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## MINUTES

Regional Water Authority  
Regional Water Authority  
Regional Water Authority July 28 2022 Regular Meeting  
Thursday, July 28, 2022, 12:30 pm - 4:30 pm  
Via Teams

### A. Safety Moment

### B. Meet as Pension & Benefit Committee

Suzanne Sack

1. Approve Minutes - April 28, 2022
2. Quarterly Performance Investment Review: S. Kelliher, J. McLaughlin and A. Kantapin
3. 401K Annual Update: S. Kelliher, J. McLaughlin and A. Kantapin
4. Environmental, Social & Governance Portfolio Discussion: S. Kelliher, J. McLaughlin and A. Kantapin

### C. Consent Agenda

1. Approve Minutes - June 23, 2022 meeting
2. Capital Budget Authorization - August 2022
3. Capital Budget Transfer Notifications (no action required) - August 2022
4. Monthly Financial Report - June 2022
5. Accounts Receivable Update - June 2022
6. Bid Exemption - Water Filtration Device and Filter Cartridges
7. Resolution Regarding Administrative Change to Prior Authorizations
8. Derby Tank Update

### D. Reports on RPB Committee Meetings

### E. Business Updates

Larry Bingaman

1. COVID Update
2. Monthly Business Highlights

Donna

Larry Bingaman

### F. Meet as Compensation Committee

Anthony DiSalvo

1. Approve Minutes - January 27, 2022
2. FY 2023 Work Plan
3. \*CEO FY 2022 Strategic Priorities' Accomplishments - Including Executive Session
4. CEO FY 2023 Strategic Priorities - Including Executive Session
5. CEO and Officers Performance Reviews - Including Executive Session
6. CEO and Officers Compensation - Including Executive Session

### G. Act on matters arising from Committee meetings

# SAFETY MOMENT

## IMPROVE HEALTH THROUGH HYDRATION

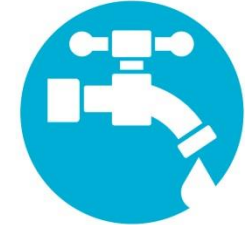
Your body depends on water to survive. Every cell, tissue, and organ in your body needs water to work properly. For example, your body uses water to maintain its temperature, remove waste, and lubricate your joints. Water is needed for overall good health.

While RWA tap water is best for staying hydrated, other drinks and foods can help, too. Fruit and vegetable juices, milk, and herbal teas add to the amount of water you get each day. Even caffeinated drinks (for example, coffee, tea, and soda) can contribute to your daily water intake.

Water can also be found in fruits and vegetables (for example, watermelon, tomatoes, and lettuce), and in soup broths.

Service – Teamwork – Accountability – Respect – Safety

Tap Into  
Safety



Regional Water Authority

HYDRATION LEVEL	RISK LEVEL	PROTECTION
WELL HYDRATED	SAFE	You are hydrated. Continue to drink water.
HYDRATED	CAUTION	You are hydrated. Continue to drink water.
DEHYDRATED	DANGER	You are dehydrated. Drink more water to prevent heat illness and stroke.
SEVERELY DEHYDRATED	EXTREME DANGER	You are dehydrated. Drink more water to prevent heat illness and stroke. If your urine is very dark/red, seek medical attention.

Safety is a core company value at the Regional Water Authority .  
It is our goal to reduce workplace injuries to zero.

Regional Water Authority

**South Central Connecticut Regional Water Authority  
Pension & Benefit Committee  
Minutes of the April 28, 2022 Meeting**

The regular meeting of the South Central Connecticut Regional Water Authority (“RWA”) Pension & Benefit Committee took place on Thursday, April 28, 2022, at 90 Sargent Drive, New Haven, Connecticut and via remote access. Chairman Sack presided.

Present: Committee – Mss. Sack and LaMarr, and Messrs. Borowy and Curseaden  
Management – Mss. Kowalski and Verdisco, and Messrs. Bingaman, Courchaine, Donovan, Lakshminarayanan, and Singh  
RPB – Mr. Slocum  
Angell Pension Group, Inc. – Messrs. Bauer, Krayter, and Liter  
Morgan Stanley – Messrs. Kelliher, McLaughlin, Kantapin and Ms. Schlessel  
Staff – Mrs. Slubowski

The Chair called the meeting to order at 12:31 p.m.

On motion made by Ms. LaMarr, seconded by Mr. Curseaden, and unanimously carried, the Committee approved the minutes of its January 21, 2022 meeting.

Borowy	Aye
Curseaden	Aye
DiSalvo	Absent
LaMarr	Aye
Sack	Aye

Messrs. Bauer and Liter, of Angell Pension Group, Inc., the RWA’s Pension actuary, presented summaries of the January 2022 valuation reports, assumptions, and contributions that will be used for FY 2023.

After discussion, Mr. Bauer reported that the pension plans are in good shape and on track to reach the fully funded target by the end of FY 2025.

After discussion, the Committee voted to recommend the following resolutions to the Authority for approval, as discussed with the Actuary:

Mr. Borowy moved for approval to recommend the following to the Authority:

- An increase of \$1,133,903 as a combined contribution to the pension plans during fiscal year 2022.

Ms. LaMarr seconded the motion. The Chair called for the vote:

Borowy	Aye
Curseaden	Aye
DiSalvo	Absent
LaMarr	Aye
Sack	Aye

Mr. Curseaden moved for approval to recommend the following to the Authority:

- a contribution of \$2,264,867 to the South Central Connecticut Regional Water Authority’s Salaried Employees’ Retirement Plan, effective for the actuarial valuation of January 1, 2022; and
- that the South Central Connecticut Regional Water Authority’s Salaried Employees’ Retirement Plan be changed from the PubG-2010 Above Median Employee and Annuitant with



Scale MP-2020 generational improvements (M/F) to the PubG-2010 Above Median Employee and Annuitant with Scale MP-2021 generational improvements (M/F), effective for the actuarial valuation of January 1, 2022; and

- a contribution of \$912,974 to the South Central Connecticut Regional Water Authority's Union Employees' Retirement Plan, effective for the actuarial valuation of January 1, 2022; and
- that the South Central Connecticut Regional Water Authority's Union Employees' Retirement Plan be changed from the PubG-2010 Total Employee and Annuitant with Scale MP-2020 generational improvements (M/F) to the PubG-2010 Total Employee and Annuitant with Scale MP-2021 generational improvements (M/F), effective for the actuarial valuation of January 1, 2022; and

Ms. LaMarr seconded the motion. The Chair called for the vote:

Borowy	Aye
Curseaden	Aye
DiSalvo	Absent
LaMarr	Aye
Sack	Aye

Ms. LaMarr moved for approval to recommend the following to the Authority:

- a contribution of \$1,737,894 to the South Central Connecticut Regional Water Authority's Retired Employees' Contributory Welfare Trust, effective for the actuarial valuation of January 1, 2022; and
- the South Central Connecticut Regional Water Authority's Retired Employees' Contributory Welfare Trust be changed from the PubG.H.-2010 Employee, Healthy Annuitant, and Contingent Survivor with Scale MP-2020 generational improvements (M/F) to the PubG.H.-2010 Employee, Healthy Annuitant, and Contingent Survivor with Scale MP-2021 generational improvements (M/F), effective as of the actuarial valuation of January 1, 2022; and

Mr. Curseaden seconded the motion. The Chair called for the vote:

Borowy	Aye
Curseaden	Aye
DiSalvo	Absent
LaMarr	Aye
Sack	Aye

At 1:15 p.m., Mr. Liter withdrew from the meeting.

Mr. Kelliher and Ms. Schlessel of Morgan Stanley, RWA's Pension Investment Advisor, held a discussion on Environmental, Social and Governance portfolio (ES&G) impacts, Morgan Stanley's impact quotient, and other ES&G portfolio considerations, which included:

- Portfolio Impact Summary
- Selected Impact Objectives
- Individual Fixed Income Securities
- Issues of Concern
- Next Steps

At 1:45 p.m., Ms. Schlessel withdrew from the meeting.

Mr. Kelliher reported on the Authority's Quarterly Pension Investment Performance for its salaried plan, union plan, and RWA's Voluntary Employees Beneficiary Association Plan (VEBA), for the period ended March 31, 2022, which included:

- Market Commentary
- Equity Values & Returns
- S&P 500
- Yield Curve
- Asset Allocations
- Benchmarks
- Investment Results

Mr. Kelliher also reported that there are no changes to the cost containment for RWA's asset management. Due to time constraints, a detailed discussion will take place at the committee's next meeting in July.

The Committee reviewed its FY 2023 Work Plan. The ES&G topic will be revisited at the July or October committee meeting.

At 2:47 p.m., on motion made by Mr. Borowy, seconded by Mr. Curseaden, and unanimously carried, the meeting adjourned.

Borowy	Aye
Curseaden	Aye
DiSalvo	Absent
LaMarr	Aye
Sack	Aye

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Suzanne Sack, Chairperson

# Morgan Stanley

## THE KELLIHER CORBETT GROUP AT MORGAN STANLEY

141 Longwater Drive, Suite 102  
Norwell, MA. 02061  
877.535.4437



### South Central CT Regional Water Authority Defined Benefit & VEBA Plans

#### **Stephen Kelliher**

Managing Director  
Senior Portfolio Management Director  
Senior Institutional Consultant  
Corporate Client Group Director

781.681.4933  
Stephen.Kelliher@ms.com

#### **Joseph McLaughlin**

Senior Vice President  
Senior Institutional Consultant  
Corporate Retirement Director

781.681.4904  
Joseph.McLaughlin@ms.com

## Discussion Outline & Agenda

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	Section
Market Commentary	I.
Asset Allocation & Investment Matrices	II.
Investment Results	III.
Investment Holdings Analysis	IV.
Appendix - Investment Policy Statement	V.

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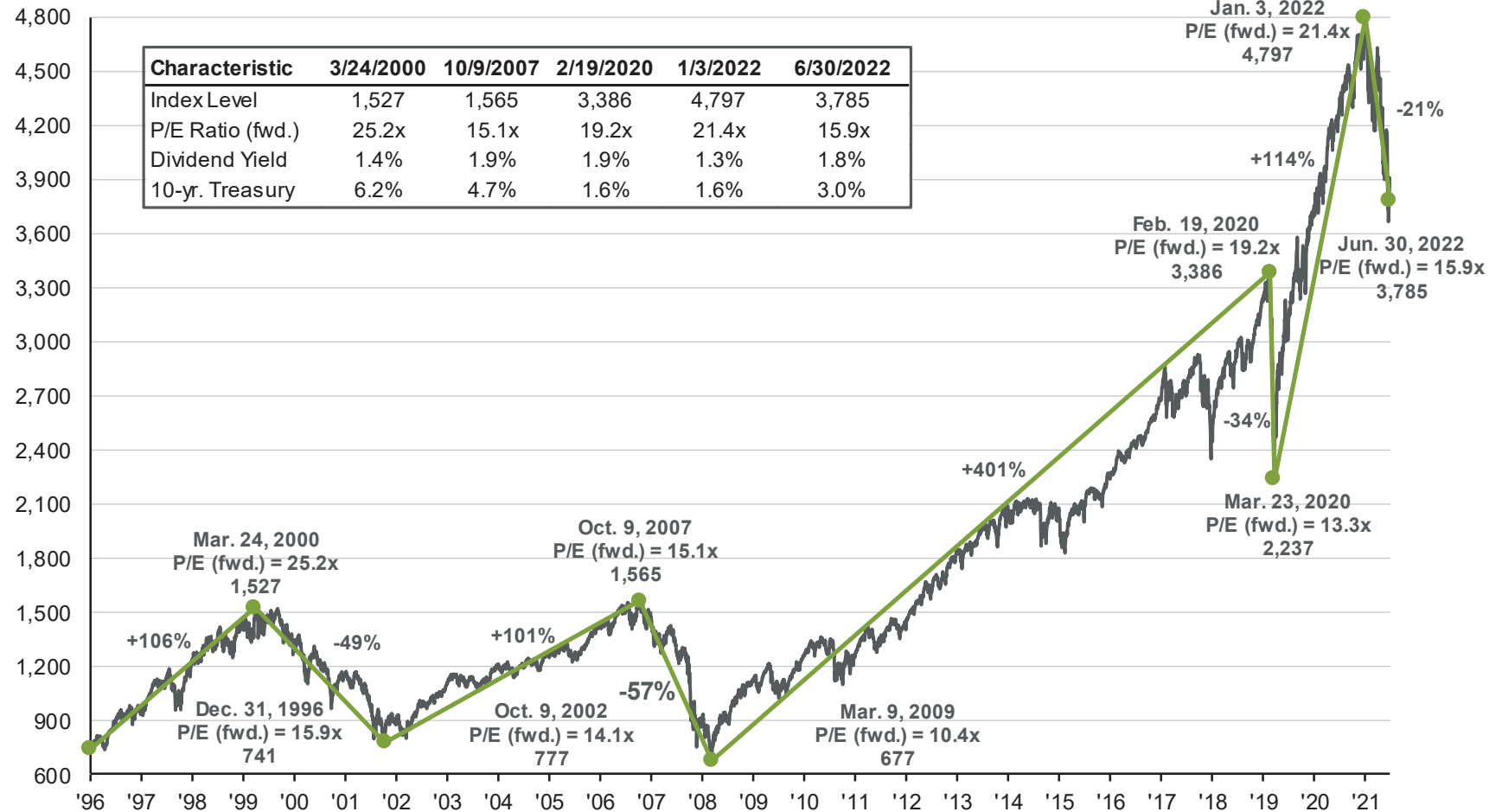
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## Market Commentary



# S&P 500 Index at inflection points

## S&P 500 Price Index



Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on BEI estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns. Guide to the Markets—U.S. Data are as of June 30, 2022.



# S&P 500: Index concentration, valuations and earnings

### P/E ratio of the top 10 and remaining stocks in the S&P 500 Next 12 months



### Weight of the top 10 stocks in the S&P 500 % of market capitalization of the S&P 500



### Earnings contribution of the top 10 in the S&P 500 Based on last 12 months' earnings



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

The top 10 S&P 500 companies are based on the 10 largest index constituents at the beginning of each month. As of 5/30/2022, the top 10 companies in the index were AAPL (6.6%), MSFT (6.0%), AMZN (2.9%), TSLA (1.8%), GOOGL (2.1%), GOOG (1.9%), BRK.B (1.6%), JNJ (1.5%), JNJ (1.5%), NVDA (1.2%) and META (1.2%). The weight of each of these companies is revised monthly. The remaining stocks represent the rest of the 494 companies in the S&P 500.

GuidetotheMarkets - U.S. Data areas of June 30, 2022.

## Worst US 60/40\* Year-To-Date Returns Through June

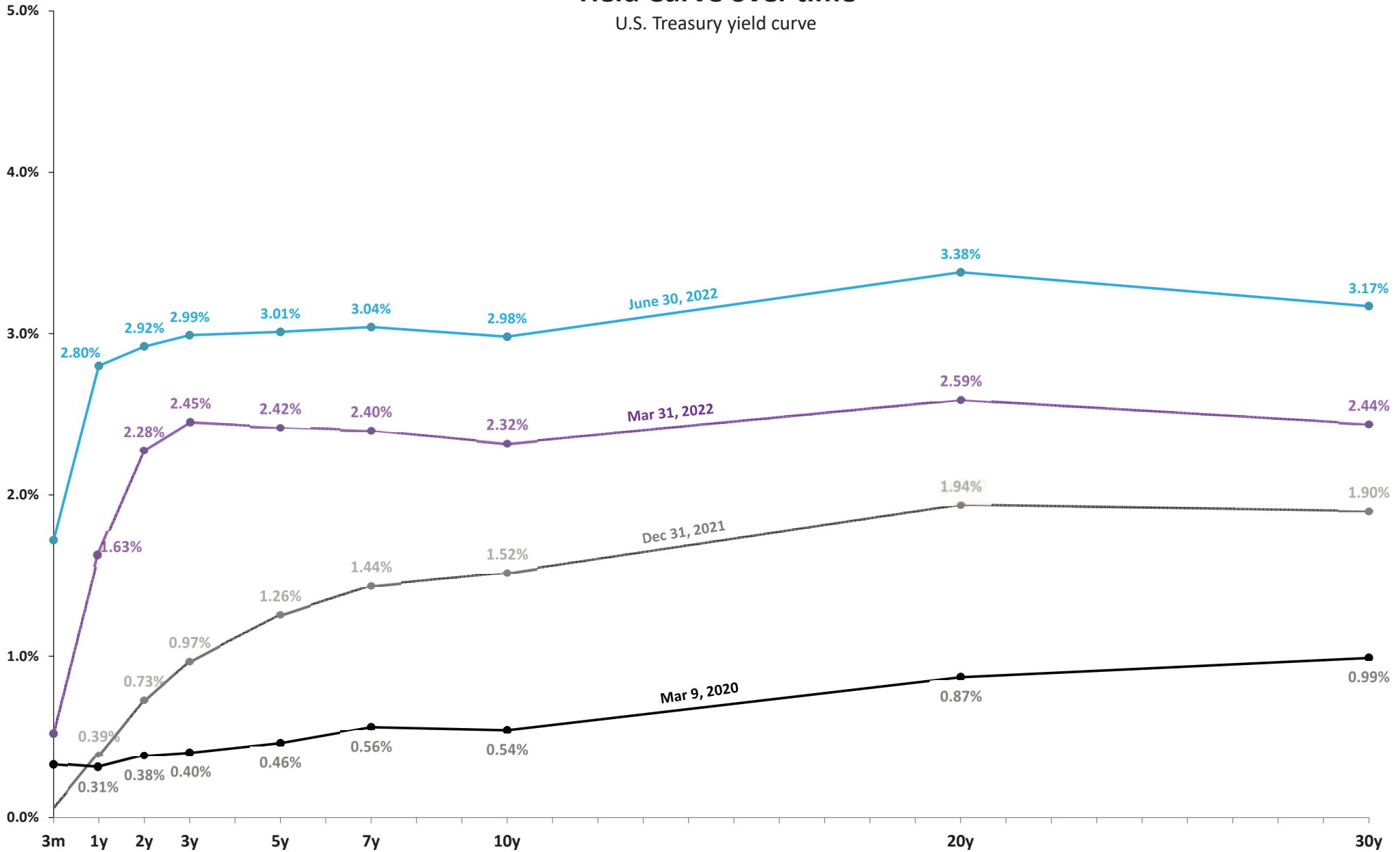
2022: -16.1%	<ul style="list-style-type: none"><li>Restrictive Federal Reserve, persistent inflation, Covid case spikes in China, global supply chain disruptions, Russia/Ukraine war</li></ul>
2008: -6.7%	<ul style="list-style-type: none"><li>The Financial Crisis, caused by a collapse in the housing market. From peak to trough, US GDP fell by 4.3%, making this the deepest recession since WW2</li></ul>
2002: -6.5%	<ul style="list-style-type: none"><li>Part of a correction that began in 2000 after a decade-long bull market had led to unusually high stock valuations</li></ul>
1984: -3.6%	<ul style="list-style-type: none"><li>Interest rates increased due to fear inflation would ramp back up. Long-term treasury bonds were yielding 14%. The Federal deficit also weighed on stocks</li></ul>
1994: -3.6%	<ul style="list-style-type: none"><li>The Fed begins hiking cycle, Leading to the “Great Bond Massacre”, which has been described as “the worst financial event for bond investors since 1927”</li></ul>
2001: -2.4%	<ul style="list-style-type: none"><li>The “Dot Com” Crash, caused by excess speculation of tech companies</li></ul>
1982: -0.6%	<ul style="list-style-type: none"><li>Bear market of 1982, more commonly known as “Volker’s Bear”. Stocks bottomed in February after Volker raised rates to almost 20%</li></ul>
2010: -1.8%	<ul style="list-style-type: none"><li>2010 “Flash Crash”. Federal Reserve announces “QE2” or Quantitative Easing two based on the unusually uncertain outlook for the economy</li></ul>
1981: -0.5%	<ul style="list-style-type: none"><li>Tight monetary policy to fight mounting inflation worries. Fed funds rate reaches highest level at over 19%</li></ul>
2005: 0.5%	<ul style="list-style-type: none"><li>Markets sideways most of year as concerns that the economy was weakening due to a slowing housing market and the federal funds rate on the rise.</li></ul>

\*60/40 = 60% S&P 500/40% Barclays U.S. Aggregate Bond Index (total returns). Barclays U.S. Aggregate Bond Index was incepted on 1/1/1976.



# Yield Curve over time

U.S. Treasury yield curve



Source: Federal Reserve. Data as of June 30, 2022

# Current Indicators: Equity Valuation

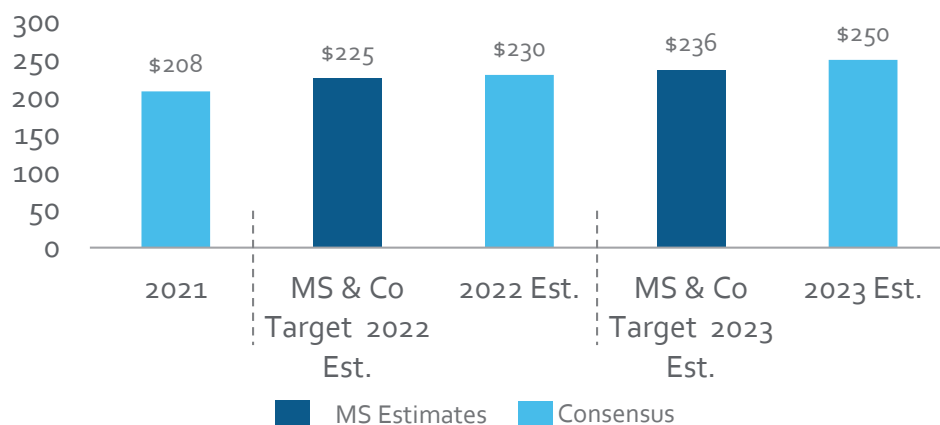
## Morgan Stanley & Co. 12M Forward S&P 500 Target

As of July 1, 2022

EPS Landscape	MS & Co Target 2023 EPS Est.	Multiple	Price Target	Upside / (Downside)
Bull Case	\$245	17.90	4,450	16.3%
Base Case	\$236	16.50	3,900	2.0%
Bear Case	\$195	15.90	3,350	(12.4%)
Current S&P 500 Price			3,825	

## Morgan Stanley & Co. and Consensus S&P 500 Earnings Estimates

As of July 1, 2022



Source: FactSet, Bloomberg, Morgan Stanley Wealth Management GIC

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

## S&P 500 Current and Historical Valuation

As of July 1, 2022

	Jul 1, 2022	Tech Bubble	Financial Crisis	20-Year Average	Current Relative to Average
S&P 500 Trailing P/E	19.2	28.9	12.1	18.8	1.02
S&P 500 Forward P/E	16.8	26.6	11.2	15.3	1.10
Technology	20.4	53.6	13.1	22.3	0.91
Consumer Discretionary	23.5	22.7	33.0	19.9	1.18
Communication Services	14.8	31.5	11.3	17.1	0.87
Industrials	17.5	20.5	8.5	17.4	1.00
Real Estate	35.8	-	-	-	-
Financials	12.4	12.5	9.6	14.5	0.85
Consumer Staples	21.2	16.0	11.7	17.4	1.22
Energy	8.0	20.3	11.6	20.6	-
Utilities	20.9	13.3	9.8	14.9	1.40
Materials	12.3	12.3	14.2	17.8	0.69
Health Care	15.8	24.2	9.3	17.8	0.89

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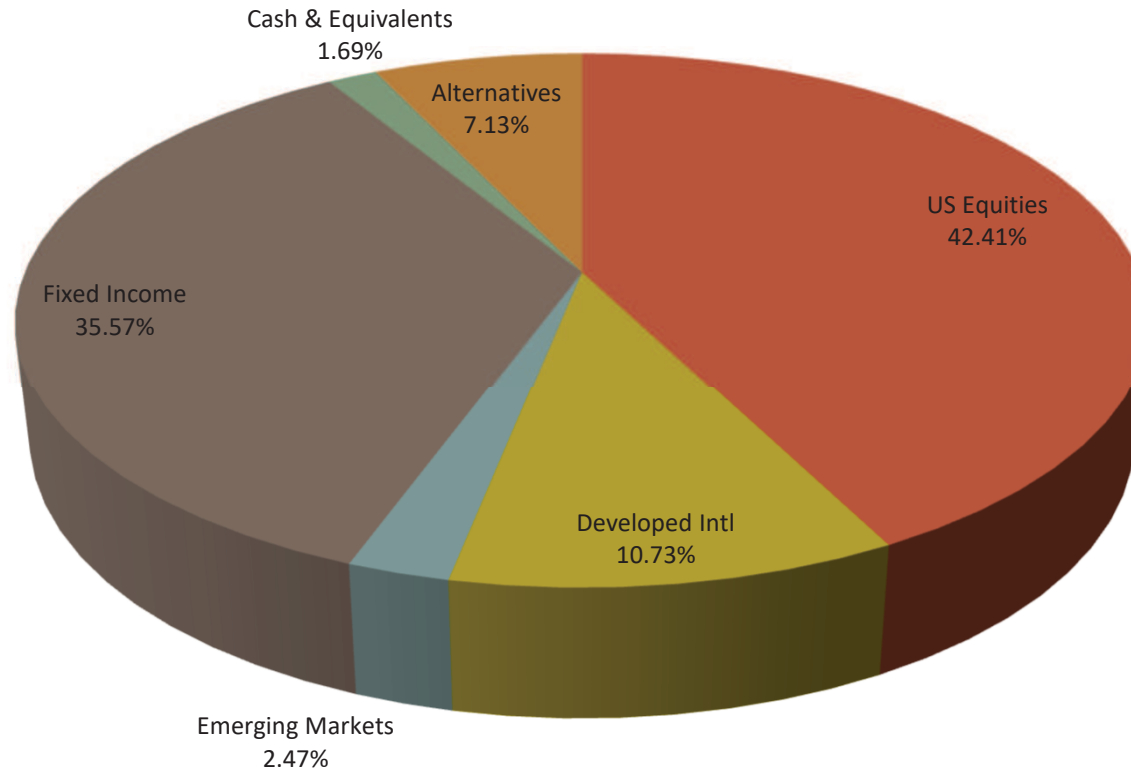
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## Asset Allocation & Investment Matrices

# SCCT Regional Water Authority - Salary & Union Plans

## Current Allocation

Portfolio Value: \$63,189,971



## Total Equity

55.61%

### % of Total Equity

US Equity	= 76.27%
Intl Equity	= 23.73%

### % of Intl Equity

Developed Intl	= 81.29%
Emerging Markets	= 18.71%

### Overall Equity Style Analysis\*

Value	= 21.06%
Core	= 48.36%
Growth	= 30.58%

### US Equity Style Analysis\*

Value	= 23.18%
Core	= 47.90%
Growth	= 28.92%

## Assets as of 6/30/2022

Asset Allocation does not assure a profit or protect against loss in declining financial markets

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to verify its accuracy. The Company strongly encourages you to consult with your own accountants or other

advisors with respect to any tax questions."

\*Equity Style Analysis provided by Morningstar "Asset Scan"

SCCT Regional Water Authority - Salary & Union Plans  
 Asset Allocation Matrix Summary  
 As of 6/30/2022

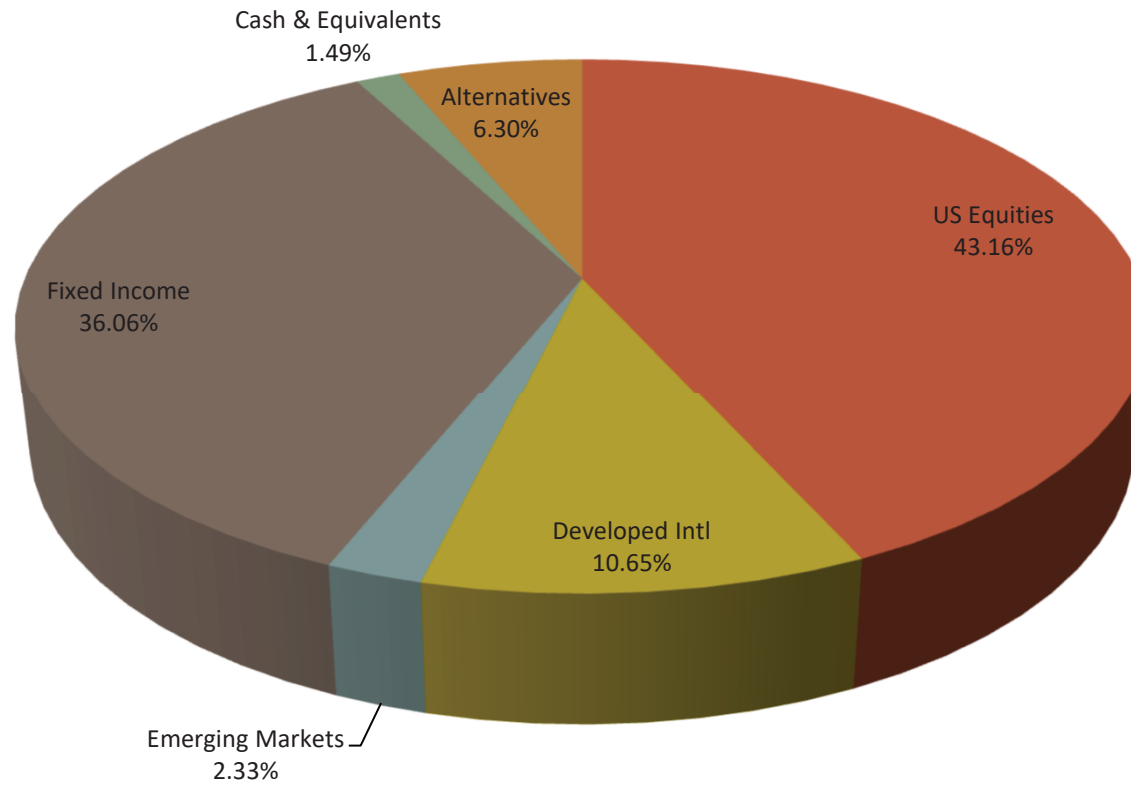
Benchmark vs Actual

	Benchmark	Actual	+/-
Russell 3000	42.00%	42.29%	0.29%
MSCI ACWI ex US	15.00%	12.91%	-2.09%
BBgBarc US Aggregate	31.00%	36.93%	5.93%
FTSE WGBI	3.00%	0.00%	-3.00%
HFRI FOF	5.00%	6.11%	1.11%
Global Real Estate	2.00%	1.04%	-0.96%
Cash & Equivalents/T-Bills	2.00%	0.72%	-1.28%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>

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# SCCT Regional Water Authority - VEBA Plan

## Current Allocation Portfolio Value: \$8,321,614



Total Equity	
	56.14%
% of Total Equity	
US Equity	= 76.87%
Intl Equity	= 23.13%
% of Intl Equity	
Developed Intl	= 82.02%
Emerging Markets	= 17.98%
Overall Equity Style Analysis*	
Value	= 20.94%
Core	= 48.45%
Growth	= 30.61%
US Equity Style Analysis*	
Value	= 23.09%
Core	= 48.12%
Growth	= 28.79%

Assets as of 6/30/2022

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\*Equity Style Analysis provided by Morningstar "Asset Scan"

SCCT Regional Water Authority - VEBA Plan  
 Asset Allocation Matrix Summary  
 As of 6/30/2022

Benchmark vs Actual

	Benchmark	Actual	+/-
Russell 3000	42.00%	43.04%	1.04%
MSCI ACWI ex US	15.00%	12.69%	-2.31%
Bloomberg US Aggregate	31.00%	37.03%	6.03%
FTSE WGBI	3.00%	0.00%	-3.00%
HFRI FOF	5.00%	5.44%	0.44%
Global Real Estate	2.00%	0.88%	-1.12%
Cash & Equivalents/T-Bills	2.00%	0.92%	-1.08%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>

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## Investment Results



SCCT Regional Water Authority  
Second Quarter Investment Results  
March 31, 2022 - June 30, 2022

Account Number	Account Type	Beg. Asset Value 31-Mar-2022	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 30-Jun-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$43,268,495	\$425,945	\$48,599	\$43,743,040	\$39,469,859	(\$4,273,181)	-9.81%	-9.73%
447-xxx451	Union	\$26,488,968	(\$187,617)	\$32,941	\$26,334,292	\$23,720,112	(\$2,614,180)	-9.88%	-9.79%
447-xxx456	VEBA	\$9,265,208	\$0	\$0	\$9,265,208	\$8,321,614	(\$943,595)	-10.18%	-10.10%
447-xxx626*	Skybridge (Salaried)	\$34,475	\$0	(\$34,478)	(\$3)	\$0	\$3	0.00%	0.00%
447-xxx627*	Skybridge (Union)	\$23,136	\$0	(\$23,137)	(\$2)	\$1	\$2	0.00%	0.00%
axx15a	Matrix Trust (Salaried)	(\$135,504)	\$236,410	\$0	\$100,906	\$100,906	\$0	-	-
axx15b	Matrix Trust (Union)	(\$72,547)	\$114,388	\$0	\$41,842	\$41,842	\$0	-	-
axx16	Matrix Trust(VEBA)	\$126,499	\$357,321	(\$23,925)	\$459,895	\$459,895	\$0	-	-
Consolidated		\$78,998,731	\$946,448	\$0	\$79,945,178	\$72,114,228	(\$7,830,950)	-9.87%	-9.79%

March 31, 2022 - June 30, 2022

Actuarial Assumed Rate of Return

<b>Actuarial Assumed Rate of Return (Current): 6.75% x (3/12)</b>	1.69%
<b>Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00% x (3/12)</b>	1.75%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-10.38%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-11.93%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-12.54%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-9.56%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-10.92%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-11.48%

Russell 3000	-17.96%
S&P 500	-17.41%
S&P 500 Equal Weight	-15.55%
Russell 1000 Value	-13.52%
Russell 1000	-17.96%
Russell 1000 Growth	-22.19%
Russell 2000	-18.02%
MSCI All Country World ex. US	-14.53%
MSCI EAFE	-15.37%
MSCI EM	-12.03%
Bloomberg Aggregate	-4.63%
Bloomberg Govt/Credit Intermediate	-2.35%
Bloomberg US Corp Bond	-7.16%
HFRI Fund of Funds Index	-4.15%
DJ Global World Real Estate	-15.56%
Morningstar Real Asset	-9.75%
FTSE WGBI Index	-8.55%
30 Day T-Bill	0.11%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
Year to Date Investment Results  
December 31, 2021 - June 30, 2022

Account Number	Account Type	Beg. Asset Value 31-Dec-2021	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 30-Jun-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$46,007,698	\$425,945	(\$456,584)	\$45,977,059	\$39,469,859	(\$6,507,200)	-14.23%	-14.07%
447-xxx451	Union	\$28,054,594	(\$187,617)	(\$173,384)	\$27,693,592	\$23,720,112	(\$3,973,480)	-14.27%	-14.12%
447-xxx456	VEBA	\$9,761,507	\$0	\$0	\$9,761,507	\$8,321,614	(\$1,439,893)	-14.75%	-14.60%
447-xxx626*	Skybridge (Salaried)	\$34,474	\$0	(\$34,478)	(\$4)	\$0	\$4	0.00%	0.00%
447-xxx627*	Skybridge (Union)	\$23,135	\$0	(\$23,137)	(\$2)	\$1	\$3	0.00%	0.00%
axx15a	Matrix Trust (Salaried)	\$245	(\$445,539)	\$546,200	\$100,906	\$100,906	\$0	-	-
axx15b	Matrix Trust (Union)	\$55	(\$193,214)	\$235,000	\$41,842	\$41,842	\$0	-	-
axx16	Matrix Trust(VEBA)	\$125,243	\$428,268	(\$93,616)	\$459,895	\$459,895	\$0	-	-
Consolidated		\$84,006,953	\$27,843	\$0	\$84,034,796	\$72,114,228	(\$11,920,567)	-14.30%	-14.14%

December 31, 2021 - June 30, 2022

Actuarial Assumed Rate of Return

Actuarial Assumed Rate of Return (Current): 6.75% x (6/12)	3.38%
Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00% x (6/12)	3.50%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-14.63%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-16.00%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-16.17%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-13.13%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-14.15%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-14.22%

Russell 3000	-21.10%
S&P 500	-19.96%
S&P 500 Equal Weight	-16.68%
Russell 1000 Value	-12.86%
Russell 1000	-20.94%
Russell 1000 Growth	-28.07%
Russell 2000	-23.43%
MSCI All Country World ex. US	-18.42%
MSCI EAFE	-19.57%
MSCI EM	-17.63%
Bloomberg Aggregate	-10.35%
Bloomberg Govt/Credit Intermediate	-6.77%
Bloomberg US Corp Bond	-14.39%
HFRI Fund of Funds Index	-6.79%
DJ Global World Real Estate	-19.37%
Morningstar Real Asset	-8.09%
FTSE WGBI Index	-14.79%
30 Day T-Bill	0.12%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
July 2022 Month to Date Investment Results  
June 30, 2022 - July 20, 2022

Account Number	Account Type	Beg. Asset Value 30-Jun-2022	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 20-Jul-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$39,469,859	\$0	\$14,558	\$39,484,417	\$40,181,890	\$697,473	1.77%	1.80%
447-xxx451	Union	\$23,720,112	\$0	\$10,037	\$23,730,149	\$24,150,253	\$420,104	1.77%	1.80%
447-xxx456	VEBA	\$8,321,614	\$0	\$0	\$8,321,614	\$8,468,037	\$146,423	1.76%	1.79%
447-xxx626*	Skybridge (Salaried)	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	0.00%
447-xxx627*	Skybridge (Union)	\$1	\$0	\$0	\$1	\$1	\$0	0.00%	0.00%
axx15a	Matrix Trust (Salaried)	\$100,906	\$153,292	\$0	\$254,198	\$254,198	\$0	-	-
axx15b	Matrix Trust (Union)	\$41,842	\$21,875	\$0	\$63,717	\$63,717	\$0	-	-
axx16	Matrix Trust(VEBA)	\$459,895	\$42,279	(\$24,595)	\$477,579	\$477,579	\$0	-	-
Consolidated		\$72,114,228	\$217,445	\$0	\$72,331,674	\$73,595,675	\$1,264,001	1.77%	1.80%

June 30, 2022 - July 20, 2022

Actuarial Assumed Rate of Return

<b>Actuarial Assumed Rate of Return (Current): 6.75% x (20/365)</b>	0.37%
<b>Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00% x (20/365)</b>	0.38%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills:	1.44%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills:	1.77%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills:	1.63%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills:	1.31%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills:	1.60%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills:	1.45%

Russell 3000	4.11%
S&P 500	3.78%
S&P 500 Equal Weight	3.71%
Russell 1000 Value	2.53%
Russell 1000	3.97%
Russell 1000 Growth	5.41%
Russell 2000	6.37%
MSCI All Country World ex. US	-0.52%
MSCI EAFE	0.30%
MSCI EM	-2.25%
Bloomberg Aggregate	0.61%
Bloomberg Govt/Credit Intermediate	0.18%
Bloomberg US Corp Bond	1.13%
HFRI Fund of Funds Index**	-1.40%
DJ Global World Real Estate	0.39%
Morningstar Real Asset	0.56%
FTSE WGBI Index	-0.34%
30 Day T-Bill	0.06%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
Fiscal Year Investment Results  
May 31, 2021 - May 31, 2022

Account Number	Account Type	Beg. Asset Value 31-May-2021	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 31-May-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$43,071,370	\$425,945	\$486,585	\$43,983,899	\$41,653,250	(\$2,330,650)	-5.32%	-4.98%
447-xxx451	Union	\$26,647,073	(\$187,617)	\$5,393	\$26,464,849	\$25,056,535	(\$1,408,314)	-5.24%	-4.90%
447-xxx456	VEBA	\$8,932,536	\$0	\$400,000	\$9,332,536	\$8,798,758	(\$533,778)	-5.70%	-5.37%
447-xxx626*	Skybridge (Salaried)	\$671,666	\$0	(\$704,240)	(\$32,574)	\$0	\$32,574	4.86%	4.86%
447-xxx627*	Skybridge (Union)	\$450,994	\$0	(\$472,852)	(\$21,859)	\$1	\$21,859	4.86%	4.86%
axx15a	Matrix Trust (Salaried)	\$919,536	(\$844,358)	\$374,828	\$450,006	\$450,006	\$0	-	-
axx15b	Matrix Trust (Union)	\$92,656	(\$437,072)	\$580,000	\$235,584	\$235,584	\$0	-	-
axx16	Matrix Trust(VEBA)	\$585,408	\$381,902	(\$669,714)	\$297,597	\$297,597	\$0	-	-
Consolidated		\$81,371,240	(\$661,200)	\$0	\$80,710,040	\$76,491,731	(\$4,218,309)	-5.33%	-4.99%

May 31, 2021 - May 31, 2022

Actuarial Assumed Rate of Return

<b>Actuarial Assumed Rate of Return (Current): 6.75%</b>	6.75%
<b>Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%</b>	7.00%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-6.79%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-6.69%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-6.07%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-5.48%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-5.07%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-4.38%

Russell 3000	-3.68%
S&P 500	-0.30%
S&P 500 Equal Weight	0.16%
Russell 1000 Value	0.93%
Russell 1000	-2.70%
Russell 1000 Growth	-6.24%
Russell 2000	-16.88%
MSCI All Country World ex. US	-12.29%
MSCI EAFE	-10.64%
MSCI EM	-18.86%
Bloomberg Aggregate	-8.21%
Bloomberg Govt/Credit Intermediate	-6.15%
Bloomberg US Corp Bond	-10.26%
HFRI Fund of Funds Index	-3.67%
DJ Global World Real Estate	-6.49%
Morningstar Real Asset	5.08%
FTSE WGBI Index	-14.72%
30 Day T-Bill	0.09%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
Trailing Twelve Month Investment Results  
June 30, 2021 - June 30, 2022

Account Number	Account Type	Beg. Asset Value 30-Jun-2021	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 30-Jun-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$43,707,129	\$425,945	\$157,623	\$44,290,697	\$39,469,859	(\$4,820,838)	-10.91%	-10.60%
447-xxx451	Union	\$26,844,708	(\$187,617)	(\$4,198)	\$26,652,893	\$23,720,112	(\$2,932,781)	-10.92%	-10.60%
447-xxx456	VEBA	\$9,398,772	\$0	\$0	\$9,398,772	\$8,321,614	(\$1,077,158)	-11.46%	-11.14%
447-xxx626*	Skybridge (Salaried)	\$669,790	\$0	(\$704,240)	(\$34,450)	\$0	\$34,450	5.15%	5.15%
447-xxx627*	Skybridge (Union)	\$449,734	\$0	(\$472,852)	(\$23,118)	\$1	\$23,118	5.15%	5.15%
axx15a	Matrix Trust (Salaried)	\$256,634	(\$846,927)	\$691,200	\$100,906	\$100,906	\$0	-	-
axx15b	Matrix Trust (Union)	(\$65,525)	(\$472,633)	\$580,000	\$41,842	\$41,842	\$0	-	-
axx16	Matrix Trust(VEBA)	\$92,091	\$615,337	(\$247,533)	\$459,895	\$459,895	\$0	-	-
Consolidated		\$81,353,332	(\$465,895)	\$0	\$80,887,437	\$72,114,228	(\$8,773,208)	-10.96%	-10.64%

June 30, 2021 - June 30, 2022

Actuarial Assumed Rate of Return

Actuarial Assumed Rate of Return (Current): 6.75%

6.75%

Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%

7.00%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-12.19%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-12.99%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-12.75%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	-10.66%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	-11.11%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	-10.77%

Russell 3000	-13.87%
S&P 500	-10.62%
S&P 500 Equal Weight	-9.38%
Russell 1000 Value	-6.82%
Russell 1000	-13.04%
Russell 1000 Growth	-18.77%
Russell 2000	-25.20%
MSCI All Country World ex. US	-19.42%
MSCI EAFE	-17.77%
MSCI EM	-25.28%
Bloomberg Aggregate	-10.29%
Bloomberg Govt/Credit Intermediate	-7.28%
Bloomberg US Corp Bond	-14.19%
HFRI Fund of Funds Index	-5.71%
DJ Global World Real Estate	-14.02%
Morningstar Real Asset	-2.26%
FTSE WGBI Index	-16.77%
30 Day T-Bill	0.15%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
Trailing Three Year Investment Results  
June 30, 2019 - June 30, 2022

Account Number	Account Type	Beg. Asset Value 30-Jun-2019	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 30-Jun-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$35,009,049	\$425,945	(\$104,765)	\$35,330,229	\$39,469,859	\$4,139,629	3.84%	4.22%
447-xxx451	Union	\$21,922,409	(\$187,617)	(\$633,798)	\$21,100,994	\$23,720,112	\$2,619,118	3.83%	4.21%
447-xxx456	VEBA	\$6,883,357	\$0	\$670,404	\$7,553,761	\$8,321,614	\$767,853	3.63%	4.01%
447-xxx626*	Skybridge (Salaried)	\$655,526	\$0	(\$704,240)	(\$48,714)	\$0	\$48,714	2.42%	2.42%
447-xxx627*	Skybridge (Union)	\$440,159	\$0	(\$472,852)	(\$32,693)	\$1	\$32,693	2.42%	2.42%
axx15a	Matrix Trust (Salaried)	\$528,130	(\$1,682,370)	\$1,255,147	\$100,906	\$100,906	\$0	-	-
axx15b	Matrix Trust (Union)	\$301,727	(\$1,716,493)	\$1,456,608	\$41,842	\$41,842	\$0	-	-
axx16	Matrix Trust(VEBA)	\$567,195	\$1,359,203	(\$1,466,503)	\$459,895	\$459,895	\$0	-	-
Consolidated		\$66,307,554	(\$1,801,332)	\$0	\$64,506,222	\$72,114,228	\$7,608,007	3.72%	4.09%

June 30, 2019 - June 30, 2022

Actuarial Assumed Rate of Return

<b>Actuarial Assumed Rate of Return (Current): 6.75%</b>	6.75%
<b>Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%</b>	7.00%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	3.29%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	4.08%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	4.85%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	3.27%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	4.06%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	4.83%

Russell 3000	9.76%
S&P 500	10.59%
S&P 500 Equal Weight	9.72%
Russell 1000 Value	6.86%
Russell 1000	10.16%
Russell 1000 Growth	12.57%
Russell 2000	4.21%
MSCI All Country World ex. US	1.35%
MSCI EAFE	1.07%
MSCI EM	0.57%
Bloomberg Aggregate	-0.93%
Bloomberg Govt/Credit Intermediate	-0.16%
Bloomberg US Corp Bond	-0.99%
HFRI Fund of Funds Index	3.87%
DJ Global World Real Estate	-0.44%
Morningstar Real Asset	4.87%
FTSE WGBI Index	-4.27%
30 Day T-Bill	0.53%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
Trailing Five Year Investment Results  
June 30, 2017 - June 30, 2022

Account Number	Account Type	Beg. Asset Value 30-Jun-2017	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 30-Jun-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$27,669,734	\$425,945	\$3,012,877	\$31,108,556	\$39,469,859	\$8,361,303	5.08%	5.48%
447-xxx451	Union	\$19,380,385	(\$187,617)	(\$852,008)	\$18,340,761	\$23,720,112	\$5,379,351	5.06%	5.45%
447-xxx456	VEBA	\$5,178,415	\$0	\$1,542,401	\$6,720,816	\$8,321,614	\$1,600,798	4.90%	5.30%
447-xxx626*	Skybridge (Salaried)	\$490,085	\$0	(\$604,240)	(\$114,155)	\$0	\$114,155	3.86%	3.86%
447-xxx627*	Skybridge (Union)	\$353,950	\$0	(\$432,852)	(\$78,902)	\$1	\$78,902	3.87%	3.87%
axx15a	Matrix Trust (Salaried)	\$520,821	\$1,262,516	(\$1,682,430)	\$100,906	\$100,906	\$0	-	-
axx15b	Matrix Trust (Union)	\$242,711	(\$2,074,805)	\$1,873,936	\$41,842	\$41,842	\$0	-	-
axx16	Matrix Trust(VEBA)	\$307,385	\$3,010,194	(\$2,857,684)	\$459,895	\$459,895	\$0	-	-
Consolidated		\$54,143,487	\$2,436,232	\$0	\$56,579,719	\$72,114,228	\$15,534,510	4.99%	5.37%

June 30, 2017 - June 30, 2022

Actuarial Assumed Rate of Return

<b>Actuarial Assumed Rate of Return (Current): 6.75%</b>	6.75%
<b>Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%</b>	7.00%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	4.53%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	5.31%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	5.87%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	4.29%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	5.01%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	5.56%

Russell 3000	10.63%
S&P 500	11.34%
S&P 500 Equal Weight	9.93%
Russell 1000 Value	7.19%
Russell 1000	11.03%
Russell 1000 Growth	14.33%
Russell 2000	5.15%
MSCI All Country World ex. US	2.38%
MSCI EAFE	2.07%
MSCI EM	2.11%
Bloomberg Aggregate	0.85%
Bloomberg Govt/Credit Intermediate	1.11%
Bloomberg US Corp Bond	1.25%
HFRI Fund of Funds Index	3.58%
DJ Global World Real Estate	2.82%
Morningstar Real Asset	4.66%
FTSE WGBI Index	-1.21%
30 Day T-Bill	1.04%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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SCCT Regional Water Authority  
Trailing Six Year Investment Results  
June 30, 2016 - June 30, 2022

Account Number	Account Type	Beg. Asset Value 30-Jun-2016	Net Deposits/Withdrawals	Transfers	Net Invested	Ending Asset Value 30-Jun-2022	Net \$ Gain/Loss	Gain/Loss (net) %	Gain/Loss (gross) %
447-xxx450	Salaried	\$23,665,331	\$425,945	\$4,357,666	\$28,448,942	\$39,469,859	\$11,020,917	6.06%	6.47%
447-xxx451	Union	\$17,011,919	(\$187,617)	(\$395,177)	\$16,429,124	\$23,720,112	\$7,290,988	6.04%	6.44%
447-xxx456	VEBA	\$3,981,133	\$0	\$2,256,436	\$6,237,569	\$8,321,614	\$2,084,045	5.90%	6.31%
447-xxx626*	Skybridge (Salaried)	\$450,528	\$0	(\$603,806)	(\$153,278)	\$0	\$153,278	4.65%	4.65%
447-xxx627*	Skybridge (Union)	\$325,381	\$0	(\$432,539)	(\$107,157)	\$1	\$107,158	4.66%	4.66%
axx15a	Matrix Trust (Salaried)	\$13,068	\$2,903,863	(\$2,816,025)	\$100,906	\$100,906	\$0	-	-
axx15b	Matrix Trust (Union)	\$41,258	(\$1,569,664)	\$1,570,248	\$41,842	\$41,842	\$0	-	-
axx16	Matrix Trust(VEBA)	\$43,861	\$4,352,837	(\$3,936,803)	\$459,895	\$459,895	\$0	-	-
Consolidated		\$45,532,478	\$5,925,365	\$0	\$51,457,843	\$72,114,228	\$20,656,386	5.97%	6.37%

June 30, 2016 - June 30, 2022

Actuarial Assumed Rate of Return

<b>Actuarial Assumed Rate of Return (Current): 6.75%</b>	6.75%
<b>Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%</b>	7.00%

Guidelines/Benchmarks - Market Cap Weighted

Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	5.34%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	6.36%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	7.08%

Guidelines/Benchmarks - Equal Weighted

Least Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2% T-Bills	5.07%
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills	6.03%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills	6.74%

Russell 3000	12.13%
S&P 500	12.63%
S&P 500 Equal Weight	11.34%
Russell 1000 Value	8.80%
Russell 1000	12.39%
Russell 1000 Growth	15.51%
Russell 2000	8.50%
MSCI All Country World ex. US	5.47%
MSCI EAFE	5.17%
MSCI EM	5.76%
Bloomberg Aggregate	0.67%
Bloomberg Govt/Credit Intermediate	0.91%
Bloomberg US Corp Bond	1.44%
HFRI Fund of Funds Index	4.06%
DJ Global World Real Estate	3.39%
Morningstar Real Asset	3.53%
FTSE WGBI Index	-1.67%
30 Day T-Bill	0.92%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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# Morgan Stanley

THE KELLIHER CORBETT GROUP  
AT MORGAN STANLEY



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## Investment Holdings Analysis

# Mutual Funds/ETFs

## Results

Data as of 6/30/2022		Morningstar	Market Returns (%)						\$	% of
		Category	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	Assets	Total
<b>Cash &amp; Equivalents</b>										
Cash & Equivalents			-	-	-	-	-	-	\$ 1,189,221	1.66%
<b>Fixed Income</b>										
Guggenheim Limited Duration Instl	Short-Term Bond		-2.32	-4.60	● -4.71	● 0.97	● 1.47	-	\$ 245,274	0.34%
PIMCO Low Duration Income I2	Short-Term Bond		-3.60	-6.76	● -6.12	● 0.56	● 1.94	● 3.14	\$ 2,195,139	3.07%
Vanguard Short-Term Bond ETF	Short-Term Bond		-1.15	-4.53	● -5.21	● 0.09	● 1.04	● 1.11	\$ 276,775	0.39%
<b>Cat: Short-Term Bond</b>	<b>Short-Term Bond</b>		<b>-2.00</b>	<b>-4.86</b>		<b>0.18</b>	<b>1.08</b>	<b>1.26</b>		
American Funds Bond Fund of Amer F2	Intermediate Core Bond		-5.02	-10.18	● -9.71	● 0.34	● 1.59	● 2.06	\$ 2,274,497	3.18%
<b>Cat: Intermediate Core Bond</b>	<b>Intermediate Core Bond</b>		<b>-4.93</b>	<b>-10.53</b>		<b>-1.00</b>	<b>0.72</b>	<b>1.47</b>		
American Funds Strategic Bond F-2	Intermediate Core-Plus Bond		-5.76	-8.97	● -8.11	● 2.61	● 3.22	-	\$ 3,011,222	4.21%
DoubleLine Core Fixed Income I	Intermediate Core-Plus Bond		-5.50	-10.11	● -10.18	● -1.24	● 0.74	● 2.08	\$ 1,213,563	1.70%
DoubleLine Total Return Bond I	Intermediate Core-Plus Bond		-3.97	-8.60	● -8.43	● -1.11	● 0.80	● 2.18	\$ 1,203,986	1.68%
Janus Henderson Flexible Bond I	Intermediate Core-Plus Bond		-5.02	-10.95	● -10.66	● 0.36	● 1.47	● 2.06	\$ 225,785	0.32%
Loomis Sayles Core Plus Bond Y	Intermediate Core-Plus Bond		-5.97	-11.03	● -11.23	● -0.26	● 1.39	● 2.45	\$ 2,124,234	2.97%
Pioneer Bond Y	Intermediate Core-Plus Bond		-4.87	-10.49	● -10.24	● 0.29	● 1.67	● 2.66	\$ -	0.00%
<b>Cat: Intermediate Core-Plus Bond</b>	<b>Intermediate Core-Plus Bond</b>		<b>-5.51</b>	<b>-10.91</b>		<b>-11.10</b>	<b>-0.73</b>	<b>0.94</b>		<b>1.91</b>
Idx: Bloomberg US Agg Bond TR USD	-		-4.69	-10.35	-10.29	-0.93	0.88	1.54		
Idx: Bloomberg US Govt/Credit Interm TR USD	-		-2.37	-6.77	-7.28	-0.16	1.13	1.45		
Idx: FTSE WGBI USD	-		-8.91	-14.79	-16.77	-4.27	-1.17	-0.69		
<b>Sub-Total Fixed Income</b>									<b>\$ 12,770,475</b>	<b>17.86%</b>
<b>US Equity</b>										
Columbia Dividend Income Inst	Large Value		-9.47	-11.79	● -3.36	● 9.69	● 10.42	● 11.73	\$ 3,960,633	5.54%
Vanguard Value ETF	Large Value		-10.28	-9.39	● -1.89	● 8.64	● 9.21	● 11.77	\$ 5,327,952	7.45%
<b>Cat: Large Value</b>	<b>Large Value</b>		<b>-11.24</b>	<b>-11.33</b>		<b>-4.84</b>	<b>7.95</b>	<b>7.84</b>		<b>10.26</b>
Invesco S&P 500® Equal Weight ETF	Large Blend		-14.39	-16.75	● -9.55	● 9.56	● 9.67	● 12.34	\$ 3,322,193	4.65%
Vanguard Total Stock Market ETF	Large Blend		-16.85	-21.38	● -14.24	● 9.62	● 10.52	● 12.52	\$ 5,925,497	8.29%
<b>Cat: Large Blend</b>	<b>Large Blend</b>		<b>-14.88</b>	<b>-19.30</b>		<b>-11.58</b>	<b>9.14</b>	<b>9.77</b>		<b>11.63</b>
MFS Massachusetts Inv Gr Stk I	Large Growth		-13.81	-20.15	● -10.30	● 11.80	● 14.44	● 14.35	\$ 3,134,657	4.38%
Vanguard Russell 1000 Growth ETF	Large Growth		-20.93	-28.09	● -18.83	● 12.49	● 14.19	● 14.68	\$ 1,848,211	2.58%
<b>Cat: Large Growth</b>	<b>Large Growth</b>		<b>-20.82</b>	<b>-29.12</b>		<b>-23.86</b>	<b>8.10</b>	<b>11.01</b>		<b>12.51</b>
Schwab US Mid-Cap ETF™	Mid-Cap Blend		-16.89	-21.49	● -18.63	● 4.72	● 6.96	● 10.97	\$ 1,339,286	1.87%
<b>Cat: Mid-Cap Blend</b>	<b>Mid-Cap Blend</b>		<b>-14.24</b>	<b>-18.50</b>		<b>-13.90</b>	<b>6.70</b>	<b>6.97</b>		<b>10.07</b>
Idx: Russell 3000 TR USD	-		-16.70	-21.10	-13.87	9.77	10.60	12.57		
Idx: S&P 500 TR USD	-		-16.10	-19.96	-10.62	10.60	11.31	12.96		
Idx: Russell 1000 Value TR USD	-		-12.21	-12.86	-6.82	6.87	7.17	10.50		
Idx: Russell 1000 TR USD	-		-16.67	-20.94	-13.04	10.17	11.00	12.82		
Idx: Russell 1000 Growth TR USD	-		-20.92	-28.07	-18.77	12.58	14.29	14.80		
Idx: Morningstar Dividend Yield Focus TR USD	-		-5.50	0.72	7.33	5.95	7.75	9.35		
<b>Sub-Total US Equity</b>									<b>\$ 24,858,428</b>	<b>34.76%</b>

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)

Green = Fund added in Q2, Red = Fund removed in Q2  
 Orange = Fund position only held in VEBA

