

VERSION 1.1

Wastewater Program

Volume 2: Primary Treatment

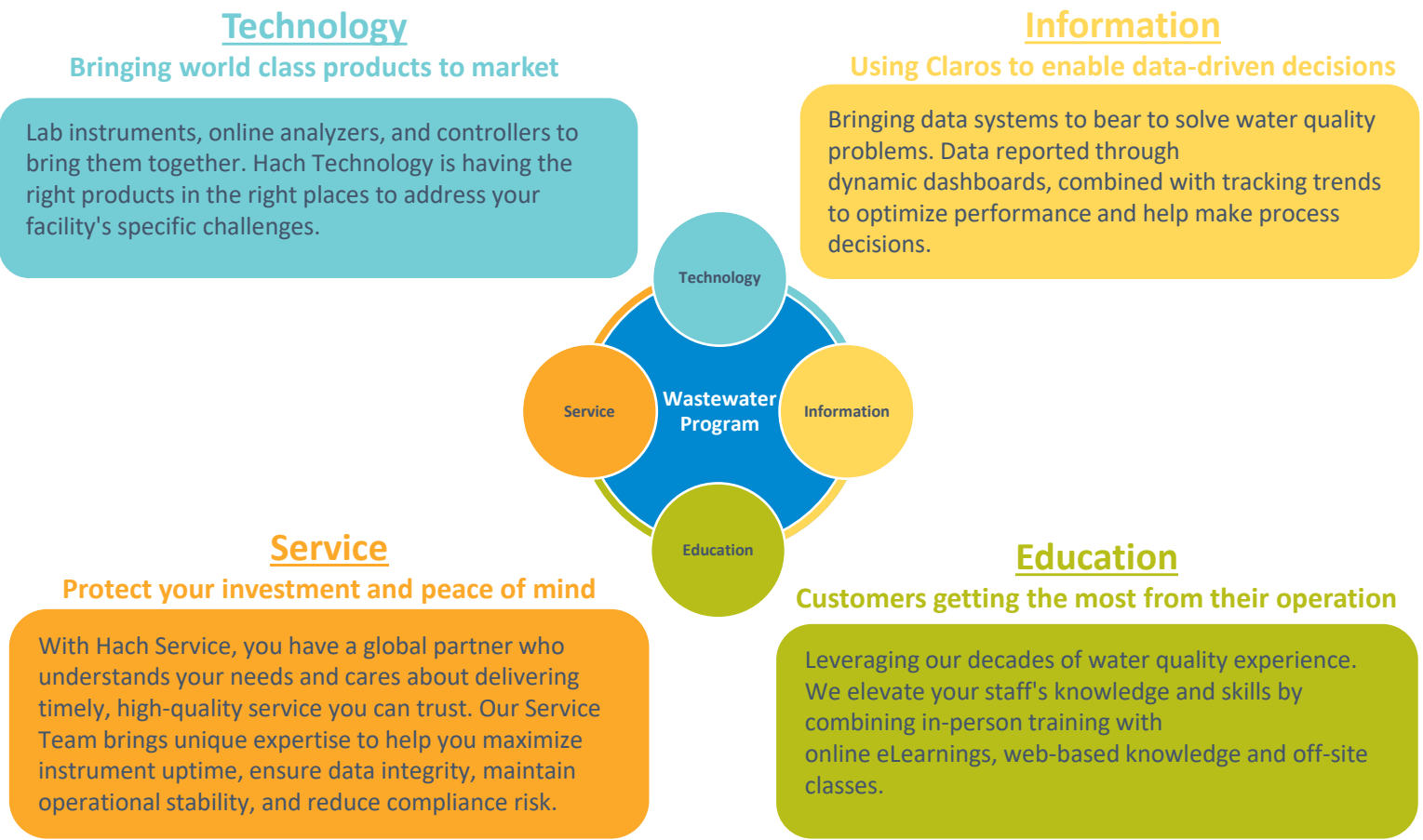


The Idea: That The Whole Is Greater Than The Sum Of Its Parts

Hach’s Wastewater Program delivers comprehensive solutions to today’s wastewater challenges. By combining the efforts of four pillars:

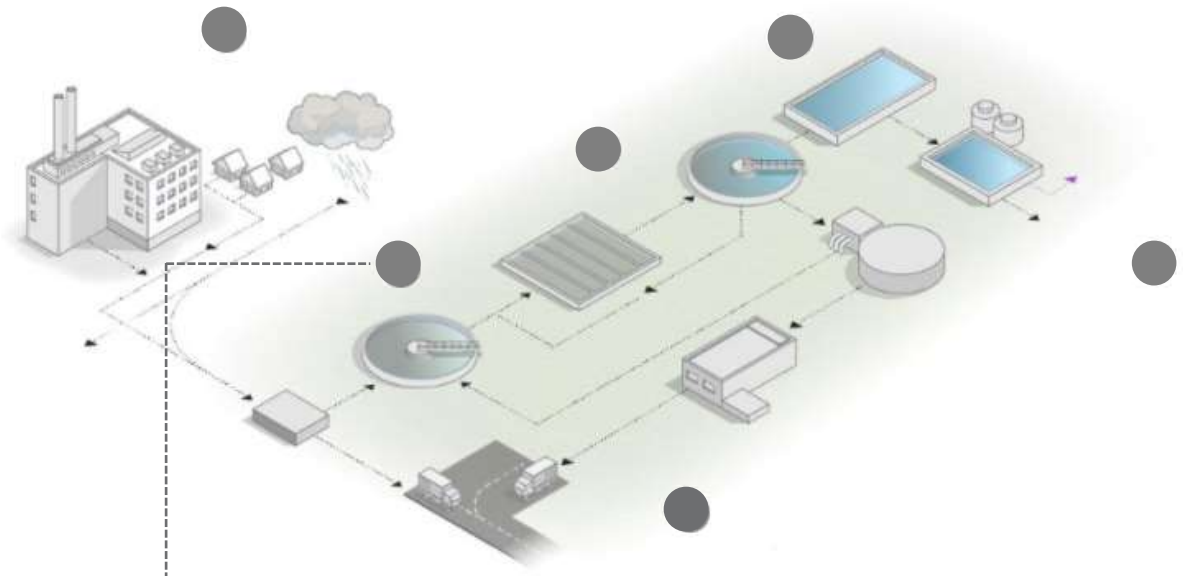
Technology
Information
Education
Service

Hach is able to offer customers benefits that will help them solve their toughest challenges. These pillars work in concert to provide reliable, accurate measurements that feed into intuitive data systems to support customer decision-making.



The Impact: Trustworthy Results From Influent To Consumer

The Wastewater Program consists of [6 sections](#), aligned with the different stages of the Wastewater process. This Program will focus on Sludge Management and Solids Handling.



Primary Treatment Applications

Protect the Plant
(including before
and/or after
Pretreatment)

Primary Clarifier
Management

Primary Treatment Opportunities and Challenges

	Customer Challenges	Parameters
Protect the Plant (Including before and/or after pretreatment)	Optimize/Adapt/ Help Treatment Settings - To gather information as early as possible regarding what is entering the plant (watchdog) - To adapt treatment to unexpected influent changes hydraulic (flow) and loading (all parameters) - Unexpected high pollutants concentrations or toxic discharges can have an impact on the plant, on the biology and on the treatment performances.	pH, Conductivity, TOC, toxicity, ORP Ammonia, COD, BOD, SS, Total Nitrogen, TKN, TOC, TP
Primary Clarifier Management	Monitoring of Primary Clarifier Including: - Monitoring of carbon/solids removal of primary clarifier - Monitoring of carbon loading into biological reactors - Monitoring of sludge levels and removal	COD, BOD, SS, Phosphate, pH, TOC, Sludge Level
	Utilize Reagents in Primary Clarifier - If it's a primary treatment with reagents the challenge is to dose in relation with the load [organic/solids] - Over treat-you may lack carbon source for denitrification process - Under-treatment may lead to overloading of the biological stage and less methanogenic sludge production units - Monitoring phosphorus removal (if primary treatment aims at treating phosphorus)	

Primary Treatment Core Applications

		Protect the Plant (Including before and/or after pretreatment)	Primary Clarifier Management
Technology	Process	B7000: TOC/TN/TP Analyzer , Conductivity Sensor , EZ Toxicity , EZ TN/TP , Phosphax: Phosphate Analyzer , pH & ORP Sensors , Solitax: Suspended Solids , UVAS ,	B7000: TOC/TN/TP Analyzer , Phosphax: Phosphate Analyzer , Solitax: Suspended Solids , Sonatax: Sludge Level , UVAS ,
	Controller	SC1000 , SC1500 , SC4200 , SC200	
	Lab	DR3900 & DR6000 Spectrophotometer , HQ Series , Peristaltic Samplers , Vacuum Samplers , TOC Xpert , Xpert TOC Analyser ,	
Information	Claros Digital Solutions	Instrument Management , RTC - P (PPO4 Precipitation) , RTC- Sludge Thickening	
Education	Learning Courses	B7000 Process , Dissolved Oxygen , Intro to pH , pH Technology , Intro to TOC , Measuring TOC , Turbidity Technology , Solitax Sensor	
	*Workshop Training	Intro to pH Lab Basics Lab Skills- Intro to Turbidity pHD sc &sc200/sc1000 –Online Analysis Turbidity Process Instrument Verification	
Service	Maintenance	Warranty Plus Partnership , Bench Service Partnership , Field Service Partnership , Smaller Service Options	