oregonmetro.gov

Fall 2023
Solid Waste Forecast

November 2023

EXECUTIVE CONTACT

Marta McGuire
Waste Prevention and Environmental Services Director
marta.mcguire@oregonmetro.gov

TECHNICAL CONTACTS

Joel Sherman
Senior Data Scientist
joel.sherman@oregonmetro.gov

Dennis Yee
Metro Economist
dennis.yee@oregonmetro.gov

If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we've already crossed paths.

So, hello. We're Metro – nice to meet you.

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

Stay in touch with news, stories and things to do.
oregonmetro.gov/news

Follow oregonmetro

600 NE Grand Ave.
Portland, OR 97232-2736
503-797-1700

METRO ECONOMIC ADVISORS

Josh Harwood
Fiscal & Tax Policy Director
josh.harwood@oregonmetro.gov

Joel Sherman
Senior Data Scientist/Forecaster
joel.sherman@oregonmetro.gov

Dennis Yee
Metro Economist
dennis.yee@oregonmetro.gov

Luis Sandoval
Senior Solid Waste Planner
luis.sandoval@oregonmetro.gov

SOLID WASTE FORECAST REVIEW PANEL

Tom Chaimov
Garbage and Recycling Operations Program Director
tom.chaimov@oregonmetro.gov

Marissa Grass
Public Affairs Specialist
marissa.grass@oregonmetro.gov

Warren Johnson
Standards and Compliance Program Manager
warren.johnson@oregonmetro.gov

Jon Mayer
Community and Environmental Services Program Director
jon.mayer@oregonmetro.gov

Phillip McCreary
Waste Prevention and Environmental Services Finance Manager
phillip.mccreary@oregonmetro.gov

Marta McGuire
Waste Prevention and Environmental Services Director

Courtney Patterson
Asset and Environmental Stewardship Program Director
courtney.patterson@oregonmetro.gov

Pam Peck
Policy and Compliance Program Director
pam.peck@oregonmetro.gov

Cary Stacey
Waste Prevention and Environmental Services Deputy Director
cary.stacey@oregonmetro.gov

Molly Vogt
Analytics Manager
molly.vogt@oregonmetro.gov

Cinnamon Williams
Financial Planning Director
cinnamon.williams@oregonmetro.gov

Doe Hatfield
Communications Manager
doe.hatfield@oregonmetro.gov

FORECAST SUMMARY

Somehow, against traditional economic orthodoxy, inflation is subsiding without declining employment. Regional garbage generation has been in decline for the last four quarters, however, but is poised to return to moderate growth ahead.

Economics

Gross Domestic Product (GDP): The US has so far avoided the "mild recession" which many forecasters once touted as practically unavoidable, given that inflation was rising rapidly and the FED's stern commitment to forcefully slashing it. Many predicted that the steep elevation of interest rates would result in real GDP contracting during the first half of 2023. Pundits since then weren't entirely incorrect about the trend in GDP, as the nation's output growth did ease. GDP slowed to about 2% annualized growth in the first 6 months but did not contract. This changed in Q3'23. Advanced estimates have real GDP surging above 5% annualized growth, powered by robust consumer spending, more exports than expected, and inventory accumulations to restock storerooms and shelves emptied by the pandemic. Employment growth was stronger and more resilient this year than expected which fueled consumption expenditures. **Bottom line:** *More momentum from the beginning of the year is expected to carry forward, driving a surge in real GDP. The rise in Q3 growth is expected to be fleeting, however, as growth is projected to ease under the extended weight of higher interest rates and expectations of "below-trend growth" which will be needed to shrink inflation.*

Consumer Sentiment: Consumer sentiment was beaten and battered by Russia's war in Ukraine, persistently high inflation, and higher interest rates. Sharply rising home prices and apartment rents added to consumer woes as these rose faster than headline inflation and represent a large chunk (about 30%) of a household's monthly expenses. Sentiment readings fell to an all-time low of 50 in June 2022 but have since recovered halfway, despite the fluctuating concerns over economic conditions in the US. In the last three months, the sentiment in October ebbed after two months in a row whereas the index had very little change. Growing concerns over the lack of more improvement to consumers' grocery bills had the index slipping. Overall, the sentiment index remains well under its pre-pandemic peak, suggesting that in the minds of consumers at least, the current economic and geo-political conditions reflect a drain on consumer confidence. **Bottom line:** *The latest October reading fell 7.5%, but the survey was taken before the attack on Israel by the terrorist organization known as Hamas. The conflict carries the risk of spilling over into a wider Middle East conflagration that could pull in more terrorists and further inflame an already volatile situation. The risk to the economy is a potential supply shock and a steep price increase to crude oil from the region. This likely will drag down consumer sentiment and raise uncertainty in consumer expenditures and risk GDP.*

