

# Palisades Water Index Palisades Global Water Index

Q4 2009

December 31, 2009

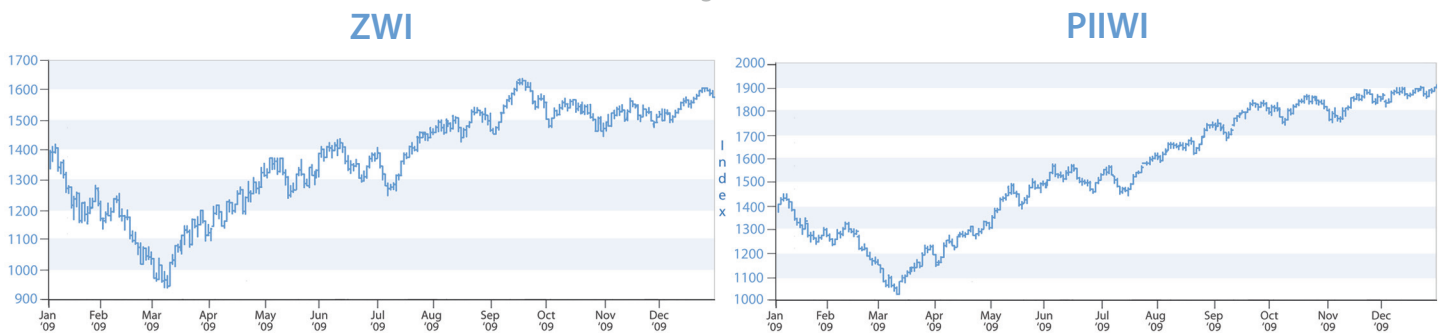
Index Ticker symbol

AMEX: ZWI

AMEX: PIIWI

## 12 Months Index Value

source: Big Charts.com



## Summary

The Palisades Water Index (ZWI) advanced 1.09% and the Palisades Global Water Index (PIIWI) gained 5.23% in the fourth quarter of 2009. For the full year ZWI gained 17.16% and PIIWI advanced 38.42%. For comparison the DJIA was up 18.82%, the S&P 23.45%, and the MSCI World Index was ahead 26.98% for 2009. While

the variation in performance among the many benchmark indices over the duration of the severe market downturn depends critically on component class composition, the longer view is telling. Accordingly, over the five-year period ZWI and PIIWI gained 26.48% and 44.61% respectively while the S&P actually lost about 8%. Regardless of any regression to the mean characterized by broad market averages, the singular dynamics of the water industry are apparent; demand is entering a protracted phase of divergence from available supply. This occurrence will necessitate a transition in the governing water institutions – an inestimable change that is fundamentally compelling for investors in water (see Industry Spotlight).

Performance in both indexes was not impacted by sector dynamics. At this point performance is far more dependent on individual component characteristics than on the functional water sector. Even international distinctions and the developed/developing dichotomy did not significantly influence performance within the indexes. Between water indexes, however, the global influence was dramatic. The gains in PIIWI relative to ZWI accelerated beginning in the second quarter of 2009, demonstrating the benefit of allocating funds committed to water between asset class characteristics; i.e., the two complimentary Palisades water indexes. Based on a relative strength allocation between ZWI and PIIWI there is a consistent opportunity to significantly add alpha to a water investment strategy.

## Trailing Returns

	YTD	1 Month	3 Months	6 Months	1 Year	3 Years	5 Years
ZWI	16.26%	5.59%	1.09%	14.89%	16.26%	-3.99%	26.48%
PIIWI	38.42%	3.33%	5.23%	23.53%	38.42%	-7.42%	44.61%
S&P 500	23.45%	1.78%	5.49%	21.30%	23.45%	-21.38%	-7.99%
Nasdaq	43.89%	5.81%	6.91%	23.66%	43.89%	-6.05%	4.31%

## Q4 2009 Top and Bottom Component Performance

### ZWI

Top 5 Companies	Symbol	% Change	Bottom 5 Companies	Symbol	% Change
Nalco Holding	NLC	+24.50%	Ameron International	AMN	-9.32%
Instituform Technology	INSU	+18.70%	Layne Christensen	LAYN	-10.42%
American Water Works	AWK	+12.44%	Consolidated Water	CWCO	-12.49%
Pall Corp	PLL	+12.14%	Veolia Environnement	VE	-14.58%
Danaher Corp	DHR	+11.71%	Northwest Pipe	NWPX	-19.89%

