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## Near-term Catalysts May Provide Opportunity in Water

Infrastructure-related ETFs have been one of the most popular thematic categories to emerge in 2021, as year-to-date net inflows reached \$4.2 billion in June (as of 6/30/21). As investors seek to capitalize on expectations of fiscal stimulus in the US, we believe infrastructure-related themes may gain further momentum in the months ahead. While there are many different types of “infrastructure” to consider, we find the water theme to be particularly compelling, supported by both long-term trends and potential near-term catalysts. Moreover, we infer that most investors have only minor exposure to this theme, as the ISE Clean Edge Water Index represents just 1.2% of the Russell 3000® Index’s market capitalization (as of 6/30/21). It is also possible that your average investor may think in terms of water utilities rather than water infrastructure companies with respect to this theme.

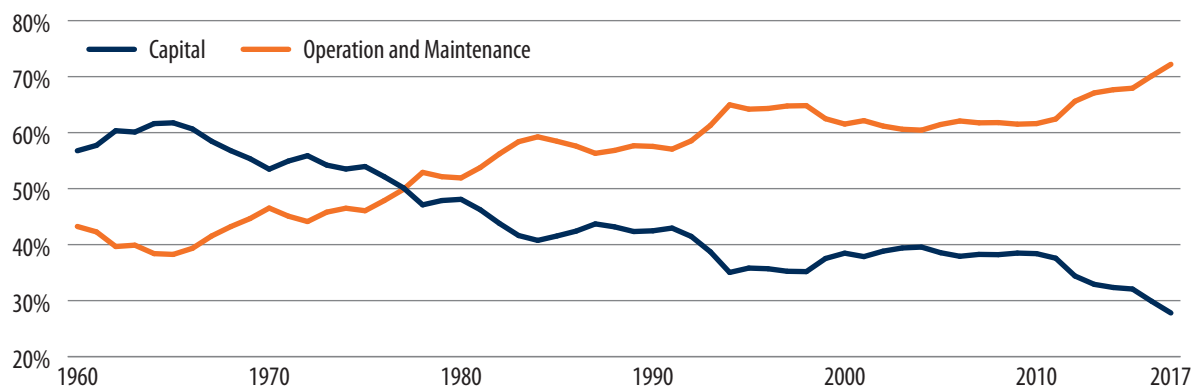
### Long-term Trends in Water

Water infrastructure is often taken for granted in the US, where clean, reliable drinking water is transported via 2.2 million miles of pipe to millions of people each day.<sup>1</sup> Wastewater infrastructure stretches an additional 1.3 million miles, and transports 62.5 billion gallons of wastewater to treatment facilities in the US each day.<sup>2</sup> This critical, life-sustaining infrastructure lies mostly underground and out of sight, where it’s been for decades. However, water infrastructure has a finite lifespan, and much of today’s water systems were originally installed during the surge in investments that followed World War II, or after the passage of the Clean Water Act of 1972.<sup>3</sup> Consequently, much of the nation’s critical water infrastructure has reached or exceeded its useful life and warrants significant capital investment. The American Water Works Association estimates that over the next two decades, most of the nation’s drinking water pipes will need to be replaced or repaired.<sup>4</sup> Moreover, wastewater treatment plants have an average lifespan of 40-50 years, meaning those that were constructed in the 1970s or earlier may soon need to be replaced.<sup>5</sup>

Despite some regions in the US grappling with water scarcity, 2.1 trillion gallons of treated drinking water are lost each year in the US due to leakage. Water main breaks, which increased by 27% from 2012 to 2018, now occur every 2 minutes.<sup>6</sup> Cost estimates for updating US water infrastructure vary, but according to the American Society of Civil Engineers—which recently gave US drinking water a grade of C- along with a grade of D+ to wastewater infrastructure—capital investments totaling \$3.3 trillion will be needed by 2039 to bring US water infrastructure up to an “A” or a “B” grade.<sup>7,8</sup>

### The Growing Burden of Operation and Maintenance Costs

Public Spending on Water Infrastructure by Type, 1960 - 2017



Source: Congressional Budget Office

Investments in water infrastructure today extend beyond simply replacing pipes and valves. By introducing new technologies, such as smart meters and monitoring systems, water utility operators may be able to detect leaks sooner, forecast when maintenance may be needed, and avoid unplanned repairs. Water quality issues may also be more easily identified with new technology, helping to avoid exposure to contaminants such as lead (think Flint, Michigan).