FORECAST SUMMARY

Consumer Price Index (CPI) Inflation: The focus by the FED has always been on core inflation (price of goods less energy and food items) as their primary gauge for prices in the US. The FED began lifting interest rates since March 2022 to put down inflation. Greater success has been seen in recent months as core inflation has fallen faster. Twelve-month core inflation slid to 4.1% in September's Bureau of Labor Statistic report but is still above the FED's inflation fighting target of 2%. The headline inflation rate, which includes all items, recently fell to 3.0% in June but has edged up to 3.7% as gasoline prices rebounded this summer. **Bottom line:** *Inflation remains uncomfortably high. Consumers most commonly feel it at the pump and when they shop for groceries. However, the cost of producing the nation's goods and services has eased greatly since supply-chain shortages have eased considerably. This bodes well for both headline and core inflation which are expected to gradually recede to the FED's inflation target, but not until late-2025.*

FED monetary policy: Since March 2022, the FED has lifted interest rates 11 times and held them steady twice, including a recent pause this September. At the time of this writing, the FED will meet on Nov. 1, but the way economic conditions have recently unfolded, pundits widely believe that the FED will not lift interest rates in November. Most FED officials have already indicated that they expect one more rate hike in their meeting in December; however, if inflation reports for October and November are favorable, it might cause FED officials to pause entirely. **Bottom line:** *The FED may or may not be done with tightening financial conditions. It will be very cautious with the policy rate as to avoid causing a recession. Pundits assume the federal funds rate will likely be lifted by +25 basis points in December to a terminal rate between* 5.5% - 5.75%*. Credit conditions will remain tight until the FED has quelled inflation, hence easing of the FED's policy rate is unlikely until the second half of next year.*

Mortgage interest rate: Daily mortgage rates threaten to exceed 8%, and as of mid-October, they were at 7.8%. Interest rate fluctuations can be extremely fickle on a day-to-day basis but the trajectory in the near term appears that it will continue creeping higher. Alternatively, inflation seems to be cooling and the economy is setting up for slower growth in coming months. ***Bottom line****: Mortgage rates are linked with the FED's policy rate, but it is not a 100% certainty. Widespread belief that there will be another increase in the FED funds rate will influence lenders to raise mortgage interest rates. However, mixed economic news as the economy downshifts will muddy the direction of interest rates but expectations are for a slight rise until year-end and then easing as it becomes clear that the economy has downshifted.*

FORECAST SUMMARY

US Employment outlook: Conditions in the US labor market are surprisingly tight given how late it is in the interest rate cycle. September's labor report revealed a job market that continues to be quite resilient despite the series of interest rate hikes the FED has used to trim back inflation. The headline US unemployment rate stood at 3.8%, up 0.3 percentage points from 12 months ago. Employers hired 336,000 more workers in the labor report from September.
Monthly growth in the labor market of roughly 250,000 jobs is normally consistent with holding the unemployment rates from changing much but the latest job figure is well above what might be considered consistent with an economy expected to cool. Moreover, jobless claims remain uncharacteristically low as unemployment benefits continue pointing ahead towards a continuation of a robust labor market. **Bottom line:** *The labor market has proven itself to be sturdier than expected. Higher unemployment is expected but the increase will be much more gradual in the latest forecast. Job growth will need to slow significantly or pause to be consistent with expectations of slower national output.*

Housing and Construction: Construction employment boomed in the US while other indicators of activity were mixed. A sore point for prospective buyers has been the extraordinary rise in home prices seen in the last couple years. Cumulative price increases hit 45% by mid-2022 before edging below 40% in early 2023 but are now back up over 45% from home values just before the pandemic. One would expect existing home sales might be up as a result but there haven't been as many owners willing to trade up during the current spate of elevated interest rates. New unit production also tapered off substantially and is down roughly 20% from a year ago. Multifamily construction in the US has also slipped recently and the slide appears to be accelerating. Housing affordability (and rents) has been a deep concern and has steadily worsened since the FED began lifting interest rates. A development that has surprised forecasters is the robust increase in construction industry jobs, topping over 5% last year and growth running about 2.5% this year.