Assets as of 6/30/2022

See last page for important disclosure/disclaimer

**For financial professional and qualified plan sponsor use only**

# Mutual Funds/ETFs

## Results

Data as of 6/30/2022

	Morningstar Category	Market Returns (%)							\$ Assets	% of Total
		3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr			
<b>Global/International Equity</b>										
Vanguard FTSE Developed Markets ETF	Foreign Large Blend	-14.08	-19.26	● -18.11	● 2.12	● 2.70	● 5.85	\$ 1,640,160	2.29%	
Cat: Foreign Large Blend	Foreign Large Blend	-13.15	-19.18	-18.69	1.31	2.08	5.11			
American Funds Europacific Growth F2	Foreign Large Growth	-14.67	-25.14	● -27.75	● 1.38	● 2.99	● 6.20	\$ 2,449,920	3.43%	
Vs. Index (MSCI ACWI Ex USA NR USD)	-	-14.67	-25.14	● -27.75	● 1.38	● 2.99	● 6.20			
MFS International Intrinsic Value I	Foreign Large Growth	-15.10	-26.22	● -22.22	● 1.87	● 4.24	● 8.47	\$ 2,471,134	3.46%	
Cat: Foreign Large Growth	Foreign Large Growth	-16.58	-27.69	-27.25	1.72	3.56	6.13			
Invesco Developing Markets Y	Diversified Emerging Mkts	-11.38	-25.31	● -34.95	● -4.33	● 0.28	● 2.60	\$ 1,142,251	1.60%	
Cat: Diversified Emerging Mkts	Diversified Emerging Mkts	-12.20	-19.73	-25.71	0.38	1.71	2.84			
First Eagle Global I	Global Allocation	-10.43	-10.13	● -8.38	● 5.09	● 5.20	● 6.92	\$ 3,019,335	4.22%	
Cat: Global Allocation	Global Allocation	-10.59	-13.33	-11.27	2.67	3.35	4.65			
Idx: MSCI ACWI Ex USA NR USD	-	-13.73	-18.42	-19.42	1.35	2.50	4.83			
Idx: MSCI ACWI NR USD	-	-15.66	-20.18	-15.75	6.21	7.00	8.76			
Idx: MSCI EAFE NR USD	-	-14.51	-19.57	-17.77	1.07	2.20	5.40			
Idx: MSCI EM NR USD	-	-11.45	-17.63	-25.28	0.57	2.18	3.06			
<b>Sub-Total Global/International Equity</b>								<b>\$ 10,722,800</b>	<b>14.99%</b>	
<b>Balanced</b>										
American Funds American Balanced F2	Allocation--50% to 70% Equity	-9.83	-13.42	● -8.27	● 6.27	● 7.08	● 8.94	\$ 3,319,155	4.64%	
Janus Henderson Balanced I	Allocation--50% to 70% Equity	-11.67	-17.22	● -10.64	● 6.43	● 8.44	● 9.00	\$ 3,245,188	4.54%	
Cat: Allocation--50% to 70% Equity	Allocation--50% to 70% Equity	-10.58	-14.43	-11.07	4.54	5.29	6.69			
Idx: Bloomberg US Agg Bond TR USD	-	-4.69	-10.35	-10.29	-0.93	0.88	1.54			
Idx: S&P 500 TR USD	-	-16.10	-19.96	-10.62	10.60	11.31	12.96			
<b>Sub-Total Balanced</b>								<b>\$ 6,564,343</b>	<b>9.18%</b>	
<b>Alternative</b>										
BlackRock Event Driven Equity Instl	Event Driven	-2.11	-2.02	● -2.65	● 3.03	● 3.73	● 7.58	\$ 1,224,144	1.71%	
Cat: Event Driven	Event Driven	-3.26	-3.47	-3.71	3.27	3.25	3.52			
Calamos Market Neutral Income I	Relative Value Arbitrage	-5.71	-6.99	● -4.89	● 1.70	● 2.64	● 3.28	\$ 1,160,586	1.62%	
Cat: Relative Value Arbitrage	Relative Value Arbitrage	-4.51	-5.58	-4.38	3.93	3.69	3.10			
JPMorgan Hedged Equity 3 I	Options Trading	-10.94	-14.80	● -9.58	-	-	-	\$ 1,545,236	2.16%	
JPMorgan Hedged Equity I	Options Trading	-5.33	-9.69	● -5.79	● 7.21	● 6.93	-	\$ 90,064	0.13%	
Cat: Options Trading	Options Trading	-9.35	-11.12	-7.15	3.59	3.85	3.46			
Cohen & Steers Global Realty I	Global Real Estate	-16.50	-20.17	● -12.88	● 2.03	● 4.55	● 6.54	\$ 1,023,174	1.43%	
Cat: Global Real Estate	Global Real Estate	-16.87	-20.93	-14.67	-0.33	2.57	4.84			
Idx: S&P 500 TR USD	-	-16.10	-19.96	-10.62	10.60	11.31	12.96			
Idx: Bloomberg US Agg Bond TR USD	-	-4.69	-10.35	-10.29	-0.93	0.88	1.54			
Idx: Russell 3000 TR USD	-	-16.70	-21.10	-13.87	9.77	10.60	12.57			
Idx: MSCI ACWI NR USD	-	-15.66	-20.18	-15.75	6.21	7.00	8.76			
Idx: DJ Global World Real Estate TR USD	-	-14.66	-19.37	-14.02	-0.44	2.87	5.60			
<b>Sub-Total Alternative</b>								<b>\$ 5,043,204</b>	<b>7.05%</b>	
<b>Total</b>								<b>\$ 61,148,471</b>	<b>85.51%</b>	

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)

Green = Fund added in Q2, Red = Fund removed in Q2  
 Orange = Fund position only held in VEBA

Assets as of 6/30/2022

# Mutual Funds/ETFs

## Statistics

Data as of 6/30/2022	Prospectus Net Expense Ratio	Prospectus Adj Expense Ratio	Beta 3 Yr vs. S&P or BBg Agg	Alpha 3 Yr vs. S&P or BBg Agg	Std Dev 3 Yr	R2 3 Yr vs. S&P or BBg Agg	P/E Ratio	P/B Ratio	Geo Avg Mkt Cap \$MM	Mstar Risk 5 Yr
<b>Fixed Income</b>										
Guggenheim Limited Duration Instl	0.49	0.48	0.38	0.96	2.43	49	24.1	1.6	3166	Below Avg
PIMCO Low Duration Income I2	0.64	0.61	0.42	0.70	5.14	13	-	-	-	High
Vanguard Short-Term Bond ETF	0.04	0.04	0.40	0.11	2.09	79	-	-	-	Below Avg
<b>Cat: Short-Term Bond</b>	<b>0.67</b>	<b>0.00</b>	<b>0.43</b>	<b>0.28</b>	<b>3.36</b>	<b>44</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
American Funds Bond Fund of Amer F2	0.31	0.31	0.99	1.25	4.54	97	-	-	-	Below Avg
<b>Cat: Intermediate Core Bond</b>	<b>0.59</b>	<b>0.00</b>	<b>0.99</b>	<b>-0.07</b>	<b>4.78</b>	<b>90</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
American Funds Strategic Bond F-2	0.43	0.43	0.91	3.42	5.13	64	-	-	-	Below Avg
DoubleLine Core Fixed Income I	0.48	0.48	0.91	-0.39	5.47	57	-	-	-	Average
DoubleLine Total Return Bond I	0.50	0.50	0.78	-0.51	4.23	69	-	-	-	Low
Janus Henderson Flexible Bond I	0.45	0.45	1.12	1.50	5.49	85	-	-	-	Average
Loomis Sayles Core Plus Bond Y	0.46	0.46	1.05	0.78	5.04	90	-	-	-	Below Avg
Pioneer Bond Y	0.45	0.45	1.08	1.49	7.12	47	-	-	-	High
<b>Cat: Intermediate Core-Plus Bond</b>	<b>0.74</b>	<b>0.00</b>	<b>1.01</b>	<b>0.27</b>	<b>5.54</b>	<b>73</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>US Equity</b>										
Columbia Dividend Income Inst	0.67	0.67	0.84	0.61	16.20	92	17.9	3.5	134129	Low
Vanguard Value ETF	0.04	0.04	0.92	-0.88	18.35	86	14.6	2.4	97572	Below Avg
<b>Cat: Large Value</b>	<b>0.91</b>	<b>0.00</b>	<b>0.96</b>	<b>-1.76</b>	<b>19.69</b>	<b>83</b>	<b>14.0</b>	<b>2.3</b>	<b>102320</b>	<b>-</b>
Invesco S&P 500® Equal Weight ETF	0.20	0.20	1.07	-1.28	20.83	92	16.0	2.6	32954	High
Vanguard Total Stock Market ETF	0.03	0.03	1.04	-1.16	19.38	99	17.7	3.2	101512	Above Avg
<b>Cat: Large Blend</b>	<b>0.80</b>	<b>0.00</b>	<b>0.98</b>	<b>-1.12</b>	<b>18.87</b>	<b>95</b>	<b>18.7</b>	<b>4.2</b>	<b>216364</b>	<b>-</b>
MFS Massachusetts Inv Gr Stk I	0.45	0.45	0.95	1.52	18.12	96	28.0	5.6	170291	Low
Vanguard Russell 1000 Growth ETF	0.08	0.08	1.08	1.31	21.09	91	25.0	8.8	250507	Average
<b>Cat: Large Growth</b>	<b>0.97</b>	<b>0.00</b>	<b>1.06</b>	<b>-2.43</b>	<b>21.34</b>	<b>87</b>	<b>23.8</b>	<b>6.5</b>	<b>284818</b>	<b>-</b>
Schwab US Mid-Cap ETF™	0.04	0.04	1.14	-6.15	22.82	87	12.9	2.3	8922	Above Avg
<b>Cat: Mid-Cap Blend</b>	<b>0.94</b>	<b>0.00</b>	<b>1.07</b>	<b>-3.64</b>	<b>21.75</b>	<b>84</b>	<b>13.0</b>	<b>2.3</b>	<b>9347</b>	<b>-</b>

See last page for important disclosure/disclaimer

**For financial professional and qualified plan sponsor use only**

Green = Fund added in Q2, Red = Fund removed in Q2

Orange = Fund position only held in VEBA

The Prospectus Adjusted Operating Expense Ratio is the percentage of fund assets paid for operating expenses and management fees. The expense ratio typically includes the following types of fees: accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency. The ratio does reflect fee waivers in effect during the time period, and does not include interest and dividends on borrowed securities. The expense ratio does not reflect the fund's brokerage costs or any investor sales charges.

# Mutual Funds/ETFs

## Statistics

Data as of 6/30/2022	Prospectus Net Expense Ratio	Prospectus Adj Expense Ratio	Beta 3 Yr vs. S&P or BBg Agg	Alpha 3 Yr vs. S&P or BBg Agg	Std Dev 3 Yr	R2 3 Yr vs. S&P or BBg Agg	P/E Ratio	P/B Ratio	Geo Avg Mkt Cap \$MM	Mstar Risk 5 Yr
<b>Global/International Equity</b>										
Vanguard FTSE Developed Markets ETF	0.05	0.05	1.05	0.85	18.63	97	12.0	1.5	25657	Average
<b>Cat: Foreign Large Blend</b>	<b>0.93</b>	<b>0.00</b>	<b>1.00</b>	<b>0.07</b>	<b>18.08</b>	<b>93</b>	<b>12.0</b>	<b>1.6</b>	<b>43473</b>	-
American Funds Europacific Growth F2	0.57	0.57	1.06	0.18	19.09	94	17.0	2.7	49526	Average
MFS International Intrinsic Value I	0.72	0.72	0.75	0.69	15.13	76	23.5	3.1	34269	Low
<b>Cat: Foreign Large Growth</b>	<b>1.05</b>	<b>0.00</b>	<b>0.97</b>	<b>0.67</b>	<b>18.79</b>	<b>82</b>	<b>19.0</b>	<b>2.8</b>	<b>45951</b>	-
Invesco Developing Markets Y	0.95	0.95	0.97	-5.44	18.81	81	18.6	3.1	56009	Below Avg
<b>Cat: Diversified Emerging Mkts</b>	<b>1.17</b>	<b>0.00</b>	<b>1.00</b>	<b>-0.53</b>	<b>19.76</b>	<b>78</b>	<b>11.5</b>	<b>1.8</b>	<b>43343</b>	-
First Eagle Global I	0.86	0.86	1.17	1.25	14.58	90	15.7	1.8	52725	Above Avg
<b>Cat: Global Allocation</b>	<b>1.14</b>	<b>0.00</b>	<b>1.07</b>	<b>-0.84</b>	<b>13.70</b>	<b>86</b>	<b>14.8</b>	<b>2.1</b>	<b>63594</b>	-
<b>Balanced/Hedged Equity</b>										
American Funds American Balanced F2	0.35	0.35	0.94	2.78	11.37	97	15.5	3.1	129386	Below Avg
Janus Henderson Balanced I	0.65	0.65	0.99	2.86	12.31	91	27.0	6.3	295422	Average
<b>Cat: Allocation--50% to 70% Equity</b>	<b>1.03</b>	<b>0.00</b>	<b>1.03</b>	<b>0.98</b>	<b>12.77</b>	<b>92</b>	<b>16.1</b>	<b>2.6</b>	<b>98403</b>	-
<b>Alternative</b>										
BlackRock Event Driven Equity Instl	1.32	1.32	0.20	1.08	4.70	60	28.0	3.5	14189	Average
<b>Cat: Event Driven</b>	<b>1.79</b>	<b>0.00</b>	<b>0.31</b>	<b>0.83</b>	<b>7.30</b>	<b>52</b>	<b>18.7</b>	<b>2.5</b>	<b>6866</b>	-
Calamos Market Neutral Income I	0.90	0.79	0.21	-0.28	4.03	85	21.6	4.1	215294	-
<b>Cat: Relative Value Arbitrage</b>	<b>1.53</b>	<b>0.00</b>	<b>0.22</b>	<b>1.87</b>	<b>5.61</b>	<b>54</b>	<b>-</b>	<b>-</b>	<b>961</b>	-
JPMorgan Hedged Equity 3 I	0.60	0.60	-	-	-	-	20.8	4.0	200689	-
JPMorgan Hedged Equity I	0.58	0.58	0.36	4.13	7.32	77	20.7	4.0	199957	Below Avg
<b>Cat: Options Trading</b>	<b>1.03</b>	<b>0.00</b>	<b>0.43</b>	<b>0.34</b>	<b>9.50</b>	<b>74</b>	<b>18.0</b>	<b>3.7</b>	<b>228053</b>	-
Cohen & Steers Global Realty I	0.90	0.90	0.93	-3.34	18.81	80	15.6	1.5	15319	Below Avg
<b>Cat: Global Real Estate</b>	<b>1.17</b>	<b>0.00</b>	<b>0.98</b>	<b>-5.89</b>	<b>19.63</b>	<b>81</b>	<b>12.3</b>	<b>1.3</b>	<b>11896</b>	-



See last page for important disclosure/disclaimer

**For financial professional and qualified plan sponsor use only**

Green = Fund added in Q2, Red = Fund removed in Q2

Orange = Fund position only held in VEBA

The Prospectus Adjusted Operating Expense Ratio is the percentage of fund assets paid for operating expenses and management fees. The expense ratio typically includes the following types of fees: accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency. The ratio does reflect fee waivers in effect during the time period, and does not include interest and dividends on borrowed securities. The expense ratio does not reflect the fund's brokerage costs or any investor sales charges.



The performance shown in the preceding pages represents past performance. Past performance is no guarantee of future results and current performance may be higher or lower than the performance shown above. Investment returns, yields and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Returns of less than a year are cumulative and are not annualized and are calculated from January 1 of the reporting year. Average annual total returns are annualized and assume the reinvestment of all distributions at net asset value and the deductions of fund expenses. Data is from sources deemed reliable, however no guarantee may be made to their accuracy.

The information contained herein was prepared by your Financial Advisor and does not represent an official statement of your account at the Firm (or other outside custodians, if applicable). Please refer to your monthly statement for a complete record of your transactions, holdings and balances.

The information and data contained in this report are from sources considered reliable, but their accuracy and completeness is not guaranteed. This report has been prepared for illustrative purposes only and is not intended to be used as a substitute for monthly transaction statements you receive on a regular basis from Morgan Stanley Smith Barney LLC. Please compare the data on this document carefully with your monthly statements to verify its accuracy. The Company strongly encourages you to consult with your own accountants or other advisors with respect to any tax questions.

Assets as of 6/30/2022

Data Source: Morningstar; as of 6/30/2022



# Morgan Stanley

THE KELLIHER CORBETT GROUP  
AT MORGAN STANLEY



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## Appendix

# **South Central Connecticut Regional Water Authority**

**South Central Connecticut Regional Water Authority Salaried  
Employees' Retirement Plan,  
South Central Connecticut Regional Water Authority Retirement Plan,  
and South Central Connecticut Regional Water Authority Retired  
Employees' Contributory Welfare Trust (VEBA)**

## **INVESTMENT POLICY STATEMENT**

**07/07/2021**



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**South Central Connecticut Regional Water Authority**  
**EXECUTIVE SUMMARY**

**Plans Names:** This Investment Policy Statement covers three separate portfolios for the South Central Connecticut Regional Water Authority (“the Plans”)

1. South Central Connecticut Regional Water Authority Salaried Employees’ Retirement Plan
2. South Central Connecticut Regional Water Authority Retirement Plan
3. South Central Connecticut Regional Water Authority Retired Employees’ Contributory Welfare Trust (VEBA)

**Plan Trustee:** Broadridge Matrix Trust Company

**Primary Investment Custodian:** Morgan Stanley & Co

**Pension Payroll Custodian:** Broadridge Matrix Trust Company

**Plan Administrator:** Regional Water Authority Board

**Plan Actuary:** The Angell Pension Group, Inc.

**Plan Advisor:** The Kelliher Corbett Group at Morgan Stanley

**Primary Objectives:**

- 1) Milestone goal of being fully funded, for the pension plans by end of Fiscal Year 2025, excluding ongoing plan service costs, subject to prevailing market conditions
- 2) To achieve a long-term rate of return that meets the assumed actuarial rate of return

**Target Rate of Return:** To meet the assumed actuarial rate of return

**Time Horizon:** Aligned with actuarial liabilities of the South Central Connecticut Regional Water Authority Pension plans and VEBA

**Asset Allocation:**

Asset Class	Minimum	Maximum	Preferred
Equities	45%	60%	55%
Fixed Income	20%	45%	30%
Alternative/Hedge/Balanced	5%	20%	15%

The maximum allowable allocation to illiquid securities is 10%  
When investing in alternative investments, the VEBA plan permits the use of liquid investments only

**Cash Limits:** The investor wishes to maintain sufficient liquidity to fund benefit obligations

**Restrictions:**

- Average bond quality rated Investment Grade or Better (excluding mutual fund/ETFs)
- Maximum Average Bond Maturity: 20 years
- Maximum Individual Bond Maturity: 30 years
- Maximum Portion of Portfolio in a Single Diversified Fund: 20%
- Maximum Portion of Portfolio in a Single Security/Individual Company: 3% (excluding U.S. Government Securities)

**Meeting Frequency:** Quarterly

## **INVESTMENT POLICY DISCUSSION**

### ***What Is an Investment Policy Statement?***

An Investment Policy Statement (IPS) describes the investment philosophies and investment management procedures to be utilized for the funds as further described below, as well as the long-term goals for the Plans:

1. South Central Connecticut Regional Water Authority Salaried Employees' Retirement Plan
2. South Central Connecticut Regional Water Authority Retirement Plan
3. South Central Connecticut Regional Water Authority Retired Employees' Contributory Welfare Trust (VEBA)

### ***The Need for an Investment Policy Statement***

The principle reason for developing an investment policy statement and for putting it in writing is to memorialize the strategy, goals, and objectives of the funds. Without an investment policy statement, in times of market turmoil, investors are often inclined to make impromptu investment decisions that are inconsistent with prudent investment management principles. This investment policy statement is intended to provide a well thought out framework from which sound investment decisions can be made.

### ***Steps to Take to Establish an Investment Policy Statement***

1. Assess your financial situation—identify your goals and needs.
2. Determine your tolerance for risk and your time horizon.
3. Set long-term investment objectives.
4. Identify any restrictions on the portfolio and its assets.
5. Determine the asset classes and appropriate mix (the “Asset Allocation”) to maximize the likelihood of achieving the investment objectives at the lowest level of risk.
6. Determine the investment methodology to be used with regards to investment (manager) selection, rebalancing, buy-sell disciplines, portfolio reviews and reporting, etc.
7. Implement the decisions.

### ***Definitions***

1. “Regional Water Authority Board” shall refer to the decision making body established to administer the portfolio.

2. “Pension and Benefit Committee” shall refer to the assigned board members responsible for making recommendations to the Regional Water Authority Board.
3. “Pension Review Committee” shall refer to a group of senior management, designated by the Authority, whose role is limited and excludes non-routine and discretionary matters.
4. “Investment Manager” shall mean any individual, or group of individuals, employed to manage the investments of all or part of the portfolio’s assets.
5. “Advisor” shall mean any individual, or organization employed to provide advisory services, including advice on investment objectives and/or asset allocation, manager search and performance monitoring.
6. “Fiduciary” shall mean any individual or group of individuals that exercise discretionary authority or control over the fund management or any authority or control over management, disposition or administration of portfolio assets.

***This Investment Policy Statement:***

- ❖ Establishes the Regional Water Authority Board’s expectations, objectives and guidelines in the investment of the portfolio's assets.
- ❖ Creates the framework for a well-diversified asset mix that can be expected to generate acceptable long-term returns at a level of risk suitable to the Regional Water Authority Board, including:
  - describing an appropriate risk posture for the investment of the portfolios
  - specifying the target asset allocation policy
  - establishing investment guidelines regarding the selection of investment managers, permissible securities and diversification of assets
  - specifying the criteria for evaluating the performance of the portfolio's assets
- ❖ Defines the responsibilities of the Pension and Benefit Committee, Regional Water Authority Board, Advisor and Investment Manager(s).
- ❖ Encourages effective communication between the Advisor, Investment Manager(s) and the Pension and Benefit Committee.

This investment policy statement is intended to be a summary of an investment philosophy and the procedures that provide guidance for the Regional Water Authority Board. The investment policies described in this investment policy statement should be dynamic. These policies should reflect the Regional Water Authority Board’s current status and philosophy regarding the investment of the portfolio. These policies will be reviewed and revised periodically to ensure they adequately reflect any changes related to the portfolio, to the Regional Water Authority Board or the capital markets.

It is understood that there can be no guarantee about the attainment of the goals or investment objectives outlined herein.

## **INTRODUCTION**

One of the important purposes of this Investment Policy Statement (IPS) is to establish a clear understanding as to the investment goals, objectives and management policies applicable to the Plans.

## **OVERVIEW COMMENTARY**

### ***Investor Information:***

Plan Names: South Central Connecticut Regional Water Authority Salaried Employees' Retirement Plan, South Central Connecticut Regional Water Authority Retirement Plan, and South Central Connecticut Regional Water Authority Retired Employees' Contributory Welfare Trust (VEBA).

90 Sargent Dr.  
New Haven, CT 06511

### ***Authorized Decision Makers***

The authorized decision maker(s) for the assets under this investment policy statement and their capacity is: Regional Water Authority Board, of which a majority must approve any decisions.

### ***Others who should receive a copy of this Investment Policy Statement:***

President of Organization  
Regional Water Authority Board  
Pension and Benefit Committee  
Members of the Pension Review Committee  
Plan Advisor  
Plan Actuary  
Plan Auditor

### ***Sponsor Entity:***

South Central Connecticut Regional Water Authority  
90 Sargent Drive  
New Haven, CT 06511

### ***Plan Trustee:***

Broadridge Matrix Trust Company  
717 17<sup>th</sup> Street, Suite 1300  
Denver, CO 80202

### ***Primary Investment Custodian:***

Morgan Stanley & Co.

***Pension Payroll Custodian:***

Broadridge Matrix Trust Company

***Plan Administrator:***

Regional Water Authority Board

***Plan Actuary:***

The Angell Pension Group, Inc.  
88 Boyd Avenue  
East Providence, RI 02914  
401-438-9250

***Plan Advisor:***

The Kelliher Corbett Group at Morgan Stanley  
141 Longwater Drive, Suite 102  
Norwell, MA 02061  
877-535-4437

## **OVERVIEW**

## **INVESTOR CIRCUMSTANCES**

The South Central Connecticut Regional Water Authority established the Plans for the benefit of its employees. The Plans are intended to provide eligible employees with a vehicle to receive benefits for their retirement. The Plans are qualified employee benefit plans intended to comply with all applicable federal laws and regulations, including the Internal Revenue Code of 1986, as amended.

## **INVESTMENT OBJECTIVES**

The investment objectives addressed in this investment policy statement represent the portfolio's overall investment objectives.

The Regional Water Authority Board's objectives for the investment portfolios are:

- 1) Milestone goal is to be fully funded, for the pension plans, by the end of Fiscal Year 2025, excluding ongoing plan service costs, subject to prevailing market conditions.
- 2) To achieve a long-term rate of return that meets the assumed actuarial rate of return.

## **TIME HORIZON**

It is the intent that the investment horizon for this portfolio is aligned with the actuarial liabilities of the Plans.

## **ANTICIPATED WITHDRAWALS**

Withdrawals will begin immediately.

For the withdrawals beginning immediately, the frequency with which they will occur will be as needed to fund benefit obligations.

Capital values fluctuate, especially so over shorter periods of time. The investor recognizes that the possibility of capital loss does exist. However, historical data suggests that the risk of principal loss can be minimized if the long-term investment mix employed under this investment policy statement is maintained over a holding period of at least five years.

## **TAX POLICY**

Tax minimization is not a concern for this investment portfolio.

## **RISK TOLERANCE**

Investment theory and historical capital market return data suggest that, over long periods of time, there is a relationship between the level of investment risk assumed and the level of return that can be expected. In general, in order to attain higher returns one must accept higher risk (e.g. volatility of return).

Given this relationship between risk and return, a fundamental step in determining the investment policy statement for the portfolio is the determination of the amount of risk the Regional Water Authority Board can tolerate.

A comfort level with investment risk influences how aggressively or conservatively a portfolio can be invested. Like a scale, risk needs to be balanced with the need for returns to achieve the investment goals. The Regional Water Authority Board desires long-term investment performance sufficient to meet the objectives. The Regional Water Authority Board understands that to achieve such performance the portfolio may experience periods of decline. The Regional Water Authority Board further understands that in a severe market, the potential recovery period could be extensive.

Although the Regional Water Authority Board prefers to limit the portfolio's volatility, they understand there will be fluctuations in the portfolios. The total portfolios should be less volatile than the global equity markets.

## **ASSET ALLOCATION**

Academic research offers considerable evidence that the asset allocation decision far outweighs security selection and market timing in its impact on portfolio variability and performance. After reviewing the long-term performance and risk characteristics of various asset classes and balancing the risk and rewards of market behavior, the following asset classes were selected to achieve the objectives of the Plans' portfolios.

<b>Asset Class</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Preferred</b>
Equities	45%	60%	55%
Fixed Income	20%	45%	30%
Alternative/Asset Allocation	5%	20%	15%

The maximum allowable allocation of the aggregate portfolio to illiquid securities is 10%. When investing in alternative investments, the VEBA plan permits the use of liquid investments only.

### ***Portfolio Returns and Volatility***

The Regional Water Authority Board' willingness to accept risk and their expectation for investment growth have a direct bearing on the rate of return objective for this portfolio.

It should be recognized that the portfolio will invest in a variety of securities and that the actual weighting of these securities can and will vary. It is also important to note that future returns of the securities with the portfolio and the portfolio itself can be expected to vary from the historical returns.

The portfolio's historical rate of return is not a guarantee of future investment returns, nor an indication of expectation regarding future results. Future returns could differ significantly and capital loss is possible. This investment policy statement shall not be construed as offering a guarantee.

### ***Updated Allocations***

Over time, it may be desirable to amend the basic allocation. Changes to asset allocation targets and ranges must be approved by resolution(s) of the Regional Water Authority Board. When such changes are made, updates will be considered part of this investment policy statement.

### ***Rebalancing Procedures***

From time to time, market conditions may cause the portfolio's investment in various asset classes to vary from the approved allocation. To remain consistent with the asset allocation guidelines established by this investment policy statement, the Advisor shall periodically review the portfolio and each asset class in which the portfolio is invested.

This portfolio will be rebalanced periodically as follows: when the portfolio exceeds the minimum or maximum constraints (reviewed quarterly), or as determined by the Advisor.

### ***Adjustment in the Target Allocation***



Modifications to the approved allocation may be needed from time to time for a variety of reasons. When such a change to the approved allocation needs to occur, it shall only be made via an Authority resolution.

## **FREQUENCY OF INVESTMENT POLICY STATEMENT REVIEW**

The Regional Water Authority Board recognizes that all investments go through cycles and therefore there will be periods of time in which the investment objectives are not met or when specific managers fail to meet their expected performance expectations. The Regional Water Authority Board accepts the principle that, in the absence of specific circumstances requiring immediate action, patience and a longer-term perspective will be employed when evaluating investment performance.

The Advisor and Pension and Benefit Committee will meet at least bi-annually to review and update this investment policy statement.

## **LIQUIDITY**

Investor's liquidity requirements are: an amount sufficient to fund benefit obligations

The length for which these needs apply is described as: aligned with the actuarial liabilities of the Plans.

## **DIVERSIFICATION AND INVESTMENT CONSTRAINTS**

*Investment of the Plans shall be limited to securities in the following categories:*

### **Investment Types**

Individual Stocks or Bonds  
Open-ended Mutual Funds  
Closed-end Mutual Funds  
Exchange Traded Funds  
Managed Separate Accounts  
Investment Partnerships (liquid only permitted in VEBA)  
Hedge Funds/Hedge Fund of Funds (liquid only permitted in VEBA)  
Private Equity/Private Equity Funds/Private Equity Fund of Funds

### ***Portfolio Limitations and Restrictions***

The portfolio's average bond rating must be investment grade or better (excluding mutual fund/ETFs)

Maximum average bond maturity: 20 year(s).

Maximum individual bond maturity: 30 year(s).

Maximum portion of portfolio in a single diversified fund: 20%.

Maximum portion of portfolio in a single security/individual company: 3% (excluding U.S. government securities)

## SELECTION/RETENTION CRITERIA FOR INVESTMENTS

### *Investment Management Selection*

Investment managers (including mutual funds, separate account managers and limited partnership sponsors) shall be chosen using the following criteria:

- ❖ Past performance, considered relative to other investments having the same investment objective. Consideration shall be given to both performance rankings over various time frames and consistency of performance
- ❖ The historical volatility and downside risk of each proposed investment
- ❖ The likelihood of future investment success, relative to other opportunities
- ❖ Length of time the fund/manager has been in existence and length of time it has been under the direction of the current manager(s) and whether or not there have been material changes in the manager's organization and personnel
- ❖ Costs relative to other funds with like objectives and investment styles
- ❖ The manager's adherence to investment style and size objectives
- ❖ Size of the proposed fund
- ❖ How well each proposed investment complements other assets in the portfolio
- ❖ The current economic environment

## INVESTMENT MONITORING AND CONTROL PROCEDURES

### *Benchmarks*

The following benchmarks will be used to evaluate performance:

<u>Asset Class</u>	<u>Index</u>
Broad US Equities	Russell 3000
US Large Cap Equities	S&P 500
US Mid-Cap Equities	Russell Mid-Cap
US Small Cap Equities	Russell 2000
Broad International Equities	MSCI ACWI ex. USA
Developed International Equities	MSCI EAFE
Emerging Market Equities	MSCI Emerging Markets
Domestic Fixed Income	BBgBarc US Aggregate Bond/BBgBarc US Gov't/Credit Interm.
Global Fixed Income	FTSE World Global Bond Index
Hedge Funds	HFRI Hedge Fund of Funds Index
Global Real Estate	DJ Global World Real Estate
Real Assets	Morningstar US Real Assets
Commodities	S&P GSCI
Cash	BC Treasury Bill 1-3 Month

## ***Reports***

- ❖ The investment custodian shall provide South Central Connecticut Regional Water Authority management with monthly statements for each account held by the Plans and subject to this investment policy statement. Such reports shall show values for each asset and all transactions affecting assets within the portfolio, including additions and withdrawals.
- ❖ The Advisor shall provide Pension and Benefit Committee the following management reports on a periodic basis:
  - Portfolio performance results over varying time periods
  - Performance results of comparative benchmarks, including the current actuarial assumed rate of return, over varying time periods
  - Review of current asset allocation versus policy guidelines
  - Recommendations to add cost effective alternatives
  - Recommendations to reduce risk while maintaining return
  - Recommendations for changes of the above

## ***Meetings and Communication between Pension and Benefit Committee and Advisor***

As a matter of course, the Advisor shall keep The Pension and Benefit Committee apprised of any material changes in the Advisor's outlook, recommended investment policy, and tactics for performing duties and achieving policy objectives.

In addition, Advisor shall meet with Pension and Benefit Committee approximately quarterly to review and explain the portfolio's investment results and any related issues. Advisor shall also be available on a reasonable basis for telephone and email communication as needed.

## **DUTIES AND RESPONSIBILITIES**

### ***The Advisor***

The Advisor is a Registered Advisor under Morgan Stanley Smith Barney LLC and shall act as the advisor to the Regional Water Authority Board until the Regional Water Authority Board decides otherwise.

Morgan Stanley Smith Barney LLC places paramount importance on the delivery of objective, unbiased investment advice. This commitment is reinforced in all business practices, and Morgan Stanley Smith Barney LLC culture and values demand unabashed client advocacy.

While it is inevitable that conflicts may exist within a firm of Morgan Stanley Smith Barney LLC's size and breadth, there are policies and procedures in place to protect against the eventuality that such

conflicts will impact the independence of the advisory process. Morgan Stanley Smith Barney LLC fully discloses all material conflicts of interest in a Form ADV Brochure.

Advisor shall be responsible for:

- ❖ Assisting in the development and periodic review of the investment policy statement.
- ❖ Designing and implementing an appropriate asset allocation plan consistent with the investment objectives, time horizon, risk profile, guidelines and constraints outlined in this statement.
- ❖ Advising the Pension and Benefit Committee about the selection of and the allocation of asset categories.
- ❖ Identifying specific assets and investment managers within each asset category.
- ❖ Providing “due diligence”, or research, on the Investment Manager(s).
- ❖ Monitoring the performance of all selected assets the advisor consults to for the Plans.
- ❖ Recommending changes to this investment policy statement.
- ❖ Periodically reviewing the suitability of the investments for the Pension and Benefit Committee.
- ❖ Being available to meet with the Pension and Benefit Committee at least quarterly.
- ❖ Being available at such other times within reason at the Pension and Benefit Committee' request.
- ❖ Preparing and presenting appropriate reports.

### ***Discretion and Title***

- ❖ Advisor will have discretionary control to invest the Plans’ funds within the parameters of this investment policy statement.
- ❖ Advisor shall have no authority to withdraw funds from the Plans, except to cover payment of previously agreed to fees or at investor's and/or Trustee’s specific direction.
- ❖ Advisor may not change the Plans’ investment policy statement, including the targeted asset allocation, without Regional Water Authority Board's prior approval.

### ***The Regional Water Authority Board***

Regional Water Authority Board shall be responsible for:

- ❖ The oversight of the portfolios.
- ❖ Defining and authorizing the investment objectives and policies of the portfolios.
- ❖ Authorizing any changes as they pertain to this investment policy statement. Such changes must be approved by resolution(s) of the Regional Water Authority Board.
- ❖ Directing Advisor to make changes in investment policy and to oversee and to approve or disapprove Advisor's recommendations with regards to policy, guidelines, and objectives on a timely basis.

- ❖ Providing Advisor with all relevant information on the Plans' financial conditions and risk tolerances and shall notify Advisor promptly of any changes to this information.
- ❖ Being responsible for executing the investment policy statement.
- ❖ Compliance with South Central Connecticut Regional Water Authority's Code of Ethics

### ***The Pension Review Committee***

Pension Review Committee is authorized and empowered to act as management's Committee, with instructions to defer final action on non-routine or discretionary matters until they have consulted with the Pension and Benefits Committee.

### ***The Pension and Benefit Committee***

Pension and Benefit Committee shall have the following duties and responsibilities:

- ❖ Review the funding policy and investment policy and objectives for the Plans based upon the recommendations of the Advisor.
- ❖ Monitor asset management and investment performance of the Plans through oversight of the Advisor.
- ❖ Monitor actuarial assumptions used to estimate the projected liabilities of the Plans.
- ❖ Make recommendations to the Regional Water Authority Board for changes and amendments to the Plans.
- ❖ Monitor the general administration and maintenance of the Plans through collaborative oversight with management.
- ❖ Perform any other duties or responsibilities delegated to the Committee by the Regional Water Authority Board

### ***The Plan Administrator shall be responsible for:***

1. Keeping the Plans' documents in compliance with current laws
2. Providing reports to all participants
3. Preparing all required tax and regulatory returns and documents

### ***The Investment Manager(s)***

Each Investment Manager will have full discretion to make all investment decisions for assets placed under its jurisdiction, while observing and operating within all policies, guidelines, constraints, and philosophies as outlined in this statement. Specific responsibilities of the Investment Manager(s) include:

- ❖ Discretionary investment management including decisions to buy, sell, or hold individual securities, and to alter asset allocation within the guidelines established in this statement.
- ❖ Reporting, on a timely basis, periodic investment performance results.
- ❖ Communicating any major changes to economic outlook, investment strategy, or any other factors, which affect implementation of investment process, or the investment objective progress of the Fund's investment management.
- ❖ Informing the Advisor regarding any qualitative change to investment management organization: Examples include changes in portfolio management personnel, ownership structure, investment policy statement, etc.
- ❖ Voting proxies on behalf of the Plans, and being in compliance with U.S. Securities and Exchange Commission requirements.

### ***Proxy Voting***

A member of the Pension Review Committee is empowered to exercise proxy-voting rights.

## **ADOPTION**

Adopted by the below signed:

Date: \_\_\_\_\_

David J. Borowy, Chairperson:  
\_\_\_\_\_

SCCT Regional Water Authority - Salary Plan

Asset Allocation Matrix

As of 6/30/2022

	IPS Target %	Target \$	Target %	% of Cat	Actual \$	Actual %	% of Cat	+/- \$	+/- %
Fixed Income		\$ 13,123,728	33.25%	100.00%	\$ 13,413,931	33.99%	100.00%	\$ (290,203)	-0.74%
Cash		\$ 296,024	0.75%	2.26%	\$ 751,265	1.90%	5.60%	\$ (455,241)	-1.15%
Individual Bond Ladder		\$ 6,512,527	16.50%	49.62%	\$ 6,367,157	16.13%	47.47%	\$ 145,370	0.37%
American Funds Bond Fund of Amer		\$ 1,184,096	3.00%	9.02%	\$ 1,079,816	2.74%	8.05%	\$ 104,279	0.26%
DoubleLine Core Fixed Income		\$ 592,048	1.50%	4.51%	\$ 589,984	1.49%	4.40%	\$ 2,064	0.01%
DoubleLine Total Return		\$ 592,048	1.50%	4.51%	\$ 585,327	1.48%	4.36%	\$ 6,720	0.02%
<b>Total Core</b>	30.00%			<b>78.95%</b>			<b>78.81%</b>		
PIMCO Low Duration (1/2 Core)		\$ 1,184,096	3.00%	9.02%	\$ 1,216,157	3.08%	9.07%	\$ (32,062)	-0.08%
PIMCO Income I2 (1/2 Core)		\$ -	0.00%	0.00%	\$ -	0.00%	0.00%	\$ -	0.00%
Loomis Sayles Core Plus (1/2 Core)		\$ 1,184,096	3.00%	9.02%	\$ 1,179,183	2.99%	8.79%	\$ 4,913	0.01%
American Funds Strategic Bond		\$ 1,578,794	4.00%	12.03%	\$ 1,645,042	4.17%	12.26%	\$ (66,247)	-0.17%
<b>Total Plus</b>				<b>21.05%</b>			<b>21.19%</b>		
US Equity		\$ 13,913,125	35.25%	100.00%	\$ 13,583,369	34.41%	100.00%	\$ 329,756	0.84%
Columbia Dividend Income		\$ 2,072,168	5.25%	14.89%	\$ 2,150,977	5.45%	15.84%	\$ (78,810)	-0.20%
MFS Massachusetts Investors Gr Stk		\$ 1,776,144	4.50%	12.77%	\$ 1,711,433	4.34%	12.60%	\$ 64,711	0.16%
<b>Total Active</b>				<b>27.66%</b>			<b>28.43%</b>		
Vanguard Value ETF		\$ 2,762,890	7.00%	19.86%	\$ 2,927,736	7.42%	21.55%	\$ (164,846)	-0.42%
Invesco S&P 500 Equal Weight		\$ 1,776,144	4.50%	12.77%	\$ 1,818,817	4.61%	13.39%	\$ (42,673)	-0.11%
Vanguard Total Stk Mkt ETF		\$ 3,552,287	9.00%	25.53%	\$ 3,234,833	8.20%	23.81%	\$ 317,454	0.80%
Vanguard Russell 1000 Growth Index		\$ 1,184,096	3.00%	8.51%	\$ 1,004,064	2.54%	7.39%	\$ 180,032	0.46%
Schwab Mid Cap ETF		\$ 789,397	2.00%	5.67%	\$ 735,509	1.86%	5.41%	\$ 53,888	0.14%
<b>Total Passive</b>	55.00%			<b>72.34%</b>			<b>71.57%</b>		
Global		\$ 1,578,794	4.00%	100.00%	\$ 1,654,663	4.19%	100.00%	\$ (75,869)	-0.19%
First Eagle Global		\$ 1,578,794	4.00%	100.00%	\$ 1,654,663	4.19%	100.00%	\$ (75,869)	-0.19%
Int'l Equity		\$ 4,933,732	12.50%	100.00%	\$ 4,235,582	10.73%	100.00%	\$ 698,151	1.77%
American Funds EuroPacific Gr		\$ 1,578,794	4.00%	32.00%	\$ 1,350,109	3.42%	31.88%	\$ 228,686	0.58%
MFS Intl Intrinsic Value		\$ 1,578,794	4.00%	32.00%	\$ 1,345,471	3.41%	31.77%	\$ 233,323	0.59%
Invesco Developing Markets		\$ 789,397	2.00%	16.00%	\$ 634,242	1.61%	14.97%	\$ 155,155	0.39%
<b>Total Active</b>				<b>80.00%</b>			<b>78.62%</b>		
Vanguard FTSE Developed Markets		\$ 986,746	2.50%	20.00%	\$ 905,760	2.29%	21.38%	\$ 80,986	0.21%
<b>Total Passive</b>				<b>20.00%</b>			<b>21.38%</b>		
Balanced		\$ 3,552,287	9.00%	100.00%	\$ 3,586,245	9.09%	100.00%	\$ (33,957)	-0.09%
American Funds American Balanced		\$ 1,776,144	4.50%	50.00%	\$ 1,816,133	4.60%	50.64%	\$ (39,989)	-0.10%
Janus Henderson Balanced		\$ 1,776,144	4.50%	50.00%	\$ 1,770,112	4.48%	49.36%	\$ 6,031	0.02%
Alternative		\$ 2,368,192	6.00%	100.00%	\$ 2,996,069	7.59%	100.00%	\$ (627,877)	-1.59%
BlackRock Event Driven Equity		\$ 592,048	1.50%	25.00%	\$ 671,513	1.70%	22.41%	\$ (79,466)	-0.20%
Calamos Market Neutral	15.00%	\$ 592,048	1.50%	25.00%	\$ 636,399	1.61%	21.24%	\$ (44,351)	-0.11%
Cohen & Steers Global Realty		\$ 592,048	1.50%	25.00%	\$ 563,445	1.43%	18.81%	\$ 28,603	0.07%
JPMorgan Hedged Equity		\$ -	0.00%	0.00%	\$ 47,875	0.12%	1.60%	\$ (47,875)	-0.12%
JPMorgan Hedged Equity 3		\$ 592,048	1.50%	25.00%	\$ 1,076,837	2.73%	35.94%	\$ (484,789)	-1.23%
<b>Total</b>	<b>100.00%</b>	<b>\$ 39,469,859</b>	<b>100.00%</b>		<b>\$ 39,469,859</b>	<b>100.00%</b>		<b>\$ -</b>	<b>0.00%</b>

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Green = Fund added in Q2, Red = Fund removed in Q2



SCCT Regional Water Authority - Union Plan

Asset Allocation Matrix

As of 6/30/2022

	IPS Target %	Target \$	Target %	% of Cat	Actual \$	Actual %	% of Cat	+/- \$	+/- %
Fixed Income		\$ 7,886,937	33.25%	100.00%	\$ 8,060,759	33.98%	100.00%	\$ (173,822)	-0.73%
Cash		\$ 177,901	0.75%	2.26%	\$ 313,754	1.32%	3.89%	\$ (135,853)	-0.57%
Individual Bond Ladder		\$ 3,913,819	16.50%	49.62%	\$ 3,995,957	16.85%	49.57%	\$ (82,138)	-0.35%
American Funds Bond Fund of Amer		\$ 711,603	3.00%	9.02%	\$ 639,769	2.70%	7.94%	\$ 71,834	0.30%
DoubleLine Core Fixed Income		\$ 355,802	1.50%	4.51%	\$ 344,644	1.45%	4.28%	\$ 11,158	0.05%
DoubleLine Total Return		\$ 355,802	1.50%	4.51%	\$ 341,924	1.44%	4.24%	\$ 13,878	0.06%
<b>Total Core</b>	30.00%			<b>78.95%</b>			<b>78.65%</b>		
PIMCO Low Duration (1/2 Core)		\$ 711,603	3.00%	9.02%	\$ 716,831	3.02%	8.89%	\$ (5,228)	-0.02%
PIMCO Income I2 (1/2 Core)		\$ -	0.00%	0.00%	\$ -	0.00%	0.00%	\$ -	0.00%
Loomis Sayles Core Plus (1/2 Core)		\$ 711,603	3.00%	9.02%	\$ 690,134	2.91%	8.56%	\$ 21,470	0.09%
American Funds Strategic Bond		\$ 948,804	4.00%	12.03%	\$ 1,017,747	4.29%	12.63%	\$ (68,942)	-0.29%
<b>Total Plus</b>				<b>21.05%</b>			<b>21.35%</b>		
US Equity		\$ 8,361,340	35.25%	100.00%	\$ 8,329,873	35.12%	100.00%	\$ 31,467	0.13%
Columbia Dividend Income		\$ 1,245,306	5.25%	14.89%	\$ 1,329,858	5.61%	15.96%	\$ (84,552)	-0.36%
MFS Massachusetts Investors Gr Stk		\$ 1,067,405	4.50%	12.77%	\$ 1,046,102	4.41%	12.56%	\$ 21,303	0.09%
<b>Total Active</b>				<b>27.66%</b>			<b>28.52%</b>		
Vanguard Value ETF		\$ 1,660,408	7.00%	19.86%	\$ 1,780,380	7.51%	21.37%	\$ (119,972)	-0.51%
Invesco S&P 500 Equal Weight		\$ 1,067,405	4.50%	12.77%	\$ 1,114,109	4.70%	13.37%	\$ (46,704)	-0.20%
Vanguard Total Stk Mkt ETF		\$ 2,134,810	9.00%	25.53%	\$ 1,989,941	8.39%	23.89%	\$ 144,869	0.61%
Vanguard Russell 1000 Growth Index		\$ 711,603	3.00%	8.51%	\$ 616,258	2.60%	7.40%	\$ 95,345	0.40%
Schwab Mid Cap ETF		\$ 474,402	2.00%	5.67%	\$ 453,224	1.91%	5.44%	\$ 21,178	0.09%
<b>Total Passive</b>	55.00%			<b>72.34%</b>			<b>71.48%</b>		
Global		\$ 948,804	4.00%	100.00%	\$ 1,021,555	4.31%	100.00%	\$ (72,751)	-0.31%
First Eagle Global		\$ 948,804	4.00%	100.00%	\$ 1,021,555	4.31%	100.00%	\$ (72,751)	-0.31%
Int'l Equity		\$ 2,965,014	12.50%	100.00%	\$ 2,583,082	10.89%	100.00%	\$ 381,932	1.61%
American Funds EuroPacific Gr		\$ 948,804	4.00%	32.00%	\$ 822,077	3.47%	31.83%	\$ 126,727	0.53%
MFS Intl Intrinsic Value		\$ 948,804	4.00%	32.00%	\$ 827,043	3.49%	32.02%	\$ 121,762	0.51%
Invesco Developing Markets		\$ 474,402	2.00%	16.00%	\$ 383,162	1.62%	14.83%	\$ 91,240	0.38%
<b>Total Active</b>				<b>80.00%</b>			<b>78.68%</b>		
Vanguard FTSE Developed Markets		\$ 593,003	2.50%	20.00%	\$ 550,800	2.32%	21.32%	\$ 42,203	0.18%
<b>Total Passive</b>				<b>20.00%</b>			<b>21.32%</b>		
Balanced		\$ 2,134,810	9.00%	100.00%	\$ 2,203,860	9.29%	100.00%	\$ (69,050)	-0.29%
American Funds American Balanced		\$ 1,067,405	4.50%	50.00%	\$ 1,115,520	4.70%	50.62%	\$ (48,115)	-0.20%
Janus Henderson Balanced		\$ 1,067,405	4.50%	50.00%	\$ 1,088,340	4.59%	49.38%	\$ (20,934)	-0.09%
Alternative		\$ 1,423,207	6.00%	100.00%	\$ 1,520,984	6.41%	100.00%	\$ (97,777)	-0.41%
BlackRock Event Driven Equity		\$ 355,802	1.50%	25.00%	\$ 410,291	1.73%	26.98%	\$ (54,489)	-0.23%
Calamos Market Neutral	15.00%	\$ 355,802	1.50%	25.00%	\$ 388,273	1.64%	25.53%	\$ (32,471)	-0.14%
Cohen & Steers Global Realty		\$ 355,802	1.50%	25.00%	\$ 343,386	1.45%	22.58%	\$ 12,416	0.05%
JPMorgan Hedged Equity		\$ -	0.00%	0.00%	\$ 29,034	0.12%	1.91%	\$ (29,034)	-0.12%
JPMorgan Hedged Equity 3		\$ 355,802	1.50%	25.00%	\$ 350,000	1.48%	23.01%	\$ 5,802	0.02%
<b>Total</b>	<b>100.00%</b>	<b>\$ 23,720,112</b>	<b>100.00%</b>		<b>\$ 23,720,112</b>	<b>100.00%</b>		<b>\$ (0)</b>	<b>0.00%</b>

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Green = Fund added in Q2, Red = Fund removed in Q2



SCCT Regional Water Authority - VEBA Plan

Asset Allocation Matrix

As of 6/30/2022

	IPS Target %	Target \$	Target %	% of Cat	Actual \$	Actual %	% of Cat	+/- \$	+/- %
Fixed Income		\$ 2,766,937	33.25%	100.00%	\$ 2,848,119	34.23%	100.00%	\$ (81,183)	-0.98%
Cash/T-Bills		\$ 62,412	0.75%	2.26%	\$ 124,202	1.49%	4.36%	\$ (61,790)	-0.74%
Guggenheim Limited Duration		\$ 291,256	3.50%	10.53%	\$ 245,274	2.95%	8.61%	\$ 45,982	0.55%
Vanguard Short-Term Bond ETF		\$ 249,648	3.00%	9.02%	\$ 276,775	3.33%	9.72%	\$ (27,127)	-0.33%
American Funds Bond Fund of Amer		\$ 499,297	6.00%	18.05%	\$ 554,911	6.67%	19.48%	\$ (55,615)	-0.67%
Pioneer Bond Y		\$ -	0.00%	0.00%	\$ -	0.00%	0.00%	\$ -	0.00%
DoubleLine Core Fixed Income		\$ 291,256	3.50%	10.53%	\$ 278,936	3.35%	9.79%	\$ 12,321	0.15%
DoubleLine Total Return		\$ 291,256	3.50%	10.53%	\$ 276,734	3.33%	9.72%	\$ 14,522	0.17%
Janus Henderson Flexible Bond	30.00%	\$ 249,648	3.00%	9.02%	\$ 225,785	2.71%	7.93%	\$ 23,864	0.29%
<b>Total Core</b>				<b>78.95%</b>			<b>78.69%</b>		
PIMCO Low Duration (1/2 Core)		\$ 249,648	3.00%	9.02%	\$ 262,151	3.15%	9.20%	\$ (12,502)	-0.15%
PIMCO Income P (1/2 Core)		\$ -	0.00%	0.00%	\$ -	0.00%	0.00%	\$ -	0.00%
Loomis Sayles Core Plus (1/2 Core)		\$ 249,648	3.00%	9.02%	\$ 254,917	3.06%	8.95%	\$ (5,269)	-0.06%
American Funds Stratetgic Bond		\$ 332,865	4.00%	12.03%	\$ 348,434	4.19%	12.23%	\$ (15,569)	-0.19%
<b>Total Plus</b>				<b>21.05%</b>			<b>21.31%</b>		
US Equity		\$ 2,933,369	35.25%	100.00%	\$ 2,945,187	35.39%	100.00%	\$ (11,818)	-0.14%
Columbia Dividend Income		\$ 436,885	5.25%	14.89%	\$ 479,798	5.77%	16.29%	\$ (42,913)	-0.52%
MFS Massachusetts Investors Gr Stk		\$ 374,473	4.50%	12.77%	\$ 377,122	4.53%	12.80%	\$ (2,650)	-0.03%
<b>Total Active</b>				<b>27.66%</b>			<b>29.10%</b>		
Vanguard Value ETF		\$ 582,513	7.00%	19.86%	\$ 619,836	7.45%	21.05%	\$ (37,323)	-0.45%
Invesco S&P 500 Equal Weight		\$ 374,473	4.50%	12.77%	\$ 389,267	4.68%	13.22%	\$ (14,794)	-0.18%
Vanguard Total Stk Mkt ETF		\$ 748,945	9.00%	25.53%	\$ 700,723	8.42%	23.79%	\$ 48,222	0.58%
Vanguard Russell 1000 Growth Index		\$ 249,648	3.00%	8.51%	\$ 227,889	2.74%	7.74%	\$ 21,760	0.26%
Schwab Mid Cap ETF		\$ 166,432	2.00%	5.67%	\$ 150,552	1.81%	5.11%	\$ 15,880	0.19%
<b>Total Passive</b>				<b>72.34%</b>			<b>70.90%</b>		
Global	55.00%	\$ 332,865	4.00%	100.00%	\$ 343,116	4.12%	100.00%	\$ (10,252)	-0.12%
First Eagle Global		\$ 332,865	4.00%	100.00%	\$ 343,116	4.12%	100.00%	\$ (10,252)	-0.12%
Int'l Equity		\$ 1,040,202	12.50%	100.00%	\$ 884,802	10.63%	100.00%	\$ 155,400	1.87%
American Funds EuroPacific Gr		\$ 332,865	4.00%	32.00%	\$ 277,734	3.34%	31.39%	\$ 55,130	0.66%
MFS Intl Intrinsic Value		\$ 332,865	4.00%	32.00%	\$ 298,621	3.59%	33.75%	\$ 34,244	0.41%
Invesco Developing Markets		\$ 166,432	2.00%	16.00%	\$ 124,847	1.50%	14.11%	\$ 41,585	0.50%
<b>Total Active</b>				<b>80.00%</b>			<b>79.25%</b>		
Vanguard FTSE Developed Markets		\$ 208,040	2.50%	20.00%	\$ 183,600	2.21%	20.75%	\$ 24,440	0.29%
<b>Total Passive</b>				<b>20.00%</b>			<b>20.75%</b>		
Balanced		\$ 748,945	9.00%	100.00%	\$ 774,238	9.30%	100.00%	\$ (25,293)	-0.30%
American Funds American Balanced		\$ 374,473	4.50%	50.00%	\$ 387,502	4.66%	50.05%	\$ (13,029)	-0.16%
Janus Henderson Balanced		\$ 374,473	4.50%	50.00%	\$ 386,736	4.65%	49.95%	\$ (12,264)	-0.15%
Alternative		\$ 499,297	6.00%	100.00%	\$ 526,151	6.32%	100.00%	\$ (26,854)	-0.32%
BlackRock Event Driven Equity	15.00%	\$ 124,824	1.50%	25.00%	\$ 142,339	1.71%	27.05%	\$ (17,515)	-0.21%
Calamos Market Neutral		\$ 124,824	1.50%	25.00%	\$ 135,914	1.63%	25.83%	\$ (11,090)	-0.13%
Cohen & Steers Global Realty		\$ 124,824	1.50%	25.00%	\$ 116,342	1.40%	22.11%	\$ 8,482	0.10%
JPMorgan Hedged Equity		\$ -	0.00%	0.00%	\$ 13,156	0.16%	2.50%	\$ (13,156)	-0.16%
JPMorgan Hedged Equity 3		\$ 124,824	1.50%	25.00%	\$ 118,400	1.42%	22.50%	\$ 6,424	0.08%
<b>Total</b>	<b>100.00%</b>	<b>\$ 8,321,614</b>	<b>100.00%</b>		<b>\$ 8,321,614</b>	<b>100.00%</b>		<b>\$ (0)</b>	<b>0.00%</b>

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Green = Fund added in Q2, Red = Fund removed in Q2

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# Glossary of Terms

**Accrued Income:** The dividends and interest earned but not yet received at both the beginning and end of each reporting period.

**Advisory Account:** An investment advisory relationship is designed for clients who prefer that their Financial Advisor act as an investment consultant, with their assets invested in a mutual fund asset allocation program or in a Advisory account that is directed by a professional money manager either at Morgan Stanley or at an external money management firm. There are important differences in your relationship with your Financial Advisor and Morgan Stanley in brokerage accounts and in advisory accounts. Additional information about these differences is available at <http://www.morganstanley.com/ourcommitment>

**Annualized Standard Deviation:** A measure of volatility, it quantifies how much a series of numbers, such as portfolio returns, deviates around its average. Since it measures the portfolio's investment volatility, the account's gross rate of return is used.

**Brokerage Account:** In a brokerage relationship, your Financial Advisor will work with you to facilitate the execution of securities transactions on your behalf. Your Financial Advisor also provides investor education and professional, personalized information about financial products and services in connection with these brokerage services. You can choose how you want to pay for these services and you will receive the same services regardless of which pricing option you choose. There are important differences in your relationship with your Financial Advisor and Morgan Stanley in brokerage accounts and in advisory accounts. Additional information about these differences is available at <http://www.morganstanley.com/ourcommitment>

**Comparative Indices:** A complete description of the comparative indices included in this Performance Report is available upon request.

