

GE Power & Water
Water & Process Technologies

Modular ABMet* Introduction



imagination at work

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ecomagination

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Why is selenium a concern?



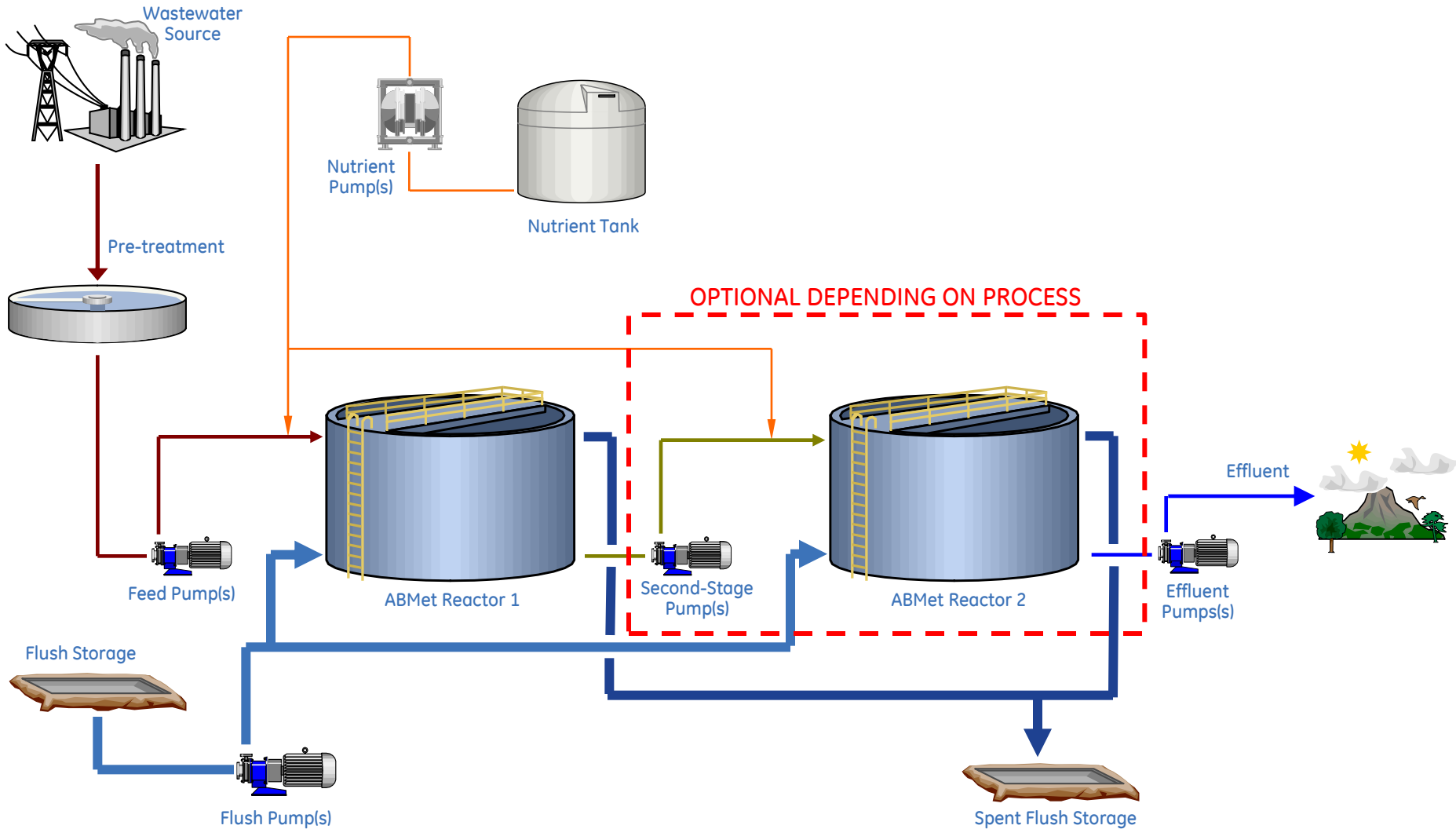
Increasingly stringent NPDES limits with new EPA fish-tissue guidelines expected in early 2011 and EPA technology-based Steam-Electric Effluent Limitation Guideline expected in next 2-3 years

Why ABMet biological treatment for Se?



- Simple and efficient
- Removes both selenate and selenite
- Produces minimal sludge
- Low operating and maintenance costs
- Proven at scale
- Guaranteed performance

ABMet flow diagram



ABMet modular approach



Why Modular?