Water infrastructure is also a concern beyond the US, as two billion people lack access to safe drinking water, according to the UN.<sup>9</sup> By 2030, spending on water infrastructure is expected to reach between \$900 billion and \$1.5 trillion per year, accounting for 20% of global infrastructure spending.<sup>10</sup> With water demand expected to rise 55% by 2050, significant investment in water networks will be vital worldwide.<sup>11</sup>

## Potential Near-Term Catalysts for Water

While we view water as a long-term investment theme, we believe it may also be propelled by several important potential near-term catalysts, including:

- **Release of pent-up demand.** Many capital investment projects were postponed in 2020 because of lockdowns and budget constraints due to Covid-19. The Congressional Budget Office reports that state and local governments account for 90% of public spending on water infrastructure. They faced significant budget shortfalls in 2020. However, the \$1.9 trillion American Rescue Plan, passed in March 2021, allocated \$350 billion for state and municipal governments.<sup>12</sup> In our opinion, some of these funds may be allocated to delayed or overdue capital projects, potentially leading to a boost in water investment.
- **Economic reopening.** The reopening of the US economy will further boost demand for water resources in the near-term, in our opinion. We believe manufacturing, much of which is highly dependent on water resources, is likely to increase more rapidly than usual as companies seek to rebuild inventories and meet the strong demand for goods. Economists surveyed by The Wall Street Journal estimate real GDP growth to be 7.0% in the third quarter of 2021 and a still strong 5.4% in Q4, well above long-term levels.<sup>13</sup>
- **Fiscal stimulus.** On August 10th, the Senate passed a new \$1 trillion infrastructure package, which includes \$550 billion in new infrastructure spending, and earmarks \$55 billion for clean drinking water.<sup>14</sup> The House also needs to vote on this plan before it can be signed into law by President Biden. According to the White House, this represents the largest investment in clean drinking water in American history, providing dedicated funding to replace lead service lines and remove dangerous chemicals from our water system.<sup>15</sup>

## Investing in Water

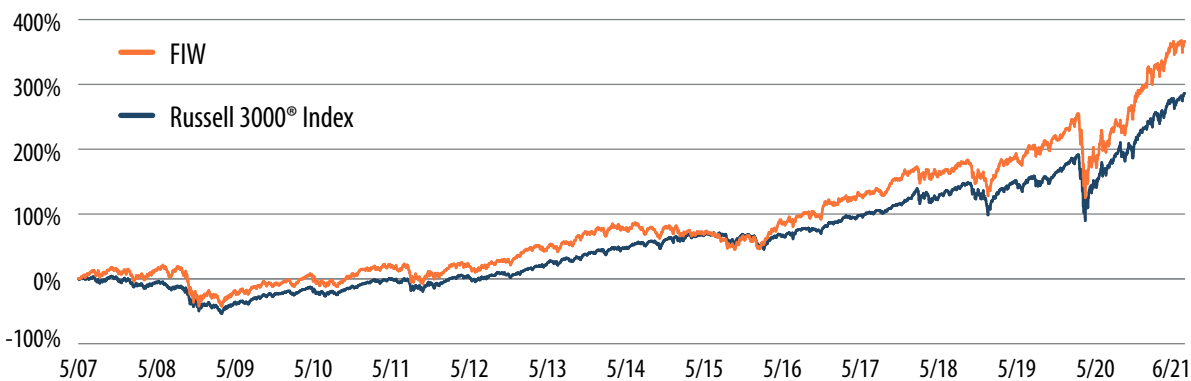
The First Trust Water ETF (FIW) may be a compelling way for investors to gain exposure to the water theme. FIW tracks the ISE Clean Edge Water Index, which is comprised of 36 stocks that are active in the drinking water and wastewater industries. These companies are involved in water distribution, infrastructure development, purification and filtration, or related services such as consulting, construction, and metering.

Since its inception in May 2007 through the end of the second quarter of 2021, FIW has been an under-the-radar outperformer, beating the Russell 3000® Index by 1.5 percentage points, despite being underweight the information technology sector, which was the best performing broad sector during that time.<sup>16</sup> The ETF has also outperformed the index over the past 1, 3, and 5 year periods through June 30, 2021.

In our view, long-term trends related to water scarcity and the need for large-scale infrastructure investments—as well as several compelling short-term catalysts—may drive growth for the water theme in the months and years ahead. We believe FIW may be an effective tool to capitalize on these trends.

### First Trust Water ETF (FIW) vs. Russell 3000® Index

Total Returns, 5/08/2007 - 6/30/2021



Source: Bloomberg.

**Performance data quoted represents past performance. Past performance is not a guarantee of future results and current performance may be higher or lower than performance quoted. Investment returns and principal value will fluctuate and shares when sold or redeemed, may be worth more or less than their original cost. You can obtain performance information which is current through the most recent month-end by visiting [www.ftportfolios.com](http://www.ftportfolios.com).**

<sup>1,2,5,6,7</sup> American Society of Civil Engineers, 2021 Report Card for America's Infrastructure.

<sup>3,8</sup> American Society of Civil Engineers, "The Economic Benefits of Investing in Water Infrastructure", 2020.

<sup>4</sup> American Water Works Association, Buried No Longer: Confronting America's Water Infrastructure Challenge.

<sup>9</sup> [unwater.org](http://unwater.org), 2021.

<sup>10</sup> [unesdoc.unesco.org](http://unesdoc.unesco.org), 2021.

<sup>11</sup> Bloomberg, 2021.

<sup>12</sup> The Washington Post, 2021.

<sup>13</sup> The Wall Street Journal, 2021.

<sup>14</sup> BloombergNEF, 2021.

<sup>15</sup> [Whitehouse.gov](http://Whitehouse.gov), 2021.

<sup>16</sup> FactSet.

