notable cities, Canandaigua and Geneva, which have populations of 11,264 and 13,617, respectively (U.S. Census Bureau, 2010). The total population for Ontario County in 2010 was 105,650, which indicates a five percent (5%) approximate population increase based on the 2000 Census results. On a micro-level, the median household income for Ontario County in 2010 was \$55,339 and per capita money income was \$21,533 as stated in the 2010 Census results.

Financially, the Ontario County government has been able to maintain a balanced revenue and expense relationship, while decreasing tax rates by more than seven percent (7.3%) since 2006 (Ontario County 2012 Budget). In 2011, county expenses were \$199,925,343, while revenues were \$211,749,975. (Wager, 2011) In order to remain financially stable and refrain from increasing the tax rate, the Ontario County Government utilizes the public-private partnership business models in order to fund county projects and initiatives.

On a business level, Ontario County has nearly 300 companies spanning six major industries, which include agribusiness/food and beverage, green industries, healthcare, manufacturing, small businesses, and technologies (Ontario County, 2011). The top ten employers span all industries and are listed in Table 1.

Table 1

Ontario County Top Ten Employers	
Abbey Industries /Ontario ARCS	Finger Lakes Racing Assn. Inc.
Constellation Brands	G.W. Lisk Co., Inc.
Clifton Springs Hospital	Hobart William Smith College
F.F. Thompson Hospital	Pactiv
Finger Lakes Healthcare System	Wegmans Markets

(Ontario County, 2011)

THE MUNICIPALITY

Solid waste has become a major problem for most municipalities in the United States. Ontario County is in no different position. In 1969, Phillip Rowley, a county resident, advised the Ontario County Board of Supervisors on the dangers of being overrun with solid waste and proposed a solution to "solve the solid waste problem." From his suggestions, Ontario County formed a Solid Waste Committee that dealt in all matters related to waste in the county. This committee centralized all the town dumps within the county to the current location of the Phase I landfill in the town of Seneca, converting the remaining town landfills into transfer stations to the main landfill.

The original site (entirely composed of a 389 acre farm that foreclosed in 1970) officially became a landfill in 1974. This site is comprised of three different "phases". The initial Phase 1 was an unlined area of approximately 17 acres of space. Phase 2 was partially lined by clay. The total area of these (now closed)

phases totals 43 acres. The current Phase (3) in use comprises 85 acres and is lined with two separate composite low permeability polyethylene geo-membrane barriers. The initial Phases 1 and 2 of the landfill were not operated as a business; they were more of a convenience or service to the residents of the county.

During the 1980s there was a rise in public fear about the dwindling space left in landfills. To address this anxiety, Ontario County formed the Solid Waste Authority (SWA) with the neighboring counties of Wayne, Seneca and Gates. However, Ontario County walked away from the SWA shortly after, because the other SWA counties were captivated with the idea of creating an incinerator for electric power generation, which turned out to be a complete failure of a venture. From this failed experience with the SWA, Ontario County saw the need for landfill operation to be treated like any other business, and that high volumes of garbage were needed to make the landfill a viable operation. Consequently, the county attempted to mandate that all residents of Ontario County were required to take their waste to the landfill. However, in the case “US Supreme Court 2007: United Haulers vs. Herkimer Solid Waste”, the Supreme Court decided that this decision violated the commerce clause preventing a corporation having a monopoly on the solid waste market. There was also a rash of county employee problems such as theft plaguing the landfill, causing the county executives to admit that perhaps the county could benefit from an outside expert running their facilities. The initial RFP draft was created, and out of ten proposals and four finalists, the bid from Casella was accepted.

THE MANAGER

Casella Waste Systems Inc., LCC is a regional waste management company that is headquartered in Rutland, Vermont. From their creation in 1975 as a single truck operation out of Rutland, to their acquisition of KTI Waste Processing Services in 1997, to their expansion across the Northeastern United States, Casella has sought to differentiate itself as a more environmentally friendly disposal company. In addition to running conventional landfill operations, Casella specializes in searching for new and innovative solutions for recycling and reuse of recycled materials. Casella operates a business model of Sustainable Environmental and Economic Development (SEED) to create a more sustainable infrastructure for solid waste disposal. The projects they’ve pioneered include Zero-Sort Recycling technology that creates a much more consumer friendly approach to the recycling process through a much easier collection process. Instead of individual bins for each material being collected, a single dumpster can collect all types of materials being recycled for easier collection and transportation to the recycling center. Casella can also lay claim to constructing Vermont’s first recycling center in 1977. Casella currently runs the Clinton County landfill in Northeastern NY, giving themselves credibility for the operation of additional landfills in NY. The Ontario County landfill project was an excellent opportunity for Casella to expand its services, due to the excellent location of the Ontario County site, and they believed that they could turn the landfill into a profitable partnership for both Casella and Ontario County.

Casella Assumes Management

Casella’s president Jim Bohlig and founder Jon Casella were instrumental implementing the agreement between Casella and Ontario County, with help from their assistant Gene Martin on doing due diligence researching all requirements of Ontario County and fulfilling any regulations that New York State has in place. Casella’s proposal was accepted the fall of 2003, with the expectation that the Seneca landfill operation would transfer to Casella in January of the following year for a standard operating period of 25 years, with Casella maintaining post-closure responsibilities for an additional 35 years. However, Casella took the initiative in implementing the project, and started the operational changes one month early in December 2003, and Casella also reimbursed Ontario County for the cost of creating the RFP at \$120,000. At this time, the landfill was in its Phase 3 of operation. Casella purchased all of the assets of the landfill, such as their outdated bulldozers, pickup trucks and a small trash compacting tractor for roughly \$1.7 million dollars, which was deemed to be far above the fair market value for such pieces of equipment. Even though they may not use all of these pieces of equipment, Casella took them off the hands of the county which had no further use for these machines.