**Dollar-Weighted Return:** Rate of return calculation methodology that reflects both the timing and magnitude of external contributions and withdrawals and measures the portfolio's performance. The return for each month is calculated as the average return on all dollars invested.

**Gross Return:** The return of the portfolio before the deduction of fees/commissions and other expenses.

**Net Contributions/Withdrawals:** The total value of capital contributed to or withdrawn from the account during the reporting period. The dollar amount represented by contribution or withdrawal transactions is excluded from the calculation of Portfolio Appreciation.

**Net Invested Capital:** The sum of the Total Beginning Value and the net of additional capital Contributions and Withdrawals for each reporting period.

**Net Portfolio Appreciation:** The total dollar gain/loss of the portfolio for each reporting period. The Net Portfolio Appreciation includes the impact of income received and is calculated as the difference between Net Invested Capital and Total Ending Value.

**Net Return:** The return of the portfolio for the period reduced by the amount of fees/commissions paid. The net of fees return is calculated gross of certain custody fees.

**Time-Weighted Return:** Rate of return calculation methodology that eliminates the impact of external contributions and withdrawals to the portfolio value and measures the manager's performance. Portfolio returns are calculated at least monthly and individual monthly returns are geometrically linked to calculate total cumulative return.

**Total Beginning Value:** The total market value of the portfolio, valued on a trade date basis, at the beginning of each reporting period. The Total Beginning Value includes Accrued Income.

**Total Ending Value:** The total market value of the portfolio, valued on a trade date basis, at the end of each reporting period. The Total Ending Value includes Accrued Income.

**Weighted Average:** The average in which each yield to be averaged is assigned a weight. These weightings determine the relative importance or frequency of each yield on the average.

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The **Global Investment Committee** is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

The GIC Asset Allocation Models are not available to be directly implemented as part of an investment advisory service and should not be regarded as a recommendation of any Morgan Stanley investment advisory service. The GIC Asset Allocation Models do not represent actual trading or any type of account or any type of investment strategies and none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees, fund expenses) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models which, when compounded over a period of years, would decrease returns.

**Adverse Active AlphaSM 2.0** is a patented screening and scoring process designed to help identify high-quality equity and fixed income managers with characteristics that may lead to future outperformance relative to index and peers. While highly ranked managers performed well as a group in our Adverse Active Alpha model back tests, not all of the managers will outperform. Please note that this data may be derived from back-testing, which has the benefit of hindsight. In addition, highly ranked managers can have differing risk profiles that might not be appropriate for all investors.

Our view is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager



turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors.

The proprietary **Value Score** methodology considers an active investment strategies' value proposition relative to its costs. From a historical quantitative study of several quantitative markers, Value Score measures perceived forward-looking benefit and computes (1) "fair value" expense ratios for most traditional investment managers across 40 categories and (2) managers' perceived "excess value" by comparing the fair value expense ratios to actual expense ratios. Managers are then ranked within each category by their excess value to assign a Value Score. Our analysis suggests that greater levels of excess value have historically corresponded to attractive subsequent performance.

For more information on the ranking models, please see Adverse Active AlphaSM 2.0: Scoring Active Managers According to Potential Alpha and Value Score: Scoring Fee Efficiency by Comparing Managers' "Fair Value" and Actual Expense Ratios. The whitepapers are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

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If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. Fees and expenses are charged directly to the pool of assets the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. The advisory program you choose is described in the applicable Morgan Stanley Smith Barney LLC ADV Brochure, available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV).

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's Separately Managed Account ("SMA") programs may effect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instance, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by Sub-Managers concerning trade execution away from Morgan Stanley is summarized at: [www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf](http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf). For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV), or contact your Financial Advisor / Private Wealth Advisor.

**Conflicts of Interest:** GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an

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**Consider Your Own Investment Needs:** The model portfolios and strategies discussed in the material are formulated based on general client characteristics including risk tolerance. This material is not intended to be an analysis of whether particular investments or strategies are appropriate for you or a recommendation, or an offer to participate in any investment. Therefore, clients should not use this material as the sole basis for investment decisions. They should consider all relevant information, including their existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon. Such a determination may lead to asset allocation results that are materially different from the asset allocation shown in this profile. Talk to your Financial Advisor about what would be an appropriate asset allocation for you, whether CGCM is an appropriate program for you.

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Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund's investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund's essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or "leverage."

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**Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative



practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by FINRA Rule 2241 or a "debt research report" as defined by FINRA Rule 2242 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown). The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. 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Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not appropriate for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund.

Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases

that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, “blow ups,” or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial “lift” or upwards bias.

**Hedge Funds of Funds** and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor’s goals by the pre-established year or “target date.” A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are appropriate only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy.

### Virtual Currency Products (Cryptocurrencies)

**Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets (“Digital Assets”), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to:**

- Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and **investors could lose their entire investment**.
- Certain Digital Asset funds and products, allow investors to invest on a more frequent basis than investors may withdraw from the fund or product, and interests in such funds or products are generally not freely transferrable. This means that, particularly given the volatility of Digital Assets, an investor will have to bear any losses with respect to its investment for an extended period of time and will not be able to react to changes in the price of the Digital Asset once invested (for example, by seeking to withdraw) as quickly as when making the decision to invest. Such Digital Asset funds and products, are intended only for persons who are able to bear the economic risk of investment and who do not need liquidity with respect to their investments.
- Given the volatility in the price of Digital Assets, the net asset value of a fund or product that invests in such assets at the time an investor’s subscription for interests in the fund or product is accepted may be significantly below or above the net asset value of the product or fund at the time the investor submitted subscription materials.
- Certain Digital Assets are not intended to function as currencies but are intended to have other use cases. These other Digital Assets may be subject to some or all of the risks and considerations set forth herein, as well as additional risks applicable to such Digital Assets. Buyers, sellers and users of such Digital Assets should thoroughly familiarize themselves with such risks and considerations

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before transacting in such Digital Assets.

- The value of Digital Assets may be negatively impacted by future legal and regulatory developments, including but not limited to increased regulation of such Digital Assets. Any such developments may make such Digital Assets less valuable, impose additional burdens and expenses on a fund or product investing in such assets or impact the ability of such a fund or product to continue to operate, which may materially decrease the value of an investment therein.

- Due to the new and evolving nature of digital currencies and the absence of comprehensive guidance, many significant aspects of the tax treatment of Digital Assets are uncertain. Prospective investors should consult their own tax advisors concerning the tax consequences to them of the purchase, ownership and disposition of Digital Assets, directly or indirectly through a fund or product, under U.S. federal income tax law, as well as the tax law of any relevant state, local or other jurisdiction.

- Over the past several years, certain Digital Asset exchanges have experienced failures or interruptions in service due to fraud, security breaches, operational problems or business failure. Such events in the future could impact any fund's or product's ability to transact in Digital Assets if the fund or product relies on an impacted exchange and may also materially decrease the price of Digital Assets, thereby impacting the value of your investment, regardless of whether the fund or product relies on such an impacted exchange.

- Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset.

- Investors in funds or products investing or transacting in Digital Assets may not benefit to the same extent (or at all) from "airdrops" with respect to, or "forks" in, a Digital Asset's blockchain, compared to investors who hold Digital Assets directly instead of through a fund or product. Additionally, a "fork" in the Digital Asset blockchain could materially decrease the price of such Digital Asset.

- Digital Assets are not legal tender, and are not backed by any government, corporation or other identified body, other than with respect to certain digital currencies that certain governments are or may be developing now or in the future. No law requires companies or individuals to accept digital currency as a form of payment (except, potentially, with respect to digital currencies developed by certain governments where such acceptance may be mandated). Instead, other than as described in the preceding sentences, Digital Asset products' use is limited to businesses and individuals that are willing to accept them. If no one were to accept digital currencies, virtual currency products would very likely become worthless.

- Platforms that buy and sell Digital Assets can be hacked, and some have failed. In addition, like the platforms themselves, digital wallets can be hacked, and are subject to theft and fraud. As a result, like other investors have, you can lose some or all of your holdings of Digital Assets.

- Unlike US banks and credit unions that provide certain guarantees of safety to depositors, there are no such safeguards provided to Digital Assets held in digital wallets by their providers or by regulators.

- Due to the anonymity Digital Assets offer, they have known use in illegal activity, including drug dealing, money laundering, human trafficking, sanction evasion and other forms of illegal commerce. Abuses could impact legitimate consumers and speculators; for instance, law enforcement agencies could shut down or restrict the use of platforms and exchanges, limiting or shutting off entirely the ability to use or trade Digital Asset products.

- Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.

- Investors should be aware of the potentially increased risks of transacting in Digital Assets relating to the risks and considerations, including fraud, theft, and lack of legitimacy, and other aspects and qualities of Digital Assets, before transacting in such assets.

- The exchange rate of virtual currency products versus the USD historically has been very volatile and the exchange rate could drastically decline. For example, the exchange rate of certain Digital Assets versus the USD has in the past dropped more than 50% in a single day. Other Digital Assets may be affected by such volatility as well.

- Digital Asset exchanges have limited operating and performance histories and are not regulated with the same controls or customer protections available to more traditional exchanges transacting equity, debt, and other assets and securities. There is no assurance that a person/exchange who currently accepts a Digital Asset as payment will continue to do so in the future.
- The regulatory framework of Digital Assets is evolving, and in some cases is uncertain, and Digital Assets themselves may not be governed and protected by applicable securities regulators and securities laws, including, but not limited to, Securities Investor Protection Corporation coverage, or other regulatory regimes.
- Morgan Stanley Smith Barney LLC or its affiliates (collectively, "Morgan Stanley") may currently, or in the future, offer or invest in Digital Asset products, services or platforms. The proprietary interests of Morgan Stanley may conflict with your interests.
- The foregoing list of considerations and risks are not and do not purport to be a complete enumeration or explanation of the risks involved in an investment in any product or fund investing or trading in Digital Assets.

**Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

**Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC ("Morgan Stanley"), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not "fiduciaries" (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at [www.morganstanley.com/disclosures/dol](http://www.morganstanley.com/disclosures/dol). Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.**

Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be an appropriate comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to form the primary basis for any investment decision by you, or an investment advice or recommendation for either ERISA or Internal Revenue Code purposes. Morgan Stanley Private Wealth Management will only prepare a financial plan at your specific request using Private Wealth Management approved financial planning signature.

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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**For index, indicator and survey definitions referenced in this report please visit the following: <https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions>**

**GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS:** The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.

**HYPOTHETICAL MODEL PERFORMANCE (GROSS):** Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed



with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

**FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS:** None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at [www.morganstanley.com/adv](http://www.morganstanley.com/adv). The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

**Variable annuities** are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.

**Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

**Master Limited Partnerships (MLPs)** are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

**Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be appropriate for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

**REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

**Yields** are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of \$25 and \$1000 par **preferred securities** are “callable” meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security’s underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some \$25 or \$1000 par **preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional ‘dividend paying’ perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date. Companies paying **dividends** can reduce or cut payouts at any time.

**Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio’s overall value to decline to a greater degree than a less concentrated portfolio. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

**Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

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# J.P. Morgan Asset Management – Index definitions

GTM

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All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

#### Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index**® measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index**® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index**® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index**® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index**® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index**® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index**® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index**® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index**® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index**® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

#### Fixed income:

The **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Municipal Index**: consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

J.P.Morgan  
ASSET MANAGEMENT





# J.P. Morgan Asset Management – Definitions

GTM

U.S.

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## *Other asset classes:*

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex-U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index -Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

## *Definitions:*

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Equity market neutral strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Global macro strategies** trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

**Merger arbitrage strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.





# J.P. Morgan Asset Management – Risks & disclosures

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Prepared by: David P. Kelly, Jordan K. Jackson, David M. Lebovitz, John C. Manley, Meera Pandit, Gabriela D. Santos, Stephanie Aliaga, Sahil Gauba, Olivia C. Schubert and Nimish Vyas.

Unless otherwise stated, all data are as of June 30, 2022 or most recently available.

**Guide to the Markets – U.S.**

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**J.P.Morgan**  
ASSET MANAGEMENT

# Morgan Stanley

## THE KELLIHER CORBETT GROUP AT MORGAN STANLEY

141 Longwater Drive, Suite 102  
Norwell, MA. 02061  
877.535.4437



## South Central CT RWA 401(k) Plan

### **Stephen Kelliher**

Managing Director  
Senior Portfolio Management Director  
Senior Institutional Consultant  
Corporate Retirement Director

781.681.4933  
Stephen.Kelliher@ms.com

### **Joseph McLaughlin**

Senior Vice President  
Senior Institutional Consultant  
Corporate Retirement Director

781.681.4904  
Joseph.McLaughlin@ms.com

# Discussion Outline & Agenda

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	Section
Investment Menu Structure & Assets	I.
401(k) Plan Governance	II.
Committee Mission for your 401(k)	III.

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# Morgan Stanley

THE KELLIHER CORBETT GROUP  
AT MORGAN STANLEY



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## Investment Menu Structure & Assets

# Investment Menu Structure & Assets

## Fixed Income

Stable Value	Bond
--------------	------

Putnam Stable Value	<b>Intermediate Core-Plus Bond:</b>
	PIMCO Total Return
	<b>Multisector Bond:</b>
	JHancock Strategic Income Opps

**Total Fixed Income: \$9,845,247.76**

## Target Date

JPMorgan SmartRetirement Target Date
--------------------------------------

**Total Target Date: \$6,919,536.28**

## Risk Based

MFS Risk Based Allocation <i>Conservative, Moderate, Growth</i>
--

**Total Risk Based: \$4,203,599.97**

# Investment Menu Structure & Assets

## Equity Funds

		Value	Core/Blend	Growth
Large	Mid	Putnam Large Cap Value	Vanguard 500 Index (Passive) MFS Massachusetts Investors Tr (Active)	American Funds Growth Funds of Amer MFS Massachusetts Inv Gr Stk
		MFS Mid Cap Value		Principal Midcap Janus Henderson Enterprise
	Small	Delaware Small Cap Value		JPMorgan Small Cap Growth

**Total US Equity: \$24,728,808.61**

Int'l	Developed	American Funds EuroPacific Growth
	EM	Invesco Developing Markets

**Total International Equity: \$3,293,343.33**

**Total 401(k) Plan Assets: \$48,990,435.95**

# Morgan Stanley

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## 401(k) Plan Governance

# 401(k) Plan Governance



RWA – Plan Sponsor of the non-ERISA 401(k) Plan



Authority Board – Governing body and oversight



Pension Review Committee Formally Expanded to include 401(k) – January 2022

Delegation by Authority Board for Routine Matters

Rochelle Kowalski and Donna Verdisco – Voting members

Bernard Peloquin – Non-voting member

**The Kelliher Corbett Group at Morgan Stanley – ERISA 3(21) Plan Advisors**

Advisors and consultants to Authority Board, Pension Review Committee, and plan participants



# Committee Mission for your 401(k) – an ongoing process, supported by your Advisors

## Fiduciary Governance

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### Build a Reliable and Repeatable Process Around All Critical Plan Components

- Fiduciary Audit File to document procedural process

### Initial and Ongoing Training of Plan Committee Members

### Legislative and Regulatory Updates

## Employee Engagement

---

### Drive Employee Engagement

- Analyze plan demographics, to formulate short and long term education goals and objectives
- Develop and deliver customized education programs tailored to your specific objectives

### Ongoing Employee Education

### Improve Retirement Readiness

- Risk-based and Target Date Custom Model Portfolios



## Plan Management

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### Strategic Planning

- Consulting, Administrative and Operational Support

### Plan Design Consulting & Support

### Plan Benchmarking

- Evaluate and understand plan services and costs
- Assess reasonableness of plan costs relative to services received

### Vendor Search Services

- Complete project management

## Investment Advisory

---

### Investment Oversight

- Conduct needs analysis
- Investment Policy Statement (IPS)
- Asset class analysis including the creation of Custom Model Portfolios

### Provide Ongoing Fund Selection & Monitoring

- Performance reporting & analytics

### ERISA 3(21) and/or 3(38) Fiduciary Services Available

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## THE KELLIHER CORBETT GROUP AT MORGAN STANLEY

141 Longwater Drive, Suite 102  
Norwell, MA. 02061  
877.535.4437

## South Central CT Regional Water Authority ESG Discussion

### **Stephen Kelliher**

Managing Director  
Senior Portfolio Management Director  
Senior Institutional Consultant  
Corporate Client Group Director

781.681.4933  
Stephen.Kelliher@ms.com

### **Joseph McLaughlin**

Senior Vice President  
Senior Institutional Consultant  
Corporate Retirement Director

781.681.4904  
Joseph.McLaughlin@ms.com

# Discussion Outline & Agenda

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	Section
MSIQ Report	I.
ESG Deep Dive Funds Review (3/31/2022 & 6/30/2022)	II.
SEC's Asset Manager Disclosure for ESG	III.
ESG - Discover/Assess/Align	IV.

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# Morgan Stanley

THE KELLIHER CORBETT GROUP  
AT MORGAN STANLEY



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## MSIQ Report

## MSIQ Report

Prepared on April 14, 2022 for:

SC CT REGIONAL WATER AUTHORITY

SC CT REGIONAL WATER AUTHORITY  
MATRIX TRUST COMPANY  
RPM DB  
90 SARGENT DRIVE  
NEW HAVEN CT 06511-5918

THE KELLIHER CORBETT GRP

Tel: 781-681-4900

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Please review the disclosures and definitions throughout this Document.  
 Various sub-sections of this Document may not contain information on all accounts/positions covered in this Document.

SC CT REGIONAL WATER AUTHORITY

Reporting Currency: USD

## MORGAN STANLEY WEALTH MANAGEMENT

Account Name	Account Number	Account Type/ Manager Name	Date Opened/ Date Closed	Total Value (\$) 04/13/22	% of Portfolio 04/13/22
SALARY	447-XXX450	Portfolio Management RPM - RPM DB Trustee Directed	12/17/14 -	42,703,205.97	54.72
SALARY	447-XXX626	Alternative Investments Advisory - RPM DB Trustee Directed	02/24/16 -	34,475.16	0.04
SC CT REGIONAL WATER AUTHORITY	447-XXX448	RPM DB Plan Account	12/17/14 -	0.00	0.00
SC CT REGIONAL WATER AUTHORITY	447-XXX456	Portfolio Management RPM - RPM VEBA Trustee Directed	12/18/14 -	9,136,297.29	11.71
UNION	447-XXX451	Portfolio Management RPM - RPM DB Trustee Directed	12/17/14 -	26,145,137.21	33.50
UNION	447-XXX627	Alternative Investments Advisory - RPM DB Trustee Directed	02/24/16 -	23,135.06	0.03
<b>Morgan Stanley Wealth Management Total</b>				<b>78,042,250.69</b>	<b>100.00</b>
<b>Total Portfolio</b>				<b>78,042,250.69</b>	<b>100.00</b>

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All content within this Document applies to the accounts listed above or a subset thereof, unless otherwise indicated.



## UNDERSTANDING MORGAN STANLEY IMPACT QUOTIENT

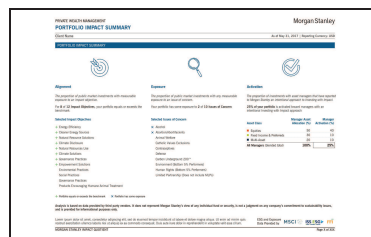
Morgan Stanley Impact Quotient (Morgan Stanley IQ) is a portfolio analysis tool that enables Morgan Stanley clients to assess how their investment portfolio is aligned with and activated towards the impact priorities that matter most to them as an individual, family or organization. Morgan Stanley IQ analytics are driven by each individual or institution's unique worldview, mission, values and investment objectives, creating a new dimension to diagnose portfolios' alignment with desired impact at a point in time.

After completing a robust discovery process to explore and prioritize impact objectives, a client impact profile is generated to inform how the underlying portfolio is assessed with respect to impact. This client impact profile forms the basis for each Morgan Stanley IQ module, described in detail below. Underlying data across Morgan Stanley IQ modules is sourced from manager-reported information and third-party vendors including MSCI ESG Research, ISS-ESG, Fossil Free Indexes and Equileap.

## MORGAN STANLEY IMPACT QUOTIENT REPORT MODULES



The **Client Impact Profile** displays a summary of impact preferences communicated to your Financial Advisor during the discovery process. These preferences inform how the underlying portfolio is assessed with respect to impact in the modules that follow.



The **Portfolio Impact Summary** module displays a summary of a client portfolio's aggregate alignment, exposure and activation towards Investing with Impact. Additional details on the portfolio's assessment with respect to impact is provided in the modules that follow.

**Sample conclusion: My portfolio is aligned in 5 of 12 selected impact objectives, exposed to 2 of 4 issues of concern and 25% activated toward managers with an intentional Investing with Impact approach.**



The **Aggregate Alignment with Selected Impact Objectives** module displays the market-weighted proportion of public market investments with measurable alignment with the selected Impact Objectives, relative to a blended benchmark. The blended benchmark is constructed based on the portfolio's unique asset allocation. Data points are calculated based on available data from MSCI ESG Research, ISS-ESG and Equileap summarized across public market holdings within the portfolio.

**Sample conclusion: My public market portfolio has 10% greater alignment with Climate Solutions, compared to a blended benchmark of 5%.**



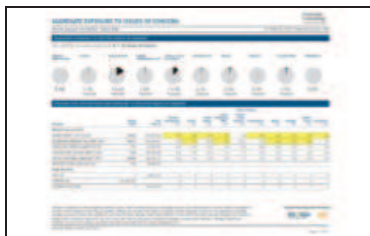
The **Manager Alignment with Selected Impact Objectives** module displays the market-weighted proportion of public market funds and accounts with measurable alignment with the selected Impact Objectives, relative to a relevant asset class benchmark. Data points are calculated based on available data from MSCI ESG Research, ISS-ESG and Equileap.

**Sample conclusion: My US Small Cap fund has 3% greater alignment with Climate Solutions, compared to its benchmark of 1.1%.**

The **Security-Level Alignment with Selected Impact Objectives** module displays whether individual public market securities have measurable alignment with the selected Impact Objectives. Data points are calculated based on available data from MSCI ESG Research, ISS-ESG and Equileap.

**Sample conclusion: This security is aligned with Climate Solutions.**

## MORGAN STANLEY IMPACT QUOTIENT REPORT MODULES (Continued)



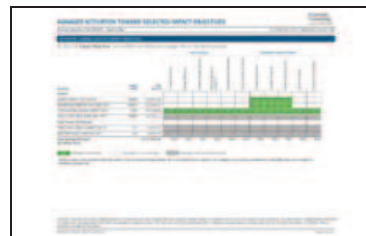
The **Aggregate Exposure to Issues of Concern** module displays the market-weighted proportion of public market investments with any measurable exposure to the selected Issues of Concern. Data points are calculated based on available data from ISS-ESG and Fossil Free Indexes and summarized across public market holdings within the portfolio. The module also displays restriction screens that have been applied.

**Sample conclusion: 2% of my portfolio's holdings have some exposure to tobacco. In addition, 3 of my portfolio's managers have implemented restriction screens for tobacco companies.**



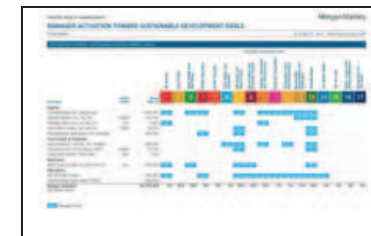
The **Manager Activation Toward Investing with Impact Approaches** module displays the market-weighted proportion of investments with asset managers that have reported to Morgan Stanley one or more intentional Investing with Impact approaches. The top section displays a summary percentage by asset class, while the bottom section displays specific manager details. The module also displays Financial Advisor implemented restriction screens.

**Sample conclusion: 2 of my portfolio's public equity managers are using at least one Investing with Impact approach, representing 40% of the market value invested across all managers in my portfolio.**



The **Manager Activation Toward Selected Impact Objectives** module displays the market-weighted proportion of investments with asset managers that have reported to Morgan Stanley an intentional focus on one of the selected Impact Objectives.

**Sample conclusion: 3 of my portfolio's managers are focused on Climate Solutions, representing 55% of the market value invested across all managers in my portfolio.**



The **Manager Activation Toward Sustainable Development Goals** module displays the market-weighted proportion of investments with asset managers that have reported to Morgan Stanley an intentional focus on any of the 17 Sustainable Development Goals.

**Sample conclusion: 6 of my portfolio's managers are focused on SDG 7 (Affordable and Clean Energy), representing 40% of the market value invested across all managers in my portfolio.**

This Client Impact Profile reflects the impact preferences you and your Financial Advisor selected in the Morgan Stanley IQ Client Discovery Process. Your Financial Advisor may use the information in this Morgan Stanley IQ report to help you make investment decisions for your investment portfolio. You should work with your Financial Advisor to update your selected impact preferences as required. For more information or questions about Morgan Stanley IQ, please contact a member of your Morgan Stanley team.

## PORTFOLIO PREFERENCES

### PORTFOLIO INTEGRATION APPROACH

- Not pursuing integration at this time

### AVAILABLE INVESTMENT OPPORTUNITIES

- Public market investments (e.g., Public Equities, Fixed Income, Multi-Asset)
- Alternative investments (e.g., Real Assets, Private Equity; for qualified investors) \*

### APPROACHES TO INVESTING WITH IMPACT

- ESG Integration
- Thematic Exposure
- Impact Investing

## IMPACT PREFERENCES

### IMPACT OBJECTIVES

#### FOSSIL FUEL AWARE

- Cleaner Energy Sources
- Climate Disclosure
- Climate Footprint
- Energy Efficiency

#### CUSTOMIZED IMPACT OBJECTIVES

- Access to Clean Water & Sanitation
- Climate Solutions
- Environmental Practices
- Governance Practices
- Reducing Water Stress
- Social Practices
- Water Solutions

### ISSUES OF CONCERN

- Chemicals
- Oil & Gas
- Utilities

### SUSTAINABLE DEVELOPMENT GOALS

- 6. Clean Water and Sanitation
- 7. Affordable and Clean Energy
- 11. Sustainable Cities and Communities
- 14. Life Below Water

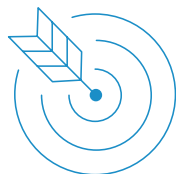
### TARGETED POPULATIONS FOR IMPACT

#### GEOGRAPHIES

- Global \*

\* Asterisks indicate selections where impact data are not currently available for reporting. Refer to disclosures for additional information.

PORTFOLIO IMPACT SUMMARY



**Alignment**

The proportion of public market investments with measurable exposure to an impact objective.

For **7 of 11 Impact Objectives**, your portfolio equals or exceeds the benchmark

**Selected Impact Objectives**

- Climate Solutions
- Energy Efficiency
- Cleaner Energy Sources
- Water Solutions
- + Access to Clean Water & Sanitation
- + Environmental Practices
- + Climate Disclosure
- + Climate Footprint
- + Reducing Water Stress
- + Social Practices
- + Governance Practices

+ Portfolio equals or exceeds the benchmark



**Exposure**

The proportion of public market investments with any measurable exposure to an issue of concern.

Your portfolio has some exposure to **3 of 3 Issues of Concern**

**Selected Issues Of Concern**

- ✗ Chemicals
- ✗ Oil & Gas
- ✗ Utilities

✗ Portfolio has some exposure



**Activation**

The proportion of investments with asset managers that have reported to Morgan Stanley an intentional approach to Investing with Impact.

**0% of your portfolio** is activated toward managers with an intentional Investing with Impact approach

Asset Class	Manager Asset Allocation (%)	Manager Activation (%)
Equities	65	0
Fixed Income & Preferreds	21	0
Alternatives	2	0
Multi-Asset	12	0
<b>All Managers (blended total)</b>	<b>100%</b>	<b>0%</b>

Analysis is based on data provided by third party vendors. It does not represent Morgan Stanley's view of any individual fund or security, is not a judgment on any company's commitment to sustainability issues, and is provided for informational purposes only.

Metrics are calculated across all public market holdings for which data are available, including single securities and/or investments with asset managers. Holdings may not reflect the entirety of a portfolio. Refer to the subsequent report modules and disclosures for additional information, including complete benchmark and metric definitions.

ALIGNMENT WITH SELECTED IMPACT OBJECTIVES

For 7 of 11 Impact Objectives, your portfolio equals or exceeds the benchmark

Impact Solutions	Benchmark Alignment (%)	Portfolio Alignment (%)	Benchmark Portfolio
Climate Solutions	13.4	-1.1	
Energy Efficiency	9.7	-0.4	
Cleaner Energy Sources	3.8	-0.8	
Water Solutions	0.2	-0.1	
Access to Clean Water & Sanitation	0.6	+0.1	

Sustainable Corporate Practices	Benchmark Alignment (%)	Portfolio Alignment (%)	Benchmark Portfolio
Environmental Practices	72.6	+8.6	
Climate Disclosure	69.5	+7.3	
Climate Footprint	82.0	+7.1	
Reducing Water Stress	57.5	+6.8	
Social Practices	69.5	+8.7	
Governance Practices	82.5	+8.4	

Equals or Exceeds Benchmark

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"Alignment" represents the market-weighted proportion of public market investments with measurable alignment with the selected impact objectives. Metrics are calculated across all public market holdings for which data are available, including single securities and/or investments with asset managers. Holdings may not reflect the entirety of a portfolio. The benchmark reflects a weighted average blend of asset-class benchmarks, in proportion to the market value of evaluated portfolio holdings. Refer to disclosures for additional information, including complete benchmark and metric definitions.

## ALIGNMENT WITH SELECTED IMPACT OBJECTIVES

For **11 of 11 Impact Objectives**, at least one strategy in your portfolio equals or exceeds its benchmark

Description	Symbol/CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices					
			Climate Solutions (%)	Energy Efficiency (%)	Cleaner Energy Sources (%)	Water Solutions (%)	Access to Clean Water & Sanitation (%)	Environmental Practices (%)	Climate Disclosure (%)	Climate Footprint (%)	Reducing Water Stress (%)	Social Practices (%)	Governance Practices (%)
<b>US Large Cap Growth</b>													
MFS MA INVESTORS GW STK I	MGTIX	3,634,716.44	-6.1	-7.0	+0.8	-0.3	+1.2	+11.2	+3.5	+7.3	+4.3	-2.3	-2.3
VANGUARD RUSSELL 1000 GROWTH	VONG	2,248,334.30	+0.0	+0.0	+0.0	-0.1	+0.0	+0.3	+0.2	+0.0	+0.2	+0.0	+0.0
<i>BENCHMARK: RUSSELL 1000 GR</i>			19.9	19.9	0.1	0.3	0.1	81.8	80.9	91.5	72.7	87.4	98.2
<b>US Large Cap Value</b>													
COLUMBIA DIVIDEND INCOME INST	GSFTX	4,519,809.91	+0.1	+1.6	-1.6	-0.2	-1.2	+11.1	+13.1	+1.4	+16.6	+8.7	-1.3
VANGUARD VALUE ETF INDEX	VTV	6,003,036.00	+0.1	-0.3	+0.4	+0.0	-0.4	+6.7	+7.1	+2.6	+6.6	+6.1	+1.2
<i>BENCHMARK: RUSSELL 1000 VALUE</i>			13.5	6.9	6.7	0.2	1.2	81.8	76.6	93.9	64.0	85.0	97.3
<b>US Large Cap</b>													
INVESCO S&P 500 EQUAL WEIGHT E	RSP	3,875,850.00	-4.7	-7.8	+3.4	+0.4	+0.2	-9.4	-11.5	-5.3	-22.7	+0.3	-2.0
VANGUARD TTL STK MKT ETF	VTI	7,017,796.85	-1.9	-1.6	-0.3	+0.1	+0.1	-10.3	-10.1	-7.3	-10.8	-8.1	-1.5
<i>BENCHMARK: S&amp;P 500 TOTAL RETURN</i>			17.6	14.1	3.6	0.2	0.6	87.3	84.4	96.8	73.9	89.5	98.6
<b>US Mid Cap</b>													
SCHWAB US MID CAP ETF	SCHM	1,602,744.50	-3.5	-0.9	-3.1	-0.4	+0.5	-14.3	-12.1	-6.9	-16.5	-18.0	-1.6
<i>BENCHMARK: RUSSELL MIDCAP</i>			10.9	5.0	6.4	0.5	0.9	58.3	54.2	77.3	31.5	78.3	94.4
<b>Global Equities</b>													
FIRST EAGLE GLOBAL I	SGIIX	3,365,348.93	-2.9	-1.4	-1.7	-0.3	-0.6	-11.6	-14.1	-11.0	-14.3	-7.2	-9.1

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ESG Data Provided by



## ALIGNMENT WITH SELECTED IMPACT OBJECTIVES (Continued)

Description	Symbol/CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices					
			Climate Solutions (%)	Energy Efficiency (%)	Cleaner Energy Sources (%)	Water Solutions (%)	Access to Clean Water & Sanitation (%)	Environmental Practices (%)	Climate Disclosure (%)	Climate Footprint (%)	Reducing Water Stress (%)	Social Practices (%)	Governance Practices (%)
<b>BENCHMARK: MSCI AC WORLD NET</b>													
			15.2	10.4	4.9	0.3	0.6	86.7	83.1	94.5	69.1	81.6	96.0
<b>International Equities</b>													
AMERICAN EUROPACIFIC GRW F2	AEPFX	2,808,944.90	-3.4	-2.0	-1.7	-0.4	-0.2	-10.8	-7.7	-8.3	-7.2	-1.8	-3.5
MFS INTL INTRINSIC VALUE I	MINIX	2,827,983.19	-2.2	+3.2	-5.6	+0.4	+1.2	+2.2	+1.5	+3.5	-3.3	+17.6	+0.0
VANGUARD FTSE DEVELOPED MKTS E	VEA	1,899,048.00	+1.3	+1.4	-0.2	+0.0	+0.2	-0.1	+2.0	+0.3	-4.5	+11.1	+1.0
<b>BENCHMARK: MSCI ACWI EX USA NR USD</b>													
			12.4	5.5	7.2	0.4	0.7	89.6	85.5	94.9	64.5	70.0	92.2
<b>Emerging Market Equities</b>													
INVESCO DEVELOPING MKTS Y	ODVYX	1,261,940.62	-8.9	-3.0	-6.3	-0.2	-0.3	+4.8	-1.9	+2.4	+12.8	+19.5	-0.2
<b>BENCHMARK: MSCI EM NET</b>													
			10.4	4.6	6.3	0.2	0.3	78.4	71.8	88.4	50.2	17.2	84.1
<b>Short Term Fixed Income</b>													
GUGGENHEIM LIMITED DURATION I	GILHX	250,390.67	-	-	-	-	-	-	-	-	-	-	-
VANGUARD SHORT TERM BND	BSV	279,468.00	-	-	-	-	-	-	-	-	-	-	-
<b>BENCHMARK: BC GLOBAL AGG 1-3 YR</b>													
			1.0	0.6	0.5	0.0	0.0	20.2	19.5	24.6	14.1	7.7	15.8
<b>US Taxable Core</b>													
AMERICAN BD FD OF AMERICA F2	ABNFX	2,066,491.25	-	-	-	-	-	-	-	-	-	-	-
AMERICAN STRATEGIC BOND F2	ANBFX	3,107,270.28	-	-	-	-	-	-	-	-	-	-	-
DOUBLELINE CORE FIXED INC I	DBLFX	2,524,842.09	-	-	-	-	-	-	-	-	-	-	-
JANUS HENDERSON FLEXIBLE BD I	JFLEX	232,904.29	-	-	-	-	-	-	-	-	-	-	-

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ESG Data Provided by



## ALIGNMENT WITH SELECTED IMPACT OBJECTIVES (Continued)

Description	Symbol/CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices					
			Climate Solutions (%)	Energy Efficiency (%)	Cleaner Energy Sources (%)	Water Solutions (%)	Access to Clean Water & Sanitation (%)	Environmental Practices (%)	Climate Disclosure (%)	Climate Footprint (%)	Reducing Water Stress (%)	Social Practices (%)	Governance Practices (%)
LOOMIS SAYLES CORE PLUS BD Y	NERYX	2,211,266.50	-	-	-	-	-	-	-	-	-	-	-
PIONEER BOND Y	PICYX	439,873.36	-	-	-	-	-	-	-	-	-	-	-
<i>BENCHMARK: BARCLAYS AGGREGATE</i>			2.4	1.6	0.8	0.0	0.0	30.6	28.4	35.4	24.6	23.3	28.6
<b>Global Fixed Income Other</b>													
PIMCO INCOME I2	PONPX	2,281,817.96	-	-	-	-	-	-	-	-	-	-	-
<i>BENCHMARK: BC GLOBAL AGG HEDGED</i>			1.4	0.8	0.7	0.1	0.0	21.0	19.9	24.7	14.7	9.2	16.9
<b>Real Estate/REITs</b>													
COHEN & STEERS GLB RLTY FOC I	CSSPX	1,226,767.44	-6.2	-6.2	+0.0	+0.0	+0.0	+10.7	+10.6	+0.8	+0.9	+3.8	+3.5
<i>BENCHMARK: FTSE EPRA NAREIT DEVELOPED REITS TR</i>			48.3	48.3	0.0	0.0	0.0	62.5	60.4	91.2	29.4	69.8	81.5
<b>US Multi Asset</b>													
AMERICAN BALANCED F2	AMBFX	3,741,031.26	-1.1	-1.1	+0.0	-0.2	-	+6.0	+5.0	+4.4	+5.9	+6.6	+6.7
JANUS HENDERSON BALANCED I	JBALX	3,677,842.27	-0.2	+1.7	-2.0	-0.2	-	+12.0	+13.1	+10.9	+18.8	+11.5	+8.6
<i>BENCHMARK: 50 RUSSELL 3000 50 BC US AGG</i>			9.2	7.2	2.1	0.2	0.4	54.1	51.6	62.6	44.5	52.6	62.8
<b>Total Strategies Equal to or Above Benchmark</b>			<b>4</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>8</b>	<b>10</b>	<b>7</b>

 Equals or Exceeds Benchmark

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ESG Data Provided by





## ALIGNMENT WITH SELECTED IMPACT OBJECTIVES

For **8** of **11** Impact Objectives, at least one single security in your portfolio is aligned

Description	Symbol/ CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices					
			Climate Solutions	Energy Efficiency	Cleaner Energy Sources	Water Solutions	Access to Clean Water & Sanitation	Environmental Practices	Climate Disclosure	Climate Footprint	Reducing Water Stress	Social Practices	Governance Practices
<b>Single Securities</b>													
AMAZON.COM INC	023135BC9	299,664.75											
ANTHEM INC	036752AG8	154,340.18											
APPLE INC	037833CU2	330,753.58											
BANK OF AMERICA CORP	06051GGA1	345,491.38											
BERKSHIRE HATHAWAY ENERGY CO	084659AD3	306,297.00											
CATERPILLAR FINANCIAL SERVICESCORP	14912L6G1	334,053.41											
CONOCOPHILLIPS CO	20826FAQ9	319,752.00											
FED FARM CR BK	3133EJQA0	308,423.00											
FED FARM CR BK	3133ECB60	274,881.67											
FED HOME LN BK	313373KN1	271,150.52											
FED HOME LN MTG CORP	3137EAEN5	279,977.04											
GENERAL DYNAMICS CORP	369550BC1	51,426.33											
GOLDMAN SACHS GROUP INC/THE	38141GWB6	150,750.71											
INTEL CORP	458140AX8	303,516.00											
JPMORGAN CHASE & CO	46625HJJ0	333,202.19											
L3HARRIS TECHNOLOGIES INC	502431AJ8	282,422.10											
LABORATORY CORP OF AMERICA HOLDINGS	50540RAV4	246,828.33											

"Alignment" represents the market-weighted proportion of public market investments with measurable alignment with the selected impact objectives. Alignment is reported for all public market securities held directly or as part of a separately managed account for which data are available. Holdings may not reflect the entirety of a portfolio. Refer to disclosures for additional information, including metric definitions.

ALIGNMENT WITH SELECTED IMPACT OBJECTIVES (Continued)

Description	Symbol/ CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices						
			Climate Solutions	Energy Efficiency	Cleaner Energy Sources	Water Solutions	Access to Clean Water & Sanitation	Environmental Practices	Climate Disclosure	Climate Footprint	Reducing Water Stress	Social Practices	Governance Practices	
MASTERCARD INC	57636QAM6	48,993.83												
PAYPAL HOLDINGS INC	70450YAE3	284,010.00												
PFIZER INC	717081ET6	302,443.00												
RAYTHEON TECHNOLOGIES CORP	913017CY3	313,054.12												
SALESFORCE.COM INC	79466LAF1	307,162.67												
STARBUCKS CORP	855244AD1	254,565.83												
STRYKER CORP	863667AH4	305,594.25												
TENN VALLEY AUTH	880591ER9	277,817.68												
TENN VALLEY AUTH	880591CJ9	321,096.88												
TEXAS INSTRUMENTS INC	882508BG8	278,852.25												
UNITEDHEALTH GROUP INC	91324PDP4	311,865.41												
VERIZON COMMUNICATIONS INC	92343VDD3	314,882.48												
WELLS FARGO & CO	94974BGP9	328,549.18												

Aligned
  Not Aligned
  Not Evaluated

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## AGGREGATE EXPOSURE TO SELECTED ISSUES OF CONCERN

Your portfolio has some exposure to **3 of 3 Issues of Concern**

## CHEMICALS

## OIL &amp; GAS

## UTILITIES

1.4%  
Exposed3.2%  
Exposed2.9%  
Exposed

## POSITION-LEVEL RESTRICTIONS AND EXPOSURE TO SELECTED ISSUES OF CONCERN

Description	Symbol/ CUSIP	Total Value (\$)	Issues of Concern		
			Chemicals (%)	Oil & Gas (%)	Utilities (%)
<b>Mutual Funds and ETFs</b>					
AMERICAN BALANCED F2	AMBFX	3,741,031.26	1.4	2.8	1.0
AMERICAN EUROPACIFIC GRW F2	AEPFX	2,808,944.90	0.6	2.8	0.0
COHEN & STEERS GLB RLTY FOC I	CSSPX	1,226,767.44	0.0	0.0	0.0
COLUMBIA DIVIDEND INCOME INST	GSFTX	4,519,809.91	1.3	6.3	6.2
FIRST EAGLE GLOBAL I	SGIIX	3,365,348.93	1.4	4.2	0.5
INVESCO DEVELOPING MKTS Y	ODVYX	1,261,940.62	1.5	2.1	0.0
INVESCO S&P 500 EQUAL WEIGHT E	RSP	3,875,850.00	3.3	3.7	7.1
JANUS HENDERSON BALANCED I	JBALX	3,677,842.27	0.5	0.0	0.3
MFS INTL INTRINSIC VALUE I	MINIX	2,827,983.19	0.0	0.0	0.0
MFS MA INVESTORS GW STK I	MGTIX	3,634,716.44	0.9	0.0	3.8
SCHWAB US MID CAP ETF	SCHM	1,602,744.50	3.4	4.3	4.0

"Exposure" represents the market-weighted proportion of public market investments with any measurable exposure to the selected issues of concern. Metrics are reported for all public market holdings for which data are available. Holdings may not reflect the entirety of a portfolio. Overlay Restriction Screens are only applicable for separately managed accounts and reflect screens implemented as of the prior business day for accounts held at Morgan Stanley. Manager Implemented Restriction Screens reflect information that asset managers have reported to Morgan Stanley. Refer to disclosures for additional information, including metric definitions.

Exposure Percentage Data Provided by



## POSITION-LEVEL RESTRICTIONS AND EXPOSURE TO SELECTED ISSUES OF CONCERN (Continued)

Description	Symbol/ CUSIP	Total Value (\$)	Issues of Concern		
			Chemicals (%)	Oil & Gas (%)	Utilities (%)
VANGUARD FTSE DEVELOPED MKTS E	VEA	1,899,048.00	0.6	2.1	0.9
VANGUARD RUSSELL 1000 GROWTH	VONG	2,248,334.30	0.7	0.4	0.4
VANGUARD TTL STK MKT ETF	VTI	7,017,796.85	1.8	3.8	3.3
VANGUARD VALUE ETF INDEX	VTV	6,003,036.00	2.0	6.9	6.3
<b>Aggregate Exposure</b>		<b>\$49,711,194.61</b>	<b>1.4%</b>	<b>3.2%</b>	<b>2.9%</b>
<b>Strategies with Restrictions</b>			<b>0</b>	<b>0</b>	<b>0</b>

## Restriction Approaches

■ Overlay Restriction Screen Applied
 ■ Manager Implemented Restriction Screen
 ✕ Security has some exposure

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Exposure Percentage Data Provided by



## ASSET CLASS ACTIVATION SUMMARY

0% of your portfolio is activated toward managers with an intentional Investing with Impact approach



0%  
Total

Equities	0
Fixed Income & Preferreds	0
Alternatives	0
Multi-Asset	0

## Manager Activation by Asset Class (%)

## MANAGER ACTIVATION DETAIL

Description	Symbol/CUSIP	Total Value (\$)	Manager Activation (%)	Impact Approaches				
				Restriction Screening (%)	ESG Integration (%)	Thematic Exposure (%)	Impact Investing (%)	ESG Shareholder Engagement (%)
<b>Equities</b>		<b>41,065,553.64</b>						
AMERICAN EUROPACIFIC GRW F2	AEPFX	2,808,944.90	-					
COLUMBIA DIVIDEND INCOME INST	GSFTX	4,519,809.91	-					
FIRST EAGLE GLOBAL I	SGIIX	3,365,348.93	-					
INVESCO DEVELOPING MKTS Y	ODVYX	1,261,940.62	-					
INVESCO S&P 500 EQUAL WEIGHT E	RSP	3,875,850.00	-					
MFS INTL INTRINSIC VALUE I	MINIX	2,827,983.19	-					

"Activation" represents the market-weighted proportion of investments with asset managers that have reported to Morgan Stanley one or more intentional Investing with Impact approaches or Financial Advisor implemented overlay restriction screens that are only applicable for separately managed accounts and reflect screens implemented as of the prior business day for accounts held at Morgan Stanley. This report reflects manager-reported information for mutual funds, exchange-traded funds (ETFs) and separately managed accounts. Approaches displayed for custom separately managed accounts may not match the specific customization you have chosen to implement. This report does not include individual securities. Holdings are grouped based on manager style and may not reflect the entirety of a portfolio. Refer to disclosures for additional information.

## MANAGER ACTIVATION DETAIL (Continued)

Description	Symbol/CUSIP	Total Value (\$)	Manager Activation (%)	Impact Approaches				
				Restriction Screening (%)	ESG Integration (%)	Thematic Exposure (%)	Impact Investing (%)	ESG Shareholder Engagement (%)
MFS MA INVESTORS GW STK I	MGTIX	3,634,716.44	-					
SCHWAB US MID CAP ETF	SCHM	1,602,744.50	-					
VANGUARD FTSE DEVELOPED MKTS E	VEA	1,899,048.00	-					
VANGUARD RUSSELL 1000 GROWTH	VONG	2,248,334.30	-					
VANGUARD TTL STK MKT ETF	VTI	7,017,796.85	-					
VANGUARD VALUE ETF INDEX	VTV	6,003,036.00	-					
<b>Fixed Income &amp; Preferreds</b>		<b>13,394,324.40</b>						
AMERICAN BD FD OF AMERICA F2	ABNFX	2,066,491.25	-					
AMERICAN STRATEGIC BOND F2	ANBFX	3,107,270.28	-					
DOUBLELINE CORE FIXED INC I	DBLFX	2,524,842.09	-					
GUGGENHEIM LIMITED DURATION I	GILHX	250,390.67	-					
JANUS HENDERSON FLEXIBLE BD I	JFLEX	232,904.29	-					
LOOMIS SAYLES CORE PLUS BD Y	NERYX	2,211,266.50	-					
PIMCO INCOME I2	PONPX	2,281,817.96	-					
PIONEER BOND Y	PICYX	439,873.36	-					
VANGUARD SHORT TERM BND	BSV	279,468.00	-					
<b>Alternatives</b>		<b>1,226,767.44</b>						
COHEN & STEERS GLB RLTY FOC I	CSSPX	1,226,767.44	-					
<b>Multi-Asset</b>		<b>7,418,873.53</b>						
AMERICAN BALANCED F2	AMBFX	3,741,031.26	-					
JANUS HENDERSON BALANCED I	JBALX	3,677,842.27	-					

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MANAGER ACTIVATION DETAIL (Continued)

Description	Symbol/CUSIP	Total Value (\$)	Manager Activation (%)	Impact Approaches				
				Restriction Screening (%)	ESG Integration (%)	Thematic Exposure (%)	Impact Investing (%)	ESG Shareholder Engagement (%)
<b>Total Manager Activation</b> (By Market Value)		<b>\$63,105,519.01</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

✓ Manager is activated
 ✓ Financial Advisor Implemented Restriction Screen
 - Manager is not activated
  Manager did not receive survey

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## ACTIVATION TOWARD SELECTED IMPACT OBJECTIVES

For 0 of 11 Impact Objectives, your portfolio has at least one manager with an intentional approach

Description	Symbol/ CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices				
			Climate Solutions	Energy Efficiency	Cleaner Energy Sources	Water Solutions	Access to Clean Water & Sanitation	Environmental Practices	Climate Disclosure	Climate Footprint	Reducing Water Stress	Social Practices
<b>Equities</b>												
AMERICAN EUROPACIFIC GRW F2	AEPFX	2,808,944.90										
COLUMBIA DIVIDEND INCOME INST	GSFTX	4,519,809.91										
FIRST EAGLE GLOBAL I	SGIIX	3,365,348.93										
INVESCO DEVELOPING MKTS Y	ODVYX	1,261,940.62										
INVESCO S&P 500 EQUAL WEIGHT E	RSP	3,875,850.00										
MFS INTL INTRINSIC VALUE I	MINIX	2,827,983.19										
MFS MA INVESTORS GW STK I	MGTIX	3,634,716.44										
SCHWAB US MID CAP ETF	SCHM	1,602,744.50										
VANGUARD FTSE DEVELOPED MKTS E	VEA	1,899,048.00										
VANGUARD RUSSELL 1000 GROWTH	VONG	2,248,334.30										
VANGUARD TTL STK MKT ETF	VTI	7,017,796.85										
VANGUARD VALUE ETF INDEX	VTV	6,003,036.00										
<b>Fixed Income &amp; Preferreds</b>												
AMERICAN BD FD OF AMERICA F2	ABNFX	2,066,491.25										
AMERICAN STRATEGIC BOND F2	ANBFX	3,107,270.28										
DOUBLELINE CORE FIXED INC I	DBLFX	2,524,842.09										
GUGGENHEIM LIMITED DURATION I	GILHX	250,390.67										
JANUS HENDERSON FLEXIBLE BD I	JFLEX	232,904.29										

"Activation" represents the market-weighted proportion of investments with asset managers that have reported to Morgan Stanley an intentional focus on one of the selected impact objectives. This report reflects manager-reported information for mutual funds, exchange-traded funds (ETFs) and separately managed accounts. Impact Objectives displayed for custom separately managed accounts may not match the specific customization you have chosen to implement. This report does not include individual securities. Holdings are grouped based on manager style and may not reflect the entirety of a portfolio. Refer to disclosures for additional information.



ACTIVATION TOWARD SELECTED IMPACT OBJECTIVES (Continued)

Description	Symbol/ CUSIP	Total Value (\$)	Impact Solutions					Sustainable Corporate Practices						
			Climate Solutions	Energy Efficiency	Cleaner Energy Sources	Water Solutions	Access to Clean Water & Sanitation	Environmental Practices	Climate Disclosure	Climate Footprint	Reducing Water Stress	Social Practices	Governance Practices	
LOOMIS SAYLES CORE PLUS BD Y	NERYX	2,211,266.50												
PIMCO INCOME I2	PONPX	2,281,817.96												
PIONEER BOND Y	PICYX	439,873.36												
VANGUARD SHORT TERM BND	BSV	279,468.00												
<b>Alternatives</b>														
COHEN & STEERS GLB RLTY FOC I	CSSPX	1,226,767.44												
<b>Multi-Asset</b>														
AMERICAN BALANCED F2	AMBFX	3,741,031.26												
JANUS HENDERSON BALANCED I	JBALX	3,677,842.27												
<b>Total Strategy Activation (By Market Value)</b>		<b>\$63,105,519.01</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

✓ Manager is activated    
 - Manager is not activated    
  Manager did not receive survey

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## WHAT ARE THE SUSTAINABLE DEVELOPMENT GOALS?

In September 2015, world leaders came together at the United Nations to adopt a new sustainable development agenda for 2030. The resulting 17 UN Sustainable Development Goals (SDGs) lay a path to end poverty, protect the planet and ensure prosperity for all through the contributions of governments, the private sector and civil society.

More information about the UN Sustainable Development Goals can be found at: [www.un.org/sustainabledevelopment/sustainable-development-goals/](http://www.un.org/sustainabledevelopment/sustainable-development-goals/)

## SUSTAINABLE DEVELOPMENT GOALS

	<b>1. No Poverty:</b> End poverty in all its forms everywhere.		<b>6. Clean Water and Sanitation:</b> Ensure access to water and sanitation for all.		<b>12. Responsible Consumption and Production:</b> Ensure sustainable consumption and production patterns.
	<b>2. Zero Hunger:</b> End hunger, achieve food security and improved nutrition and promote sustainable agriculture.		<b>7. Affordable and Clean Energy:</b> Ensure access to affordable, reliable, sustainable and modern energy for all.		<b>13. Climate Action:</b> Take urgent action to combat climate change and its impacts.
	<b>3. Good Health and Well-Being:</b> Ensure healthy lives and promote well-being for all at all ages.		<b>8. Decent Work and Economic Growth:</b> Promote inclusive and sustainable economic growth, employment and decent work for all.		<b>14. Life Below Water:</b> Conserve and sustainably use the oceans, seas and marine resources.
	<b>4. Quality Education:</b> Ensure inclusive and quality education for all and promote lifelong learning.		<b>9. Industry, Innovation and Infrastructure:</b> Build resilient infrastructure, promote sustainable industrialization and foster innovation.		<b>15. Life on Land:</b> Sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss.
	<b>5. Gender Equality:</b> Achieve gender equality and empower all women and girls.		<b>10. Reduced Inequalities:</b> Reduce inequality within and among countries.		<b>16. Peace, Justice and Strong Institutions:</b> Promote just, peaceful and inclusive societies.
			<b>11. Sustainable Cities and Communities:</b> Make cities inclusive, safe, resilient and sustainable.		<b>17. Partnerships for the Goals:</b> Revitalize the global partnership for sustainable development.

## HOW DO INVESTORS CONTRIBUTE TO THE SDGs?

The SDGs broke new ground with a recognition that ending poverty and protecting the environment can only be achieved within the context of economic growth. Significant resources – trillions of dollars – will be required to meet the SDGs. Within that challenge lies opportunity for the private sector. Investors have a crucial role to play in supporting new innovations, creating wealth and building scalable solutions to global challenges. As a set of investment themes, the SDGs offer investors a critical lens to view capital as an input to social and environmental change.