- Reduce project execution cycle time by 50%+
 - Reduce up-front engineering time
 - Reduce BOP engineering time and scope
 - Reduce construction and installation time
- Reduce total project cost by 10-20%
 - Reduce project costs
 - Provide a rapid execution offering for clients based on GE standards
 - Provide optimized starting point for projects with customization

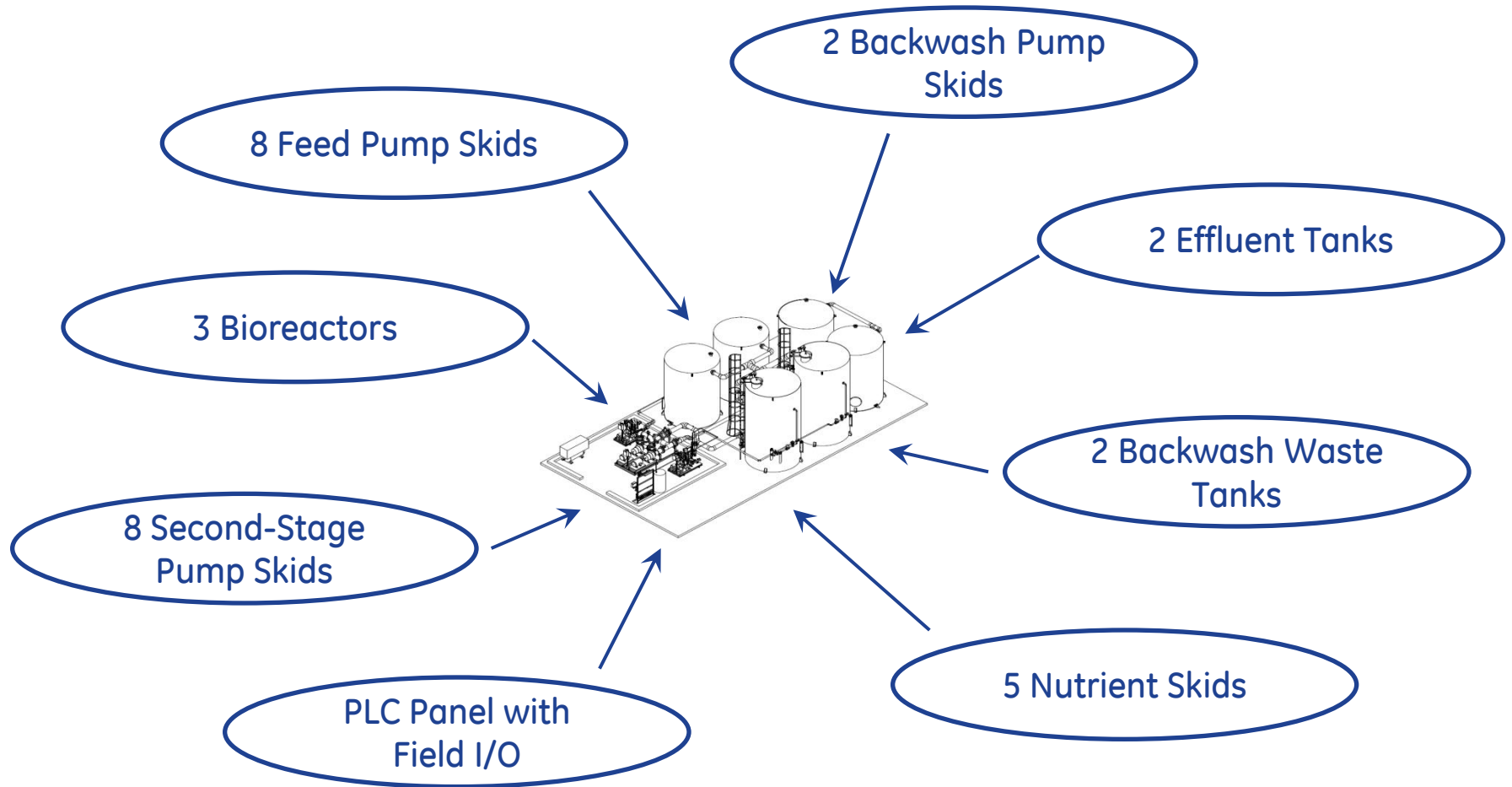
Design parameters (Modular)

