



The Timeline

History

- ▶ 2013: End of Long-Term Disposal Agreements, Municipalities Enter Into New Contracts
- ▶ Summer 2014: Incineration Capacity Drops After RRB Ends
- ▶ April 2015: RRB Settlement Allocates Assets and Liabilities
- ▶ May 2015: Waste Management Closes North Incinerator
- ▶ June 2016: Alpha 250 Sale Paused In Favor of Study
- ▶ June 2017: Arcadis Selected To Conduct Solid Waste Study
- ▶ December 2018: Arcadis Releases Final Report and Finding
- ▶ Summer 2019: County and Cities Agree on Memorandum of Understanding
- ▶ November 2019: Solid Waste Working Group Formed

Exhibit A
Milestone Schedule

Milestone Description	Milestone Dates
County Approval of the MOU	June 11, 2019
Participating Municipality Approval of the MOU	September 30, 2019
Designation of Working Group	November 15, 2019
Designation of Technical Group	December 15, 2019
Retention of consultants and/or any required legal counsel	December 15, 2019
Determination as to form of governance for the regional solid waste management system (e.g., interlocal agreement, special district*)	April 20, 2020
*Finalization of the necessary creation documents (which would permit timely submission to the Florida Legislature if an independent special district is to be pursued)	September 30, 2020

Memorandum of Understanding

RENEWALS

- First Renewal Term started = 7/3/18
- Second Renewal Term would start = 7/3/23
- Final Renewal Term would start = 7/3/28



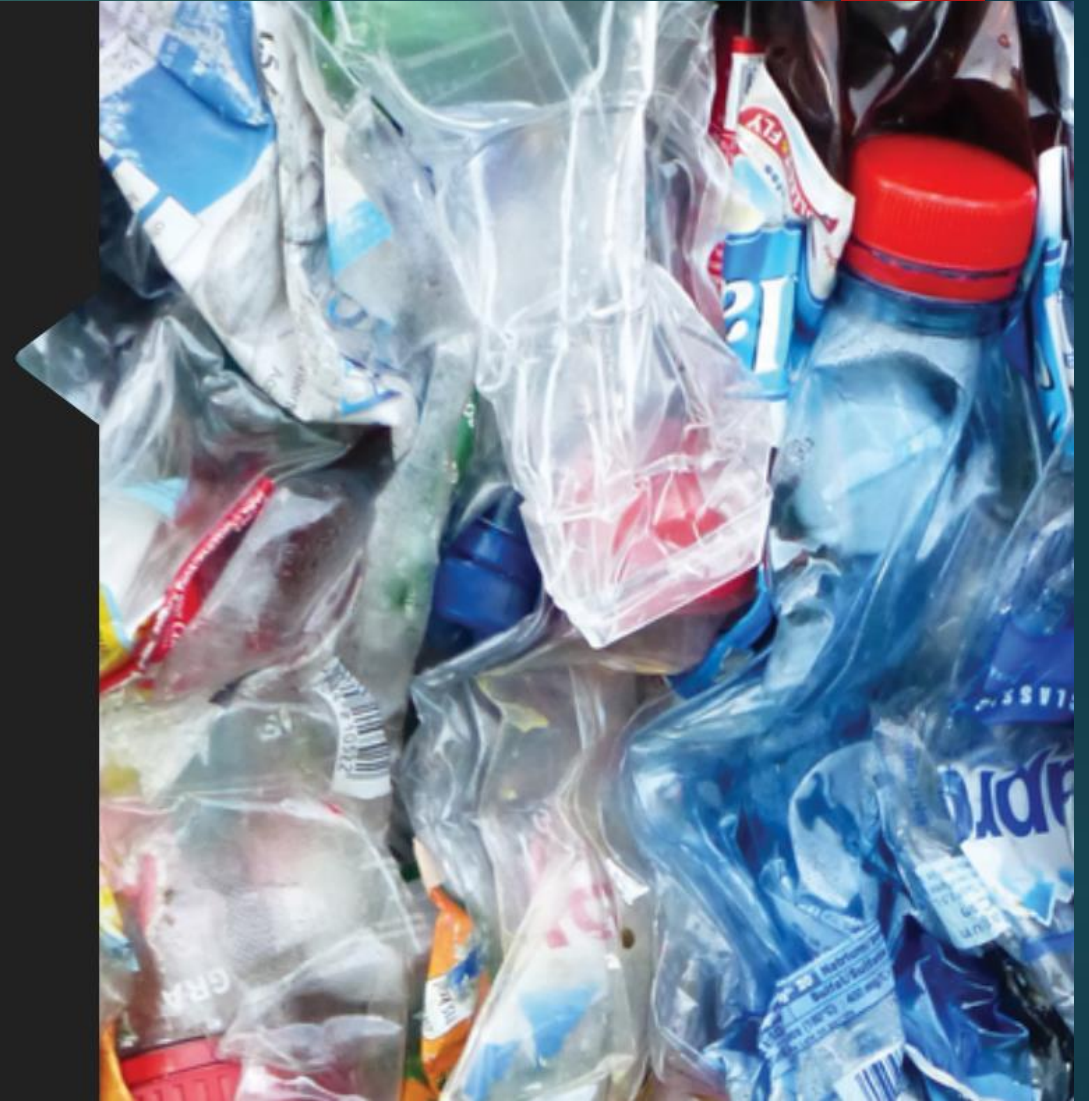
SECOND RENEWAL

- Deadline to Renew = 1/15/22
- All Contracted Processable Waste would be required to be delivered to South Waste-to-Energy Plant
- Two Preconditions on Renewal



