



oregonmetro.gov

Fall 2020 Solid Waste Forecast

Executive Summary

October 2020

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Forecast Summary

The regional economic recovery is well underway, and tonnage is poised to rebound very soon, but full recovery is more than a year away and risks remain.

Economics

Economic Outlook: After shrinking -31.4% in the second quarter, US real GDP is estimated to grow 33.2% in the third quarter of 2020. The regional recovery will depend on discovering effective therapy options and a vaccine(s) for COVID-19. We assume, along with our consultants IHS/Markit, that a vaccine will become available by mid-2021 and that a significant proportion of the population will be vaccinated by mid-2022. Since the economy "reopened" in May, and throughout June and July, catch-up spending and pent-up demand propelled the economy forward in the third quarter, allowing many businesses to make up for lost ground. But COVID infections have increased, and fear of the virus will dampen the pace of recovery and consumer spending going forward. The resurgent impacts from incremental reopening up the economy will unwind over the next several quarters. IHS expects real GDP growth to fade to 3.7% in the fourth quarter of 2020, and to average 3.7% growth in 2021.

Fed Policy & Interest Rates: The Federal Reserve (FED) has been quick to respond to the pandemic with stabilization loans for small businesses and injections of liquidity to the financial sector. Fiscal policy support bolstered household expenditures during the peak of the pandemic. The FED cut interest rates to the zero effective bound to support business and residential investments. The FED also announced a change in monetary objective that would allow inflation to run above 2% and to maintain low interest rates deep into the recovery.

Assets: Despite volatile prices of some goods, the asset values of homeowners has maintained steady appreciation through the pandemic. The FHFA housing price index rose 6% y/y in Q3 and about the same rate of growth is expected through 2021. Strong asset valuations will help to boost consumer confidence and drive personal consumption spending.

Construction: The construction sector has been surprisingly resilient during the pandemic. Layoffs have been greatly reduced as the sector has begun to erase the job losses from the pandemic's onset. The industry has adapted to social distancing measures and local governments have been able to issue residential construction permits through the pandemic, albeit at lower production levels. Continued housing shortfalls will likely propel the industry out of the pandemic-induced contraction and beyond.

Solid Waste

Regional Waste Outlook: Over the last few business cycles for which data is available, regional garbage exhibits a lead into economic recessions, and a lag coming out of them (into recovery). During the Great Recession (2007 - 2009) for example, it took more than 3 years for tonnage to begin growing after it's slide, and another 4 years after that for tonnage to reach pre-recession levels. While we expect a lag in tonnage growth, this recession in no way resembles the last. With the economic recovery on sure footing, year-on-year declines in regional core tonnage have already slowed, from over -7% in the second quarter of the year, to just under -4% in the third quarter, and we expect an even better fourth quarter. By the second quarter of 2021, regional tonnage should begin growing again in earnest, and tonnage should hit pre-pandemic levels by mid-2023. To put this into context, this puts the current cycle on par with the 2001 cycle, albeit a little

Forecast Summary

Waste Recovery: Built into this outlook, again, is a delayed implementation of the Business Food Waste Program. That program is expected to begin capturing additional food waste from commercial generators that would have otherwise made its way into the garbage stream, by 2022. Implementation will roll groups of generators into the program in phases, but by 2025, we expect to be recovering around 55K tons of commercial food waste per year, almost double where we are today.

Wet Tonnage Allocations: With the economic expansion well under way, tonnage poised to start growing next year, and full implementation of the Business Food Waste Program still a few years out, we expect that tonnage available for facility allocations should increase next year in calendar year 2021, to almost 728K tons. After a full 60% allocation to private facilities, we do assume less-than-full utilizations (see p8 for specific assumptions), which sees Metro facility waste levels come in comfortably above the established 40% floor in Metro code.

Post-collection Recovery: The counter-cyclical nature of post-collection recovery rates (i.e. recovery rates are highest when garbage levels, particularly mixed dry waste, are lowest, and vice versa, on average) and the ongoing health of the construction industry in the region should keep recovery rates fairly stable over the next several years.