## ACTIVATION TOWARD SUSTAINABLE DEVELOPMENT GOALS

For **0** of **17 Sustainable Development Goals**, your portfolio has at least one manager with an intentional approach

Description	Symbol/ CUSIP	Total Value (\$)	Sustainable Development Goals																
			No Poverty	Zero Hunger	Good Health and Well-Being	Quality Education	Gender Equality	Clean Water and Sanitation	Affordable and Clean Energy	Decent Work and Economic Growth	Industry, Innovation and Infrastructure	Reduced Inequalities	Sustainable Cities and Communities	Responsible Consumption and Production	Climate Action	Life Below Water	Life on Land	Peace, Justice, and Strong Institutions	Partnerships for the Goals
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<b>Equities</b>																			
AMERICAN EUROPACIFIC GRW F2	AEPFX	2,808,944.90																	
COLUMBIA DIVIDEND INCOME INST	GSFTX	4,519,809.91																	
FIRST EAGLE GLOBAL I	SGIIX	3,365,348.93																	
INVESTCO DEVELOPING MKTS Y	ODVYX	1,261,940.62																	
INVESTCO S&P 500 EQUAL WEIGHT E	RSP	3,875,850.00																	
MFS INTL INTRINSIC VALUE I	MINIX	2,827,983.19																	
MFS MA INVESTORS GW STK I	MGTIX	3,634,716.44																	
SCHWAB US MID CAP ETF	SCHM	1,602,744.50																	
VANGUARD FTSE DEVELOPED MKTS E	VEA	1,899,048.00																	
VANGUARD RUSSELL 1000 GROWTH	VONG	2,248,334.30																	
VANGUARD TTL STK MKT ETF	VTI	7,017,796.85																	
VANGUARD VALUE ETF INDEX	VTV	6,003,036.00																	
<b>Fixed Income &amp; Preferreds</b>																			
AMERICAN BD FD OF AMERICA F2	ABNFX	2,066,491.25																	
AMERICAN STRATEGIC BOND F2	ANBFX	3,107,270.28																	

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ACTIVATION TOWARD SUSTAINABLE DEVELOPMENT GOALS (Continued)

Description	Symbol/ CUSIP	Total Value (\$)	Sustainable Development Goals																	
			1 No Poverty	2 Zero Hunger	3 Good Health and Well-Being	4 Quality Education	5 Gender Equality	6 Clean Water and Sanitation	7 Affordable and Clean Energy	8 Decent Work and Economic Growth	9 Industry, Innovation and Infrastructure	10 Reduced Inequalities	11 Sustainable Cities and Communities	12 Responsible Consumption and Production	13 Climate Action	14 Life Below Water	15 Life on Land	16 Peace, Justice, and Strong Institutions	17 Partnerships for the Goals	
DOUBLELINE CORE FIXED INC I	DBLFX	2,524,842.09																		
GUGGENHEIM LIMITED DURATION I	GILHX	250,390.67																		
JANUS HENDERSON FLEXIBLE BD I	JFLEX	232,904.29																		
LOOMIS SAYLES CORE PLUS BD Y	NERYX	2,211,266.50																		
PIMCO INCOME I2	PONPX	2,281,817.96																		
PIONEER BOND Y	PICYX	439,873.36																		
VANGUARD SHORT TERM BND	BSV	279,468.00																		
<b>Alternatives</b>																				
COHEN & STEERS GLB RLTY FOC I	CSSPX	1,226,767.44																		
<b>Multi-Asset</b>																				
AMERICAN BALANCED F2	AMBFX	3,741,031.26																		
JANUS HENDERSON BALANCED I	JBALX	3,677,842.27																		
<b>Manager Activation</b> (By Market Value)		<b>\$63,105,519.01</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

✓ Manager is activated    
 - Manager is not activated    
  Manager did not receive survey

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SC CT REGIONAL WATER AUTHORITY

As of April 13, 2022 | Reporting Currency: USD

## POSITIONS EVALUATED IN MORGAN STANLEY IQ REPORTS

Description	Symbol/ CUSIP	Total Value (\$)	Positions Evaluated for Impact Alignment (MSCI ESG Research, ISS-ESG, Equileap)	Positions Evaluated for Issues of Concern Exposure (ISS-ESG, FFI)	Positions Evaluated for Impact Activation (Manager Reported)
ABBVIE INC	00287YBM0	278,350.11	-	-	-
AMAZON.COM INC	023135BC9	299,664.75	Yes	-	-
AMERICAN BALANCED F2	AMBFX	3,741,031.26	Yes	Yes	-
AMERICAN BD FD OF AMERICA F2	ABNFX	2,066,491.25	-	-	-
AMERICAN EUROPACIFIC GRW F2	AEPFX	2,808,944.90	Yes	Yes	-
AMERICAN STRATEGIC BOND F2	ANBFX	3,107,270.28	-	-	-
ANTHEM INC	036752AG8	154,340.18	Yes	-	-
APPLE INC	037833CU2	330,753.58	Yes	-	-
BANK DEPOSIT PROGRAM	BDPS	115,183.02	-	-	-
BANK OF AMERICA CORP	06051GGA1	345,491.38	Yes	-	-
BERKSHIRE HATHAWAY ENERGY CO	084659AD3	306,297.00	Yes	-	-
BLACKROCK EVENT DRIVEN EQ INST	BILPX	1,251,850.72	-	-	-
CALAMOS MARKET NEUTRAL INC I	CMNIX	1,228,297.44	-	-	-
CATERPILLAR FINANCIAL SERVICESCORP	14912L6G1	334,053.41	Yes	-	-
CITIGROUP INC	172967GL9	330,182.94	-	-	-
COHEN & STEERS GLB RLTY FOC I	CSSPX	1,226,767.44	Yes	Yes	-
COLUMBIA DIVIDEND INCOME INST	GSFTX	4,519,809.91	Yes	Yes	-
CONOCOPHILLIPS CO	20826FAQ9	319,752.00	Yes	-	-
DOUBLELINE CORE FIXED INC I	DBLFX	2,524,842.09	-	-	-
FED FARM CR BK	3133EJQA0	308,423.00	-	-	-
FED FARM CR BK	3133ECB60	274,881.67	-	-	-
FED HOME LN BK	313373KN1	271,150.52	Yes	-	-
FED HOME LN BK	313383WD9	353,941.48	-	-	-
FED HOME LN MTG CORP	3137EAEN5	279,977.04	Yes	-	-
FED NATL MTG ASSN	3135GOT94	353,966.08	-	-	-

SC CT REGIONAL WATER AUTHORITY

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## POSITIONS EVALUATED IN MORGAN STANLEY IQ REPORTS (Continued)

Description	Symbol/ CUSIP	Total Value (\$)	Positions Evaluated for Impact Alignment (MSCI ESG Research, ISS-ESG, Equileap)	Positions Evaluated for Issues of Concern Exposure (ISS-ESG, FFI)	Positions Evaluated for Impact Activation (Manager Reported)
FIRST EAGLE GLOBAL I	SGIIX	3,365,348.93	Yes	Yes	-
GENERAL DYNAMICS CORP	369550BC1	51,426.33	Yes	-	-
GOLDMAN SACHS GROUP INC/THE	38141GWB6	150,750.71	Yes	-	-
GUGGENHEIM LIMITED DURATION I	GILHX	250,390.67	-	-	-
INTEL CORP	458140AX8	303,516.00	Yes	-	-
INVESCO DEVELOPING MKTS Y	ODVYX	1,261,940.62	Yes	Yes	-
INVESCO S&P 500 EQUAL WEIGHT E	RSP	3,875,850.00	Yes	Yes	-
JANUS HENDERSON BALANCED I	JBALX	3,677,842.27	Yes	Yes	-
JANUS HENDERSON FLEXIBLE BD I	JFLEX	232,904.29	-	-	-
JPMORGAN CHASE & CO	46625HJJ0	333,202.19	Yes	-	-
JPMORGAN HEDGED EQUITY I	JHEQX	1,185,236.27	-	-	-
L3HARRIS TECHNOLOGIES INC	502431AJ8	282,422.10	Yes	-	-
LABORATORY CORP OF AMERICA HOLDINGS	50540RAV4	246,828.33	Yes	-	-
LOOMIS SAYLES CORE PLUS BD Y	NERYX	2,211,266.50	-	-	-
MASTERCARD INC	57636QAM6	48,993.83	Yes	-	-
MFS INTL INTRINSIC VALUE I	MINIX	2,827,983.19	Yes	Yes	-
MFS MA INVESTORS GW STK I	MGTX	3,634,716.44	Yes	Yes	-
MS U.S. GOVT MONEY MARKET TR	SGMT	141,460.47	-	-	-
ORACLE CORP	68389XAP0	330,232.86	-	-	-
PAYPAL HOLDINGS INC	70450YAE3	284,010.00	Yes	-	-
PFIZER INC	717081ET6	302,443.00	Yes	-	-
PIMCO INCOME I2	PONPX	2,281,817.96	-	-	-
PIONEER BOND Y	PICYX	439,873.36	-	-	-
QUALCOMM INC	747525AE3	329,451.41	-	-	-
RAYTHEON TECHNOLOGIES CORP	913017CY3	313,054.12	Yes	-	-

SC CT REGIONAL WATER AUTHORITY

As of April 13, 2022 | Reporting Currency: USD

## POSITIONS EVALUATED IN MORGAN STANLEY IQ REPORTS (Continued)

Description	Symbol/ CUSIP	Total Value (\$)	Positions Evaluated for Impact Alignment (MSCI ESG Research, ISS-ESG, Equileap)	Positions Evaluated for Issues of Concern Exposure (ISS-ESG, FFI)	Positions Evaluated for Impact Activation (Manager Reported)
SALESFORCE.COM INC	79466LAF1	307,162.67	Yes	-	-
SCHWAB US MID CAP ETF	SCHM	1,602,744.50	Yes	Yes	-
STARBUCKS CORP	855244AD1	254,565.83	Yes	-	-
STRYKER CORP	863667AH4	305,594.25	Yes	-	-
TENN VALLEY AUTH	880591ER9	277,817.68	Yes	-	-
TENN VALLEY AUTH	880591CJ9	321,096.88	Yes	-	-
TEXAS INSTRUMENTS INC	882508BG8	278,852.25	Yes	-	-
UNITED STATES TREASURY BOND	912810ES3	346,761.05	-	-	-
UNITED STATES TREASURY NOTE	912828ZR4	450,000.07	-	-	-
UNITEDHEALTH GROUP INC	91324PDP4	311,865.41	Yes	-	-
VANGUARD FTSE DEVELOPED MKTS E	VEA	1,899,048.00	Yes	Yes	-
VANGUARD RUSSELL 1000 GROWTH	VONG	2,248,334.30	Yes	Yes	-
VANGUARD SHORT TERM BND	BSV	279,468.00	-	-	-
VANGUARD TTL STK MKT ETF	VTI	7,017,796.85	Yes	Yes	-
VANGUARD VALUE ETF INDEX	VTV	6,003,036.00	Yes	Yes	-
VERIZON COMMUNICATIONS INC	92343VDD3	314,882.48	Yes	-	-
WELLS FARGO & CO	94974BGP9	328,549.18	Yes	-	-
<b>Total Portfolio</b>		<b>\$78,042,250.69</b>	<b>74%</b>	<b>64%</b>	<b>0%</b>

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# Morgan Stanley

THE KELLIHER CORBETT GROUP  
AT MORGAN STANLEY



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## ESG Deep Dive Funds Review (3/31/2022 & 6/30/2022)



# Intermediate Core Bond ESG Search

## Results

Data as of 3/31/2022	Morningstar Category	Market Returns (%)								% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	
<b>Bond</b>															
American Funds Bond Fund of Amer F2	Intermediate Core Bond	● -2.51	● -5.43	● -5.43	● -3.29	● 3.10	● 2.94	● 2.78	16	16	7	2	4	12	
TIAA-CREF Core Impact Bond Advisor	Intermediate Core Bond	● -2.69	● -6.00	● -6.00	● -4.12	● 1.73	● 2.33	-	59	59	27	41	24	-	
Touchstone Impact Bond Y	Intermediate Core Bond	● -3.01	● -6.05	● -6.05	● -4.18	● 1.43	● 1.99	● 2.27	63	63	31	70	60	44	
Cat: Intermediate Core Bond	Intermediate Core Bond	-2.82	-5.89	-5.89	-4.43	1.67	2.04	2.21	-	-	-	-	-	-	
Idx: Bloomberg US Agg Bond TR USD	-	-2.78	-5.93	-5.93	-4.15	1.69	2.14	2.24	-	-	-	-	-	-	

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Bond</b>															
American Funds Bond Fund of Amer F2	Intermediate Core Bond	● -0.71	● 10.99	● 8.28	● 0.14	● 3.47	● 3.00	● 0.47	● 5.82	● -1.75	● 6.16	● 6.76	● 7.55	● 15.19	
TIAA-CREF Core Impact Bond Advisor	Intermediate Core Bond	● -1.00	● 7.25	● 8.63	● 0.27	● 4.53	● 3.02	● 1.18	● 8.80	● -1.27	-	-	-	-	
Touchstone Impact Bond Y	Intermediate Core Bond	● -1.01	● 6.71	● 7.91	● 0.15	● 3.94	● 2.85	● -0.20	● 6.67	● -2.17	● 5.71	● 8.10	● 9.08	● 16.90	
Cat: Intermediate Core Bond	Intermediate Core Bond	-1.48	7.52	8.06	-0.50	3.71	3.23	-0.26	5.18	-1.42	7.01	5.86	7.72	13.97	
Idx: Bloomberg US Agg Bond TR USD	-	-1.54	7.51	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93	

## Statistics

Data as of 3/31/2022	Manger	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar	
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr	S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr		
<b>Bond</b>															
American Funds Bond Fund of Amer F2	13	0.31	0.96	0.95	1.42	0.83	0.64	0.55	3.92	96	-	-	-	Below Avg	
TIAA-CREF Core Impact Bond Advisor	10	0.43	1.10	1.06	-0.02	0.15	0.24	0.32	5.01	77	-	-	-	Above Avg	
Touchstone Impact Bond Y	15	0.51	1.11	1.07	-0.35	-0.21	0.18	0.24	4.73	89	-	-	-	Above Avg	
Cat: Intermediate Core Bond	-	0.59	1.00	0.99	-0.01	-0.08	0.24	0.26	4.30	89	-	-	-	-	

● Green = exceeds peer group

● Yellow = trails peer group

■ Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund

Green = Possible ESG Replacement

# Intermediate Core-Plus Bond ESG Search

## Results

Data as of 3/31/2022	Morningstar Category	Market Returns (%)							% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr
<b>Bond</b>														
American Funds Strategic Bond F-2	Intermediate Core-Plus Bond	● -1.95	● -3.41	● -3.41	● -0.34	● 5.92	● 4.69	-	5	5	2	1	2	-
DoubleLine Core Fixed Income I	Intermediate Core-Plus Bond	● -2.36	● -4.88	● -4.88	● -3.19	● 1.64	● 2.22	● 2.87	14	14	18	71	64	39
Janus Henderson Flexible Bond I	Intermediate Core-Plus Bond	● -3.19	● -6.24	● -6.24	● -3.84	● 3.10	● 2.84	● 2.85	68	68	43	13	24	40
Loomis Sayles Core Plus Bond Y	Intermediate Core-Plus Bond	● -2.20	● -5.38	● -5.38	● -3.76	● 2.81	● 2.89	● 3.40	26	26	40	21	21	12
Pioneer Bond Y	Intermediate Core-Plus Bond	● -2.76	● -5.91	● -5.91	● -3.39	● 2.97	● 2.98	● 3.36	53	53	25	16	19	14
Calvert Bond I	Intermediate Core-Plus Bond	● -2.45	● -5.33	● -5.33	● -3.11	● 2.86	● 3.22	● 3.57	28	28	31	35	27	25
PIMCO Total Return ESG I2	Intermediate Core-Plus Bond	● -2.95	● -6.50	● -6.50	● -4.61	● 2.03	● 2.23	● 2.44	85	85	81	56	64	70
<b>Cat: Intermediate Core-Plus Bond</b>	<b>Intermediate Core-Plus Bond</b>	<b>-2.58</b>	<b>-5.72</b>	<b>-5.72</b>	<b>-4.00</b>	<b>2.13</b>	<b>2.39</b>	<b>2.61</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Idx: Bloomberg US Agg Bond TR USD</b>	<b>-</b>	<b>-2.78</b>	<b>-5.93</b>	<b>-5.93</b>	<b>-4.15</b>	<b>1.69</b>	<b>2.14</b>	<b>2.24</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Bond</b>														
American Funds Strategic Bond F-2	Intermediate Core-Plus Bond	● -0.77	● 18.31	● 8.23	● 0.48	● 3.47	-	-	-	-	-	-	-	-
DoubleLine Core Fixed Income I	Intermediate Core-Plus Bond	● -0.34	● 5.60	● 7.99	● -0.02	● 4.66	● 4.11	● 0.63	● 6.86	● -1.20	● 8.15	● 11.45	-	-
Janus Henderson Flexible Bond I	Intermediate Core-Plus Bond	● -0.78	● 10.88	● 9.56	● -0.87	● 3.62	● 2.65	● 0.11	● 4.93	● -0.05	● 8.05	● 6.66	● 7.60	● 12.61
Loomis Sayles Core Plus Bond Y	Intermediate Core-Plus Bond	● -1.42	● 10.63	● 8.96	● -0.69	● 5.22	● 7.49	● -3.93	● 6.40	● -0.56	● 11.59	● 7.90	● 10.74	● 16.93
Pioneer Bond Y	Intermediate Core-Plus Bond	● 0.73	● 8.85	● 9.28	● -0.53	● 4.39	● 4.48	● 0.24	● 6.19	● 0.66	● 8.83	● 5.34	● 9.75	● 17.95
Calvert Bond I	Intermediate Core-Plus Bond	● 0.24	● 7.65	● 8.65	● 0.10	● 4.56	● 4.06	● 0.54	● 6.73	● -1.97	● 8.27	● 6.23	● 6.80	● 11.57
PIMCO Total Return ESG I2	Intermediate Core-Plus Bond	● -1.20	● 8.86	● 8.83	● -0.88	● 4.35	● 2.85	● 0.29	● 4.43	● -2.17	● 9.58	● 3.42	● 8.97	● 13.72
<b>Cat: Intermediate Core-Plus Bond</b>	<b>Intermediate Core-Plus Bond</b>	<b>-0.67</b>	<b>8.06</b>	<b>8.94</b>	<b>-0.61</b>	<b>4.27</b>	<b>3.86</b>	<b>-0.45</b>	<b>5.42</b>	<b>-0.90</b>	<b>7.76</b>	<b>6.27</b>	<b>8.51</b>	<b>15.12</b>
<b>Idx: Bloomberg US Agg Bond TR USD</b>	<b>-</b>	<b>-1.54</b>	<b>7.51</b>	<b>8.72</b>	<b>0.01</b>	<b>3.54</b>	<b>2.65</b>	<b>0.55</b>	<b>5.97</b>	<b>-2.02</b>	<b>4.21</b>	<b>7.84</b>	<b>6.54</b>	<b>5.93</b>

## Statistics

Data as of 3/31/2022	Manger Tenure	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr		S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
<b>Bond</b>														
American Funds Strategic Bond F-2	6	0.45	0.82	0.81	4.30	2.69	1.19	0.96	4.41	55	-	-	-	Below Avg
DoubleLine Core Fixed Income I	12	0.48	0.92	0.87	0.10	0.25	0.21	0.29	5.11	51	-	-	-	Average
Janus Henderson Flexible Bond I	6	0.45	1.14	1.07	1.27	0.63	0.50	0.43	5.04	82	-	-	-	Average
Loomis Sayles Core Plus Bond Y	25	0.46	1.00	0.94	1.11	0.79	0.52	0.51	4.30	87	-	-	-	Below Avg
Pioneer Bond Y	23	0.45	1.12	1.02	1.28	0.88	0.37	0.37	6.81	42	-	-	-	High
Calvert Bond I	9	0.18	0.99	0.94	0.76	0.70	0.38	0.43	4.90	65	-	-	-	Average
PIMCO Total Return ESG I2	8	0.63	1.08	1.03	0.27	0.06	0.32	0.31	4.52	92	-	-	-	Below Avg
<b>Cat: Intermediate Core-Plus Bond</b>	<b>-</b>	<b>0.75</b>	<b>1.00</b>	<b>0.95</b>	<b>0.48</b>	<b>0.32</b>	<b>0.31</b>	<b>0.32</b>	<b>5.03</b>	<b>69</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)

- Blue = Current Fund
- Green = Possible ESG Replacement

- \*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added
- \*Investment returns have management fee added back, and admin fee subtracted

# Large Blend ESG Search

## Results

Data as of 3/31/2022	Morningstar Category	Market Returns (%)							% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr
<b>Large Blend</b>														
Invesco S&P 500® Equal Weight ETF	Large Blend	2.56	-2.76	-2.76	12.89	16.77	13.67	13.61	11	11	51	58	66	43
Vanguard Total Stock Market ETF	Large Blend	3.24	-5.45	-5.45	11.67	18.14	15.36	14.24	58	58	64	36	33	26
Calvert US Large Cap Core Rspnb Idx I	Large Blend	2.73	-7.00	-7.00	11.27	19.83	16.55	15.03	84	84	70	9	9	5
iShares MSCI USA ESG Select ETF	Large Blend	2.79	-8.61	-8.61	11.51	19.46	16.19	13.81	93	93	66	11	11	39
Parnassus Core Equity Investor	Large Blend	3.30	-5.74	-5.74	12.23	18.89	16.25	14.88	65	65	58	19	11	4
Vanguard ESG US Stock ETF	Large Blend	3.03	-7.55	-7.55	11.12	19.67	-	-	88	88	70	9	-	-
<b>Cat: Large Blend</b>	<b>Large Blend</b>	<b>2.83</b>	<b>-5.23</b>	<b>-5.23</b>	<b>12.10</b>	<b>16.78</b>	<b>14.09</b>	<b>13.04</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Idx: S&amp;P 500 TR USD</b>	<b>-</b>	<b>3.71</b>	<b>-4.60</b>	<b>-4.60</b>	<b>15.65</b>	<b>18.92</b>	<b>15.99</b>	<b>14.64</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Data as of 12/31/2021	Morningstar Category	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Large Blend</b>														
Invesco S&P 500® Equal Weight ETF	Large Blend	29.35	12.75	28.94	-7.77	18.52	14.34	-2.57	14.02	35.60	17.04	-0.50	21.30	45.08
Vanguard Total Stock Market ETF	Large Blend	25.72	20.95	30.80	-5.13	21.16	12.68	0.40	12.56	33.51	16.41	1.06	17.26	28.82
Calvert US Large Cap Core Rspnb Idx I	Large Blend	25.62	26.11	32.82	-4.07	21.18	10.71	1.14	14.41	35.04	17.71	0.05	13.73	34.84
iShares MSCI USA ESG Select ETF	Large Blend	30.31	24.64	32.18	-5.56	22.52	12.25	-1.89	13.49	30.87	10.23	1.58	14.07	30.37
Parnassus Core Equity Investor	Large Blend	27.55	21.19	30.69	-0.18	16.58	10.41	-0.55	14.49	33.98	15.43	3.13	8.87	28.75
Vanguard ESG US Stock ETF	Large Blend	26.41	25.71	33.40	-	-	-	-	-	-	-	-	-	-
<b>Cat: Large Blend</b>	<b>Large Blend</b>	<b>26.07</b>	<b>15.83</b>	<b>28.78</b>	<b>-6.27</b>	<b>20.44</b>	<b>10.37</b>	<b>-1.07</b>	<b>10.96</b>	<b>31.50</b>	<b>14.96</b>	<b>-1.27</b>	<b>14.01</b>	<b>28.17</b>
<b>Idx: S&amp;P 500 TR USD</b>	<b>-</b>	<b>28.71</b>	<b>18.40</b>	<b>31.49</b>	<b>-4.38</b>	<b>21.83</b>	<b>11.96</b>	<b>1.38</b>	<b>13.69</b>	<b>32.39</b>	<b>16.00</b>	<b>2.11</b>	<b>15.06</b>	<b>26.46</b>

## Statistics

Data as of 3/31/2022	Manger	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr		S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
<b>Large Blend</b>														
Invesco S&P 500® Equal Weight ETF	4	0.20	1.10	1.08	-3.14	-2.93	0.83	0.75	20.33	92	19.1	3.0	38376	High
Vanguard Total Stock Market ETF	27	0.03	1.04	1.03	-1.19	-0.94	0.96	0.89	18.47	99	20.5	3.8	119340	Above Avg
Calvert US Large Cap Core Rspnb Idx I	5	0.06	1.00	1.01	0.58	0.21	1.06	0.96	17.93	99	21.3	4.3	152102	Average
iShares MSCI USA ESG Select ETF	14	0.25	1.01	1.00	0.38	0.17	1.04	0.95	18.04	98	22.6	4.8	112298	Average
Parnassus Core Equity Investor	21	0.84	0.88	0.88	1.84	1.79	1.13	1.06	15.95	96	28.2	5.1	185781	Low
Vanguard ESG US Stock ETF	4	0.09	1.03	-	0.16	-	1.03	-	18.46	99	21.2	4.2	143059	-
<b>Cat: Large Blend</b>	<b>-</b>	<b>0.81</b>	<b>0.99</b>	<b>1.00</b>	<b>-1.65</b>	<b>-1.54</b>	<b>0.91</b>	<b>0.84</b>	<b>18.15</b>	<b>95</b>	<b>20.8</b>	<b>4.7</b>	<b>249832</b>	<b>-</b>

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund  
Green = Possible ESG Replacement

\*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added  
\*Investment returns have management fee added back, and admin fee subtracted

# Foreign Large Blend ESG Search

## Results

Data as of 3/31/2022	Morningstar Category	Market Returns (%)							% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr
<b>Foreign Large Blend</b>														
Vanguard FTSE Developed Markets ETF	Foreign Large Blend	0.34	-6.04	-6.04	0.73	8.58	7.19	6.69	32	32	29	26	27	18
iShares ESG Aware MSCI EAFE ETF	Foreign Large Blend	-0.14	-7.34	-7.34	-0.03	8.00	6.93	-	62	62	41	36	32	-
Pax International Sustainable Econ Instl	Foreign Large Blend	0.20	-8.09	-8.09	-0.16	8.52	6.79	6.38	72	72	43	28	38	27
Vanguard ESG International Stock ETF	Foreign Large Blend	-0.73	-7.72	-7.72	-4.31	7.89	-	-	68	68	80	39	-	-
Cat: Foreign Large Blend	Foreign Large Blend	-0.35	-7.05	-7.05	-1.61	7.23	6.26	5.85	-	-	-	-	-	-
Idx: MSCI ACWI Ex USA NR USD	-	0.16	-5.44	-5.44	-1.48	7.51	6.76	5.55	-	-	-	-	-	-
Idx: MSCI EAFE NR USD	-	0.64	-5.91	-5.91	1.16	7.78	6.72	6.27	-	-	-	-	-	-

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Foreign Large Blend</b>														
Vanguard FTSE Developed Markets ETF	Foreign Large Blend	11.49	10.29	22.08	-14.47	26.44	2.51	-0.21	-5.71	22.12	18.60	-12.57	8.47	28.34
iShares ESG Aware MSCI EAFE ETF	Foreign Large Blend	11.60	8.62	23.45	-13.62	25.21	-	-	-	-	-	-	-	-
Pax International Sustainable Econ Instl	Foreign Large Blend	11.19	10.78	23.01	-12.90	23.34	-1.63	1.16	-5.52	24.98	17.03	-	-	-
Vanguard ESG International Stock ETF	Foreign Large Blend	7.13	13.52	22.80	-	-	-	-	-	-	-	-	-	-
Cat: Foreign Large Blend	Foreign Large Blend	9.72	9.30	21.59	-14.59	25.12	0.79	-1.59	-4.98	19.44	18.29	-13.97	10.24	31.24
Idx: MSCI ACWI Ex USA NR USD	-	7.82	10.65	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15	41.45
Idx: MSCI EAFE NR USD	-	11.26	7.82	22.01	-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78

## Statistics

Data as of 3/31/2022	Manger Tenure	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe Ratio 3 Yr	Sharpe Ratio 5 Yr	Std 3 Yr	R2 3 Yr vs.	P/E Ratio	P/B Ratio	Geo Avg Mkt Cap \$MM	Mstar Risk 5 Yr
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr	S&P or Barc Agg	Ratio	Ratio			
<b>Foreign Large Blend</b>														
Vanguard FTSE Developed Markets ETF	9	0.05	1.04	1.03	0.85	0.32	0.51	0.45	17.81	97	13.7	1.6	29426	Average
iShares ESG Aware MSCI EAFE ETF	6	0.20	1.01	1.00	0.46	0.21	0.49	0.44	17.41	96	14.4	1.8	46382	Average
Pax International Sustainable Econ Instl	7	0.48	0.98	0.97	1.11	0.22	0.52	0.44	17.18	93	18.8	2.1	48047	Below Avg
Vanguard ESG International Stock ETF	4	0.12	0.98	-	0.51	-	0.50	-	16.67	98	14.1	1.7	28004	-
Cat: Foreign Large Blend	-	0.94	0.99	0.99	-0.12	-0.36	0.45	0.41	17.39	93	14.0	1.8	51158	-

● Green = exceeds peer group

● Yellow = trails peer group

□ Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund

Green = Possible ESG Replacement

# Clean Water ESG Search

## Results

Data as of 3/31/2022	Morningstar Category	Market Returns (%)							% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr
<b>Clean Water</b>														
Calvert Global Water I	Natural Resources	0.03	-10.21	-10.21	4.07	14.13	10.46	9.47	85	85	92	83	73	38
First Trust Water ETF	Natural Resources	4.30	-11.00	-11.00	8.34	18.82	15.83	14.28	90	90	85	40	14	1
Invesco S&P Global Water ETF	Natural Resources	1.18	-13.28	-13.28	8.69	15.76	13.01	11.42	96	96	82	66	38	7
Invesco Water Resources ETF	Natural Resources	3.21	-12.84	-12.84	7.62	16.46	15.73	11.25	92	92	87	62	16	11
Cat: Natural Resources	Natural Resources	6.61	8.48	8.48	25.31	18.43	11.80	6.07	-	-	-	-	-	-
Idx: Russell 3000 TR USD	-	3.24	-5.28	-5.28	11.92	18.24	15.40	14.28	-	-	-	-	-	-
Idx: S&P 500 TR USD	-	3.71	-4.60	-4.60	15.65	18.92	15.99	14.64	-	-	-	-	-	-
Idx: S&P Global Water TR	-	1.48	-12.97	-12.97	9.71	16.72	13.92	12.29	-	-	-	-	-	-

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Clean Water</b>														
Calvert Global Water I	Natural Resources	22.94	15.08	28.35	-13.32	19.30	14.43	-12.30	-3.22	28.72	27.13	-9.91	13.62	28.75
First Trust Water ETF	Natural Resources	31.89	21.22	37.12	-8.90	24.27	32.22	-9.81	0.36	30.92	26.86	-5.60	19.46	20.35
Invesco S&P Global Water ETF	Natural Resources	31.34	15.78	33.40	-10.02	26.74	6.67	-1.81	3.86	26.22	20.22	-7.46	15.03	31.38
Invesco Water Resources ETF	Natural Resources	31.26	20.81	37.46	-6.26	23.56	13.86	-15.20	-1.10	26.98	24.06	-10.51	13.25	17.04
Cat: Natural Resources	Natural Resources	29.56	16.37	14.95	-19.01	16.61	26.69	-22.16	-12.48	8.75	4.34	-13.97	18.06	48.48
Idx: Russell 3000 TR USD	-	25.66	20.89	31.02	-5.24	21.13	12.74	0.48	12.56	33.55	16.42	1.03	16.93	28.34
Idx: S&P 500 TR USD	-	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46
Idx: S&P Global Water TR	-	32.28	16.61	34.53	-9.34	27.73	7.37	-1.04	4.57	27.31	21.27	-6.74	15.95	32.67

## Statistics

Data as of 3/31/2022	Manger	Expense	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
	Tenure	Ratio	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr		S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
<b>Clean Water</b>														
Calvert Global Water I	5	0.21	1.01	0.99	-0.31	-1.56	0.75	0.60	18.17	92	18.7	2.4	6343	Low
First Trust Water ETF	15	0.54	0.99	1.02	4.83	3.93	0.98	0.87	18.91	82	29.4	3.8	9920	Below Avg
Invesco S&P Global Water ETF	4	0.57	0.91	0.91	3.08	2.32	0.89	0.80	17.54	80	24.6	3.5	8734	Low
Invesco Water Resources ETF	15	0.60	0.93	0.97	3.57	4.30	0.89	0.89	18.32	76	29.7	4.6	14475	Below Avg
Cat: Natural Resources	-	1.06	1.25	1.22	2.60	-0.78	0.77	0.59	25.97	72	13.9	2.4	24738	-

Green = exceeds peer group

Yellow = trails peer group

Red = fails to meet criteria (on watch/remove and/or replacement)

Green = Possible ESG Replacement

\*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added

\*Investment returns have management fee added back, and admin fee subtracted

# Intermediate Core Bond ESG Search

## Results

Data as of 6/30/2022	Morningstar Category	Market Returns (%)								% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	
<b>Bond</b>															
American Funds Bond Fund of Amer F2	Intermediate Core Bond	-1.97	-5.02	-10.18	-9.71	0.34	1.59	2.06	55	28	16	2	3	10	
TIAA-CREF Core Impact Bond Advisor	Intermediate Core Bond	-1.90	-5.50	-11.16	-11.20	-1.12	0.88	-	82	76	67	63	32	-	
Touchstone Impact Bond Y	Intermediate Core Bond	-0.87	-4.37	-10.15	-10.58	-1.08	0.77	1.60	19	26	45	58	51	40	
Cat: Intermediate Core Bond	Intermediate Core Bond	-1.65	-4.93	-10.53	-10.74	-1.00	0.72	1.47	-	-	-	-	-	-	
Idx: Bloomberg US Agg Bond TR USD	-	-1.57	-4.69	-10.35	-10.29	-0.93	0.88	1.54	-	-	-	-	-	-	

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Bond</b>														
American Funds Bond Fund of Amer F2	Intermediate Core Bond	-0.71	10.99	8.28	0.14	3.47	3.00	0.47	5.82	-1.75	6.16	6.76	7.55	15.19
TIAA-CREF Core Impact Bond Advisor	Intermediate Core Bond	-1.00	7.25	8.63	0.27	4.53	3.02	1.18	8.80	-1.27	-	-	-	-
Touchstone Impact Bond Y	Intermediate Core Bond	-1.01	6.71	7.91	0.15	3.94	2.85	-0.20	6.67	-2.17	5.71	8.10	9.08	16.90
Cat: Intermediate Core Bond	Intermediate Core Bond	-1.48	7.52	8.06	-0.50	3.71	3.23	-0.26	5.18	-1.42	7.01	5.86	7.72	13.97
Idx: Bloomberg US Agg Bond TR USD	-	-1.54	7.51	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93

## Statistics

Data as of 6/30/2022	Manger	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr	S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr	
<b>Bond</b>														
American Funds Bond Fund of Amer F2	13	0.31	0.99	0.96	1.25	0.70	-0.03	0.14	4.54	97	-	-	-	Below Avg
TIAA-CREF Core Impact Bond Advisor	10	0.43	1.09	1.05	-0.02	0.04	-0.28	-0.03	5.50	81	-	-	-	Above Avg
Touchstone Impact Bond Y	16	0.51	1.04	1.01	-0.07	-0.09	-0.31	-0.06	5.01	89	-	-	-	Average
Cat: Intermediate Core Bond	-	0.59	0.99	0.98	-0.07	-0.15	-0.32	-0.08	4.78	90	-	-	-	-

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)
- Blue = Current Fund
- Green = Possible ESG Replacement

# Intermediate Core-Plus Bond ESG Search

## Results

Data as of 6/30/2022		Morningstar	Market Returns (%)							% Ranks											
		Category	1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr						
<b>Bond</b>																					
American Funds Strategic Bond F-2	Intermediate Core-Plus Bond	●	-2.07	●	-5.76	●	-8.97	●	-8.11	●	2.61	●	3.22	-	56	12	7	1	2	-	
DoubleLine Core Fixed Income I	Intermediate Core-Plus Bond	●	-2.01	●	-5.50	●	-10.11	●	-10.18	●	-1.24	●	0.74	●	2.08	39	21	22	73	63	35
DoubleLine Total Return Bond I	Intermediate Core-Plus Bond	●	-1.06	●	-3.97	●	-8.60	●	-8.43	●	-1.11	●	0.80	●	2.18	10	10	9	67	59	30
Janus Henderson Flexible Bond I	Intermediate Core-Plus Bond	●	-1.69	●	-5.02	●	-10.95	●	-10.66	●	0.36	●	1.47	●	2.06	20	40	35	9	18	36
Loomis Sayles Core Plus Bond Y	Intermediate Core-Plus Bond	●	-2.44	●	-5.97	●	-11.03	●	-11.23	●	-0.26	●	1.39	●	2.45	66	43	50	26	20	20
Calvert Bond I	Intermediate Core-Plus Bond	●	-2.03	●	-5.08	●	-10.24	●	-10.23	●	-0.28	●	1.33	●	2.30	22	23	24	26	22	24
PIMCO Total Return ESG I2	Intermediate Core-Plus Bond	●	-2.81	●	-6.70	●	-12.77	●	-12.95	●	-1.36	●	0.52	●	1.46	89	91	89	79	76	83
<b>Cat: Intermediate Core-Plus Bond</b>	<b>Intermediate Core-Plus Bond</b>		<b>-2.17</b>	<b>-5.51</b>	<b>-10.91</b>	<b>-11.10</b>	<b>-0.73</b>	<b>0.94</b>	<b>1.91</b>												
<b>Idx: Bloomberg US Agg Bond TR USD</b>			<b>-1.57</b>	<b>-4.69</b>	<b>-10.35</b>	<b>-10.29</b>	<b>-0.93</b>	<b>0.88</b>	<b>1.54</b>												

Data as of 12/31/2021			2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009												
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return												
<b>Bond</b>																											
American Funds Strategic Bond F-2	Intermediate Core-Plus Bond	●	-0.77	●	18.31	●	8.23	●	0.48	●	3.47	-	-	-	-												
DoubleLine Core Fixed Income I	Intermediate Core-Plus Bond	●	-0.34	●	5.60	●	7.99	●	-0.02	●	4.66	●	4.11	●	0.63	●	6.86	●	-1.20	●	8.15	●	11.45	-	-		
DoubleLine Total Return Bond I	Intermediate Core-Plus Bond	●	0.24	●	4.12	●	5.81	●	1.75	●	3.79	●	2.17	●	2.32	●	6.73	●	0.02	●	9.16	●	9.51	-	-		
Janus Henderson Flexible Bond I	Intermediate Core-Plus Bond	●	-0.78	●	10.88	●	9.56	●	-0.87	●	3.62	●	2.65	●	0.11	●	4.93	●	-0.05	●	8.05	●	6.66	●	7.60	●	12.61
Loomis Sayles Core Plus Bond Y	Intermediate Core-Plus Bond	●	-1.42	●	10.63	●	8.96	●	-0.69	●	5.22	●	7.49	●	-3.93	●	6.40	●	-0.56	●	11.59	●	7.90	●	10.74	●	16.93
Calvert Bond I	Intermediate Core-Plus Bond	●	0.24	●	7.65	●	8.65	●	0.10	●	4.56	●	4.06	●	0.54	●	6.73	●	-1.97	●	8.27	●	6.23	●	6.80	●	11.57
PIMCO Total Return ESG I2	Intermediate Core-Plus Bond	●	-1.20	●	8.86	●	8.83	●	-0.88	●	4.35	●	2.85	●	0.29	●	4.43	●	-2.17	●	9.58	●	3.42	●	8.97	●	13.72
<b>Cat: Intermediate Core-Plus Bond</b>	<b>Intermediate Core-Plus Bond</b>		<b>-0.67</b>	<b>8.06</b>	<b>8.94</b>	<b>-0.61</b>	<b>4.27</b>	<b>3.86</b>	<b>-0.45</b>	<b>5.42</b>	<b>-0.90</b>	<b>7.76</b>	<b>6.27</b>	<b>8.51</b>	<b>15.12</b>												
<b>Idx: Bloomberg US Agg Bond TR USD</b>			<b>-1.54</b>	<b>7.51</b>	<b>8.72</b>	<b>0.01</b>	<b>3.54</b>	<b>2.65</b>	<b>0.55</b>	<b>5.97</b>	<b>-2.02</b>	<b>4.21</b>	<b>7.84</b>	<b>6.54</b>	<b>5.93</b>												

## Statistics

Data as of 6/30/2022		Manger	Expense	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
		Tenure	Ratio	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr		S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
<b>Bond</b>															
American Funds Strategic Bond F-2		6	0.43	0.91	0.87	3.42	2.29	0.42	0.51	5.13	64	-	-	-	Below Avg
DoubleLine Core Fixed Income I		12	0.48	0.91	0.87	-0.39	-0.13	-0.31	-0.06	5.47	57	-	-	-	Average
DoubleLine Total Return Bond I		12	0.50	0.78	0.76	-0.51	-0.13	-0.38	-0.07	4.23	69	-	-	-	Low
Janus Henderson Flexible Bond I		7	0.45	1.12	1.05	1.50	0.62	-0.01	0.10	5.49	85	-	-	-	Average
Loomis Sayles Core Plus Bond Y		26	0.46	1.05	0.99	0.78	0.52	-0.14	0.09	5.04	90	-	-	-	Below Avg
Calvert Bond I		10	0.18	0.97	0.93	0.66	0.46	-0.14	0.07	5.30	69	-	-	-	Average
PIMCO Total Return ESG I2		8	0.63	1.14	1.08	-0.20	-0.32	-0.34	-0.11	5.35	93	-	-	-	Average
<b>Cat: Intermediate Core-Plus Bond</b>			<b>0.74</b>	<b>1.01</b>	<b>0.96</b>	<b>0.27</b>	<b>0.09</b>	<b>-0.22</b>	<b>-0.02</b>	<b>5.54</b>	<b>73</b>				

● Green = exceeds peer group  
 ● Yellow = trails peer group  
 □ Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund  
 Green = Possible ESG Replacement

\*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added  
 \*Investment returns have management fee added back, and admin fee subtracted

# Large Blend ESG Search

## Results

Data as of 6/30/2022	Morningstar Category	Market Returns (%)						% Ranks						
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr
<b>Large Blend</b>														
Invesco S&P 500® Equal Weight ETF	Large Blend	● -9.42	● -14.39	● -16.75	● -9.55	● 9.56	● 9.67	● 12.34	33	20	28	53	63	41
Vanguard Total Stock Market ETF	Large Blend	● -8.37	● -16.85	● -21.38	● -14.24	● 9.62	● 10.52	● 12.52	84	76	81	50	44	31
Calvert US Large Cap Core Rspnb Idx I	Large Blend	● -7.99	● -17.43	● -23.25	● -15.26	● 10.59	● 11.35	● 13.17	91	92	86	20	16	7
iShares MSCI USA ESG Select ETF	Large Blend	● -8.53	● -16.38	● -23.58	● -14.53	● 11.29	● 11.16	● 12.54	71	94	83	13	24	30
Parnassus Core Equity Investor	Large Blend	● -6.65	● -15.34	● -20.20	● -11.52	● 10.28	● 11.90	● 13.09	46	57	50	32	8	9
Vanguard ESG US Stock ETF	Large Blend	● -7.90	● -17.86	● -24.06	● -16.08	● 10.39	-	-	95	95	89	28	-	-
<b>Cat: Large Blend</b>	<b>Large Blend</b>	<b>-7.93</b>	<b>-14.88</b>	<b>-19.30</b>	<b>-11.58</b>	<b>9.14</b>	<b>9.77</b>	<b>11.63</b>	-	-	-	-	-	-
<b>Idx: S&amp;P 500 TR USD</b>	<b>-</b>	<b>-8.25</b>	<b>-16.10</b>	<b>-19.96</b>	<b>-10.62</b>	<b>10.60</b>	<b>11.31</b>	<b>12.96</b>	-	-	-	-	-	-

Data as of 12/31/2021	Morningstar Category	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Large Blend</b>														
Invesco S&P 500® Equal Weight ETF	Large Blend	● 29.35	● 12.75	● 28.94	● -7.77	● 18.52	● 14.34	● -2.57	● 14.02	● 35.60	● 17.04	● -0.50	● 21.30	● 45.08
Vanguard Total Stock Market ETF	Large Blend	● 25.72	● 20.95	● 30.80	● -5.13	● 21.16	● 12.68	● 0.40	● 12.56	● 33.51	● 16.41	● 1.06	● 17.26	● 28.82
Calvert US Large Cap Core Rspnb Idx I	Large Blend	● 25.62	● 26.11	● 32.82	● -4.07	● 21.18	● 10.71	● 1.14	● 14.41	● 35.04	● 17.71	● 0.05	● 13.73	● 34.84
iShares MSCI USA ESG Select ETF	Large Blend	● 30.31	● 24.64	● 32.18	● -5.56	● 22.52	● 12.25	● -1.89	● 13.49	● 30.87	● 10.23	● 1.58	● 14.07	● 30.37
Parnassus Core Equity Investor	Large Blend	● 27.55	● 21.19	● 30.69	● -0.18	● 16.58	● 10.41	● -0.55	● 14.49	● 33.98	● 15.43	● 3.13	● 8.87	● 28.75
Vanguard ESG US Stock ETF	Large Blend	● 26.41	● 25.71	● 33.40	-	-	-	-	-	-	-	-	-	-
<b>Cat: Large Blend</b>	<b>Large Blend</b>	<b>26.07</b>	<b>15.83</b>	<b>28.78</b>	<b>-6.27</b>	<b>20.44</b>	<b>10.37</b>	<b>-1.07</b>	<b>10.96</b>	<b>31.50</b>	<b>14.96</b>	<b>-1.27</b>	<b>14.01</b>	<b>28.17</b>
<b>Idx: S&amp;P 500 TR USD</b>	<b>-</b>	<b>28.71</b>	<b>18.40</b>	<b>31.49</b>	<b>-4.38</b>	<b>21.83</b>	<b>11.96</b>	<b>1.38</b>	<b>13.69</b>	<b>32.39</b>	<b>16.00</b>	<b>2.11</b>	<b>15.06</b>	<b>26.46</b>

## Statistics

Data as of 6/30/2022	Manger	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr		S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
<b>Large Blend</b>														
Invesco S&P 500® Equal Weight ETF	4	0.20	1.07	1.06	-1.28	-1.85	0.51	0.53	20.83	92	16.0	2.6	32840	High
Vanguard Total Stock Market ETF	28	0.03	1.04	1.03	-1.16	-0.96	0.54	0.60	19.38	99	17.7	3.2	101512	Above Avg
Calvert US Large Cap Core Rspnb Idx I	6	0.06	1.01	1.02	-0.08	-0.08	0.59	0.64	18.97	99	19.9	3.9	133427	Average
iShares MSCI USA ESG Select ETF	15	0.25	1.00	1.00	0.64	-0.13	0.63	0.64	18.79	99	19.1	4.1	95675	Average
Parnassus Core Equity Investor	21	0.82	0.89	0.88	0.64	1.56	0.63	0.74	16.86	97	23.7	4.0	160827	Low
Vanguard ESG US Stock ETF	4	0.09	1.04	-	-0.48	-	0.57	-	19.52	99	18.3	3.6	121150	-
<b>Cat: Large Blend</b>	<b>-</b>	<b>0.80</b>	<b>0.98</b>	<b>0.99</b>	<b>-1.12</b>	<b>-1.25</b>	<b>0.53</b>	<b>0.57</b>	<b>18.87</b>	<b>95</b>	<b>18.7</b>	<b>4.2</b>	<b>216364</b>	<b>-</b>

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund  
Green = Possible ESG Replacement

\*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added  
\*Investment returns have management fee added back, and admin fee subtracted



# Foreign Large Blend ESG Search

## Results

Data as of 6/30/2022	Morningstar Category	Market Returns (%)								% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	
<b>Foreign Large Blend</b>															
Vanguard FTSE Developed Markets ETF	Foreign Large Blend	● -9.61	● -14.08	● -19.26	● -18.11	● 2.12	● 2.70	● 5.85	69	52	46	31	32	19	
iShares ESG Aware MSCI EAFE ETF	Foreign Large Blend	● -8.84	● -13.21	● -19.58	● -17.67	● 1.68	● 2.73	-	46	58	37	42	31	-	
Pax International Sustainable Econ Instl	Foreign Large Blend	● -8.66	● -14.21	● -21.14	● -17.90	● 1.66	● 2.39	● 5.42	73	78	41	43	45	34	
Vanguard ESG International Stock ETF	Foreign Large Blend	● -8.00	● -13.35	● -20.04	● -21.41	● 1.75	-	-	51	65	82	39	-	-	
Cat: Foreign Large Blend	Foreign Large Blend	-8.72	-13.15	-19.18	-18.69	1.31	2.08	5.11	-	-	-	-	-	-	
Idx: MSCI ACWI Ex USA NR USD	-	-8.60	-13.73	-18.42	-19.42	1.35	2.50	4.83	-	-	-	-	-	-	
Idx: MSCI EAFE NR USD	-	-9.28	-14.51	-19.57	-17.77	1.07	2.20	5.40	-	-	-	-	-	-	

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Foreign Large Blend</b>														
Vanguard FTSE Developed Markets ETF	Foreign Large Blend	● 11.49	● 10.29	● 22.08	● -14.47	● 26.44	● 2.51	● -0.21	● -5.71	● 22.12	● 18.60	● -12.57	● 8.47	● 28.34
iShares ESG Aware MSCI EAFE ETF	Foreign Large Blend	● 11.60	● 8.62	● 23.45	● -13.62	● 25.21	-	-	-	-	-	-	-	-
Pax International Sustainable Econ Instl	Foreign Large Blend	● 11.19	● 10.78	● 23.01	● -12.90	● 23.34	● -1.63	● 1.16	● -5.52	● 24.98	● 17.03	-	-	-
Vanguard ESG International Stock ETF	Foreign Large Blend	● 7.13	● 13.52	● 22.80	-	-	-	-	-	-	-	-	-	-
Cat: Foreign Large Blend	Foreign Large Blend	9.72	9.30	21.59	-14.59	25.12	0.79	-1.59	-4.98	19.44	18.29	-13.97	10.24	31.24
Idx: MSCI ACWI Ex USA NR USD	-	7.82	10.65	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15	41.45
Idx: MSCI EAFE NR USD	-	11.26	7.82	22.01	-13.79	25.03	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78

## Statistics

Data as of 6/30/2022	Manger Tenure	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe Ratio 3 Yr	Sharpe Ratio 5 Yr	Std 3 Yr	R2 3 Yr vs.	P/E Ratio	P/B Ratio	Geo Avg Mkt Cap \$MM	Mstar Risk 5 Yr
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr	S&P or Barc Agg	Ratio	Ratio			
<b>Foreign Large Blend</b>														
Vanguard FTSE Developed Markets ETF	9	0.05	1.05	1.03	0.85	0.24	0.17	0.18	18.63	97	12.0	1.5	25657	Average
iShares ESG Aware MSCI EAFE ETF	6	0.20	1.01	1.00	0.38	0.26	0.15	0.18	18.07	96	12.6	1.6	40091	Average
Pax International Sustainable Econ Instl	8	0.47	0.99	0.97	0.38	-0.04	0.15	0.16	17.85	94	14.7	1.8	40296	Below Avg
Vanguard ESG International Stock ETF	4	0.12	0.98	-	0.42	-	0.15	-	17.22	98	12.1	1.5	23915	-
Cat: Foreign Large Blend	-	0.93	1.00	0.99	0.07	-0.32	0.13	0.14	18.08	93	12.0	1.6	43473	-

● Green = exceeds peer group

● Yellow = trails peer group

□ Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund

Green = Possible ESG Replacement

# Balanced Fund ESG Search

## Results

Data as of 6/30/2022	Morningstar Category	Market Returns (%)							% Ranks						
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	
<b>Allocation</b>															
American Funds American Balanced F2	Allocation--50% to 70% Equity	-6.11	-9.83	-13.42	-8.27	6.27	7.08	8.94	25	29	20	19	16	6	
Janus Henderson Balanced I	Allocation--50% to 70% Equity	-4.93	-11.67	-17.22	-10.64	6.43	8.44	9.00	67	80	37	18	5	6	
1919 Socially Responsive Balanced I	Allocation--50% to 70% Equity	-4.74	-13.39	-19.73	-12.73	7.14	9.14	8.83	94	96	64	12	3	7	
Calvert Balanced I	Allocation--50% to 70% Equity	-4.75	-11.01	-15.39	-10.51	6.37	7.63	8.05	51	47	36	19	9	20	
Cat: Allocation--50% to 70% Equity	Allocation--50% to 70% Equity	-5.85	-10.58	-14.43	-11.07	4.54	5.29	6.69	-	-	-	-	-	-	
Idx: 60% S&P 500 / 40% Bloomberg Agg	-	-5.58	-11.54	-16.12	-10.49	5.99	7.14	8.39	-	-	-	-	-	-	
Idx: S&P 500 TR USD	-	-8.25	-16.10	-19.96	-10.62	10.60	11.31	12.96	-	-	-	-	-	-	
Idx: Bloomberg US Agg Bond TR USD	-	-1.57	-4.69	-10.35	-10.29	-0.93	0.88	1.54	-	-	-	-	-	-	

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Allocation</b>															
American Funds American Balanced F2	Allocation--50% to 70% Equity	16.01	11.08	19.45	-2.52	15.69	8.80	1.92	9.08	21.99	14.40	4.11	13.21	21.41	
Janus Henderson Balanced I	Allocation--50% to 70% Equity	17.24	14.39	22.59	0.70	18.58	4.61	0.64	8.53	19.86	13.09	1.49	8.01	24.36	
1919 Socially Responsive Balanced I	Allocation--50% to 70% Equity	17.61	20.93	25.10	-1.00	16.71	6.02	-1.89	8.98	18.67	10.42	-0.36	11.79	23.75	
Calvert Balanced I	Allocation--50% to 70% Equity	14.58	15.75	24.05	-2.46	11.94	8.16	-2.43	10.34	17.83	11.38	3.80	11.50	24.63	
Cat: Allocation--50% to 70% Equity	Allocation--50% to 70% Equity	13.89	11.72	19.23	-5.76	13.21	7.34	-1.93	6.21	16.48	11.72	-0.11	11.83	24.13	
Idx: 60% S&P 500 / 40% Bloomberg Agg	-	16.61	14.04	22.38	-2.63	14.52	8.23	1.05	10.60	18.62	11.29	4.40	11.65	18.25	
Idx: S&P 500 TR USD	-	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46	
Idx: Bloomberg US Agg Bond TR USD	-	-1.54	7.51	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93	

## Statistics

Data as of 6/30/2022	Manger Tenure	Expense Ratio	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar	
			S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr	S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr		
<b>Allocation</b>															
American Funds American Balanced F2	24	0.35	0.94	0.96	2.78	2.20	0.54	0.61	11.37	97	15.5	3.1	129386	Below Avg	
Janus Henderson Balanced I	7	0.65	0.99	0.99	2.86	3.40	0.52	0.70	12.31	91	27.0	6.3	295422	Average	
1919 Socially Responsive Balanced I	16	0.72	1.07	1.10	3.41	3.74	0.53	0.68	13.60	87	22.7	4.5	174074	Above Avg	
Calvert Balanced I	10	0.21	1.02	1.01	2.73	2.58	0.51	0.62	12.60	93	24.8	4.4	150640	Average	
Cat: Allocation--50% to 70% Equity	-	1.03	1.03	1.04	0.98	0.29	0.37	0.41	12.77	92	16.1	2.6	98403	-	

- Green = exceeds peer group
- Yellow = trails peer group
- Red = fails to meet criteria (on watch/remove and/or replacement)

Blue = Current Fund  
Green = Possible ESG Replacement

\*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added  
\*Investment returns have management fee added back, and admin fee subtracted

# Clean Water ESG Search

## Results

Data as of 6/30/2022	Morningstar Category	Market Returns (%)							% Ranks					
		1 Month	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr	3 Month	YTD	1-Yr	3-Yr	5-Yr	10-Yr
<b>Clean Water</b>														
Calvert Global Water I	Natural Resources	● -7.64	● -14.50	● -23.39	● -16.36	● 5.81	● 5.71	● 7.65	29	84	90	89	76	42
First Trust Water ETF	Natural Resources	● -6.02	● -14.27	● -23.71	● -13.23	● 10.19	● 11.64	● 13.10	27	86	76	42	13	1
Invesco S&P Global Water ETF	Natural Resources	● -8.23	● -16.06	● -27.21	● -16.22	● 7.16	● 8.10	● 9.84	46	93	89	81	49	14
Invesco Water Resources ETF	Natural Resources	● -5.67	● -12.66	● -23.88	● -13.39	● 9.48	● 11.83	● 10.32	10	88	77	58	9	9
Cat: Natural Resources	Natural Resources	-13.95	-17.37	-10.50	-3.82	11.14	8.05	5.15	-	-	-	-	-	-
Idx: Russell 3000 TR USD	-	-8.37	-16.70	-21.10	-13.87	9.77	10.60	12.57	-	-	-	-	-	-
Idx: S&P 500 TR USD	-	-8.25	-16.10	-19.96	-10.62	10.60	11.31	12.96	-	-	-	-	-	-
Idx: S&P Global Water TR	-	-8.15	-16.10	-26.98	-15.67	7.92	8.91	10.66	-	-	-	-	-	-

Data as of 12/31/2021		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
		Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return	Return
<b>Clean Water</b>														
Calvert Global Water I	Natural Resources	● 22.94	● 15.08	● 28.35	● -13.32	● 19.30	● 14.43	● -12.30	● -3.22	● 28.72	● 27.13	● -9.91	● 13.62	● 28.75
First Trust Water ETF	Natural Resources	● 31.89	● 21.22	● 37.12	● -8.90	● 24.27	● 32.22	● -9.81	● 0.36	● 30.92	● 26.86	● -5.60	● 19.46	● 20.35
Invesco S&P Global Water ETF	Natural Resources	● 31.34	● 15.78	● 33.40	● -10.02	● 26.74	● 6.67	● -1.81	● 3.86	● 26.22	● 20.22	● -7.46	● 15.03	● 31.38
Invesco Water Resources ETF	Natural Resources	● 31.26	● 20.81	● 37.46	● -6.26	● 23.56	● 13.86	● -15.20	● -1.10	● 26.98	● 24.06	● -10.51	● 13.25	● 17.04
Cat: Natural Resources	Natural Resources	29.56	16.37	14.95	-19.01	16.61	26.69	-22.16	-12.48	8.75	4.34	-13.97	18.06	48.48
Idx: Russell 3000 TR USD	-	25.66	20.89	31.02	-5.24	21.13	12.74	0.48	12.56	33.55	16.42	1.03	16.93	28.34
Idx: S&P 500 TR USD	-	28.71	18.40	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46
Idx: S&P Global Water TR	-	32.28	16.61	34.53	-9.34	27.73	7.37	-1.04	4.57	27.31	21.27	-6.74	15.95	32.67

## Statistics

Data as of 6/30/2022	Manger	Expense	Beta 3 Yr vs.	Beta 5 Yr vs.	Alpha 3 Yr vs.	Alpha 5 Yr vs.	Sharpe	Sharpe	Std 3 Yr	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
	Tenure	Ratio	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	S&P or Barc Agg	Ratio 3 Yr	Ratio 5 Yr		S&P or Barc Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
<b>Clean Water</b>														
Calvert Global Water I	6	0.21	0.98	0.98	-0.16	-1.01	0.37	0.35	18.43	92	17.3	2.2	6091	Low
First Trust Water ETF	15	0.53	0.97	1.01	4.15	4.57	0.57	0.64	19.26	83	24.5	3.3	8487	Below Avg
Invesco S&P Global Water ETF	4	0.57	0.93	0.92	1.49	1.66	0.44	0.49	18.55	82	19.3	2.9	7618	Low
Invesco Water Resources ETF	15	0.60	0.92	0.96	3.79	4.99	0.55	0.66	18.80	78	25.2	4.0	13090	Below Avg
Cat: Natural Resources	-	1.06	1.24	1.23	4.96	1.10	0.50	0.41	26.86	72	10.7	2.1	23462	-

● Green = exceeds peer group



● Yellow = trails peer group

□ Red = fails to meet criteria (on watch/remove and/or replacement)

● Green = Possible ESG Replacement

\*Calvert Funds show reduced expense Ratio. Management fee is excluded. 6bps admin fee added

\*Investment returns have management fee added back, and admin fee subtracted



The performance shown in the preceding pages represents past performance. Past performance is no guarantee of future results and current performance may be higher or lower than the performance shown above. Investment returns, yields and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Returns of less than a year are cumulative and are not annualized and are calculated from January 1 of the reporting year. Average annual total returns are annualized and assume the reinvestment of all distributions at net asset value and the deductions of fund expenses. Data is from sources deemed reliable, however no guarantee may be made to their accuracy.



The information contained herein was prepared by your Financial Advisor and does not represent an official statement of your account at the Firm (or other outside custodians, if applicable). Please refer to your monthly statement for a complete record of your transactions, holdings and balances.

The information and data contained in this report are from sources considered reliable, but their accuracy and completeness is not guaranteed. This report has been prepared for illustrative purposes only and is not intended to be used as a substitute for monthly transaction statements you receive on a regular basis from Morgan Stanley Smith Barney LLC. Please compare the data on this document carefully with your monthly statements to verify its accuracy. The Company strongly encourages you to consult with your own accountants or other advisors with respect to any tax questions.

Data Source: Morningstar; as of 3/31/2022

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The performance shown in the preceding pages represents past performance. Past performance is no guarantee of future results and current performance may be higher or lower than the performance shown above. Investment returns, yields and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Returns of less than a year are cumulative and are not annualized and are calculated from January 1 of the reporting year. Average annual total returns are annualized and assume the reinvestment of all distributions at net asset value and the deductions of fund expenses. Data is from sources deemed reliable, however no guarantee may be made to their accuracy.