### PIWI

Top 5 Companies	SEDOL	% Change	Bottom 5 Companies	SEDOL	% Change
Uponor Oyi	5232671	+31.93%	Puncak Niaga Holding BHD	B1SC1H8	-5.26%
ARCADIS N.V.	5769209	+26.08%	Valmont Industries	2926825	-6.28%
Nalco Holding	B03Q9G3	+24.99%	Organo Corp	6470522	-10.25%
Guangdong Investment Ltd.	6913168	+17.28%	Veolia Environnement	4031879	-11.68%
Hyflux Ltd.	6320058	+16.39%	Acea S.p.A.	5728125	-16.42%

## Industry Spotlight

### The Benefit of Water Institution Reform

This final segment on water institution reform focuses on the benefit of transitioning water institutions. To get to this point the logic has been as follows: (1) the link between the availability of water and economic growth is deepening, (2) a 'green recovery' is embedded in global stimulus packages designed to hasten economic activity, and (3) institutional reform is critical to the realization of global environmental and sustainability objectives. Social, environmental and economic goals and policies must be integrated into decision making to achieve sustainable solutions; the institutions that govern human activity define the degree of integration. The point is that institutions are a major determinant of economic performance and a key factor in understanding differences in economic growth between countries. As the availability and accessibility of water

becomes 'economically binding' and the public subsidies 'fiscally constraining,' the social underpinnings and the associated role of government in water institutions must be modified.

Many aspects of water in an age of scarcity exhibit the characteristics of private goods, for which market-based solutions provide the most efficient allocation of resources. Yet the foundations upon which many water institutions are organized rest on the notion of water as a pure public good. Water institutions were configured based on the acceptance of market failure. Accordingly, the motivation behind water reform is to unbundle the assumption that water is categorically a public good from the institutional economics of water.

There are indications, both ideological and pragmatic, that water institutions are entering a prolonged period of transition to reflect the growing reality of temporal and spatial scarcity. The bottom line is that institutional change is extraordinarily

positive for the water industry. The investment ramifications of water institution reform are pervasive; proverbially, "a rising tide lifts all boats." The reality first and foremost is that an era of water institutional change will serve to give the fragmented, ultra-diversified water business an industrial identity. It certainly isn't going to happen overnight but the transitioning governance of water is what is needed to coalesce the disparate parts into an economically vibrant whole.

Recall that the definition of a water institution includes not only regulatory bodies, non-governmental organizations (NGO's), and water property rights but also the less obvious formal and informal 'rules' governing water management and allocation such as water rate ordinances and public-private arrangements. With respect to the private sector's involvement in water there is a great deal of debate associated with the concept of 'privatization.' Several points should

be clarified here. First, privatization is often mischaracterized as the private ownership of water resources. Second, privatization and consolidation are based on very different economic drivers. And third, the notion of institutionalizing water as a private good and the process of privatization are not synonymous. In the context of the transitioning institutional economics of water, private sector participation (PSP) is regarded as a critical mechanism in achieving social and regulatory objectives. The many benefits of water institutional change are best illustrated through example.

Water rates fall within the purview of institutional reform. And while it is unrealistic to assume that usage rates will meet the strict economic requirements for the efficient allocation of a resource (i.e., something close to full absorption marginal cost pricing) the industry has at least shown some initiative in extending its usual back

door approach to raising rates. An interesting example is provided by the Richmond Department of Public Utilities. With the increasing regulatory focus on stormwater runoff, many water utilities face yet another unfunded mandate. The Richmond DPU has responded to the need to fund the protection of the Chesapeake Bay watershed under their jurisdiction by essentially creating a distinct stormwater utility. By implementing dedicated stormwater utility rates the Richmond DPU can directly manage stormwater regulatory compliance, capital improvements, and all associated costs of stormwater utility service.

Institutional water reform is also evidenced throughout the world. Particularly in developing and frontier countries the extent of water governance is couched in terms of the basic regulatory institutions that developed countries have had in place for decades. Even in countries considered

developed, however, there is an enormous need for institutional reforms. For example, the Russian water sector is at a developmental inflection point—rich in available freshwater supplies but facing a debilitating deterioration in water and wastewater assets. Planned reform of its Concession Law is designed to promote private investment in municipal water utilities (known in Russia as vodokanals). The Russian Federation represents a huge opportunity for water companies.