Constituent	Influent value	Effluent value
TDS	< 8,000 ppm	< 8,000 ppm
TSS	< 200 ppm	< 20 ppm
pH	6-9	6-9
Temperature	40-105 °F	
Nitrate	< 250 ppm	ND < 1 ppm
Mercury	< 5 ppb	< 0.012*
Other metals	< 10 ppm	< 0.01 ppm
Selenium	< 10 ppm	< 0.005 ppm

*With additional treatment process, depending on specific water chemistry

Total denitrification
Ultra-low selenium effluent concentration

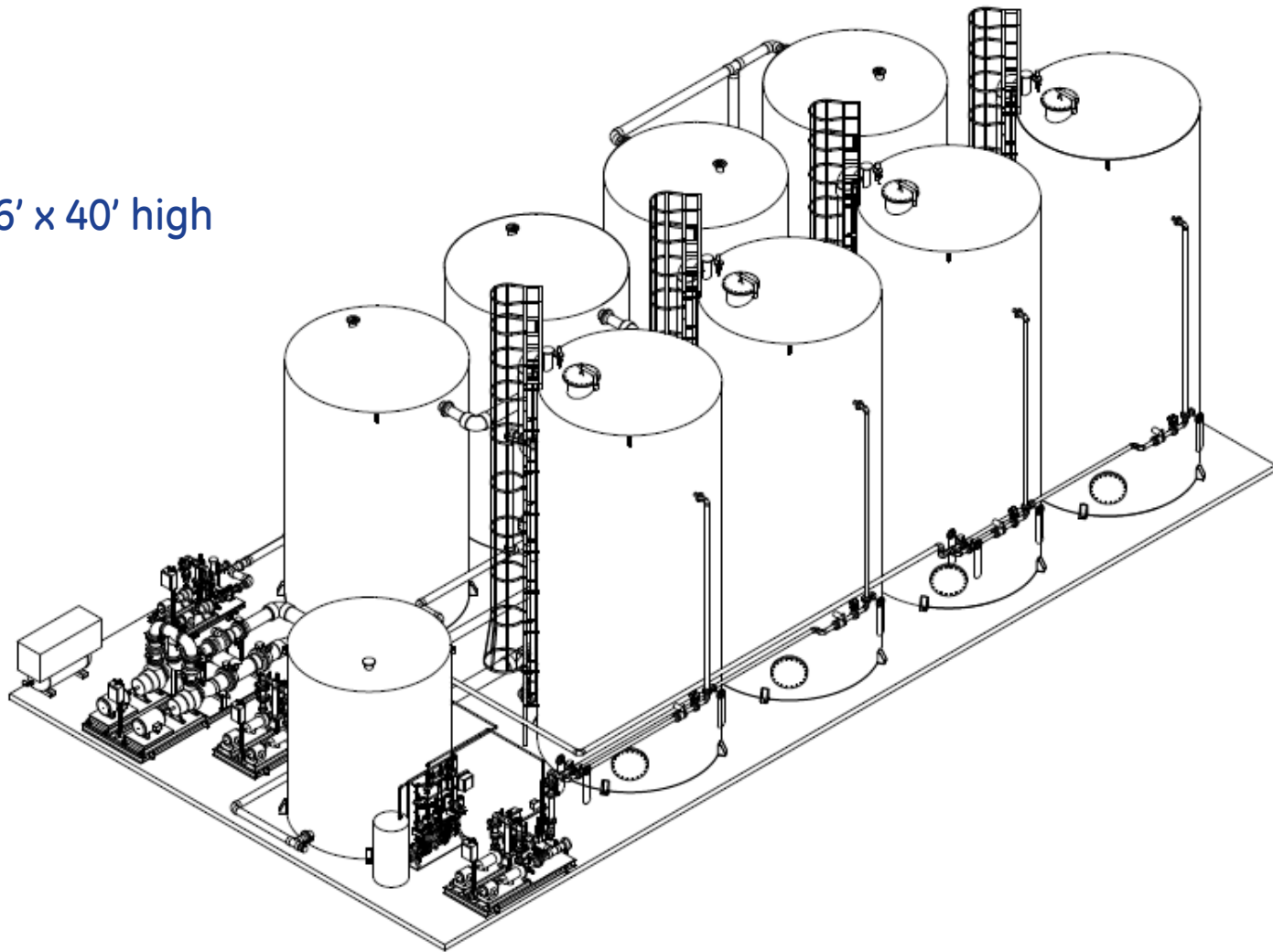
The modular approach



Plus integration, pre/post-treatment, specification modifications

400 GPM, 1-stage, 4-train, 4 hour

45' x 86' x 40' high



Thank You!

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<http://www.gewater.com/ABMet.jsp>