



Capacity Assurance & Intelligence Program

BCAIP

Collect. Monitor. Clean. Restore.

A fully managed infrastructure assurance platform — the only program built on the ability to clean tanks online, with the asset fully in service.

The Bristola Advantage: Online Cleaning — A Capability No One Else Offers

Bristola is the only company in the world capable of cleaning tanks online — through a standard manhole at ground level — removing accumulated sediment while processing the liquid and returning it to the tank, all while the asset remains fully in service.

No draining. No downtime. No confined space entry. No lost production. No disruption to facility operations.

This proprietary capability is the foundation of BCAIP. It is the reason Bristola can do what no monitoring firm, consultant, or traditional cleaning contractor can: intervene early, intervene often, and intervene at near-zero operational cost to the client.

Every other approach to sediment management forces facilities to choose between living with lost capacity or taking the asset out of service. Bristola eliminates that choice entirely.

Program Overview

The Bristola Capacity Assurance & Intelligence Program (“BCAIP”) is a fully managed infrastructure assurance platform built on four integrated commitments:

- **COLLECT** — Proprietary sediment analyzers and flow monitoring systems continuously collect live operational data from each participating asset.
- **MONITOR** — Bristola’s predictive modeling platform continuously evaluates sediment accumulation, effective operating volume, hydraulic retention impacts, and capacity utilization in real time.
- **CLEAN** — As monitoring identifies capacity reduction, Bristola proactively performs online sediment removal — through the manhole, at ground level, with the asset in full service — keeping capacity within target operating thresholds.
- **RESTORE** — Once per five-year program term, Bristola performs a comprehensive Capacity Restoration Event at a set, pre-agreed deductible, restoring the asset to target effective capacity and creating the window for the client’s planned maintenance activities.

This is a closed-loop operational assurance system: monitor, model, predict, clean, validate, and continuously preserve infrastructure performance. Clients are not paying for reports, recommendations, or alarms. Clients are paying for preserved operating capacity — measured, managed, and maintained by Bristola.

Not Just Monitoring — Actual Maintenance & Resolution

Monitoring companies identify problems and leave execution to others. Traditional cleaning contractors respond after failure, perform isolated projects, and leave until the next emergency. Bristola closes both gaps — and is the only company technologically capable of doing so without taking the asset offline.

Under BCAIP, Bristola:

- Continuously monitors infrastructure conditions with proprietary analyzers

- Predicts accumulation trends before they become operationally visible
- Proactively performs online sediment removal as capacity reduction is detected
- Restores full target capacity through the included five-year Capacity Restoration Event
- Validates restored capacity with measured, before-and-after data
- Maintains long-term infrastructure performance across the life of the program

Facilities move from reactive emergency maintenance to continuously managed infrastructure reliability.

Aligned Incentives: Why the Bristola Model Works in the Client's Favor

BCAIP is structured so that Bristola succeeds only when the client's infrastructure performs.

Because routine online sediment removal is included in the monthly program fee — and the five-year Capacity Restoration Event is provided at a set deductible — Bristola has no incentive to recommend unnecessary cleanings. The opposite is true: Bristola's incentive is to keep sediment accumulation low through efficient, early, low-cost intervention, so that major restoration work stays small and infrequent.

Traditional contractors profit when tanks get worse. Bristola profits when tanks stay healthy. That is the alignment at the core of the program.

Real-Time Sediment Intelligence System

At the core of BCAIP is Bristola's proprietary sediment intelligence platform. Each participating asset may be equipped with:

- Influent sediment analyzers
- Discharge sediment analyzers
- Flow monitoring systems
- Bristola predictive modeling software

The system continuously evaluates solids entering the asset, solids leaving the asset, estimated retained sediment, hydraulic retention impacts, and projected accumulation rates. Using live operational data, the platform calculates:

- Estimated sediment accumulation and effective volume loss
- Projected maintenance timelines
- Capacity utilization trends
- Operational risk indicators

Every Bristola cleaning operation feeds measured, ground-truth data back into the model. Because Bristola both monitors and physically removes sediment, each site's predictive model is calibrated against actual removal volumes — a validation loop no monitoring-only firm can replicate.

Client Dashboard Features

Clients receive access to live operational analytics including:

- Estimated effective operating volume
- Estimated sediment accumulation
- Hydraulic retention trend analysis
- Capacity utilization percentage
- Maintenance forecast timelines
- Risk scoring and operational trend reporting
- Historical accumulation tracking
- Maintenance event history with validated before-and-after capacity data



The Economics: What Sediment Actually Costs

Most facilities already pay for sediment — they just pay for it unpredictably. The true cost of a traditional reactive cleanout typically includes:

- Taking the asset out of service — often for days or weeks
- Lost production, throughput, or treatment capacity during the outage
- Draining, hauling, and disposal costs
- Confined space entry exposure and the associated safety and liability burden
- Emergency mobilization premiums
- Capacity silently lost for months or years before the cleanout was triggered

BCAIP converts these unpredictable, episodic, and operationally disruptive costs into a predictable monthly operating expense — while the online cleaning capability eliminates the single largest cost of all: downtime.