With mortgage rates, which haven't been this high since the "dotcom bust", pundits anticipated the residential market weakening and jobs going down with it. This hasn't been the case as infrastructure development and investments in nonresidential structures aided in propping up sector employment. The surprise was in residential sector employment which continued to trend up, defying commonly held projections. **Bottom line:** *Home prices are anticipated to rise but at a subdued pace while conditions in the housing market sort themselves out. Sector job growth is expected to pause as the FED's rate increases take further hold and the overall economy cools. Home production will be weaker but is expected to rebound when interest rates begin easing and affordability improves.*

FORECAST SUMMARY

Solid Waste

Regional Waste Outlook: Tri-county garbage generation ("core tonnage") is comprised of household and business municipal solid waste (MSW), bulky wastes from home and office cleanouts, and construction and demolition wastes from new construction and remodeling activities. Highly correlated with economic cycles, core tonnage has gone through periods of expansion and contraction over time. In 2007 before the Great Financial recession, tonnage peaked at 1.40 million, and then declined by almost 11 percent in 2008, and another 10 percent in 2009, as the housing market cratered, and financial conditions tightened. Tonnage bottomed out during that recession at 1.08 million tons in 2012, its lowest level on record. Eventually, tonnage regained and then surpassed its former high, reaching 1.45 million tons in 2018 and 2019. The COVID recession came, and another contraction ensued. During that recession, tonnage fell by a little over 2 percent in 2020 and then quickly returned to growth, hitting nearly 1.5 million tons last year in 2022. However, in Q4 of last year, softness returned. Tonnage declined in Q4 of 2022 by more than 2 percent and has been in decline each quarter since then. If the economy is not in recession*, what gives? Why is the region experiencing these waste declines? If we look back at the economics, two prominent forces have been at play recently. First, home prices, adjusted for inflation, turned down in Q1 of 2023, which is the first quarter of declining real home prices since the Great Recession. Second, mortgage rates have been increasing steadily since early 2022, and significantly so since Q4 of 2022. These "wealth effect" factors have likely eroded household consumption and dampened construction activity. These factors however are transitory. Tonnage should regain normal growth in Q3 of 2024 and move steadily upward from then on.

Allocations: One of the major components of core waste is MSW or household and business wastes that have some organics component. The portion of this putrescible or "wet" waste that is generated in the Metro jurisdictional boundary is subject to allocation by Metro to private facilities, in quantities up to 60 percent of the total. Last fall, the forecast for this current calendar year 2023 was 729,000 total wet tons, 60 percent (about 437,000 tons) of which was allocated to private facilities. The current outlook for the remainder of 2023 is about 745,000 wet tons, followed by about 738,000 tons in calendar year 2024. Calendar year 2024 allocations to private facilities should therefore see a bump from the current year allocations. But why did we miss the mark so badly this year? In short, last year's forecast contained assumptions about Metro's business food waste program, particularly the increased food waste diversion from the wet waste stream that was supposed to materialize largely from Group 1 generators last spring. However, this diversion doesn't appear to have happened. Commercial food waste deliveries in the region declined between 2022 and 2023. As a result, this forecast greatly tempers those additional diversion assumptions moving forward.

FORECAST SUMMARY

Metro Stations Solid Waste Activity: The portion of tri-county core tonnage, residential organics mixed with yard debris, commercial organics, clean wood and yard debris that makes it way to Metro's two transfer stations are important quantities in building rates and setting budgets. Switching to fiscal year for these reasons, recent history shows that Metro's stations began to see year-over-year declines in MSW and other waste streams in Q4 of 2022. Fiscal year 2022-2023 (ending June 2023) saw almost 25,000 less tons, 19,000 of which were MSW, in comparison to fiscal year 2021-2022. This fiscal year-to-date, with actuals through September 2023, Metro stations are down another 7,000 tons from last year. This minor slump in tonnage is largely for the same reasons described above, which again, should be transitory. The outlook for the current fiscal year 2023-2024 is to see MSW grow to over 571,000 (2.5 percent), and then grow to 575,000 tons in FY 2024-25. Residential organics mixed with yard debris should remain stable between 42,000 and 44,000 tons, clean wood between 9,000 and 10,000 tons, and yard debris around 14,000 tons each fiscal year. For commercial organics, if the tempered business food waste program assumptions come to fruition (and that's a big if), Metro Central should see a significant increase this fiscal year and next, to almost 23,000 tons in fiscal year 2024-2025.