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Data Source: Morningstar; as of 3/31/2022

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# Morgan Stanley

THE KELLIHER CORBETT GROUP  
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## SEC's Asset Manager Disclosure for ESG

June 6, 2022 05:00 AM GMT

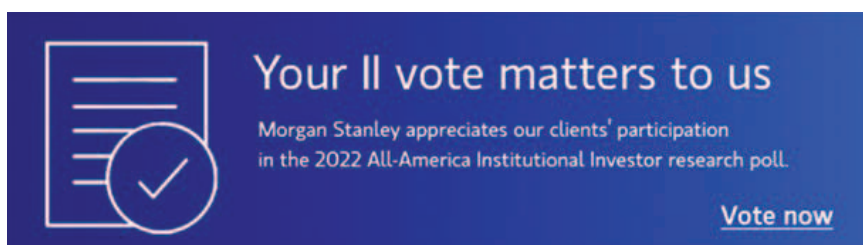
## Sustainability | North America

## ABCs of SEC's Asset Manager Disclosure for ESG

Recently, the SEC proposed ESG disclosure requirements for registered funds. Inside, we outline the key components of the rule across the three identified types of funds: integration, ESG-focused, and impact.

*If you feel our team has added value to your investment process, we would really appreciate your consideration to vote for the category of **ESG Research** in this year's **Institutional Investor All-America Research survey**.*

Please see here for the survey: <https://voting.institutionalinvestor.com/>



**Asset manager disclosure advances the agenda.** ESG has represented a core focus for the SEC under the Biden administration. Now, with midterm elections approaching, the SEC proposed a rule to require disclosure from registered funds that employ ESG in their investment process. Rulemaking for asset managers builds on a proposal in March for climate-related disclosure for corporates (see our reports [here](#) & [here](#)). After assessing the rule in more detail (see our initial thoughts [here](#)), we continue to believe a more prescriptive approach removes uncertainty for asset managers that incorporate ESG – a positive for the embracement of sustainability in the US.

**Inside (see [here](#)), we outline the key components of the rule - though offer a few high level thoughts here.** First, relative to required ESG disclosures in Europe, the proposed rule from the SEC is much less prescriptive and intensive. Second, the SEC rule suggests a looser interpretation of "ESG" - which aligns with our view that ESG cannot be encompassed in a singular and narrow definition. Third, while the rule leaves much to the discretion of the asset manager, the design seeks to avoid misrepresentation of the role of ESG within investment strategies. For instance, the SEC would limit disclosure for integration funds so as not to overly emphasize the usage of ESG factors. Lastly, requirements for "environmentally focused funds" to disclose emissions integrate with the SEC's climate-related disclosure for corporates. Absent a disclosure requirement for corporates, asset managers would, in many instances, be forced to estimate emissions of portfolio companies.

Sustainability 

MORGAN STANLEY &amp; CO. LLC

**Mark Carlucci, CFA**

EQUITY STRATEGIST

Mark.Carlucci@morganstanley.com +1 212 761-6586

MORGAN STANLEY &amp; CO. INTERNATIONAL PLC+

**Victoria Irving**

EQUITY STRATEGIST

Victoria.Irving@morganstanley.com +44 20 7425-6651

**Lucy Beauvallet**

EQUITY STRATEGIST

Lucy.Beauvallet@morganstanley.com +44 20 7677-2470

MORGAN STANLEY ASIA LIMITED+

**Tim Chan, CFA**

EQUITY STRATEGIST

Tim.Chan@morganstanley.com +852 3963-4568

**Ehsernta Fu**

EQUITY STRATEGIST

Ehsernta.Fu@morganstanley.com +852 3963-3711

MORGAN STANLEY &amp; CO. LLC

**Carolyn L Campbell**

STRATEGIST

Carolyn.Campbell@morganstanley.com +1 212 761-3748



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# Key Components of Proposed ESG Disclosure for Integration, ESG-Focused, and Impact Funds

## Integration Funds

### Definition

**Integration funds consider ESG in parallel with non-ESG factors.** Proposed disclosure is more limited for integration funds than ESG-focused funds, since "requiring a more detailed discussion of ESG factors could cause an Integration Fund to overemphasize the role ESG factors play in the fund's investment selection process by adding ESG disclosure requirements that could result in a more detailed description of ESG factors than other factors." As a result, the SEC proposes a layered approach for integration funds (ie. more detailed disclosure beyond the statutory prospectus).

### Requirements

**ESG integration funds would summarize, in a few sentences, the methodology for incorporating ESG factors into the investment process.** For open-end funds, this would be in the summary section of the prospectus; for closed-end funds, this would be in the general description of the fund. The SEC's proposed rule provides an example:

- "... an Integration Fund might disclose that it invests in companies consistent with its objective of risk-adjusted return; that it considers ESG factors alongside financial, industry-related and macroeconomic factors; that the specific ESG factors it evaluates are the impact and risk around climate change, environmental performance, labor standards, and corporate governance; and that its consideration of these factors would not necessarily result in a company being included or excluded from the evaluation process but rather would contribute to the overall evaluation of the company."

**Integration funds would separately provide more detail.** This disclosure would include "information about the fund's integration of ESG factors in its investment strategy to facilitate informed decision making by providing investors more detail about the extent to which the fund considers those ESG factors as compared to other factors in the fund's investment selection process." For open-end funds, this additional detail would occur in the statutory prospectus; for closed-end funds, later in the prospectus.

**For integration funds that consider GHG emissions, additional detail would include an associated description of the methodology.** According to an example provided by the SEC, for a strategy that considers emissions only within "high emitting" sectors, the fund would describe the methodology that determines these sectors along with the sources of emissions data that are used in the investment process.

## ESG-Focused Funds

### Definition



**ESG-focused funds either elevate ESG in the investment process or regularly incorporate ESG into engagement (or both).** This definition encompasses impact funds, which we discuss in the following section. Engagement could include both proxy voting or interactions with management teams of issuers.

In an effort to prevent misleading claims of ESG, disclosure requirements apply to any fund that "... has a name including terms indicating that the fund's investment decisions incorporate one or more ESG factors..." or "... whose advertisements or sales literature indicates that the fund's investment decisions incorporate one or more ESG factors by using them as a significant or main consideration in selecting investments." In the latter, ESG factors exclude those that are not a main consideration in the investment process, which may be disclosed by integration funds.

## Requirements

**ESG-focused funds would disclose information in an "ESG Strategy Overview table," located in the prospectus.** Each row would include only brief responses, followed by more detailed disclosure later in the prospectus.

- **"Overview of the Fund's [ESG strategy]."** This row includes a description of the ESG factor(s) within the fund's strategy. In addition, funds must check the box of all strategies that apply to the fund.
- **"How the Fund incorporates [ESG] factors in its investment decisions."** This row includes a summary of the methodology for incorporating ESG factors into "evaluating, selecting, and excluding investments." Specific information would be required for each strategy checked in the prior row. For inclusionary or exclusionary screens, the summary would include factors applied by the screen, percentage of the portfolio's net asset value under scope of the screen, and an explanation if the screen applies to less than 100% of the portfolio. For funds that use an internal methodology or a third party data provider (or both), disclosure would include how these are applied in the investment process. For funds that track an index, the summary would identify and describe the index, including the methodology for determining constituents from ESG factors. Lastly, for funds that incorporate third-party ESG frameworks into investment processes, the summary would include an overview of the frameworks. Example frameworks include the UN Sustainable Development Goals and the UN Principles for Responsible Investing.
- **"How the Fund votes proxies and/or engages with companies about [ESG] issues."** This row would include an overview of the engagement process for funds that check the box titled "Engagement with issuers." This overview would contain **(1)** identification of whether the fund has proxy voting policies or procedures that include ESG considerations (including a statement of these considerations); **(2)** for any engagement efforts (ie. meetings or advocacy to management), disclosure of the intended objectives; **(3)** disclosure stating if the fund does not or expect to engage on ESG issues. If the box is not checked, funds must disclose that "neither proxy voting nor engagement with issuers is a significant part of its engagement policy." The SEC characterizes "significant" as "limited to funds that proactively use proxy voting or engagement with issuers as a means of implementing their ESG strategy." The SEC "generally believe[s] a fund that regularly and proactively votes proxies or engages with issuers on ESG issues to advance one or more particular ESG goals the fund has identified in advance would be using voting and

engagement as a significant means to implement its strategy."

**Exhibit 1:** ESG-focused funds would disclose information in an "ESG Strategy Overview table."

<b>Overview of the Fund's [ESG] strategy</b>	<p>The Fund engages in the following to implement its [ESG] Strategy:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Tracks an index</li> <li><input type="checkbox"/> Applies an inclusionary screen</li> <li><input type="checkbox"/> Applies an exclusionary screen</li> <li><input type="checkbox"/> Seeks to achieve a specific impact</li> <li><input type="checkbox"/> Proxy voting</li> <li><input type="checkbox"/> Engagement with issuers</li> <li><input type="checkbox"/> Other</li> </ul>
<b>How the Fund incorporates [ESG] factors in its investment decisions</b>	
<b>How the Fund votes proxies and/or engages with companies about [ESG] issues</b>	

Source: Securities and Exchange Commission; Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social, and Governance Investment Practices; <https://www.sec.gov/rules/proposed/2022/ia-6034.pdf>

**In the annual report, ESG-focused funds would include additional disclosure within the management's discussion of fund performance section.**

- **For funds that include proxy voting as a significant component of the ESG strategy, disclosure would include how the fund voted proxies on ESG issues during the respective reporting period.** This includes the percentage of ESG-related, eligible voting matters that the fund voted in-line with the advancement of ESG efforts (fund can limit "ESG" to factors incorporated into the fund's investment process). Funds would also refer investors to their full voting records.
- **Similarly, funds would disclose information about engagement practices.** Specifically, this includes the percentage of issuers that the fund engaged on ESG issues during the respective reporting period, along with the aggregate number of ESG engagement meetings. The SEC defines an "ESG engagement meeting" as "a substantive discussion with management of an issuer advocating for one or more specific ESG goals to be accomplished over a given time period, where progress that is made toward meeting such goal is measurable, that is part of an ongoing dialogue with management regarding this goal." To "support compliance with the Federal securities laws," the SEC notes that funds should include in compliance policies a requirement to "memorialize the discussion of ESG issues, for example by creating and preserving meeting agendas and contemporaneous notes of engagements relating to ESG issues to assure accurate reporting on the number of engagements, as we propose to define it."

**For ESG-focused funds that are considered "environmentally focused funds," disclosures in the annual report would expand to include the carbon footprint and**

**weighted average carbon intensity (WACI) of the portfolio.** To clarify, among funds that consider environmental factors, this would not include those that state in the "ESG Strategy Overview" table in the prospectus that the fund does not consider GHG emissions in their investment strategies. The SEC has generally aligned carbon footprint and WACI metrics with recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD) and Partnership for Carbon Accounting Financials (PCAF) - which incorporate the GHG Protocol. Below, we outline several characteristics of required disclosure:

- **Definition of carbon footprint and WACI.** The SEC defines carbon footprint as "the total carbon emissions associated with the fund's portfolio, normalized by the fund's net asset value and expressed in tons of CO<sub>2</sub>e per million dollars invested in the fund." Similarly, the SEC defines WACI as "the fund's exposure to carbon-intensive companies, expressed in tons of CO<sub>2</sub>e per million dollars of the portfolio company's total revenue."
- **Nuances of calculations.** These calculations apply only to Scopes 1 and 2 emissions of portfolio companies. Funds cannot net purchased offsets by portfolio companies against emissions (though funds can disclose offsets separately). Similarly, funds cannot net short sales against GHG emissions.
- **Approach to derivatives.** Funds must include derivative instruments in the calculation of GHG metrics.
- **Source for GHG emissions.** Funds would obtain the GHG emissions of portfolio companies using a data hierarchy in the following order: **(1)** regulatory report if portfolio company discloses Scopes 1 and 2 emissions; **(2)** GHG emissions that are otherwise publicly disclosed by the portfolio company (ie. sustainability report); **(3)** good faith estimate (SEC would not require a certain method). If funds estimate emissions, disclosure would include the percentage of aggregate GHG emissions calculated using estimates along with the process underlying these estimates (including data sources). Funds would also include more detailed information about calculations and estimations in Form N-CSR.
- **Approach to Scope 3 emissions.** Environmentally focused funds would disclose the carbon footprint of Scope 3 emissions, but only for portfolio companies that disclose these (ie. funds do not need to estimate emissions). This would occur separately for each industry. The SEC separates Scopes 1 and 2 from Scope 3 disclosures in an effort to avoid concerns of double counting and in recognition of difficulties in estimating Scope 3 emissions.

## Impact Funds

### Definition

**Impact funds are ESG-focused funds that invest to drive ESG-related impacts.**

Disclosure requirements for impact funds would extend beyond those for other ESG-focused funds.

### Requirements

**Additional disclosure requirements for impact funds in the prospectus include:**

- **In the row "How [the Fund] incorporates [ESG] factors in its investment decisions," an overview of the targeted impact(s) and method of achievement.** This includes "(i) how the fund measures progress toward the specific impact, including the key performance indicators the fund analyzes, (ii) the time horizon the fund uses to analyze progress, and (iii) the relationship between the impact the fund is seeking to achieve and financial return(s)." With regards the last point, funds would disclose if financial returns are secondary to ESG impact, or whether ESG impact is meant to enhance returns. Further details would be disclosed later in the prospectus.
- **In the investment objective, funds would disclose the intended ESG impacts.** For open-end funds, the investment objective is at the beginning of the prospectus. For closed-end funds, the impact disclosure would occur upon the first description of the investment objective (not required until later in the prospectus).

**Similarly, additional disclosure in the annual report includes progress on impact achievement.** Progress would be expressed for the associated reporting period in both qualitative and quantitative terms. Impact funds would also discuss the factors that affected the ability to achieve impact. In an example provided by the SEC, 'a fund that seeks to conserve natural resources by investing in the construction of certified "green" buildings might report the number of "green" buildings built by the fund's portfolio companies over the reporting period along with a qualitative discussion of how green buildings are defined and how they contribute to conservation of natural resources.'

# Morgan Stanley

THE KELLIHER CORBETT GROUP  
AT MORGAN STANLEY




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## ESG - Discover/Assess/Align

# Understanding Your Portfolio's Impact

Measurement and reporting are central to advancing the positive impact of your investments. You cannot manage what you are not measuring.

## Problem



Investors have long sought the ability to understand the environmental and social impact of their investments; however, impact data and reporting is complex.

## Current Landscape:

Impact reporting has evolved into a complex global network of organizations, data providers and rating systems that can be challenging to navigate.

**15+ organizations** such as the Global Impact Investing Network and the Sustainability Accounting Standards Board are building the infrastructure to drive the effective use of material sustainability information by investors

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**100+ data providers** can now deliver environmental, social and governance (ESG) insights across multiple levels (company, manager and portfolio-level) to help determine ESG-driven risks and opportunities

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**Emerging ratings systems** assess ESG performance, but are either over-simplified, non-customizable and struggle to capture intentional sustainable investing approaches

## Solution



We have vetted and partnered with leading ESG data providers – MSCI ESG Research, ISS-ESG, Equileap and Fossil Free Indexes – to deliver a customized impact reporting tool exclusively for Morgan Stanley Financial Advisors and clients. **With us, you can understand and monitor your impact to make informed investment decisions based on your unique impact priorities.**






The description of Morgan Stanley Impact Quotient® and the reports that it generates are solely for informational purposes. You should not definitively rely upon it or use it to form the definitive basis for any decision, contract, commitment or action whatsoever, with respect to any proposed transaction or otherwise.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.






# Introducing Morgan Stanley Impact Quotient®: A Client-Centric Approach to Impact Reporting


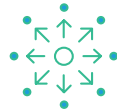



Available exclusively to Morgan Stanley clients, *Morgan Stanley Impact Quotient*® is a new suite of capabilities designed to help you understand the environmental and social impact of your investments.



The process is designed to capture impact priorities and assess alignment across multiple dimensions:



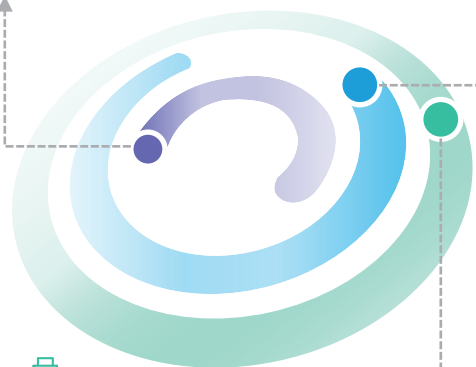

IMPACT PREFERENCES	
<b>IMPACT THEMES &amp; OBJECTIVES</b>	Social and / or environmental impacts sought to be aligned within an investment portfolio 
<b>ISSUES OF CONCERN</b>	Sectors, issues or business activities found to be objectionable or to be avoided with an investment portfolio 
<b>SUSTAINABLE DEVELOPMENT GOALS</b>	United nations supported framework aimed at ending poverty, protecting the planet and ensuring prosperity for all 
<b>TARGETED POPULATIONS FOR IMPACT</b>	Geographies or groups intended to experience positive impacts associated with selected investments 
<b>FAITH-BASED APPROACHES</b>	Faith can serve as a lens or set of considerations within an investment portfolio 

PORTFOLIO PREFERENCES	
<b>PORTFOLIO INTEGRATION APPROACH</b>	Portfolio integration, targeted curve out, portfolio tilt, or integration when new cash or investment changes 
<b>AVAILABLE INVESTMENT OPPORTUNITIES</b>	Public markets (e.g., Public equities fixed income, and multi Asset) and/or alternative investment (e.g., Real Assets, Private Equity) 
<b>APPROACHES TO INVESTING WITH IMPACT</b>	Restriction screening, ESG integration, thematic exposure, impact investing and shareholder engagement 

1. Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. The description of Morgan Stanley Impact Quotient® and the reports that it generates are solely for informational purposes. You should not definitively rely upon it or use it to form the definitive basis for any decision, contract, commitment or action whatsoever, with respect to any proposed transaction or otherwise.

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# Evaluate and Enhance the Alignment of Your Investments

Why Engage With <i>Morgan Stanley Impact Quotient</i> ®?	Who is <i>Morgan Stanley Impact Quotient</i> ® Designed For?
<p><b>#1</b> Ensures your Financial Advisor <b>understands your unique impact priorities.</b></p>	 <p><b>Individuals</b> seeking to generate positive impact with their capital</p>  <p><b>Families</b> seeking to align portfolios to their legacies</p>
<p><b>#2</b> Gain <b>transparency into the impact of your investments</b> with data-driven insights customized to your unique preferences.</p>	
<p><b>#3</b> Take action with your Financial Advisor <b>to better align your investments</b> over time.</p>	 <p><b>Institutions and Boards</b> seeking to understand portfolio alignment or organizational mission</p>

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Morgan Stanley



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Restriction Screening Data  
Supplemental Document



## Abortion and Abortifacients

Morgan Stanley's screen on Abortion and Abortifacients includes:

- **Abortifacients - Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to abortifacients. The "Production" value identifies issuers who develop or manufacture abortifacients, "Distribution" includes issuers involved in wholesale or retail distribution, and "Services" refers to issuers involved in the marketing or promotion of abortifacients.
- **Abortion - Performed Elective Abortion:** This factor identifies issuers that are health care providers that perform elective abortions.
- **Abortion - Performed Non-Elective/Emergency Abortion:** This factor identifies issuers that are health care providers that perform non-elective abortions, including where mandated by law.
- **Abortion - Provider or Acute Care Provider (PACP):** This factor identifies issuers that have performed abortions or have the capacity to perform abortions as an acute care provider.

Coverage: Companies that have a publicly traded U.S. security with any involvement in abortion as defined by the above statements.

## Alcohol

Morgan Stanley's screen on Alcohol includes:

- **Alcohol - Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to alcoholic beverages. The "Production" value identifies issuers engaged in the production of alcoholic beverage products, including brewers, distillers, and vintners, as well as companies that own or operate wine vineyards. "Distribution" includes issuers engaged in wholesale or retail provision of alcoholic beverages, including liquor stores, supermarkets, bars and restaurants. The "Services" value identifies issuers engaged in the licensing, marketing, and promotion of alcoholic beverages. It also includes issuers that supply key raw materials and packaging products such as beer bottles, wine bottles, aluminum cans, wine corks, and bottle caps used specifically for the production of alcoholic beverages.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

## Animal Welfare

Morgan Stanley's screen on Animal Welfare includes:

- **Animal Welfare - Third Party Lists:** This factor identifies issuers listed by third parties as involved in animal testing, animal welfare violations, breeding of animals, and/or live animal entertainment. The "PETA" factor refers to the list compiled by the People for the Ethical Treatment of Animals organization of companies conducting animal testing. The "USDA Violation of the Animal Welfare Act" factor identifies issuers that have been found by the United States Department of Agriculture to be in violation of the Animal Welfare Act during the past three calendar years. The "USDA Breeder" factor refers to the list of breeders that have received a license from the United States Department of Agriculture. The "USDA Exhibitor" factor refers to the list of exhibitors that have received a license from the United States Department of Agriculture.

- **Animal Testing - Involvement Tie:** This factor includes issuers that perform animal testing for pharmaceutical and non-pharmaceutical purposes. The "Pharmaceutical" factor refers to the use of live animal testing as part of the development of pharmaceutical products. The "Non-Pharmaceutical" factor refers to the use of live animal testing as part of the development of non-pharmaceutical products.
- **Animal Welfare - Involvement Tie:** This factor identifies issuers engaged in operations related to animal welfare. The "Animal Testing" factor includes issuers that perform animal testing for pharmaceutical and non-pharmaceutical purposes. The "Factory Farming" factor includes issuers involved in intensive agricultural operations with the purpose of producing food, including meat, eggs and dairy.

Coverage: Companies that have a publicly traded U.S. security with operations as defined in the above statements.

### Contraceptives

Morgan Stanley's screen on Contraceptives includes:

- **Contraceptives - Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to contraceptives. The "Production" value identifies issuers who develop or manufacture contraceptives, "Distribution" includes issuers involved in wholesale or retail distribution of contraceptives, and "Services" includes issuers engaged in the marketing or promotion of contraceptives.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

### Defense

Morgan Stanley's screen on Defense includes the following:

- **Nuclear weapons -** Companies that are involved in any nuclear weapons program.
- **Anti-personnel mines and cluster munitions -** Companies that are involved in any anti-personnel mines or cluster munitions program.
- **Chemical and biological weapons -** Companies that are involved in any chemical and/or biological weapons.
- **Combat equipment production -** Companies that are involved in combat equipment production, including military equipment which has a destructive effect, such as barrel weapons, explosives, missiles, bombs, combat vehicles, and apparatus and gear for the aiming and control of military equipment for combat purposes, among others and that have derived one percent or more from involvement in combat equipment production.

Coverage: Companies that have a publicly traded U.S. security with operations as defined in the above statements.

### Firearms

Morgan Stanley's screen on Firearms includes the following:

- **Civilian Firearms - Involvement Tie (production or distribution):** This factor identifies issuers with involvement in any of the following data factors: Assault Weapons, Automatic Firearms, Semi-Automatic Firearms, Repeating Firearms, Single-Shot Firearms, Ammunition, or High-Capacity Magazines.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

### **Gambling**

Morgan Stanley's screen on Gambling includes the following:

- **Gambling - Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to gambling. The "Production" value identifies issuers engaged in the operation or management of any activity involving the wagering of money on a game or event, such as casinos, racetracks, or other betting/gambling establishments. It also includes, among others, lottery operations, online and mobile gambling; and sporting events that permit wagering. "Distribution" includes issuers engaged in retailing low-risk gambling items such as lottery tickets. The "Services" value identifies issuers that provide key products, services, technology, and support fundamental to gambling operations, such as slot machines, gambling software design, lottery ticket printing, casino management, and other activities.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

### **Nuclear Power**

Morgan Stanley's screen on Nuclear Power includes:

- **Nuclear Power - Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to nuclear power. The "Production" value identifies issuers engaged in core activities in the nuclear fuel cycle to produce energy, including uranium mining, processing and enrichment, fuel production, and the operation of power reactors. "Services" identifies issuers engaged in the provision of services to the nuclear power industry such as the supply of material components, technical support, maintenance, and the management of nuclear waste.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

### **Pornography**

Morgan Stanley's screen on Pornography includes the following:

- **Pornography - Involvement Tie:** This factor identifies issuers engaged in the production or distribution of pornography. The "Production" value identifies issuers engaged in the production, direction, or publication of pornography, including X-rated films, sexually explicit video games, adults-only material on the internet, live entertainment, or books or magazines with adult content. "Distribution" includes issuers engaged in independent wholesale distribution of pornography products, in the retailing of pornography products, or issuers that grant authorization to use a company or brand name to produce or market an adult entertainment product.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

### **Stem Cells**

Morgan Stanley's screen on Stem Cells includes the following:

- Stem Cell Research - Adult Stem Cell or Umbilical Cord Blood: This factor identifies issuers who conduct stem cell research using human adult stem cells or cells derived from umbilical cord blood or placenta tissue.
- Stem Cell Research - Enabling Technology: This factor identifies issuers who develop or produce technologies specifically designed for human embryonic or fetal stem cell research.
- Stem Cell Research - Fetal Tissue: This factor identifies issuers who conduct stem cell research using human fetal tissue.
- Stem Cell Research - Human Embryonic Stem Cell (HESC): This factor identifies issuers who conduct stem cell research using human embryonic stem cells.

Coverage: Companies that have a publicly traded U.S. security with operations as defined in the above statements.

### **Tobacco**

Morgan Stanley's screen on Tobacco includes the following:

- Tobacco - Involvement Tie: This factor identifies issuers engaged in the production, distribution, or provision of services related to tobacco. The "Production" value identifies issuers engaged in manufacturing and producing tobacco products, as well as companies that grow or process raw tobacco leaves, "Distribution" includes issuers engaged in the wholesale or retail distribution of tobacco products, and "Services" identifies issuers engaged in marketing and promotion of tobacco products, issuers that supply key products necessary for the production of tobacco products, as well as issuers that license a company or brand name to tobacco products.

Coverage: Companies that have a publicly traded U.S. security deriving one percent or more of revenue from the described involvement.

### **Ratings: Environment**

This screen identifies the companies that fall within the bottom five percent for the following categories related to the environment:

#### Climate Change

- Disclosure of climate change performance against targets
- Disclosure specifically addressing climate change performance
- Disclosure climate change policy risks/performance/opportunities
- Disclosure specifically addressing climate change risks
- Disclosure specifically addressing climate change opportunities
- Disclosure specifically addressing climate change targets
- Disclosure specifically addressing climate change strategy
- Describe integration processes in overall risk management
- GHG Emissions - Emissions Intensity - Scope 1 Emissions (USD)
- GHG Emissions - Emissions Intensity - Scope 2 Emissions (USD)
- Disclosure of climate risks/opportunities in business plan
- QS - Env - Carbon & Climate - Mgmt Systems & Disclosure
- Disclosure of targets for reducing GHG emissions 2°C alignment
- Disclosure of targets for reducing GHG emissions

- Disclosure of total direct GHG emissions
- Disclosure of total Scope 2 GHG emissions
- Disclosure of total Scope 3 GHG emissions
- Third-party verification of GHG disclosure
- Disclosure of quantitative metrics about GHG emissions
- GHG targets approved The Science Based Targets Initiative

#### Environmental Management

- Disclosure of chemical waste management program
- QS - Environment - Overall
- Environmental management lead reports to CEO/management board
- Disclosure of environmental management system
- Environmental management system ISO 14001 certification
- Disclosure of enterprise level environmental policy
- Environmental policy same standards to suppliers or vendors
- Identify environmental risks latest annual/sustainability report
- Disclosure specific targets reducing non-and hazardous waste
- Disclosure quantitative targets reducing non-and hazardous waste
- Disclosure timeline reducing non-and hazardous waste
- Disclosure details hazardous waste disposal program
- Disclosure total hazardous waste generation
- Company as a whole ISO 14001 attestation
- Disclosure specific targets reducing NOx, SOx, other
- Disclosure non-hazardous waste
- Disclosure quantitative metrics non-hazardous waste
- Disclosure packaging percent from recycled/renewable materials
- Disclosure quantitative information on packaging and materials
- Disclosure strategies reducing impact of packaging
- Disclosure of consumer product recycling program
- Disclosure quantitative info significant air emissions
- Disclosure of business waste management program
- Disclosure of consumer product waste management program
- Disclosure on waste management and recycling programs
- Disclosure of packaging waste management program
- Disclosure of production waste management program
- Disclosure of business waste recycling program
- Disclosure of production waste recycling program
- Disclosure strategy mitigating water withdrawal or scarcity risks
- Disclosure water recycling program
- Disclosure of total water use

#### Environmental Performance

- Energy - Total energy use normalized
- Total monetary value fines enviro. non-compliance trend: %Change
- Total monetary value fines enviro. non-compliance normalized
- Waste - Total weight of generated hazardous waste normalized
- Waste - Total weight of generated hazardous waste trend: %Change
- Air emissions - Volume from nitrogen oxides (NOx) trend: %Change

- Air emissions - Volume from particulate matter trend: %Change
- Air emissions - Volume from sulphur oxides (SOx) trend: %Change
- Air emissions - Volume from VOCs trend: %Change
- Spills - Number of significant/reportable spills trend: %Change
- Water - Total water consumed normalized

Coverage: Publicly traded U.S. companies included in the Russell 3000

### Ratings: Human Rights

This screen identifies the companies that fall within the bottom five percent or companies with the lowest rating for the following human rights factors:

- Countries of Concern - Countries
- QS - Social - Human Rights
- Human rights policy applied - all operations regardless location
- Disclosure of human rights policy applicability
- Board of directors is responsible for human rights policy
- Human rights policy community consultations / indigenous rights
- Disclosure of human rights policy at enterprise level
- Human rights policy includes guarantee of FPIC
- Human rights policy refers to OECD Guidelines
- Human rights policy same standards partners
- Human rights policy on protection of minorities
- Human rights policy on protection of women's rights
- Human rights policy supports recognized public convention
- Human rights policy commitment to stakeholder involvement
- Human rights policy suppliers / vendors same standards
- Human rights policy includes training element
- Human rights policy refers to UN GP on Business and Human Rights
- Human rights policy refers to UN Declaration of Human Rights
- Disclosure audit program for suppliers' performance human rights
- Disclosure of programs for suppliers to improve on human rights
- Disclosure formal grievance process related to human rights
- Disclosure of human rights risks in latest report
- Disclosure of strategy to prevent / mitigate human rights risks
- Workforce policy applies to suppliers / vendors

Coverage: Publicly traded U.S. companies included in the Russell 3000

### Country of Concern - Iran (Active/Plan to Cease)

This screen identifies companies that maintain operations in Iran in the following categories:

- Active or Plan to Cease involvement -
- Active involvement-Evidence of a tie to the country of concern within the past three years and where the company or company subsidiary indicates no plan to exit from operations there.



- Plan to Cease involvement - The identified involvement in the country of concern is still within the three year time frame but the company has formally announced a plan to cease all involvement in the country.
- Equity or non-equity involvement -
  - Equity involvement- A company or a company subsidiary that has employees or facilities physically located in the country of concern. This option also includes equity ownership in an entity that has employees or facilities located in the country.
  - Non-equity involvement - A company or a company subsidiary that sells products or services in the country of concern, purchases goods or raw materials from the country, or has distribution agreements with another party for the company's products in the country.
- Sector-specific involvement- This includes involvement in the following sectors: Energy; Power & Utilities; Metals & Mining; Telecommunications; Financial Services; Medical & Pharmaceutical; Manufacturing; Industrial Products; Consumer Products; Food & Beverage; Defense; Nuclear; or Government.

Coverage: Companies that have a publicly traded U.S. security with involvement as described by the above statements.

#### **Country of Concern- Sudan (Illinois legislative restrictions)**

This screen identifies companies that meet the criteria outlined by Illinois State Board of Investments for inclusion on its Sudan list.

Coverage: Companies that have a publicly traded U.S. security with involvement as described by the above statement.

#### **Catholic Values**

##### **Abortion and Abortifacients (Any Involvement)**

- Abortifacients - Involvement Tie: This factor identifies issuers engaged in the production, distribution, or provision of services related to abortifacients. The "Production" value identifies issuers who develop or manufacture abortifacients, "Distribution" includes issuers involved in wholesale or retail distribution, and "Services" refers to issuers involved in the marketing or promotion of abortifacients.
- Abortion - Performed Elective Abortion: This factor identifies issuers that are health care providers that perform elective abortions.
- Abortion - Performed Non-Elective/Emergency Abortion: This factor identifies issuers that are health care providers that perform non-elective abortions, including where mandated by law.
- Abortion - Provider or Acute Care Provider (PACP): This factor identifies issuers that have performed abortions or have the capacity to perform abortions as an acute care provider.

##### **Contraceptives (Any Involvement)**

- Contraceptives - Involvement Tie: This factor identifies issuers engaged in the production, distribution, or provision of services related to contraceptives. The "Production" value identifies issuers who develop or manufacture contraceptives, "Distribution" includes issuers involved in wholesale or retail distribution of contraceptives, and "Services" includes issuers engaged in the marketing or promotion of contraceptives.



#### Stem Cells (Any Involvement)

- Stem Cell Research - Adult Stem Cell or Umbilical Cord Blood: This factor identifies issuers who conduct stem cell research using human adult stem cells or cells derived from umbilical cord blood or placenta tissue.
- Stem Cell Research - Enabling Technology: This factor identifies issuers who develop or produce technologies specifically designed for human embryonic or fetal stem cell research.
- Stem Cell Research - Fetal Tissue: This factor identifies issuers who conduct stem cell research using human fetal tissue.
- Stem Cell Research - Human Embryonic Stem Cell (HESC): This factor identifies issuers who conduct stem cell research using human embryonic stem cells.

#### Pornography (1% Revenue Threshold)

- Pornography - Involvement Tie: This factor identifies issuers engaged in the production or distribution of pornography. The "Production" value identifies issuers engaged in the production, direction, or publication of pornography, including X-rated films, sexually explicit video games, adults-only material on the internet, live entertainment, or books or magazines with adult content. "Distribution" includes issuers engaged in independent wholesale distribution of pornography products, in the retailing of pornography products, or issuers that grant authorization to use a company or brand name to produce or market an adult entertainment product.

#### Defense (Weapons part 1: 1% Revenue Threshold)

- Combat equipment production - Companies that are involved in combat equipment production, including military equipment which has a destructive effect, such as barrel weapons, explosives, missiles, bombs, combat vehicles, and apparatus and gear for the aiming and control of military equipment for combat purposes, among others.
- Civilian Firearms - Involvement Tie (production or distribution): This factor identifies issuers with involvement in any of the following data factors: Assault Weapons, Automatic Firearms, Semi-Automatic Firearms, Repeating Firearms, Single-Shot Firearms, Ammunition, or High-Capacity Magazines.

#### Defense (Weapons part 2: Any Involvement)

- Nuclear weapons - Companies that are involved in any nuclear weapons program.
- Anti-personnel mines and cluster munitions - Companies that are involved in any anti-personnel mines or cluster munitions program.
- Chemical and biological weapons - Companies that are involved in any chemical and/or biological weapons.

#### Community Reinvestment Act (CRA) (Any Involvement)

- Community Reinvestment Act - CRA Rating: This factor identifies issuer that have a "Needs to Improve" or "Substantial Noncompliance" rating under the U.S. Community Reinvestment Act.

#### Predatory Lending (Any Involvement)

- Predatory Lending - Involvement Tie: This factor identifies issuers providing products that are unfair or deceptive to ordinary borrowers, including loan terms offering excessive interest rates, lacking of transparency and misleading marketing on the risks and benefits of

the loan product, inclusion of unnecessary costs and hidden fees to increase borrower's cost of credit, and targeting minority, low income or elderly consumers.

#### Racial or Gender EEOC Violations (Any Involvement)

- Norm-Based Screening Assessment - Gender Discrimination: This factor identifies issuers that have been linked with violations of international standards in relation to gender discrimination.
- Norm-Based Screening Assessment - Racial Discrimination: This factor identifies issuers that have been linked with violations of international standards in relation to racial discrimination.

#### Ratings (Bottom 5% of Rated Companies)

##### Climate Change

- Disclosure of climate change performance against targets
- Disclosure specifically addressing climate change performance
- Disclosure climate change policy risks/performance/opportunities
- Disclosure specifically addressing climate change risks
- Disclosure specifically addressing climate change opportunities
- Disclosure specifically addressing climate change targets
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##### Environmental Management

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- Disclosure total hazardous waste generation
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- Disclosure non-hazardous waste
- Disclosure quantitative metrics non-hazardous waste
- Disclosure packaging percent from recycled/renewable materials
- Disclosure quantitative information on packaging and materials
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- Disclosure quantitative info significant air emissions
- Disclosure of business waste management program
- Disclosure of consumer product waste management program
- Disclosure on waste management and recycling programs
- Disclosure of packaging waste management program
- Disclosure of production waste management program
- Disclosure of business waste recycling program
- Disclosure of production waste recycling program
- Disclosure strategy mitigating water withdrawal or scarcity risks
- Disclosure water recycling program
- Disclosure of total water use

#### Environmental Performance

- Energy - Total energy use normalized
- Total monetary value fines enviro. non-compliance trend: %Change
- Total monetary value fines enviro. non-compliance normalized
- Waste - Total weight of generated hazardous waste normalized
- Waste - Total weight of generated hazardous waste trend: %Change
- Air emissions - Volume from nitrogen oxides (NOx) trend: %Change
- Air emissions - Volume from particulate matter trend: %Change
- Air emissions - Volume from sulphur oxides (SOx) trend: %Change
- Air emissions - Volume from VOCs trend: %Change
- Spills - Number of significant/reportable spills trend: %Change
- Water - Total water consumed normalized

#### Human Rights

- Countries of Concern - Countries
- QS - Social - Human Rights
- Human rights policy applied - all operations regardless location
- Disclosure of human rights policy applicability
- Board of directors is responsible for human rights policy
- Human rights policy community consultations / indigenous rights
- Disclosure of human rights policy at enterprise level
- Human rights policy includes guarantee of FPIC
- Human rights policy refers to OECD Guidelines
- Human rights policy same standards partners
- Human rights policy on protection of minorities
- Human rights policy on protection of women's rights
- Human rights policy supports recognized public convention

- Human rights policy commitment to stakeholder involvement
- Human rights policy suppliers / vendors same standards
- Human rights policy includes training element
- Human rights policy refers to UN GP on Business and Human Rights
- Human rights policy refers to UN Declaration of Human Rights
- Disclosure audit program for suppliers' performance human rights
- Disclosure of programs for suppliers to improve on human rights
- Disclosure formal grievance process related to human rights
- Disclosure of human rights risks in latest report
- Disclosure of strategy to prevent / mitigate human rights risks
- Workforce policy applies to suppliers / vendors

#### Board Accountability

- Board oversight of climate risks and opportunities
- Board of directors is responsible for human rights policy
- Sustainability committee reports to the board

#### Community & Politics

- Disclosure of amounts spent on political advocacy
- Disclosure on use of corporate funds for political advocacy
- Disclosure of 5 largest group expenditures of political advocacy
- Disclosure of objectives of political advocacy
- Disclosure of recipients of political advocacy
- Disclosure policy on the use of company funds political purposes

#### Industries & Sectors

Industries and sectors are determined through GICS sub-industries listed below.

- Airlines – Airlines or Air Freight & Logistics
- Automotive – Automobile Manufacturers, Tires & Rubber, Automotive Retail, Motorcycle Manufacturers, or Auto Parts & Equipment
- Banking – Thrifts & Mortgage Finance, Regional Banks, or Diversified Banks
- Biotechnology – Life Sciences Tools & Services or Biotechnology
- Chemicals – Industrial Gases, Fertilizers & Agricultural Chemicals, Diversified Chemicals, Specialty Chemicals, or Commodity Chemicals
- Financial Services – Multi-line Insurance, Financial Exchanges & Data, Thrifts & Mortgage Finance, Investment Banking & Brokerage, Insurance Brokers, Property & Casualty Insurance, Specialized Finance, Consumer Finance, Asset Management & Custody Banks, Other Diversified Financial Services, Diversified Capital Markets, Reinsurance, Regional Banks, Diversified Banks, or Life & Health Insurance
- Healthcare – Health Care Equipment, Managed Health Care, Life Sciences Tools & Services, Health Care Distributors, Biotechnology, Pharmaceuticals, Health Care Supplies, Health Care Facilities, Health Care Technology, Health Care Services
- Insurance – Multi-line Insurance, Insurance Brokers, Property & Casualty Insurance, Reinsurance, or Life & Health Insurance
- Oil and Gas- Oil & Gas Exploration & Production, Oil & Gas Refining & Marketing, Oil & Gas Storage & Transportation, Oil & Gas Drilling, or Integrated Oil & Gas. This sector also includes companies flagged in the ISS-Ethix Top 100 Coal or Top 100 Oil & Gas lists.

- Pharmaceuticals – Pharmaceuticals
- Real Estate Investment Trusts (REITs) – Diversified REITs, Industrial REITs, Hotel & Resort REITs, Residential REITs, Real Estate Investment Trusts, Specialized REITs, Office REITs, Health Care REITs, Mortgage REITs, or Retail REITs
- Utilities – Renewable Electricity, Multi-Utilities, Environmental & Facilities Services, Independent Power Producers & Energy Traders, Electric Utilities, Water Utilities, or Gas Utilities
- ADRs – The ADR category includes non-U.S. companies trading on U.S. exchanges through an American Depositary Receipt program or equivalent.
- Limited Partnerships – The Limited Partnership category includes companies organized as limited partnerships.

### Sharia Law

#### Exclusion Group (Any)

- Industry Group: Banks, Insurance
- Industry: Consumer Finance, Diversified Financial Services, Mortgage, Real Estate Investment Trusts (REITs)
- Sub Industry: Investment Banking & Brokerage, Asset Management, Custody Banks, Diversified Capital Markets
- SEC Industry Code (SIC): 6153 | 6159 | 6163 | 6211 | 6324 | 6799

#### Alcohol – (5% Revenue Threshold)

- Alcohol - Involvement Tie: This factor identifies issuers engaged in the production, distribution, or provision of services related to alcoholic beverages. The "Production" value identifies issuers engaged in the production of alcoholic beverage products, including brewers, distillers, and vintners, as well as companies that own or operate wine vineyards. "Distribution" includes issuers engaged in wholesale or retail provision of alcoholic beverages, including liquor stores, supermarkets, bars and restaurants. The "Services" value identifies issuers engaged in the licensing, marketing, and promotion of alcoholic beverages. It also includes issuers that supply key raw materials and packaging products such as beer bottles, wine bottles, aluminum cans, wine corks, and bottle caps used specifically for the production of alcoholic beverages.

#### For-Profit Correctional Facilities (5% Revenue Threshold)

- For-Profit Correctional Facilities - Involvement Tie: This factor identifies issuers involved in the operation, management or provision of staffing services to for-profit correctional and/or detention facilities.

#### Gambling (5% Revenue Threshold)

- Gambling - Involvement Tie: This factor identifies issuers engaged in the production, distribution, or provision of services related to gambling. The "Production" value identifies issuers engaged in the operation or management of any activity involving the wagering of money on a game or event, such as casinos, racetracks, or other betting/gambling establishments. It also includes, among others, lottery operations, online and mobile gambling; and sporting events that permit wagering. "Distribution" includes issuers engaged

in retailing low-risk gambling items such as lottery tickets. The "Services" value identifies issuers that provide key products, services, technology, and support fundamental to gambling operations, such as slot machines, gambling software design, lottery ticket printing, casino management, and other activities.

#### Pork (5% Revenue Threshold)

- **Pork - Involvement Tie:** This factor identifies issuers engaged in the production or distribution of pork products. The "Production" value identifies issuers engaged in the manufacture or production of pork products, including breeding and slaughtering, processed pork, and the production of packaged food products with pork ingredients. "Distribution" includes issuers engaged in the distribution or retailing of pork and related products to consumers such as processed pork and packaged meals with pork ingredients. Specially included are those involved in the following activities: pork wholesalers; distributors of pork-related products to retailers and supermarkets; specialty stores that sell pork-related products; and general merchandise stores, convenience stores, and supermarket selling pork-related products.

#### Pornography (5% Revenue Threshold)

- **Pornography - Involvement Tie:** This factor identifies issuers engaged in the production or distribution of pornography. The "Production" value identifies issuers engaged in the production, direction, or publication of pornography, including X-rated films, sexually explicit video games, adults-only material on the internet, live entertainment, or books or magazines with adult content. "Distribution" includes issuers engaged in independent wholesale distribution of pornography products, in the retailing of pornography products, or issuers that grant authorization to use a company or brand name to produce or market an adult entertainment product.

#### Tobacco (5% Revenue Threshold)

- **Tobacco – Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to tobacco. The "Production" value identifies issuers engaged in manufacturing and producing tobacco products, as well as companies that grow or process raw tobacco leaves, "Distribution" includes issuers engaged in the wholesale or retail distribution of tobacco products, and "Services" identifies issuers engaged in marketing and promotion of tobacco products, issuers that supply key products necessary for the production of tobacco products, as well as issuers that license a company or brand name to tobacco products.

#### Military Equipment and Services (5% Revenue Threshold)

- **Military Equipment - Involvement Tie:** This factor identifies issuers engaged in the production, distribution, or provision of services related to military equipment (Combat Equipment and/or Non-combat Military Equipment). The "Production" value identifies issuers engaged in manufacturing and producing military equipment, "Distribution" includes issuers engaged in the reselling of military equipment, and "Services" refers to issuers engaged in providing services for military equipment such as maintenance, repair, testing, transport, and similar activities.

#### Coal Mining and Power Gen (20% Revenue Threshold)

- Coal Mining and Power Gen - Percentage of Revenues (%): This factor provides the percentage of recent-year revenues for the issuer's involvement in both coal mining, including thermal and metallurgical coal, and the generation of electric power using coal.

#### Hydraulic Fracturing (5% Revenue Threshold)

- Hydraulic Fracturing - Involvement Tie: This factor identifies issuers involved in hydraulic fracturing. The "Production" value identifies issuers engaged in activities pertaining to well stimulation through hydraulic fracturing with the goal of extracting hydrocarbons from within a reservoir for utilization. "Services" identifies issuers engaged in the provision of relevant services, equipment, and/or support to hydraulic fracturing operations. These include surveying services, risk assessment, regulations monitoring, logistical support, engineering services, machinery and equipment provision, chemical and/or water suppliers, waste disposal, and remediation services.

#### Total Debt/Market Cap (33%)

- Total Debt/Market Cap: This factor identifies the extent of conventional debt as a percentage of market capitalization.

#### Account Receivable/Total Assets (45%)

- Account Receivable/Total Assets: This factor identifies the extent of accounts receivable as a percentage of total assets.

#### Weapons (Any Involvement)

- Nuclear weapons - Companies that are involved in any nuclear weapons program.
- Anti-personnel mines and cluster munitions - Companies that are involved in any anti-personnel mines or cluster munitions program.
- Chemical and biological weapons - Companies that are involved in any chemical and/or biological weapons.

#### NBR Overall Flag (Any Involvement)

NBR Overall Flag: This factor assigns an overall Red flag to an issuer based on the issuer's link with any breaches of international standards. The "Red" value covers instances of a failure to respect established norms which has been verified by an authoritative body and where the issue remains unaddressed.

### Jewish Values

#### Tobacco (Any Involvement)

- Tobacco – Involvement Tie: This factor identifies issuers engaged in the production, distribution, or provision of services related to tobacco. The "Production" value identifies issuers engaged in manufacturing and producing tobacco products, as well as companies that grow or process raw tobacco leaves, "Distribution" includes issuers engaged in the wholesale or retail distribution of tobacco products, and "Services" identifies issuers engaged in marketing and promotion of tobacco products, issuers that supply key products necessary for the production of tobacco products, as well as issuers that license a company or brand name to tobacco products.



**Predatory Lending (Any Involvement)**

- **Predatory Lending – Involvement Tie:** This factor identifies issuers providing products that are unfair or deceptive to ordinary borrowers, including loan terms offering excessive interest rates, lacking of transparency and misleading marketing on the risks and benefits of the loan product, inclusion of unnecessary costs and hidden fees to increase borrower's cost of credit, and targeting minority, low

**Civilian Firearms (1% Revenue Threshold)**

- **Civilian Firearms – Involvement Tie (production, distribution, or services):** This factor identifies issuers with involvement in any of the following data factors: Assault Weapons, Automatic Firearms, Semi-Automatic Firearms, Repeating Firearms, Single-Shot Firearms, Ammunition, or High-Capacity Magazines.

**Cluster Munitions (Any Involvement)**

- **Cluster Munitions – Companies** that are involved in any anti-cluster munitions program.

**Fossil Fuels (Any Involvement)**

- **Fossil Fuel – Involvement Tie:** This factor identifies issuers engaged in the production, distribution, exploration or provision of services related to fossil fuels. The "Production" value identifies issuers engaged in the production of fossil fuels through extraction, processing, and electricity generation. "Distribution" includes issuers engaged in essential infrastructure specifically used for the transportation of fossil fuels such as oil and gas pipelines and gas distributors. It also includes the marketing and sale of fossil fuels. Note that distribution does not apply to involvement purely in the transmission of electricity such as grid operations. The "Exploration" value identifies issuers engaged in the pre-production stages of the extraction of fossil fuels, including prospecting for, acquiring, exploring, and developing resources prior to the point where the production of commercially recoverable quantities commences. The "Services" value identifies issuers engaged in the provision of specific materials, contracted services and transportation, e.g. drilling, to the oil and gas exploration and production industry.

**For-Profit Correctional Facilities (Any Involvement)**

- **For-Profit Correctional Facilities - Involvement Tie:** This factor identifies issuers involved in the operation, management or provision of staffing services to for-profit correctional and/or detention facilities.

**Global Sanctions (Any Involvement)**

- **Global Sanctions - Sanctioned Nations Involvement:** This factor identifies the sanctioned nations to which an issuer has been linked within the context of the ISS ESG Global Sanctions research

**For-Profit Correctional Facilities (Any Involvement)**

Morgan Stanley's screen for For-Profit Correctional Facilities includes the following:

- **For-Profit Correctional Facilities - Involvement Tie:** This factor identifies issuers involved in the operation, management or provision of staffing services to for-profit correctional and/or detention facilities.



Coverage: Companies that have a publicly traded U.S. security with involvement as described by the above statement.

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**Accrued Income:** The dividends and interest earned but not yet received at both the beginning and end of each reporting period.

**Advisory Account:** An investment advisory relationship is designed for clients who prefer that their Financial Advisor act as an investment consultant, with their assets invested in a mutual fund asset allocation program or in a Advisory account that is directed by a professional money manager either at Morgan Stanley or at an external money management firm. There are important differences in your relationship with your Financial Advisor and Morgan Stanley in brokerage accounts and in advisory accounts. Additional information about these differences is available at <http://www.morganstanley.com/ourcommitment>

**Annualized Standard Deviation:** A measure of volatility, it quantifies how much a series of numbers, such as portfolio returns, deviates around its average. Since it measures the portfolio's investment volatility, the account's gross rate of return is used.

**Brokerage Account:** In a brokerage relationship, your Financial Advisor will work with you to facilitate the execution of securities transactions on your behalf. Your Financial Advisor also provides investor education and professional, personalized information about financial products and services in connection with these brokerage services. You can choose how you want to pay for these services and you will receive the same services regardless of which pricing option you choose. There are important differences in your relationship with your Financial Advisor and Morgan Stanley in brokerage accounts and in advisory accounts. Additional information about these differences is available at <http://www.morganstanley.com/ourcommitment>

**Comparative Indices:** A complete description of the comparative indices included in this Performance Report is available upon request.

**Dollar-Weighted Return:** Rate of return calculation methodology that reflects both the timing and magnitude of external contributions and withdrawals and measures the portfolio's performance. The return for each month is calculated as the average return on all dollars invested.

**Gross Return:** The return of the portfolio before the deduction of fees/commissions and other expenses.

**Net Contributions/Withdrawals:** The total value of capital contributed to or withdrawn from the account during the reporting period. The dollar amount represented by contribution or withdrawal transactions is excluded from the calculation of Portfolio Appreciation.

**Net Invested Capital:** The sum of the Total Beginning Value and the net of additional capital Contributions and Withdrawals for each reporting period.

**Net Portfolio Appreciation:** The total dollar gain/loss of the portfolio for each reporting period. The Net Portfolio Appreciation includes the impact of income received and is calculated as the difference between Net Invested Capital and Total Ending Value.

**Net Return:** The return of the portfolio for the period reduced by the amount of fees/commissions paid. The net of fees return is calculated gross of certain custody fees.

**Time-Weighted Return:** Rate of return calculation methodology that eliminates the impact of external contributions and withdrawals to the portfolio value and measures the manager's performance. Portfolio returns are calculated at least monthly and individual monthly returns are geometrically linked to calculate total cumulative return.

**Total Beginning Value:** The total market value of the portfolio, valued on a trade date basis, at the beginning of each reporting period. The Total Beginning Value includes Accrued Income.

**Total Ending Value:** The total market value of the portfolio, valued on a trade date basis, at the end of each reporting period. The Total Ending Value includes Accrued Income.

**Weighted Average:** The average in which each yield to be averaged is assigned a weight. These weightings determine the relative importance or frequency of each yield on the average.

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(as of May 31, 2022)

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STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
<b>Overweight/Buy</b>	<b>1398</b>	<b>39%</b>	<b>344</b>	<b>44%</b>	<b>25%</b>	<b>599</b>	<b>39%</b>
<b>Equal-weight/Hold</b>	<b>1576</b>	<b>45%</b>	<b>354</b>	<b>45%</b>	<b>22%</b>	<b>721</b>	<b>47%</b>
<b>Not-Rated/Hold</b>	<b>1</b>	<b>0%</b>	<b>1</b>	<b>0%</b>	<b>100%</b>	<b>0</b>	<b>0%</b>
<b>Underweight/Sell</b>	<b>565</b>	<b>16%</b>	<b>86</b>	<b>11%</b>	<b>15%</b>	<b>211</b>	<b>14%</b>
<b>TOTAL</b>	<b>3,540</b>		<b>785</b>			<b>1531</b>	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.



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**An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the fund.**

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long “lock-up” periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual fund or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund’s investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund’s essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or “leverage.”

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Electronic payments arrive to the payee within 1-2 business days, check payments arrive to the payee within 5 business days. Same-day and overnight payments are available for an additional fee within the available payment timeframes.

### KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not appropriate for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. Shares of closed-end funds frequently trade at a discount from their NAV which may increase investors' risk of loss. The risk of loss due to this discount may be greater for investors expecting to sell their shares in a relatively short period after completion of the public offering. This characteristic is a risk separate and distinct from the risk that a closed-end fund's net asset value may decrease as a result of investment activities. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases or sells shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

**Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to

concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by FINRA Rule 2241 or a "debt research report" as defined by FINRA Rule 2242 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown). The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. 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Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not appropriate for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund.

Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, “blow ups,” or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial “lift” or upwards bias.

**Hedge Funds of Funds** and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor’s goals by the pre-established year or “target date.” A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are appropriate only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy.

### Virtual Currency Products (Cryptocurrencies)

**Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets (“Digital Assets”), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to:**

- Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment.
- Certain Digital Asset funds and products, allow investors to invest on a more frequent basis than investors may withdraw from the fund or product, and interests in such funds or products are generally not freely transferrable. This means that, particularly given the volatility of Digital Assets, an investor will have to bear any losses with respect to its investment for an extended period of time and will not be able to react to changes in the price of the Digital Asset once invested (for example, by seeking to withdraw) as quickly as when making the decision to invest. Such Digital Asset funds and products, are intended only for persons who are able to bear the economic risk of investment and who do not need liquidity with respect to their investments.
- Given the volatility in the price of Digital Assets, the net asset value of a fund or product that invests in such assets at the time an investor’s subscription for interests in the fund or product is accepted may be significantly below or above the net asset value of the product or fund at the time the investor submitted subscription materials.
- Certain Digital Assets are not intended to function as currencies but are intended to have other use cases. These other Digital Assets may be subject to some or all of the risks and considerations set forth herein, as well as additional risks applicable to such Digital Assets. Buyers, sellers and users of such Digital Assets should thoroughly familiarize themselves with such risks and considerations before transacting in such Digital Assets.
- The value of Digital Assets may be negatively impacted by future legal and regulatory developments, including but not limited to increased regulation of such Digital Assets. Any such developments

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may make such Digital Assets less valuable, impose additional burdens and expenses on a fund or product investing in such assets or impact the ability of such a fund or product to continue to operate, which may materially decrease the value of an investment therein.

- Due to the new and evolving nature of digital currencies and the absence of comprehensive guidance, many significant aspects of the tax treatment of Digital Assets are uncertain. Prospective investors should consult their own tax advisors concerning the tax consequences to them of the purchase, ownership and disposition of Digital Assets, directly or indirectly through a fund or product, under U.S. federal income tax law, as well as the tax law of any relevant state, local or other jurisdiction.
- Over the past several years, certain Digital Asset exchanges have experienced failures or interruptions in service due to fraud, security breaches, operational problems or business failure. Such events in the future could impact any fund's or product's ability to transact in Digital Assets if the fund or product relies on an impacted exchange and may also materially decrease the price of Digital Assets, thereby impacting the value of your investment, regardless of whether the fund or product relies on such an impacted exchange.
- Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset.
- Investors in funds or products investing or transacting in Digital Assets may not benefit to the same extent (or at all) from "airdrops" with respect to, or "forks" in, a Digital Asset's blockchain, compared to investors who hold Digital Assets directly instead of through a fund or product. Additionally, a "fork" in the Digital Asset blockchain could materially decrease the price of such Digital Asset.
- Digital Assets are not legal tender, and are not backed by any government, corporation or other identified body, other than with respect to certain digital currencies that certain governments are or may be developing now or in the future. No law requires companies or individuals to accept digital currency as a form of payment (except, potentially, with respect to digital currencies developed by certain governments where such acceptance may be mandated). Instead, other than as described in the preceding sentences, Digital Asset products' use is limited to businesses and individuals that are willing to accept them. If no one were to accept digital currencies, virtual currency products would very likely become worthless.
- Platforms that buy and sell Digital Assets can be hacked, and some have failed. In addition, like the platforms themselves, digital wallets can be hacked, and are subject to theft and fraud. As a result, like other investors have, you can lose some or all of your holdings of Digital Assets.
- Unlike US banks and credit unions that provide certain guarantees of safety to depositors, there are no such safeguards provided to Digital Assets held in digital wallets by their providers or by regulators.
- Due to the anonymity Digital Assets offer, they have known use in illegal activity, including drug dealing, money laundering, human trafficking, sanction evasion and other forms of illegal commerce. Abuses could impact legitimate consumers and speculators; for instance, law enforcement agencies could shut down or restrict the use of platforms and exchanges, limiting or shutting off entirely the ability to use or trade Digital Asset products.
- Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.
- Investors should be aware of the potentially increased risks of transacting in Digital Assets relating to the risks and considerations, including fraud, theft, and lack of legitimacy, and other aspects and qualities of Digital Assets, before transacting in such assets.
- The exchange rate of virtual currency products versus the USD historically has been very volatile and the exchange rate could drastically decline. For example, the exchange rate of certain Digital Assets versus the USD has in the past dropped more than 50% in a single day. Other Digital Assets may be affected by such volatility as well.
- Digital Asset exchanges have limited operating and performance histories and are not regulated with the same controls or customer protections available to more traditional exchanges transacting equity, debt, and other assets and securities. There is no assurance that a person/exchange who currently accepts a Digital Asset as payment will continue to do so in the future.



