The Fastest Path to Brownfield Redevelopment

When redevelopment schedules matter, certainty matters even more. Brownfield redevelopment demands remediation solutions that are fast, predictable, and capable of achieving aggressive cleanup goals without disrupting construction schedules or long-term property value.

ISTR (In Situ Thermal Remediation) provides developers and site owners with upfront certainty on when a site will be ready for reuse, allowing remediation timelines to align with financing, construction, and occupancy milestones.

Redevelopment Certainty Starts with Schedule Control

Unlike conventional remedies that rely on iterative treatment, testing, and extended performance monitoring, ISTR is implemented as a defined, single-phase remediation solution.

Typical ISTR projects are completed in approximately 12–18 months, with active on-site remediation lasting about 10 months and a clear endpoint aligned with redevelopment schedules.

This level of predictability allows confident coordination of financing, construction schedules, tenant or end user commitments, and regulatory approvals.

With ISTR, teams can avoid surprise delays and the need for secondary remediation attempts.

Guaranteed Cleanup of Contaminant Source Zones

ISTR is engineered to permanently remove contaminant mass from soil and groundwater sources. When properly designed and implemented, ISTR can reliably achieve very low cleanup standards, even residential soil and groundwater goals.

Key performance outcomes include:

- Contaminant mass reduction routinely exceeding 99.9%
- Uniform treatment across the targeted volume

ISTR often eliminates or minimizes the need for long-term controls, such as vapor intrusion mitigation systems or groundwater pump and treat operations, maximizing a site's redevelopment and reuse potential by achieving low cleanup levels.

Redevelopment Benefits of ISTR

Fast Results

Active on-site remediation is typically completed in about 10 months, with total project durations shorter than other technology capable of achieving comparable cleanup levels.

Proven Performance

ISTR has been successfully implemented at more than 750 sites worldwide and consistently achieves very low cleanup levels, including groundwater MCLs, vapor intrusion criteria, and stringent soil standards. This reliability supports unrestricted future site use, limited only by zoning rather than contamination concerns.

Urban and Construction Friendly

ISTR avoids the disruptions associated with excavation, including open pits, soil stockpiles, and heavy truck traffic. It has been safely deployed beneath buildings and adjacent to occupied residential and commercial properties, with reduced noise, odors, and dust.

Cost and Liability Certainty

ISTR is often cost-competitive with, or superior to, excavation and off-site disposal, particularly for deep contamination, sites below the water table, or contamination beneath buildings and utilities. Importantly, costs are known upfront, with no repeat remediation cycles, and permanent elimination of contaminants substantially reduces long-term liability tied to landfills, capping in place, in situ soil mixing, or containment systems.

For developers, ISTR replaces remediation uncertainty with a defined schedule, reliable outcomes, and confidence to move projects forward.

Contact Us

If schedule certainty and long-term site value matter, In Situ Thermal Remediation offers a proven path to closure. Talk with our team to explore applicability at your site.

Contact:

thermal@cascade-env.com | 978.730.1200