With BCAIP, the asset never leaves service for routine sediment management. For most facilities, downtime avoidance alone justifies the program.

Deployment Structure

Initial Infrastructure Deployment

Each participating asset undergoes baseline sediment assessment, infrastructure underwriting, analyzer installation, software calibration, operational modeling, and system commissioning.

Typical Deployment Fee: \$5,000–\$30,000+ per asset

Depending upon infrastructure complexity, analyzer configuration, access requirements, and operational environment.

Monthly Assurance Program

Following deployment, clients enter Bristola's recurring assurance program.

Monthly Program Includes:

- Real-time sediment analytics and predictive accumulation modeling
- Continuous infrastructure monitoring and capacity assurance management
- Proactive maintenance scheduling based on actual asset conditions
- Included routine online sediment removal operations — performed through the manhole at ground level with the asset in full service — as monitoring identifies capacity reduction, subject to program thresholds defined in each agreement
- Dashboard access and operational reporting
- Priority response status
- Annual system recalibration

Typical Monthly Fees: \$4,000–\$25,000+ per month per asset

Depending on asset size, sediment loading, risk classification, assurance thresholds, and operational criticality.

The Five-Year Capacity Restoration Event

In addition to routine online sediment management, each five-year program term includes one comprehensive Capacity Restoration Event per enrolled asset, provided at a set, pre-agreed deductible established at underwriting.

What the Restoration Event Provides

- A full-scale online restoration of the asset to its target effective operating capacity

- A planned, scheduled window that enables the client to perform inspections and maintenance activities on their own timeline — coordinated, not forced by emergency
- Validated before-and-after capacity measurement documenting restored volume
- A recalibrated predictive model based on measured restoration data

How It Works

- The deductible is fixed at program signing — no surprise pricing, no emergency premiums, no scope creep
- Timing is driven by the platform's monitoring data and coordinated with the client's operational and maintenance calendar
- Because Bristola's routine online maintenance keeps accumulation managed throughout the term, the Restoration Event remains a planned, controlled operation rather than a catastrophic recovery
- Restoration Events are provided on a per-term basis and are scheduled within the program term

This structure gives clients what no traditional contract can: a known, capped cost for major capacity restoration, secured years in advance.

Program Terms & Structure

Term

BCAIP agreements are structured as five-year terms, aligned with the included Capacity Restoration Event. Multi-asset and multi-site portfolio structures are available.

Equipment

All analyzers, sensors, and monitoring hardware remain the property of Bristola and are maintained, calibrated, and upgraded by Bristola throughout the term at no additional equipment cost to the client.

Data & Platform

The predictive modeling platform, underwriting models, and accumulated analytical datasets are proprietary to Bristola. Clients receive full dashboard access and operational reporting for all enrolled assets throughout the term.

Operational Cooperation

Program pricing and assurance thresholds are underwritten based on disclosed operating conditions. Clients agree to disclose material operational changes — including feedstock changes, throughput changes, solids loading changes, and mixing system status — which may result in re-underwriting of thresholds and pricing. This protects the integrity of the assurance model for both parties.

Early Termination

Agreements include deployment cost recovery and remaining-term provisions, reflecting Bristola's upfront infrastructure investment in each enrolled asset.

Exclusions

BCAIP manages sediment accumulation and effective capacity. The program expressly excludes:

- Structural failures and asset integrity defects
- Mixer and mechanical equipment failures
- Catastrophic process upsets
- Undisclosed feedstock or operational changes
- Damage from operational abuse or third-party negligence
- Force majeure events

Sediment conditions arising from excluded events are addressed as separately billed restoration work, quoted with priority scheduling for program clients.

Why BCAIP Is Different

Traditional maintenance waits for failure. Traditional monitoring identifies problems but cannot solve them. Traditional contractors solve isolated problems offline, at high cost, and disappear until the next emergency.

BCAIP combines monitoring, predictive intelligence, included online maintenance, and a guaranteed-price restoration framework into one integrated platform — built on a cleaning capability no other company possesses.

This transforms infrastructure maintenance from reactive, unpredictable, and disruptive to measurable, proactive, continuously managed, and operationally assured.

This is not tank cleaning. This is infrastructure intelligence and capacity assurance.