In the United States, institutional transition can be seen in the EPA's trend toward a water quality based methodology and away from the command and control approach. Traditional command and control (standards and enforcement) combined with single media laws (regulations that treat land, air, water and living resources as separate entities), often precludes the application of alternative

## Top Ten Components as of December 31, 2009

### ZWI Components

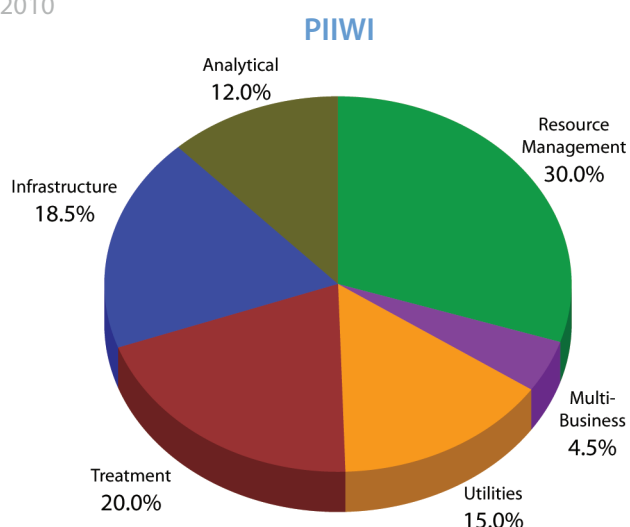
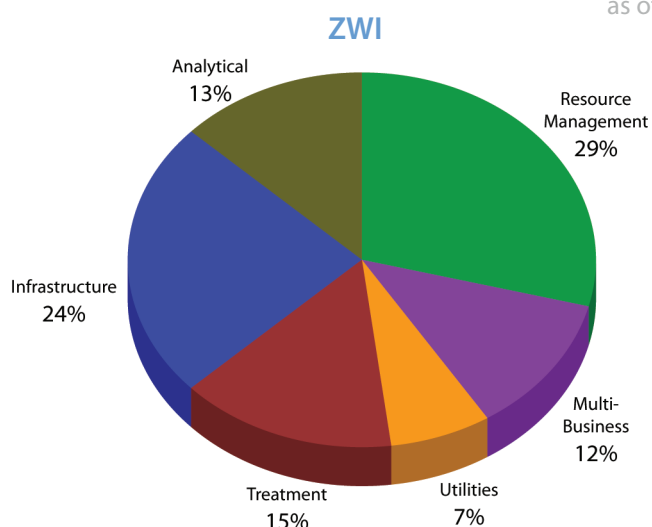
Company Name	Symbol	% Weighting
Tetra Tech	TTEK	4.91%
Veolia Environnement	VE	4.88%
URS Corp	URS	4.81%
Aecom Technology	ACM	4.77%
Valmont Industries	VMI	4.75%
Lindsay Corp	LNN	4.71%
Itron Inc.	ITRI	4.39%
Danaher	DHR	4.39%
Badger Meter	BMI	4.29%
Ameron International	AMN	4.09%

### PIWI Components

Company Name	SEDOL	% Weighting
Nalco Holding Co.	B03Q9G3	6.16%
ARCADIS N.V.	5769209	5.89%
Hyflux Ltd.	6320058	5.66%
Stantec Inc	2854238	5.46%
Tetra Tech	2883890	5.16%
Suez Environnement	B3B8D04	4.89%
Kemira Oyj	4513612	4.57%
Valmont Industries	2926825	4.57%
Kurita Water	6497963	4.26%
Veolia Environnement	4031879	4.10%

## Sector Weights

as of January 1, 2010



solutions such as market mechanisms and economic incentives. The EPA's institutional approach is transitioning to water quality based programs that focus on holistic, integrated water resource initiatives. As evidenced by watershed-wide regulations and total maximum daily load (carrying capacity) programs, the reform in U.S. water institutions presents a new generation of business opportunities for water companies.

A final example is the transfiguration of water institutions at the global level. Since there is no world government, these institutions are necessarily non-governmental organizations; consisting primarily of United Nations-related entities. Global governance does not presume a global gov-

ernment, however, and can be viewed as a proxy in achieving state-like objectives (providing public goods) on a global basis. A good example is the effort to create a global institution for governing carbon emissions. Global warming is an example of a pervasive externality for which market failure warrants government involvement. Hopefully, the formation of global water institutions will not be as politically challenging as the creation of global climate change institutions. While water may not be subject to global governance as literally as the atmosphere, comprehensive water policy, integrated management, multi-media regulation and compliance are increasingly seen as transnational or interregional issues. Such multilateralism

with respect to water is the key to the transition of global institutions such as the World Health Organization, the IMF and the World Bank. Again, these changes hold enormous opportunities for water companies.

This is but a small sampling of water institutional reform; an emerging driver of the fundamental investment opportunity in water. But it is clear that water is quickly becoming the defining resource of the 21st century. Given the depth and expanse of the changes underway, a diversified approach to the water industry is essential. The design and methodology of the Palisades Water Indexes were specifically engineered to optimize exposure to the unique investment potential of a dynamic water industry.

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