Fee and Tax-related Tonnage: Likewise, the portion of tri-county core tonnage that is ultimately disposed is also important for a variety of financial reasons because these tons incur Metro's Regional System Fee and solid waste Excise Tax. Tonnage subject to Metro's fees and taxes has been growing steadily since the COVID-recession when they only fell by a little over 3 percent between 2019 and 2020. Since then, tonnage has been growing but at a decreasing rate, and the current outlook picks up on this trend moving forward. For fiscal year 2023-2024, tonnage subject to Metro's full fee and tax rate should hit about 1.59 million tons and increase slightly in fiscal year 2024-2025.

FORECAST FLASH

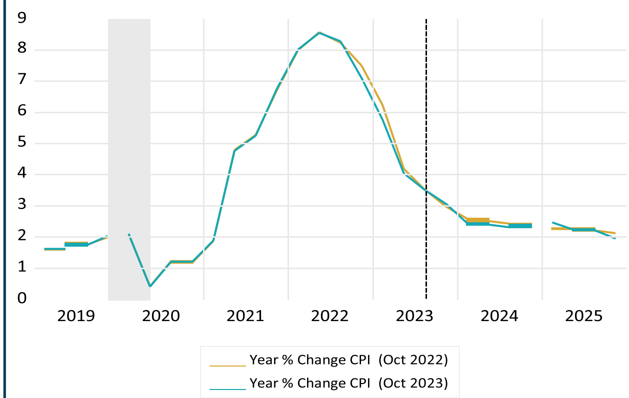
	Calendar Quarter								Calendar Year			
	2023:3	2023:4	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	**2022**	2023	2024	2025
Key Economic Drivers* (seas-adj)												
Consumer Sentiment Index	70	74	77	80	83	84	86	88	59	68	81	88
yoy change (%)	*24.3*	*25.3*	*18.8*	*28.3*	*18.5*	*14.5*	*12.1*	*9.4*	*(24.0)*	*14.6*	*19.7*	*9.1*
change from fall fc (%)	*(8.2)*	*(10.1)*	*(9.0)*	*(8.0)*	*(7.5)*	*(7.6)*	*(7.4)*	*(8.5)*	*1.2*	*(7.4)*	*(8.0)*	*(7.4)*
Home Prices (real)	134	132	132	134	133	131	131	133	132	132	132	132
yoy change (%)	*1.6*	*2.3*	*2.4*	*0.2*	*(1.3)*	*(1.0)*	*(0.9)*	*(0.3)*	*5.6*	*0.5*	*0.0*	*(0.4)*
change from fall fc (%)	*8.9*	*8.1*	*8.4*	*10.7*	*10.7*	*9.6*	*9.2*	*11.7*	*(0.3)*	*6.2*	*9.9*	*10.3*
Mortgage Rates (real)	6.94	7.43	7.11	6.78	6.43	6.10	5.81	5.57	5.16	6.73	6.60	5.50
yoy change (%)	*27.6*	*15.4*	*14.8*	*6.3*	*(7.4)*	*(17.8)*	*(18.3)*	*(17.9)*	*77.3*	*30.4*	*(1.9)*	*(16.7)*
change from fall fc (%)	*16.2*	*29.8*	*28.8*	*25.9*	*22.1*	*18.3*	*14.6*	*11.6*	*1.0*	*11.0*	*23.9*	*10.5*
GDP (real, $T)	21.0	21.1	21.1	21.1	21.2	21.3	21.3	21.4	20.0	20.8	21.2	21.4
annualized change (%)	*5.3*	*1.7*	*0.5*	*1.0*	*1.1*	*1.3*	*1.2*	*1.3*	*2.1*	*4.1*	*1.6*	*1.2*
change from fall fc (%)	*5.6*	*5.8*	*5.6*	*5.4*	*5.2*	*5.0*	*4.8*	*4.6*	*0.3*	*5.0*	*5.3*	*4.5*
Construction:Total Emp (ratio)	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	6.6	7.0	7.2	7.2
yoy change (%)	*9.1*	*8.1*	*7.7*	*4.2*	*0.6*	*0.4*	*(0.1)*	*(0.7)*	*0.6*	*6.1*	*3.2*	*(0.7)*
change from fall fc (%)	*14.5*	*15.8*	*17.2*	*18.3*	*19.4*	*19.4*	*19.4*	*18.9*	*0.2*	*10.6*	*18.6*	*19.1*
Home Permits (4QMA, thous)	3.1	3.1	2.9	2.8	2.9	3.0	3.1	3.1	13.9	12.8	11.5	12.7
yoy change (%)	*(7.9)*	*(5.7)*	*(10.5)*	*(19.0)*	*(8.1)*	*(3.0)*	*5.3*	*13.3*	*0.2*	*(7.5)*	*(10.4)*	*10.3*
change from fall fc (%)	*2.0*	*(0.5)*	*(6.6)*	*(12.5)*	*(11.1)*	*(9.9)*	*(8.9)*	*(7.6)*	*1.1*	*4.4*	*(10.1)*	*(6.7)*
Tri-County Core Tons *(thous)*	378	363	351	382	393	360	359	392	1,493	1,471	1,486	1,523
yoy change (%)	*(2.0)*	*1.2*	*0.0*	*0.7*	*4.0*	*(0.6)*	*2.5*	*2.5*	*0.8*	*(1.5)*	*1.0*	*2.5*
change from fall fc (%)	*---*	*3.3*	*3.0*	*2.9*	*2.9*	*3.0*	*4.1*	*4.0*	*0.0*	*1.5*	*2.9*	*4.1*
Wet Tons Avail. For Alloc. *(thous)*	187	185	179	185	186	187	181	187	751	745	738	746
yoy change (%)	*(0.6)*	*(1.2)*	*(2.8)*	*(1.5)*	*(0.8)*	*1.1*	*1.1*	*1.1*	*0.5*	*(0.8)*	*(1.0)*	*1.1*
change from fall fc (%)	*---*	*0.3*	*3.1*	*2.9*	*2.9*	*3.2*	*3.8*	*3.7*	*(0.0)*	*2.2*	*3.0*	*3.8*