SECOND RENEWAL PRECONDITIONS

- 425,000 tons of Contracted Processable Waste delivered each year of current contract term ✓
- Binding commitment from local governments whose residents and businesses have generated **at least 500,000 tons of waste/year** to deliver all Contracted Processable Waste to South Waste-to-Energy Plant
 - Commitment may be by ILA or direct contract
 - The 500,000 tons based on tonnage provided to WES during last contract year
 - For governments not currently participating, it will be based on an affidavit





The Need

Table 5A
Final Disposition of Municipal Solid Waste (2013)
 Excludes recycling credits for renewable energy and yard trash beneficially using landfill gas.
 By Descending Population

County	Population¹	Total MSW Collected Tons	Municipal Solid Waste								
			Recycled				Landfilled		Combusted		
			Certified Tons	Non-Certified Tons	Total Tons	Unadjusted Recycling Rate	Adjusted Recycling Rate	Tons	%	Tons	%
Miami-Dade	2,582,375	3,476,874	561,492	462,299	1,023,791	29%	29%	1,519,699	44%	933,384	27%
Broward	1,784,715	3,285,645	1,336,669	161,125	1,497,794	46%	46%	1,235,030	38%	552,821	17%
Palm Beach	1,345,652	2,496,469	809,352	153,782	963,134	39%	39%	831,854	33%	701,481	28%
Hillsborough	1,276,410	1,803,829	577,740	197,226	774,966	43%	43%	324,042	18%	704,821	39%

2019

Final Disposition of Municipal Solid Waste
 Excludes recycling credits for renewable energy and yard trash beneficially using landfill gas.
 By Descending Population

County	Population ¹	Total MSW Collected Tons	Certified MSW Tons Recycled	Non-Certified MSW Tons Recycled	Total MSW Tons Recycled	Unadjusted Recycling Rate	Adjusted Recycling Rate	MSW Tons Landfilled	%	MSW Tons Combusted	%
Miami-Dade	2,812,130	4,264,169	562,271	172,066	734,337	17%	17%	3,048,221	71%	481,611	11%
Broward	1,919,644	3,905,355	599,399	610,545	1,209,944	31%	31%	2,134,756	55%	560,655	14%
Palm Beach	1,447,857	3,433,090	478,960	1,058,603	1,537,563	45%	45%	832,808	24%	1,062,719	31%
Hillsborough	1,444,870	3,061,922	551,186	882,951	1,434,137	47%	47%	1,218,865	40%	1,098,620	43%



The Cost

Facility	2025			2040			2060		
	Processing Lines Required	Facilities Required ¹	Est. Facility Cost (2020 dollars)	Processing Lines Required	Facilities Required ¹	Est. Facility Cost (2020 dollars)	Processing Lines Required	Facilities Required ¹	Est. Facility Cost (2020 dollars)
Common Elements									
Materials Recycling Facility	5	3	\$ 63,000,000	5	3	\$ 63,000,000	6	3	\$ 76,000,000
Combined Bulky Waste/Yard Trash/C&D Facility	10	5	\$ 39,000,000	11	6	\$ 42,000,000	12	6	\$ 46,000,000
Yard Trash Facility	1	1	\$ 3,000,000	1	1	\$ 3,000,000	2	1	\$ 6,000,000
Constants Subtotal			\$ 105,000,000			\$ 108,000,000			\$ 128,000,000
Scenario A									
Mixed Waste Processing Facility	10	5	\$ 172,000,000	10	5	\$ 172,000,000	11	6	\$ 189,000,000
Organics Processing Facility (excludes Yard Trash)	4	2	\$ 52,000,000	4	2	\$ 52,000,000	4	2	\$ 52,000,000
Waste-to-Energy (WTE)									
WSB Expansion (Add 4th 750 tpd Boiler Unit)	0	0	\$ -	0	0	\$ -	1	0	\$ 180,000,000
OR									
New WTE Facility (750 tpd Boiler Units)	3	1	\$ 675,000,000	3	1	\$ 675,000,000	4	1	\$ 900,000,000
Scenario A (4th WTE Unit at WSB) TOTAL		16	\$ 329,000,000		17	\$ 332,000,000		18	\$ 549,000,000
Scenario A (New WTE Facility) TOTAL		17	\$ 1,004,000,000		18	\$ 1,007,000,000		19	\$ 1,269,000,000
Scenario B									
Mixed Waste Processing Facility	10	5	\$ 172,000,000	10	5	\$ 172,000,000	11	6	\$ 189,000,000
Waste-to-Energy (WTE)									
WSB Expansion (Add 4th 750 tpd Boiler Unit)	1	0	\$ 180,000,000	1	0	\$ 180,000,000	1	0	\$ 180,000,000
OR									
New WTE Facility (1,050 tpd Boiler Units)	3	1	\$ 945,000,000	3	1	\$ 945,000,000	3	1	\$ 945,000,000
Scenario B (4th WTE Unit at WSB) TOTAL		14	\$ 457,000,000		15	\$ 460,000,000		16	\$ 497,000,000
Scenario B (New WTE Facility) TOTAL		15	\$ 1,222,000,000		16	\$ 1,225,000,000		17	\$ 1,262,000,000
Scenario C²									
Waste-to-Energy (WTE)									
WSB Expansion (Add 4th 750 tpd Boiler Unit)	1	0	\$ 180,000,000	1	0	\$ 180,000,000	1	0	\$ 180,000,000
OR									
New WTE Facility (1,050 tpd Boiler Units)	3	1	\$ 945,000,000	3	1	\$ 945,000,000	4	1	\$ 1,260,000,000
Scenario C (4th WTE Unit at WSB) TOTAL		9	\$ 285,000,000		10	\$ 288,000,000		10	\$ 308,000,000
Scenario C (New WTE Facility) TOTAL		10	\$ 1,050,000,000		11	\$ 1,053,000,000		11	\$ 1,388,000,000