### **Risk Considerations**

A fund's return may not match the return of its underlying index. A fund invests in securities included in the index regardless of investment merit and the securities held by a fund will generally not be bought or sold in response to market fluctuations.

Investors buying or selling fund shares on the secondary market may incur customary brokerage commissions. Market prices may differ to some degree from the net asset value of the shares. Investors who sell fund shares may receive less than the share's net asset value. Shares may be sold throughout the day on the exchange through any brokerage account. However, unlike mutual funds, shares may only be redeemed directly from a fund by authorized participants in very large creation/redemption units. If a fund's authorized participants are unable to proceed with creation/redemption orders and no other authorized participant is able to step forward to create or redeem, fund shares may trade at a discount to a fund's net asset value and possibly face delisting.

A fund's shares will change in value, and you could lose money by investing in a fund. One of the principal risks of investing in a fund is market risk. Market risk is the risk that a particular stock owned by a fund, fund shares or stocks in general may fall in value. There can be no assurance that a fund's investment objective will be achieved. The outbreak of the respiratory disease designated as COVID-19 in December 2019 has caused significant volatility and declines in global financial markets, which have caused losses for investors. While the development of vaccines has slowed the spread of the virus and allowed for the resumption of "reasonably" normal business activity in the United States, many countries continue to impose lockdown measures in an attempt to slow the spread. Additionally, there is no guarantee that vaccines will be effective against emerging variants of the disease.

As the use of Internet technology has become more prevalent in the course of business, funds have become more susceptible to potential operational risks through breaches in cyber security.

Depository receipts may be less liquid than the underlying shares in their primary trading market.

A fund may be a constituent of one or more indices or models which could greatly affect a fund's trading activity, size, and volatility.

There is no assurance that the index provider or its agents will compile or maintain the index accurately.

Securities of non-U.S. issuers are subject to additional risks, including currency fluctuations, political risks, withholding, the lack of adequate financial information, and exchange control restrictions impacting non-U.S. issuers.

A fund and a fund's advisor may seek to reduce various operational risks through controls and procedures, but it is not possible to completely protect against such risks.

A fund with significant exposure to a single asset class, industry, or sector may be more affected by an adverse economic or political development than a broadly diversified fund.

Securities of small- and mid-capitalization companies may experience greater price volatility and be less liquid than larger, more established companies.

Trading on the exchange may be halted due to market conditions or other reasons. There can be no assurance that the requirements to maintain the listing of a fund on the exchange will continue to be met or be unchanged.

Water companies can be significantly affected by the availability of water, the level of rainfall and the occurrence of other climatic and environmental events, changes in water consumption and water conservation. Water companies may also be negatively affected by changes in governmental regulation and spending, technological advances and increases in inflation, interest rates or the cost of raw materials. Water companies may be subject to liability for environmental damage, depletion of resources, conflicts with local communities over water rights and mandated expenditures for safety and pollution control.

First Trust Advisors L.P. is the adviser to the fund. First Trust Advisors L.P. is an affiliate of First Trust Portfolios L.P., the fund's distributor.

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### **Definition**

The **Russell 3000® Index** is comprised of the 3000 largest and most liquid stocks based and traded in the U.S.

## Performance Summary (%)

|                            | Inception Date | Expense Ratio <sup>^</sup> | As of 7/30/21 |       | As of 6/30/21 |        |        |         |                      |
|----------------------------|----------------|----------------------------|---------------|-------|---------------|--------|--------|---------|----------------------|
|                            |                |                            | 3 Month       | YTD   | 1 Year        | 3 Year | 5 Year | 10 Year | Since Fund Inception |
| <b>FIW Performance*</b>    | 5/8/2007       | 0.54%                      |               |       |               |        |        |         |                      |
| NAV                        |                |                            | 6.87          | 21.56 | 50.67         | 20.96  | 19.69  | 14.60   | 11.48                |
| Market Price               |                |                            | 6.77          | 21.49 | 50.82         | 20.96  | 19.70  | 14.61   | 11.49                |
| <b>Index Performance**</b> |                |                            |               |       |               |        |        |         |                      |
| ISE Clean Edge Water Index |                |                            | 7.02          | 21.96 | 51.55         | 21.74  | 20.32  | 15.29   | 12.18                |
| Russell 3000® Index        |                |                            | 4.67          | 17.06 | 44.16         | 18.73  | 17.89  | 14.70   | 10.03                |

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\*NAV returns are based on the fund's net asset value which represents the fund's net assets (assets less liabilities) divided by the fund's outstanding shares. Market Price returns are determined by using the midpoint of the national best bid offer price ("NBBO") as of the time that the fund's NAV is calculated. Returns are average annualized total returns, except those for periods of less than one year, which are cumulative. The fund's performance reflects fee waivers and expense reimbursements, absent which performance would have been lower.

\*\*Performance information for the ISE Clean Edge Water Index is for illustrative purposes only and does not represent actual fund performance. Indexes do not charge management fees or brokerage expenses, and no such fees or expenses were deducted from the performance shown. Indexes are unmanaged and an investor cannot invest directly in an index.

<sup>^</sup>Expenses are capped contractually at 0.60% per year, at least until April 30, 2022.