	Calendar Quarter								Fiscal Year (ending)			
	2023:3	2023:4	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	**2023**	2024	2025	2026
Metro Enterprise Tons												
MSW (thous)	140	151	135	145	148	140	138	149	557	571	575	588
yoy change (%)	*(2.9)*	*12.6*	*0.1*	*0.9*	*5.3*	*(7.1)*	*2.5*	*2.6*	*(3.3)*	*2.5*	*0.7*	*2.1*
change from fall fc (%)	*---*	*13.6*	*5.9*	*5.3*	*5.1*	*6.1*	*7.3*	*6.6*	*5.9*	*5.9*	*6.3*	*7.4*
Res. Organics (thous)	8.2	11.3	7.9	14.6	10.3	11.6	7.9	14.6	43.7	42.0	44.4	44.4
Com. Organics (thous)	3.8	2.9	5.1	5.1	5.7	5.6	5.5	5.6	12.6	16.9	22.5	23.5
Wood (hunds)	2.5	3.1	2.2	2.6	2.6	2.1	2.2	2.6	9.8	10.4	9.5	9.5
Yard debris (thous)	3.0	3.7	2.5	4.8	3.3	3.4	2.5	4.8	14.4	14.0	14.0	14.0
Staffed (thous)	88	76	71	94	98	71	74	98	327	330	341	353
Automated (thous)	31	32	30	32	33	31	30	33	120	125	128	131
Regional Fee/Tax Revenue Tons												
Regional System Fee (thous)	380	414	379	399	406	386	381	403	1,545	1,572	1,576	1,578
yoy change (%)	*(3.3)*	*13.2*	*3.3*	*(4.9)*	*6.9*	*(7.0)*	*0.7*	*0.9*	*2.4*	*1.7*	*0.2*	*0.2*
change from fall fc (%)	*---*	*15.0*	*7.6*	*6.7*	*6.4*	*7.2*	*6.8*	*6.1*	*4.3*	*7.0*	*6.6*	*5.5*
Excise Tax (thous)	386	419	384	404	412	391	386	408	1,566	1,593	1,597	1,601
Environmental Cleanup (thous)	68	44	46	48	55	48	47	50	164	206	200	206
Community Enhancement (thous)	274	282	264	296	290	280	269	301	1,116	1,115	1,140	1,156