- The regulatory framework of Digital Assets is evolving, and in some cases is uncertain, and Digital Assets themselves may not be governed and protected by applicable securities regulators and securities laws, including, but not limited to, Securities Investor Protection Corporation coverage, or other regulatory regimes.

- Morgan Stanley Smith Barney LLC or its affiliates (collectively, "Morgan Stanley") may currently, or in the future, offer or invest in Digital Asset products, services or platforms. The proprietary interests of Morgan Stanley may conflict with your interests.

- The foregoing list of considerations and risks are not and do not purport to be a complete enumeration or explanation of the risks involved in an investment in any product or fund investing or trading in Digital Assets.

**Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be an appropriate comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to form the primary basis for any investment decision by you, or an investment advice or recommendation for either ERISA or Internal Revenue Code purposes. Morgan Stanley Private Wealth Management will only prepare a financial plan at your specific request using Private Wealth Management approved financial planning signature.

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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**For index, indicator and survey definitions referenced in this report please visit the following: <https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions>**

**The Morgan Stanley Pathway Funds, Firm Discretionary UMA Model Portfolios**, and other asset allocation or any other model portfolios discussed in this material are available only to investors participating in Morgan Stanley Consulting Group advisory programs. For additional information on the Morgan Stanley Consulting Group advisory programs, see the applicable ADV brochure, available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV) or from your Morgan Stanley Financial Advisor or Private Wealth Advisor. To learn more about the Morgan Stanley Pathway Funds, visit the Funds' website at <https://www.morganstanley.com/wealth-investmentsolutions/cgcm>. Consulting Group is a business of Morgan Stanley.

**Morgan Stanley Pathway Program Asset Allocation Models** There are model portfolios corresponding to five risk-tolerance levels available in the Pathway program. Model 1 is the least aggressive portfolio and consists mostly of bonds. As the model numbers increase, the models have higher allocations to equities and become more aggressive. Pathway is a mutual fund asset allocation program. In constructing the Pathway Program Model Portfolios, Morgan Stanley Wealth Management uses, among other things, model asset allocations produced by Morgan Wealth Management's Global Investment Committee (the "GIC"). The Pathway Program Model Portfolios are specific to the Pathway program (based on program features and parameters, and any other requirements of Morgan

Stanley Wealth Management's Consulting Group). The Pathway Program Model Portfolios may therefore differ in some respects from model portfolios available in other Morgan Stanley Wealth Management programs or from asset allocation models published by the Global Investment Committee.

**529 Plans - Investors should carefully read the Program Disclosure statement, which contains more information on investment options, risk factors, fees and expenses, and possible tax consequences before purchasing a 529 plan. You can obtain a copy of the Program Disclosure Statement from the 529 plan sponsor or your Financial Advisor.** Assets can accumulate and be withdrawn federally tax-free only if they are used to pay for qualified expenses. Earnings on nonqualified distributions will be subject to income tax and a 10% federal income tax penalty. Contribution limits vary by state. Refer to the individual plan for specific contribution guidelines. Before investing, investors should consider whether tax or other benefits are only available for investments in the investor's home state 529 college savings plan. If an account owner or the beneficiary resides in or pays income taxes to a state that offers its own 529 college savings or pre-paid tuition plan (an "In-State Plan"), that state may offer state or local tax benefits. These tax benefits may include deductible contributions, deferral of taxes on earnings and/or tax-free withdrawals. In addition, some states waive or discount fees or offer other benefits for state residents or taxpayers who participate in the In-State Plan. An account owner may be denied any or all state or local tax benefits or expense reductions by investing in another state's plan (an "Out-of-State Plan"). In addition, an account owner's state or locality may seek to recover the value of tax benefits (by assessing income or penalty taxes) should an account owner rollover or transfer assets from an In-State Plan to an Out-of-State Plan. While state and local tax consequences and plan expenses are not the only factors to consider when investing in a 529 Plan, they are important to an account owner's investment return and should be taken into account when selecting a 529 plan.

**The Morgan Stanley National Advisory 529 Plan.** The North Carolina State Education Assistance Authority (the "Authority") is an instrumentality of the State of North Carolina sponsoring the Morgan Stanley National Advisory 529 Plan, and the 529 Plan is a component of the Parental Savings Trust Fund established by the General Assembly of North Carolina. Neither the Authority, the State of North Carolina nor any other affiliated public entity or any other public entity is guaranteeing the principal or earnings in any account. Contributions or accounts may lose value and nothing stated herein, the 529 Plan Description and Participation Agreement or any other account documentation shall be construed to create any obligation of the Authority, the North Carolina State Treasurer, the State of North Carolina, or any agency or instrumentality of the State of North Carolina to guarantee for the benefit of any parent, other interested party, or designated beneficiary the rate of return or other return for any contribution to the Parental Savings Trust Fund and the 529 Plan.

**Eaton Vance and Parametric Portfolio Associates are businesses of Morgan Stanley Investment Management and are affiliated with Morgan Stanley Wealth Management.**

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Trusts are not necessarily appropriate for all clients. There are risks and considerations which may outweigh any potential benefits. Establishing a trust will incur fees and expenses which may be substantial. Trusts often incur ongoing administrative fees and expenses such as the services of a corporate trustee or tax professional.

The Portfolio Analysis report ("Report") is generated by Morgan Stanley Smith Barney LLC's ("Morgan Stanley") Portfolio Risk Platform. The assumptions used in the Report incorporate portfolio risk and scenario analysis employed by BlackRock Solutions ("BRS"), a financial technology and risk analytics provider that is independent of Morgan Stanley. BRS' role is limited to providing risk analytics to Morgan Stanley, and BRS is not acting as a broker-dealer or investment adviser nor does it provide investment advice with respect to the Report. Morgan Stanley has validated and adopted the analytical conclusions of these risk models.

Any recommendations regarding external accounts/holdings are asset allocation only and do not include security recommendations. Transitioning from a brokerage to an advisory relationship may not be appropriate for some clients.

**IMPORTANT:** The projections or other information provided in the Report regarding the likelihood of various investment outcomes (including any assumed rates of return and income) are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Hypothetical investment results have inherent limitations.



- There are frequently large differences between hypothetical and actual results.
- Hypothetical results do not represent actual results and are generally designed with the benefit of hindsight.
- They cannot account for all factors associated with risk, including the impact of financial risk in actual trading or the ability to withstand losses or to adhere to a particular trading strategy in the face of trading losses.
- There are numerous other factors related to the markets in general or to the implementation of any specific strategy that cannot be fully accounted for in the preparation of hypothetical risk results and all of which can adversely affect actual performance.

Morgan Stanley cannot give any assurances that any estimates, assumptions or other aspects of the risk analyses will prove correct. They are subject to actual known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those shown in a Report. The information is as of the date of the Report or as otherwise noted within the Report. Morgan Stanley expressly disclaims any obligation or undertaking to update or revise any statement or other information contained in a Report to reflect any change in past results, future expectations or circumstances upon which that statement or other information is based.

**Lending products and securities based loans are provided by Morgan Stanley Smith Barney LLC, Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A, as applicable.**

The lending products described are separate and distinct, and are not connected in any way. The ability to qualify for one product is not connected to an individual's eligibility for another.

Liquidity Access Line ("LAL") is a securities based loan/line of credit product, the lender of which is either Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A., as applicable, each an affiliate of Morgan Stanley Smith Barney LLC. All LAL loans/lines of credit are subject to the underwriting standards and independent approval of Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A., as applicable. LAL loans/lines of credit may not be available in all locations. Rates, terms and conditions are subject to change without notice. To be eligible for an LAL loan/line of credit, a client must have a brokerage account at Morgan Stanley Smith Barney LLC that contains eligible securities, which shall serve as collateral for the LAL. In conjunction with establishing an LAL loan/line of credit, an LAL facilitation account will also be opened in the client's name at Morgan Stanley Smith Barney LLC at no charge. Other restrictions may apply. The information contained herein should not be construed as a commitment to lend. Morgan Stanley Private Bank, National Association and Morgan Stanley Bank, N.A. are Members FDIC that are primarily regulated by the Office of the Comptroller of the Currency. **The proceeds from a non-purpose LAL loan/line of credit (including draws and other advances) may not be used to purchase, trade, or carry margin stock; repay margin debt that was used to purchase, trade, or carry margin stock; and cannot be deposited into a Morgan Stanley Smith Barney LLC or other brokerage account.**

Residential mortgage loans/home equity lines of credit are offered by Morgan Stanley Private Bank, National Association, an affiliate of Morgan Stanley Smith Barney LLC. With the exception of the pledged-asset feature, an investment relationship with Morgan Stanley Smith Barney LLC does not have to be established or maintained to obtain the residential mortgage products offered by Morgan Stanley Private Bank, National Association. All residential mortgage loans/home equity lines of credit are subject to the underwriting standards and independent approval of Morgan Stanley Private Bank, National Association. Rates, terms, and programs are subject to change without notice. Residential mortgage loans/home equity lines of credit may not be available in all states; not available in Guam, Puerto Rico and the U.S. Virgin Islands. Other restrictions may apply. The information contained herein should not be construed as a commitment to lend. Morgan Stanley Private Bank, National Association is an Equal Housing Lender and Member FDIC that is primarily regulated by the Office of the Comptroller of the Currency. Nationwide Mortgage Licensing System Unique Identifier #663185. **The proceeds from a residential mortgage loan (including draws and advances from a home equity line of credit) are not permitted to be used to purchase, trade, or carry eligible margin stock; repay margin debt that was used to purchase, trade, or carry margin stock; or to make payments on any amounts owed under the note, loan agreement, or loan security agreement; and cannot be deposited into a Morgan Stanley Smith Barney LLC or other brokerage account.**

Through the pledged-asset feature offered by Morgan Stanley Private Bank, National Association, the applicant(s) or third party pledgor (collectively "Client") may be able to pledge eligible securities in lieu of a full or partial cash down payment or in connection with a refinance mortgage loan. To be eligible for the pledged-asset feature a Client must have a brokerage account at Morgan Stanley

Smith Barney LLC. If the value of the pledged securities in the account drops below the agreed-upon level stated in the loan documents, a Client may be required to deposit additional securities or other

collateral (such as cash) to stay in compliance with the terms of the mortgage loan. If a Client does not deposit additional securities or other collateral, the Client's pledged securities may be sold to satisfy the Client's obligation, and the Client will not be entitled to choose which assets will be sold. Borrowing against securities may not be appropriate for everyone. In deciding whether the

pledged-asset feature is appropriate, a Client should consider, among other things, the degree to which he or she is comfortable subjecting his or her investment in a home to the fluctuations of the securities market. The pledged-asset feature is not available in all states. Other restrictions may apply.

Interest-only loans enable borrowers to make monthly payments of only the accrued monthly interest on the loan during the introductory interest-only period. Once that period ends, borrowers must make monthly payments of principal and interest for the remaining loan term, and payments will be substantially higher than the interest-only payments. During the interest-only period, the total interest that the borrower will be obligated to pay will vary based on the amount of principal paid down, if any. If a borrower makes just an interest-only payment, and no payment of principal, the total interest payable by the borrower during the interest-only period will be greater than the total interest that a borrower would be obligated to pay on a traditional loan of the same interest rate having principal-and-interest payments. In making comparisons between an interest-only loan and a traditional loan, borrowers should carefully review the terms and conditions of the various loan products available and weigh the relative merits of each type of loan product appropriately. The interest rate and payments on an adjustable rate mortgage ("ARM") loan may increase over the life of a loan as interest is fixed for a specified period and then will adjust periodically thereafter. The annual percentage rate may increase after consummation of the loan.

3/6M, 5/6M, 7/6M, 10/6M adjustable rate mortgage ("ARM") loans are based on the Secured Overnight Financing Rate ("SOFR") 30-Day Average.

Relationship-based pricing offered by Morgan Stanley Private Bank, National Association is based on the value of clients', or their immediate family members' (i.e., grandparents, parents, and children) eligible assets (collectively "Household Assets") held within accounts at Morgan Stanley Smith Barney LLC. To be eligible for relationship-based pricing, Household Assets must be maintained within appropriate eligible accounts prior to the closing date of the residential mortgage loan. Relationship-based pricing is not available on conforming loans.

The Morgan Stanley Debit Card is issued by Morgan Stanley Private Bank, National Association pursuant to a license from Mastercard International Incorporated. Mastercard and Maestro are registered trademarks of Mastercard International Incorporated. The third-party trademarks and service marks contained herein are the property of their respective owners. Investments and services offered through Morgan Stanley Smith Barney LLC, Member SIPC.

Cash management and lending products and services are provided by Morgan Stanley Smith Barney LLC, Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A, as applicable.

Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A, each a national bank, Member FDIC.

The information provided herein is not intended to address any particular matter and may not apply depending on the context, as all clients' circumstances are unique.

Morgan Stanley Smith Barney LLC is a registered Broker/Dealer, Member SIPC, and not a bank. Where appropriate, Morgan Stanley Smith Barney LLC has entered into arrangements with banks and other third parties to assist in offering certain banking related products and services.

**Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY**

The Morgan Stanley American Express Card portfolio consists of three cards: The Platinum Card from American Express Exclusively for Morgan Stanley, the Morgan Stanley Blue Cash Preferred American Express Card, and the Morgan Stanley Credit Card.

The Platinum Card from American Express Exclusively for Morgan Stanley and the Morgan Stanley Blue Cash Preferred American Express Card are available for acquisition, and eligible clients are invited to apply. Existing Morgan Stanley Credit Card members may continue to enjoy the benefits of their card, but this product is no longer available for acquisition.

The Platinum Card® from American Express exclusively for Morgan Stanley is only available for clients who have an Eligible Account with Morgan Stanley Smith Barney LLC.

The Morgan Stanley Blue Cash Preferred® Card is only available for clients who have an Eligible Account with Morgan Stanley Smith Barney LLC or its eligible affiliates, including but not limited to E\*TRADE Securities LLC.

An “Eligible Account” is a brokerage account (i) held in your name, (ii) held by a trust where you are both the grantor and trustee of such trust, or (iii) held as a beneficial owner of a personal holding company, a non-operating limited liability company, a non-operating limited partnership, or a similar legal entity. Eligibility is subject to change. American Express may cancel your Card Account and participation in this program, if you do not maintain an Eligible Account.

The Platinum Card® from American Express exclusively for Morgan Stanley and the Morgan Stanley Blue Cash Preferred® Card are issued by American Express National Bank, not Morgan Stanley Smith Barney LLC. Services and rewards for the Cards are provided by Morgan Stanley Smith Barney LLC, American Express or other third parties. Restrictions and other limitations apply. See the terms and conditions for the Cards for details. Clients are urged to review fully before applying.

Morgan Stanley, its affiliates, and Morgan Stanley Financial Advisors and employees are not in the business of providing tax or legal advice. Clients should speak with their tax advisor regarding the potential tax implications of the Rewards Program upon their specific circumstances.

The Platinum Card® from American Express Exclusively for Morgan Stanley and the Morgan Stanley Blue Cash Preferred® American Express Card are issued by American Express National Bank. ©2022 American Express National Bank

American Express may share information about your Card Account with Morgan Stanley in support of Morgan Stanley programs and services. For information as to how Morgan Stanley will use your Card Account data please visit [http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/mssb\\_privacynotice.pdf](http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/mssb_privacynotice.pdf).

Obtain one (1) Additional Platinum Card for no additional annual fee. You can get up to the next three (3) Additional Platinum Cards for a total annual fee of \$175. Then, each Additional Platinum Card can be obtained for an annual fee of \$175. There is no annual fee for Additional Gold Cards. Additional Card Members must be at least 13 years of age and never have had a defaulted account with American Express.

The CashPlus Account is a brokerage account offered through Morgan Stanley Smith Barney LLC. Conditions and restrictions apply. Please refer to the CashPlus Account Disclosure Statement at <https://www.morganstanley.com/wealthdisclosures/cashplusaccountdisclosurestatement.pdf>.

The qualifying criteria to avoid the monthly account fee for all CashPlus Accounts in an Account Link Group (ALG) is: an additional eligible Morgan Stanley investment account (that may include additional fees), one Morgan Stanley Online enrollment; for Premier CashPlus account \$2,500 monthly deposit or \$25,000 Average BDP Daily Balance; for Platinum CashPlus account \$5,000 monthly deposit and \$25,000 Average BDP Daily Balance. For more information, please refer to the CashPlus Account Disclosure Statement at <https://www.morganstanley.com/wealth-disclosures/cashplusaccountdisclosurestatement.pdf>.

CashPlus Accounts receive SIPC coverage for securities and free credit balances and cash swept into the Bank Deposit Program receives FDIC insurance, both up to applicable limits.

Securities Investor Protection Corporation (“SIPC”) — Morgan Stanley Smith Barney LLC is a member of SIPC, which protects securities of its customers up to \$500,000 (including \$250,000 for claims for cash). Losses due to market fluctuation are not protected by SIPC. To obtain information about SIPC, including an explanatory SIPC brochure, contact SIPC at 1-202-371-8300 or visit [www.sipc.org](http://www.sipc.org)

Federal Deposit Insurance Corporation (“FDIC”) — Cash balances swept into deposit accounts at participating banks in the Bank Deposit Program are protected by FDIC Insurance up to applicable FDIC limits. FDIC insurance is a federal government program administered by the Federal Deposit Insurance Corporation. This insurance covers bank deposits held in checking accounts, savings accounts, certificates of deposits and money market deposits (not money market funds). This insurance comes into play in the event of a bank failure and covers client cash up to a total of \$250,000 per bank, for each “insurable capacity” (e.g. each individual, joint, etc.). It does not cover investment products that are not deposits, such as mutual funds, annuities, life insurance policies, stocks or bonds. Refer to <https://www.fdic.gov> for additional details.

The Active Assets Account is a brokerage account offered through Morgan Stanley Smith Barney LLC. Under the Bank Deposit Program, generally cash balances held in an account(s) at Morgan Stanley Smith Barney LLC are automatically deposited into an interest-bearing FDIC-insured deposit account(s) at Morgan Stanley Bank, N.A. and/or Morgan Stanley Private Bank, National

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Association, each a national bank, member FDIC, and an affiliate of Morgan Stanley Smith Barney LLC. Detailed information on federal deposit insurance coverage is available on the FDIC's website (<https://www.fdic.gov/deposit/deposits/>).

Under the Preferred Savings program ("Preferred Savings"), Morgan Stanley Smith Barney LLC makes available interest-bearing FDIC-insured deposit account(s) at Morgan Stanley Private Bank, National Association, a national bank, Member FDIC, and an affiliate of Morgan Stanley Smith Barney LLC. Deposits placed in Preferred Savings are eligible for FDIC insurance up to \$250,000 (including principal and interest) per depositor for all deposits held in the same insurable capacity (the Maximum Applicable Deposit Insurance Amount). All deposits held in the same insurable capacity will be aggregated for purposes of the Maximum Applicable Deposit Insurance Amount, including deposits maintained through the Bank Deposit Program. The client is responsible for monitoring the total amount held with the bank. The bank also reserves the right to offer promotional rates from time to time. Detailed information on federal deposit insurance coverage is available on the FDIC's website (<https://www.fdic.gov/deposit/deposits/>). The Preferred Savings program is not intended for clients who need to have frequent access to funds and those funds will not be automatically accessed to reduce a debit or margin loan in your brokerage account. Withdrawals from an account in Preferred Savings are limited to 10 transactions per calendar month, and any withdrawal or transfer over the limit in any one calendar month will be subject to an excess withdrawal fee. The client is responsible for monitoring the total amount held with each bank. The bank also reserves the right to offer promotional rates from time to time. Detailed information on federal deposit insurance coverage is available on the FDIC's website (<https://www.fdic.gov/deposit/deposits/>). **The Savings programs are not intended for clients who need to have frequent access to funds and those funds will not be automatically accessed to reduce a debit or margin loan in your brokerage account. Withdrawals from an account in Savings are limited to 10 transactions per calendar month, and any withdrawal or transfer over the limit in any one calendar month will be subject to an excess withdrawal fee.**

Reserved clients and CashPlus accounts are eligible for unlimited global ATM fee rebates. All other clients are eligible for up to \$200 in annual global ATM fee rebates. Daily withdrawal limits of \$1,500 to \$5,000 for ATMs and \$25,000 to \$50,000 for teller cash advances, depending upon tier. Unlike ATM fees that are rebated, Morgan Stanley will not reimburse fees that banks may charge for Debit Card cash advances.

While Morgan Stanley will always make transferred and deposited funds available immediately for investment purposes, we may not make all transferred or deposited funds immediately available for withdrawal. Funds deposited by check or funds transfer may be delayed depending on certain circumstances, such as dollar value, account status, etc., and could be held for up to six business days. Please contact your Financial Advisor or Private Wealth Advisor for additional information and/or review the Fund Availability Policy by signing into your Morgan Stanley Online account.

To review the Bank Deposit Program Disclosure Statement refer to [https://www.morganstanley.com/wealth-investmentstrategies/pdf/BDP\\_disclosure.pdf](https://www.morganstanley.com/wealth-investmentstrategies/pdf/BDP_disclosure.pdf)

Certain terms, conditions, restrictions and exclusions apply. Please refer to the Morgan Stanley Debit Card Terms and Conditions at <http://www.morganstanley.com/debitcardterms> for additional information.

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# Wealth Management Perspectives

# Understanding Your Portfolio's Impact

Measurement and reporting are central to advancing the positive impact of your investments. You cannot manage what you are not measuring.

## Problem



Investors have long sought the ability to understand the environmental and social impact of their investments; however, impact data and reporting is complex.

## Current Landscape:

Impact reporting has evolved into a complex global network of organizations, data providers and rating systems that can be challenging to navigate.

**15+ organizations** such as the Global Impact Investing Network and the Sustainability Accounting Standards Board are building the infrastructure to drive the effective use of material sustainability information by investors

**100+ data providers** can now deliver environmental, social and governance (ESG) insights across multiple levels (company, manager and portfolio-level) to help determine ESG-driven risks and opportunities

**Emerging ratings systems** assess ESG performance, but are either over-simplified, non-customizable and struggle to capture intentional sustainable investing approaches

## Solution



We have vetted and partnered with leading ESG data providers – MSCI ESG Research, ISS-ESG, Equileap and Fossil Free Indexes – to deliver a customized impact reporting tool exclusively for Morgan Stanley Financial Advisors and clients. **With us, you can understand and monitor your impact to make informed investment decisions based on your unique impact priorities.**



The description of Morgan Stanley Impact Quotient® and the reports that it generates are solely for informational purposes. You should not definitively rely upon it or use it to form the definitive basis for any decision, contract, commitment or action whatsoever, with respect to any proposed transaction or otherwise.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

# Introducing Morgan Stanley Impact Quotient®: A Client-Centric Approach to Impact Reporting



Available exclusively to Morgan Stanley clients, *Morgan Stanley Impact Quotient*® is a new suite of capabilities designed to help you understand the environmental and social impact of your investments.



The process is designed to capture impact priorities and assess alignment across multiple dimensions:

## IMPACT PREFERENCES

<b>IMPACT THEMES &amp; OBJECTIVES</b>	Social and / or environmental impacts sought to be aligned within an investment portfolio	
<b>ISSUES OF CONCERN</b>	Sectors, issues or business activities found to be objectionable or to be avoided with an investment portfolio	
<b>SUSTAINABLE DEVELOPMENT GOALS</b>	United nations supported framework aimed at ending poverty, protecting the planet and ensuring prosperity for all	
<b>TARGETED POPULATIONS FOR IMPACT</b>	Geographies or groups intended to experience positive impacts associated with selected investments	
<b>FAITH-BASED APPROACHES</b>	Faith can serve as a lens or set of considerations within an investment portfolio	

## PORTFOLIO PREFERENCES

<b>PORTFOLIO INTEGRATION APPROACH</b>	Portfolio integration, targeted curve out, portfolio tilt, or integration when new cash or investment changes	
<b>AVAILABLE INVESTMENT OPPORTUNITIES</b>	Public markets (e.g., Public equities fixed income, and multi Asset) and/or alternative investment (e.g., Real Assets, Private Equity)	
<b>APPROACHES TO INVESTING WITH IMPACT</b>	Restriction screening, ESG integration, thematic exposure, impact investing and shareholder engagement	

1. Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. The description of Morgan Stanley Impact Quotient® and the reports that it generates are solely for informational purposes. You should not definitively rely upon it or use it to form the definitive basis for any decision, contract, commitment or action whatsoever, with respect to any proposed transaction or otherwise.

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# Evaluate and Enhance the Alignment of Your Investments

## Why Engage With *Morgan Stanley Impact Quotient*®?

#1

Ensures your Financial Advisor **understands your unique impact priorities.**

#2

Gain **transparency into the impact of your investments** with data-driven insights customized to your unique preferences.

#3

Take action with your Financial Advisor **to better align your investments** over time.

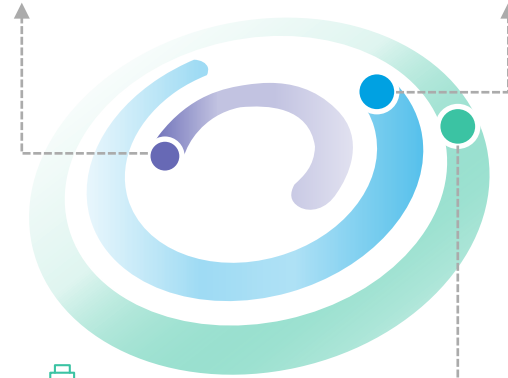
## Who is *Morgan Stanley Impact Quotient*® Designed For?



**Individuals** seeking to generate positive impact with their capital



**Families** seeking to align portfolios to their legacies



**Institutions and Boards** seeking to understand portfolio alignment or organizational mission

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The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be appropriate for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance. Morgan Stanley Smith Barney LLC offers investment program services through a variety of investment programs, which are opened pursuant to written client agreements. Each program offers investment managers, funds and features that are not available in other programs; conversely, some investment managers, funds or investment strategies may be available in more than one program.

Morgan Stanley's investment advisory programs may require a minimum asset level and, depending on your specific investment objectives and financial position, may not be appropriate for you. Please see the Morgan Stanley Smith Barney LLC program disclosure brochure (the "Morgan Stanley ADV") for more information in the investment advisory programs available. The Morgan Stanley ADV is available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV). **Sources of Data.** Information in this material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third-party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data. All opinions included in this material constitute the Firm's judgment as of the date of this material and are subject to change without notice. This material was not prepared by the research departments of Morgan Stanley & Co. LLC or Morgan Stanley Smith Barney LLC. Some historical figures may be revised due to newly identified programs, firm restatements, etc.

**Global Investment Manager Analysis (GIMA) Focus List, Approved List and Tactical Opportunities List; Watch Policy.** GIMA uses two methods to evaluate investment products in applicable advisory programs: **Focus** (and investment products meeting this standard are described as being on the Focus List) and **Approved** (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status). GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. Certain investment products on either the Focus List or Approved List may also be recommended for the **Tactical Opportunities List** based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time. For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "Manager Selection Process."

The **Global Investment Committee** is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

The GIC Asset Allocation Models are not available to be directly implemented as part of an investment advisory service and should not be regarded as a recommendation of any Morgan Stanley investment advisory service. The GIC Asset Allocation Models do not represent actual trading or any type of account or any type of investment strategies and none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees, fund expenses) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models which, when compounded over a period of years, would decrease returns.

**Adverse Active AlphaSM 2.0** is a patented screening and scoring process designed to help identify high-quality equity and fixed income managers with characteristics that may lead to future outperformance relative to index and peers. While highly ranked managers performed well as a group in our Adverse Active Alpha model back tests, not all of the managers will outperform. Please note that this data may be derived from back-testing, which has the benefit of hindsight. In addition, highly ranked managers can have differing risk profiles that might not be appropriate for all investors.

Our view is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager

turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors.

The proprietary **Value Score** methodology considers an active investment strategies' value proposition relative to its costs. From a historical quantitative study of several quantitative markers, Value Score measures perceived forward-looking benefit and computes (1) "fair value" expense ratios for most traditional investment managers across 40 categories and (2) managers' perceived "excess value" by comparing the fair value expense ratios to actual expense ratios. Managers are then ranked within each category by their excess value to assign a Value Score. Our analysis suggests that greater levels of excess value have historically corresponded to attractive subsequent performance.

For more information on the ranking models, please see Adverse Active AlphaSM 2.0: Scoring Active Managers According to Potential Alpha and Value Score: Scoring Fee Efficiency by Comparing Managers' "Fair Value" and Actual Expense Ratios. The whitepapers are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

**The Global Investment Manager Analysis (GIMA) Services Only Apply to Certain Investment Advisory Programs** GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA Status changes even though it may give notice to clients in other programs.

**Strategy May Be Available as a Separately Managed Account or Mutual Fund** Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program. Generally, investment advisory accounts are subject to an annual asset-based fee which is payable monthly in advance (some account types may be billed differently). (The "Fee"). In general, the Fee covers Morgan Stanley investment advisory services, custody of securities with Morgan Stanley, trade execution with or through Morgan Stanley or its affiliates, as well as compensation to any Morgan Stanley Financial Advisor.

In addition, each account that is invested in a program that is eligible to purchase certain investment products, such as mutual funds, will also pay a Platform Fee (which is subject to a Platform Fee offset) as described in the applicable ADV brochure. Accounts invested in the Select UMA program will also pay a separate Morgan Stanley Overlay Manager Fee and any applicable Sub-Manager fees. If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. Fees and expenses are charged directly to the pool of assets the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. Overlay Managers or Executing Sub-Managers ("managers") in some of Morgan Stanley's Separately Managed Account ("SMA") programs may affect transactions through broker-dealers other than Morgan Stanley or our affiliates. If your manager trades with another firm, you may be assessed costs by the other firm in addition to Morgan Stanley's fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain managers have historically directed most, if not all, of their trades to outside firms. Information provided by managers concerning trade execution away from Morgan Stanley is summarized at: [www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf](http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf). For more information, please refer to the ADV Brochure for your program(s), available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV) or contact your Financial Advisor/Private Wealth Advisor. For example, on an advisory account with a 2.5% annual fee, if the gross annual performance is 6.00%, the compounding effect of the fees will result in a net performance of approximately 3.38% after one year, 10.50% after three years, and 18.10% after five years. **Conflicts of Interest:** GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients' assets are already invested. While such a recommendation is permissible, GIMA is responsible for the opinions expressed by GIMA. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, Morgan Stanley Wealth Management, MS & Co., managers and their affiliates provide a variety of services

(including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. Morgan Stanley Wealth Management, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. Morgan Stanley Wealth Management believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account.

Morgan Stanley charges each fund family we offer a mutual fund support fee, also called a "revenue-sharing payment," on client account holdings in fund families according to a tiered rate that increases along with the management fee of the fund so that lower management fee funds pay lower rates than those with higher management fees.

**Consider Your Own Investment Needs:** The model portfolios and strategies discussed in the material are formulated based on general client characteristics including risk tolerance. This material is not intended to be an analysis of whether particular investments or strategies are appropriate for you or a recommendation, or an offer to participate in any investment. Therefore, clients should not use this material as the sole basis for investment decisions. They should consider all relevant information, including their existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon. Such a determination may lead to asset allocation results that are materially different from the asset allocation shown in this profile. Talk to your Financial Advisor about what would be an appropriate asset allocation for you, whether CGCM is an appropriate program for you.

**No obligation to notify** – Morgan Stanley Wealth Management has no obligation to notify you when the model portfolios, strategies, or any other information, in this material changes.

**Please consider the investment objectives, risks, fees, and charges and expenses of mutual funds, ETFs, closed end funds, unit investment trusts, and variable insurance products carefully before investing. The prospectus contains this and other information about each fund. To obtain a prospectus, contact your Financial Advisor or Private Wealth Advisor or visit the Morgan Stanley website at [www.morganstanley.com](http://www.morganstanley.com). Please read it carefully before investing.**

**An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the fund.**

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long "lock-up" periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual fund or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund's investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund's essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or "leverage."

The Morgan Stanley Digital Vault ("Digital Vault") is accessible to clients with dedicated Financial Advisors. Documents shared via the Digital Vault should be limited to those relevant to your Morgan Stanley account relationship. Uploading a document to the Digital Vault does not obligate us to review or take any action on it, and we will not be liable for any failure to act upon the contents of such document. Please contact your Financial Advisor or Branch Management to discuss the appropriate process for providing the document to us for review. If you maintain a Trust or entity account with us, only our certification form will govern our obligations for such account. Please refer to the Morgan Stanley Digital Vault terms and conditions for more information.

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### KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not appropriate for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. Shares of closed-end funds frequently trade at a discount from their NAV which may increase investors' risk of loss. The risk of loss due to this discount may be greater for investors expecting to sell their shares in a relatively short period after completion of the public offering. This characteristic is a risk separate and distinct from the risk that a closed-end fund's net asset value may decrease as a result of investment activities. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases or sells shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

**Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to

concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by FINRA Rule 2241 or a "debt research report" as defined by FINRA Rule 2242 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown). The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. This material is not to be reproduced or distributed to any other persons (other than professional advisors of the investors or prospective investors, as applicable, receiving this material) and is intended solely for the use of the persons to whom it has been delivered. This material is not for distribution to the general public. Past performance is no guarantee of future results. Actual results may vary. SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments. In Consulting Group's advisory programs, alternative investments are limited to US-registered mutual funds, separate account strategies and exchange-traded funds (ETFs) that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not appropriate for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund.

Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.



Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, “blow ups,” or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial “lift” or upwards bias.

**Hedge Funds of Funds** and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor’s goals by the pre-established year or “target date.” A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are appropriate only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy.

### Virtual Currency Products (Cryptocurrencies)

**Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets (“Digital Assets”), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to:**

- Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment.
- Certain Digital Asset funds and products, allow investors to invest on a more frequent basis than investors may withdraw from the fund or product, and interests in such funds or products are generally not freely transferrable. This means that, particularly given the volatility of Digital Assets, an investor will have to bear any losses with respect to its investment for an extended period of time and will not be able to react to changes in the price of the Digital Asset once invested (for example, by seeking to withdraw) as quickly as when making the decision to invest. Such Digital Asset funds and products, are intended only for persons who are able to bear the economic risk of investment and who do not need liquidity with respect to their investments.
- Given the volatility in the price of Digital Assets, the net asset value of a fund or product that invests in such assets at the time an investor’s subscription for interests in the fund or product is accepted may be significantly below or above the net asset value of the product or fund at the time the investor submitted subscription materials.
- Certain Digital Assets are not intended to function as currencies but are intended to have other use cases. These other Digital Assets may be subject to some or all of the risks and considerations set forth herein, as well as additional risks applicable to such Digital Assets. Buyers, sellers and users of such Digital Assets should thoroughly familiarize themselves with such risks and considerations before transacting in such Digital Assets.
- The value of Digital Assets may be negatively impacted by future legal and regulatory developments, including but not limited to increased regulation of such Digital Assets. Any such developments

may make such Digital Assets less valuable, impose additional burdens and expenses on a fund or product investing in such assets or impact the ability of such a fund or product to continue to operate, which may materially decrease the value of an investment therein.

- Due to the new and evolving nature of digital currencies and the absence of comprehensive guidance, many significant aspects of the tax treatment of Digital Assets are uncertain. Prospective investors should consult their own tax advisors concerning the tax consequences to them of the purchase, ownership and disposition of Digital Assets, directly or indirectly through a fund or product, under U.S. federal income tax law, as well as the tax law of any relevant state, local or other jurisdiction.
- Over the past several years, certain Digital Asset exchanges have experienced failures or interruptions in service due to fraud, security breaches, operational problems or business failure. Such events in the future could impact any fund's or product's ability to transact in Digital Assets if the fund or product relies on an impacted exchange and may also materially decrease the price of Digital Assets, thereby impacting the value of your investment, regardless of whether the fund or product relies on such an impacted exchange.
- Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset.
- Investors in funds or products investing or transacting in Digital Assets may not benefit to the same extent (or at all) from "airdrops" with respect to, or "forks" in, a Digital Asset's blockchain, compared to investors who hold Digital Assets directly instead of through a fund or product. Additionally, a "fork" in the Digital Asset blockchain could materially decrease the price of such Digital Asset.
- Digital Assets are not legal tender, and are not backed by any government, corporation or other identified body, other than with respect to certain digital currencies that certain governments are or may be developing now or in the future. No law requires companies or individuals to accept digital currency as a form of payment (except, potentially, with respect to digital currencies developed by certain governments where such acceptance may be mandated). Instead, other than as described in the preceding sentences, Digital Asset products' use is limited to businesses and individuals that are willing to accept them. If no one were to accept digital currencies, virtual currency products would very likely become worthless.
- Platforms that buy and sell Digital Assets can be hacked, and some have failed. In addition, like the platforms themselves, digital wallets can be hacked, and are subject to theft and fraud. As a result, like other investors have, you can lose some or all of your holdings of Digital Assets.
- Unlike US banks and credit unions that provide certain guarantees of safety to depositors, there are no such safeguards provided to Digital Assets held in digital wallets by their providers or by regulators.
- Due to the anonymity Digital Assets offer, they have known use in illegal activity, including drug dealing, money laundering, human trafficking, sanction evasion and other forms of illegal commerce. Abuses could impact legitimate consumers and speculators; for instance, law enforcement agencies could shut down or restrict the use of platforms and exchanges, limiting or shutting off entirely the ability to use or trade Digital Asset products.
- Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.
- Investors should be aware of the potentially increased risks of transacting in Digital Assets relating to the risks and considerations, including fraud, theft, and lack of legitimacy, and other aspects and qualities of Digital Assets, before transacting in such assets.
- The exchange rate of virtual currency products versus the USD historically has been very volatile and the exchange rate could drastically decline. For example, the exchange rate of certain Digital Assets versus the USD has in the past dropped more than 50% in a single day. Other Digital Assets may be affected by such volatility as well.
- Digital Asset exchanges have limited operating and performance histories and are not regulated with the same controls or customer protections available to more traditional exchanges transacting equity, debt, and other assets and securities. There is no assurance that a person/exchange who currently accepts a Digital Asset as payment will continue to do so in the future.

- The regulatory framework of Digital Assets is evolving, and in some cases is uncertain, and Digital Assets themselves may not be governed and protected by applicable securities regulators and securities laws, including, but not limited to, Securities Investor Protection Corporation coverage, or other regulatory regimes.

- Morgan Stanley Smith Barney LLC or its affiliates (collectively, "Morgan Stanley") may currently, or in the future, offer or invest in Digital Asset products, services or platforms. The proprietary interests of Morgan Stanley may conflict with your interests.

- The foregoing list of considerations and risks are not and do not purport to be a complete enumeration or explanation of the risks involved in an investment in any product or fund investing or trading in Digital Assets.

**Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

**Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC ("Morgan Stanley"), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not "fiduciaries" (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at [www.morganstanley.com/disclosures/dol](http://www.morganstanley.com/disclosures/dol). Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.**

Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be an appropriate comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to form the primary basis for any investment decision by you, or an investment advice or recommendation for either ERISA or Internal Revenue Code purposes. Morgan Stanley Private Wealth Management will only prepare a financial plan at your specific request using Private Wealth Management approved financial planning signature.

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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# Sustainable Investing Failed Its First Big Test. A Reckoning Is Coming.

By [Lauren Foster](#) Follow Updated April 17, 2022 / Original April 15, 2022



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The past few years have seen an explosion of interest in investing based on environmental, social, and governance factors, or ESG. Lured by the promise of doing well by doing good, investors poured billions of dollars into ESG strategies, turning the acronym into one of Wall Street's favorite buzzwords.

As the approach soared in popularity, investment companies large and small seized the opportunity to design and market new ESG funds and rankings. Professionally managed assets with ESG mandates swelled to \$46 trillion globally in 2021, representing nearly 40% of all assets under management, according to Deloitte's Center for Financial Services. By 2024, that figure is forecast to rise to \$80 trillion, or more than half of all professionally managed assets.

Now, Russia's invasion of Ukraine has created the first real test for this popular investment trend. By eschewing traditional energy stocks and defense shares, which are having a banner year, and embracing low-carbon-footprint technology stocks, which aren't, many ESG funds lost money in the first quarter, and underperformed their benchmarks.

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One quarter isn't indicative of a long-term trend, but the poor performance has pointed out some of the weaknesses inherent in this investment approach, and offered fresh ammunition to critics, of whom there are many. It also suggests that ESG strategies, often focused on environmental issues, need a rethink, with more emphasis placed on social factors, especially in light of Europe's growing humanitarian crisis.

"There is going to be a reckoning in ESG," says Jason Saul, executive director of the Center for Impact Sciences at the University of Chicago Harris School of Public Policy. "ESG is an investment thesis that needs to evolve with the times."

Aswath Damodaran, a professor at New York University's Stern School of Business, and an expert in equity valuation, calls the [Russia-Ukraine war](#) "the first of many tests that are going to come" for ESG. One of Damodaran's chief criticisms is that the industry has oversold outperformance, when almost all of the returns in ESG strategies could be attributed to funds' tech focus and avoidance of fossil-fuel stocks, poor performers until the past year.

Some investors have embraced ESG as a moral imperative, but many of the strategy's fans have invested in ESG-oriented or "sustainable" funds—the terms are often used interchangeably—in the belief that companies that adhere to good environmental, social, and governance practices may outperform those that don't. Investors worried about sacrificing returns could find reassurance in ESG's report card: In the decade from 2012 to 2021, all large-cap U.S. stock funds returned an annualized 14.87%, while the ESG-focused funds in that group returned 15.58%, according to data from [Morningstar Direct](#).



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Both groups, however, failed to outpace the broader market, as measured by the [S&P 500 index](#), which returned 16.55% a year during the same period.

But that doesn't mean investors didn't do well. On an asset-weighted basis, large-cap ESG funds delivered an annualized 16.49% per invested dollar, almost on par with the S&P 500, according to Morningstar Direct.

The outperformance of ESG was even more striking in the past two years. In 2020 and 2021, all large-cap U.S. stock funds returned 23.39% a year per invested dollar, the same as the S&P 500. But ESG-focused large-cap funds returned 25.19%.

This year tells a different story, however. In the first quarter, all large-cap U.S. stock funds fell an average of 5.6% on an asset-weighted basis, according to Morningstar. The ESG funds in the group fell almost 7% in the three months ended on March 31.

“We’re kind of in a shakeout, and ESG will likely get its nose bloodied a little,” says Matt Orsagh, a senior director of capital-markets policy at the CFA Institute, the global association of investment professionals.

Inflation is perhaps the biggest culprit in ESG funds’ recent underperformance. U.S. inflation, as measured by the consumer price index, surged at an annual pace of 8.5% in March—the seventh straight monthly increase and the country’s highest inflation rate in more than 40 years.

March CPI rose 1.2%, the Department of Labor reported on Tuesday, up from 0.8% in February. Gasoline, shelter, and food costs contributed the most to headline inflation: Gas prices rose 18.3% in the month.

The war in Ukraine, now in its second month, has contributed to the rise in energy and other commodity prices, aggravating global inflation. Brent crude, the international benchmark for oil prices, is up more than 40% year to date, with the rally underpinning a total return of 45% in the Energy Select Sector SPDR exchange-traded fund (ticker: XLE).

Yet many ESG funds are underweight oil and gas stocks, which typically don’t make it past their screens due to the industry’s climate-unfriendly characteristics. Environmental, social, and governance funds around the globe that report holdings monthly had only a 1.5% weighting in energy as of February, versus 4% for all stock funds, according to EPFR Global, which tracks fund flows and holdings.



Technology, on the other hand, has been a favorite of global ESG funds, accounting for more than 25% of their total assets as of Feb. 28, according to EPFR. That's nearly two percentage points more than tech's exposure in all stock funds. But tech stocks, and growth stocks generally, had a troubled first quarter as the Federal Reserve raised interest rates for the first time since 2018. The [Technology Sector Select SPDR ETF \(XLK\)](#), a proxy for the sector, lost almost 9%. [Microsoft \(MSFT\)](#), one of its top holdings, is an ESG fund favorite.

ESG's underperformance "is going to be the steady state," Damodaran says.

Ken Pucker, a senior lecturer at the Fletcher School at Tufts University, is in Damodaran's camp on this subject. He says that ESG funds don't systematically deliver alpha, or the excess return of an investment, relative to the return of a benchmark index. He also contends that they oversell outperformance and charge higher fees compared with plain-vanilla funds.

In a recent essay published in *Institutional Investor*, Pucker and co-author Andrew King, a professor at the Questrom School of Business at Boston University, discussed interviewing more than a dozen investment professionals to investigate their claims that a focus on ESG produces higher profits, signals higher stock returns, lowers capital costs, and benefits from investment flows. Pucker and King concluded, "The logic and evidence for assurances of ESG-driven alpha are lacking. Indeed, it is our best guess that flows of money into ESG funds represent a marketing-induced trend that will neither benefit the planet nor provide investors with higher returns."

To be sure, ESG managers and advocates disagree. They note that the strategy aims to deliver long-term value, and that all investment styles have stretches of underperformance. Amber Fairbanks, a portfolio manager at Mirova US, the sustainable-investing affiliate of Natixis Investment Managers, acknowledges that ESG managers have underperformed fairly significantly, year to date, but says that "the underlying conviction is really on the longer term, and that's where, as an ESG manager, we're looking to outperform."

"What strategy doesn't have a poor one or two quarters?" says Emily Chew, executive vice president and chief responsible-investment officer of Calvert Research and Management, the sustainability powerhouse owned by Eaton Vance. "ESG remains a very robust framework for thinking about the overall context in which a company is operating."

Critics have long argued that investors are overpaying for ESG products. It isn't that the funds charge more than their peers: According to Morningstar Direct, actively managed stock funds in the U.S. had an average net expense ratio of 1.12% as of February 2022, while the ESG funds in the group charged an average of 1.04%. Similarly, index-tracking sustainable funds have slightly lower average costs than all passive stock funds.

But ESG investors seem more willing to pay higher expenses than investors overall. On an asset-weighted basis, investors in all active stock funds pay 0.67% for each dollar invested, and investors in ESG funds, 0.78%. Among index funds, the gap is even wider. On the same basis, the expense ratio for passive ESG funds, at 0.25%, is more than twice the average for all passive stock funds.



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ESG has deep roots in Europe, where politicians have long pushed for rules to bring companies in line with the European Union's long-term carbon neutrality target. In the U.S., critics dismissed the focus as a fad. But the strategy gained momentum here in 2019 and 2020, as headlines about extreme-weather events, the Covid-19 pandemic, and social-justice issues, including those highlighted by the death of George Floyd in police custody, prompted many investors to focus more on environmental and social problems.

Last year saw record net inflows of \$69.2 billion into sustainable open-end and exchange-traded funds available to U.S. investors, a 35% increase over the previous record set the year before, according to Morningstar. Observers proclaimed that ESG had finally moved into the mainstream.

In fact, the seeds had been sown years before. ESG trailblazer [Amy Domini](#) co-founded KLD Research & Analytics in 1990, and created the Domini 400 Social Index. [She](#) launched a passive U.S. equity fund pegged to the index. The firm and its flagship

index are now owned by [MSCI \(MSCI\)](#), the largest ESG rating company. The fund converted to an active strategy, via the [Domini Impact Equity fund \(DSEPX\)](#), in 2006. Last year, it returned 21.3% but is down 12% this year.

MSCI declined to comment for this article.

CFA's Orsagh remembers when the ESG acronym was coined in 2005. In the early 2000s, he worked at GovernanceMetrics International, now part of MSCI. He says ESG was born of the need to integrate nonfinancial information into the investment process. "ESG is an ethos; it's not an investment style," he says. "It was meant to find ways for investors to have better information to efficiently allocate capital."

Over the years, it became synonymous in some investors' minds with the catchphrase "doing well by doing good." For others, it is regarded primarily as a risk-mitigation strategy. Semantics aside, the strategy got a big boost when one of the best-known names in finance—Larry Fink, chief executive of [BlackRock \(BLK\)](#), the world's largest asset manager—took the bullhorn.

In his 2018 letter to CEOs, Fink implored other chief executives to be more thoughtful about their roles. "Society is demanding that companies, both public and private, serve a social purpose," he wrote. "To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society."

Later that year, Fink signaled that the industry was at an inflection point. "I do believe that the demand for ESG is going to transform all investing," he said, referring to both passive and active investors. "That may be one or five years away from now, but it's not that far away."

That year, sustainable mutual and exchange-traded funds in the U.S. held \$89 billion in assets, according to Morningstar. At the end of 2021, just three years later, that number had ballooned to \$360 billion. Still, that's just a sliver of the \$28 trillion in total U.S. fund assets.

During BlackRock's first-quarter earnings call on Wednesday, [Fink reiterated the company's commitment to sustainable investing](#). He acknowledged during the Q&A portion of the call the "severe impact" that higher energy prices and inflation have had on many people, but said this doesn't change "the long-term nature of ESG."

Fink cited first-quarter fund flows as evidence, saying, "We had about \$19 billion of sustainable flows. Obviously, that's down from prior quarters, but certainly up from two years ago."

BlackRock declined to make executives available for an interview, referring *Barron's* instead to Fink's 2022 letter to shareholders.

As environmental, social, and governance assets under management have swelled in the U.S., so have investors' choices. According to ISS Market Intelligence, fund firms launched a record 133 ESG funds in 2021. That's up from the 75 that debuted in 2020.

Ironically, given the growth in products, there is no established standard for what constitutes ESG investing—and no standard-setting organization. Even the two dominant U.S. ratings companies—MSCI and Morningstar, which owns Sustainalytics, an ESG ratings and research firm—differ somewhat in their approach. Sustainalytics' ESG Risk Ratings measures a company's exposure to industry-specific material ESG risks and how well the company is managing those risks. MSCI ESG Ratings measures a company's exposure to ESG risks and how well the company manages those risks, relative to peers.

Jon Hale, head of sustainability research at Morningstar, agrees that the terminology around ESG and sustainability is fraught. "I tend to use 'sustainable investing' as an umbrella term to refer to a range of investment approaches that seek to both deliver competitive investment returns and positive ESG outcomes," he says.

"There's a multitude of rating agencies out there," says Douglas Chia, president of consulting firm Soundboard Governance, who notes that investors are starting to ask more questions about the rating methodologies, how the firms are collecting the information, and what the information actually means. "To determine the quality of the disclosures that ratings agencies are evaluating, you do have to have metrics, and they have to be required, so that they are comparable and auditable, or attestable, or something like that," he adds. "And that's what the SEC [Securities and Exchange Commission] is attempting to do, and what a lot of jurisdictions are attempting to do."

The SEC proposed new rules in March that would require U.S. public companies to report their greenhouse-gas emissions, along with details of how climate change is affecting their businesses.

In its report, ISS MI found that fund managers courted ESG investors by adding environmental, social, and governance criteria to funds already in the market. The number of funds adding such language peaked in 2020, with 200, representing nearly \$1 trillion in assets under management, the firm said. Last year, 136 funds, representing about \$300 billion in AUM, began using ESG criteria in some fashion.

Today, the sector has effectively become an industry—or Big ESG, as Chia says—encompassing asset managers, proxy advisors, ratings firms, consultants, and others. And it continues to grow: PwC, the business-services firm, announced plans last year to create 100,000 net new jobs in the next five years with an emphasis on “hiring specialists in critical areas, many related to ESG, including climate, supply chain, and leadership and change.” It has also created an ESG Academy for its workforce to raise awareness of and insight into ESG principles.

This past week, Deloitte said that it is committing \$1 billion to expand its sustainability and climate practice and launching the new Deloitte Center for Sustainable Progress, or DCSP.

There is plenty of momentum and marketing muscle behind ESG, and a generation of mostly younger investors who care deeply about the planet and social issues. But investors’ appetite for underperformance could be tested in the coming months.

“ESG overpromised, and nothing focuses people’s minds like a quarter of underperformance on the thesis that they’ve been buying into,” says Orsagh. If the underperformance drags on, some ESG investors will probably look elsewhere for returns. In the near term, they might need to rethink the companies they are willing to invest in.

Zhihan Ma, global head of ESG and senior ESG analyst at Bernstein, says that the war in Ukraine and persistently high inflation are challenging the conventional wisdom about sustainable investing. “On the one hand, the conventional wisdom says you get impact and returns, and on the other hand, it says ESG investing is about investing in best-of-class names,” Ma says, referring to companies with high ESG scores, typically in the tech sector. “But investing in best-in-class names may not get you impact and returns at the same time in all market conditions.”

Ma is sanguine about the long-term prospects for ESG. “We’re not going to solve climate change overnight; we’re not going to solve rising inequalities overnight,” she says. “There are systemic issues in society that all stakeholders, regulators, investors, consumers, companies will need to work on together to address, which means that all these considerations are here to stay.”

She says the “S,” or social issues, became a more pressing concern during the peak of the Covid pandemic, and amid rising racial tensions. “We could see more interest in the S if the war leads to a prolonged humanitarian crisis,” she says.

One challenge is measuring the S, which seems even more complicated than quantifying environmental impact and risks. BNP Paribas’ 2021 ESG Global Survey



and embed in investment strategies. “Data [are] more difficult to come by, and there is an acute lack of standardization around social metrics,” the report said. “This comes at a time when the social component is of growing importance to end investors.”

Saul, at the Center for Impact Studies, tackled the topic in [a recent paper](#) titled “Fixing the S in ESG.” He wrote: “To be relevant, the ESG field must modernize the way it measures S factors.”

This requires an objective standard for reporting social outcomes, which has been lacking to date. Then, once the impacts are standardized and classified, they must be verified by an independent body. And third, there needs to be better reporting.

To elevate the importance of S, companies need to move beyond a check-the-box exercise. Saul says that they should start reporting social impact data consistently. Environmental, social, and governance investors should start asking for and requiring S impact data, and ESG rating firms, standard-setting bodies, and data providers should align with a specialized S data provider to improve the value of their data.

He says that the group’s performance has suffered since the start of the Ukraine war because the industry is “monocularly tied to E and investors haven’t given enough consideration to the importance of S.” ESG, he adds, “has to be based on something more substantial than just quantifying carbon and E.”

Kathryn McDonald, co-founder of RadiantESG Global Investors and head of investments and sustainability, says there has rightly been an emphasis on environmental issues, given the existential threat posed by climate catastrophes. But it is becoming clear that “social challenges give rise to myriad risks affecting our investments and our economy more generally,” she says. “These threats aren’t on the distant horizon. They are with us now.”

ESG has captured investors’ attention and that of Wall Street, and interest in this investment approach—not to mention the apparatus built to support it—isn’t going to disappear. But the strategy could face more tests in coming quarters and years, due to market swings, investor biases, and the inherent challenges of defining and measuring environmental, social, and governance impact and risk. How ESG funds perform ultimately will determine whether the concept flourishes and is enshrined in mainstream investing—or whether it becomes a passing fad.

—*Evie Liu contributed to this article*

**Corrections & amplifications:** *Matt Orsagh worked at GovernanceMetrics International in the early 2000s and remembered when the ESG acronym was coined in 2005. An earlier version of this article incorrectly said Orsagh was at GMI in the early 1990s and ESG came into use in 1995.*

**Write to** Lauren Foster at [lauren.foster@barrons.com](mailto:lauren.foster@barrons.com)

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**South Central Connecticut Regional Water Authority  
Minutes of the June 23, 2022 Meeting**

The regular meeting of the South Central Connecticut Regional Water Authority (“RWA” or “Authority”) took place on Thursday, June 23, 2022, via remote access.

**Present:**       **Authority** – Messrs. Borowy, Curseaden, DiSalvo, and Mss. LaMarr and Sack  
                  **Management** – Mss. Kowalski and Verdisco, and Messrs. Bingaman,  
                  Courchaine, Donovan, Lakshminarayanan and Singh  
                  **RPB** – Mr. Mongillo  
                  **Staff** – Mrs. Slubowski

The Chair called the meeting to order at 12:30 p.m. He reviewed the Safety Moment distributed to members.

At 12:32 p.m., on motion made by Mr. Curseaden, seconded by Ms. LaMarr, and unanimously carried, the Authority voted to recess the meeting to meet as the Commercial Business Committee.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

At 1:24 p.m., the Authority reconvened and Mr. Mongillo entered the meeting. On motion made by Ms. Sack, seconded by Mr. DiSalvo, and unanimously carried, the Authority voted to meet as the Strategic Planning Committee.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

At 3:12 p.m., the Authority reconvened and Ms. Sack withdrew from the meeting.

Mr. Curseaden moved for conditional approval of the following resolutions as recommended by the Commercial Business Committee for the transactions as discussed in executive session:

**WHEREAS**, the Board deems it to be advisable and in the best interests of the Authority to authorize RWA Environmental and Lab Services, LLC, a Connecticut limited liability company (the “**Acquisition Sub**”) that is an indirect wholly-owned subsidiary of the Authority to enter into each of (i) a Purchase and Sale Agreement by and between Acquisition Sub and a Connecticut limited liability company, as more fully discussed in executive session (the “**Real Estate Seller**”) with respect to the purchase of that certain parcel of land (the “**Real Estate Purchase**”) and substantially in the form provided to the Board on or about June 17, 2022 (the “**Real Estate Purchase Agreement**”) and (ii) an associated Asset Purchase Agreement by and between Acquisition Sub and a Connecticut corporation, as more fully discussed in executive session (the “**Asset Seller**”) for the purchase of the assets of the Asset Seller’s environmental and analytical laboratory testing services business (the “**Asset Purchase**”) substantially in the form provided to the Board on or about June 17, 2022

(the “**Asset Purchase Agreement**”), in each case as more fully discussed, including discussion of the conditions to closing set forth in the Real Estate Purchase Agreement, in executive session of the Authority held on June 23, 2022.