Per the Operations, Management and Lease agreement (OML), Casella agreed to keep on all current county employed workers, but would be able to replace them with their own employees once the county employees retired. This ensured that Casella would only be adding jobs to the community and not taking jobs out of state.

Casella hired two employees specifically charged with keeping the landfill operations well within the limits set by the Department of Environmental Conservation. These employees are paid for by Casella and were hired as an additional peace of mind to the county, not because Casella was forced to by OML stipulations.

To alleviate concerns of county residents regarding space for their garbage deposits, Casella guarantees space in the landfill for all residents for the duration of their contract length, and that all deposits will be charged by a per tonnage basis cheaper than previously possible. Casella invested \$11 million of its own capital to create a Zero-Sort recycling facility at the Ontario County site, with part of the investment going to convert smaller recycling centers around the Ontario County into transport stations to the main Stanley location. Casella also added a much improved system of garbage fences that are cleaned daily, mounted on which are odor-neutralizing sprayers with varying scents to keep the local population happy. To remove the potential complaints of traffic congestion during the delivery hours during the morning, Casella added two turning lanes for semi-trucks to turn off of State Route 20 into the facilities from either direction.

PUBLIC-PRIVATE INTERFACE ASSESSMENT

The landfill is currently in its Phase 3 of operation. The landfill currently has 4.47 million cubic yards of space remaining at the permitted height of 997 feet, which would give the landfill a life of three years at the current volume of accepted material, but Casella is pursuing approval for increases in area of 43.5 acres and 3% (1025 feet) in height, which based on current tonnage limits, provides 16 more years of life to the landfill. The lining of this Phase allows for the collection of gas generated by the decomposition of the refuse contents, and this methane gas must be released via the 13 vertical wells inserted into the landfill around the perimeter. The gas collected from these pipes can be used to run large internal-combustion engines, which are used as generators to produce electricity. Casella uses the methane emissions collected to power eight engines that can produce 800 kW per hour, per engine, and altogether these engines can produce 6.4 Megawatts per hour of electricity, or equivalent to powering 4,000 homes. This constitutes 2,500 cf of methane gas out of the approximately 5,150 cf of gas collected and the remaining methane is disposed of through three gas flares, per EPA regulations. The lining of this Phase also allows for collection of contaminated liquid that drains from the landfill, also known as “leachate.” Casella stores the leachate runoff on site, and takes responsibility for delivering the leachate to a nearby water treatment facility. The leachate generated in 2010 was approximately 16,288,000 gallons. Casella will maintain the leachate and methane collection and treatment for an additional 35 years after their contract is over.

Benefits for Ontario County

Casella benefits the general wellbeing of the Ontario county residents in many ways. Under the lease, Casella has agreed to pay the county \$119 million over 25 years for use and operation of the landfill. The Ontario County property tax rate of \$6.24/\$1,000 is currently one of the lowest in New York State, and has decreased 7.3% since 2006. Ontario County prides itself on sustainability and has no bonded debt, thus this idea of minimal taxation appeals to many of the executives on the county board. Casella is very mindful of anyone who lives very close to the landfill. To anyone who balks at the idea of living near a landfill and decides to sell their home, Casella will pay fair market value for their home if it does not sell within six months, or will pay the difference to the seller if it sells at less than the market price. NYS Regulations only protect those who live ¼ mile downwind from the site, whereas Casella has taken responsibility for 1.5 miles surrounding the landfill property.

Giving back to the neighboring community, Casella currently offers \$25,000 scholarships for graduating high school students who are planning to study environmental science, environmental engineering, or agriculture sciences, and Casella has paid out over \$120,000 to date. Additional revenues for the county come from excess tonnage of recyclables that Casella receives, as well as a share of the profits that Casella receives from the sale of its methane generated electricity back to the utility companies.

Benefits for Town of Seneca

The town of Seneca, which is located less than 5 miles from the landfill, pays no property tax due to its proximity. Casella’s over-tonnage fees netted \$1.8 million in revenues in 2012 for Seneca, which constitutes

almost half of the town's budget. To replace this income, Seneca would have to raise property taxes to \$10.28 per \$1,000 of assessed value. Casella donated \$100,000 towards a new recreation center and used their equipment to prepare the site for construction. Casella donates \$18,000 per year to the town's fire protection services, which are divided amongst 3 separate Fire Departments within Seneca and purchased Automated External Defibrillators for Seneca's police cars. Finally, Casella donated \$10,000 for a recreation fund that was matched by the town of Seneca.

CONCLUSION

The County-Cassella public-private interface has stabilized a rapidly increasing county property tax rate. Prior to 2006, the county's annual operating losses exceeded one million dollars. Projected positive annual cash flows of two million dollars are now exceeding three million dollars. Moreover, in addition to the pure profit gains, Casella has brought in a high level of social responsibility to Ontario County and held itself accountable for all its actions within the community. There are many other opportunities within Ontario County for such Public to Private Partnerships to flourish, and hopefully this case study will help lay the groundwork for such partnerships to occur more frequently in the future.

However, as a caveat to this successful financial and operational strategic initiative, environmental and quality of life concerns are on the rise. The high financial benefits to the county are a result of increased acceptance of waste from outside the county, outside the state and at times outside the country.

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