* Forecasts are from IHS/Markit and Northwest Economic Research Center

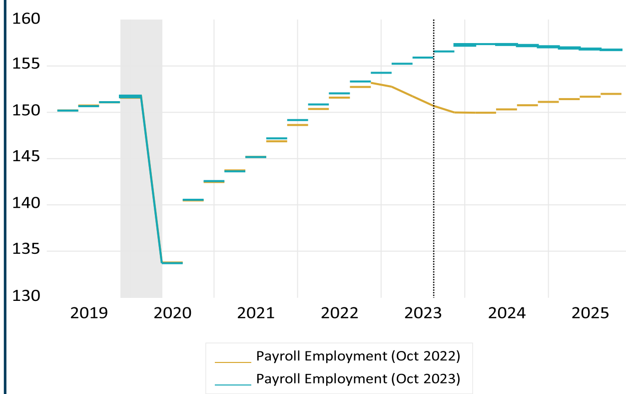
FORECAST FLASH

Inflation continues to ease without the economy falling into a recession



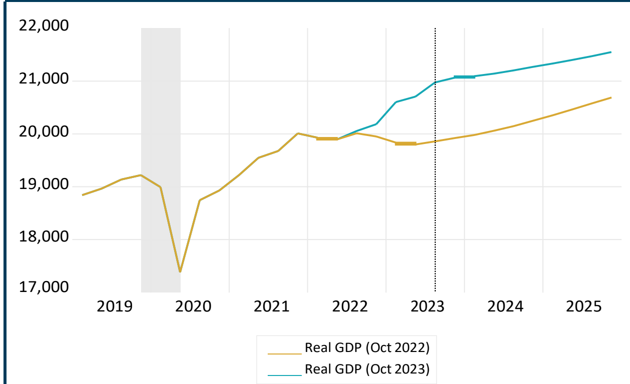
Source: IHS Markit, Bureau of Labor Statistics

Employment remains more resilient than expected, powering faster GDP growth



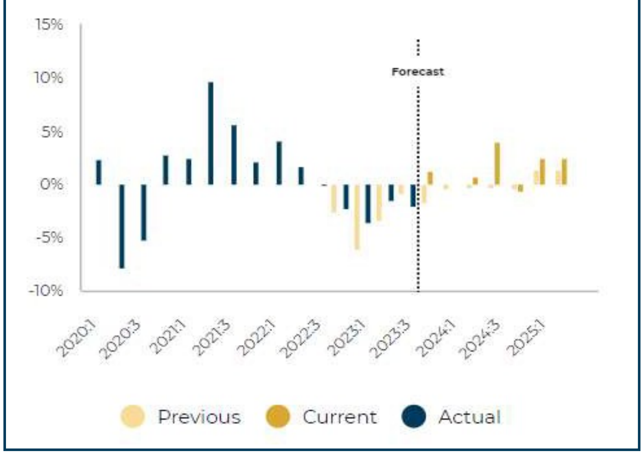
Source: IHS, Markit, Bureau of Labor Statistics

GDP is up $1T more than expected, with no recession on the horizon

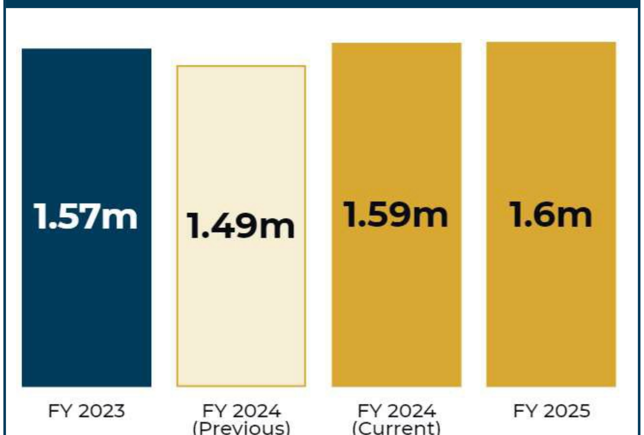


Source: IHS Markit, Bureau of Economic Analysis

Waste declines aren't as sharp or prolonged as expected last year, with growth returning



This improved outlook should see more fee and tax related tonnage this year and next,



as well as more garbage to Metro's two transfer stations