Scenario ¹	2025 Est. Facility Cost (2020 dollars)	2040 Est. Facility Cost (2020 dollars)	2060 Est. Facility Cost (2020 dollars)
Scenario A²			
Assuming 4th WTE Unit @ South Broward	\$ 329,000,000	\$ 332,000,000	\$ 549,000,000
Assuming New WTE Facility	\$ 1,004,000,000	\$ 1,007,000,000	\$ 1,269,000,000
Scenario B			
Assuming 4th WTE Unit @ South Broward	\$ 457,000,000	\$ 460,000,000	\$ 497,000,000
Assuming New WTE Facility	\$ 1,222,000,000	\$ 1,225,000,000	\$ 1,262,000,000
Scenario C³			
Assuming 4th WTE Unit @ South Broward	\$ 285,000,000	\$ 288,000,000	\$ 308,000,000
Assuming New WTE Facility	\$ 1,050,000,000	\$ 1,053,000,000	\$ 1,388,000,000



Benefits and Drawbacks of Solid Waste Governing Structures

Interlocal Agreement

Benefits

- ▶ Meets criteria in terms of timeline, money raised, and capabilities.
- ▶ Local control over all elements after legal entity is formed.
- ▶ Flexibility in structure and composition.
- ▶ Can levy appropriate assessments.
- ▶ No restrictions on facilities, debt, or structure if created properly.

Drawbacks

- ▶ Requires cooperation and communication between all parties – trust is key.
- ▶ Less historical examples in Florida of raising required amount of money for new capital projects.
- ▶ Cannot levy taxes, though can levy assessments.
- ▶ Not all cities required to join.

Dependent Solid Waste District

Benefits

- ▶ Meets criteria in terms of timeline, money raised, and capabilities.
- ▶ Local control over all elements.
- ▶ Flexibility in structure and composition.
- ▶ Can levy appropriate assessments.
- ▶ No restrictions on facilities, debt, or structure.

Drawbacks

- ▶ Requires a working threshold of buy-in from municipalities.
- ▶ Requires the District to be dependent to the County in one of three criteria – approval of the membership, approval of budget, or serving as governing body.
- ▶ Potential issue with dual office holding.

Independent Solid Waste District

Benefits

- ▶ Meets criteria in terms of money raised, and capabilities.
- ▶ Independence - not bound to a single entity in anyway.
- ▶ If legislature allows, flexibility in terms of composition.
- ▶ Can levy appropriate assessments.
- ▶ No restrictions on facilities, debt, or structure.
- ▶ All cities required to participate.

Drawbacks

- ▶ Cedes local control of all elements, from facilities to composition of the District.
- ▶ Longest timeline – likely not ready until after contracts expire in 2023.
- ▶ Possible interference from state and other parties – loss of local control concerns.



Next Steps

Waste Generation Study



A waste generation study should be prioritized moving forward to determine composition of waste and create a basis for assessments.



County and municipalities will collaborate on amendment to Memorandum of Understanding to address cost-sharing and identification of consultant.



County has committed to paying 50% of cost for this study, with a formula based on population splitting the cost among cities.

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

FY 2021 Budget: \$306.6 Million
Effective: October 1, 2020 - September 30, 2021

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Single Family	\$175	\$170	\$170	\$172	\$175	\$175	\$173
Multi-Family (2-4 units)	100	97	97	98	98	97	95
Multi-Family (>4 units)	100	97	97	98	98	97	95
Mobile Homes	168	163	163	165	167	166	164

[illegible]



Important Date

JANUARY 2022 – WHEELABRATOR RENEWALS