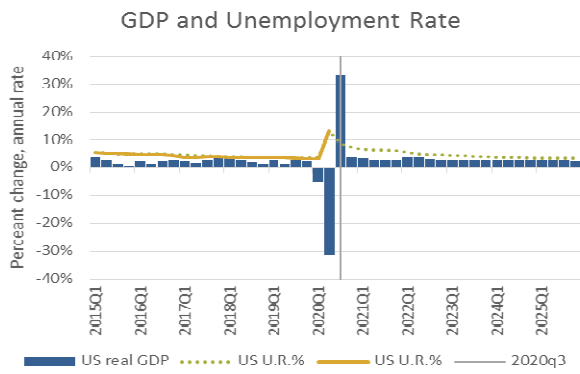
Forecast Flash

	Calendar Quarter					Calendar Year			
	2020:3	2020:4	2021:1	2021:2	2021:3	2019	2020	2021	2022
Key Economic Drivers (seas-adj)									
Total non-farm Employment (<i>thous</i>)	1,130	1,152	1,168	1,180	1,188	1,221	1,148	1,181	1,209
<i>yoy change (%)</i>	(7.8)	(5.8)	(4.7)	8.5	5.1	1.8	(6.0)	2.9	2.3
<i>change from last fc (%)</i>	(1.6)	(1.3)	(2.2)	(2.3)	(2.5)	---	(0.7)	(2.3)	(2.0)
FHFA Home Price Index	293	295	299	288	268	273	289	281	272
<i>yoy change (%)</i>	6.0	6.3	6.1	0.0	(8.5)	5.3	5.9	(2.9)	(3.3)
<i>change from last fc (%)</i>	8.3	8.5	9.3	5.9	(1.2)	---	5.4	3.2	(0.4)
Construction:Total Emp Ratio (%)	6.37	6.31	6.28	6.27	6.27	6.21	6.36	6.28	6.29
<i>yoy change (ratio)</i>	0.2	0.0	0.0	(0.3)	(0.1)	0.2	0.2	(0.1)	0.0
<i>change from last fc (ratio)</i>	0.1	0.3	0.4	0.5	0.5	---	0.0	0.5	0.4
30-Yr Fixed Mortgage Rates	2.95	3.01	3.11	3.09	3.07	3.94	3.18	3.09	3.16
<i>yoy change (rate)</i>	(0.7)	(0.7)	(0.4)	(0.1)	0.1	(0.6)	(0.8)	(0.1)	0.1
<i>change from last fc (rate)</i>	---	(0.2)	(0.0)	(0.0)	(0.0)	---	(0.1)	(0.0)	0.0
Housing Permits (<i>thous</i>)	3.37	3.33	3.38	3.53	3.31	16.5	13.5	13.6	13.2
<i>yoy change (%)</i>	(17.7)	(22.8)	(10.5)	15.7	(1.8)	13.2	(18.0)	0.1	(2.7)
<i>change from last fc (%)</i>	---	(6.9)	(6.5)	(2.4)	(8.3)	---	(3.3)	(6.3)	(13.4)
Tri-County Core Tons (<i>thous</i>)									
	369	347	340	371	382	1,439	1,403	1,443	1,464
<i>yoy change (%)</i>	(3.8)	(0.4)	0.0	7.0	3.4	(2.0)	(2.5)	2.8	1.5
<i>change from last fc (%)</i>	---	5.7	3.4	3.6	4.5	---	2.5	3.7	1.5
Wet Tons Avail. For Alloc. (<i>thous</i>)									
	181	191	177	183	183	738	721	728	732
<i>yoy change (%)</i>	(4.7)	3.1	(0.3)	6.5	1.5	0.4	(2.3)	1.0	0.6
<i>change from last fc (%)</i>	---	8.0	0.7	0.7	1.1	---	2.8	0.8	(0.8)

	Calendar Quarter					Fiscal Year (ending)			
	2020:3	2020:4	2021:1	2021:2	2021:3	2020	2021	2022	2023
Metro Enterprise Tons									
MSW (<i>thous</i>)	131	156	128	138	140	495	552	542	552
<i>yoy change (%)</i>	(4.5)	31.1	7.9	14.2	7.1	(9.8)	11.6	(1.8)	1.9
<i>change from last fc (%)</i>	---	29.6	2.9	3.2	3.9	---	9.6	2.2	1.6
Res. Organics (<i>thous</i>)	12.9	7.9	8.6	16.1	11.3	50.2	45.5	48.5	47.8
<i>yoy change (%)</i>	12.0	(25.3)	11.1	(21.0)	(12.7)	16.8	(9.3)	6.5	(1.4)
<i>change from last fc (%)</i>	---	(42.7)	(2.1)	(2.1)	(1.9)	---	(10.9)	(0.8)	0.9
Com. Organics (<i>thous</i>)	2.7	5.4	3.7	3.7	4.1	14.9	15.5	19.5	24.1
<i>yoy change (%)</i>	(39.5)	21.9	(5.8)	79.4	51.3	(15.6)	4.0	25.6	23.7
<i>change from last fc (%)</i>	---	60.4	(23.4)	(23.4)	(26.6)	---	(6.3)	(26.6)	(31.7)
Wood (<i>hunds</i>)	6.5	8.4	6.5	7.6	8.8	31.4	29.0	29.6	29.6
Yard debris (<i>thous</i>)	4.2	4.5	3.1	6.0	4.1	15.4	17.7	17.4	17.4
Staffed	97.9	67.6	70.7	92.9	96.6	314	329	332	335
Automated	28.2	30.6	27.1	29.6	29.9	106	115	117	119
Regional Fee/Tax Revenue Tons									
Regional System Fee (<i>thous</i>)	332	397	337	361	364	1,356	1,426	1,418	1,444
<i>yoy change (%)</i>	(12.4)	19.5	6.3	9.7	9.8	(6.1)	5.1	(0.6)	1.8
<i>change from last fc (%)</i>	---	21.3	3.1	3.3	3.8	---	6.0	2.4	1.9
Excise Tax (<i>thous</i>)	336	402	342	366	369	1,376	1,446	1,438	1,464
Environmental Cleanup (<i>thous</i>)	50.6	78.9	66.2	69.5	76.4	289	265	284	287
Community Enhancement (<i>thous</i>)	274	273	255	287	281	1,077	1,090	1,106	1,127