**NOW THEREFORE LET IT BE:**

**RESOLVED**, that the form, terms and provisions of each of the Real Estate Purchase Agreement and Asset Purchase Agreement, including all exhibits and schedules attached thereto, be, and each of them hereby is, determined to be fair, advisable, and in the best interest of the Authority and Acquisition Sub; and that each of the Real Estate Purchase Agreement and the Asset Purchase Agreement be, and each of them hereby is, adopted and approved;

**RESOLVED**, that each of Larry L. Bingaman, the President and Chief Executive Officer of the Authority and a manager of Acquisition Sub, and Rochelle Kowalski, the Vice President of Financial Reporting and Analysis of the Authority and a manager of Acquisition Sub (each such person, an “**Authorized Officer**”) be, and each of them hereby is, authorized and empowered, to execute and deliver the Real Estate Purchase Agreement, and, upon the satisfaction of all the conditions to the closing of the Real Estate Purchase Agreement, the Asset Purchase Agreement, including all exhibits and schedules attached thereto, in the name and on behalf of Acquisition Sub with such additions, deletions, or changes therein (including, without limitation, any additions, deletions, or changes to any schedules or exhibits thereto) as the Authorized Officer executing the same shall approve (the execution and delivery thereof by any such Authorized Officer to be conclusive evidence of his or her approval of any such additions, deletions, or changes);

**RESOLVED**, that Acquisition Sub be, and hereby is, authorized and empowered to perform all of its obligations under each of the Real Estate Purchase Agreement and, upon the satisfaction of all the conditions to the closing of the Real Estate Purchase Agreement, the Asset Purchase Agreement and Real Estate Purchase Agreement, including but not limited to, the Real Estate Purchase and the Asset Purchase;

**GENERAL AUTHORIZATION**

**RESOLVED**, that each of the Authorized Officers be, and each of them hereby is, authorized and empowered to take all such further action and to execute and deliver all such further agreements, certificates, instruments, and documents, in the name and on behalf of Acquisition Sub, to pay or cause to be paid all expenses; to take all such other actions as they or any one of them shall deem necessary, desirable, advisable, or appropriate to consummate, effectuate, carry out, or further the transactions contemplated by and the intent and purposes of the foregoing resolutions;

**RESOLVED**, that the omission from these resolutions of any agreement or other arrangement contemplated by any of the agreements or instruments described in the foregoing resolutions or any action to be taken in accordance with any requirements of any of the agreements or instruments described in the foregoing resolutions shall in no manner derogate from the authority of the Authorized Officers to take all actions necessary, desirable, advisable, or appropriate to consummate, effectuate, carry out, or further the transactions contemplated by and the intent and purposes of the foregoing resolutions.

Mr. Curseaden stated that he is approving the resolutions based on the presentation, discussion and comments that took place in executive session as well as comments from legal counsel.

Mr. DiSalvo seconded the motion. The Chair called for the vote:

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Absent

Mr. Borowy stated that the Strategic Planning Committee voted to recommend the RWA's FY 2023 Strategic Plan for adoption by the Authority. On motion made by Mr. DiSalvo, and seconded by Ms. LaMarr, the Authority voted to adopt the RWA's FY 2023 Strategic Plan.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Absent

On motion made by Ms. LaMarr, seconded by Mr. DiSalvo, and unanimously carried, the Authority voted to approve, adopt, or receive, as appropriate the following items in the Consent Agenda:

1. Minutes of the May 16, 2022 and May 26, 2022 meetings.
2. Capital budget authorization for July 2022.

**RESOLVED**, that the Vice President of Financial Reporting and Analysis is authorized to submit to the Trustee one or more requisitions in an aggregate amount not to exceed \$3,600,000 for the month of July 2022 for transfer from the Construction Fund for capital expenditures. Each such requisition shall contain or be accompanied by a certificate identifying such requisition and stating that the amount to be withdrawn, pursuant to such requisition, is a proper charge to the Construction Fund. Such requisitions are approved notwithstanding the fact that amounts to be withdrawn for a particular project may exceed the amount indicated for such month and year in the current Capital Improvement Budget but will not cause the aggregate amount budgeted for fiscal year 2023 for all Capital Improvement Projects to be exceeded.

3. Capital budget transfer notifications detailed in Ms. Kowalski's memorandum dated June 17, 2022.
4. Key Performance Indicators for 4<sup>th</sup> Quarter of FY 2022.
5. Accounts receivable update for May 2022.
6. FY 2023 RPB Weighted Vote Calculation.
7. RPB Dashboard Report for 4<sup>th</sup> Quarter of FY 2022.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye

Sack                      Absent

Ms. Kowalski, RWA's Vice President of Financial Reporting & Analysis, reviewed the Year-end Financial Report for the fiscal year ended May 31, 2022, which included:

- Balance sheet
- Statement of revenues, expenses, and changes in net position
- Maintenance test year-end projections
- Operating and maintenance key variances
- Capital budget
- Investment earnings report

At 3:33 p.m., Ms. Sack entered the meeting.

Ms. Kowalski distributed to Authority members a memorandum dated June 17, 2022, regarding "Distribution of Fiscal Year 2022 Revenue Fund Balance and General Fund Balance per Section 404D of the *General Bond Resolution*." She reported on funds available for allocation from the Revenue Fund and the General Fund.

Ms. Sack moved for adoption of the following three resolutions:

1. **WHEREAS**, the Vice President of Financial Reporting & Analysis has and will make certain transfers from the Revenue Fund as required by Section 404D of the General Bond Resolution; and

**WHEREAS**, the balance remaining in the Revenue Fund, after taking into account such transfers as of year-end, is approximately \$24,168,327 and pursuant to the General Bond Resolution will be deposited to the General Fund.

**NOW THEREFORE BE IT RESOLVED**, that after such transfer is made to the General Fund, the balance of the General Fund is approximately \$37,316,327.

2. **WHEREAS**, pursuant to section 410 of the General Bond Resolution, the Authority may apply any moneys in the General Fund to any lawful purpose of the Authority.

**NOW THEREFORE BE IT RESOLVED BY THE REGIONAL WATER AUTHORITY**, that the Vice President of Financial Reporting & Analysis is hereby authorized and directed to transfer and pay over from the General Fund \$21,909,327 to the Construction Fund.

3. **WHEREAS**, pursuant to section 410 of the General Bond Resolution, the Authority may apply any moneys in the General Fund to any lawful purpose of the Authority.

**NOW THEREFORE BE IS RESOLVED BY THE REGIONAL WATER AUTHORITY**, that the Vice President of Financial Reporting & Analysis is hereby authorized and directed to transfer from the General Fund \$2,259,000 to the Growth Fund; and

**ADDITIONALLY**, the Vice President of Financial Reporting & Analysis is hereby authorized and directed to transfer and pay from the General Fund \$1,398,000 from the existing General Fund balance to the Growth Fund.

Ms. Sack expressed her gratitude to members of the RWA for all the work to achieve results, while focusing on the organization’s strategic plan, and keeping employees safe.

Mr. Curseaden seconded the motion. After discussion the Chair called for the vote.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

Ms. Kowalski described proposed revisions to the fiscal year 2023 Capital Budget totaling \$3,002,504 resulting in an amended capital budget totaling \$54,769,000 (excluding state and redevelopment and the growth fund). She also reviewed the release of project funds that were held in reserve. Mr. DiSalvo moved for adoption of the following resolutions:

**Resolved:** that the Authority approves the release of \$390,000 from the contingency project reserve to the Lake Gaillard Water Treatment Plant Raw Water Flow Control Valve Replacement project account; \$992,000 from the contingency project reserve to the Lake Saltonstall Water Treatment Plant Chemical Systems Improvements project account; \$3,315,000 from the contingency project reserve to the West River Water Treatment Plant Improvements project account; \$1,310,000 from the contingency project reserve to the South Sleeping Giant Wellfield Improvements project account; \$79,000 from the contingency project reserve to the Lake Whitney Water Treatment Plant Partial Green Roof Replacement project account; \$113,000 from the contingency project reserve to the Treatment Facility Roof Replacements project account; \$426,000 from the contingency project reserve to the Beach Avenue ROW Capital Water Main project account; and \$2,780,000 from the contingency project reserve to the Ansonia-Derby Tank project account.

**RESOLVED,** that the proposed revisions to the capital budget for the Authority for the 2023 fiscal year presented to this meeting, including a revised plan of capital improvements for the 2023 through 2027 fiscal years, is hereby adopted and ordered to be filed with the records and the U.S. Bank National Association pursuant to Section 614 for the General Bond Resolution.

Mr. Curseaden seconded the motion. After discussion the Chair called for the vote.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

Authority members reported on recent RPB committee meetings and assignments were made for attendance at the third quarter 2022 RPB committee meetings.

Ms. Verdisco, the RWA’s Chief Human Resources Officer & Head of Corporate Services, provided an update on the status of COVID at the RWA.

Mr. Lakshminarayanan, the RWA’s Vice President of Engineering and Environmental Services, provided an update of costs associated with the Derby Tank Project. He stated

that the Finance Committee received notification at its June meeting of an increase to the cost index of 16.4%, which drives the project cost up but remains less than the cost increase allowable, due to the inclusion of a cost index in the RPB application for the project, allowable under the RPB Rules of Practice. The RPB also received the information.

Mr. Bingaman, RWA's President and Chief Executive Officer reported:

- That as part of his monthly field visits he joined Mr. Hill, the RWA's Director of Operations, to observe a number of projects underway to improve the water system. These included visiting the Seymour wellfield, surveying the progress of a water service transfer in Milford, touring the West River Water Treatment Plant Dissolved Air Flootation project, viewing the progress of the installation of new Sodium Hypochlorite bulk tanks at the Lake Gaillard Water Treatment Plant and witnessing a repair of a water main break in Cheshire.
- The RWA is again partnering with WTNH-TV Channel 8 and WCTX-TV Channel 59 to air Water Wise Ways. They will be airing 10 15 second messages to customers to offer ways to reduce water use to ensure water supply needs, fire protection and the environment. The commercials will direct customers to the RWA website for additional ways to conserve water. Water Wise Ways is also part of the rain barrel sale, which took place earlier in the month.

At 4:17 p.m., Mss. Kowalski and Slubowski and Messrs. Donovan, Lakshminarayanan, Mongillo, and Singh withdrew from the meeting and on motion made by Mr. DiSalvo, seconded by Ms. LaMarr, and unanimously carried, the Authority voted to go into executive session to discuss personnel matters. Present in executive session were Authority members, Mr. Bingaman and Ms. Verdisco.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

At 4:49 p.m., the Authority came out of executive session and the meeting adjourned.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye


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Catherine E. LaMarr, Secretary

**South Central Connecticut Regional Water Authority**  
90 Sargent Drive, New Haven, Connecticut 06511-5966 203.562.4020  
<http://www.rwater.com>

## MEMORANDUM

**TO:** David J. Borowy  
Kevin J. Curseaden  
Anthony DiSalvo  
Catherine LaMarr  
Suzanne C. Sack

**FROM:**  Rochelle Kowalski  
Vice President Financial Reporting & Analysis

**DATE:** July 22, 2022

**SUBJECT:** Capital budget authorization request for August 2022

Attached for your meeting on July 28, 2022 is a copy of the resolution authorizing expenditures against the capital improvement budget for August 2022. The amount of the requested authorization, for funds held by the trustee, is \$3,400,000.

In addition, from the Growth Fund, approximately \$10,000 is expected to be used for the Non-Core Billing project.

This would result in projected expenditures through August 2022 of \$6,873,287 or 12% of the total 2023 fiscal year capital budget, including State and Redevelopment.

Attachment



**RESOLVED**

That the Vice President & Chief Financial Officer is authorized to submit to the Trustee one or more requisitions in an aggregate amount not to exceed \$3,400,000 for the month of August 2022 for transfer from the Construction Fund for capital expenditures. Each such requisition shall contain or be accompanied by a certificate identifying such requisition and stating that the amount to be withdrawn pursuant to such requisition is a proper charge to the Construction Fund. Such requisitions are approved notwithstanding the fact that amounts to be withdrawn for a particular project may exceed the amount indicated for such month and year in the current Capital Improvement Budget but will not cause the aggregate amount budgeted for fiscal year 2023 for all Capital Improvement Projects to be exceeded.

South Central Connecticut Regional Water Authority  
 90 Sargent Drive, New Haven, Connecticut 06511-5966 203-562-4020  
<http://www.rwater.com>

TO: David J. Borowy  
 Kevin J. Curseaden  
 Anthony DiSalvo  
 Catherine E. LaMarr  
 Suzanne C. Sack

FROM: *Rochelle* Rochelle Kowalski

DATE: July 22, 2022

SUBJECT: Capital Budget Transfers

The status of all capital projects are reviewed on a monthly basis. In an effort to obtain efficiencies in our capital program, any anticipated unspent funds are reallocated to support reprioritized projects or existing projects. Below is a summary of the attached capital budget transfers and amendments.



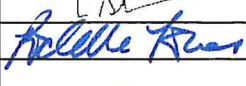
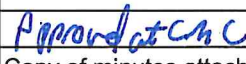
	Available Funds	Reallocation of Project/Funds
Brentwood Drive, Orange, Capital Water Main Replacement	\$215,000	West Shepard/Paradise Avenue ROW Capital Pipe Replacement, Hamden
Contingency	\$185,000	West Shepard/Paradise Avenue ROW Capital Pipe Replacement, Hamden
Contingency	\$114,000	Trucks, Autos & Portable Equipment

CAPITAL BUDGET AMENDMENT REQUEST

Request Date:	7/19/2022	Type	Log	Mo/Yr
Requesting Division:	Engineering & Environmental Services	B2	23-02	Jul/22
Requested By:	Tom Adamo			

<b>Transfer From:</b>	
Account Number:	001-000-107143-130006
Project Description:	Brentwood Drive, Orange, Capital Water Main Replacement
A) Original Budget	\$ 375,000
B) Total Previous Transfers (In or Out)	\$ 150,000
C) This Transfer	\$ 215,000
D) Revised Budget (A+/-B-C)	\$ 10,000
E) Estimated Project Costs	\$ 10,000
F) Remaining Funds Available for Transfer, if any (D-E)	\$ -
Explanation why funds are available: Project work anticipated for FY 2023 was completed ahead of schedule during FY 2022.	

<b>Transfer To:</b>	
Account Number:	001-000-107143-060012
Project Description:	West Shepard/Paradise Avenue ROW 16" Main Replacement, Hamden
A) Original Budget	\$ -
B) Previous Transfers (In or Out)	\$ -
C) Revised Budget (A+/-B)	\$ -
D) Amount to be Transferred	\$ 215,000
E) Proposed Revised Budget (C+D)	\$ 215,000
Explanation why funds are needed: Amendment 1 of 2: This amendment will provide funding for the acceleration of the 16" main replacement on Paradise Avenue from the intersection with West Shepard Avenue heading north. This project was originally scheduled to take place in FY 2024, and has been accelerated at the request of the Operations Department as the result of a suspected leak on this main. Total cost of the project is estimated to be \$400,000.	

Approvals As Required By Type	Signature	Date
1) Requesting Vice President/Director		7/21/22
2) Donor Vice President/Director		7/21/22
3) Vice President - Finance		7/21/22
4) Executive Vice President & Chief Operating Officer		
5) Chief Executive Officer		7/14/22
6) Authority Members	Copy of minutes attached if required	

CAPITAL BUDGET AMENDMENT REQUEST

Request Date:	7/19/2022	Type	Log	Mo/Yr
Requesting Division:	Engineering & Environmental Services	B2	23-03	Jul/22
Requested By:	Tom Adamo			

<b>Transfer From:</b>	
Account Number:	
Project Description:	Contingency
A) Original Budget	\$ 450,000
B) Total Previous Transfers (In or Out)	\$ -
C) This Transfer	\$ 185,000
D) Revised Budget (A+/-B-C)	\$ 265,000
E) Estimated Project Costs	\$ -
F) Remaining Funds Available for Transfer, if any (D-E)	\$ 265,000
Explanation why funds are available:	

<b>Transfer To:</b>	
Account Number:	001-000-107143-060012
Project Description:	West Shepard/Paradise Avenue ROW 16" Main Replacement, Hamden
A) Original Budget	\$ -
B) Previous Transfers (In or Out)	\$ 215,000
C) Revised Budget (A+/-B)	\$ 215,000
D) Amount to be Transferred	\$ 185,000
E) Proposed Revised Budget (C+D)	\$ 400,000
Explanation why funds are needed:	
Amendment 2 of 2: This amendment will provide funding for the acceleration of the 16" main replacement on Paradise Avenue from the intersection with West Shepard Avenue heading north. This project was originally scheduled to take place in FY 2024, and has been accelerated at the request of the Operations Department as the result of a suspected leak on this main. Total cost of the project is estimated to be \$400,000.	

Approvals As Required By Type	Signature	Date
1) Requesting Vice President/Director	<i>L.M.</i>	7/21/22
2) Donor Vice President/Director	<i>L.M.</i>	7/21/22
3) Vice President - Finance	<i>Rolande Kras</i>	7/21/22
4) Executive Vice President & Chief Operating Officer	<i>Approved at CMC</i>	7/19/22
5) Chief Executive Officer		
6) Authority Members	Copy of minutes attached if required	



CAPITAL BUDGET AMENDMENT REQUEST

Request Date:	7/19/2022	Type	Log	Mo/Yr
Requesting Division:	Operations	B2	23-04	Jul/22
Requested By:	Adam Cox			

<b>Transfer From:</b>	
Account Number:	
Project Description:	Contingency
A) Original Budget	\$ 450,000
B) Total Previous Transfers (In or Out)	\$ 185,000
C) This Transfer	\$ 114,000
D) Revised Budget (A+/-B-C)	\$ 151,000
E) Estimated Project Costs	\$ -
F) Remaining Funds Available for Transfer, if any (D-E)	\$ 151,000
Explanation why funds are available:	

<b>Transfer To:</b>	
Account Number:	001-000-107192-104087
Project Description:	Trucks, Autos, & Portable Equipment
A) Original Budget	\$ 885,000
B) Previous Transfers (In or Out)	\$ -
C) Revised Budget (A+/-B)	\$ 885,000
D) Amount to be Transferred	\$ 114,000
E) Proposed Revised Budget (C+D)	\$ 999,000
Explanation why funds are needed:	
<p>This amendment will provide funding for the purchase of an additional 85 size excavator. The existing excavator will be assigned to the newly created diversion maintenance crew. The diversion maintenance crew requires an 85 size excavator to effectively perform the required work. Total cost of the excavator is \$114,000.</p>	

Approvals As Required By Type	Signature	Date
1) Requesting Vice President/Director	<i>James Hill</i>	7/19/2022
2) Donor Vice President/Director		
3) Vice President - Finance	<i>Andi Mc Ken</i>	7/21/22
4) Executive Vice President & Chief Operating Officer		
5) Chief Executive Officer	<b>Approved at CMC</b>	<b>07/14/22</b>
6) Authority Members	Copy of minutes attached if required	

**REGIONAL WATER AUTHORITY**  
**REVIEW OF FINANCIAL DATA**  
**June 30, 2022 (FY 2023)**

**STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**

**Operating Revenues**

FY23 revenue for water, including wholesale and fire service, is over budget by \$940k (approx. 9.2%).  
 Metered water revenue is over budget by \$963k (approx. 10.6%).

Total net other revenue is \$117k over budget primarily due to other water and other proprietary expenses being lower than budget.

**Operating Expenses**

Operating and Maintenance Expenses are currently under budget due to the following:

Payroll is under budget primarily due to head count under runs.	\$	(65,000)
Employee Benefits are under budget primarily due to lower medical and dental benefits		(127,000)
General & Admin is under budget primarily due to timing of expenses.		(82,000)
Pump Power is under budget primarily due to timing.		(64,000)
Chemicals Expense is under budget primarily due to timing.		(57,000)
Collection Expense is under budget primarily due to lower year-to-date bank fees.		(56,000)
Business Improvement is under budget primarily due to accelerating certain expenses into fiscal 2022		(85,000)
Outside Services are under budget in multiple areas, due to timing of expenses.		(163,000)
Central Lab/Water Quality is under budget primarily due to the mix between internal and outside lab services and timing.		(52,000)
Info. Technology Licensing & Maintenance Fees are under budget primarily due to timing.		(70,000)
Maintenance & Repairs are under budget due to the timing of certain expenses budgeted early in the fiscal year.		(215,000)
All Other		<u>(249,000)</u>
<b>Interest Income</b>		<b>(1,285,000)</b>

Interest Income is above budget due to higher investment earnings.

**PROJECTED MAINTENANCE TEST**

The projected coverage is 1.14 with no shortfall, consistent with the budget.

**REGIONAL WATER AUTHORITY**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
**FOR THE MONTHS ENDING JUNE 30, 2022**

Pg 2

	<b>FY 2022 Actual</b>	<b>FY 2023 Budget</b>	<b>FY 2023 Actual</b>	<b>(Under)Over Budget</b>
<b>Operating revenues</b>				
Metered water revenues	\$ 9,928	\$ 9,048	\$ 10,011	\$ 963
Fire service	1,019	1,075	1,067	(9)
Wholesale	69	81	66	(14)
Other revenue - water	396	339	339	( )
Other revenue - proprietary	854	781	776	(5)
<b>Total operating revenues</b>	<b>12,266</b>	<b>11,324</b>	<b>12,259</b>	<b>935</b>
<b>Operating expenses</b>				
Operating and maintenance expense	4,272	5,464	4,179	(1,285)
Pension Expense			-	-
OPEB Expense				
Expense associated with other revenue - water	179	192	118	(74)
Expense associated with other revenue - proprietary	339	377	328	(48)
Provision for uncollectible accounts	119	79	76	(4)
Depreciation	2,050	2,048	2,048	(0)
Payment in lieu of taxes	745	748	745	(4)
Amortization Pension Outflows/Inflows	143	37	37	(0)
Amortization OPEB Outflows/Inflows	(45)	(51)	(51)	(0)
<b>Total operating expenses</b>	<b>7,801</b>	<b>8,894</b>	<b>7,479</b>	<b>(1,415)</b>
<b>Operating income</b>	<b>4,465</b>	<b>2,430</b>	<b>4,780</b>	<b>2,351</b>
<b>Nonoperating income and (expense)</b>				
Interest income	5	183	296	113
(Loss) Gain on disposal of assets	-	-	-	-
Realized and unrealized (losses) gains on investments	-	-	-	-
Interest expense	(1,847)	(1,942)	(1,933)	9
Amortization of bond discount, premium, issuance cost and deferred losses	208	267	265	(2)
Intergovernmental revenue	-	-	-	-
Contributions to related entities	-	-	-	-
<b>Total nonoperating income and (expense) before capital contributions</b>	<b>(1,634)</b>	<b>(1,492)</b>	<b>(1,372)</b>	<b>121</b>
<b>Income (expense) before contributions</b>	<b>2,831</b>	<b>\$ 938</b>	<b>3,409</b>	<b>\$ 2,472</b>
<b>Capital contributions</b>	<b>0</b>		<b>156</b>	
Change in net assets	2,831		3,565	
Total net assets - beginning of fiscal year	231,993		251,231	
Total net assets - end of reporting month	\$ 234,825		\$ 254,797	

	<b>Budget</b>	<b>Projected</b>	<b>(Under)Over</b>
<b>(Budget vs. Projected)</b>	<b>@114%</b>	<b>@114%</b>	<b>@114%</b>
<b>Revenue Collected:</b>			
Water sales	124,093	124,093	\$ -
Interest Income	213	213	-
BABs Subsidy	657	657	-
Other Net	6,946	6,946	-
Common Non-Core	(300)	(300)	-
<b>Total</b>	<b>131,609</b>	<b>131,609</b>	<b>-</b>
<b>Less:</b>			
Operating and maintenance expenses	(63,492)	(63,492)	-
Depreciation	(7,500)	(7,500)	-
PILOT (A)	(8,901)	(8,901)	-
Net Avail for Debt Service (B)	\$ 51,717	\$ 51,717	\$ -
Debt Service Payments (C)	\$ 45,366	45,366	\$ -
Debt Service @ 114% (D)	\$ 51,717	51,717	\$ -
Difference (B-D)	\$ (0)	\$ (0)	
RSF, Growth and/or General Fund (D)	-		
Coverage			



REGIONAL WATER AUTHORITY  
 OPERATING AND MAINTENANCE EXPENSE  
 JUNE 30, 2022

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PERIOD ENDING JUNE 30, 2022

	<u>FY 2022</u> <u>Actual</u>	<u>FY 2023</u> <u>Budget</u>	<u>FY 2023</u> <u>Actual</u>	<u>(Under)</u> <u>Over</u>
1 Payroll	\$ 1,806	\$ 2,022	\$ 1,957	\$ (65)
2 Employee Benefits	623	647	520	(127)
Pension Contributions	225	222	222	0
3 Administrative Building	84	104	55	(49)
4 General & Administrative	54	120	38	(82)
5 Transportation	50	73	44	(30)
6 Tools & Stores	32	30	15	(15)
7 Utilities & Fuel	80	102	58	(44)
8 Material From Inventory	25	28	31	3
9 Pump Power Purchased	240	264	200	(64)
10 Chemicals	198	264	207	(57)
11 Road Repairs	11	25	10	(15)
14 Postage	15	40	47	8
15 Printing & Forms	3	6	2	(3)
17 Collection Expense	56	139	83	(56)
18 Business Improvement	1	85	-	(85)
19 Public/Customer Information	7	60	14	(46)
20 Outside Services	181	322	158	(163)
21 Insurance Premiums	127	143	122	(21)
22 Worker's Compensation, pre-Churchill	(14)	3	4	1
23 Damages	7	5	1	(5)
24 Training & Cont. Education	12	27	7	(20)
25 Authority Fees	11	14	11	(2)
26 Consumer Counsel	2	5	(0)	(5)
27 RPB Fees	12	14	12	(2)
28 Organizational Dues	5	7	12	5
29 Donations	-	3	-	(3)
34 Central Lab/Water Quality	13	39	(13)	(52)
40 Environmental Affairs	16	7	2	(4)
44 Info. Technology Licensing & Maintenance Fees	176	205	135	(70)
45 Maintenance and Repairs	180	416	201	(215)
46 Regulatory Asset Amortization	35	23	23	0
	<u>\$ 4,272</u>	<u>\$ 5,464</u>	<u>\$ 4,179</u>	<u>\$ (1,285)</u>

**South Central Regional Water Authority**

**Analysis of Accounts Receivable ("A/R")**

(\$000 omitted)

Denotes City of New Haven Invoicing

**Total Accounts Receivable Aging (in days)**

	June 2022	May 2022	April 2022	March 2022	Feb 2022	Jan 2022	Dec 2021	Nov 2021	Oct 2021	Sept 2021	Aug 2021	July 2021	June 2021
Under 30	\$ 6,543	\$ 5,880	\$ 6,441	\$ 4,820	\$ 6,617	\$ 10,706	\$ 6,974	\$ 8,276	\$ 7,638	\$ 8,164	\$ 6,789	\$ 8,080	\$ 6,782
31-60	1,620	1,819	1,493	1,855	3,164	2,930	3,312	2,042	2,743	1,990	2,081	2,546	1,548
61-90	1,002	737	1,002	1,573	1,501	919	1,093	1,436	686	842	1,465	887	966
91-180	1,737	2,062	1,965	1,756	1,589	1,561	1,652	1,775	1,881	1,946	1,705	2,023	2,095
181-360	1,606	1,531	1,644	1,918	1,891	2,179	2,145	2,071	2,120	2,149	2,212	2,284	2,404
More than 1 year	5,169	5,123	5,311	5,368	5,217	5,255	5,238	5,111	5,341	5,388	5,134	5,150	5,102
Sub Total	17,677	17,152	17,856	17,290	19,979	23,550	20,414	20,711	20,409	20,479	19,386	20,970	18,897
Interest due	1,458	1,464	1,430	1,433	1,388	1,337	1,224	1,112	1,014	1,026	1,055	1,067	1,088
Total Gross A/R plus interest	\$ 19,135	\$ 18,616	\$ 19,286	\$ 18,723	\$ 21,367	\$ 24,887	\$ 21,638	\$ 21,823	\$ 21,423	\$ 21,505	\$ 20,441	\$ 22,037	\$ 19,985

**Aged Accounts Receivable Focus of Collection Efforts**

	June 2022	May 2022	April 2022	March 2022	Feb 2022	Jan 2022	Dec 2021	Nov 2021	Oct 2021	Sept 2021	Aug 2021	July 2021	June 2021
<b>Greater than 60 days:</b>													
A/R	\$ 10,702	\$ 10,643	\$ 11,067	\$ 11,724	\$ 11,281	\$ 10,927	\$ 11,093	\$ 11,360	\$ 11,012	\$ 11,334	\$ 11,554	\$ 11,393	\$ 11,640
Less: Multi-Tenants	(2,496)	(2,508)	(2,694)	(2,640)	(3,052)	(2,799)	(2,981)	(3,104)	(2,569)	(2,831)	(2,941)	(2,765)	(3,095)
Receiverships	(1,900)	(1,962)	(1,704)	(1,983)	(1,992)	(2,029)	(1,995)	(1,971)	(1,985)	(2,008)	(1,961)	(2,125)	(1,966)
Liens	(2,455)	(2,435)	(2,545)	(2,469)	(2,370)	(2,212)	(2,220)	(2,189)	(2,196)	(2,281)	(2,472)	(2,112)	(2,274)
Total	\$ 3,851	\$ 3,738	\$ 4,124	\$ 4,632	\$ 3,867	\$ 3,887	\$ 3,897	\$ 4,096	\$ 4,262	\$ 4,214	\$ 4,180	\$ 4,391	\$ 4,305
	36%	35%	37%	40%	34%	36%	35%	36%	39%	37%	36%	39%	37%

**Collection Efforts**

	June 2022	May 2022	April 2022	March 2022	Feb 2022	Jan 2022	Dec 2021	Nov 2021	Oct 2021	Sept 2021	Aug 2021	July 2021	June 2021
Shuts *	\$ 6	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ 76	\$ 113	\$ 15	\$ -	\$ -	\$ -	\$ -
Red Tags **	-	-	-	-	-	-	-	-	-	-	-	-	-
Receivers	30	41	22	14	27	12	35	8	33	6	5	5	12
Top 100 Collection Calls	683	496	726	649	588	98	78	38	257	334	142	237	318
Other <sup>(1)</sup>	922	1,204	1,496	1,082	1,310	1,573	1,091	1,576	1,404	1,217	1,344	878	1,345
Total	\$ 1,641	\$ 1,743	\$ 2,244	\$ 1,745	\$ 1,925	\$ 1,683	\$ 1,280	\$ 1,735	\$ 1,709	\$ 1,557	\$ 1,491	\$ 1,120	\$ 1,675

\* Number of shuts

	3	4	-	-	-	-	155	211	24	-	-	-	-
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\*\* Number of Red tags

	-	-	-	-	-	-	-	-	-	-	-	-	-
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<sup>(1)</sup> Includes: Notices and letters and legal initiatives.

**South Central Connecticut Regional Water Authority**  
90 Sargent Drive, New Haven, Connecticut 06511-5966 203.562.4020  
<http://www.rwater.com>

To: David J. Borowy  
Kevin J. Curseaden  
Anthony DiSalvo  
Catherine E. LaMarr  
Suzanne C. Sack

From: *Rochelle* Rochelle Kowalski

Date: July 22, 2022

Subject: Exemption from Public Bidding

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Attached is a request for the approval of an exemption from the public bidding requirement of Section 16 of Special Act No. 77-98 as amended.

- Water Filtration Devices and Filter Cartridges

Attachment

REQUEST FOR EXEMPTION FROM PUBLIC BIDDING FOR

**Point-Of-Use Water Filtration Devices and Filter Cartridges**

AS REQUIRED BY CONNECTICUT SPECIAL ACT NO. 77-98 AS AMENDED

JULY 2022

**SPECIFIC STATUTORY PROVISIONS**

All contracts in excess of fifty thousand dollars for any supplies, materials, equipment, construction work or other contractual services shall be in writing and shall be awarded upon sealed bids or proposals made in compliance with a public notice duly advertised by publication in one or more newspapers of general circulation or, if there are no such newspapers, in appropriate electronic media, including, without limitation, the authority's Internet web site, as are likely to reach a broad segment of potential vendors, at least ten days before the time fixed for opening said bids or proposals, except for (1) contracts for professional services, (2) when the supplies, materials, equipment or work can only be furnished by a single party, (3) when the authority determines by a two-thirds vote of the entire authority that the award of such contract by negotiation without public bidding will be in the best interest of the authority, or (4) when the procurement is made as a result of participation in a procurement group, alliance or consortium made up of other state or federal government entities in which the state of Connecticut is authorized to participate. The authority may in its sole discretion reject all such bids or proposals or any bids received from a person, firm or corporation the authority finds to be unqualified to perform the contract, and shall award such contract to the lowest responsible bidder qualified to perform the contract. (Section 16, Special Act 77-98 as amended).

**REQUEST FOR EXEMPTION**

This request is for an exemption from competitive bidding for the purchase of point-of-use water filters and filter cartridges.

**REASON FOR REQUEST**

The Authority is already taking steps to prepare for and comply with the United States Environmental Protection Agency (EPA) Lead and Copper Rule Revisions (LCRR). Therefore, the Authority is taking a proactive approach regarding Point-Of-Use (POU) Water Filter Devices that comply with the NSF/ANSI 42 & 53 standards for reducing aesthetic impurities such as chlorine, taste, odor, and lead contaminants. Under this regulation, if a lead line, including private side, and non-lead lines with a lead gooseneck is disturbed, the Authority must provide this type of filter to all impacted customers.

As the Authority proceeds forward with the LCRR analyses to determine the quantity required and the strategy for dispensing the Water Filter Devices, we are requesting to directly negotiate with providers of POU Water Filter Devices. With the added requirement of providing filter cartridges, it is essential that we select a product with a longer service life so the quantity of the replacement cartridges can be reduced and that we have the ability to negotiate the pricing.

Preliminary pricing is \$33.52 per water pitcher and one filter element and \$16.80 for each additional filter element. Based on the very preliminary inventory and numerous assumptions, our estimated cost projection is approximately \$1.2 million with the possibility of reducing the projected cost to approximately \$750,000 with grants.

With the increased nationwide demand and longer lead times for these types of products the ability to start negotiations with these providers will ensure that this product will be available to our customer's and comply with the LCRR.

**SUMMARY**

The result of this exemption would benefit the Authority by allowing for negotiated pricing, product availability, customer satisfaction, and regulatory compliance.

**SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY**  
**RESOLUTION REGARDING ADMINISTRATIVE CHANGE TO PRIOR**  
**AUTHORIZATIONS**

WHEREAS, the Vice President of Financial Reporting and Analysis of the Authority has been authorized to perform certain functions, take such actions and execute and deliver certain documents or instruments by resolution of the Authority (the “Resolutions”); and

WHEREAS, the Vice President of Financial Reporting and Analysis’s title has changed and has become Vice President and Chief Financial Officer of the Authority, effective August 1, 2022; and

WHEREAS, the Authority wants to make the administrative change to prior Resolutions to substitute the title Vice President and Chief Financial Officer for the title Vice President of Financial Reporting and Analysis, effective August 1, 2022 in such resolutions.

NOW THEREFORE, be it resolved that all prior Resolutions of the Authority which authorize the title of Vice President of Financial Reporting and Analysis to perform certain functions, to take such actions or to execute and deliver documents or instruments are hereby amended, as of August 1, 2022 to replace the title Vice President of Financial Reporting and Analysis title with the Vice President and Chief Financial Officer and authorizes the Vice President and Chief Financial Officer to perform such duties or functions, to take such action or to execute and deliver such documents and instruments as set forth in the Resolutions.

**South Central Connecticut Regional Water Authority**  
90 Sargent Drive, New Haven, Connecticut 06511-5966 203-562-4020  
<http://www.rwater.com>

TO: David J. Borowy, Chair  
Kevin J. Curseaden  
Anthony DiSalvo  
Catherine LaMarr  
Suzanne C. Sack

FROM: Sunny Lakshminarayanan

DATE: July 23, 2022

SUBJECT: Derby Tank Update

---

This memo is written to provide the Authority with an update on the Derby Tank Project and the land purchases associated with it.

**Status Summary:**

**July 23, 2022 update:**

Contract has been awarded to Guerrero Construction and construction work has commenced at the site. In the interim, two residents of Derby, CT namely, **Ms. Dorothy Marinelli and Ms. Sharlene McEvoy** (plaintiff in earlier cases) have sued the City of Derby (First Defendant) and RWA (additional defendant) claiming 'equitable relief and damages' due to erosion of property value. The Statement of Demand is '***damages in excess of \$15,000 exclusive of interest and cost of injunctive and equitable relief***'.

Murtha has advised us to continue with the construction and construction continues without stoppage of work. Guerrero is planning to complete all site prep work by Fall 2022; DN Tanks the sub-contractor for tank construction is anticipated to start tank construction in Spring 2023.



## RPB COMMITTEE MEETINGS

<b>Month</b>	<b>Meeting</b>	<b>Will Attend</b>
<b>July 2022</b>	<i>Finance Committee (Special Meeting)</i> Tuesday, July 12 at 5:00 p.m.	Catherine
	<i>Land Use Committee</i> Wednesday, July 13 at 5:30 p.m.	David
	<i>Consumer Affairs Committee</i> Monday, July 18 at 5:30 p.m.	Kevin
<b>August 2022</b>	<i>Finance Committee</i> Monday, August 8 at 5:00 p.m.	Kevin
	<i>Land Use Committee</i> Wednesday, August 10 at 4:30 p.m.	Catherine
	<i>Consumer Affairs Committee</i> Monday, August 15 at 5:30 p.m.	Tony
<b>September 2022</b>	<i>Finance Committee</i> Monday, Sept 12 at 5:00 p.m.	Tony
	<i>Land Use Committee</i> Wednesday, Sept 14 at 4:30 p.m.	Kevin
	<i>Consumer Affairs Committee</i> Monday, Sept 19 at 5:30 p.m.	Catherine

To the Five Member Authority Board:

July 28, 2022

I am pleased to provide you with the July 2022 Board report. The below updates support some of my strategic priorities for Fiscal Year 2023, and align with the goals and objectives in the 2020-2025 Strategic Plan.

### **CEO Priorities for Fiscal Year 2023**

I want to share my personal strategic priorities for Fiscal Year 2023. There are five of them and they are a continuation of my Fiscal 2022 priorities, tactically track to the RWA's Fiscal 2023 objectives and align with the goals and objectives in the 2025 Strategic Plan. They are:

- **Water System Needs:** Refocus our organizational energy on our core business by evaluating our utility's operations, business and management practices to fortify the way we manage, operate and maintain our production and distribution systems and critical assets.
- **Commercial Growth:** Grow and diversify commercial business initiatives to build on the company's progress, capitalize on new opportunities and bolster revenue streams to offset prospective rate increases for customers.
- **Acquisitions & Partnerships:** Pursue strategic acquisitions and partnerships to change the scope of the business, and add new capabilities and increase revenues to offset prospective rate increases for customers, while being mindful of opportunities and inherent risks.
- **Workplace Culture:** Attract, grow and retain the best talent while increasing the overall diversity of the organization to advance workforce inclusion and employee engagement.
- **Leadership Development:** Develop members of the Leadership Team for greater efficacy and to lead and inspire the next chapter of the RWA's transformation and growth.

I will discuss these Fiscal Year 2023 personal strategic priorities and related action plans during executive session at the Compensation Committee meeting.

### **Commercial Business Update**

As discussed last month at the Commercial Business Committee meeting, we continued to progress with a purchase of an environmental lab, however, the lab owner recently withdrew interest, citing concern with meeting our expectations for an environmental audit of the site. We continue to have discussions with acquisition targets involving the water heater business.

### **Engaging With More Employees in the Field**

As part of my monthly visits in the field engaging with employees, this month I joined our Distribution Service Lead, Dan Peschell, and observed a number of major projects underway to improve the water system. These stopovers included:

- witnessing a demonstration of a new portable flushing technology we are purchasing called the "Flush Buddy," which is a relatively compact state-of-the-art water-quality monitoring device that provides real-time results on turbidity, free chlorine and pH, and downloads that information to a GIS system so we can monitor parameters over time. The RWA is the first water utility in New England to use the Flush Buddy as part of its comprehensive water main cleaning program;
- observing a valve replacement and turbine motor installation at the Lake Gaillard Water Treatment Plant where the pump is set 30-feet below the surface and stands 20-feet above ground;
- watching tree clearing activity on a Hamden right-of-way in advance of a major water main replacement project, which commenced in mid-July;
- seeing progress on the new Dissolved Air Flootation system at the West River Water Treatment Plant and the installation of a new backwash valve that was connected by our Distribution crews; and

- visiting a number of Branford neighborhoods where we have been conducting water main flushing and other work on the system.

## **Recognizing Employees and Celebrating Partnerships**

Recently, we held special recognition breakfasts for those office support and field workers involved in the May 23, 16-inch water main break in Hamden, which prompted the RWA's first-ever precautionary boil water notice. While we had members of the Construction Department gathered, we also celebrated the official unveiling of the RWA's first long tri-axle dump truck.

About a year ago, a construction worker from the United Steelworkers Union (USW) brought a concern to me regarding the RWA's equipment that hauls heavy loads. I heard his concerns and collaborated with members of the Leadership Team, Fleet and the USW on a viable solution, which was the purchase of a long tri-axle truck ideal for hauling heavy loads. It was a true partnership where both management and the union acted as one united team while proudly displaying the STARS values. The new truck sports four axles and wheels, which allow for better weight displacement and stability, and it also features a fresh contemporary color scheme and branding that signals the RWA's transformation to an environmental services company.

With safety being top of mind, we investigated ways to improve driver visibility of RWA workers when out in work zones. The Connecticut Department of Transportation, along with other states across the country, have found that introducing green-colored lights into the light bars mounted on the rear of dump trucks aids other drivers in seeing the work zone more quickly. Moreover, studies have found that drivers reduce speed more quickly when a green-colored strobe is used. Our newest tri-axle truck is equipped with two red, amber and green light bars on the rear of the truck. This will be a new feature added to all new RWA construction vehicles.

## **Better Understanding Legionella**

The RWA has been accepted into a Water Research Foundation (WRF) project designed to better recognize the presence of legionella in drinking water distribution systems. The initiative is being overseen by an internationally recognized microbiologist and researcher, and will run through calendar year 2023. The RWA's involvement in this project will provide us with a better understanding of our water distribution system, assist us in identifying potential areas for proactive improvement and help increase trust in the RWA's commitment to public health and forward thinking on emerging contaminants of concern. We are the only Connecticut utility invited to participate in the WRF legionella study. In the past, I have had several conversations with the Connecticut Department of Public Health's Water Section Chief about legionella in consumers' facilities and how water utilities could be more proactive in preventing the occurrence and in their communications. This initiative will help us further those activities.

## **Progress with Regional Business Retention and Growth**

As you may recall, in Fiscal Year 2020, I initiated a meeting with the President and CEO of the Greater New Haven Chamber of Commerce to discuss a Business Retention and Growth initiative to help local businesses thrive, remain in the region and encourage workforce development. This month, as part of regular progress reports, I met with Chamber officials to get an update on work done over the past two years to proactively connect with existing small- and medium-sized businesses so we can better understand their needs and respond with resources.

Since the RWA-funded initiative began with the Chamber in 2020, its business retention and growth specialist visited 234 area companies, provided more than 462 resources for information, education and advocacy, and uncovered 977 new job potentials. These accomplishments resulted in 20 new development projects, six of which have been completed, with seven new ones emerging in May 2022. Trends arising from conversations about barriers to business growth in the region included workforce development, economic competitiveness, transportation and employee benefits. We continue to collaborate with the Chamber and other economic development officials and entities to incorporate an inclusive growth strategy to attract and develop water-intensive enterprises to the region.

What follows are important developments and updates organized by the four perspectives of the Balanced Scorecard: Customers & Constituents, Employee Learning & Growth, Financial and Internal Business Process.

I look forward to our July meeting.

Sincerely,

A handwritten signature in blue ink, appearing to read "Larry". The signature is written in a cursive style with a large, sweeping initial "L" and a trailing flourish.



## FINANCIAL PERSPECTIVE

### Maintenance Test

Cash collections of approximately \$9.4 million for the month of June were approximately \$0.8 million above budget. This variance is primarily due to higher-than-budgeted billings and the timing of cash receipts for metered water. We are continuing to monitor billing-to-cash conversion patterns in the post monthly billing environment.

The current projection for Fiscal 2023 is 114% coverage with no shortfall.

There is still uncertainty regarding the financial impacts of global economic weakness and the protracted pandemic, including on employment levels and customers' ability to pay.

### Water Revenues

Total water revenues (including metered, wholesale and fire) were above budget by approximately \$0.9 million (approximately 9%) through June (fiscal year to date).

### Water Production

The average daily draft in June was 48.9 MG, which compares to 54.3 MG in June 2021. The peak day draft for the month occurred on June 26, 2022 when 55.4 MG of water was delivered to the system. The peak day draft in June 2021 occurred on June 29, 2021 when 68.5 MG was delivered to the system. Wholesale water to other utilities totaled 100.1 MG in June 2022 as compared to 120.1 MG in June 2021.

### Capital Program

#### Summary: Capital Expenditures as of June 30, 2022

000's Omitted

	Revised Budget	Fiscal YTD Expenditures	Over/(Under)
1. Natural Resources	13	7	(5)
2. Treatment	268	46	(222)
3. Transmission & Distribution	847	413	(434)
4. General Plant	84	34	(50)
5. Contingency	-	-	-
Sub-Total	1,212	500	(711)
6. State & Redevelopment	100	12	(88)
7. Non-Core Billing	-	-	-
Total	1,312	512	(800)

### Collection Activity

Accounts receivable over 60 days, net of liens, receiverships and multi-family balances, is at \$3.85 million compared to \$4.3 million for the same month last year. In June 2022, net past-due accounts, excluding multi-family tenants, properties that are in receivership, or on which we have placed liens, were 36% of total accounts receivable 60 days past due compared to 37% in June 2021.

A top 100 delinquent account review was performed by a dedicated RWA resource in June. The aging reports are divided by Commercial, Industrial, Residential and Public Authority accounts, and outbound collection calls resulted in recoveries of \$683,000 in June.

## Commercial Services

### PipeSafe Protection

As of June 30, 2022, total subscribers by the program were as follows:

Program	May	June
PipeSafe Water Repair	56,047	55,876
PipeSafe Sewer Repair	41,283	41,194
PipeSafe Septic Repair	843	844
PipeSafe Complete (Home Plumbing Repair)	6,768	6,845
Total Subscribers	104,941	104,759

Total repairs by type of service were as follows:

Program	June Repairs		FY23 Repairs	
	Number	Cost	Number	Cost
Water	5	\$18,138	5	\$18,138
Sewer	141	\$60,610	141	\$60,610
Septic	0	\$0	0	\$0
Interior Home Plumbing	75	\$26,075	75	\$26,075
Total Repairs	221	\$104,823	221	\$104,823

Cancellations result from property closings, foreclosures, bankruptcies and receivership, while new entrants were associated with marketing and advertising initiatives.

### Laboratory Testing

The laboratory performed analyses for both internal and external customers. The total number of samples analyzed was 2,861. The number of parameters that resulted from these samples was 8,211.

The 53% of analyses conducted were for external fee service customers.

Approximately 47% of the work was for internal customers and regulatory requirements. The analyses conducted included compliance samples, raw water monitoring, distribution requests, customer complaints and research.

### Outside Fleet

	June 2022	FY 2022 YTD	FY 2021 YTD
May Revenue	\$10,387	\$99,897	\$72,716

*Note: Fleet reports private repair financial statistics for one month in arrears.*

### Forestry Revenue

	FY 2023	FY 2022
June Revenue	\$1,120	\$1,353
FYTD	\$1,120	\$1,353

We received no timber sale payments in June 2022.

## Other Revenue Programs

### Cross-Connection Testing Revenue

The primary focus of cross-connection testing during June was in Milford as well as service lines in the Thimble Islands and various shoreline marinas and docks.

	FY23	FY22
June - Revenue	\$49,040	\$45,719
FYTD	\$49,040	\$45,719

This revenue stream is a result of fees charged for testing services provided by our staff to customers. Note that the testing is a regulatory obligation for which the RWA is responsible.

Devices tested in June 2022 totaled 975 as compared to 792 in June 2021.

FYTD Comparison Inspections and Device Testing:

	FYTD23	FYTD22
Inspections	235	431
Device Tests	975	792

### Recreation

	June		May	
	2022	2021	2022	2021
Permit Holders	5,334	5,991	5,676	6,502

- A Trails Day Hike was held at Maltby Lakes with 30 participants.
- A walk was held for 12 participants at Lake Gaillard about biocontrol of swallowwort.
- Staff held one of three visits to Maltby Lakes by Hamden Hall summer camp participants.



## CUSTOMERS & CONSTITUENTS PERSPECTIVE

In June, the Customer Care Center received 7,168 calls and our staff handled 6,437 of those calls; our answering service handled the remaining calls. Call volume continued to be up this month due to customer inquiries about the monthly billing conversion. The staff's adherence to schedules and call-handling guidelines resulted in an average answer speed of 2.23 minutes and an abandonment rate of 10%. The team processed 788 property closings in June.

### **Meter Reading & Field Service**

The AMI system over the last 30 days had a successful read rate of 99.28%.

Periodic meter changes continued during the month of June with 216 meters being changed out.

### **Public Affairs & Communications**

- Conducted three municipal meetings focused on the Lead Service Line program for New Haven, North Haven and Woodbridge.



- Followed up on Whitney Dam community outreach meetings and drafted FAQs based on meeting summaries to post on project webpage.
- Water Education classes were presented to one class of 25 students; field trips were presented to 7 classes of 130 students; and Loan boxes were used by 14 classes touching 270 students.

**Sustainable Solutions**

Former Hamden Middle School Remediation Status

New items this month regarding our obligation to remediate the former Hamden Middle School site and adjoining properties under a DEEP consent order included the following: 1) we received all needed property owner signatures on the final version of the Environmental Land Use Restriction (ELUR) for the former Community Center/current small business incubator (496 Newhall St). This will be sent back to CT DEEP for final signature. Once the CT DEEP-signed ELUR is received, it will be recorded on the Hamden municipal land records, followed by required notifications to local regulatory agencies. This is the last of four ELURs needed to follow up the physical remediation completed in FY2020. The ELUR recording will be noted on the final closure report (already drafted), which will be sent to CT DEEP stating that we have satisfied all obligations under the 2003 CT DEEP Consent Order; and 2) this significant remedial project was honored with the American Council of Engineering Companies of Connecticut (ACEC-CT) 2022 Merit Award on June 7 at the Southington Country Club.

Beach Street, East Haven Main Extension

We are working to obtain the necessary permits for a main extension in East Haven. There are several houses built on Silver Sand’s west beach that have temporary shallow services. Due to crossing of a tidal marsh, a Connecticut Department of Energy and Environmental Protection (CT DEEP) permit is required.

Invasive Plants

The RWA’s harvest was not one of the projects selected for funding through Connecticut Department of Energy and Environmental Protection (CT DEEP’s) 2022 Aquatic Invasive Species (AIS) grant, as funded projects were announced in June. Staff received a contract from SOLitude Lake Management and harvesting commenced in July. Staff documented and treated invasive populations in Branford, East Haven, North Branford, Cheshire and Hamden.

Mill River Stream Flows

Environmental Planning continues to monitor flows in the Mill River basin in collaboration with USGS. Data is collected continuously at the Mill River Mount Carmel Avenue gauge. Flows were below average for the month of June at the USGS gauging site. RWA gauging site values were also below average for the month. As of June 3, stream flow at the Mount Carmel gauge was 8.67 cfs, compared to a 25<sup>th</sup> percentile flow of 9.0 cfs for the same day over the gauge period of record.

Diversion Monitoring

Routine source water monitoring for the company DBP reduction initiative was conducted as scheduled in June. Sites throughout the Gaillard system were monitored for *in situ* parameters, with a focus on sources directly impacting the Gaillard reservoir. Samples for laboratory analysis of nutrients, total organic carbon (TOC), and dissolved organic carbon (DOC) were also collected at each site. Additionally, samples were collected in the Saltonstall system at the Farm River East Haven Diversion, Beaver Swamp Brook at Hosley Avenue, and the Furnace Pond/Saltonstall railroad culvert.

Downstream Release Requirements (DSR)

Lakes Gaillard, Hammonasset and Menunketuc all remained below spillway during the month of June. Lake Dawson periodically fluctuated above and below spillway during the month. Weir levels were monitored at all lakes to ensure sufficient water was being released to meet DSR thresholds while maintaining critical downstream ecosystems. No issues maintaining satisfactory DSR were encountered during the month.

Rainfall (Inches)

	Current Year	Previous Year	Historical Average
June 2022	3.07	1.34	3.72

Fiscal YTD (6/1/22 – 6/30/22)	3.07	1.34	3.72
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### Reservoir Levels (Percent Full)

	Current Year	Previous Year	Historical Average	Drought Status
June 2022	91	93	88	None

### Unaccounted-for-Water

The net unaccounted-for-water calculated for the period of April 2021 through March 2022 is 13.55%.

A summary of the net unaccounted-for-water results are in the following table:

Values Feb 2021 – Jan 2022	Values Mar 2021 – Feb 2022	Values Apr 2021 – Mar 2022
13.54%	13.52%	13.55%
2,145 Million Gallons	2,138 Million Gallons	2,135 Million Gallons



## **EMPLOYEE LEARNING & GROWTH PERSPECTIVE**

### **Safety**

There were no OSHA recordable injuries in June. To date, there are 20 open Workman Compensation claims.

### **Employee Relations**

There were two US Equal Employment Opportunity Commission discrimination claims filed. One is an age and disability claim, and the other is a race and gender claim. One claim was closed by the EEOC with no exposure to the RWA and the other claim is under investigation.

There is currently one pending United Steelworkers (USW) arbitration which is pending negotiation with USW independently. There are currently no union grievances filed.

### **COVID-19**

As of July 2022, we have had a total of 96 confirmed cases of COVID-19 since we started tracking in 2020. This month, we had seven employees test positive for COVID-19. We continue to track and monitor cases as well as watch the positivity rate in the state and region.

### **Insurance Claims**

There were two large customer liability claims open last month; one has been settled and the other is pending. With the pending claim, the RWA insurance carrier denied the claim and a trial is scheduled for November 2022, but mediation is possible to avoid trial. The claim is currently being evaluated for probable settlement values.

The RWA negotiated a settlement through a mediator on June 8 for damage to a commercial building from a main break. The total claim value was over \$345,000 and settled for \$90,000 with a release for liability and non-disclosure agreement.

### **Personnel Updates**

The total number of RWA full-time equivalents (FTEs) as of June 30 is 260 compared to the budget of 276 FTEs for FY23.

In June, we had two new hires, one retirement and one resignation:

- New Hires:
  - Nicolas Crotta, Utility Technician Water Mains, Field Operations
  - Tiffany Whited, HazWaste Central Coordinator (temporary position), Corporate Services
- Retirements:
  - James Wettemann, Utility Technician Maintenance, Field Operations
- Resignations:
  - James Courchaine, Vice President Operations and Business Practices

## Safety Training

For FY23, a total of 47.5 hours of Safety training has been conducted. In June, 42 employees received 47.5 hours of training which included, Safety Starts with Me Training, Trenching and Excavation and Sodium Hypochlorite training.

## Security Activity

The RWA Police received a total of 160 calls for service in June with law enforcement actions resulting in nine individuals being arrested. In addition, the Police handled 45 recreation permit and 137 patrol checks, conducted 26 background investigations and responded to four burglar alarms that occurred at our facilities. In June, our police officer attended 6 hours of annual firearms training with the North Branford Police Department.

## Environmental Compliance

The RWA experienced five chemical leaks/spills at our wellfields in the month of June. The contained spills did not impact public health. Two of the spills were related to operators over filling the chemical tanks. The other three spills/leaks were related to damaged valves/component parts in the chemical rooms. Affected wellfields included North Cheshire, Mount Carmel, Seymour and Derby. As a result, the RWA received two Notices of Violation (NOV) from DEEP related to the spills at North Cheshire and Mount Carmel. NOV's require remediation steps be taken and employee training and development will be key elements of the RWA's remediation activities.



## INTERNAL BUSINESS PROCESS PERSPECTIVE

### Operations

#### Water Treatment

Major projects and activities underway at the Lake Gaillard Water Treatment Plant included: Kovacs Construction completed installation of the remaining sodium hypochlorite bulk tanks, day tank, and associated piping. The sodium hypochlorite system has been tested and is fully on-line. The filtered water reservoir tank project has been completed. Cleaned clarifier's #1-#4. The raw water valve replacement project has been temporarily suspended due to the manual isolation valves not providing a positive shutoff for removal/instillation of the automated valves.

Major projects underway at the Lake Saltonstall Water Treatment Plant included: Associated Electrical Mechanical removed backwash pump #1 for repairs; it is anticipated that the pump will be re-installed this month. Boring has begun on-site in preparation of an upcoming electrical upgrade project at the Saltonstall Water Treatment Plant. Drained and cleaned lagoon #1. East Haven Fire Department was on-site to perform safety training.

Major projects underway at the Lake Whitney Water Treatment Plant included: Whitney Water Treatment Plant continues 24/7 operations. The capital project to improve the building management system and HVAC controls continues. The roof repair project continues.

Major projects underway at the West River Water Treatment Plant included: Two new lagoon diversion valves and actuators were installed. Staff are sampling Lake Glen and Lake Watrous daily to evaluate any changes in raw water quality to maintain plant performance.

## **Field Operations**

### CBYD Markings

Through the Call Before You Dig (CBYD) clearing house, the RWA performed 2,767 markings in June with an FYTD total of 2,767. Markings for the month of June 2022 were 4.5% more than in May 2021.

### Distribution System Flushing

Seasonal flushing continues in New Haven. To date, we have completed 195.95 miles of main cleaning. Our crews flushed an additional 5.8 miles of main for DPH compliance reporting.

### Main Breaks

In June, we experienced four main breaks and eight unplanned system repair/replacements (contractor damaged main repair, gate replacement, etc.).

### Fire Flow Tests

Fire hydrant flow tests are conducted at the applicant's request; there were seven tests performed during June. The purpose of the test is to determine the hydraulic characteristics of the water distribution system at the location of the project site.

### Derby Water Storage Tank

During the month of June, a preconstruction meeting was held onsite with Guerrero Construction, a tree clearing subcontractor. They flagged the limits and began clearing the site.

### West River Water Treatment Plant (WRWTP) Improvements Project

During the month of June, the Associated Construction Company (ACC) continued their construction submittal efforts. The temporary sodium hypochlorite feed system is on-line. The concrete equipment pads and secondary containment for the new hypochlorite room have been poured and the secondary containment coating is being applied. The brine silo, hypochlorite day tanks and some equipment for the new chlorine generators have been delivered. Portions of the duct bank for the new WRWTP electrical service were excavated, conduit installed, and backfilled. Sections of the Dissolved Air Floatation tank walls located on the discharge side (east side) of the building have been poured.