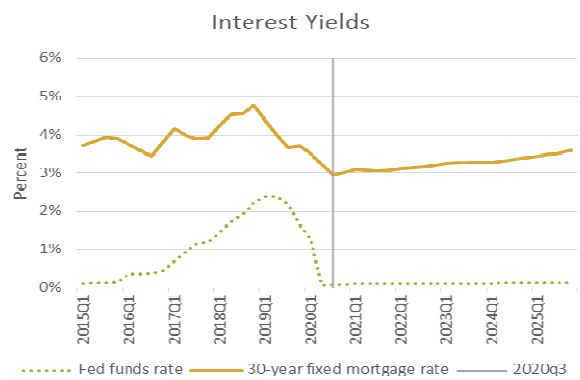
Forecast Flash

COVID triggers unprecedented swing in real GDP and unemployment



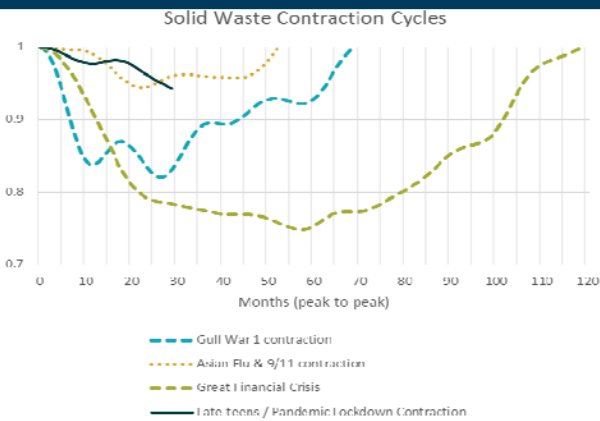
Source: IHS Markit, BEA, BLS

FED cuts funds rate to near 0 and drives down mortgage rates to historic lows



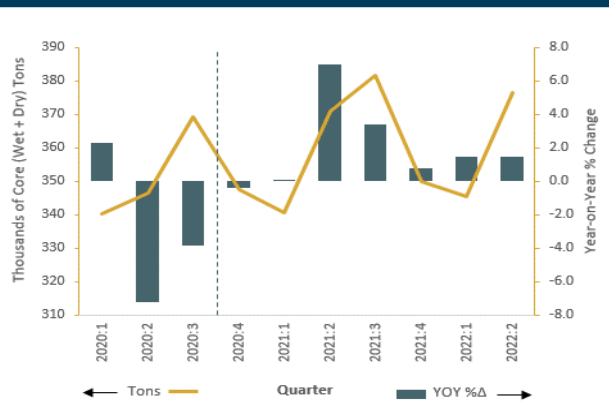
Source: IHS Markit, FRB

Fiscal support, along with construction make this a mild contraction relative to others



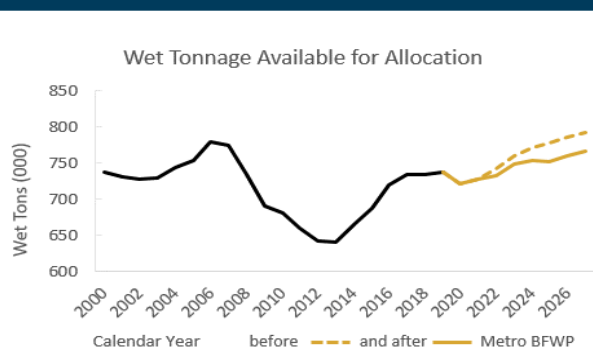
Source: Metro

Waste declines have been decelerating and should start growing next year



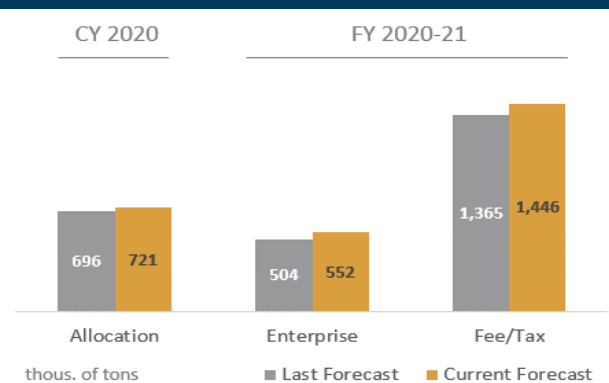
Source: Metro

Delayed Business Food Waste Program (BFWP) will divert tons starting CY 2022



Source: Metro

The look just ahead is a lot brighter than the July 2020 forecast in all areas



Source: Metro

Key Assumptions

	Baseline Assumption	Change from Last Forecast
Bioscience/Vaccine	The economic recovery continues to depend on the course of the virus. Infection rates create caution among consumers, and slow reopenings. IHS/Markit assumes vaccine availability in mid-2021.	No change
US Macro	Q3 2020 growth expected at 33%; Q4 2020 growth expected to slow to 2.4% as fiscal support dissipates, deferred spending during the onset of COVID fades, and COVID infection rates remain high. Real GDP expected to surpass pre-COVID peak in late 2021. Full employment returns by mid-2023.	GDP outlook better than last forecast
Fiscal Stimulus	HIS/Markit assumes additional fiscal stimulus / stabilization at the end of Q4 2020, consisting of \$300 emergency unemployment supplements, and a second round of stimulus checks	No change
Monetary Policy	The FED has injected significant liquidity into businesses in the form of loans and grants since the onset of the pandemic and this will continue. The FED is expected to hold interest rates near the effective lower bound (i.e. zero nominal, negative real rates) and to allow inflation to rise above 2% so that inflation averages 2%.	Monetary policy by FED was to maintain a target inflation rate under 2%.
Home Prices	Home prices expected to continue to increase, by around 5% year over year. This trend is being supported (and will continue to be supported) by strong demand, especially among millenials in their prime home-buying years, and low interest rates.	No change
Construction	Construction activity continues to be strong, as permits/activity can still proceed even with social distancing measures in place. Demand for new homes or for remodeling will continue to be supported by low mortgage and/or home equity loan rates, demand for more work-from-home office space, and migration from urban to suburban/ex-urban areas	No change

Key Assumptions

	Baseline Assumption	Change from Last Forecast
Commercial Food Waste	Regional commercial food waste capture should hit bottom this year, and grow very slowly thereafter, not reaching pre-recession peak of 28K tons until late 2023. While some permanent loss of restaurants are expected, we expect these losses in capture should be offset by new firm entrants later in the cycle. We assume a further delay in recovery from the Business Food Waste Program, which should start in 2022 and when fully implemented by 2025, will capture about 55K tons of material.	Declines in regional commercial food waste this year have been less severe (grocers, increased restaurant-going) than we thought a quarter ago, and the outlook is consequently brighter. BFWP recovery is pushed out another year.
Residential Food Waste	Regional residential food waste mixed with yard debris will hold steady through 2021, and begin to decline as some firms recall workers back to the office. Declines are very slow and never hit pre-pandemic levels given permanent shifts to WFH among some firms.	Permanent transitions to WFH for some firms keep residential capture much higher in the medium to long term.
Wet Waste Allocations	Original CY 2020 allocations remain in effect. For CY 2021 and beyond, 30% provided equally to 7 transfer stations (with slightly more given to the 6 in-district stations), 15% based on proportions of their 2020 allocations, and 15% based on RWP goals (yet to be determined, and so assumed to be distributed equally across facilities). The latter 30% allocated only to in-district stations. Utilization of allocations expected to follow historical averages for each facility.	Current year 2020 allocations do NOT get reduced to meet 60% maximum.
Pre-consumer wastes and Environmental Cleanup	Pre-consumer (special) wastes that incur Metro's full fee and tax at disposal sites, and environmental cleanup materials, which incur reduced Metro fees and taxes, are expected to grow slowly at their long-run trends	No change

Key Assumptions

	Baseline Assumption	Change from Last Forecast
Post-collection Recovery	Recovery rates at both public and private facilities are expected to hold steady over the next few years. Metro is evaluating a request for a potential pilot project with Georgia Pacific to demonstrate its Juno technology. If the pilot project takes place in 2021, it may result in wet waste being recovered from some disposal sites. Metro does not expect to waive fees and taxes on the waste that is received during a pilot project. Metro is evaluating whether there is additional long-term post-collection recovery (of wet) from GP Juno.	Additional post-collection recovery (of wet) from GP Juno
Self-haul at Metro	Garage and home cleanouts that increased dramatically in the early months of the pandemic are expected to taper, while some offices which decide to shift to more permanent WFH are expected to generate more traffic for Metro's staffed scales	No change