### Lake Whitney Dam

On June 9, the RWA's staff presented an application for Whitney Dam Phase 1 scope of work to the RPB and the public. Phase 1 work was approved by the RPB at this meeting. Additionally this month, two mock-up 10'x10' concrete panels are being planned for the dam's proposed downstream buttress option. These panels are being built to view what the dam's concrete face would like when if this buttress option were to be selected.

## **Contracts & New Services**

In June, there were two applications received for large services, as compared to eight in June 2021. This month, there were 270 feet of main extension contracts executed, compared to 3,415 feet of main extension contracts executed in June 2021. There are 270 feet of main extensions contracted in Fiscal Year 2023.

## **Information Technology and Transformational Activities**

Preliminary negotiations with a preferred vendor are underway for the Customer Information System (CIS) project, pending board approval. Other key project activities include solution and requirement clarifications, as well as finalizing staffing resource plans.

Team members partnered with the Customer Care Team to review and refine the Customer Service new-hire curriculum including validation and updates to the training materials that address the new customer portal and monthly billing cycles.

**South Central Connecticut Regional Water Authority  
Compensation Committee**

**Minutes of the January 27, 2022 Meeting**

The regular meeting of the South Central Connecticut Regional Water Authority Compensation Committee took place on Thursday, January 27, 2022, at the office of the Authority, via remote access. Chairman DiSalvo presided.

Present: Committee – Messrs. DiSalvo, Borowy, Curseaden and Mss. LaMarr and Sack  
Management – Mss. Kowalski and Hill, and Messrs. Bingaman, Courchaine, Joseph, Lakshminarayanan, Matharu, and Singh  
RPB – Mr. Eitzer  
Leading Culture Solutions – Andrea Hawkins  
Staff – Mrs. Slubowski

The Chair called the meeting to order at 1:41 p.m.

On motion made by Ms. LaMarr, seconded by Ms. Sack, and unanimously carried, the Committee voted to approve the minutes of its July 15, 2021 meeting.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

Mr. Bingaman, the RWA’s President and CEO introduced Ms. Hawkins, CEO and Founding Partner of Leading Culture Solutions, Ms. Hill, Business Partner - Customer Service, and Mr. Matharu, the RWA’s Distribution System Operations Manager, who provided a Diversity, Equity and Inclusion update at the RWA, which included:

- Progress & Roadmap
- Strengths & opportunities
- Phases - 4 L’s (listen, learn, lean-in, live)
- Program success criteria

At 2:10 p.m. Mss. Hawkins, Hill and Mr. Mathura withdrew from the meeting.

The committee took a break at 2:10 p.m., and Mss. Kowalski and Slubowski, and Messrs. Courchaine, Eitzer, Joseph, Lakshminarayanan and Singh withdrew from the meeting.

At 2:25 p.m., the committee reconvened and on motion made by Mr. Borowy, seconded by Mr. Curseaden, and unanimously carried the committee voted to go into executive session to discuss personnel matters. Present in executive session were the committee members and Mr. Bingaman.

Borowy	Aye
Curseaden	Aye
DiSalvo	Aye
LaMarr	Aye
Sack	Aye

At 3:23 p.m., the committee came out of executive session and motion made by Ms. LaMarr, seconded by Mr. Borowy, and unanimously carried, the committee voted to adjourn the meeting.

Borowy	Aye
Curseaden	Aye

South Central Connecticut Regional Water  
Compensation Committee  
January 27, 2022

**UNAPPROVED DRAFT**

DiSalvo	Aye
LaMarr	Aye
Sack	Aye

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Anthony DiSalvo, Chairman

# Executive Compensation Committee

## FY2023 Work Plan

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The Executive Compensation Committee will assist the Regional Water Authority (RWA) in fulfilling its fiduciary responsibilities for oversight relating to compensation of RWA's executives, including annual review of RWA's compensation, review and approval of goals and objectives, and evaluation of the Officers and CEO performance and recommended annual compensation of CEO and other officers.

### July 2022

- Finalize FY23 work plan and updates of committee charter
- CEO FY23 Strategic Priorities
- CEO FY22 Strategic Priorities' Accomplishments
- CEO & officers performance reviews
- Review and recommend CEO & Officer compensation

### January 2023

- 6 Month CEO FY23 Strategic Priorities update
- Review compensation strategy

### October 2022

- Meet if necessary with topics of interest such as Employee Engagement, Succession Planning & DE&I.

### April 2023

- Meet if necessary with topics of interest such as Employee Engagement, Succession Planning & DE&I.





# CEO Priorities for Fiscal Year 2023






Strategic Priority	Strategic Goal	Strategic Action Initiatives Co-Led with Accountable VP
<b>WATER SYSTEM NEEDS</b>	<p>Prioritize focus on our utility's operations, engineering systems, water system needs and business practices to fortify the way we manage, operate and maintain our production and distribution systems and critical assets, while delivering world-class customer service.</p>	<ul style="list-style-type: none"> <li>Utilize the Risk Mitigation team to target five new risk perspectives and deploy action plans.</li> <li>Using a cross-functional team, finalize the Asset Management roadmap to develop a comprehensive plan for operational, financial, resources, planning and services; implement two critical initiatives.</li> <li>Mobilize Lead Service Line project planning team and successfully achieve key milestones including a shared governance model, and communications and operational plans.</li> <li>Utilize established Water Resources Management Group to enhance water system operations and water-quality optimization of our natural resources with a focus on diversion structures so that 90% of disinfection by-product tests are at least 10% below maximum drinking water thresholds.</li> <li>Develop and deploy a program to reduce unaccounted-for-water leakage by at least 18 million gallons.</li> </ul>
<b>COMMERCIAL GROWTH</b>	<p>Expand and diversify our commercial business service capabilities to build on the company's progress with existing programs, capitalize on new opportunities and boost revenue to offset prospective rate increases and invest in the core utility.</p>	<ul style="list-style-type: none"> <li>Fully commercialize Well Services organic growth with 1,000 new customers through deployment of a dispatch program and marketing and hiring plans.</li> <li>Fully commercialize a PipeSafe expansion with 1,000 new customers in neighboring service area communities.</li> </ul>
<b>ACQUISITIONS &amp; PARTNERSHIPS</b>	<p>Pursue strategic acquisitions and partnerships to change the scope of the business, add new capabilities and increase revenues while being mindful of opportunities and inherent risks.</p>	<ul style="list-style-type: none"> <li>Continue to deploy product, partnership, organic growth and acquisition strategies to increase commercial net revenue to ~\$7 million in FY23.</li> </ul>
<b>WORKPLACE CULTURE</b>	<p>Focus on workplace culture and STARS values to retain, grow and attract the best talent while increasing the overall engagement and diversity, equity and inclusion of the organization.</p>	<ul style="list-style-type: none"> <li>Develop Talent Review framework for critical roles and ensure 50% of managers are trained on the process.</li> <li>Develop a Cultural Transformation strategy and plan to ensure 50% of managers are trained.</li> <li>Increase DE&amp;I representation in two underrepresented job categories.</li> <li>Develop and deploy employee engagement plans to address at least two areas of improvement in response to recent surveys.</li> </ul>
<b>LEADERSHIP DEVELOPMENT</b>	<p>Develop members of the Leadership Team for greater efficacy and to lead and inspire the next chapter of the RWA's transformation and growth.</p>	<ul style="list-style-type: none"> <li>Continue to coach and develop members of the Leadership Team with a focus on accentuating natural abilities and learned soft and technical skills.</li> <li>Role model desired leader behaviors.</li> <li>Invest time through regular team meetings and workshops.</li> <li>Hold leaders accountable and relentlessly pursue impact and</li> </ul>



# CEO Fiscal 2022 Priorities & Action Plan Update

## June 2021 – May 2022

# CEO Priorities for Fiscal Year 2022

Strategic Priority		Strategic Goal
<b>WATER SYSTEM NEEDS</b>		<p>Refocus our organizational energy on our core business by evaluating our utility’s operations, business and management practices to fortify the way we manage, operate and maintain our production and distribution systems and critical assets.</p>
<b>COMMERCIAL BUSINESS GROWTH</b>		<p>Grow and diversify commercial business initiatives to build on the company’s progress, capitalize on new opportunities and bolster revenue streams to offset prospective rate increases for customers.</p>
<b>ACQUISITIONS &amp; PARTNERSHIPS</b>		<p>Pursue strategic acquisitions and partnerships to change the scope of the business, add new capabilities and increase revenues to offset prospective rate increases for customers, while being mindful of opportunities and inherent risks.</p>
<b>DIVERSITY, EQUITY &amp; INCLUSION</b>		<p>Attract, grow and retain the best talent while increasing the overall diversity of the organization to advance workforce inclusion and employee engagement.</p>
<b>DEVELOPMENT OF LEADERSHIP TEAM</b>		<p>Develop members of the Leadership Team for greater efficacy and to lead and inspire the next chapter of the RWA’s transformation and growth.</p>

# Water System Needs

STRATEGIC GOAL	FY22 ACCOMPLISHMENTS
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**Refocus our organizational energy on our core business by evaluating our utility’s operations, business and management practices to fortify the way we manage, operate and maintain our production and distribution systems and critical assets**

- ✓ Developed 4 key Effective Practice Guidelines (EPG) for Operations to improve the efficiency and effectiveness of critical business practices: 1) eliminated the use of salt to reduce sodium and chloride contamination at groundwater facilities; 2) developed an EPG related to Algae management of raw water, which has a direct impact on taste and odor compounds in finished water; 3) made changes to the way we operate pressure sustaining valves in automatic operation to control pressure along the Route 80 transmission main and throttle flow into the New Haven service area; 4) as part of residuals management and to comply with additional documentation requirements from DEEP, renewed Beneficial Use Determination, which allows the RWA to partner with local landscapers to blend the residuals for use as a soil amendment
- ✓ Reconstituted a Risk Committee to update top 10 enterprise risks and their mitigation plans using new guidelines from the Committee of Sponsoring Organizations (COSO) framework: 1) business continuity planning; 2) cybersecurity; 3) critical component failure resulting in loss of life, property or service; 4) financial; 5) health and safety of RWA employees; 6) succession planning and recruitment; 7) physical security of RWA property and assets; 8) failure to manage risks causing loss of reputation; 9) loss of Supervisory Control of Data Acquisition (SCADA) System; 10) ineffective supply chain, integrity of procurement materials
- ✓ Led creation of Lead & Copper Rule Revisions (LCRR) project plan, which included governance committee, communications, outreach to local health groups, DWSRF application and on-going funding discussions
- ✓ Completed two critical asset management roadmap initiatives: 1) GIS; 2) Underground Asset Management Plan
- ✓ Established 4 Water Resource Group strategies to sustainably manage natural resources: 1) identified non-chloride based de-icing products to eliminate salt from wells; 2) developed utility tech roles and filled positions; 3) completed trespassing cost benefit analysis; 4) drafted report for improving backflow at Roses Brook and Lake Saltonstall originally envisioned for Fiscal Year 2022 but deferred to Fiscal Year 2024 in Ten-Year Model
- ✓ Completed functional business continuity exercise for North Cheshire Wellfield to address climate change and water quality resiliency
- ✓ Implemented 5 key process improvements: 1) Capital Planning and Budgeting enhancements; 2) an automated Continuous Consumption Alert using AMI data; 3) Customer Escalation Dashboard that streamlines the tracking and reporting of customer concerns; 4) process change for providing meter vault assemblies to customers; and 5) successfully piloting the innovative NoDes flushing equipment
- ✓ Challenged VP of Engineering & Environmental Services to seek alternate design considerations for Lake Whitney Dam Rehabilitation project for cost and public perception; successfully completed design phase RPB application using a new expedited approval process
- ✓ Conducted succession planning workshops in Operations to identify future leaders and fill critical technical positions; 4 staff promoted to leadership positions

**Improvements to the business**

- ✓ Strengthened the way we manage and operate production and distribution systems by adding more rigor and standardized business practices to the way we work and maintain critical assets
- ✓ Protected public health and safety by providing high-quality water services
- ✓ Continued to ensure infrastructure stability and operational optimization
- ✓ Implemented innovative water strategies to maintain a sustainable water supply for future generations



# Commercial Business Growth

## STRATEGIC GOAL

## FY22 ACCOMPLISHMENTS

**Grow and diversify commercial business initiatives to build on the company's progress, capitalize on new opportunities and bolster revenue streams to offset prospective rate increases for customers**

- ✓ Introduced monthly meetings with employees who are commercial business owners to ensure more accountability, collaboration and communication
- ✓ Collected \$1.450M in lab revenue versus target of \$1.474M
- ✓ WellSafe protection program developed and marketing effort piloted to 12,000 well owners inside and outside of RWA service area as part of test-and-learn phase; FY23 focus on program expansion
- ✓ Secured 2 PipeSafe territory expansion partners launching in FY23; will serve as proof-of-concept and means of having endorsed partners: 1) Town of Wolcott; 2) Southeastern CT Water Authority

**Improvements to the business**

- ✓ Leveraged core utility commercial assets, customer relationships and distinct capabilities to deliver commercial business growth
- ✓ Secured new opportunities and bolstered revenue to offset prospective water rate increases
- ✓ Offered RWA commercial business solutions to more customers and clients in Connecticut and beyond

# Acquisitions & Partnerships

## STRATEGIC GOAL

## FY22 ACCOMPLISHMENTS

**Grow and diversify commercial business initiatives to build on the company's progress, capitalize on new opportunities and bolster revenue streams to offset prospective rate increases for customers**

- ✓ Established 4 Commercial LLC's entities; general ledger system, banking and controls, and staff augmentation
- ✓ Acquired Roach Plumbing; developed functional staffing plan, secured new office building, performed network integration and set up transactional protocol – business is exceeding earnings target
- ✓ Acquired Water Systems Specialties; successfully on-boarded 100% of staff and integration efforts on schedule and on target
- ✓ Achieved 94% of official budget of \$5.7M
- ✓ Achieved 162% of well services performance versus target of \$161,230
- ✓ Aggressively pursued acquisition of an environmental testing lab and associated building; lab owner withdrew interest in June 2022
- ✓ Developed in-house an indicative valuation and bid model tool for target acquisition activity
- ✓ Organized plans and programs for potential non-regulated service offering targeting water heater protection
- ✓ Ensured 4 strong prospects in pipeline for FY23: 2 well services; 2 water heater business

**Improvements to the business**

- ✓ Added new commercial capabilities and solutions for homeowners and lab clients
- ✓ Increased revenues to offset water rate increases and invest back in utility
- ✓ Created cost synergies that foster headroom for future investments and access to new commercial venture opportunities

# Diversity, Equity & Inclusion

## STRATEGIC GOAL

## FY22 ACCOMPLISHMENTS

**Attract, grow and retain the best talent while increasing the overall diversity of the organization to advance workforce inclusion and employee engagement**

- ✓ Led the decision to make Juneteenth an official RWA holiday before it became a federal holiday in Connecticut
- ✓ Conducted DE&I survey with a 38% response rate (105 employees) and 4 focus groups
- ✓ Launched TIDE (Tapping Inclusion, Diversity and Equity) Council engaging 20 employees
- ✓ Developed DE&I roadmap and project planning focused on 3 employee-generated priorities: 1) leadership; 2) engagement; 3) well being
- ✓ Conducted 2 community conversation employee trainings (reached 105 employees) focused on: 1) Identity & Privilege; 2) Trust for Impact
- ✓ Conducted two Leadership Re-Center manager trainings (reached 70% of managers) with a focus on driving effective DE&I change
- ✓ Increased diversity in 4 EEO job groups: 1) exec/sr. level managers; 2) professionals; 3) administrative staff; 4) craft workers
- ✓ Launched regular monthly meetings with USW leadership to foster partnership and engagement with union and management
- ✓ Partnered with USW and management to purchase the RWA's first-ever long tri-axle truck for hauling heavy loads

**Improvements to the business**

- ✓ Engendered an accountable TIDE Council comprised of employees who are committed to advancing DE&I efforts and employee engagement
- ✓ Enhanced communications, collaboration and trust among CEO, CHRO and USW Leadership, which led to cooperative conversations and solutions (new tri-axle truck) and less grievances being filed



# Development of Leadership Team

## STRATEGIC GOAL

## FY22 ACCOMPLISHMENTS

**Develop members of the Leadership Team for greater efficacy and to lead and inspire the next chapter of the RWA's transformation and growth**

- ✓ Initiated professional searches for key executive positions and successfully on boarded three new members of the Leadership Team: 1) Vice President Operations and Business Practices; 2) Vice President Engineering & Environmental Services; 3) Chief Human Resources Officer & Vice President Corporate Services
- ✓ Role modeled desired leader behaviors with emphasis on transparency, accountability and collaboration
- ✓ Invested significant time through regular policy Leadership Team meetings; Good to Great workshops; quarterly Strategic Plan goals updates; gatherings on strategic priorities and resources
- ✓ Introduced bi-weekly Leadership Team Huddles to align on a value agenda, set of priorities and collaboration, which allows for making decisions more quickly and effectively
- ✓ Held leaders accountable to the 2025 Strategic Plan and relentlessly pursued impact and achievement with FY22 strategic initiatives
- ✓ Led holistic evaluation with Leadership Team for a myriad of flexible work arrangements to consider piloting as part of retaining and attracting employees and company transformation
- ✓ Reintroduced the critical importance of embracing and fostering the organization's higher purpose for strategic planning and employee engagement
- ✓ Assessed performance in real time; intervened and acted with the strugglers (Sr. VP Corporate Services; VP Operations and Business Practices)

**Improvements to the business**

- ✓ Enriched leadership behaviors (accountability, collaboration, empathy) by some of the newest members of Leadership Team to support company transformation and foster greater employee engagement
- ✓ Fostered greater alignment around strategic priorities, more effective meetings and fewer struggles to making big bet decisions, which resulted in less discord among the Leadership Team
- ✓ Bolstered the efficiency and effectiveness of the RWA's operations and processes by challenging assumptions and the status quo
- ✓ Enhanced Leadership Team understanding and alignment around the company's higher purpose



Regional **Water** Authority  
Tapping the Possibilities™

**Larry L. Bingaman**

*President and Chief Executive Officer*

TO: David J. Borowy  
Kevin J. Curseaden  
Anthony DiSalvo  
Catherine LaMarr  
Suzanne C. Sack

**Confidential**

FROM: Larry L. Bingaman

DATE: July 28, 2022

SUBJECT: LLB Self-Evaluation of Performance for Fiscal Year 2022

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Below you will find my self-assessment of performance for Fiscal Year 2022 using the categories for which we previously agreed.

Fiscal Year 2022 was another year of personal achievement and progress toward advancing the RWA's 2025 Strategic Plan as I continued to lead the organization for long-term, sustainable success. Through my leadership, performance and guidance, I am proud of the many significant accomplishments the RWA realized. The attainments connect to the 2025 Strategic Plan and my Fiscal Year 2022 personal strategic priorities, which together represent the organization's most material matters. Leading and championing these Fiscal 2022 objectives and priorities, which you will read more about throughout this assessment, resulted in a myriad of significant improvements to the business, including:

- Directing a heightened focus on financial planning, prudent cost management, collections, and refinancing to bolster our financial strength to support our increasing capital improvement program and to mitigate the January 2022 rate increase. These efforts enabled us to achieve an end of fiscal year coverage of 138%, the largest in RWA history, which allowed us flexibility in our Fiscal Year 2022 year-end disposition where we transferred just under \$22 million into the Construction Fund, the largest transfer to date.
- Pursuing numerous outreach strategies related to stimulus funding for water infrastructure, which resulted in the RWA obtaining funding of \$2 million and opening up a number of impending opportunities with WIFIA, DWSRF, and a Congressional Directed Spending request of \$18 million.
- Fortifying the way we manage, operate and maintain our production and distribution systems through the development of key Effective Practice Guidelines and reconstituting

a Risk Committee to update the top 10 enterprise risks and their mitigation plans to enable the RWA to operate more consistently with greater resiliency.

- Growing our commercial business initiatives by developing and piloting a new Well Services program to 12,000 private well customers in our service area and securing two PipeSafe territory expansion partners both of are anticipated to grow in Fiscal Year 2023.
- Diversifying our commercial business initiatives through two strategic acquisitions adding approximately \$2 million in revenues going forward, the establishment of four Commercial LLC entities and the achievement of 94% of a \$5.7 million net revenues budget.
- Enhancing the workplace culture through renewed efforts to bolster diversity, equity and inclusion, increased diversity in four EEO job groups, improved relations with union leaders and drove more employee engagement through fostering shared authority and obtaining diverse perspectives.
- Developing members of the Leadership Team for greater efficacy through investing significant time leading regular policy and strategy sessions, holding leaders accountable and relentlessly pursuing impact and achievement.

You'll read more about the aforementioned attainments and more throughout this assessment. I look forward to your feedback.

## **I. Categories**

1. **Leadership:** *CEO motivates and energizes RWA staff; creates a culture that reinforces mission and values*

Throughout Fiscal Year 2022, I spent a much of my time interacting with employees with the aim of:

- Motivating and energizing the workforce;
- Improving communication, engagement and community; and
- Enhancing the overall culture and performance of the RWA as a 21<sup>st</sup>-century environmental services company.

These essential employee engagement opportunities provided me with an opportunity to inform, exchange ideas and opinions, provide feedback and address concerns throughout the organization. Through these interactions, I regularly reinforced our higher purpose, mission, vision and STARS values as our guiding principles and tenets that make the RWA the RWA.

Moreover, I highlighted strategic themes in my myriad of written messages to employees as well as virtual and in-person meetings, town halls and one-on-ones. Those key topics included:

- Employee health and safety amid the protracted pandemic;
- Zero preventable injuries;
- Customer care;

- Diversity, equity and inclusion;
- Accountability;
- Teamwork;
- Respect in the workplace;
- Continuous improvement;
- Commercial businesses; and
- Transformational growth.

Below is a sampling of how I spent my personal time in Fiscal Year 2022 engaging and motivating employees, creating a culture that reinforces the RWA's higher purpose, mission and STARS values, and advances a more diverse and inclusive workplace:

- Conducted weekly/bi-weekly one-on-one meetings with my direct reports to provide me with an opportunity to set or reset direction, provide counsel, give feedback, address performance issues and support their efforts and areas for development.
- Continued offering one-on-one employee meetings with members of the RWA's management team after these opportunities lapsed in 2020 due to COVID-19 and safety concerns. I reinstated them in Fiscal Year 2021, continued them in Fiscal Year 2022, meeting with 44 employees, and plan to expand the opportunity to other employees across the organization during Fiscal Year 2023.
- Led four all-employee Teams-casts focused on the state of the business and strategic planning.
- Participated in Division VP-led town halls with department employees, in person and via Teams.
- Joined a number of TIDE (Tapping Inclusion, Diversity and Equity) Council meetings to support and provide feedback on DE&I roadmap and progress.
- Took part in DE&I Community Conversations and Leadership Re-Centering trainings.
- With COVID restrictions relaxed, in the first half of calendar year 2022, I spent more time in the field engaging with employees by visiting active work sites and witnessing first-hand the progress we are making on major projects to improve the water system. Since March 2022, I engaged with more than 75 employees at nearly 30 site stopovers.
- Initiated and led nine meetings with USW union leadership to promote better communication, unity and collaboration.
- Acknowledged Employee Appreciation Day in March 2022 by distributing a personal note to Leadership Team members and an email thanking employees for their contributions and commitment to serving our customers and communities. As a token of gratitude, the Super Duper Weenie Truck visited the RWA and some 110 employees gathered in the Fleet Garage to enjoy food and conversation, which was another opportunity for me to engage with them.

- Authored a series of messages to all employees about the need for greater respect in the workplace and included practical ways for employees to treat others respectfully.
- Routinely asked questions to challenge the status quo with the goal of making the RWA's operations and processes more efficient and effective, and reinforcing the need for accountability throughout the organization.
- Encouraged Lessons Learned sessions after significant incidents to discover root causes of problems and formulate solutions to prevent recurrence.

### **RWA STARS Values**

In Fiscal Year 2022, I modeled ethical and leadership behaviors that aligned with the RWA's STARS values. I continuously reinforced them in my written and oral communications with employees, strived to ensure managers and supervisors at all levels model the behaviors, and were fully understood and demonstrated by the Leadership Team and the workforce.

The STARS values are an integral part of a new performance review process we introduced to non-union employees (three times a year) and the Leadership Team (semi-annual) in Fiscal 2021 and continued in earnest in Fiscal 2022.

Moreover, I presented the annual STARS on Our Team award to a colleague who displayed the STARS values in an extraordinary way at our New Year, New Opportunities all-employee Team-cast in January 2022. This Fiscal Year 2022 award event was another opportunity to instill the importance of our company's values when interacting with fellow employees, customers and other stakeholders.

2. **Strategy:** *Is it working; is the company aligned behind it; and is it being effectively implemented?*

The five-year Strategic Plan we implemented at the beginning of Fiscal Year 2020 is our third since I initiated the first one after joining the RWA in 2009. All three Plans are based on the Balanced Scorecard, which views the organization from four perspectives:

- 1) Customers/Constituents;
- 2) Employee Learning & Growth;
- 3) Financial; and
- 4) Internal Business Process.

The purpose in writing the original plan in 2009, and all those that followed was to:

- Strengthen the RWA financially;
- Reduce or minimize costs across the enterprise;
- Drive more efficiency throughout the organization;

- Help guide us through the various issues confronting the organization;
- Determine how we could provide better service to customers;
- Demonstrate how employees could get more satisfaction from their work; and,
- Be more responsive to the community.

As part of our strategic planning work in Fiscal 2022, I kicked off the year with an all-employee Teams-cast where members of the Leadership Team joined me in communicating the Fiscal 2022 strategic plan goals, objectives and metrics.

During the first quarter of calendar year 2022, I initiated a series of employee-led engagement opportunities to help strengthen our employees' understanding of the RWA's 2025 Strategic Plan and what areas of focus were needed in Fiscal Year 2023 to advance it. It was a unique opportunity to reflect on our renewed DE&I journey that we initiated in Fiscal Year 2021 and build on the strategic work done in the first half of Fiscal Year 2022. In doing so:

- We invited employees to provide input on strategic action initiatives for Fiscal Year 2023 to ensure we involved more colleagues in the strategic planning process, obtained diverse perspectives and shared authority by giving employees a voice; more than 80 employees volunteered to offer strategic input into the action initiatives we should consider in Fiscal Year 2023;
- Some 20 cross-functional employees united as four work teams to examine the RWA's 2025 Plan strategies and goals, brainstorm with internal subject-matter experts, and develop and prioritize strategic initiatives for Fiscal 2023 based on the four perspectives of the Balanced Scorecard resulting in greater engagement;
- We reassured employees of our leadership commitment to share authority and obtain diverse viewpoints by ensuring that their voices were heard and they had direct input into the strategic planning process for Fiscal Year 2023;
- Members of the employee-work groups joined the Leadership Team at an all-employee meeting to discuss the strategic initiatives the company will pursue in Fiscal Year 2023; those employees co-presented with me our Fiscal Year 2023 initiatives at the June 23, 2022 Strategic Planning Committee meeting; and
- Members of the Leadership Team joined me at an all-employee Teams-cast where we presented Fiscal 2023 strategic plan goals, objectives and metrics to the workforce.

### **CEO Priorities for Fiscal Year 2022**

At the start of Fiscal Year 2022, I outlined five personal strategic priorities for the fiscal year. The priorities closely align with the goals and objectives in the 2025 Strategic Plan and the RWA's transformation to become a 21<sup>st</sup>-century environmental services company. My five Fiscal Year 2022 personal strategic priorities included:



- **Water System Needs:** Refocus our organizational energy on our core business by evaluating our utility's operations, business and management practices to fortify the way we manage, operate and maintain our production and distribution systems and critical assets.
- **Commercial Business Growth:** Grow and diversify commercial business initiatives to build on the company's progress, capitalize on new opportunities and bolster revenue streams to offset prospective rate increases for customers.
- **Acquisitions & Partnerships:** Pursue strategic acquisitions and partnerships to change the scope of the business, add new capabilities and increase revenues to reinvest in the utility and offset prospective rate increases for customers, while being mindful of opportunities and inherent risks.
- **Diversity, Equity & Inclusion:** Attract, grow and retain the best talent while increasing the overall diversity of the organization to advance workforce inclusion and employee engagement.
- **Development of Leadership Team:** Develop members of the Leadership Team for greater efficacy and to lead and inspire the next chapter of the RWA's transformation and growth.

What follows are key accomplishments achieved during Fiscal Year 2022 for my five personal strategic priorities and the ensuing qualitative improvements made to the business as a result of the quantitative results. These attainments were co-led by the responsible Division business leader and me.

### **Water System Needs: Fiscal Year 2022 Strategic Accomplishments**

- Developed 4 key Effective Practice Guidelines (EPG) for Operations to improve the efficiency and effectiveness of critical business practices: 1) eliminated the use of salt to reduce sodium and chloride contamination at groundwater facilities, which will enable the RWA to achieve regulatory compliance easier; 2) to respond to water quality complaints, developed an EPG related to Algae management of raw water, which has a direct impact on taste and odor compounds in finished water (for example, applied Hydrogen Peroxide to Lake Watrous as an alternate to copper sulfide, which is an algaecide); 3) made changes to the way we operate pressure sustaining valves in automatic operation to control pressure along the Route 80 transmission main and throttle flow into the New Haven service area, which will help reduce water quality issues; 4) as part of residuals management and to comply with additional documentation requirements from the Connecticut Department of Energy and Environmental Protection, renewed Beneficial Use Determination, which allows the RWA to partner with local landscapers to blend the residuals for use as a soil amendment; this activity saves the company over \$100,000 annually in trucking costs. It is important to

note that several other EPGs were created in Fiscal Year 2022 that focus on water production and treatment.

- Reconstituted a Risk Committee to update top 10 enterprise risks and their mitigation plans using new guidelines from the Committee of Sponsoring Organizations (COSO) framework: 1) business continuity planning; 2) cybersecurity; 3) critical component failure resulting in loss of life, property or service; 4) financial; 5) health and safety of RWA employees; 6) succession planning and recruitment; 7) physical security of RWA property and assets; 8) failure to manage risks causing loss of reputation; 9) loss of Supervisory Control of Data Acquisition (SCADA) System; 10) effective supply chain, integrity of procurement materials.

The top 10 risks experienced changes in ranking by risk level due to the new assessment framework from COSO. The new framework provided a multi-layer review of each risk compared to the more simple assessment guidelines used previously. As a result, in Fiscal Year 2022, the Risk Mitigation Team developed updated mitigation plans for the top 10 enterprise risks, which is part of a 2025 goal to review and improve 50% of the 47 risks within our risk matrix.

- Led creation of Lead & Copper Rule Revisions (LCRR) project plan, which included a governance committee, a communications plan, outreach to local health groups, DWSRF application and on-going funding discussions, and approval of a new Project Director to lead the day-to-day construction activities to replace out of compliance service lines and related appurtenances.
- Completed two critical asset management roadmap initiatives: 1) GIS – integrated asset data into GIS; 2) Underground Asset Management Plan – completed mapping and inventory of underground assets using GIS; technologies evaluated for conducting condition assessment surveys of buried infrastructure including inspections using a Remotely Operated Vehicle from Lake Menunkatuck to Gaillard in the Sugarloaf Tunnel. Criticality/risk matrix development will continue in Fiscal Year 2023
- Established 4 Water Resource Group strategies to sustainably manage natural resources that included: 1) identified non-chloride based de-icing products to eliminate salt from wells; 2) developed two utility tech roles to maintain water diversions and filled the positions; 3) completed cost benefit analysis of adding police to mitigate trespassing; 4) drafted report for improving backflow at Roses Brook and Lake Saltonstall originally envisioned for Fiscal Year 2022 but deferred to Fiscal Year 2024 in Ten-Year Model
- Completed functional business continuity exercise for North Cheshire Wellfield to address climate change and water quality resiliency
- Implemented 5 key process improvements:
  - 1) **Capital Planning and Budgeting enhancements** including form standardization, schedule modifications and adjusted equipment and

materials ordering to reduce increasing lead times. These improvements resulted in a 45% reduction in the time needed to edit and compile the budget information (from 6 days to 3.3 days) and an 85% reduction to manage the itemized contractor bills (from 6 hours to 1 hour).

2) An **automated Continuous Consumption Alert** using AMI data to identify and notify customers of a possible leak at their location. This automation resulted in a 100% reduction in manual labor to send alerts to customers and reduced the number of leak adjustments issued by 18% (119 for 8 months in FY21 compared to 98 for the same period in FY22).

3) Introduced a **Customer Escalation Dashboard** that streamlines the tracking and reporting of customer issues or concerns. The real-time Dashboard has reduced the time to compile the escalation information and prepare the reports from approximately 4 hours to less than 5 minutes, a 98% improvement.

4) Changed our process for **providing meter vault assemblies to our customers** by offering them the opportunity to purchase components directly from our distributors to eliminate supply chain issues and reduce liability. Prior to the transition to our distributors, in-house meter vault sales accounted for 75% of counter sales handled by the RWA. Since the transition in January 2022, only 23% of counter sales are for meter vaults, a 70% reduction resulting in less labor costs, reduced risk, and convenience to customers.

5) Successfully piloted the innovative **NoDes closed-loop flushing equipment** given its effectiveness in reducing customer's discolored water concerns and preserving the water within our distribution system during flushing activities, which resulted in the decision to purchase this flushing equipment in Fiscal 2023. The pilot resulted in 10.44 MG of recycled water (rather than "wasted") and reduced turbidity 92% in the repeated flushing areas. In addition to the quantified pilot benefits, the equipment will allow for an emergency bypass to maintain service during shutdowns, preventing service disruption and customer complaints. And, the closed-loop system will extend our flushing window to 9 months of the year.

- Challenged new VP of Engineering & Environmental Services to seek alternate design considerations for Lake Whitney Dam Rehabilitation project for cost and public perception; as a result, successfully completed a design phase RPB application using the new expedited approval process
- Provided guidance for two town hall meetings with residents living near the dam to share information about proposed enhancements and solicit public concerns and questions
- Conducted succession planning workshops in Operations to identify future leaders and fill critical technical positions; 4 staff promoted to leadership positions

In conclusion, the successful attainment of these key Fiscal 2022 objectives helped to:

- Add more rigor and standardized business practices to the way we manage and operate production and distribution systems, and maintain critical assets
- Protect public health and safety by continuing to provide high-quality water service
- Further ensure infrastructure stability and operational optimization
- Maintain a sustainable water supply by more effectively managing natural resources

### **Commercial Business Growth: Fiscal Year 2022 Strategic Accomplishments**

- Introduced monthly meetings with managers who have commercial business responsibilities to ensure more accountability, collaboration and communication
- Collected \$1.450M in lab revenue versus target of \$1.474M
- WellSafe protection program developed a marketing effort piloted to 12,000 well owners inside and outside of RWA service area as part of test-and-learn phase where 37 customers expressed interest; Fiscal Year 2023 focus on WellSafe program expansion
- Secured 2 PipeSafe territory expansion partners launching in Fiscal Year 2023; will serve as proof-of-concept and means of having endorsed partners: 1) Town of Wolcott; 2) Southeastern CT Water Authority

In conclusion, the successful attainment of these key Fiscal 2022 objectives helped to:

- Leverage core utility commercial assets, customer relationships and distinct capabilities to deliver utility commercial growth
- Secure new opportunities and bolster revenue to offset prospective water rate increases
- Offer RWA commercial business solutions to more customers and clients in Connecticut and beyond

### **Acquisitions & Partnerships: Fiscal Year 2022 Strategic Accomplishments**

- Established 4 Commercial LLC's entities; general ledger system, banking and controls, and staff augmentation
- Acquired Roach Plumbing; developed functional staffing plan, secured new office building, performed network integration and set up transactional protocol – business is exceeding earnings target

- Acquired Water Systems Specialties; successfully on-boarded 100% of staff and integration efforts on schedule and on target
- Achieved 94% of official budget of \$5.7M
- Achieved 162% of well services performance versus target of \$161,230
- Aggressively pursued acquisition of an environmental testing lab and associated building; lab owner withdrew interest in June 2022
- Developed in-house an indicative valuation and bid model tool for target acquisition activity to expedite making an offer to acquisition targets and reducing analytical expense
- Organized plans and programs for potential non-regulated service offering targeting residential water heater leasing, purchase and protection
- Ensured 4 strong prospects in pipeline for Fiscal Year 2023: 2 well services; 2 water heater businesses

In conclusion, the successful attainment of these key Fiscal 2022 objectives helped to:

- Add new commercial capabilities and solutions for homeowners and lab clients
- Increase revenues by about \$2M to offset water rate increases and invest back in utility
- Create cost synergies that provide headroom for future investments and access to new commercial venture opportunities

### **Diversity, Equity and Inclusion: Fiscal Year 2022 Strategic Accomplishments**

- Led the decision to make Juneteenth an official RWA holiday before it became a federal holiday in Connecticut to further support our DE&I commitment
- Conducted DE&I survey with a 38% response rate (105 employees) and 4 focus groups
- Launched TIDE (Tapping Inclusion, Diversity and Equity) Council engaging 20 employees
- Developed DE&I roadmap and project planning focused on 3 employee-generated priorities: 1) leadership; 2) engagement; 3) well being
- Conducted 2 community conversation employee trainings (reached 105 employees) focused on: 1) Identity & Privilege; 2) Trust for Impact
- Conducted 2 Leadership Re-Center manager trainings (reached 70% of managers) with a focus on driving effective DE&I change
- Increased diversity in 4 EEO job groups: 1) exec/sr. level managers; 2) professionals; 3) administrative staff; 4) craft workers
- Launched regular monthly meetings with USW leadership to foster partnership and engagement with union and management
- Partnered with USW and management to purchase the RWA's first-ever long tri-axle truck for hauling heavy loads (see page 13)

In conclusion, the successful attainment of these key Fiscal 2022 objectives helped to:

- Engender an accountable TIDE Council comprised of employees who are committed to advancing DE&I efforts and employee engagement
- Enhance communications, collaboration and trust among CEO, CHRO and USW Leadership, which led to cooperative conversations and solutions (new long tri-axle truck), and less grievances being filed

### **Development of Leadership Team: Fiscal Year 2022 Strategic Accomplishments**

- Initiated hiring and professional searches for key executive positions and on boarded three new members of the Leadership Team: 1) Vice President Operations and Business Practices; 2) Vice President Engineering & Environmental Services; 3) Chief Human Resources Officer & Vice President of Corporate Services
- Role modeled desired leader behaviors with emphasis on transparency, accountability and collaboration
- Invested significant time through regular policy Leadership Team meetings; Good to Great workshops; quarterly Strategic Plan goals updates; gatherings on strategic priorities and resources
- Introduced bi-weekly Leadership Team Huddles to align on a policy agenda, set priorities and collaboration, which allows for making decisions more quickly and effectively on key organizational matters
- Held leaders accountable to the 2025 Strategic Plan and relentlessly pursued impact and achievement with FY22 strategic initiatives
- Led holistic evaluation of a myriad of flexible work arrangements to consider piloting as part of retaining and attracting employees and company transformation
- Reintroduced the critical importance of embracing and fostering the organization's higher purpose for strategic planning and employee engagement
- Assessed performance in real time; intervened and acted with the strugglers (Sr. VP Corporate Services; VP Operations & Business Practices)

In conclusion, the successful attainment of these key Fiscal 2022 objectives helped to:

- Enrich leadership behaviors (accountability, collaboration, empathy) by some of the newest members of Leadership Team to support company transformation and foster greater employee engagement
- Foster greater alignment around strategic priorities, more effective meetings and fewer struggles to making big bet decisions, which resulted in less discord among the Leadership Team

- Bolster the efficiency and effectiveness of the RWA's operations and processes by challenging assumptions and the status quo
- Enhance Leadership Team understanding and alignment around the company's higher purpose

In addition to the above-mentioned Fiscal Year 2022 strategic accomplishments, what follows are other key organizational initiatives I led in Fiscal Year 2022 that further supported the company's strategy and positioned the RWA as an industry leader and a 21<sup>st</sup>-century environmental services company.

### **Financial Planning in Uncertain Times**

Due to the protracted pandemic and the associated uncertainties, throughout Fiscal Year 2022, working with Rochelle Kowalski, I led a heightened focus on financial planning, prudent cost management, collections, refinancing and the aggressive pursuit of subsidies to support our increasing capital improvement program and to mitigate the January 2022 rate increase. These efforts allowed us additional flexibility in our Fiscal 2022 year-end disposition where we transferred just under \$22 million into the Construction Fund, the largest transfer to date that will help mitigate the next rate increase.

In addition, as part of our proactive contingency planning, we renewed a \$5 million interim financing draw down note as contingency in case it was needed for capital projects. Moreover, we closed the year with coverage of 138% (the highest in RWA history), compared to the 114% general bond requirement.

### **Aggressively Pursuing Infrastructure Investments and Actions**

Throughout Fiscal Year 2022, I provided continuous leadership and actively participated in a myriad of activities to seek stimulus funding for water infrastructure. For example, I initiated correspondence, phone calls and virtual meetings with the senior staff for Congresswoman Rosa DeLauro, Senators Chris Murphy and Richard Blumenthal, and Representative Johanna Hayes to request that related legislative language for the American Jobs Plan include governmental utility districts to ensure the RWA would be eligible to receive funding.

Furthermore, I provided leadership counsel to Rochelle Kowalski and Ted Norris on the development of RWA applications for federal infrastructure funding grants and the pursuit of Water Infrastructure Finance and Innovation Act (WIFIA) funding and participated in periodic meetings with WIFIA regarding projects and applications.

I participated in virtual meetings and wrote personalized letters to municipal CEOs in our water district urging them to allocate a portion of the federal funds their town receives from the American

Rescue Plan Act (ARPA) for RWA infrastructure projects. As part of the letters, I detailed specific town projects and related costs that would benefit from ARPA funding.

Below are some specific examples of Fiscal Year 2022 infrastructure-funding accomplishments and opportunities:

- WIFIA Letter of Interest for the Whitney Dam project submitted and received invitation to submit application for funding
- State of Connecticut agreed to modified Drinking Water State Revolving Fund (DWSRF) loan agreement language allowing us to participate in DWSRF interim financing; this is beneficial especially for large projects such as West River Water Treatment Plant Improvements and the Whitney Dam Rehabilitation
- On-going conversations with DWSRF regarding funding availability and criteria for Lead & Copper Rule/Lead Line Replacement; submitted LCR application as well as several other applications
- Submitted three projects for Fiscal 2022 Congressional Directed Spending: \$2 million approved for Lake Saltonstall Electrical Improvements as part of Appropriations bill
- Submitted six projects totaling \$23M for Fiscal 2023 Congressional Directed Spending and requested \$18M in funding since only 80% of projects are covered; applications pending

### **Strengthening the Procurement Process**

Within the framework of the 2025 Strategic Plan and Fiscal Year 2022 initiatives, I continued to champion a program I introduced in Fiscal Year 2021 to align the procurement function to a centralized system within the company to achieve more cost effective purchasing of materials and parts. As part of our ongoing efforts to control spending and limit inventory redundancy, we redirected spending through our Procurement Department to achieve stronger financial results by reducing levels of working capital and improving cash flow.

In Fiscal Year 2022, we also initiated several revised procedures and methods, which established a more organized, efficient and cost-effective supply management system, thus improving internal service to all departments. With the centralized procurement initiative, we have avoided jobs/operations being shut down due to lack of materials. Examples of savings from this initiative included cross-functional review of pipe requirements allowing for pre-ordering pipe at 2021 price levels and centralized chemical purchases. These two activities not only provided continuity of supply, but resulted in over \$100,000 in savings. Moreover, in Fiscal Year 2022, I initiated the development of a new Professional Service Agreement policy to better define the need for outside services and increase accountability and oversight for leaders requesting PSA arrangements.

### **Advancing Collaboration Between Management and the USW 12160**



In Fiscal 2022, a construction worker from the United Steelworkers Union (USW) brought a concern to me regarding the RWA's equipment that hauls heavy loads. I heard his concerns and collaborated with members of the Leadership Team, Fleet and the USW on a viable solution, which was the purchase of the RWA's first-ever long tri-axle truck for hauling heavy loads. It was a true partnership where both management and the union acted as one united team while proudly displaying the STARS values. The new truck sports four axles and wheels, which allow for better weight displacement and stability. It also features a fresh contemporary color scheme and branding that signals the RWA's transformation to an environmental services company.

### **Considering the RWA's Corporate Headquarters**

Throughout Fiscal 2022, I spent considerable time initiating and participating in a myriad of meetings with New Haven's Head of Economic Development, a regional developer, a commercial real estate broker, and site selectors to formulate and evaluate options regarding the future of our corporate headquarters. There are a number of possibilities under consideration and throughout Fiscal Year 2022, I regularly updated the Authority Board on options, costs and timing. This work is ongoing in Fiscal Year 2023.

- a) *Operating Metrics: As part of the Strategic Plan, are metrics heading in right direction; if not, are corrective plans in place?*

Fiscal Year 2022 Strategic Plan Initiatives Results and Fiscal Year 2022 Global Metrics Summary were reviewed at the June 23, 2022 Strategic Planning Committee meeting and was included as part of BoardPaq.

3. **People Management:** *Is CEO putting the right people in right jobs; is succession planning in place?*

### **Aligning RWA Leadership Structure with Strategy**

Over the years, one of my consistent themes has been the need for us to do our best work for our customers, have broad impact on our communities and find real meaning in the work we do by letting our higher purpose and STARS Values guide us. Having the Leadership Team join me in setting both pace and example is critical as we continue on our journey to transform into a 21<sup>st</sup>-century environmental services company. As such, developing talent continued as a key focus for me during Fiscal Year 2022, as evidenced by the following:

- Partnered with former SVP of Corporate Services and new CHRO to prioritize succession planning efforts by identifying critical positions and classifying high potential employees and their associated development plans to support key roles.
- Continued to provide leadership oversight for a unique professional service and strategic partnering agreement I conceived in Fiscal Year 2021 with Tighe & Bond, an engineering consulting services firm. The agreement enables Tighe &

Bond to serve as a critical business partner to the RWA for three years using an annual volume discount scale on all services including strategic capital planning, capital program efficiency, long-term forecasting and asset management assistance. The Tighe & Bond partnering agreement, to date, has resulted in cost synergies and savings of nearly \$300,000.

- Worked to expand the knowledge, leadership and people skills of our CIDO/VP Customer Care and Director of Business Development by engaging a business coach to work with them one-on-one.

4. **Board Relations:** *Communicates well with FMA and RPB members; works closely with FMA to develop short- and long-range strategic plans; builds effective working relationships with RPB members.*

### **Collaboration, Communication & Teamwork**

In the spirit of continuous improvement, in Fiscal Year 2022, I met with members of the Authority Board one-on-one to discuss what they believe the organization should be doing differently, opportunities the RWA is missing and what they would like me to do more or less of. Their suggestions are selectively being implemented.

Furthermore, I continued to maintain a transparent and productive relationship with the Authority Board and RPB Chairs through regular communications on pending and future issues. I continued to communicate one-on-one through regular monthly meetings, phone calls, and emails to collaborate and inform about issues, as well as to support the committees of both boards. In addition, I strived to ensure the Authority is made aware of issues and important information before the RPB. This was accomplished through written communications and in oral briefings at board meetings.

I collaborated with the Leadership Team to ensure we brought relevant and complete solutions to the Authority Board for consideration and that RPB applications were thorough. In Fiscal Year 2022, I provided leadership oversight for three major initiatives: 1) Lake Gaillard Water Treatment Plant Valve Replacement; 2) Lake Whitney Dam Rehabilitation; 3) Customer Information System.

I worked closely with the Board Administrator, the Board Chairs and their respective members to communicate on a regular basis, provide assistance and information when needed, and to collaborate on applications and processes. I met with the Board Administrator monthly to discuss the Board agendas, potential issues and to identify matters for which the Board Chairs needed to be informed and/or updated.

5. **CEO Engagement and Relationship with External Constituents**

After more than a decade of heavy involvement with high-visibility community organizations and a vigorous external speaking calendar, I judiciously scaled back my outside commitments in Fiscal Years 2021 and 2022, to focus more on our response to the pandemic and my personal strategic priorities. However, I remained active with key opportunities that helped position the RWA as a leading, regional business partner:

- Continued the RWA's lead work with Southern Connecticut State University (SCSU) and Gateway Community College (GCC) to advance the Public Utility Management (PUM) Degree program curriculum to help expand the workforce of the public utilities industry. We have hired 2 SCSU PUM degree graduates as Water Treatment Team Leads.
- Actively participated in the PUM Advisory Council whose members are the CEOs of the four largest Connecticut water utilities, senior leaders from UI and Eversource electric and gas operations, the Vice Chair of PURA, the DPH Water Supply Section Chief, SCSU and GCC faculty and staff, and various workforce development and Chamber heads.
- As a member of the PUM Advisory Council, throughout Fiscal Year 2022 I led the planning for three significant meetings: 1) a forum with industry experts on the topic of cybersecurity; 2) a meeting with utility leaders, state regulatory officials and PUM partners focused on the PUM program's first strategic roadmap; 3) leadership breakfast for business and community leaders with Raj Sisodia about the importance of stakeholder integration.
- Invited to serve as PUM Advisory Council Chair for 2022-2023.
- Negotiated with SCSU a unique naming opportunity of the RWA and Claire C. Bennitt Watershed Fund on the first floor of the new School of Business when it opens in 2023.
- Remained a member of the SCSU Business Advisory Council for its Business School.
- Invited by SCSU President to chair a reconstituted President's Community Advisory Council.
- Facilitated continued progress with the Greater New Haven Chamber of Commerce's business retention and growth efforts that I initiated in Fiscal Year 2020. In Fiscal Year 2022, I called a meeting with the President & CEO of the Chamber and the Chamber's Business Retention and Growth Program Specialist to discuss expanding efforts to recruit large water-using industries to the RWA service area. This focus to recruit large water-using industries to the region is part of the Chamber's overall business retention and expansion work, which proactively connects with existing and new businesses so we can better understand their needs and respond with resources.

Since the RWA-funded initiative began with the Chamber in 2020, its business retention and growth specialist visited 234 area companies, provided more than 462 resources for information, education and advocacy, and uncovered 977 new

job potentials. These accomplishments resulted in 20 new development projects, six of which have been completed, with seven new ones emerging in May 2022. Trends arising from conversations about barriers to business growth in the region included workforce development, economic competitiveness, transportation and employee benefits.

We continue to collaborate with the Chamber and other economic development officials and entities to incorporate an inclusive growth strategy to attract and develop water-intensive enterprises to the region. One way the Chamber will do this is by launching an economic development campaign for high water usage companies. The Chamber is planning a targeted marketing effort geared toward food processing, beverage facilities, biotech and medical device manufacturing, and chemical production for 2022-2023.

- Continued to participate in quarterly meetings with fellow CEOs from the other three large water utilities, which I initiated in 2020, as a way to share information, problem solve and enhance business operations through learnings and experiences.
- Continued to encourage and support the Leadership Team's participation on community boards and associations: 1) Rochelle Kowalski, Treasurer of the CT Section of the AWWA; 2) Donna Verdisco, Member, United Way of Greater New Haven Board; 3) Sunny Lakshminarayanan, Member, Greater New Haven Chamber of Commerce Board.
- Continued to meet quarterly with the President of the Claire C. Bennett Watershed Fund, an initiative I started in Fiscal Year 2020, to enhance communications between the RWA and our affiliate, as well as to offer guidance and counsel on board recruitment, marketing/promotions and fundraising.
- As one of the first 100 founding members of Conscious Capitalism Inc.'s Senior Leader Network, continued involvement with the organization through thought leadership and research opportunities.
- Joined a national peer membership organization for CEOs called Vistage. These local, in-person meetings provide me a unique opportunity to connect with other CEOs to share challenges and opportunities, and gain fresh perspectives on business and operational matters.

## **II. Based on the Responses in Section 1**

### *1) What are the CEO's strengths?*

- Focus on organization, outcomes and results, and employees engagement
- Accountable to others and expects accountability across the organization
- Clear, consistent, and focused communication
- Sets priorities, clear expectations and defined goals
- Values substance and gets straight to the core of the issue

- Possesses tenacity, credibility and integrity
- High energy level with focus, determination and sense of urgency
- Continuously communicates the RWA's higher purpose, mission, vision and STARS Values, and shapes behavior to turn the purpose, mission, vision and values into reality
- Applies new ideas and concepts to the work of the RWA
- Positive leader and role model who puts others first
- Thinks strategically and identifies critical, high pay-off strategies and prioritizes team efforts accordingly
- Strong leader with ability to inspire others
- Builds effective executive management teams and identifies optimal reporting levels, and organizational structure
- Forward thinking; takes the global view
- Easily builds relationships with others inside and outside the organization
- Ability to delegate effectively
- Recognizes and develops qualities and characteristics of leadership
- Known as a respected and admired thought leader in the region, state and beyond
- Applies good judgment and experience to business and financial matters
- Acknowledges the existence of, and necessity for, more diversity, equity and inclusion in the workplace
- Emphasizes the need to deliver more quality internal and external service, and works with leadership to define standards for quality
- Demonstrates the importance of sound financial performance and productivity
- Considers the RWA's higher purpose and a broad range of internal and external stakeholders when making critical business and financial decisions

2) *What are the areas that need further focus and development?*

- Continue development of new areas of commercial revenue; execute on the strategy
- Coach and mentor members of the Leadership Team
- Continue succession planning effort for CEO and key positions in the organization
- Foster more employee engagement; continue to rebuild union/management relations
- Lead continuous process improvement and cost containment
- Enhance key constituent communications
- Build on the success of the Fiscal Year 2022 Strategic Plan
- Successfully achieve organizational and personal strategic priorities, metrics and KPIs for Fiscal Year 2023

3) *What assistance or resources are needed to address development needs?*

- Board support to pursue larger acquisitions aimed at advancing the company's transformation and meeting/exceeding the \$9M target

- Continued board support as business advisors and partners

### **III. Goals/Objectives**

*1. The status of accomplishments of current fiscal year's goals for the CEO*

My Fiscal Year 2022 Personal Strategic Priorities progress report is detailed in Section I-2 of this evaluation, beginning on page 4.

*2. Goals for the next fiscal year for the CEO and for the organization*

Attached are my high-level Fiscal Year 2023 Personal Strategic Priorities. Fiscal Year 2023 Strategic Plan Objectives and Global Metrics were reviewed and approved by the Authority Board at the June 23, 2022 Strategic Planning Committee meeting.

LLB:tbm

Attachement

<b>Effective date</b>	<b>Compensation</b>	<b>Reason</b>	<b>% Increase</b>
1/1/2009	\$245,000	New Hire	
1/1/2010	\$255,000	Annual Increase	4.08%
1/1/2011	\$265,200	Annual Increase	4.00%
6/17/2012	\$296,400	Annual Increase	11.76%
6/1/2013	\$320,000	Annual Increase	7.96%
5/30/2014	\$335,000	Annual Increase	4.69%
7/19/2015	\$345,040	Annual Increase	3.00%
7/17/2016	\$355,402	Annual Increase	3.00%
7/16/2017	\$373,172	Annual Increase	5.00%
12/24/2017	\$391,830	Annual Increase	5.00%
7/29/2018	\$411,128	Annual Increase	4.93%
11/18/2018	\$415,000	Annual Increase	0.94%
12/30/2018	\$420,000	Annual Increase	1.20%
7/21/2019	\$445,000	Annual Increase	5.95%
2/2/2020	\$462,000	Annual Increase	3.82%
8/1/2021	\$485,100	Annual Increase	5.00%

**FY22 RWA Officer Annual Salaries with Recommended Merit Increase and Compared to Willis Tower Watson Salary Survey Data**

<u>Position</u>	<u>Officer</u>	<u>FY22 Salary</u>	<u>Recommended Percent Increase</u>	<u>Recommended increase \$</u>	<u>FY22 New Salary eff 08-01-21</u>	<u>Willis Tower Watson Base Pay*</u>		
						<u>25%</u>	<u>50%**</u>	<u>75%</u>
Pres & CEO	Bingaman, Larry	\$485,100	9.26%	\$44,900	\$530,000	\$475,000	\$565,000	\$670,000
VP & Chief Financial Officer	Kowalski, Rochelle	\$236,767	25.00%	\$59,192	\$295,959	\$293,550	\$345,050	\$401,700
CHRO & VP Corporate Services ***	Donna Verdisco	\$240,000	4.00%	\$9,600	\$249,600	\$243,477	\$286,761	\$340,867
VP Engineering & Env. Services	Sunny Lakshminarayanan	\$235,000	6.39%	\$15,017	\$250,017	\$242,689	\$270,530	\$330,939
VP Customer Service & CIDO***	Sigh, Prem	\$275,834	3.00%	\$8,275	\$284,109	\$281,351	\$330,046	\$389,562
VP Operations	N/A	N/A	N/A	N/A	N/A	\$216,300	\$257,500	\$303,850

Effective 09-01-22

**FY22 RWA Officer Annual Salaries with Recommended FY22 Year-end Bonus and Compared to Willis Tower Watson Total Rewards Survey Data**

<u>Position</u>	<u>Officer</u>	<u>FY22 Salary</u>	<u>Recommended FY 22 Bonus %</u>	<u>Recommended FY 22 Bonus \$ ****</u>	<u>FY 22 Total Rewards (FY22 Sal+Bonus)</u>	<u>Willis Tower Watson Total Rewards (Base Pay + Cash Bonus)*</u>		
						<u>Total Rewards 25th Target</u>	<u>Total Rewards 50th Target**</u>	<u>Total Rewards 75th Target</u>
Pres & CEO	Bingaman, Larry	\$485,100	20.00%	\$97,020	\$582,120	\$495,000	\$675,000	\$920,000
VP Chief Financial Officer	Kowalski, Rochelle	\$236,767	20.00%	\$47,353	\$284,120	\$401,700	\$473,800	\$551,050
CHRO & VP Corporate Svcs***	Donna Verdisco	\$240,000	8.00%	\$6,400	\$246,400	\$304,674	\$362,457	\$430,746
VP Engineering & Env. Services	Sunny Lakshminarayanan	\$235,000	8.00%	\$3,760	\$238,760	\$309,927	\$357,204	\$425,493
VP Customer Service & CIDO***	Singh, Prem	\$275,834	6.00%	\$16,550	\$292,384	\$367,710	\$430,746	\$504,288
VP Operations	N/A	N/A	N/A	N/A	N/A	\$272,950	\$329,600	\$386,250

\*\*\*\* 3mos sal  
\*\*\*\* 5mos sal

\* Market Salary Data from July 2021 and adjusted 3%, except CEO compensation that WTW updated on July 1, 2022  
 \*\* Target market pay for individual that is fully functional in role and exceeds performance  
 \*\*\* Indicates 20% added for responsibilities greater than job match  
 \*\*\*\* Bonus payout based on FY22 actual compensation received